



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong

Tel : 2695 8318

E-mail : etl@ets-testconsult.com

Fax : 2695 3944

Web site : www.ets-testconsult.com

# CHINA INTERNATIONAL WATER & ELECTRIC CORP

**CONTRACT NO.: SS Y307 –  
CONSTRUCTION OF A SECONDARY  
BOUNDARY FENCE AND NEW  
SECTIONS OF PRIMARY BOUNDARY  
FENCE AND BOUNDARY PATROL  
ROAD (PHASE 2)**

**MONTHLY EM&A REPORT  
NO.16**

**(MAY 2014)**

Prepared by:

LAW, Sau Yee  
Senior Environmental Officer

Checked by:

LAU, Chi Leung  
Environmental Team Leader

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5 June 2014

Mott MacDonald Hong Kong Limited  
20/F Two Landmark East,  
100 How Ming Street,  
Kwun Tong,  
Hong Kong

By Fax (2827 1823) and Post

Attention: Mr. James Kam / Mr. F. Y. Wong

Dear Sirs,

**Re: Environmental Permit No. EP-347/2009/A and FEP-05/347/2009/A  
Contract No. SSY307 - Section 3  
Construction of a Secondary Boundary Fence and New Section of Primary  
Boundary Fence and Boundary Patrol Road (Phase 2)  
Monthly EM&A Report No. 16 for May 2014 (01 – 31 May 2014)**

Reference is made to the Environmental Team's submission of the draft Monthly EM&A Report No. 16 for May 2014 by e-mail on 5 June 2014.

We are pleased to inform you that we have no adverse comments on the captioned report received on 5 June 2014. We write to verify that the captioned submission in accordance with Condition 4.5 of EP-347/2009/A and FEP-05/347/2009/A.

Thank you for your attention and please feel free to contact the undersigned should you have any queries.

Yours faithfully,



David Yeung  
Independent Environmental Checker

c.c.	ArchSD	Attn.: Mr. W. K. Yiu (CPM203) / Mr. Laurence Kwan (SPM225)	Fax: 2810 5372
	MMHK (Site)	Attn.: Mr. Peter Tsang	Fax: 2683 1195
	CWE	Attn.: Mr. Chris Chan	Fax: 2670 6658
	ETS	Attn.: Mr. C. L. Lau	Fax: 2695 3944

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## EXECUTIVE SUMMARY

Under the requirements of "Environmental Monitoring & Audit Manual (Final) – Construction of Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road" (the EM&A Manual), impact environmental monitoring and audit is required to be implemented for the "Contract No.: SS Y307 – Construction of Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Phase 2)" (the Project).

This monthly Environmental Monitoring and Audit (EM&A) report No.16 was prepared by ETS-Testconsult Ltd (ET) for the Project. This report documented the findings of EM&A Works conducted during the Project in May 2014.

### Site Activities

As informed by the Contractor, site activities were carried out in this reporting month:

- Foundation;
- Concrete works;
- Metal works;
- Backfilling works; and
- Installation of metal works.

### Environmental Monitoring Progress

The summary of the monitoring activities in this monitoring month is listed below:

- Day-time Noise Monitoring (0700-1900 on normal weekday): 4 Occasions at LW02, MW02, WL01(R) and WL03
- Weekly-site inspection: 4 Occasions

### Noise Monitoring

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month.

### Site Inspection

Environmental site inspections conducted in this reporting month are presented as follows:

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
ET Weekly site inspection	07, 14, 21 and 28 May 2014
Monthly Joint site inspection	21 May 2014

In general, performance on environmental mitigation measures implemented was found to be satisfactory in this reporting month. The major findings observed during site inspections are presented in Section 5.0.

### Environmental Complaints, Notification of summons and successful prosecutions

No complaint, notification of summons and prosecution with respect to environmental issues was received in this reporting month.

### Change in Environmental Aspect in this Reporting Month

No change on environmental aspect was reported in this reporting month.

### Future Key Issues

Based on the forecast of site works in the coming month, key issues to be considered are as follows:

- Noise impact due to construction works;
- Maintain good site practice to minimize environmental impacts at the site.



## 1.0 INTRODUCTION

China International Water & Electric Corp. (CWE) has appointed Environmental Team of ETS-Testconsult Limited (ETL) to undertake the Environmental Impact Monitoring for "Contract No.: SS Y307 – Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)" (the Project) under the requirements of "Environmental Monitoring & Audit Manual (Final) – Construction of Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road" (the EM&A Manual) and "the Further Environmental Permit No. FEP-05/347/2009/A - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road" (the FEP).

This report documented the findings of EM&A Works conducted in May 2014.

## 2.0 PROJECT INFORMATION

### 2.1 Project Background

ASD Contract SS Y307 namely "The Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)" to be executed comprise the following works generally along the boundary from Ng Tung River to Ping Yuen River (Section 3A) and from Pak Fu Shan to Lin Man Hang (Section 3C):

- Construction of secondary boundary fence along the existing boundary patrol road completed with vehicular and pedestrian gate;
- Construction of new bituminous boundary patrol road to the northwest of Lin Ma Hang;
- Construction of primary boundary fence along the northern side of the new boundary patrol road and secondary boundary fence along the southern side of the new boundary patrol road complete with electrical and manual vehicular and pedestrian gates;
- Provision of security lighting posts and luminaries along the boundary patrol road together with associated power supply installation including pillar boxes, electrical cables, power distribution system and the like;
- Reinstatement and modification of existing bituminous road;
- Associated landscaping works including tree felling, transplanting existing trees and provision of ground cover;
- Provision of drainage system along the new boundary patrol road and modification of existing catchpits, box culverts and the like;
- Provision of builder's works in a subsequent installation of CCTV system and Fence Protection System carried out by the Hong Kong Police Force (HKPF);
- Erection of frontier closed area warning signages;
- Demolition works to be executed comprise the following works generally along the existing boundary fence from Lok Ma Chau Control Point to Sha Tau Kok:
  - Demolition of original primary boundary fence and associated facilities to the south of Lok Ma Chau Loop and Hoo Hok Wai;
  - Demolition of existing police posts and the associated facilities;
  - Demolition of existing FCA warning signs;
  - Demolition of exiting check points at Lok Ma Chau and Shek Chung Au.

Surrounding the construction site, there are village houses at Mai Po, Ma Tso Lung, Lo Wu, Muk Wu Chuen Yiu, Chuk Yuen, Wang Lek and Sha Tau Kok, which are considered as noise sensitive receivers of this Project.

Areas of the Project present in Appendix G. Locations of environmental monitoring stations is shown in Figure 1.

### 2.2 Work Programme

Details of work programme are shown in Appendix D.



### 2.3 Project Organization

Organization chart with respect to the on-site environmental management is shown in Appendix A.

### 2.4 Contact Details of Key Personnel

The key personnel contact names and telephone numbers are shown in Table 2.1.

Table 2.1 Contact Details of Key Personnel

<i>Project Role</i>	<i>Organization</i>	<i>Name of Key Staff</i>	<i>Tel. No.</i>	<i>Fax No.</i>
<i>Engineer's Representative</i>	<i>Mott MacDonald</i>	<i>Mr. James Kam Mr. F. Y. Wong</i>	<i>2828 5757</i>	<i>2827 1823</i>
<i>IEC</i>	<i>ENVIRON</i>	<i>Mr David Yeung</i>	<i>3465 2888</i>	<i>3465 2899</i>
<i>Contractor's Agent</i>	<i>CWE</i>	<i>Mr. Chris Chan</i>	<i>5646 5790</i>	<i>2508 0987</i>
<i>ET Leader</i>	<i>ET (ETL)</i>	<i>Mr C. L. Lau</i>	<i>2946 7791</i>	<i>2695 3944</i>

### 3.0 WORK PROGRESS IN THIS REPORTING MONTH

As informed by the Contractor, site activity was carried out in the reporting month:

- *Foundation;*
- *Concrete works;*
- *Metal works;*
- *Backfilling works; and*
- *Installation of metal works.*

### 4.0 IMPACT NOISE MONITORING

#### 4.1 Monitoring Requirements

As the requirement in the EM&A Manual, impact noise monitoring was conducted for a weekly basis at designated monitoring locations.

#### 4.2 Monitoring Equipment

Integrating Sound Level Meters used for impact noise monitoring were Type 1 sound level meters capable of giving a continuous readout of the noise level reading including equivalent continuous sound pressure level ( $L_{eq}$ ) and percentile sound pressure level ( $L_x$ ). They complied with International Electro technical Commission Publications 651:1979 (Type1) and 804:1985 (Type1).

Table 4.1 summarized the noise monitoring equipment model used during the impact monitoring. Copies of calibration certificates and calibration summary for noise meters and calibrators used are attached in Appendix B1.

Table 4.1 Noise Monitoring Equipment

<i>Equipment</i>	<i>Model</i>
<i>Sound Level Meter</i>	<i>Rion NL-31</i>
<i>Sound Level Calibrator</i>	<i>Rion NC-73</i>

#### 4.3 Monitoring Parameters, Duration and Frequency

Impact noise monitoring for the A-weighted levels  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded once per week. Data obtained from impact noise monitoring was processed and presented as below:

- *Daytime: three sets of 30-minute noise level monitored between 0700-1900 hrs on normal weekdays;*
  - *Evening-time\*: three sets of 5-minute noise level monitored between 1900-2300 hrs ;*
  - *Night-time\*: three sets of 5-minute noise level monitored between 2300-0700 hrs of next day; and*
  - *Holiday\*: three sets of 5-minute noise level monitored between 0700-1900 hrs on holiday.*
- (\*): Noise monitoring to be conducted only when there is construction work.



#### 4.4 Monitoring Locations

There was eight noise monitoring stations, VH01, VH03, MTL01, LW02, MW02, WL01(R), WL03 and STK05, were required to perform impact noise monitoring during the construction phase.

The detail of noise monitoring locations is summarized in Table 4.2.

Table 4.2 Details of Noise Monitoring Stations

Noise Monitoring Station	Description	Section	Type of Measurement
VH01	Village House at Mai Po	Section 1	Façade
VH03	Village House at Mai Po	Section 1	Façade
MTL01	Village House at Ma Tso Lung	Section 2	Façade
LW02	House No.39 at Lo Wu	Section 3A	Free Field *
MW02	House No.11, Muk Wu Chuen Yiu	Section 3A	Free Field *
WL01(R)	Village House at Wang Lek	Section 3C	Free Field *
WL03	Village House at Wang Lek	Section 3C	Free Field *
STK05	Village House at Sha Tau Kok	Section 4	Free Field *

Remark (\*): The monitoring stations LW02, MW02, WL01(R), WL03 and STK05 are all free-field located outside the premises of the nearby NSRs since they are enclosed areas and not willing to be entered. 3 dB(A) correction had been added to the results if noise measurement was free-field.

In this reporting month, the major construction works were carried out at Section 3A and therefore the impact noise monitoring was implemented at LW02 and MW02. Since minor site works, such as site preparation and site clearance work, were carried out at Section 3C in this reporting month, noise monitoring performed at WL01(R) and WL03 were used as reference. No noise monitoring was required at MTL01 at Section 2 in this reporting month since no construction work was undertaken in this reporting month.

#### 4.5 Monitoring Methodology

##### Instrumentation

Integrating Sound Level Meters were employed for noise monitoring.

##### Operation/Analysis Procedures

- Sound Level Meter was set on a tripod at a height of 1.2m above the ground;
- For free field measurement, the meter was positioned away from any nearby reflective surfaces.
- The battery condition was checked 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 : A
  - Time weighting : Fast
  - Time measurement : 30 mins
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1000HZ. If the difference in the calibration level before and after measurement was more than 1.0 dB(A), the measurement would be considered invalid and repeat measurement would be required after re-calibration or repair of the equipment;
- During the monitoring period, the  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet;
- 3dB(A) correction had been added to the results if noise measurements were free-field; and
- Noise monitoring would be cancelled in the presence of fog, rain, storm, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s.

##### Maintenance and Calibration

- The microphone head of the sound level meter and calibrator are cleaned with soft cloth at quarterly intervals; and
- The meters are sent to supplier or HOKLAS laboratory to check and calibrated at yearly intervals.





#### 4.6 Actions and Limit Levels

The Action and Limit Levels (AL Levels) were established in accordance to the Table 4.3 of the EM&A Manual. Table 4.4 presents the AL levels for noise monitoring.

Table 4.3 Action and Limit Levels for Noise Monitoring

Time Period	Action	Limit
0700 –1900 hrs on normal weekday (Day-time)	When one documented complaint is received	75 dB(A) *
1900-2300 hrs (Evening-time)		70 dB(A)
0700-1900 hrs on Holiday (Holiday-time)		70 dB(A)
Restricted hours (2300-0700 hrs of next day) (Night-time)		55 dB(A)

\* reduce to 70dB(A) for school and 65dB(A) during school examination periods

#### 4.7 Event-Action Plans

Should the results of the monitoring parameters at any designated monitoring stations indicate that the noise level criteria are exceeded, the actions in accordance with the Event and Action Plan that summarized in Appendix C should be carried out.

#### 4.8 Results

4 occasions of Day-time noise monitoring at noise monitoring stations, LW02, MW02, WL01(R) and WL03 were carried out at this reporting month.

No Day-time noise monitoring results at all monitoring stations exceeded the Action Level since no documented complaints on noise issue were received during the reporting period. Besides, no exceedances in Limit Level were recorded according to the results from Day-time noise monitoring. Table 4.4 summaries the noise daytime monitoring results in the reporting period.

Table 4.4 Summary of Impact Noise Monitoring Results

Monitoring Parameter	Date	LW02		MW02		WL01(R)		WL03	
		Result	Exceed*	Result	Exceed*	Result	Exceed*	Result	Exceed*
Daytime	07/05/14	57.2	X	47.7	X	46.3	X	45.4	X
	14/05/14	56.3	X	47.0	X	46.5	X	45.8	X
	21/05/14	54.9	X	48.8	X	47.6	X	47.1	X
	28/05/14	55.7	X	48.4	X	47.2	X	46.8	X

Remark (\*): L = Limit Level Exceedance, A = Action Level Exceedance and X = not an Exceedance

### 5.0 SITE ENVIRONMENTAL AUDIT

During this reporting month, weekly site inspections were undertaken on 07, 14, 21 and 28 May 2014 by ET. Monthly joint site inspection at 21 May 2014 was carried out by IEC, CWE and ET. A summary of implementation status of mitigation measures on site inspections is presented in Appendix F.

#### 5.1 Summary of the ET weekly site inspection findings

According to the summary of the ET weekly site inspections carried out in May 2014, it indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory. Summaries of key findings of weekly ET site inspections in this month are described in Table 5.1.



Table 5.1 Key Findings of Weekly ET Site Inspections in this reporting month

Date	Key Findings	Action(s) Taken recommended by ET	Action(s) Taken by the Contractor during the site audit	Rectification Status by ET
07 May 2014	Stagnant water in container was observed at the entrance of New Road site. (New item)	The Contractor was reminded to remove the stagnant water in containers to avoid breeding of mosquitoes.	---	Follow-up
	Stagnant water pond was observed in New Road site. (New item)	The Contractor was reminded to drain down the water.	---	Follow-up
	Waste chemical container was observed near Gate No. 50 in Pak Fu Shan site. (New item)	The Contractor was reminded to collect the chemical container regularly to keep good site practices.	---	Follow-up
14 May 2014	Stagnant water in container was observed at the entrance of Previous Road site. (Previous item)	The Contractor was reminded to remove the stagnant water in containers to avoid breeding of mosquitoes.	Stagnant water in container observed at the entrance of New Road site was removed.	Closed
	Stagnant water pond was observed in Previous Road site. (Previous item)	The Contractor was reminded to drain down the water.	Stagnant water pond observed in New Road site was improved.	Closed
	Waste chemical container was observed near Gate No. 50 in Pak Fu Shan site. (Previous item)	The Contractor was reminded to collect the chemical container regularly to keep good site practices.	Chemical container observed near Gate No. 50 in Pak Fu Shan site was removed.	Closed
	Stagnant water in container was observed at the entrance of New Road site. (New item)	The Contractor was reminded to remove the stagnant water in containers to avoid breeding of mosquitoes.	---	Follow-up
	Stagnant water pond was observed near the middle section of New Road site. (New item)	The Contractor was reminded to drain down the water.	---	Follow-up
	Stagnant water pond was observed near Gate No. 47 in Pak Fu Shan site. (New item)	The Contractor was reminded to drain down the water.	---	Follow-up
	Stagnant water in container was observed at the entrance of New Road site. (Previous item)	The Contractor was reminded to remove the stagnant water in containers to avoid breeding of mosquitoes.	Mosquito oil was added into the container with stagnant water at the entrance of New Road site.	Closed
21 May 2014	Stagnant water pond was observed near the middle section of New Road site. (Previous item)	The Contractor was reminded to drain down the water.	Stagnant water pond near the middle section of New Road site was improved.	Closed
	Stagnant water pond was observed near Gate No. 47 in Pak Fu Shan site. (Previous item)	The Contractor was reminded to drain down the water.	Mosquito oil was added on the stagnant water pond near Gate No. 47 in Pak Fu Shan site.	Closed



Date	Key Findings	Action(s) Taken recommended by ET	Action(s) Taken by the Contractor during the site audit	Rectification Status by ET
21 May 2014	Stagnant water pond was observed near the middle section of New Road site. (New item)	The Contractor was reminded to drain the stagnant water or add mosquito oil on the water to avoid breeding of mosquitoes.	---	Follow-up
	Oil drum without drip tray was observed in the Pak Fu Shan site. (New item)	The Contractor was reminded to provide drip tray for the oil drum.	---	Follow-up
28 May 2014	Stagnant water pond was observed near the middle section of New Road site. (Previous item)	The Contractor was reminded to drain the stagnant water or add mosquito oil on the water to avoid breeding of mosquitoes.	A water pump was provided for draining down the stagnant water near the middle section of New Road site.	Closed
	Oil drum without drip tray was observed in the Pak Fu Shan site. (Previous item)	The Contractor was reminded to provide drip tray for the oil drum.	A drip tray was provided for the oil drum in Pak Fu Shan site.	Closed

5.2 Recommendations on site inspection findings in Site Inspections of this month

Based on the site inspection findings, the recommendations are as below:

- Minimize noise impact due to construction works;
- Clean the access road regularly;
- Cover or water the stockpile;
- Checking and maintaining all the site machines to prevent black smoke emission;
- Providing briefing to the concerned site staff on remedial actions, such as handling method of chemicals and chemical waste;
- Implement all necessary preventive measures to avoid oil leakage. In the event an oil leakage happens, the Contractor should properly remove the leaked oil and handle the contaminated soil and all materials using for this cleaning works as chemical waste;
- Maintain good waste management at the site
- Remove all stagnant water; and
- Apply proper treatment facilities to wastewater before discharge.

6.0 STATUS OF ENVIRONMENTAL PERMITS

Permits/licenses valid in this reporting month are summarized in Table 6.1.

Table 6.1 Summary of Environmental Licensing and Permit valid in this reporting month

Description	Permit No.	Valid Period		Concerned Locations
		From	To	
Environmental Permit	FEP-05/347/2009/A	10/08/12	End of Project	Section 3 – from Ng Tung River to Ping Yuen River and from Pak Fu Shan to Lin Ma Hang
Wastewater Discharge Licence	W5/1G43/1	09/10/12	31/10/17	Section 3A and Section 3C (Effluent arising from Construction site Sedimentation Tank(s) and other necessary treatment facilities)
Chemical Waste Producer	5213-641-C1206-09	09/10/12	End of Project	Section 3A and Section 3C (Spent Paints, Spent Diesel and Spent Lubricating Oil)
Notification under APCO	Application had been submitted to EPD on 28/08/12 and approved from 30/08/12.			
Notification under WCO	Application had been submitted to EPD on 28/08/12 and approved from 30/08/12.			



## 7.0 WASTE MANAGEMENT

### 7.1 Monthly Waste Summary

The quantities of waste generated from the Project in this month are summarized in Table 7.1 and monthly summary waste flow table present in Appendix H.

Table 7.1 Summary of Quantities of Waste generated in this reporting month

Type of Waste		Quantity	Cumulative Quantity from February 2013
Inert C&D Materials	Total Quantity Generated (in '000m <sup>3</sup> )	0	0.238
	Hard Rocks and Large Broken Concrete (in '000m <sup>3</sup> )	0	0.03
	Reused in the Contract (in '000m <sup>3</sup> )	0	0
	Reused in other Projects (in '000m <sup>3</sup> )	0	0
	Disposal as Public Fill (in '000m <sup>3</sup> )	0	0.208
	Imported Fill (in '000m <sup>3</sup> )	0	1.842
C&D Waste	Metals (in '000kg)	0	0.02
	Paper/Cardboard Packaging (in '000kg)	0	0.140
	Plastics (in '000kg)	0	0
	Chemical Waste (in '000kg)	0	0.1
	Other, e.g. General Refuse (in '000m <sup>3</sup> )	0	0.9945

### 7.2 Advice on the Solid and Liquid Waste Management Status

The Contractor should provide sufficient preventive measures during equipment maintenance works so as to avoid oil leakage on the ground. In the event of any oil leakage, the Contractor should clean up the polluted soil and handle all the materials used for this cleaning works as chemical waste.

Besides, pre-cast drip trays were provided for oil drums at several areas, such as generator and chemical storage area. The Contractor should collect and dispose of any stagnant water accumulated in the drip trays and handle them as chemical waste.

The Contractor should use suitable containers with proper labels to store chemical wastes in accordance with Code of Practice on the Packaging, Labeling and Storage of Chemical Waste. The Contractor should also advise their workers of the proper procedures in handling the chemical waste.

All the trip tickets for chemical waste disposal were properly kept in the site office. No chemical waste disposal was undertaken in the reporting month.

The Contractor was reminded to increase the frequency of inspection and cleaning of the site drainage system, including desilting facilities. Moreover, the Contractor should apply approved pesticides in the stagnant water.

## 8.0 ENVIRONMENTAL NON-CONFORMANCE

### 8.1 Summary of Non-Conformance

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month.

### 8.2 Summary of Environmental Complaints

No complaint was received in this reporting month.

### 8.3 Summary of Notification of Summons and Prosecution

There was no notification of summons respect to environmental issues registered in this month.

## 9.0 IMPLEMENTATION STATUS

### 9.1 Implementation Status of Environmental Mitigation Measures

An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix F. Most of the necessary mitigation measures were implemented properly. Any deficiencies were noted in the remarks of the schedule.

### 9.2 Implementation Status of Event and Action Plan

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month. Hence, no further action was required.

### 9.3 Implementation Status of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

No complaint, notification of summons and successful prosecution were received in this reporting month. A summary of environmental complaints, notifications of summons and successful prosecutions was given in Table 9.1.

Table 9.1 Summary of Environmental Complaints and Prosecutions

<i>Complaints logged</i>		<i>Summons served</i>		<i>Successful prosecution received</i>	
<i>May 2014</i>	<i>Overall Cumulative from February 2013</i>	<i>May 2014</i>	<i>Overall Cumulative from February 2013</i>	<i>May 2014</i>	<i>Overall Cumulative from February 2013</i>
<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>

## 10.0 COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

### Comments and Conclusions

Impact noise monitoring was carried out at designated locations in accordance with the EM&A Manual in this reporting month.

No exceedance of Action and Limit Level of impact noise monitoring was recorded in this reporting month.

According to the ET weekly site inspections carried out in this reporting month, the Contractor generally implemented sufficient environmental mitigation measures.

No complaint, prosecution or notification of summon was received in this reporting month.

### Recommendations

According to the environmental site inspections performed in the reporting month, the following recommendations were provided:

#### **Air Quality**

- Ensure the frequency of water spraying on unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke; and
- Implement the dust mitigation measures for the site activities.

#### **Noise**

- Conduct noisy activities at a farther location from the NSRs.

#### **Water Quality**

- Provide proper treatment for the wastewater discharge; and
- Remove the stagnant water or provide approved pesticides for the stagnant water, if any.



### **Chemical and Waste Management**

- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Remove unwanted material in the existing stockpiles and avoid further dumping of such material;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator set; and
- Maintain good housekeeping at the works area..

## **11.0 FUTURE KEY ISSUES**

### **11.1 Work Programme for the Coming Month**

As informed by the Contractor, site activities proposed to be carried out in the coming month:

- *Foundation;*
- *Concrete works;*
- *Metal works;*
- *Backfilling works; and*
- *Installation of metal works.*

### **11.2 Key Issues for the Coming Month**

#### **Key issues to be considered in the coming month include:**

- *Minimize noise impact due to construction works;*
- *Clean the access road regularly;*
- *Cover or water the stockpile;*
- *Checking and maintaining all the site machines to prevent black smoke emission;*
- *Providing briefing to the concerned site staff on remedial actions, such as handling method of chemicals and chemical waste;*
- *Implement all necessary preventive measures to avoid oil leakage. In the event an oil leakage happens, the Contractor should properly remove the leaked oil and handle the contaminated soil and all materials using for this cleaning works as chemical waste;*
- *Maintain good waste management at the site*
- *Remove all stagnant water; and*
- *Apply proper treatment facilities to wastewater before discharge.*

#### **Mitigation measures to be required in the coming month:**

##### Air Quality Impact

- To ensure implementation of the dust mitigation measures for the site activities;
- To provide proper maintenance for vehicles and machines on site; and
- To investigate any other dust sources around the air sensitive receivers

##### Noise

- To switch off equipment if not in use;
- To operate silent equipment; and
- To re-schedule the work activities in the event of valid noise exceedance.

##### Water Quality Impact

- To maintain the drainage system;
- To provide covers for the drip trays to avoid stagnant water due to rainfall;
- To provide proper treatment for wastewater from the area; and
- To avoid any stagnant water or provide insecticide to avoid mosquito breeding.



Chemical and Waste Management

- To remove waste from the site regularly;
- To properly store and handle chemical wastes on site;
- To provide and manage sufficiently sized drip trays for diesel drums or chemical containers;
- To maintain proper housekeeping;
- To remove the oil stains in the event of leakage and handle all materials using for this cleaning works as chemical waste; and
- To identify C&D material by packaging, labeling, storage, transportation and disposal in accordance with statutory regulations.

- END OF REPORT -



## Appendix A

### Organization Chart





# 中国水利电力对外公司

## CHINA INTERNATIONAL WATER & ELECTRIC CORP.

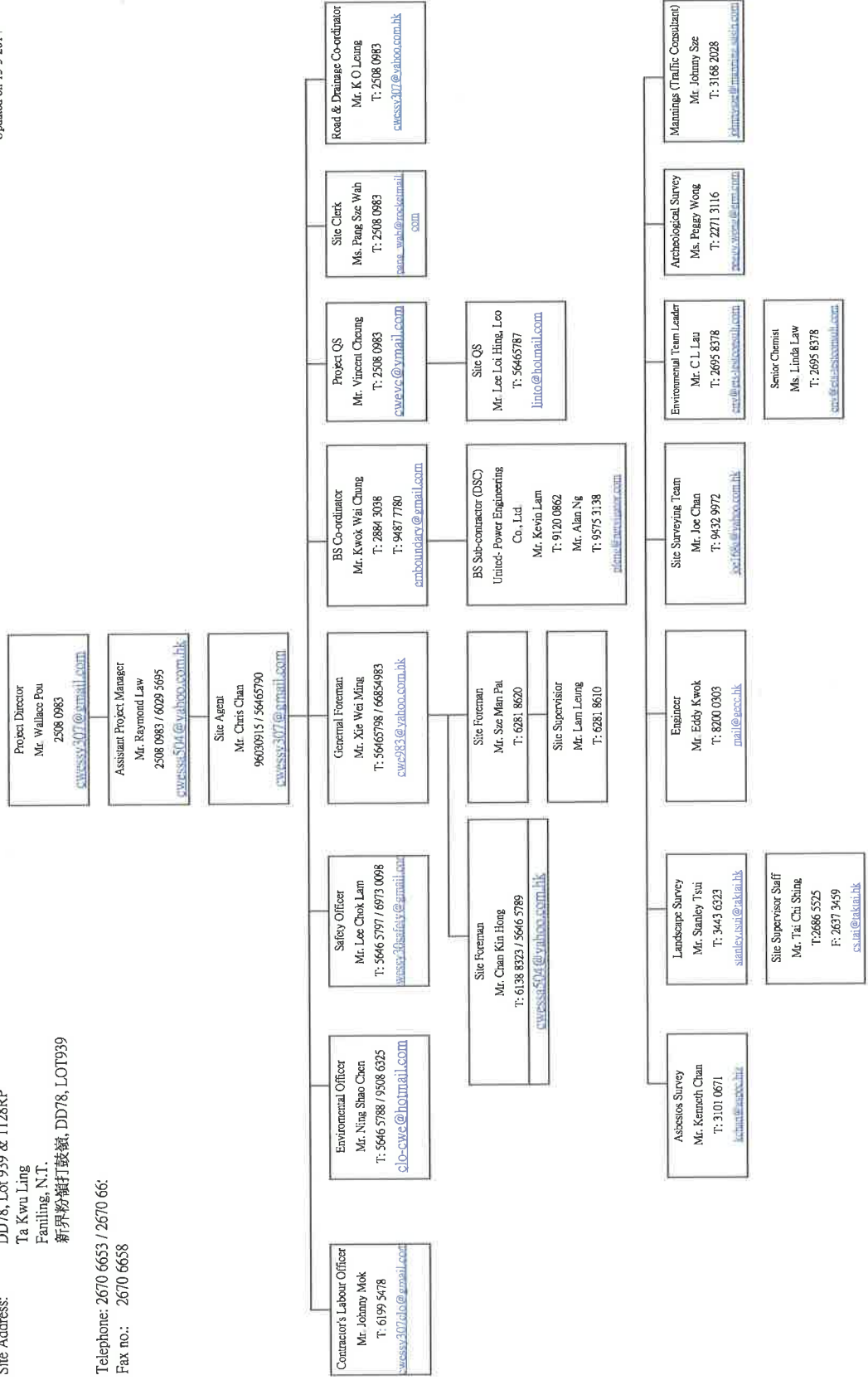
### Site Organization Chart for Project SS Y307

Rev.: 8  
Updated on 1.5-5-2014

Site Address: DD78, Lot 939 & 1128RP

Ta Kwu Ling  
Fanling, N.T.  
新界粉嶺打鼓嶺, DD78, LOT939

Telephone: 2670 6653 / 2670 66:  
Fax no.: 2670 6658





## **Appendix B1**

### **Calibration Certificates for Impact Noise Monitoring Equipment**



# Calibration Certificate

Certificate No. **38223**

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q33271

**Date of receipt :** 13-Nov-13

## Item Tested

**Description :** Precision Integrating Sound Level Meter (ET/EN/003/13)

**Manufacturer :** Rion

**Model :** NL-31

**Serial No. :** 00593620

## Test Conditions

**Date of Test :** 15-Nov-13

**Ambient Temperature :** (23 ± 3)°C

**Supply Voltage :** --

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure : Z01.

## Test Results

All results were within the IEC 651 Type 1 & IEC 804 Type1 specification.  
The results are shown in the attached page(s).

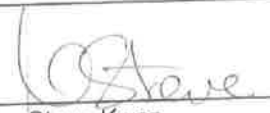
Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Traceable to</u>
S017	Multi-Function Generator	C127181	SCL-HKSAR
S205	Ref. Sound Level Calibrator	PHCO40002	SCL-HKSAR

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

**Calibrated by :**   
Dorothy Cheuk

**Approved by :**   
Steve Kwan

**Date:** 15-Nov-13

This Certificate is issued by:  
Hong Kong Calibration Ltd.  
Unit 8B, 24/F., Well Fung Industrial Centre, No. 56-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.  
Tel: 2425 8801 Fax: 2425 8846

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# Calibration Certificate

Certificate No. **38223**

Page 2 of 3 Pages

Results :

## 1. SPL Accuracy

UUT Setting			Applied Value (dB)	UUT Reading (dB)
Level Range (dB)	Weight	Response		
20 - 100	L <sub>A</sub>	Fast	94.0	94.0
		Slow		94.0
	L <sub>C</sub>	Fast		94.0
		Fast		94.0
30 - 120	L <sub>A</sub>	Fast	94.0	94.0
		Slow		94.0
	L <sub>C</sub>	Fast		94.0
		Fast		94.0
30 - 120	L <sub>A</sub>	Fast	114.0	114.0
		Slow		114.0
	L <sub>C</sub>	Fast		114.0
		Fast		114.0

IEC 651 Type 1 Spec. :  $\pm 0.7$  dB  
Uncertainty :  $\pm 0.1$  dB

2. **Level Stability** : 0.0 dB  
IEC 651 Type 1 Spec. :  $\pm 0.3$  dB  
Uncertainty :  $\pm 0.01$  dB

## 3. Linearity

### 3.1 Level Linearity

UUT Range (dB)	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec. (Primary Indicator Range)
130	114.0	114.0	0.0	$\pm 0.7$ dB
130	104.0	104.0	0.0	
120	94.0	94.0 (Ref.)	--	
110	84.0	84.0	0.0	
100	74.0	74.0	0.0	
90	64.0	64.1	0.1	
80	54.0	54.1	0.1	

Uncertainty :  $\pm 0.1$  dB



# Calibration Certificate

Certificate No. 38223

Page 3 of 3 Pages

## 3.2 Differential level linearity

UUT Range (dB)	Applied Value (dB)	UUT Reading (dB)	Variation (dB)	IEC 651 Type 1 Spec.
120	84.0	84.0	0.0	± 0.4 dB
	94.0	94.0 (Ref.)	--	
	95.0	95.0	0.0	± 0.2 dB

Uncertainty : ± 0.1 dB

## 4. Frequency Weighting - A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	39.6	- 39.4 dB, ± 1.5 dB
63 Hz	-36.3	- 26.2 dB, ± 1.5 dB
125 Hz	-16.3	- 16.1 dB, ± 1 dB
250 Hz	-8.7	- 8.6 dB, ± 1 dB
500 Hz	-3.3	- 3.2 dB, ± 1 dB
1 kHz	0.0 (Ref.)	0 dB, ± 1 dB
2 kHz	+1.2	+ 1.2 dB, ± 1 dB
4 kHz	+1.1	+ 1.0 dB, ± 1 dB
8 kHz	-1.0	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	-6.4	- 6.6 dB, + 3 dB ~ - ∞

Uncertainty : ± 0.1 dB

## 5. Time Averaging

6.

Applied Burst duty Factor	Applied Leq Value (dB)	UUT Reading (dB)	IEC 804 Type 1 Spec.
continuous	40.0	40.0	--
1/10	40.0	39.9	± 0.5 dB
1/10 <sup>2</sup>	40.0	39.7	
1/10 <sup>3</sup>	40.0	39.8	± 1.0 dB
1/10 <sup>4</sup>	40.0	39.8	

Uncertainty : ± 0.1 dB

- Remarks:
1. UUT : Unit-Under-Test
  2. The uncertainty claimed is for a confidence probability of not less than 95%.
  3. Atmospheric Pressure : 1006 hPa
  4. The UUT was adjusted with the supplied sound calibrator at the reference sound pressure level before the calibration.

----- END -----



# Calibration Certificate

Certificate No. **38224**

Page 1 of 2 Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q33271

**Date of receipt :** 13-Nov-13

## Item Tested

**Description :** Sound Level Calibrator (ET/EN/002/01)

**Manufacturer :** Rion

**Model :** NC-73

**Serial No. :** 10196943

## Test Conditions

**Date of Test :** 15-Nov-13

**Ambient Temperature :** (23 ± 3)°C

**Supply Voltage :** --

**Relative Humidity :** (50 ± 25) %

## Test Specifications

Calibration check.

Ref. Document/Procedure : F21, Z02.

## Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).

Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Traceable to</u>
S014	Spectrum Analyzer	35730	NIM-PRC & SCL-HKSAR
S205	Ref. Sound Level Calibrator	PHCO40002	SCL-HKSAR
S041	Universal Counter	34621	SCL-HKSAR
S206	Sound Level Meter	36203	SCL-HKSAR
S031	6½ dgt. Multimeter	30128	NIM-PRC

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

**Calibrated by :**   
Dorothy Cheuk

**Approved by :**   
Steve Kwan

This Certificate is issued by:  
Hong Kong Calibration Ltd.  
Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.  
Tel: 2425 8801 Fax: 2425 8846

Date: 15-Nov-13



# Calibration Certificate

Certificate No. **38224**

Page 2 of 2 Pages

Results :

**1. Level Accuracy (at 1 kHz)**

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	94,1 dB	± 1 dB

Uncertainty : ± 0.2 dB

**2. Frequency Accuracy**

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.986 kHz	± 2 %

Uncertainty : ± 0.1 %

**3. Level Stability : 0.0 dB**

Uncertainty : ± 0.01 dB

**4. Total Harmonic Distortion : < 0.1 %**

Mfr's Spec. : < 3 %

Uncertainty : ± 2.3 % of reading

Remarks: 1. UUT ; Unit-Under-Test  
2. The uncertainty claimed is for a confidence probability of not less than 95%.  
3. Atmospheric Pressure : 1006 hPa

----- END -----



## **Appendix B2**

### **Impact Noise Monitoring Results**





### Day-time Noise monitoring Results

LW02 - House No.39 at Lo Wu (Section 3A)								
Date	Weather Condition	Start Time	End Time	Noise Level for 30 min, dB(A)			Limit Level	Baseline Noise Level
				Leq	L10	L90		
07/05/14	Drizzle	13:00	13:30	57.2	59.0	53.1	75.0	60.4
14/05/14	Cloudy	10:15	10:45	56.3	58.7	50.2	75.0	60.4
21/05/14	Drizzle	13:00	13:30	54.9	57.1	49.9	75.0	60.4
28/05/14	Sunny	14:20	14:50	55.7	58.0	50.1	75.0	60.4

MW02 - House No.11, Muk Wu Chuen Yiu (Section 3A)								
Date	Weather Condition	Start Time	End Time	Noise Level for 30 min, dB(A)			Limit Level	Baseline Noise Level
				Leq	L10	L90		
07/05/14	Drizzle	13:40	14:10	47.7	49.8	42.4	75.0	51.5
14/05/14	Cloudy	10:55	11:25	47.0	49.8	42.4	75.0	51.5
21/05/14	Drizzle	11:30	12:00	48.8	50.1	43.3	75.0	51.5
28/05/14	Sunny	13:40	14:10	48.4	49.7	42.4	75.0	51.5

WL01(R) - Village House at Wang Lek (Section 3C)								
Date	Weather Condition	Start Time	End Time	Noise Level for 30 min, dB(A)			Limit Level	Baseline Noise Level
				Leq	L10	L90		
07/05/14	Drizzle	14:30	15:00	46.3	48.0	41.7	75.0	53.3
14/05/14	Cloudy	13:00	13:30	46.5	48.1	41.2	75.0	53.3
21/05/14	Drizzle	10:50	11:20	47.6	49.5	43.1	75.0	53.3
28/05/14	Sunny	11:25	11:55	47.2	49.3	43.0	75.0	53.3

WL03 - Village House at Wang Lek (Section 3C)								
Date	Weather Condition	Start Time	End Time	Noise Level for 30 min, dB(A)			Limit Level	Baseline Noise Level
				Leq	L10	L90		
07/05/14	Drizzle	15:05	15:35	45.4	57.6	40.2	75.0	56.3
14/05/14	Cloudy	11:30	12:00	45.8	47.6	41.4	75.0	56.3
21/05/14	Drizzle	10:15	10:45	47.1	49.0	42.2	75.0	56.3
28/05/14	Sunny	13:00	13:30	46.8	48.9	41.1	75.0	56.3



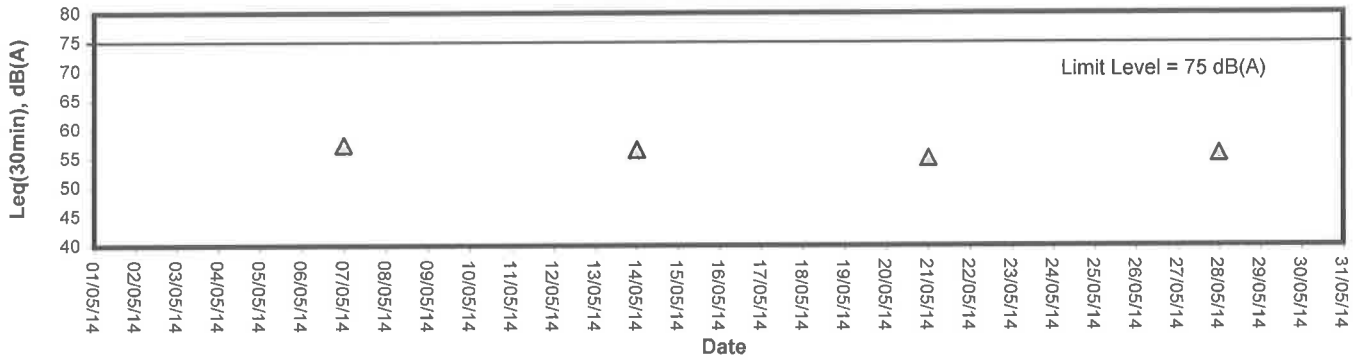
## **Appendix B3**

### **Graphical Plots of Impact Noise Monitoring Data**

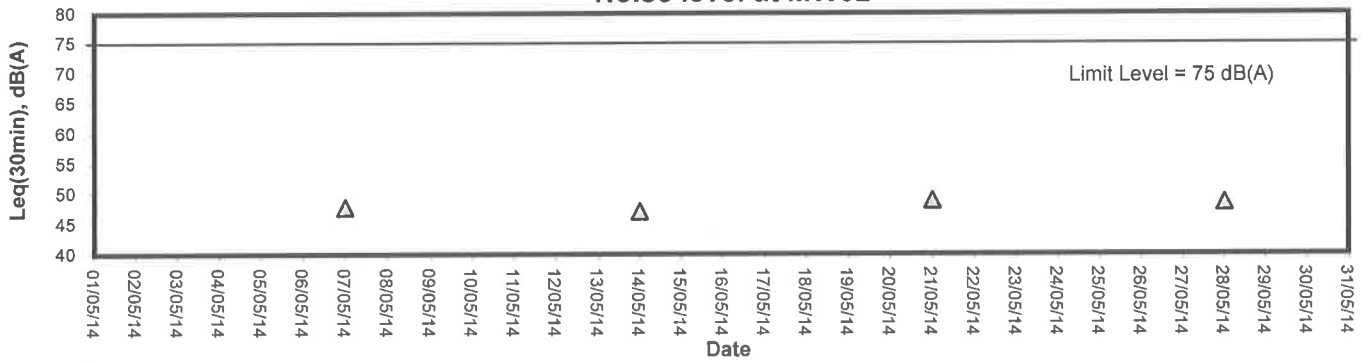


## Noise Monitoring (Day-time)

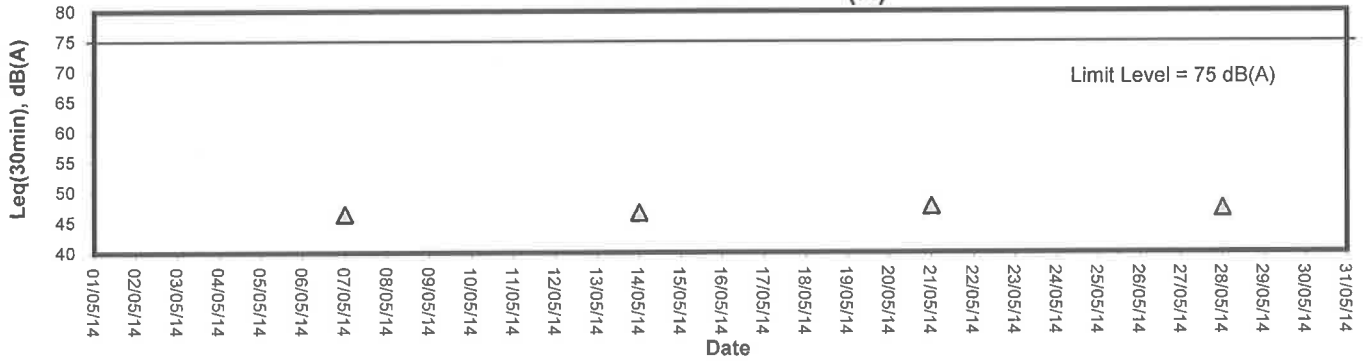
### Noise level at LW02



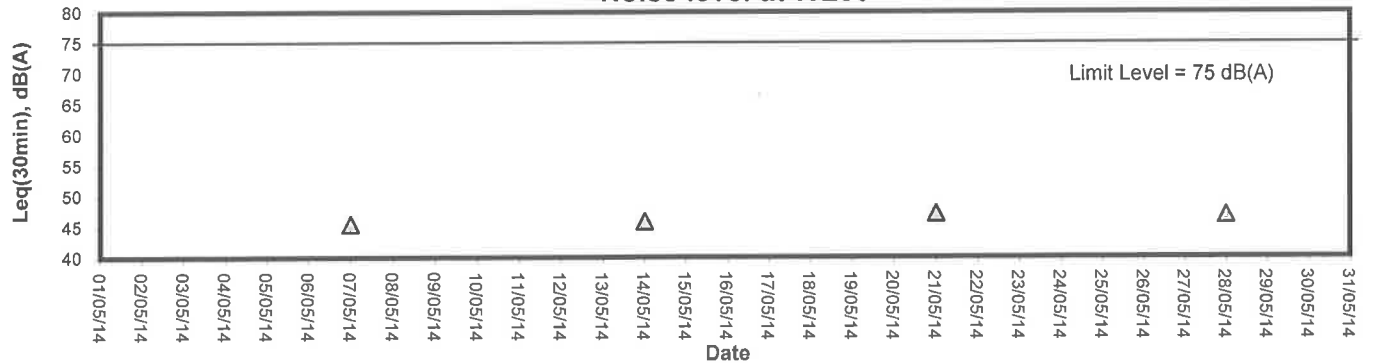
### Noise level at MW02



### Noise level at WL01(R)



### Noise level at WL03





## **Appendix C**

### **Event-Action Plans**



## Event and Action Plan for Construction Noise

Event	Action			
	ET Leader	IEC	ER	Contractor
<b>Action Level</b>	<ol style="list-style-type: none"> <li>1. Notify IEC and the Contractor.</li> <li>2. Carry out investigation.</li> <li>3. Report the results of investigation to IEC and the Contractor.</li> <li>4. Discuss with the Contractor and formulate remedial measures.</li> <li>5. Increase monitoring frequency to check mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Review with analysed results submitted by ET.</li> <li>2. Review the proposed remedial measures by the Contractor and advise ER accordingly.</li> <li>3. Supervise the implement of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing.</li> <li>2. Notify the Contractor.</li> <li>3. Require the 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>
<b>Limit Level</b>	<ol style="list-style-type: none"> <li>1. Identify the source.</li> <li>2. Notify IEC, ER, EPD and the Contractor.</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 the Contractor's remedial actions and keep IEC, 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 Leader and the Contractor on the potential remedial actions.</li> <li>2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly.</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of exceedance in writing.</li> <li>2. Notify the Contractor.</li> <li>3. Require the 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 activity of the work is responsible and instruct the Contractor to stop that activity 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 activity of works as determined by the ER until the exceedance is abated.</li> </ol>



## **Appendix D**

### **Work Programme**







識別碼	任務名稱	工期	開始時間	完成時間	2012年8月			2012年9月			
					下旬	中旬	上旬	下旬	中旬	上旬	
73	-Bar fixing	501 工作日	2012/1/15	2014/3/30							
74	- Threaded rod	501 工作日	2012/1/15	2014/3/30							
75	- Concreting	501 工作日	2012/1/16	2014/3/31							
76	- backfilling works	501 工作日	2012/1/17	2014/4/1							
77	-Reinstatement works	89 工作日	2014/3/10	2014/6/6							
78	- erection of metal fence	192 工作日	2013/11/27	2014/6/6							
79	1. steel frame works	180 工作日	2013/11/27	2014/5/25							
80	2. mesh	184 工作日	2013/11/28	2014/5/30							
81	3. barbed wire	31 工作日	2014/5/7	2014/6/6							
82	4. installation of gates	61 工作日	2014/4/7	2014/6/6							
83	5. painting works	61 工作日	2014/4/7	2014/6/6							
84	6. Installation of copper tape / cable tray	91 工作日	2014/3/8	2014/6/6							
85											
86	- Demolition/Alternation of extg fence	249 工作日	2013/10/1	2014/6/6							
87											
88											
89	<b>6c. Bound fence (Pak Fu Shan Section)</b>	<b>682 工作日?</b>	<b>2012/1/25</b>	<b>2014/6/6</b>							
90	Implementation & Maintenance landscaping works (protection/punning/checking/inspection works etc)	624 工作日	2012/9/21	2014/6/6							
91	1. site clearance & preparation works	89 工作日	2013/1/1	2013/3/30							
92	2. excavation works	492 工作日	2013/1/1	2014/5/7							
93	3. blinding layer	492 工作日	2013/1/2	2014/5/8							
94	4. erection of formwork	492 工作日	2013/1/3	2014/5/9							
95	5. bar fixing	492 工作日	2013/1/4	2014/5/10							
96	6 Threaded rod	492 工作日	2013/1/4	2014/5/10							
97	7. concrete works	492 工作日	2013/1/5	2014/5/11							
98	8. backfilling works	495 工作日	2013/1/6	2014/5/15							
99	9. reinstatement works	98 工作日	2014/3/1	2014/6/6							
100	10. steel frame erection	95 工作日	2014/2/10	2014/5/15							
101	11. mesh	31 工作日	2014/3/24	2014/4/23							
102	12. barbed wire	31 工作日	2014/5/7	2014/6/6							
103	13. installation of gates	61 工作日	2014/4/7	2014/6/6							
104	14. painting works	130 工作日	2014/1/28	2014/6/6							
105	15. installation of copper tape (BS) / cable tray	91 工作日	2014/3/8	2014/6/6							
106											
107	- Demolition/Alternation of extg fence	249 工作日	2013/10/1	2014/6/6							
108											

識別碼	任務名稱	工期	開始時間			完成時間		
			下旬	上旬	中旬	下旬	上旬	中旬
109	6d. Bound fence (Lin Ma Hang Section)	464 工作日	2013/1/1			2014/4/9		
110	Implementation & Maintenance landscaping works (protection/punting/checking/inspection works etc)	682 工作日	2012/7/25			2014/6/6		
111	1. site clearance	89 工作日	2013/1/1			2013/3/30		
112	2. excavation works	492 工作日	2013/1/1			2014/5/7		
113	3. blinding layer	492 工作日	2013/1/2			2014/5/8		
114	4. erection of formwork	492 工作日	2013/1/3			2014/5/9		
115	5. bar fixing	492 工作日	2013/1/4			2014/5/10		
116	6 Threaded rod	492 工作日	2013/1/4			2014/5/10		
117	7. concrete works	492 工作日	2013/1/5			2014/5/11		
118	8. backfilling works	495 工作日	2013/1/6			2014/5/15		
119	9. reinstatement works	98 工作日	2014/3/1			2014/6/6		
120	10. steel frame erection	95 工作日	2014/2/10			2014/5/15		
121	11. mesh	31 工作日	2014/3/24			2014/4/23		
122	12. barbed wire	31 工作日	2014/5/7			2014/6/6		
123	13. installation of gates	61 工作日	2014/4/7			2014/6/6		
124	14. painting works	130 工作日	2014/1/28			2014/6/6		
125	15. installation of copper tape (BS)	91 工作日	2014/3/8			2014/6/6		
126								
127								
128	- Demolition/Alternation of extg fence	249 工作日	2013/10/1			2014/6/6		
129								
130	<b>Section C(subject to excision) (subject to item 29)</b>	245 工作日	2013/7/5			2014/3/6		
131	- Setting out for site boundary	30 工作日	2013/7/5			2013/8/3		
132	- Condition survey	30 工作日	2013/7/5			2013/8/3		
133	- Setting out	30 工作日	2013/7/5			2013/8/3		
134	- Implementation & Maintenance landscaping works (removal/punning/protection)	245 工作日	2013/7/5			2014/3/6		
135	<b>Road work &amp; Boundary fence</b>	228 工作日	2013/7/22			2014/3/6		
136	- Backfilling works for road	160 工作日	2013/7/22			2013/12/28		
137	- footing excavation	61 工作日	2013/10/26			2013/12/25		
138	- blinding layer	61 工作日	2013/10/27			2013/12/26		
139	- erection of formwork	61 工作日	2013/10/28			2013/12/27		
140	- reinforcement works	61 工作日	2013/10/29			2013/12/28		
141	- threaded rod	61 工作日	2013/10/29			2013/12/28		
142	- concrete	61 工作日	2013/10/30			2013/12/29		
143	- backfilling works	61 工作日	2013/11/6			2014/1/5		
144	- steel frame erection	45 工作日	2013/11/29			2014/1/12		

專案: Programme for Frontier

日期: 17-5-2013

task

## Construction of A Secondary Boundary Fence &amp; New Boundary Partol Road (Phase 2)

China International Water &amp; Electric Corp.

識別碼	任務名稱	工期	開始時間		完成時間		2012年8月			2012年9月				
			下旬	中旬	下旬	下旬	中旬	下旬	上旬	中旬	下旬			
145	- installation of mesh	30 工作日			2013/12/27									
146	- installation of barbed wire	42 工作日			2014/1/24									
147	- installation of gates	42 工作日			2014/1/24									
148	- painting works	31 工作日			2014/1/10									
149	- Drainage & U-channel works	80 工作日			2013/11/30									
150	- BS works (installation of copper tape / cable tray)	31 工作日			2013/11/23									
151	- construction of cable draw pit / duct / lamp pole footing	61 工作日			2013/1/21									
152	- road surfacing	60 工作日			2014/1/6									
153	- erection of lamp pole	31 工作日			2014/1/9									
154	- flood-light wiring & miscellaneous works	32 工作日			2014/1/9									
155	- T&C inspection	25 工作日			2014/2/10									
156	- power energizing	25 工作日			2014/2/10									
157														
158														
159	<b>Section D (Shek Chung Au)</b>	107 工作日			2012/7/25									
160	-Submission of method statement on Tree survey works	37 工作日			2012/8/10									
161	-Seek IEC's approval and carry out Baseline monitoring	40 工作日			2012/8/12									
162	-Carry out initial tree survey	14 工作日			2012/9/3									
163	-Removed extg UU by Others	53 工作日			2012/8/7									
164	-Carry out the asbestos survey	3 工作日			2012/9/5									
165	-Application for TTA approved by TDRMO	30 工作日			2012/8/27									
166	-Seek Police's approval	3 工作日			2012/9/26									
167	-Seek EPD's noise approval	10 工作日			2012/9/26									
168	- Preparation,submission & approval of method statement & demolition works	53 工作日			2012/7/25									
169	-Preparation works for site demolition works	21 工作日			2012/9/17									
170	-Removal of extg fixture & furnitures fittings	14 工作日			2012/9/24									
171	-Demolition of extg structure & signage	32 工作日			2012/10/8									
172														
173	<b>Preparation works for Section E</b>													
174	- Asbestos survey	31 工作日			2012/12/1									
175	- Submission & approval of Demolition plan	70 工作日			2012/12/1									
176	-Application for TTA	30 工作日			2013/9/16									
177	<b>Section E (Lok Ma Chau)</b>	199 工作日			2013/7/31									
178	-Demolition of extg structure/checkpoints	199 工作日			2013/7/31									
179	<b>17. Anticipated completion date</b>	1 工作日			2014/6/6									

專案: Programme for Frontier

日期: 17-5-2013

task

## Appendix E

### ET Weekly Site Inspection Records

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

**WEEKLY SITE INSPECTION CHECKLIST**

Inspection Date	7/5/14	Inspected by	RE	IEC	Contractor	ET
Time	15:40	Name	/	/	<i>[Signature]</i>	<i>[Signature]</i>

Weather : Sunny / Fine / cloudy / Drizzle / Rain / Storm / Hazy  
 Condition :  
 Wind : Calm / Light Breeze / Strong

Temperature : 21°C  
 Humidity : High / Moderate / Low

	Implementation Stages*			Remark
	Yes	No	Not Obs. / N/A	
<b>Environmental Checklist</b>				
<b>Fugitive Dust Emission</b>				
• Any 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.			✓	
• Dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.			✓	
• Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.				✓
• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	✓			
• The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.	✓			
• All dusty materials should be sprayed with water prior to any loading, unloading or transfer.			✓	
• Vehicle speed should be limited to 10 kph except on completed access roads.	✓			
• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	✓			
• Vehicle and equipment should be switched off while not in use.	✓			
• All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
• Open burning should be prohibited.	✓			

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Noise Impact</b>				
<ul style="list-style-type: none"> <li>▪ The Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD shall be adopted.</li> <li>▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.</li> <li>▪ The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.</li> <li>▪ Noisy equipment and noisy activities shall be located as far away from NSRs as is practical.</li> <li>▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> <li>▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.</li> <li>▪ Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> <li>▪ Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of Powered mechanical equipment (PME) whenever practicable.</li> <li>▪ PME should be covered or shielded by appropriate acoustic materials.</li> <li>▪ Air compressors and hand held breakers should have noise labels.</li> <li>▪ Compressors and generators should operate with door closed.</li> <li>▪ With construction / demolition work undertaken at a distance of 60m or less to the NSRs, Level 1 – use of Quiet Plant and Moveable Noise barrier shall be adopted. Below mitigation measures should be included: <ul style="list-style-type: none"> <li>▪ Particular models of plants should be quieter than the standards given in GW-TM.</li> <li>▪ 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.</li> </ul> </li> <li>▪ With demolition work undertaken at a distance of 12m or less to the NSRs, Level 2 – Alternative demolition method of existing boundary fence should be adopted. Below mitigation measures should be included: <ul style="list-style-type: none"> <li>▪ Use of welder is recommended to replace the use of hand-held drillers</li> <li>▪ Use of hand-held breaker with movable noise barrier is recommended to replace the use of mini-robot mounted breaker; and the duration for the used of hand-held breaker is minimal as only the surface level of the footing to be broken.</li> <li>▪ The removal of the footing of the existing boundary fence should be carried by concrete crusher mini-robot mounted after the surface level broken by hand-held breaker.</li> </ul> </li> </ul>	√			
<b>Water Quality</b>				
<b>Mitigation Measures for General Construction Activities</b>				
<ul style="list-style-type: none"> <li>▪ The site should be confined to avoid silt runoff to the site</li> <li>▪ No discharge of silty water into the storm drain and drainage channel within and the vicinity of the site</li> <li>▪ Any soil contaminated with chemicals / oils shall be removed from site and the void created shall be filled with suitable materials</li> </ul>	√			Item 2

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<ul style="list-style-type: none"> <li>Stockpiles to be covered by tarpaulin to avoid spreading of materials during rainstorms</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Suitable containers shall be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Chemical waste containers shall be labelled with appropriate warning signs in English and Chinese to avoid accidents. Clear instructions showing what action to take in the event of an accidental should be provided.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Storage areas shall be selected at safe locations on site and adequate space shall be allocated to the storage area.</li> </ul>	✓			
<ul style="list-style-type: none"> <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>	✓			
<ul style="list-style-type: none"> <li>Spillage or leakage of chemical waste to be controlled by using suitable absorbent materials.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Chemicals will always be stored on drip trays or in bunded areas where the volume is 110% of the stored volume.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Regular clearance of domestic waste generated in the temporary sanitary facilities to avoid waste water spillage.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Temporary sanitary facilities to be provided for on-site workers during construction.</li> </ul>	✓			
<b>Mitigation Measures for Concreting Works</b>				
<ul style="list-style-type: none"> <li>A temporary drainage channel and associated facilities should be provided to collect the runoff generated and prevent concrete-contaminated water from entering watercourses. Adjustment of pH can be achieved by adding a suitable neutralizing reagent to wastewater prior to discharge.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>For work sites of Section 3 in the proximity of Lin Ma Hang Stream SSSI, the concreting works should be temporarily isolated with proper method, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props.</li> </ul>				✓
<b>Mitigation Measures for Soil Excavation and Stockpiling</b>				
<ul style="list-style-type: none"> <li>Excavated soil with needs to be temporarily stockpiled should be stored in a specially designated area and provided with a tarpaulin cover to avoid runoff into the drainage channels.</li> </ul>	✓			
<b>Mitigation Measures for Site Depot</b>				
<ul style="list-style-type: none"> <li>All compounds in works areas should be located on areas of hard standing with provision of drainage channels and settlement ponds where necessary to allow interception and controlled release of settled / treated water.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Hard standing compounds should drain via an oil interceptor. The oil interceptor should be regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A by pass should be provided to avoid overload of the interceptor's capacity.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Any contractor generating waste oil or other chemicals as a result of his activities should be register as a chemical waste producer.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Disposal of the waste oil should be done by a licensed collector.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Good housekeeping practices should be implemented to minimise careless spillage and to keep the storage and the work space in a tidy and clean condition.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Appropriate training including safety codes and relevant manuals should be given to the personnel who regularly handle the chemicals on site.</li> </ul>	✓			
<b>Mitigation Measures for Construction of Checkpoint at Shek Chung Au</b>				
<ul style="list-style-type: none"> <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>				✓

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

	Implementation Stages*			Remark	
	Yes	No	Not		
			Obs		N/A
<b>Environmental Checklist</b>					
<b>Waste Management</b>					
<b>Site Clearance</b>					
<ul style="list-style-type: none"> <li>▪ The topsoil and vegetation removed and excavated material may have to be temporarily stockpiled on site. Control measures should be taken at the stockpile area to prevent the generation of dust and pollution of stormwater channels, fish ponds or river channels.</li> <li>▪ During the wet season, stockpiling of excavated materials should be avoided to eliminate the risk of blocking drains.</li> </ul>				√	
<b>Construction and Demolition Materials</b>					
<ul style="list-style-type: none"> <li>▪ Careful design, planning and good site management can minimize over-ordering and generation of waste materials such as concrete mortars and cement grouts.</li> <li>▪ The design of formwork should maximize the use of standard wooden panels so to achieve high reuse levels. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</li> <li>▪ C&amp;D materials should be recycled as much as possible on-site.</li> <li>▪ Proper segregation of waste on-site will increase the feasibility of certain components of the waste system by the recycling contractors.</li> <li>▪ Different areas of the worksite shall be designated for such segregation and storage wherever site conditions permit.</li> <li>▪ Trip-ticket system should be employed to monitor the disposed of C&amp;D material and solid at public filling facilities and landfills, and to control fly-tipping.</li> </ul>	√				
<b>Chemical Waste</b>					
<ul style="list-style-type: none"> <li>▪ For those processes which generate chemical waste, it may be possible to find alternatives which generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste.</li> <li>▪ Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Waste as follows:</li> <li>▪ Containers used for the storage of chemical wastes should: <ul style="list-style-type: none"> <li>▪ Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.</li> <li>▪ Have a capacity of less than 450 litres unless the specifications have been approved by the EPD.</li> <li>▪ Display a label in English and Chinese in accordance with instructions prescribed in Schedule 1 of the Regulations</li> </ul> </li> <li>▪ The storage area for chemical wastes should: <ul style="list-style-type: none"> <li>▪ Be clearly labelled and used solely for the storage of chemical waste.</li> <li>▪ Be enclosed on at least 3 sides.</li> <li>▪ Have an impermeable floor and bounding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area whichever is the greatest.</li> <li>▪ Have adequate ventilation</li> </ul> </li> </ul>	√				



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

<ul style="list-style-type: none"> <li>▪ Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary)</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Be arranged so that incompatible materials are adequately separated</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Disposal of chemical waste should               <ul style="list-style-type: none"> <li>▪ Be via a licensed waste collector</li> </ul> </li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ To be re-user of the waste, under approval from the EPD</li> </ul>			√
<b>General Refuse</b>			
<ul style="list-style-type: none"> <li>▪ General refuse should be stored in enclosed bins or compaction units separate from C&amp;D and chemical waste.</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical waste, on a regular basis to minimise odour, pest and litter impacts.</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Burning of refuse on construction sites is prohibited by law.</li> </ul>	√		
<b>Landscape and Visual</b>			
<b>Preservation of Existing Vegetation</b>			
<ul style="list-style-type: none"> <li>• Trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs should be retained.</li> </ul>	√		
<ul style="list-style-type: none"> <li>• 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 should be prohibited.</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Phase segmental root pruning for trees should be retained and transplanted over a suitable period (determined by species and size) 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.</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Pruning of the branches of existing trees identified for transplantation and retention should be based on the principle of crown thinning maintaining their form and amenity value.</li> </ul>	√		
<ul style="list-style-type: none"> <li>▪ Existing vegetation should be watered particularly during periods of excavation when the water table beneath the existing vegetation is lowered.</li> </ul>			√
<ul style="list-style-type: none"> <li>▪ The damaged vegetation should be rectified and repaired following the construction phase to its original condition 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.</li> </ul>			√
<ul style="list-style-type: none"> <li>▪ All works affecting the trees identified for retention and transplantation should be monitored carefully. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring through out the construction period.</li> </ul>	√		
<b>Preservation of Existing Topsoil</b>			
<ul style="list-style-type: none"> <li>• 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-used.</li> </ul>			√
<ul style="list-style-type: none"> <li>• The soil should 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</li> </ul>			√
<ul style="list-style-type: none"> <li>▪ The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion.</li> </ul>			√
<b>Permanent and Temporary Works Areas</b>			
<ul style="list-style-type: none"> <li>• Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.</li> </ul>			√
<ul style="list-style-type: none"> <li>• 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.</li> </ul>			√



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

<b>Mitigation Planting</b>					
•	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase.			√	
•	Use of native plant species predominantly in the planting design for the buffer areas.			√	
<b>Good Site Practices</b>					
•	The Environmental Permit should be displaced conspicuously on site.	√			
•	Construction noise permits should be posted at site entrance or available for site inspection.			√	
▪	Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.		√		Item 1 and 3
▪	Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.		√		
▪	Proper storage and site practices to minimise the potential for damage or contamination of construction materials.		√		



**Photos**

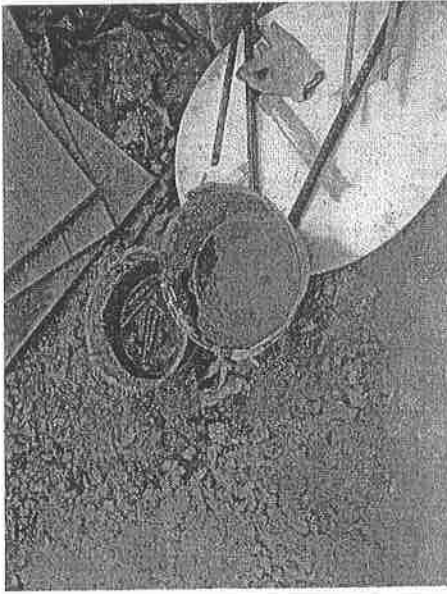


Photo 140507\_001 – Stagnant water in container was observed at the entrance of New Road site.

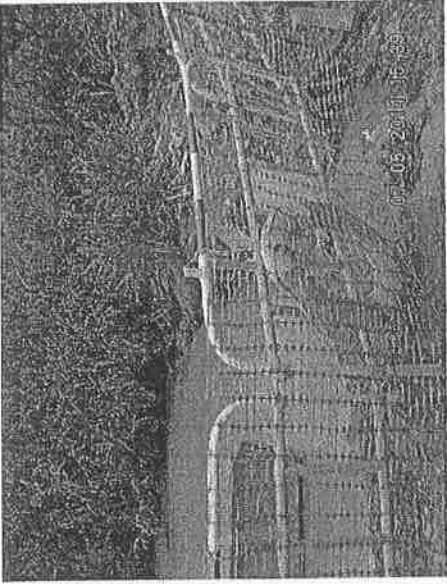


Photo 140507\_002 – Stagnant water pond was observed in New Road site.



Photo 140507\_003 – Waste chemical container was observed near Gate No. 50 in Pak Fu Shan site.

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
 New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

**WEEKLY SITE INSPECTION CHECKLIST**

Inspection Date	14/5/14	Inspected by	RE Poon	IEC	Contractor	ET
Time	14:40	Name	E. C. Cheung			

Weather : Sunny / Fine / ~~cloudy~~ / Drizzle / Rain / Storm / Hazy  
 Condition : Calm / ~~Light~~ Breeze / Strong  
 Wind :  
 Temperature : 26°C  
 Humidity : High / ~~Moderate~~ / Low

	Implementation Stages*			Remark
	Yes	No	Not Obs / N/A	
<b>Environmental Checklist</b>				
<b>Fugitive Dust Emission</b>				
• Any 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.			✓	
• Dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.			✓	
• Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.				✓
• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	✓			
• The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.	✓			
• All dusty materials should be sprayed with water prior to any loading, unloading or transfer.			✓	
• Vehicle speed should be limited to 10 kph except on completed access roads.				
• Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	✓			
• Vehicle and equipment should be switched off while not in use.	✓			
• All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
• Open burning should be prohibited.	✓			



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

### Environmental Checklist

	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Noise Impact</b>				
<ul style="list-style-type: none"> <li>The Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD shall be adopt.</li> <li>The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.</li> <li>The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.</li> <li>Noisy equipment and noisy activities shall be located as far away from NSRs as is practical.</li> <li>Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> <li>Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.</li> <li>Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> <li>Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of Powered mechanical equipment (PME) whenever practicable.</li> <li>PME should be covered or shielded by appropriate acoustic materials.</li> <li>Air compressors and hand held breakers should have noise labels.</li> <li>Compressors and generators should operate with door closed.</li> <li>With construction / demolition work undertaken at a distance of 60m or less to the NSRs, Level 1 – use of Quiet Plant and Moveable Noise barrier shall be adopted. Below mitigation measures should be included: <ul style="list-style-type: none"> <li>Particular models of plants should be quieter than the standards given in GW-TM.</li> <li>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.</li> </ul> </li> <li>With demolition work undertaken at a distance of 12m or less to the NSRs, Level 2 – Alternative demolition method of existing boundary fence should be adopted. Below mitigation measures should be included: <ul style="list-style-type: none"> <li>Use of welder is recommended to replace the use of hand-held drill</li> <li>Use of hand-held breaker with movable noise barrier is recommended to replace the use of mini-robot mounted breaker, and the duration for the used of hand-held breaker is minimal as only the surface level of the footing to be broken.</li> <li>The removal of the footing of the existing boundary fence should be carried by concrete crusher mini-robot mounted after the surface level broken by hand-held breaker.</li> </ul> </li> </ul>	✓			
<b>Water Quality</b>				
<b>Mitigation Measures for General Construction Activities</b>				
<ul style="list-style-type: none"> <li>The site should be confined to avoid silt runoff to the site</li> <li>No discharge of silty water into the storm drain and drainage channel within and the vicinity of the site</li> <li>Any soil contaminated with chemicals / oils shall be removed from site and the void created shall be filled with suitable materials</li> </ul>	✓	✓		Item 5 and 6

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<ul style="list-style-type: none"> <li>Stockpiles to be covered by tarpaulin to avoid spreading of materials during rainstorms</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Suitable containers shall be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Chemical waste containers shall be labelled with appropriate warning signs in English and Chinese to avoid accidents. Clear instructions showing what action to take in the event of an accidental should be provided.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Storage areas shall be selected at safe locations on site and adequate space shall be allocated to the storage area.</li> </ul>	✓			
<ul style="list-style-type: none"> <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>	✓			
<ul style="list-style-type: none"> <li>Spillage or leakage of chemical waste to be controlled by using suitable absorbent materials.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Chemicals will always be stored on drip trays or in bunded areas where the volume is 110% of the stored volume.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Regular clearance of domestic waste generated in the temporary sanitary facilities to avoid waste water spillage.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Temporary sanitary facilities to be provided for on-site workers during construction.</li> </ul>	✓			
<b>Mitigation Measures for Concreting Works</b>				
<ul style="list-style-type: none"> <li>A temporary drainage channel and associated facilities should be provided to collect the runoff generated and prevent concrete-contaminated water from entering watercourses. Adjustment of pH can be achieved by adding a suitable neutralizing reagent to wastewater prior to discharge.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>For work sites of Section 3 in the proximity of Lin Ma Hang Stream SSSI, the concreting works should be temporarily isolated with proper method, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props.</li> </ul>			✓	
<b>Mitigation Measures for Soil Excavation and Stockpiling</b>				
<ul style="list-style-type: none"> <li>Excavated soil with needs to be temporarily stockpiled should be stored in a specially designated area and provided with a tarpaulin cover to avoid runoff into the drainage channels.</li> </ul>	✓			
<b>Mitigation Measures for Site Depot</b>				
<ul style="list-style-type: none"> <li>All compounds in works areas should be located on areas of hard standing with provision of drainage channels and settlement ponds where necessary to allow interception and controlled release of settled / treated water.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Hard standing compounds should drain via an oil interceptor. The oil interceptor should be regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A by pass should be provided to avoid overload of the interceptor's capacity.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Any contractor generating waste oil or other chemicals as a result of his activities should be register as a chemical waste producer.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Disposal of the waste oil should be done by a licensed collector.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Good housekeeping practices should be implemented to minimise careless spillage and to keep the storage and the work space in a tidy and clean condition.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Appropriate training including safety codes and relevant manuals should be given to the personnel who regularly handle the chemicals on site.</li> </ul>	✓			
<b>Mitigation Measures for Construction of Checkpoint at Shek Chung Au</b>				
<ul style="list-style-type: none"> <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>				✓

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
 New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs	
	N/A			
<b>Waste Management</b>				
<b>Site Clearance</b>				
<ul style="list-style-type: none"> <li>The topsoil and vegetation removed and excavated material may have to be temporarily stockpiled on site. Control measures should be taken at the stockpile area to prevent the generation of dust and pollution of stormwater channels, fish ponds or river channels.</li> <li>During the wet season, stockpiling of excavated materials should be avoided to eliminate the risk of blocking drains.</li> </ul>			✓	
<b>Construction and Demolition Materials</b>				
<ul style="list-style-type: none"> <li>Careful design, planning and good site management can minimize over-ordering and generation of waste materials such as concrete mortars and cement grouts.</li> <li>The design of formwork should maximize the use of standard wooden panels so to achieve high reuse levels. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</li> <li>C&amp;D materials should be recycled as much as possible on-site.</li> <li>Proper segregation of waste on-site will increase the feasibility of certain components of the waste system by the recycling contractors.</li> <li>Different areas of the worksite shall be designated for such segregation and storage wherever site conditions permit.</li> <li>Trip-ticket system should be employed to monitor the disposed of C&amp;D material and solid at public filling facilities and landfills, and to control fly-tipping.</li> </ul>	✓			
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>For those processes which generate chemical waste, it may be possible to find alternatives which generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste.</li> <li>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in according with the Code of Practice on the Packaging, Handling and Storage of Chemical Waste as follow:</li> <li>Containers used for the storage of chemical wastes should:               <ul style="list-style-type: none"> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.</li> <li>Have a capacity of less than 450 litres unless the specifications have been approved by the EPD.</li> <li>Display a label in English and Chinese in accordance with instructions prescribed in Schedule 1 of the Regulations</li> </ul> </li> <li>The storage area for chemical wastes should:               <ul style="list-style-type: none"> <li>Be clearly labelled and used solely for the storage of chemical waste.</li> <li>Be enclosed on at least 3 sides.</li> <li>Have an impermeable floor and bounding, of capacity to accommodate 110% of the volume of the largest container o 20% by volume of the chemical waste stored in that area whichever is the greatest.</li> <li>Have adequate ventilation</li> </ul> </li> </ul>	✓			



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

<ul style="list-style-type: none"> <li>▪ Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary)</li> <li>▪ Be arranged so that incompatible materials are adequately separated</li> </ul>	✓			
<ul style="list-style-type: none"> <li>• Disposal of chemical waste should               <ul style="list-style-type: none"> <li>▪ Be via a licensed waste collector</li> <li>▪ Be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers</li> <li>▪ To be re-user of the waste, under approval from the EPD</li> </ul> </li> </ul>	✓			
<b>General Refuse</b>				
<ul style="list-style-type: none"> <li>▪ General refuse should be stored in enclosed bins or compaction units separate from C&amp;D and chemical waste.</li> <li>▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical waste, on a regular basis to minimise odour, pest and litter impacts.</li> <li>▪ Burning of refuse on construction sites is prohibited by law.</li> </ul>	✓			✓
<b>Landscape and Visual</b>				
<b>Preservation of Existing Vegetation</b>				
<ul style="list-style-type: none"> <li>• Trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs should be retained.</li> <li>• 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 should be prohibited.</li> <li>▪ Phase segmental root pruning for trees should be retained and transplanted over a suitable period (determined by species and size) 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.</li> <li>▪ Pruning of the branches of existing trees identified for transplanted and retention should be based on the principle of crown thinning maintaining their form and amenity value.</li> <li>▪ Existing vegetation should be watered particularly during periods of excavation when the water table beneath the existing vegetation is lowered.</li> <li>▪ The damaged vegetation should be rectified and repaired following the construction phase to its original condition 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.</li> <li>▪ All works affecting the trees identified for retention and transplanted should be monitored carefully. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring through out the construction period.</li> </ul>	✓			✓
<b>Preservation of Existing Topsoil</b>				
<ul style="list-style-type: none"> <li>• 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-used.</li> <li>• The soil should 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</li> <li>▪ The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion.</li> </ul>				✓
<b>Permanent and Temporary Works Areas</b>				
<ul style="list-style-type: none"> <li>• Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.</li> <li>▪ 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.</li> </ul>				✓



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

<b>Mitigation Planting</b>					
•	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase.			✓	
•	Use of native plant species predominantly in the planting design for the buffer areas.			✓	
<b>Good Site Practices</b>					
•	The Environmental Permit should be displaced conspicuously on site.	✓			
•	Construction noise permits should be posted at site entrance or available for site inspection.			✓	
▪	Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	✓			
▪	Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	✓			
▪	Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	✓			



**Photos**



Photo 140514\_001 – Stagnant water in container observed at the entrance of New Road site was removed.



Photo 140514\_002 – Stagnant water pond observed in New Road site was improved.



Photo 140514\_004 – Stagnant water in container was observed at the entrance of New Road site.



Photo 140514\_003 – Waste chemical container observed near Gate No. 50 in Pak Fu Shan site was removed.



Photo 140514\_006 – Stagnant water pond was observed near Gate No. 47 in Pak Fu Shan site.



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

**WEEKLY SITE INSPECTION CHECKLIST**

Inspection Date	21/5/14	Inspected by	BE PCOWS	IEC	Katy Mui	Contractor	ET
Time	14:30	Name	Ch. Cheung / PCOWS		Mui		Muk

Weather : Sunny / Fine / cloudy / Drizzle / Rain / Storm / Hazy  
 Condition : Calm / Light / Breeze / Strong  
 Humidity : High / Moderate / Low  
 Temperature : 26°C

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs / N/A	
<b>Fugitive Dust Emission</b>				
Any 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.			✓	
Dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.			✓	
Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.				
The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	✓			
The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.	✓			
All dusty materials should be sprayed with water prior to any loading, unloading or transfer.				
Vehicle speed should be limited to 10 kph except on completed access roads.	✓			
Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	✓			
Vehicle and equipment should be switched off while not in use.	✓			
All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
Open burning should be prohibited.	✓			



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist		Implementation Stages*			Remark
		Yes	No	Not Obs N/A	
<b>Noise Impact</b>					
▪	The Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD shall be adopted.	✓			
▪	The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪	The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.	✓			
▪	Noisy equipment and noisy activities shall be located as far away from NSRs as is practical.	✓			
▪	Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪	Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪	Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	✓			
▪	Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of Powered mechanical equipment (PME) whenever practicable.			✓	
▪	PME should be covered or shielded by appropriate acoustic materials.	✓			
▪	Air compressors and hand held breakers should have noise labels.	✓			
▪	Compressors and generators should operate with door closed.	✓			
▪	With construction / demolition work undertaken at a distance of 60m or less to the NSRs, Level 1 – use of Quiet Plant and Moveable Noise barrier shall be adopted. Below mitigation measures should be included:	✓			
▪	Particular models of plants should be quieter than the standards given in GW-TM.	✓			
▪	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.	✓			
▪	With demolition work undertaken at a distance of 12m or less to the NSRs, Level 2 – Alternative demolition method of existing boundary fence should be adopted. Below mitigation measures should be included:			✓	
▪	Use of welder is recommended to replace the use of hand-held drill			✓	
▪	Use of hand-held breaker with movable noise barrier is recommended to replace the use of mini-robot mounted breaker; and the duration for the used of hand-held breaker is minimal as only the surface level of the footing to be broken.			✓	
▪	The removal of the footing of the existing boundary fence should be carried by concrete crusher mini-robot mounted after the surface level broken by hand-held breaker.			✓	
<b>Water Quality</b>					
<b>Mitigation Measures for General Construction Activities</b>					
▪	The site should be confined to avoid silt runoff to the site	✓			
▪	No discharge of silty water into the storm drain and drainage channel within and the vicinity of the site		✓		Item 4
▪	Any soil contaminated with chemicals / oils shall be removed from site and the void created shall be filled with suitable materials	✓			



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<ul style="list-style-type: none"> <li>Stockpiles to be covered by tarpaulin to avoid spreading of materials during rainstorms</li> </ul>	√			
<ul style="list-style-type: none"> <li>Suitable containers shall be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> </ul>		√		Item 5
<ul style="list-style-type: none"> <li>Chemical waste containers shall be labelled with appropriate warning signs in English and Chinese to avoid accidents. Clear instructions showing what action to take in the event of an accidental should be provided.</li> </ul>	√			
<ul style="list-style-type: none"> <li>Storage areas shall be selected at safe locations on site and adequate space shall be allocated to the storage area.</li> </ul>	√			
<ul style="list-style-type: none"> <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>	√			
<ul style="list-style-type: none"> <li>Spillage or leakage of chemical waste to be controlled by using suitable absorbent materials.</li> </ul>	√			
<ul style="list-style-type: none"> <li>Chemicals will always be stored on drip trays or in bunded areas where the volume is 110% of the stored volume.</li> </ul>	√			
<ul style="list-style-type: none"> <li>Regular clearance of domestic waste generated in the temporary sanitary facilities to avoid waste water spillage.</li> </ul>	√			
<ul style="list-style-type: none"> <li>Temporary sanitary facilities to be provided for on-site workers during construction.</li> </ul>	√			
<b>Mitigation Measures for Concreting Works</b>				
<ul style="list-style-type: none"> <li>A temporary drainage channel and associated facilities should be provided to collect the runoff generated and prevent concrete-contaminated water from entering watercourses. Adjustment of pH can be achieved by adding a suitable neutralizing reagent to wastewater prior to discharge.</li> </ul>	√			
<ul style="list-style-type: none"> <li>For work sites of Section 3 in the proximity of Lin Ma Hang Stream SSSI, the concreting works should be temporarily isolated with proper method, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props.</li> </ul>			√	
<b>Mitigation Measures for Soil Excavation and Stockpiling</b>				
<ul style="list-style-type: none"> <li>Excavated soil with needs to be temporarily stockpiled should be stored in a specially designated area and provided with a tarpaulin cover to avoid runoff into the drainage channels.</li> </ul>	√			
<b>Mitigation Measures for Site Depot</b>				
<ul style="list-style-type: none"> <li>All compounds in works areas should be located on areas of hard standing with provision of drainage channels and settlement ponds where necessary to allow interception and controlled release of settled / treated water.</li> </ul>			√	
<ul style="list-style-type: none"> <li>Hard standing compounds should drain via an oil interceptor. The oil interceptor should be regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A by pass should be provided to avoid overload of the interceptor's capacity.</li> </ul>			√	
<ul style="list-style-type: none"> <li>Any contractor generating waste oil or other chemicals as a result of his activities should be register as a chemical waste producer.</li> </ul>			√	
<ul style="list-style-type: none"> <li>Disposal of the waste oil should be done by a licensed collector.</li> </ul>			√	
<ul style="list-style-type: none"> <li>Good housekeeping practices should be implemented to minimise careless spillage and to keep the storage and the work space in a tidy and clean condition.</li> </ul>	√			
<ul style="list-style-type: none"> <li>Appropriate training including safety codes and relevant manuals should be given to the personnel who regularly handle the chemicals on site.</li> </ul>	√			
<b>Mitigation Measures for Construction of Checkpoint at Shek Chung Au</b>				
<ul style="list-style-type: none"> <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>			√	

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<b>Waste Management</b>				
<b>Site Clearance</b>				
<ul style="list-style-type: none"> <li>The topsoil and vegetation removed and excavated material may have to be temporarily stockpiled on site. Control measures should be taken at the stockpile area to prevent the generation of dust and pollution of stormwater channels, fish ponds or river channels.</li> <li>During the wet season, stockpiling of excavated materials should be avoided to eliminate the risk of blocking drains.</li> </ul>			✓	
<b>Construction and Demolition Materials</b>				
<ul style="list-style-type: none"> <li>Careful design, planning and good site management can minimize over-ordering and generation of waste materials such as concrete mortars and cement grouts.</li> <li>The design of formwork should maximize the use of standard wooden panels so to achieve high reuse levels. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</li> <li>C&amp;D materials should be recycled as much as possible on-site.</li> <li>Proper segregation of waste on-site will increase the feasibility of certain components of the waste system by the recycling contractors.</li> <li>Different areas of the worksite shall be designated for such segregation and storage wherever site conditions permit.</li> <li>Trip-ticket system should be employed to monitor the disposed of C&amp;D material and solid at public filling facilities and landfills, and to control fly-tipping.</li> </ul>	✓			
<b>Chemical Waste</b>				
<ul style="list-style-type: none"> <li>For those processes which generate chemical waste, it may be possible to find alternatives which generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste.</li> <li>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in according with the Code of Practice on the Packaging, Handling and Storage of Chemical Waste as follow.</li> <li>Containers used for the storage of chemical wastes should: <ul style="list-style-type: none"> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.</li> <li>Have a capacity of less than 450 litres unless the specifications have been approved by the EPD.</li> <li>Display a label in English and Chinese in accordance with instructions prescribed in Schedule 1 of the Regulations</li> </ul> </li> <li>The storage area for chemical wastes should: <ul style="list-style-type: none"> <li>Be clearly labelled and used solely for the storage of chemical waste.</li> <li>Be enclosed on at least 3 sides.</li> <li>Have an impermeable floor and bounding, of capacity to accommodate 110% of the volume of the largest container o 20% by volume of the chemical waste stored in that area whichever is the greatest.</li> <li>Have adequate ventilation</li> </ul> </li> </ul>	✓			





Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
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<ul style="list-style-type: none"> <li>Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary)</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Be arranged so that incompatible materials are adequately separated</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Disposal of chemical waste should               <ul style="list-style-type: none"> <li>Be via a licensed waste collector</li> </ul> </li> </ul>	✓			
<ul style="list-style-type: none"> <li>Be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers</li> </ul>	✓			
<ul style="list-style-type: none"> <li>To be re-user of the waste, under approval from the EPD</li> </ul>			✓	
<b>General Refuse</b>				
<ul style="list-style-type: none"> <li>General refuse should be stored in enclosed bins or compaction units separate from C&amp;D and chemical waste.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical waste, on a regular basis to minimise odour, pest and litter impacts.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Burning of refuse on construction sites is prohibited by law.</li> </ul>	✓			
<b>Landscape and Visual</b>				
<b>Preservation of Existing Vegetation</b>				
<ul style="list-style-type: none"> <li>Trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs should be retained.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>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 should be prohibited.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Phase segmental root pruning for trees should be retained and transplanted over a suitable period (determined by species and size) 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.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Pruning of the branches of existing trees identified for transplantation and retention should be based on the principle of crown thinning maintaining their form and amenity value.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Existing vegetation should be watered particularly during periods of excavation when the water table beneath the existing vegetation is lowered.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>The damaged vegetation should be rectified and repaired following the construction phase to its original condition 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.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>All works affecting the trees identified for retention and transplantation should be monitored carefully. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring through out the construction period.</li> </ul>	✓			
<b>Preservation of Existing Topsoil</b>				
<ul style="list-style-type: none"> <li>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-used.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>The soil should 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</li> </ul>			✓	
<ul style="list-style-type: none"> <li>The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion.</li> </ul>			✓	
<b>Permanent and Temporary Works Areas</b>				
<ul style="list-style-type: none"> <li>Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>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.</li> </ul>			✓	



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<b>Mitigation Planting</b>					
•	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase.			✓	
•	Use of native plant species predominantly in the planting design for the buffer areas.			✓	
<b>Good Site Practices</b>					
•	The Environmental Permit should be displaced conspicuously on site.	✓			
•	Construction noise permits should be posted at site entrance or available for site inspection.			✓	
▪	Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	✓			
▪	Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	✓			
▪	Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	✓			

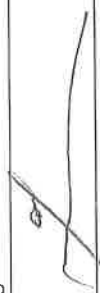
Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

**Summary of the Weekly Site Inspection:**

Item	Details of defective works or observations	Status of the item (closed / continue follow-up)	Proposed Follow Up Action (if required)	Photo Ref.	Target Completion Date
1	Follow-up action to item 4 on 14/05/14, mosquito oil was added into the container with stagnant water at the entrance of New Road site.	Closed		140521_001	---
2	Follow-up action to item 5 on 14/05/14, the stagnant water pond near the middle section of New Road site was improved.	Closed		140521_002	---
3	Follow-up action to item 6 on 14/05/14, mosquito oil was added on the stagnant water pond near Gate No. 47 in Pak Fu Shan site.	Closed		140521_003	---
4	Stagnant water pond was observed near the middle section of New Road site	Follow-up	The Contractor was reminded to drain the stagnant water or add mosquito oil on the water to avoid breeding of mosquitoes.	140521_004	28/05/14
5	Oil drum without drip tray was observed in the Pak Fu Shan site.	Follow-up	The Contractor was reminded to provide drip tray for the oil drum.	140521_005	28/05/14

Remark

---

Name	Title	Signature	Date
C. L. Lau	ET Leader		21 May 2014

**Photos**

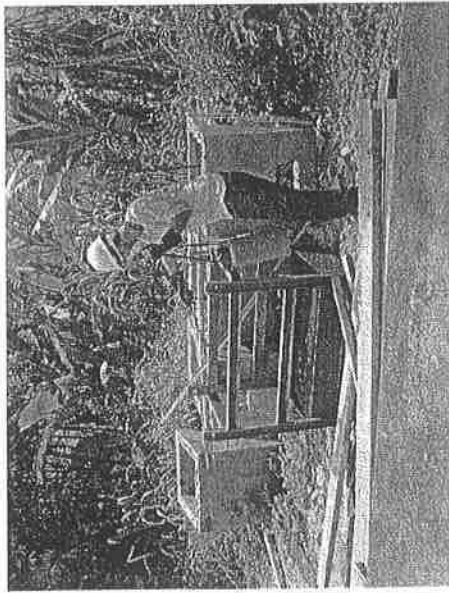


Photo 140521\_001 – Mosquito oil was added into the container with stagnant water at the entrance of New Road site.

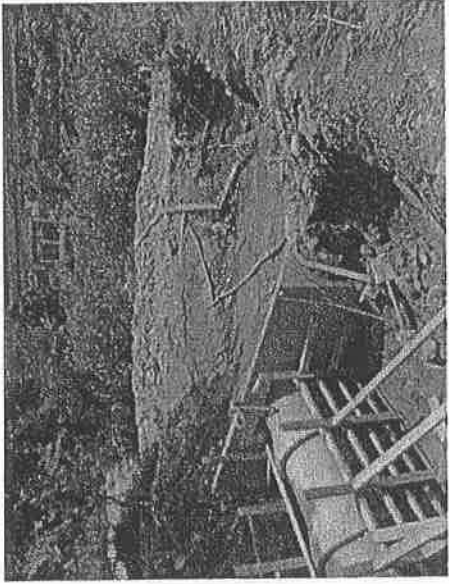


Photo 140521\_002 – The stagnant water pond near the middle section of New Road site was improved.



Photo 140521\_003 – Mosquito oil was added on the stagnant water pond near Gate No. 47 in Pak Fu Shan site.

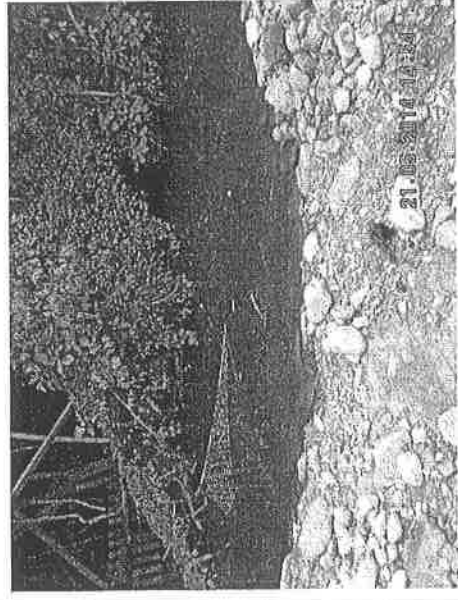


Photo 140521\_004 – Stagnant water pond was observed near middle section of New Road site.

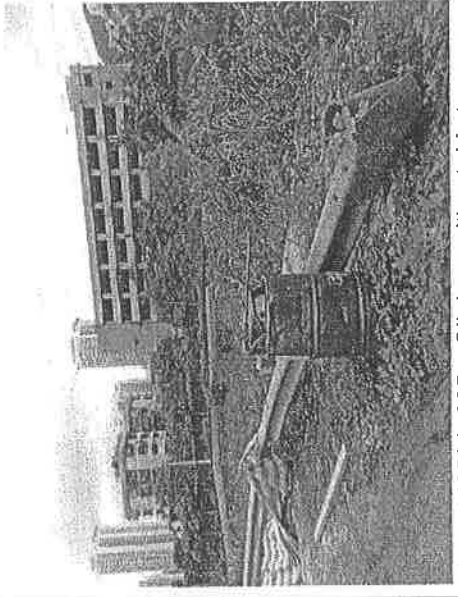


Photo 140521\_005 – Oil drum without drip tray was observed in Pak Fu Shan site.



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Botldary Patrol Road (Phase 2)

**WEEKLY SITE INSPECTION CHECKLIST**

Inspection Date	28/5/14	Inspected by	RE	IEC	Contractor	ET
Time	15:00	Name	/	/	<i>[Signature]</i>	<i>[Signature]</i>

Weather : Sunny / Fine / cloudy / Drizzle / Rain / Storm / Hazy  
 Condition : Calm / Light / Breeze / Strong  
 Wind : Temperature : 32°C  
 Humidity : High / Moderate / Low

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs. / N/A	
<b>Fugitive Dust Emission</b>				
Any 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.			✓	
Dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.			✓	
Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.				✓
The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	✓			
The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.	✓			
All dusty materials should be sprayed with water prior to any loading, unloading or transfer.			✓	
Vehicle speed should be limited to 10 kph except on completed access roads.	✓			
Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	✓			
Vehicle and equipment should be switched off while not in use.	✓			
All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
Open burning should be prohibited.	✓			



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	Not Obs N/A	
<ul style="list-style-type: none"> <li>Stockpiles to be covered by tarpaulin to avoid spreading of materials during rainstorms</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Suitable containers shall be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Chemical waste containers shall be labelled with appropriate warning signs in English and Chinese to avoid accidents. Clear instructions showing what action to take in the event of an accidental should be provided.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Storage areas shall be selected at safe locations on site and adequate space shall be allocated to the storage area.</li> </ul>	✓			
<ul style="list-style-type: none"> <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>	✓			
<ul style="list-style-type: none"> <li>Spillage or leakage of chemical waste to be controlled by using suitable absorbent materials.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Chemicals will always be stored on drip trays or in bunded areas where the volume is 110% of the stored volume.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Regular clearance of domestic waste generated in the temporary sanitary facilities to avoid waste water spillage.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Temporary sanitary facilities to be provided for on-site workers during construction.</li> </ul>	✓			
<b>Mitigation Measures for Concreting Works</b>				
<ul style="list-style-type: none"> <li>A temporary drainage channel and associated facilities should be provided to collect the runoff generated and prevent concrete-contaminated water from entering watercourses. Adjustment of pH can be achieved by adding a suitable neutralizing reagent to wastewater prior to discharge.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>For work sites of Section 3 in the proximity of Lin Ma Hang Stream SSSI, the concreting works should be temporarily isolated with proper method, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props.</li> </ul>				✓
<b>Mitigation Measures for Soil Excavation and Stockpiling</b>				
<ul style="list-style-type: none"> <li>Excavated soil with needs to be temporarily stockpiled should be stored in a specially designated area and provided with a tarpaulin cover to avoid runoff into the drainage channels.</li> </ul>	✓			
<b>Mitigation Measures for Site Depot</b>				
<ul style="list-style-type: none"> <li>All compounds in works areas should be located on areas of hard standing with provision of drainage channels and settlement ponds where necessary to allow interception and controlled release of settled / treated water.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Hard standing compounds should drain via an oil interceptor. The oil interceptor should be regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A by pass should be provided to avoid overload of the interceptor's capacity.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Any contractor generating waste oil or other chemicals as a result of his activities should be register as a chemical waste producer.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Disposal of the waste oil should be done by a licensed collector.</li> </ul>			✓	
<ul style="list-style-type: none"> <li>Good housekeeping practices should be implemented to minimise careless spillage and to keep the storage and the work space in a tidy and clean condition.</li> </ul>	✓			
<ul style="list-style-type: none"> <li>Appropriate training including safety codes and relevant manuals should be given to the personnel who regularly handle the chemicals on site.</li> </ul>	✓			
<b>Mitigation Measures for Construction of Checkpoint at Shek Chung Au</b>				
<ul style="list-style-type: none"> <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>				✓

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
 New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

	Implementation Stages*			Remark	
	Yes	No	Not Obs N/A		
<b>Environmental Checklist</b>					
<b>Waste Management</b>					
<b>Site Clearance</b>					
<ul style="list-style-type: none"> <li>The topsoil and vegetation removed and excavated material may have to be temporarily stockpiled on site. Control measures should be taken at the stockpile area to prevent the generation of dust and pollution of stormwater channels, fish ponds or river channels.</li> <li>During the wet season, stockpiling of excavated materials should be avoided to eliminate the risk of blocking drains.</li> </ul>				✓	
<b>Construction and Demolition Materials</b>					
<ul style="list-style-type: none"> <li>Careful design, planning and good site management can minimize over-ordering and generation of waste materials such as concrete mortars and cement grouts.</li> <li>The design of formwork should maximize the use of standard wooden panels so to achieve high reuse levels. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</li> <li>C&amp;D materials should be recycled as much as possible on-site.</li> <li>Proper segregation of waste on-site will increase the feasibility of certain components of the waste system by the recycling contractors.</li> <li>Different areas of the worksite shall be designated for such segregation and storage wherever site conditions permit.</li> <li>Trip-ticket system should be employed to monitor the disposed of C&amp;D material and solid at public filling facilities and landfills, and to control fly-tipping.</li> </ul>	✓				
<b>Chemical Waste</b>					
<ul style="list-style-type: none"> <li>For those processes which generate chemical waste, it may be possible to find alternatives which generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste.</li> <li>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Waste as follows:               <ul style="list-style-type: none"> <li>Containers used for the storage of chemical wastes should:                   <ul style="list-style-type: none"> <li>Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.</li> <li>Have a capacity of less than 450 litres unless the specifications have been approved by the EPD.</li> <li>Display a label in English and Chinese in accordance with instructions prescribed in Schedule 1 of the Regulations</li> </ul> </li> <li>The storage area for chemical wastes should:                   <ul style="list-style-type: none"> <li>Be clearly labelled and used solely for the storage of chemical waste.</li> <li>Be enclosed on at least 3 sides.</li> <li>Have an impermeable floor and bounding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area whichever is the greatest.</li> <li>Have adequate ventilation</li> </ul> </li> </ul> </li> </ul>	✓				



Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

<ul style="list-style-type: none"> <li>▪ Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary)</li> <li>▪ Be arranged so that incompatible materials are adequately separated</li> </ul>	✓				
<ul style="list-style-type: none"> <li>▪ Disposal of chemical waste should               <ul style="list-style-type: none"> <li>▪ Be via a licensed waste collector</li> <li>▪ Be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers</li> <li>▪ To be re-user of the waste, under approval from the EPD</li> </ul> </li> </ul>	✓			✓	
<b>General Refuse</b>					
<ul style="list-style-type: none"> <li>▪ General refuse should be stored in enclosed bins or compaction units separate from C&amp;D and chemical waste.</li> <li>▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical waste, on a regular basis to minimise odour, pest and litter impacts.</li> <li>▪ Burning of refuse on construction sites is prohibited by law.</li> </ul>	✓				
<b>Landscape and Visual</b>					
<b>Preservation of Existing Vegetation</b>					
<ul style="list-style-type: none"> <li>• Trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs should be retained.</li> <li>• 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 should be prohibited.</li> <li>▪ Phase segmental root pruning for trees should be retained and transplanted over a suitable period (determined by species and size) 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.</li> <li>▪ Pruning of the branches of existing trees identified for transplantation and retention should be based on the principle of crown thinning maintaining their form and amenity value.</li> <li>▪ Existing vegetation should be watered particularly during periods of excavation when the water table beneath the existing vegetation is lowered.</li> <li>▪ The damaged vegetation should be rectified and repaired following the construction phase to its original condition 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.</li> <li>▪ All works affecting the trees identified for retention and transplantation should be monitored carefully. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring through out the construction period.</li> </ul>	✓				✓
<b>Preservation of Existing Topsoil</b>					
<ul style="list-style-type: none"> <li>• 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-used.</li> <li>• The soil should 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</li> <li>▪ The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion.</li> </ul>					✓
<b>Permanent and Temporary Works Areas</b>					
<ul style="list-style-type: none"> <li>• Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.</li> <li>• 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.</li> </ul>					✓

Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and  
New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

<b>Mitigation Planting</b>					
•	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase.			✓	
•	Use of native plant species predominantly in the planting design for the buffer areas.			✓	
<b>Good Site Practices</b>					
•	The Environmental Permit should be displaced conspicuously on site.	✓			
•	Construction noise permits should be posted at site entrance or available for site inspection.			✓	
▪	Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	✓			
▪	Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	✓			
▪	Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	✓			





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New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)

## Photos



Photo 140528\_001 – Water pump was provided for draining down the stagnant water near the middle section of New Road site.



Photo 140521\_008 – A drip tray was provided for the oil drum in Pak Fu Shan site.



## **Appendix F**

### **Implementation Schedule of Mitigation Measures**

## Environmental Mitigation Implementation Schedule

	Location	Implementation Status				
		Implemented	Not implemented	Not Observed	Not Applicable	
<b>Environmental Protection Measures</b>						
<b>Air Quality</b>						
<ul style="list-style-type: none"> <li>▪ Any 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.</li> <li>▪ 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.</li> <li>▪ Dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.</li> <li>▪ Where a site boundary adjoins a road, streets or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length except for a site entrance or exit.</li> <li>▪ The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.</li> <li>▪ The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials.</li> <li>▪ All dusty materials should be sprayed with water prior to any loading, unloading or transfer.</li> <li>▪ Vehicle speed should be limited to 10 kph except on completed access roads.</li> <li>▪ Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.</li> <li>▪ Vehicle and equipment should be switched off while not in use.</li> <li>▪ All plant and equipment should be well maintained e.g. without black smoke emission.</li> <li>▪ Open burning should be prohibited.</li> </ul>						
<b>Noise Impact</b>						
<ul style="list-style-type: none"> <li>▪ The Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD shall be adopted.</li> <li>▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.</li> <li>▪ The constructions works should be scheduled to minimize noise nuisance. Concurrent noisy works should be carried out at different time slots or spread around the construction sites in order to help to reduce the cumulative noise effect produced in the construction process.</li> <li>▪ Noisy equipment and noisy activities shall be located as far away from NSRs as is practical.</li> <li>▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> <li>▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.</li> <li>▪ Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> <li>▪ Mobile or movable noise barriers should be erected near to the construction plants to reduce the noise levels from stationary items of Powered mechanical equipment (PME) whenever practicable.</li> <li>▪ PME should be covered or shielded by appropriate acoustic materials.</li> <li>▪ Air compressors and hand held breakers should have noise labels.</li> <li>▪ Compressors and generators should operate with door closed.</li> </ul>						







Environmental Protection Measures	Location	Implementation Status			
		Implemented	Not implemented	Not Observed	Not Applicable
<b>Waste Management</b>					
<b>Chemical Waste</b>					
<ul style="list-style-type: none"> <li>▪ The storage area for chemical wastes should:               <ul style="list-style-type: none"> <li>▪ Be clearly labelled and used solely for the storage of chemical waste.</li> <li>▪ Be enclosed on at least 3 sides.</li> <li>▪ Have an impermeable floor and bounding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area whichever is the greatest.</li> <li>▪ Have adequate ventilation</li> <li>▪ Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary)</li> <li>▪ Be arranged so that incompatible materials are adequately separated</li> </ul> </li> <li>▪ Disposal of chemical waste should               <ul style="list-style-type: none"> <li>▪ Be via a licensed waste collector</li> <li>▪ Be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers</li> <li>▪ To be re-user of the waste, under approval from the EPD</li> </ul> </li> </ul>	All areas All areas All areas All areas All areas All areas	✓ ✓ ✓ ✓ ✓ ✓			
<b>General Refuse</b>					
<ul style="list-style-type: none"> <li>▪ General refuse should be stored in enclosed bins or compaction units separate from C&amp;D and chemical waste.</li> <li>▪ A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&amp;D and chemical waste, on a regular basis to minimise odour, pest and litter impacts.</li> <li>▪ Burning of refuse on construction sites is prohibited by law.</li> </ul>	All areas All areas All areas	✓ ✓ ✓			✓
<b>Landscaping and Visual</b>					
<b>Preservation of Existing Vegetation</b>					
<ul style="list-style-type: none"> <li>▪ Trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs should be retained.</li> <li>▪ 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 should be prohibited.</li> <li>▪ Phase segmental roof pruning for trees should be retained and transplanted over a suitable period (determined by species and size) 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.</li> <li>▪ Pruning of the branches of existing trees identified for transplanted and retention should be based on the principle of crown thinning maintaining their form and amenity value.</li> <li>▪ Existing vegetation should be watered particularly during periods of excavation when the water table beneath the existing vegetation is lowered.</li> <li>▪ The damaged vegetation should be rectified and repaired following the construction phase to its original condition 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.</li> <li>▪ All works affecting the trees identified for retention and transplanted should be monitored carefully. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring through out the construction period.</li> </ul>	All areas All areas All areas All areas All areas All areas All areas	✓ ✓ ✓ ✓ ✓ ✓ ✓			✓ ✓ ✓ ✓

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Not implemented	Not Observed	Not Applicable
<b>Landscape and Visual</b>					
<b>Preservation of Existing Topsoil</b>					
<ul style="list-style-type: none"> <li>▪ 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-used.</li> <li>▪ The soil should 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</li> <li>▪ The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion.</li> </ul>	All areas				✓
	All areas				✓
	All areas				✓
<b>Permanent and Temporary Works Areas</b>					
<ul style="list-style-type: none"> <li>▪ Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.</li> <li>▪ 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.</li> </ul>	All areas				✓
	All areas				✓
<b>Mitigation Planting</b>					
<ul style="list-style-type: none"> <li>▪ Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase.</li> <li>▪ Use of native plant species predominantly in the planting design for the buffer areas.</li> </ul>	All areas				✓
	All areas				✓
<b>Good Site Practices</b>					
<ul style="list-style-type: none"> <li>▪ The Environmental Permit should be displaced conspicuously on site.</li> <li>▪ Construction noise permits should be posted at site entrance or available for site inspection.</li> <li>▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> <li>▪ Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> <li>▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	All areas	✓			
	All areas				
	All areas		✓		
	All areas	✓			
	All areas	✓			

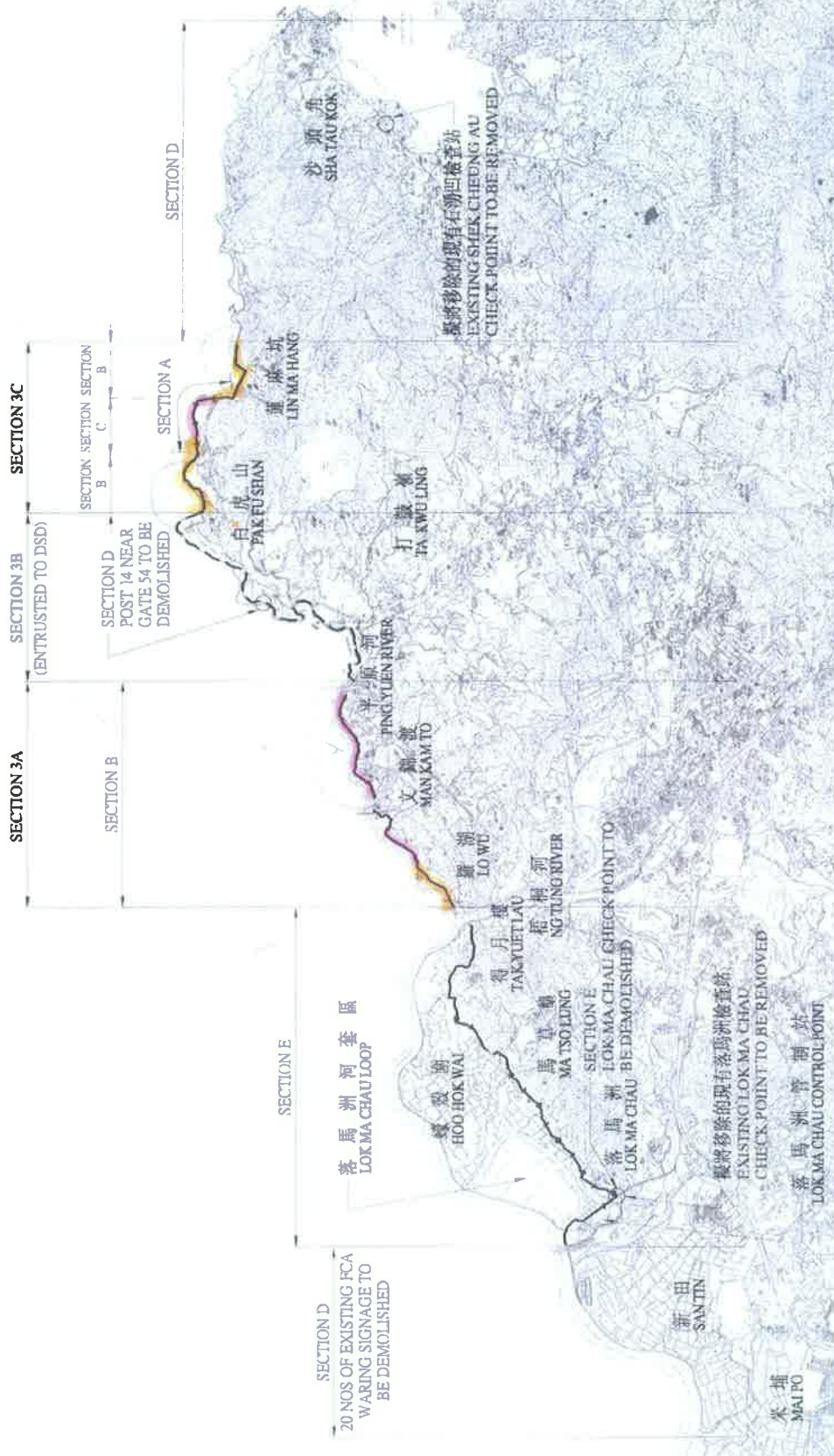


## **Appendix G**

### **Site General Layout plan**

**SCOPE OF WORKS:**

- SECTION A : PREPARATORY WORKS TO THE NEW BOUNDARY PARTIAL ROAD INCLUDES ARCHAEOLOGICAL SURVEY AND SOFT LANDSCAPE WORKS
- SECTION B : CONSTRUCTION OF THE BOUNDARY FENCES FROM NG TUNG RIVER TO PING YUEN RIVER AND FROM PAK FU SHAN TO LIN MA HANG, OTHER THAN THAT ALONG THE NEW BOUNDARY PATROL ROAD, INCLUDING ASSOCIATED DEMOLISHED WORKS AS DESCRIBED UNDER THE CONTRACT TO FACILITIES THE CONSTRUCTION OF NEW BOUNDARY FENCES.
- SECTION C : CONSTRUCTION OF BOUNDARY FENCES, ROADWORK AND LANDSCAPING WORK ALONG NEW BOUNDARY PATROL ROAD INCLUDING ASSOCIATED DEMOLITION WORKS AS DESCRIBED UNDER THE CONTRACT TO FACILITIES THE CONSTRUCTION OF NEW BOUNDARY FENCES
- SECTION D : DEMOLITION WORKS AT SHEK CHUNG AU, NEAR GATE 54 AND WARNING SIGNS AT MAI PO TO LOK MA CHAU CONTROL SECTION
- SECTION E : DEMOLITION WORKS FROM LOK MA CHAU CONTROL POINT TO NG TUNG RIVER SECTION



**LEGEND:**

- PROPOSED NEW SECTIONS OF PRIMARY BOUNDARY FENCE AND BOUNDARY PATROL ROAD
- EXISTING BOUNDARY FENCE ALONG EXISTING BOUNDARY PATROL ROAD
- PROPOSED NEW SECTIONS OF BOUNDARY PATROL ROAD WITH PRIMARY AND SECONDARY BOUNDARY FENCES
- EXISTING BOUNDARY PATROL ROAD TO BE DEMOLISHED
- PROPOSED RELAYMENT OF BOUNDARY PATROL ROAD AND PRIMARY BOUNDARY FENCE AND BOUNDARY PATROL ROAD WITH PRIMARY AND SECONDARY BOUNDARY FENCE ENLIGHTENED TO BOUNDARY PATROL ROAD FOR THEIR CONSTRUCTION UNDER ANOTHER PROJECT NAMELY REGULATION OF SHEKZHEN RIVER STAGE 4 - INCLINARY ROAD WORKS

No.	Date	Description	Initial
0	07/12	SSA FOR 1/1000	Final

Contracted Project No. 2.15.127

**Mott MacDonald**

227, The Landmark, 22/F, 100, Nathan Road, Kowloon, Hong Kong  
 Tel: +852 2138 8888  
 Fax: +852 2138 8889  
 www.mottmac.com

Name	Signed	Date
Designed	DC	09-08-11
Drawn	LYK	09-08-11
Checked	LW	09-08-11
Approved	TT	09-08-11

Contract No.	SS Y307
File No.	ASD/201/7906
Project No.	12BB
Consultants Agreement No.	95N005
Contract	

CONSTRUCTION OF A SECONDARY BOUNDARY FENCE AND NEW SECTIONS OF PRIMARY BOUNDARY FENCE AND BOUNDARY PATROL ROAD (PHASE 2)

Drawn By: *TT*  
**GENERAL LAYOUT PLAN**

Drawing No.	FIGURE 1	Scale	N.T.S.
		Date	01/12

The Architect of the Contract

**ARCHITECTURAL SERVICES DEPARTMENT**

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## Appendix H

### Monthly Summary Waste Flow Table

Monthly Summary Waste Flow Table for 2014 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated (in '000m <sup>3</sup> )	Hard Rocks and Large Broken Concrete (in '000m <sup>3</sup> )	Reused in the Contract (in '000m <sup>3</sup> )	Reused in other Projects (in '000m <sup>3</sup> )	Disposed as Public Fill (in '000m <sup>3</sup> )	Imported Fill (in '000m <sup>3</sup> )	Metals (in '000 kg)	Paper/ cardboard packaging (in '000kg)	Plastics (see Note 3) (in '000kg)	Chemical Waste (in '000kg)	Others, e.g general refuse (in '000m <sup>3</sup> )	
Jan	0	0	0	0	0	0	0	0.01	0	0	0	
Feb	0	0	0	0	0	0.052	0	0.02	0	0	0	
Mar	0	0	0	0	0	0.884	0	0	0	0.1	0	
Apr	0	0	0	0	0	0.906	0	0	0	0	0	
May	0	0	0	0	0	0	0	0	0	0	0	
June												
<b>Sub-total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.842</b>	<b>0</b>	<b>0.03</b>	<b>0</b>	<b>0.1</b>	<b>0</b>	
July												
Aug												
Sept												
Oct												
Nov												
Dec												
<b>Total</b>												

Notes: The performance targets are given in PS Clause 6(14).

The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site. Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.



## Appendix I

### Monitoring Schedule for this Reporting Month and the Coming Month

**Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)**

**Schedule for Noise Monitoring (NM) and Weekly Site Inspection (Weekly SI)**

**May 2014**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7 NM Weekly SI	8	9	10
11	12	13	14 NM Weekly SI	15	16	17
18	19	20	21 NM Weekly SI	22	23	24
25	26	27	28 NM Weekly SI	29	30	31





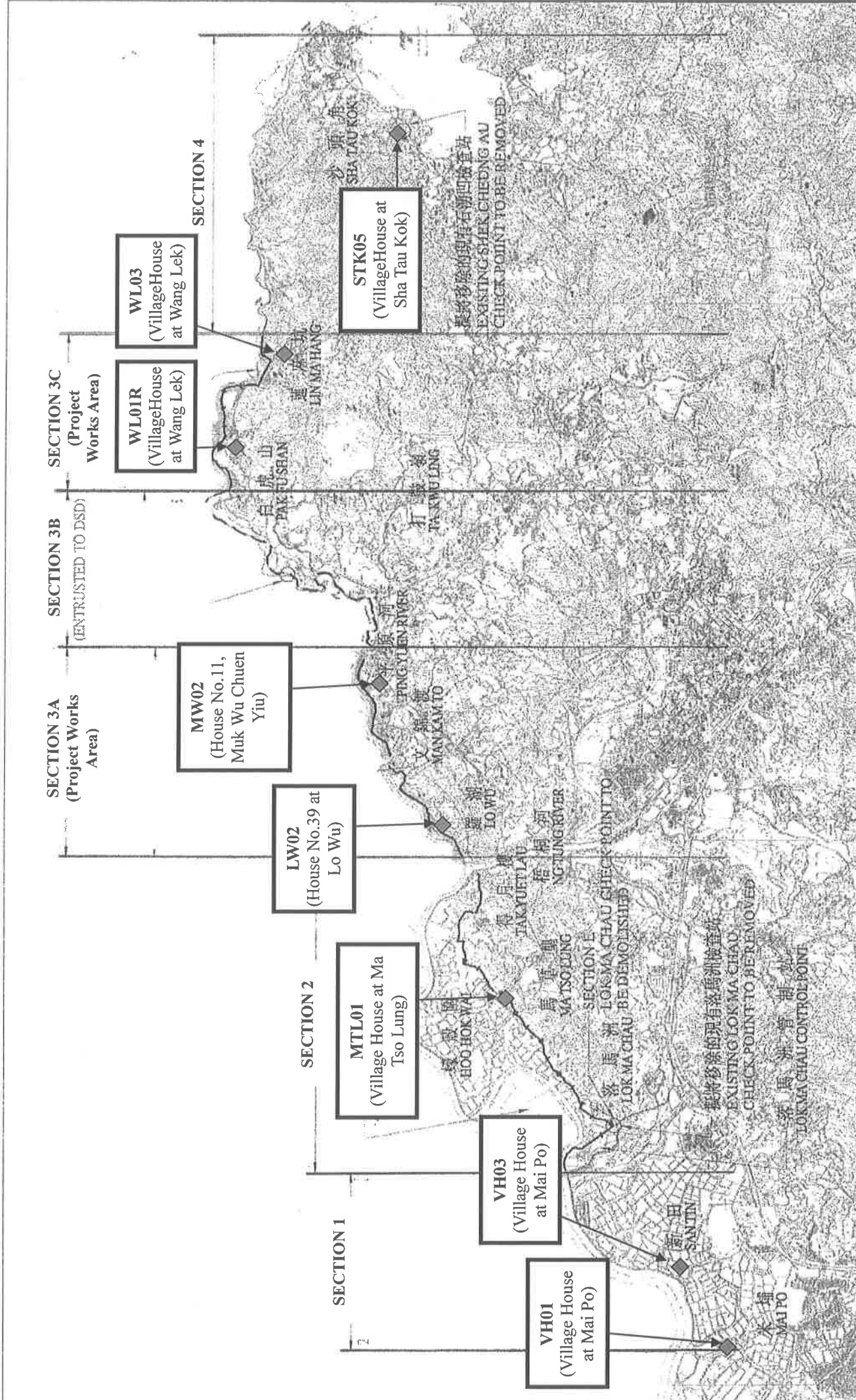
**Contract No.: SS Y307 - Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)**

**Schedule for Noise Monitoring (NM) and Weekly Site Inspection (Weekly SI)**

**June 2014**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4 NM Weekly SI	5	6	7
8	9	10	11 NM Weekly SI	12	13	14
15	16	17	18 NM Weekly SI	19	20	21
22	23	24	25 NM Weekly SI	26	27	28
29	30					

**Figure**



**Title: Locations of Noise Monitoring Stations**

**ETS-Testconsult Ltd**

**Project: Contract No. SS Y307 – Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road (Phase 2)**

**Figure 1**