Issue No. : Issue Date :

June 2011

Project No. :

944

CONSTRUCTION OF A SECONDARY BOUNDARY FENCE AND NEW SECTION OF PRIMARY **BOUNDARY FENCE AND BOUNDARY PATROL ROAD** (SECTION 2 LOK MA CHAU CONTROL POINT TO NG TUNG RIVER)

**ENVIRONMENTAL MONITORING &** AUDIT REPORT (MAY 2011)

Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

COMMERCIAL-IN-CONFIDENCE







### ENVIRON

Ref.: ASDBFBPREM00 0 0269L.11

9 June 2011

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-02/347/2009/A
Contract No. SSW306 - Section 2
Construction of a Secondary Boundary Fence and New Section of Primary
Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control
Point to Ng Tung River
Monthly EM&A Report for May 2011

Reference is made to the Environmental Team's submission of the draft Monthly EM&A Report for May 2011 (Issue No. 1) by E-mail on 8 June 2011.

We are pleased to inform you that we have no further comments on the captioned report. We write to verify that the captioned submission in accordance with Condition 4.5 of EP-347/2009/A and FEP-02/347/2009/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. M. K. Fok (CPM203) / Mr. Carl Lam (SPM225) Fax: 2810 5372 MMHK(site) Attn: Mr. Peter Tsang Fax: 2683 1195 AEC (ETL) Attn: Ms. Grace Kwok Fax: 2815 5399 Able Attn: Mr. Gavin Lee Fax: 2796 0519

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**ENVIRONMENTAL MONITORING & AUDIT REPORT (MAY 2011)** 

Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

**COMMERCIAL-IN-CONFIDENCE** 

Certified by:

Grace M. H. Kwok Environmental Team Jeader

Issue No. : 1

Issue Date : June 2011

Project No. : 944

CONSTRUCTION OF A SECONDARY
BOUNDARY FENCE AND NEW
SECTION OF PRIMARY BOUNDARY
FENCE AND BOUNDARY PATROL
ROAD (SECTION 2 LOK MA CHAU
CONTROL POINT TO NG TUNG
RIVER)

ENVIRONMENTAL MONITORING & AUDIT REPORT (MAY 2011)

Prepared By:

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Author:

Nic. H. H. Lam Bśc(Hons) AMHKIOA

Checked:

Timothy W. H. Sze BEng(Hons) MEng Approved:

Grace M. H. Kwok Beng(Hons) MHKIE A MHKIOA MISWA MIALA MRAPA LEED AP

This report has been prepared by Allied Environmental Consultants Limited with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

Environmental Monitoring & Audit Report (May 2011)

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Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River)

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#### EXECUTIVE SUMMARY

Architectural Services Department (ArchSD) has awarded the contract for the Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road - Section 2 Lok Ma Chau Control Point to Ng Tung River. (hereafter referred to as the "Project") to Able Engineering Co. Ltd. ("the Contractor"). The contractor has appointed Allied Environmental Consultants Limited (AEC) as the Environmental Team (ET) to undertake Environmental Monitoring and Audit (EM&A) programme in accordance with the EM&A Manual, the Environmental Permit (EP-347/2009/A) and Further Environmental Permit (FEP-02/347/2009/A) for the Project. The site preparation works and EM&A programme commenced on 25<sup>th</sup> March 2010 and the construction works were commenced on 12<sup>th</sup> April 2010. This report is the fifteen monthly EM&A report, which details the EM&A results recorded during the period from 1<sup>st</sup> May 2011 to 31<sup>st</sup> May 2011.

According to the EM&A Manual, there are total 10 designated noise monitoring locations for the entire Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Road project, where only MTL01 is within 300m from the construction area for Section 2 (Lok Ma Chau Control Point to Ng Tung River), thus only MTL01 is covered in this EM&A report for Section 2. Impact noise monitoring for the Project was carried out on 4<sup>th</sup>, 13<sup>th</sup>, 19<sup>th</sup>, 26<sup>th</sup> and 31<sup>st</sup> May 2011. Noise monitoring was conducted within the period of 0700-1900, non-restricted hours.

Noise monitoring results at the monitoring location MTL01, based on the monitoring results, the noise levels comply with the environmental requirements in EM&A Manual. There were no exceedances of the action and limit levels during the reporting month.

Four environmental site inspections were conducted by the Contractor and the ET on 2<sup>nd</sup>, 9<sup>th</sup>, 16<sup>th</sup>, 23<sup>rd</sup> and 30<sup>th</sup> May 2011. Major findings and deficiency were summarized at *Table 8* of this report. No non-compliance was observed in the reporting month.

There were no environmental complaints received in the reporting month.

No notification of summons or prosecution was received in the reporting month.

A total nos. of 26m<sup>3</sup> of general refuse was disposed to NENT Landfill and no inert C&D waste was disposed in this reporting period.

Construction activities to be undertaken in June 2011 will include backfilling and compaction to proposed boundary patrol road, concreting to back slope of new wave wall and SBF / PBF footing including base and wall, U/G ducting works and mass concreting to footing of existing wave wall. Potential environmental impacts include noise from loading, unloading and handling of materials and storage of various C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor was reminded to maintain good housekeeping at the site.

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#### 1. PROJECT BACKGROUND

The Frontier Closed Area (FCA) is an integral part of the package of measures for maintaining the integrity of the Hong Kong SAR's boundary with the Mainland and for combating illegal immigration and other cross-boundary criminal activities. Following a recent review, the Government has concluded that with the erection of a secondary boundary fence (SBF) along the boundary patrol road (BPR) and construction of new sections of the BPR and primary boundary fence (PBF) at certain sections along the boundary, the FCA coverage can be substantially reduced without affecting the objective of maintaining the integrity of the boundary. The PBF and SBF will be erected along the northern and southern curbs of the realigned BPR respectively to facilitate the Police in combating cross-boundary criminal activities. The reduced FCA will comprise a narrow strip of land covering the realigned BPR and areas to its north, together with the points of crossing the boundary (i.e. the Boundary Control Points and Sha Tau Kok town). Areas south of the SBF will generally be excised from the FCA. The site location plan is shown in *Figure 1*.

The proposed Secondary Boundary Fence is categorized as a Designated Project (DP) under the Environmental Impact Assessment Ordinance (EIAO) and therefore a detailed Environmental Impact Assessment (EIA- 161/2008) was conducted in year 2009.

An Environmental Permit (EP-347/2009) and a Variation of Environmental Permit (EP-347/2009/A) for the construction of whole project was issued by Environmental Protection Department in June 2009 and June 2010 respectively. A Further Environmental Permit (FEP-02/347/2009) and a Variation of Further Environmental Permit (FEP-02/347/2009/A) for the construction of the subject project was issued in February 2010 and July 2010 respectively.

Architectural Services Department (ArchSD) as the works agent has awarded the construction contract of the Project to Able Engineering Co. Ltd. ("the Contractor"). The Contractor has appointed Allied Environmental Consultants Limited (AEC) as the Environmental Team (ET) to undertake Environmental Monitoring and Audit (EM&A) programme in accordance with the EM&A Manual under the approved EIA report, which details the EM&A requirements for the construction of the Project, the EP-347/2009/A and FEP-02/347/2009/A.

The Construction Programme of the Project is shown in *Appendix A*. The site preparation works and EM&A programme commenced on 25<sup>th</sup> March 2010 and the construction works commenced on 12<sup>th</sup> April 2010. This report is the fifteen monthly EM&A report, which details the EM&A results recorded during the period from 1<sup>st</sup> May 2011 to 31<sup>st</sup> May 2011.

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#### 1.1 Project Organization and Contact Personnel

Key personnel and contact particulars are summarized in *Table 1*.

Role	Department /	Names	Contact	Fax Number
	Company		Number	
Engineer	Mott McDonald Hong	Mr. FY Wong	2828 5740	2827 1823
Representative	Kong Limited			
		Mr. Peter Tsang	2828 5921	2827 1823
Main Contractor	Able Engineering Co.,	Mr. Gavin Lee	9282 8158	2676 7966
	Limited			
Environmental	Allied Environmental	Ms. Grace Kwok	2815 7028	2815 5399
Team Leader	Consultants Limited			
Independent	ENVIRON Hong Kong	Mr. David Yeung	3743 0788	3548 6988
Environmental	Limited			
Checker				

Table 1 Contact Details of Key Personnel

The organizational structure and lines of communication during the construction work with respect to environmental management is given in Appendix B.

#### 2. CONSTRUCTION WORKS & PROGRAMME

Construction activities undertaken works during the reporting period including the following works items:

- Concreting to SBF and PBF footing including base and wall;
- Backfilling and compaction to proposed boundary patrol road;
- U/G ducting work,
- Mass concreting to footing of existing wave wall; and
- Concreting to back slope of new wave wall.

The interrelationship between construction activities and environmental mitigation measures in the reporting month are shown in *Table 2*.

<b>Construction Works</b>	Major Environmental Impact	Mitigation Measures
Concreting to SBF and	Wastewater, air quality, noise	Proper treatment should be made
PBF footing including	quality impacts and waste	prior to discharge of wastewater.
base and wall.	management.	Water spraying provided when
		necessary. Well-maintained or
		quiet plants were used. Quantities
		and record of waste transfer should
		be well-maintained.
Backfilling to proposed	Air quality, noise quality impacts	Provide water spraying and
boundary patrol road.	and waste management.	imperious sheet to handling of
		debris material. Well-maintained
		and quiet plants were used. Trip
		record should maintain properly.
U/G ducting work.	Waste management.	Quantities and record of chemical
		waste transferred to licensed
		collector should be well-
3.6	***	maintained.
Mass concreting to	Wastewater, air quality, noise	Proper treatment should be made
footing of existing	quality impacts and waste	prior to discharge of wastewater.
Wave wall.	management.	Water spraying provided when
		necessary. Well-maintained or
		quiet plants were used. Quantities and record of waste transfer should
		be well-maintained.
Concreting to back	Wastewater, air quality, noise	Proper treatment should be made
slope of new wave	quality impacts and waste	prior to discharge of wastewater.
wall.	management.	Water spraying provided when
waii.	managoment.	necessary. Well-maintained or
		quiet plants were used. Quantities
		and record of waste transfer should
		be well-maintained.

Table 2 Interrelationship between Construction Activities and Mitigation Measures

### 3. SUMMARY OF EM&A REQUIREMENT

Weekly site inspection is required for air quality, noise quality, water quality, waste management, ecology, cultural heritage and landscape and visual. The inspection is to ensure mitigation measures recommended in EIA and EM&A manual implemented during construction phase. Mitigation measures implementation schedule and their status are given in *Appendix F* 

For regular impact noise monitoring, the sampling frequency of at least once a week for a  $L_{eq(30mins)}$ . The Action and Limit Levels for Impact noise are summarized in *Table 3*.

Time Period	Action Level	Limit Level
Daytime (0700-1900) except general holidays and Sunday	When one documented complaint is received.	75 dB(A)
Measurements in Leq (30min)	_	

Table 3 Action and Limit Level for Noise Impact Monitoring

Should non-compliance of the above Action and Limit levels occurs, actions in accordance with the Event and Action Plan in *Table 4*.

Event	Action							
	ET	Leader	IEC	1	ER		Cor	itractor
Action	1.	Notify IEC and	1.	Review with	1.	Confirm receipt	1.	Submit noise
Level		the Contractor.		analyzed results		of notification		mitigation
	2.	Carry out		submitted by ET		of exceedance in		proposals to
		investigation.	2.	Review the		writing,		IEC.
	3.	Report the		proposed	2.	Notify the	2.	Implement noise
		results of		remedial		Contractor.		mitigation
		investigation to		measures by the	3.	Require the		proposals.
		IEC and the		Contractor and		Contractor to		
		Contractor.		advise ER		propose		
	4.	Discuss with the		accordingly.		remedial		
		Contractor and	3.	Supervise the		measures for the		
		formulate		implement of		analyzed noise		
		remedial		remedial		problem.		
		measures.		measures.	4.	Ensure remedial		
	5.	Increase				measures are		
		monitoring				properly		
		frequency to				implemented.		
		check mitigation						
		measures.						
Limit	1.	Identify the	1.	Discuss amongst	1.	Confirm receipt	1.	Take immediate
Level		source.		ER, ET Leader		of notification		action to avoid
	2.	Notify IEC, ER,		and the		of exceedance in		further
		EPD and the		Contractor on		writing.		exceedance.
		Contractor.		the potential	2.	Notify the	2.	Submit
	3.	Repeat		remedial		Contractor.		proposals for
		measurement to		actions.	3.	Require the		remedial actions
		confirm	2.	Review the		Contractor to		to IEC within 3

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Event	Action			
	ET Leader	IEC	ER	Contractor
	findings.  4. Increase monitoring frequency.  5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented.  6. Inform IEC, ER and EPD to causes & actions taken for the exceedances.  7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER informed of the results.  8. If exceedance stops, cease additional monitoring.	Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly.  3. Supervise the implementation of remedial measures.	propose remedial measures for the analyzed noise problem.  4. Ensure remedial measures are properly implemented.  5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abate.	working days of notification.  3. Implement the agreed proposals.  4. Resubmit proposals if problem still not under control.  5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

Table 4 Event and Action Plan

#### 4. NOISE MONITORING METHODOLOGY

#### 4.1 Noise Monitoring Procedure

Noise monitoring was conducted at the designated noise monitoring location between 0700-1900 hours using a sound level meter which complies with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). Noise instrumentation details are given in *Table 5*.

Manufacturer	Type/Model No.	Equipment
RION	Model NL 31	Precision Sound Level
		Analyser with windshield
RION	Model NC 73	Calibrator

Table 5 Noise Monitoring Equipment

Noise levels measurements were recorded in terms of thirty minutes A-weighted equivalent continuous sound pressure level (Leq( $30_{mins}$ )) on a weekly basis. The sound level meter was calibrated immediately prior to and following each noise measurement. The meter was mounted on a tripod at a height of 1.2m and the microphone was positioned at 1m away the building façade of the noise monitoring station facing the construction site. The sound level meters, including the calibrators, are verified by the manufacturer every one year to ensure they perform to the same level of accuracy as stated in the manufacturer's specifications. The calibration certificates for the sound level meter and calibrator are given in *Appendix C*.

Noise measurements were not made in the presence of fog, rain, and wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed was checked with a portable anemometer capable of measuring the wind speed in m/s.

#### **4.2** Noise Monitoring Programme

Noise monitoring was conducted at designated noise monitoring locations during construction phase: a village house at Village House at Ma Tso Lung (MTL01) as shown in *Figure 2* on 4<sup>th</sup>, 13<sup>th</sup>, 19<sup>th</sup>, 26<sup>th</sup> and 31<sup>st</sup> May 2011. Details of the noise monitoring stations are shown in *Table 6*. *Appendix D* shows detailed schedule of the monitoring programme in the reporting month and upcoming month.

ID	Monitoring Location	Description of Monitoring Location
MTL01	Village House at Ma Tso	G/F boundary wall of Village House at Ma Tso
WIILUI	Lung	Lung

Table 6 Descriptions of Noise Monitoring Locations

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Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River)

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#### 5. RESULTS

Noise monitoring results and weather conditions during the monitoring period is summarized in Table 7. Detailed results and graphical plots of noise monitoring are given in Appendices E. There were no exceedances of the action and limit levels during the reporting month.

Location	Date	Weather Condition	Wind Speed (m/s)	Time	L <sub>eq</sub> (30mins)	L <sub>10</sub> (30mins)	L <sub>90</sub> (30mins)	Remarks
	04 May 11	Fine	0.3	09:10 – 09:40	49.0	52.0	40.7	Noise from excavation works by adjacent DSD site and birdcall
	13 May 11	Cloudy	0.5	09:00 - 09:30	48.7	51.1	41.7	Noise from excavation works by adjacent DSD site and birdcall
MTL01	19 May 11	Sunny	0.3	16:35 – 17:05	47.8	50.9	41.5	Noise from excavation works by adjacent DSD site and traffic noise from Ma Tso Lung Road
	26 May 11	Sunny	0.3	15:10 – 15:40	46.4	48.4	41.0	Noise from excavation works by adjacent DSD site and birdcall
	31 May 11	Fine	0.3	16:02 – 16:32	49.4	51.6	41.1	Noise from excavation works by adjacent DSD site and traffic noise from Ma Tso Lung Road

Table 7 Noise Monitoring Results

#### 6. SITE INSPECTION & AUDIT

A total of five site inspections were conducted by the Environmental Team (ET) in this reporting month. Observations by the ET, actions by the Contractor and outcome are summarized in the *Table 8*.

Date	Observations	Action taken by Contractor	Outcome
02 May 11	No major environmental deficiency.	-	-
09 May 11	No major environmental deficiency.	-	-
16 May 11	No major environmental deficiency.	-	-
23 May 11	No major environmental deficiency.	-	-
30 May 11	Water in the wheel-washing bay at entrance gate 98 is muddy.	Adequate settling of mud was provided and sand / silt is removed from the wheel-washing bay and sedimentation tank.	rectified on

Table 8 Summary of Site Inspections

During site inspections in the reporting month, no non-conformance of implementation of environmental mitigation measures was identified. All environmental mitigation measures for construction stages as stated in approved EIA Report, EM&A Manual and EP-347/2009/A were carried out properly in the reporting month. The mitigation measures implementation schedule is shown in *Appendix F*.

# 7. NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

In this reporting period, no complaint, notification of summons or prosecution was received. No non-compliance for general works and no non-compliance against EP condition were recorded. The complaint log is appended in *Appendix G*.

#### 8. WASTE MANAGEMENT

There are no inert C&D waste was disposed to Tuen Mun Area 38 Fill Bank,  $0m^3$  of metal wastes,  $0m^3$  of paper and cardboard packing and  $26m^3$  of general refuse were disposed to North East New Territories Landfill. There are a total of  $0m^3$  of chemical waste was transported off site

Issue 1 AEC

to Chemical Waste Treatment Centre at Tsing Yi in this reporting period. The monthly Waste Flow Table is given in *Appendix H*.

Good site practice shall be maintained and specific procedures in dealing with different kind of wastes shall be followed during construction. The Contractor shall maintain and record all triptickets as stipulated in the Waste Management Plan (WMP) and project EM&A Manual and make a thorough reference from the relevant Legislations and guidelines by the EPD.

#### 9. STATUS OF LICENSE AND PERMIT

A summary of relevant permits, licences, and notifications on environmental protection for the Project is given in *Appendix I*.

#### 10. CONCLUSIONS AND FUTURE KEY ISSUES

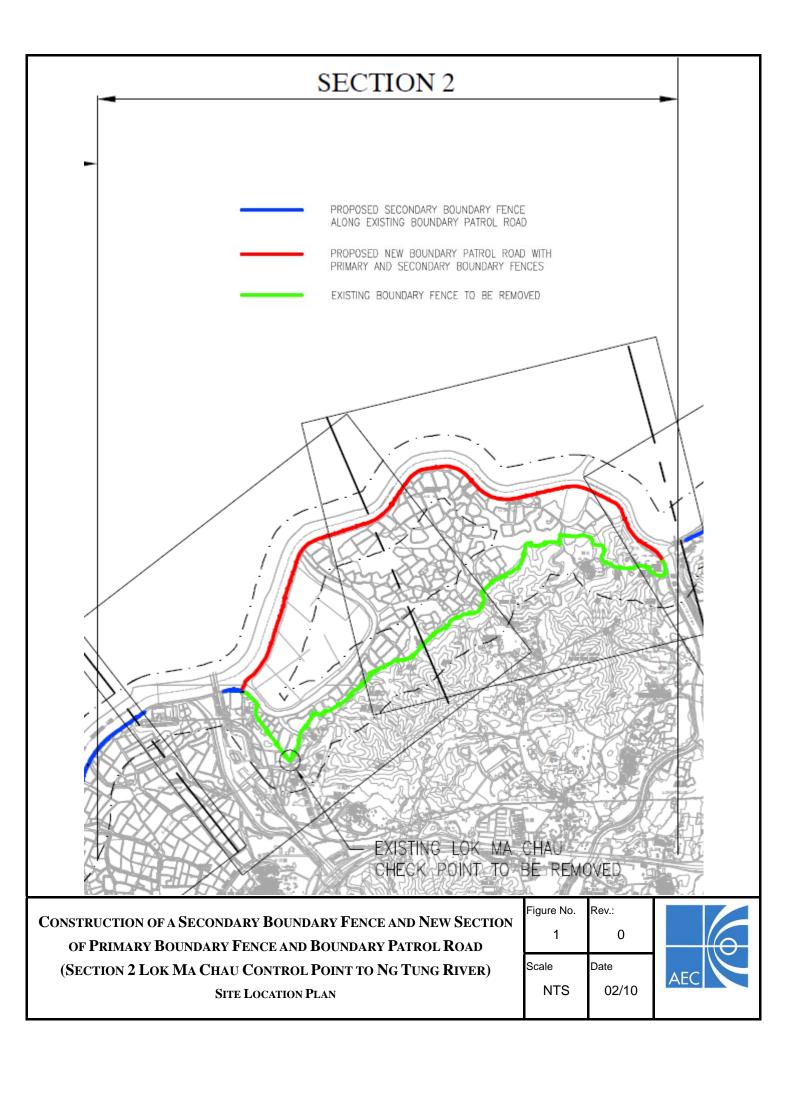
Environmental monitoring was carried out for the Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River) in the reporting month. Noise monitoring was conducted at a village house at Ma Tso Lung (MTL01) during the period from 1<sup>st</sup> May 2011 to 31<sup>st</sup> May 2011.

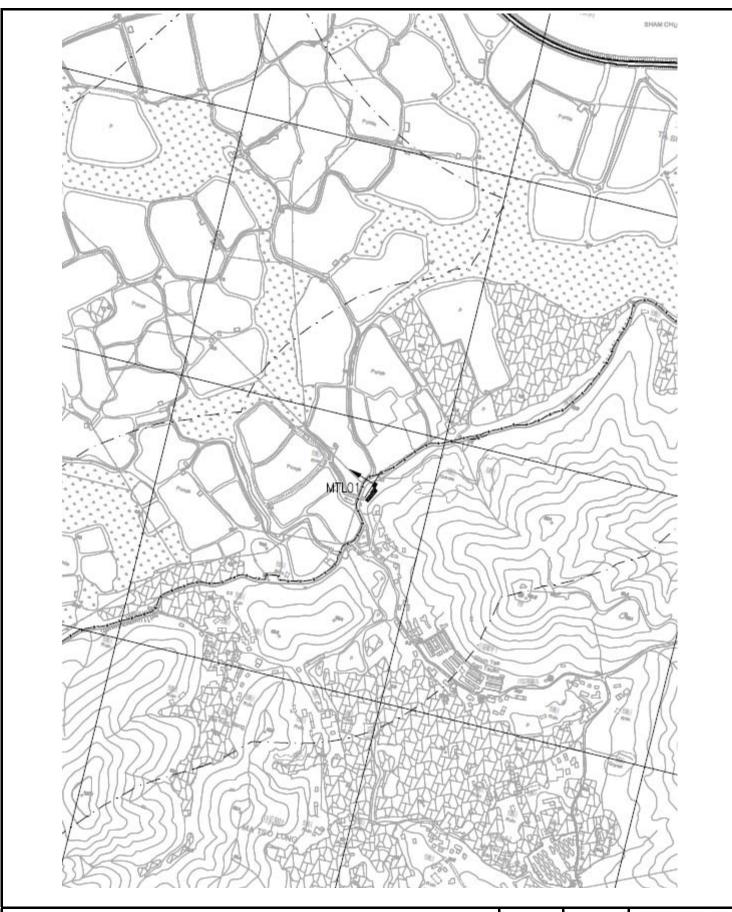
Noise monitoring was conducted at the monitoring location MTL01. All monitoring results complied with the relevant action and limit levels.

A total nos. of 26m<sup>3</sup> of general refuse was disposed to NENT Landfill. No inert C&D waste was disposed in this reporting period.

Construction activities to be undertaken in June 2011 will include backfilling and compaction to proposed boundary patrol road, concreting to back slope of new wave wall and SBF / PBF footing including base and wall, U/G ducting works and mass concreting to footing of existing wave wall. Potential environmental impacts include noise from loading, unloading and handling of materials and storage of various C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor was reminded to maintain good housekeeping at the site.

Issue 1 AEC





CONSTRUCTION OF A SECONDARY BOUNDARY FENCE AND NEW SECTION
OF PRIMARY BOUNDARY FENCE AND BOUNDARY PATROL ROAD
(SECTION 2 LOK MA CHAU CONTROL POINT TO NG TUNG RIVER)
LOCATION OF NOISE MONITORING STATION

Figure No. Rev.:
2 0

Scale Date

NTS 02/10







# ABLE ENGINEERING COMPANY LIMITED 安保工程有限公司

A member of Vantage International (Holdings) Limited 盈信控股有限公司附属機構

Our Ref.: 23909/01/S0464

23<sup>th</sup> December, 2010

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

Attn: Mr. James Kam

Dear Sirs.

Re: ASD Contract No. SS W306

Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to Ng Tung River

w/e

**Master Program Revision 2** 

We would like to submit herewith the captioned as per attached for your earlier comment and approval.

Thank you for your kind attention.

Yours faithfully For and on behalf of ABLE ENGINEERING CO., LTD.

Gavin Lee Site Agent GL/KMT/kmt

Encl.

c.c. SPM225, ArchSD (Attn: Mr. Carl Lam)

PM254, ArchSD (Attn: Mr. Sammy Yue) w/e

ER/COW- SCOW/KE, ArchSD (Attn: Mr. Y. Y. Chan) w/e

RE / PCOW Mottmac (Attn: Mr. Peter Tsang / Mr. Keith Hau) w/e

Site office w/e

**Able Engineering Company Limited** Master Programme Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road Date: 20-12-2010 from Lok Ma Chau Control Point to Ng Tung River (Contract No. : SSW306) 識別碼 任務名稱 工期 開始時間 2010年 2011年 2012年 11月 | 12月 | 1月 | 2月 | 3月 | 4月 | 5月 | 6月 | 7月 | 8月 | 9月 | 10月 | 11月 | 12月 | 1月 | 2月 | 3月 | 4月 | 5月 | 6月 | 7月 | 8月 | 9月 | 10月 | 11月 | 12月 | 1月 | 2月 | 3月 | 4月 | 5月 | 6月 | 7月 | 8月 | 9月 | Section A 953 days 2009/12/30 2012/8/8 2 Site Possession 0 days 2009/12/30 2009/12/30 3 Application entrance permit 14 days 2009/12/30 2010/1/12 4 Site Office Erection 9 days 2010/1/13 2010/1/21 5 Site Condition / Tree Survey 50 days 2010/1/17 2010/3/7 6 Preparation works 90 days 2010/2/2 2010/5/2 7 Mobilization for preparation works 2010/3/16 2010/3/29 14 days 8 Set up wheel wish equipment 2010/2/9 14 days 2010/2/22 9 Trial Mix design submission for concrete 2010/2/2 0 days 2010/2/2 10 Trial Mix inspection for concrete 60 days 2010/3/4 2010/5/2 11 TTA Submission 2010/3/25 2010/3/25 0 days 12 Submission to EPD 58 days 2010/1/13 2010/3/12 13 Registration as a chemical waste producer 0 days 2010/3/4 2010/3/4 4/3 14 Further EP application 0 days 2010/1/13 2010/1/13 § 13/1 Further EP approval 15 0 days 2010/2/19 2010/2/19 4 19/2 16 Landscape plan submission 0 days 2010/3/12 2010/3/12 12/3 17 Base line monitoring record submission 0 days 2010/3/10 2010/3/10 10/3 18 Tree transplanting 849 days 2010/3/20 2012/7/15 19 Tree Protection 2010/3/20 2010/4/9 21 days 20 70 days 2010/7/9 Pruning 2010/5/1 21 Transplanting 2010/7/10 2010/8/23 45 days 22 Planting 100 days 2011/12/1 2012/3/9 23 Hydroseeding 2012/6/1 2012/7/15 45 days 24 25 Zone 1 SBF CH3000 to CH 150 (Footing, 1st layer Backfilling ~600mm THK) 756 days 2010/5/3 2012/5/27 26 CH3000 -2920 46 days 2011/7/15 2011/8/29 27 CH2920-2840 46 days 2011/7/21 2011/9/4 28 CH2840-2760 46 days 2011/7/27 2011/9/10 29 CH2760-2680 46 days 2011/8/2 2011/9/16 30 CH2680-2600 46 days 2011/8/8 2011/9/22 31 CH2600-2520 46 days 2011/8/14 2011/9/28 32 CH2520-2440 46 days 2011/8/20 2011/10/4 33 46 days CH2440-2360 2011/8/26 2011/10/10 34 46 days CH2360-2280 2010/5/3 2010/6/17 35 CH2280-2200 46 days 2010/5/9 2010/6/23 36 CH2200-2120 2010/5/15 46 days 2010/6/29 37 CH2120-2040 2010/5/21 2010/7/5 46 days 38 CH2040-1960 46 days 2010/5/27 2010/7/11 39 CH1960-1880 46 days 2010/6/2 2010/7/17 40 CH1880-1800 46 days 2011/9/1 2011/10/16 CH1800-1720 41 46 days 2010/5/16 2010/6/30 42 CH1720-1640 2010/5/22 2010/7/6 46 days 43 CH1640-1560 2010/5/28 2010/7/12 46 days 44 CH1560-1480 46 days 2011/9/7 2011/10/22 CH1480-1400 45 46 days 2011/9/13 2011/10/28 46 CH1400-1320 2010/6/3 2010/7/18 46 days 47 46 days CH1320-1240 2010/6/9 2010/7/24 48 CH1240-1160 2010/6/15 2010/7/30 46 days 49 CH1160-1080 2011/9/19 46 days 2011/11/3 50 CH1080-1000 2010/6/2 2010/7/17 46 days 51 CH1000-920 46 days 2010/6/24 2010/8/8 CH920-840 52 46 days 2010/6/30 2010/8/14 53 CH840-760 46 days 2011/9/25 2011/11/9 CH760-680 54 2011/10/1 2011/11/15 46 days 55 CH680-600 2010/7/12 2010/8/26 46 days 56 CH600-520 2010/8/23 2010/10/7 46 days 57 CH520-440 46 days 2012/3/19 2012/5/3 58 CH440-360 46 days 2012/3/25 2012/5/9 59 CH360-280 46 days 2012/3/31 2012/5/15 CH280-200 2012/4/6 2012/5/21 60 46 days 任務 外部任務 £), 專案: Master Programme Rev 2 17-12-分割 里程碑 專案摘要報告 🐃 外部里程碑 \$ 1 of 4

Rev 2 **Able Engineering Company Limited** Master Programme Date: 20-12-2010 Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to Ng Tung River (Contract No. : SSW306) 識別碼 任務名稱 開始時間 工期 完成時間 2010年 2012年 2011年 1月|12月|1月|2月|3月|4月|5月|6月|7月|8月|9月|10月|11月|12月|1月|2月|3月|4月|5月|6月|7月|8月|9月|10月|11月|12月|1月|2月|3月|4月|5月|6月|7月|8月|9月| 61 CH200-150 46 days 2012/4/12 2012/5/27 62 63 653 days 2010/8/4 2012/5/17 64 Zone 1 PBF CH3000 to CH 150 (Footing) 65 CH3000-2920 2011/9/12 2011/10/16 35 days 66 CH2920-2840 2011/9/17 2011/10/21 35 days 67 CH2840-2760 2011/9/22 2011/10/26 35 days 68 CH2760-2680 35 days 2011/9/27 2011/10/31 69 CH2680-2600 35 days 2010/8/4 2010/9/7 70 CH2600-2520 35 days 2010/8/25 2010/9/28 71 CH2520-2440 35 days 2011/10/2 2011/11/5 72 CH2440-2360 35 days 2011/10/7 2011/11/10 73 CH2360-2280 35 days 2010/9/6 2010/10/10 74 CH2280-2200 2010/9/11 2010/10/15 35 days 75 CH2200-2120 35 days 2010/9/16 2010/10/20 76 CH2120-2040 2010/9/21 2010/10/25 35 days 77 2010/9/26 2010/10/30 CH2040-1960 35 days 78 CH1960-1880 35 days 2010/10/1 2010/11/4 79 CH1880-1800 35 days 2010/10/6 2010/11/9 80 2011/10/12 CH1800-1720 35 days 2011/11/15 81 2010/10/7 2010/11/10 CH1720-1640 35 days 82 CH1640-1560 35 days 2010/10/12 2010/11/15 83 CH1560-1480 35 days 2010/10/12 2010/11/15 84 CH1480-1400 35 days 2010/10/12 2010/11/15 85 CH1400-1320 35 days 2010/9/1 2010/10/5 2010/9/6 2010/10/10 86 CH1320-1240 35 days 2010/10/15 CH1240-1160 35 days 2010/9/11 87 2010/9/16 2010/10/20 CH1160-1080 35 days 88 2010/9/21 2010/10/25 CH1080-1000 35 days 89 90 35 days 2010/9/26 2010/10/30 CH1000-920 91 CH920-840 35 days 2010/10/1 2010/11/4 2010/11/9 92 CH840-760 35 days 2010/10/6 2010/10/11 2010/11/14 93 CH760-680 35 days 94 CH680-600 35 days 2010/10/11 2010/11/14 95 CH600-520 35 days 2012/3/19 2012/4/22 96 CH520-440 35 days 2012/3/24 2012/4/27 97 CH440-360 35 days 2012/3/29 2012/5/2 98 CH360-280 35 days 2012/4/3 2012/5/7 99 CH280-200 35 days 2012/4/8 2012/5/12 100 CH200-150 35 days 2012/4/13 2012/5/17 101 2012/5/1 2012/7/29 102 Zone 1 Patrol road CH3000 to CH 150 (Back filling, E&M & CLP pipe duct & Road surfar 90 days 103 Road surface CH3000-1000 2012/5/1 2012/7/29 90 days 2012/7/28 104 Road surface CH1000-150 2012/6/29 30 days 105 572 days 2010/4/9 2011/11/1 106 Zone 2 SBF CH 5000 to CH3000 (Footing, 1st layer Backfilling ~600mm THK) 107 CH5000-4920 2010/7/19 2010/9/2 46 days 108 CH4920-4840 2010/7/25 2010/9/8 46 days 109 CH4840-4760 46 days 2010/7/31 2010/9/14 2010/9/20 110 CH4760-4680 46 days 2010/8/6 CH4680-4600 2010/8/12 2010/9/26 111 46 days 112 CH4600-4520 46 days 2010/8/18 2010/10/2 46 days 2010/8/24 2010/10/8 113 CH4520-4440 CH4440-4360 2011/7/1 2011/8/15 114 46 days CH4360-4280 2011/7/7 2011/8/21 115 46 days CH4280-4200 2011/7/13 2011/8/27 46 days 116 CH4200-4120 2011/7/19 2011/9/2 117 46 days CH4120-4040 2011/7/25 2011/9/8 118 46 days CH4040-3960 2011/7/31 2011/9/14 119 46 days 120 CH3960-3880 46 days 2010/6/18 2010/8/2 ₽ 外部任務 專案: Master Programme Rev 2 17-12-4 分割 專案摘要報告 💝 外部里程碑 2 of 4

Rev 2 **Able Engineering Company Limited** Master Programme Date: 20-12-2010 Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to Ng Tung River (Contract No.: SSW306) 開始時間 識別碼 任務名稱 完成時間 2012年 工期 2011年 1月|12月|1月|2月|3月|4月|5月|6月|7月|8月|9月|10月|11月|12月|1月|2月|3月|4月|5月|6月|7月|8月|9月|10月|11月|12月|1月|2月|3月|4月|5月|6月|7月|8月|9月| CH3980-3800 121 2010/6/24 2010/8/8 46 days 122 CH3800-3720 2010/6/30 2010/8/14 46 days 123 CH3720-3640 2011/8/6 2011/9/20 46 days 124 CH3640-3560 2011/8/12 2011/9/26 46 days 125 CH3560-3480 46 days 2011/8/18 2011/10/2 126 CH3480-3400 46 days 2011/8/24 2011/10/8 127 CH3400-3320 46 days 2011/8/30 2011/10/14 128 CH3320-3240 46 days 2011/9/5 2011/10/20 129 CH3240-3160 46 days 2010/4/9 2010/5/24 130 CH3160-3080 46 days 2011/9/11 2011/10/26 131 CH3080-3000 2011/11/1 46 days 2011/9/17 132 133 2010/9/11 2012/6/14 Zone 2 PBF CH 5000-3000 (Footing & 2nd layer Backfilling up to sub-base) 643 days 134 2011/10/16 CH5000-4920 2011/9/1 46 days 135 CH4920-4840 2011/9/7 2011/10/22 46 days 136 CH4840-4760 2011/9/13 2011/10/28 46 days 137 CH4760-4680 2011/11/3 46 days 2011/9/19 138 CH4680-4600 2011/11/9 46 days 2011/9/25 139 CH4600-4520 2011/10/1 2011/11/15 46 days 140 CH4520-4440 2012/3/19 2012/5/3 46 days 141 CH4440-4360 46 days 2012/3/25 2012/5/9 142 CH4360-4280 46 days 2012/3/31 2012/5/15 143 CH4280-4200 46 days 2012/4/6 2012/5/21 144 CH4200-4120 46 days 2012/4/12 2012/5/27 145 CH4120-4040 2010/9/11 2010/10/26 46 days 146 CH4040-3960 2010/9/17 2010/11/1 46 days 147 CH3960-3880 2010/9/23 2010/11/7 46 days 148 CH3880-3800 2010/9/29 2010/11/13 46 days 149 CH3800-3720 46 days 2010/10/5 2010/11/19 150 2010/10/11 2010/11/25 CH3720-3640 46 days 151 CH3640-3560 2010/10/17 2010/12/1 46 days 152 CH3560-3480 2010/10/23 2010/12/7 46 days 153 CH3480-3400 46 days 2010/10/29 2010/12/13 154 CH3400-3320 46 days 2010/11/4 2010/12/19 155 CH3320-3240 46 days 2010/11/10 2010/12/25 156 CH3240-3160 46 days 2012/4/18 2012/6/2 157 CH3160-3080 46 days 2012/4/24 2012/6/8 158 2012/6/14 CH3080-3000 46 days 2012/4/30 159 2012/5/1 2012/7/29 160 Zone 2 Patrol road CH 5000-3000 (Back filling, E&M & CLP pipe duct & Road surface) 90 days 161 356 days 162 Zone 3 SBF CH5700 to CH5000 (Footing, 1st layer Backfilling ~600mm THK) 2010/7/14 2011/7/4 163 CH5700-5640 2011/6/4 46 days 2011/4/20 164 CH5640-5560 2011/4/26 2011/6/10 46 days 165 CH5560-5480 2011/5/2 2011/6/16 46 days 166 CH5480-5400 2011/5/8 2011/6/22 46 days 2011/6/28 167 CH5400-5320 46 days 2011/5/14 2011/7/4 168 CH5320-5240 46 days 2011/5/20 CH5240-5160 2010/7/14 2010/8/28 169 46 days 170 CH5160-5080 2010/7/20 2010/9/3 46 days 171 CH5080-5000 2010/7/26 2010/9/9 46 days 172 173 Zone 3 PBF CH5700 to CH5000 (Footing) 75 days 2011/7/5 2011/9/17 174 2011/8/8 CH5700-5640 35 days 2011/7/5 2011/7/10 2011/8/13 175 CH5640-5560 35 days 176 CH5560-5480 35 days 2011/7/15 2011/8/18 177 CH5480-5400 2011/7/20 2011/8/23 35 days 178 CH5400-5320 35 days 2011/7/25 2011/8/28 179 CH5320-5240 35 days 2011/7/30 2011/9/2 CH5240-5160 2011/8/4 2011/9/7 180 35 days 外部任務 任務 摘要 專案: Master Programme Rev 2 17-12-外部里程碑 ◆ 分割 專案摘要報告 ♥ 3 of 4

專案: Master Programme Rev 2 17-12-

任務

分割

進度

Master Programme

Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to Ng Tung River (Contract No. : SSW306)

Rev 2 Date: 20-12-2010

飲用碼 任務名稱	工期	開始時間	完成時間	2010年 2011年	2012年
				11月 12月 1月 2月 3月 4月 5月 6月 7月 8月 9月 10月 11月 12月 1月 2月 3月 4月 5月 6月 7月 8月 9月 10月 11月 1	2月 1月 2月 3月 4月 5月 6月 7月 8月 9月
181 CH5160-5080	35 days	2011/8/9	2011/9/12		
182 CH5080-5000	35 days	2011/8/14	2011/9/17	<b>→</b>	· :
183					
Zone 3 Patrol road CH5700 to CH5000 (Back filling, E&M & CLP pipe duct & Road surfa	54 days	2012/3/19	2012/5/11		
185 CH5700-5400	30 days	2012/3/19	2012/4/17		
186 CH5400-5000	40 days	2012/4/2	2012/5/11		
187	000	0011/10/1	00104102		
Zone 4 SBF CH150( near by Gate 98) to CH000 (Footing, 1st layer Backfilling ~600mm ]	206 days	2011/10/1	2012/4/23 2011/12/19		***
189 Application for excavation permit & approval	80 days 38 days	2011/10/1 2012/3/17	2011/12/19		
190 CH150-CH000 191	Jo uays	2012/3/17	20124123		
ISI Zone 4 Patrol road CH150( near by Gate 98) to CH000 (Back filling, E&M & Road surfac	40 days	2012/4/24	2012/6/2		· · · · · · · · · · · · · · · · · · ·
193 CH150-CH000	40 days	2012/4/24	2012/6/2		
194 CHISO-CHOO	10 00/3	2012/1/24	2012012		Automorphism
195 1st Backfilling From CH4300 to CH5575	70 days	2010/4/20	2010/6/28		
196 2nd Backfilling From CH4300 to CH5575	50 days	2011/9/20	2011/11/8	***CONTRACTOR CONTRACTOR CONTRACT	
197 Modification works for the U-channel & Catch Pit	50 days	2012/4/10	2012/5/29		
198 New Catch Pit	50 days	2012/5/30	2012/7/18		
199 Road mark	55 days	2012/6/15	2012/8/8		
200 RC meter Kiosk	80 days	2011/8/15	2011/11/2		•
201 Boilard	120 days	2012/4/2	2012/7/30		***
202 Steel bollard installation	60 days	2012/4/2	2012/5/31		
203 Painting	60 days	2012/6/1	2012/7/30		
204 PBF & SBF & Lamp Post	620 days	2010/11/8	2012/7/19		
205 Steel Work	303 days	2010/11/8	2011/9/6		
206 Trial Panel for BF sample erection	60 days	2010/11/8	2011/1/6		
207 Steel work testing	60 days	2011/1/7	2011/3/7		
208 Material Order	21 days	2011/3/22	2011/4/11		
209 Fabrication	90 days	2011/4/12	2011/7/10		•
210 Material Delivery	120 days	2011/5/10	2011/9/6		
211 Lamp Post	272 days	2010/12/31	2011/9/28		
212 Material Order	21 days	2010/12/31	2011/1/20 2011/8/8		
213 Fabrication	200 days	2011/1/21 2011/6/1	2011/8/8		
214 Material Delivery	120 days 340 days	2011/8/15	2012/7/19		
215 Site installation 216 PBF / SBF / Lamp Post erection	250 days	2011/8/15	2012/1/20		· · · · · · · · · · · · · · · · · · ·
216 PBF / SBF / Lamp Post erection 217 XPM mesk fixing	90 days	2012/4/16	2012/7/14		
218 Painting	75 days	2012/3/28	2012/7/14		
219 Razor Barbed wire fixing	55 days	2012/5/26	2012/7/19		<b>***</b>
220 E&M works	134 days	2012/3/20	2012/7/31		
221 Flood light installation	45 days	2012/3/20	2012/5/3		
222 Wiring works & Miscellaneous works	102 days	2012/3/31	2012/7/10		<b>Y</b>
223 T&C inspection	21 days	2012/7/11	2012/7/31		<u> </u>
224 Section B CH 4200 to CH 5400	164 days	2010/6/15	2010/11/25		:
225 New wave wall ~ CH 4200 to ~CH 5400	164 days	2010/6/15	2010/11/25		
226 Section D CH150 to CH4200	568 days	2010/10/20	2012/5/9		
227 Strengthen the wave wall footing	309 days	2010/10/20	2011/8/24		
228 Preparation works	24 days	2010/10/20	2010/11/12		
229 Zone 1	120 days	2011/4/5	2011/8/2		
230 Zone 2	90 days	2011/5/27	2011/8/24		
231 Modification works for existing wave wall	176 days	2011/11/16	2012/5/9		•
232 Zone i	70 days	2011/11/16	2012/1/24		
233 Zone 2	54 days	2012/3/17	2012/5/9		
234 Pre - handover inspection	3 days	2012/8/1	2012/8/3 2012/8/7		<b>9</b>
235 Genal Cleaning	4 days	2012/8/4	2012/8/7		<u>,</u>
236 Handover	1 day	2012/8/8	2012/6/8	<u> </u>	: 1

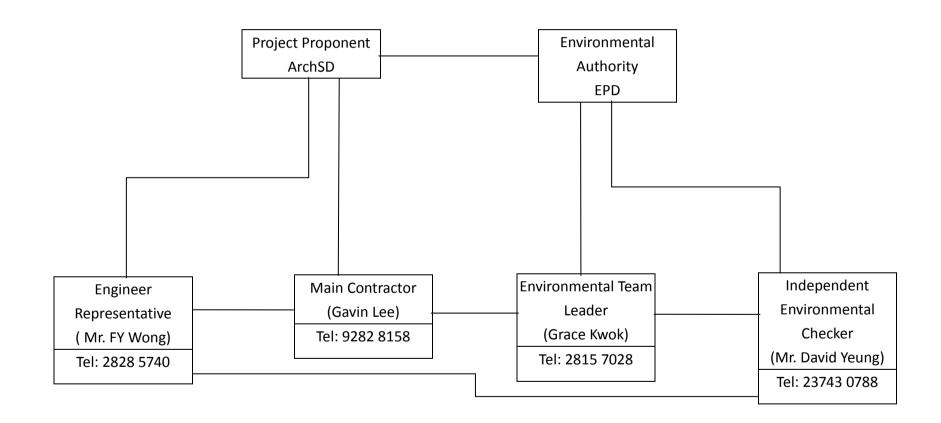
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▼ 外部任務

專案摘要報告 🕶

Appendix B
Organization Chart

#### — Line of communication







# 輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No.: C102904

# Certificate of Calibration

# This is to certify that the equipment

Description: Sound Level Meter

Manufacturer: Rion

Model No.: NL-31

Serial No.: 00410224

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C102904.

# The equipment is supplied by

Co. Name: Envirotech Services Co.

Address: Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

Date of Issue: 31 May 2010

Certified by:

The test equipment used for calibration are traceable to the National Standards as specified in this report. This report shall not be reproduced except in full and with prior written approval from this laboratory.

E-mail: callab@suncreation.com

Website: www.suncreation.com

Certificate No.: C103766

# Certificate of Calibration

# This is to certify that the equipment

Description: Sound Level Calibrator

Manufacturer: Rion

Model No.: NC-73

Serial No.: 10786708

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C103766.

The equipment is supplied by

Co. Name: Envirotech Services Co.

Address: Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road, Hong Kong

Date of Issue: 13 July 2010

Certified by:

KC Lee



Schedule for noise monitoring programme of Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River)

# Monitoring schedule for the reporting month

Date	Start Time
4 <sup>th</sup> May 2011	09:10
13 <sup>th</sup> May 2011	09:00
19 <sup>th</sup> May 2011	16:35
26 <sup>th</sup> May 2011	15:10
31 <sup>st</sup> May 2011	16:02

## Monitoring schedule of the coming month

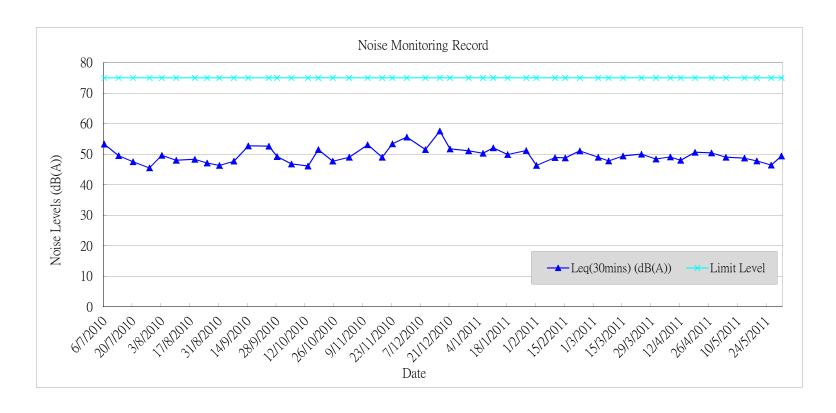
Date	Time
8 <sup>th</sup> June 2011	To be confirmed
14 <sup>th</sup> June 2011	To be confirmed
21 <sup>st</sup> June 2011	To be confirmed
29 <sup>th</sup> June 2011	To be confirmed

Appendix E

Summary and Graphical Plot of Noise Monitoring Record Noise Monitoring Result for Construction of a Secondary Boundary Fence and New Section of Primary Boundary Fence and Boundary Patrol Road (Section 2 Lok Ma Chau Control Point to Ng Tung River)

Month: May 2011

Date	Time	Leq(30mins) (dB(A))	L10(30mins) (dB(A))	L90(30mins) (dB(A))	Limit Level
4-May-11	09:10 - 09:40	49.0	52.0	40.7	75
13-May-11	09:00 - 09:30	48.7	51.1	41.7	75
19-May-11	16:35 – 17:05	47.8	50.9	41.5	75
26-May-11	15:10 – 15:40	46.4	48.4	41.0	75
31-May-11	16:02 – 16:32	49.4	51.6	41.1	75





Mitigation Measures Implementation Schedule for Construction Stage

# **Appendix F** Environmental Mitigation Implementation Schedule

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Air Q	<u> Duality</u>							
Durir	ng Constr	uction						
2.5.2	3.2.2	The following good site practice should be implemented:	To minimize	Contractor	Constructi	During	EIAO-TM, Air Pollution	^
		any excavated dusty materials or stockpile of dusty materials should be covered	construction dust		on Work	Construction	Control	
		entirely by impervious sheeting or sprayed with water so as to maintain the	impact		Sites		(Construction Dust)	
		entire surface wet, and recovered or backfilled or reinstated within 24 hours of					Regulation	
		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;						
		• the area where vehicle washing takes place and the section of the road between						^
		the washing facilities and the exit point should paved with concrete, bituminous						
		materials or hardcores;						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

As updated on 8 June 2011

## **Appendix F** Environmental Mitigation Implementation Schedule

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		• the portion of road leading only to a construction site that is within 30m of						٨
		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						٨
		or transfer;						
		<ul> <li>vehicle speed should be limited to 10kph except on completed access roads;</li> </ul>						٨
		<ul> <li>every vehicle should be washed to remove any dusty materials from its body</li> </ul>						٨
		and wheels before leaving the construction sites.						
<u>Noise</u>								
During	g Constru	action						
3.8.14	4.8.1	The following good site practical should be implemented:	To mitigate	Contractor	Constructi	During	EIAO-TM, NCO	
			construction noise		on Work	Construction		
		The Contractor shall adopt the Code of Practice on Good Management Practice	impact		Sites			
		to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for						٨
		Construction Industry) published by EPD;						
		The Contractor shall observe and comply with the statutory and non-statutory						٨
		requirements and guidelines;						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

As updated on 8 June 2011

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		Before commencing any work, the Contractor shall submit to the Engineer						٨
		Representative for approval the method of working, equipment and noise						
		mitigation measures intended to be used at the site;						
		The Contractor shall devise and execute working methods to minimise the noise						^
		impact on the surrounding sensitive uses, and provide experienced personnel						
		with suitable training to ensure that those methods are implemented;						
		Noisy equipment and noisy activities should be located as far away from the						٨
		NSRs as is practical;						
		Unused equipment should be turned off. PME should be kept to a minimum						٨
		and the parallel use of noisy equipment / machinery should be avoided;						
		Regular maintenance of all plant and equipment;						٨
		Material stockpiles and other structures should be effectively utilised as noise						N/A
		barriers, where practicable.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
3.8.1	4.8.2	Other than good site practice, the Contractor is required to adopt Levels 1 and 2	To mitigate	Contractor	Constructi	During	EIAO-TM, NCO	N/A
-3.8.3	-4.8.3	site-specific direct mitigation measures as specified below during the construction	construction noise		on work	construction		
		phase.	impact		sites			
		With construction / demolition work undertaken at a distance of 60m or less to the						
		NSRs, below mitigation measures should be included:						
		Level 1 – Use of Quiet Plant and Movable Noise Barrier						
		The Contractor shall obtain particular models of plant that are quieter than						
		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.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

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EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
3.8.9	4.8.4	In addition to the use of quiet plant and movable noise barrier, alternative	To mitigate	Contractor	Constructi	Before the	EIAO-TM, NCO	^
		demolition method of existing boundary fence at Section 2-3 shall be used where	construction noise		on work	commenceme		
		demolition works would be undertaken at a distance of 12m or less to the NSRs.	impact for demolition		sites	nt of		
		These particular mitigation measures should be included:	of existing boundary		(Section 2	demolition		
			fence		- 3)	works		
		Level 2 – Alternative Demolition Method of Existing Boundary Fence						
		The use of welder is recommended to replace the use of hand-held driller;						
		The 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 use of						
		hand-held breaker is minimal as only the surface level of the footing to be						
		broken; and						
		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.						

Remarks: ^ Implement mitigation measure in the reporting month;

Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Wate	r Quality							
Durin	g Constr	uction						
4.7.1	5.3.1	Good site practices in addition to the implementation of mitigation measures would	To avoid site runoff	Contractor	Constructi	During	Practice Note for	٨
		minimize the impact to the surrounding environment.	and chemical leakage		on work	construction	Professional Persons with	
					sites		regard to site drainage	
		General Prevention and Precaution Measures					(ProPECC PN 1/94) and	
		The site should be confined to avoid silt runoff to the site.					TM standard	٨
		No discharge of silty water into the storm drain and drainage channel					under the WPCO	^
		within and the vicinity of the site.						
		Any soil contaminated with chemicals/oils shall be removed from site and						^
		the void created shall be filled with suitable materials.						
		Stockpiles to be covered by tarpaulin to avoid spreading of materials during						^
		rainstorms;						
		Suitable containers shall be used to hold the chemical wastes to avoid leakage						^
		or spillage during storage, handling and transport;						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		Chemical waste containers shall be labelled with appropriate warning signs in						٨
		English and Chinese to avoid accidents. there shall also be clear instructions						
		showing what action to take in the event of an accidental;						
		Storage areas shall be selected at safe locations on site and adequate space shall						^
		be allocated to the storage area;						
		Any construction plant which causes pollution to the water system due to						N/A
		leakage of oil or fuel shall be removed off-site immediately;						
		Spillage or leakage of chemical waste to be controlled by using suitable						٨
		absorbent materials;						
		Chemicals will always be stored on drip trays or in bunded areas where the						٨
		volume is 110% of the stored volume;						
		Regular clearance of domestic waste generated in the temporary sanitary						٨
		facilities to avoid waste water spillage.						
		Temporary sanitary facilities to be provided for on-site workers during						^
		construction.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
4.7.2 –	5.3.2-5.	Concreting Work	To collect runoff	Contractor	Constructi	During	Practice Note for	٨
4.7.3	3.3	A temporary drainage channel and associated facilities should be provided to collect	generated and prevent		on work	construction	Professional Persons with	
		the runoff generated and prevent concrete-contaminated water from entering	concrete-contaminated		sites		regard to site drainage	
		watercourses. Adjustment of pH can be achieved by adding a suitable neutralising	water from entering				(ProPECC PN 1/94) and	
		reagent to wastewater prior to discharge.	watercourses				TM standard under the	
							WPCO	
		The concreting works should be temporarily isolated with proper methods, such as					CEDD General	
		The concreting works should be temporarily isolated with proper methods, such as					CEDD General	

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		by placing of sandbags or silt curtains with lead edge at bottom and properly	To prevent adverse				Specification- Protection	N/A
		supported props.	impacts on the water		Work sites		of natural streams/rivers-	
			quality of Lin Ma		of Section		Clause 25.09	
			Hang Stream SSSI		3 in the			
					proximity			
					of Lin Ma			
					Hang			
					Stream			
					SSSI			
4.7.4	5.3.4	Soil Excavation and Stockpiling	To avoid site runoff	Contractor	Constructi	During	Practice Note for	٨
		Excavated soil which needs to be temporarily stockpiled should be stored in a			on work	construction	Professional Persons with	
		specially designated area and provided with a tarpaulin cover to avoid runoff into			Sites		regard to site drainage	
		the drainage channels.					(ProPECC PN 1/94) and	
							TM standard under the	
							WPCO	

Remarks: ^ Implement mitigation measure in the reporting month;

X Non-compliance of mitigation measure;

N/A Not Applicable in the reporting month;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
4.7.5	5.3.5-5.	Site Depot	To avoid wash-out of	Contractor	Constructi	During	Practice Note for	N/A
4.7.6	3.6	All compounds in works areas should be located on areas of hard standing with	oil during storm		on work	construction	Professional Persons with	
		provision of drainage channels and settlement ponds where necessary to allow	conditions		Sites		regard to site drainage	
		interception and controlled release of settled/treated water. Hard standing					(ProPECC PN 1/94) and	
		compounds should drain via an oil interceptor. The oil interceptor should be					TM standard under the	
		regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A					WPCO	
		bypass should be provided to avoid overload of the interceptor's capacity. Any						
		contractor generating waste oil or other chemicals as a result of his activities should						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

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Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		register as a chemical waste producer. Disposal of the waste oil should be done by a						۸
		licensed collector.						
		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.						
		Appropriate training including safety codes and relevant manuals should be given to						
		the personnel who regularly handle the chemicals on site.						
4.7.7		Construction of Checkpoint	To avoid disposal of	Contractor	Constructi	During	N/A	N/A
		Sewage system should be constructed to divert domestic sewage, which will be	domestic sewage into		on work	construction		
		generated from the sanitary facilities provided in the new checkpoint at Shek Chung	watercourses.		Site at			
		Au, to public sewer connected to government sewage treatment facilities.			Checkpoin			
					t			
Waste	Manage	<u>ment</u>						
During	g Constru	action						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

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EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
5.6.7	6.3.6	Site Clearance	Prevent the generation	Contractor	Constructi	During	Waste Disposal	٨
		The topsoil and vegetation removed and excavated material may have to be	of dust and pollution		on work	construction	Ordinance (Cap.354);	
		temporarily stockpiled on-site. Control measures should be taken at the stockpiling	of storm water		sites		ETWBTC No. 15/2003,	
		area to prevent the generation of dust and pollution of stormwater channels, fish	channels				Waste Management on	
		ponds or river channels. However, to eliminate the risk of blocking drains in the wet					Construction Site	
		season, it is recommended that stockpiling of excavated materials during the wet						
		season should be avoided as far as practicable.						
5.6.10	6.3.8	Construction and Demolition Materials	Minimize	Contractor	Constructi	During	Waste Disposal	٨
_		Careful design, planning and good site management can minimize over-ordering	over-ordering and		on work	construction	Ordinance (Cap.354);	
5.6.12		and generation of waste materials such as concrete mortars and cement grouts. The	generation of waste		sites		ETWBTC No. 15/2003,	
		design of formwork should maximize the use of standard wooden panels so to	materials				Waste Management on	
		achieve high reuse levels. Alternatives such as steel formwork or plastic facing					Construction Site	
		should be considered to increase the potential for reuse.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

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Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		The Contractor should recycle as much of the C&D materials as possible on-site.						٨
		Proper segregation of waste on-site will increase the feasibility of certain						
		components of the waste stream by the recycling contractors. Different areas of						
		the worksite shall be designated for such segregation and storage wherever site						
		conditions permit.						
		Trip-ticket system should be employed to monitor the disposal of C&D material						
		and solid at public filling facilities and landfills, and to control fly-tipping.						
		Government has established a differentiated charging scheme for the disposal of						
		waste to landfill, construction waste sorting facilities and public fill facilities. This						
		will provide additional incentives to reduce the volume of waste generated and to						
		ensure proper segregation of wastes.						
5.6.13-	6.3.9 –	Chemical Waste	To avoid chemical	Contractor	Constructi	During	Code of Practice on the	٨
5.6.14	6.3.13	For those processes which generate chemical waste, it may be possible to find	leakage		on work	construction	Packaging, Labelling and	
		alternatives which generate reduced quantities or even no chemical waste, or less			sites	planning	Storage of Chemical	
		dangerous types of chemical waste.					Wastes, Waste Disposal	

Remarks: ^ Impl

Implement mitigation measure in the reporting month;

Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

N/A Not Applicable in the reporting month;

EIA		Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal					(Chemical Waste)	^
		(Chemical Waste) (General) Regulation, should be handed in accordance with the					(General) Regulation	
		Code of Practice on the Packaging, Handling and Storage of Chemical Waste as						
		follows:						
		Containers used for the storage of chemical wastes should:						^
		• be suitable for the substance they are holding, resistant to corrosion, maintained						^
		in a good condition, and securely closed:						
		• have a capacity of less than 450 litres unless the specification have been						^
		approved by the EPD; and						
		display a label in English and Chinese in accordance with instructions						^
		prescribed in Schedule 2 of the Regulations,						
		The storage area for chemical wastes should:						^
		be clearly labelled and used solely for the storage of chemical waste;						^
		• be enclosed on at least 3 sides;						^
		• have an impermeable floor and bunding, 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;						

Remarks: ^ Implement mitigation measure in the reporting month;

X Non-compliance of mitigation measure;

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\* Not satisfactory but rectified by the contractor.

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Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		have adequate ventilation;						٨
		be covered to prevent rainfall entering (water collected within the bund must be						٨
		tested and disposed as chemical waste if necessary); and						
		be arranged so that incompatible materials are adequately separated.						٨
		Disposal of chemical waste should:						٨
		be via a licensed waste collector; and						٨
		be to a facility licensed to receive chemical waste, such as the Chemical Waste						٨
		Treatment Facility which also offers a chemical waste collection service and						
		can supply the necessary storage containers, or						
		to be re-user of the waste, under approval from the EPD.						N/A
5.6.16	6.3.15	General Refuse	Minimise odour, pest	Contractor	Constructi	During	Public Health and	٨
		Should be stored in enclosed bins or compaction units separate from C&D and	and litter impacts		on work	construction	Municipal Services	
		chemical wastes. The Contractor should employ a reputable waste collector to			sites		Ordinance (Cap. 132)	
		remove general refuse from the site, separate from C&D and chemical wastes, on a						
		regular basis to minimise odour, pest and litter impacts. Burning of refuse on						
		construction sites is prohibited by law.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

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EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
5.6.1	6.3.16	Construction Waste Management Plan	Waste management	Contractor	Constructi	During	ETWB TCW No.	٨
		A construction waste management plan (CWMP) should be prepared and developed	during construction		on work	construction	19/2005, Waste	
		by the contractor to ensure proper collection, treatment and disposal of waste on			sites		Management on	
		site. This CWMP will also take into account the requirement to handle chemical					Construction Sites	
		wastes on site which will need to be managed by a licensed waste collection						
		contractor.						
Ec	ology							
Table	7.2	Ecological Impacts on Floral Species of Conservation Concern	Protect the plant	Contractor	Constructi	During	EIAO	٨
6.38		Erection of protective fencing to protect the plant during construction period	during construction		on work	construction		
			period		sites			

Remarks: ^ Implement mitigation measure in the reporting month;

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Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	7.2	Potential Ecological Impacts on Offsite Habitats	To avoid site runoff	Contractor	Constructi	During	EIAO / Air Pollution	^
6.40		Good site practices for controlling the dust and water quality (avoid stockpiles	and dust impact		on work	construction	Control	
		adjacent to wetlands, covering the stockpiles with impervious sheeting, control of			sites		(Construction Dust)	
		vehicle speed, no discharge of silty water to the rivers, streams and drainage					Regulation / WPCO	
		channels);						
		Clear definition of works limit to avoid impact on adjacent habitats						

Remarks: ^ Implement mitigation measure in the reporting month;

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Ref.	Log		Recommended	implement	of the	implement	standards for the						
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?						
			Concerns to address										
Table	7.2	Disturbance to Wetland-Dependent Birds, Raptors, Terrestrial Birds and	To minimize	Contractor	Constructi	During	EIAO / Air Pollution	^					
6.39-T		Egretry	disturbance to wildlife		on work	construction	Control						
able		Good working practices include switching off unused equipment, keep minimum			sites		(Construction Dust)						
6.45		number of powered mechanical equipment in operation at the same period, the use					Regulation / WPCO						
		of stockpiles and other structures to form noise barriers where practicable,											
		avoidance of feeding the wildlife to cause disturbance, site confinement and proper											
		cover of stockpiles with impervious sheeting to minimize construction noise,											
		uncontrolled surface runoff and discharge of silts;											
		Avoidance of construction works using Power Mechanical Equipments within the											
		Wetland Conservation Area during bird migratory season (15th November – 15th											
		March); and											
		Restriction of excavation works within a 150m buffer zone from the egretry											
		to ardeid non-breeding season (from August to February).											
Cultur	ral Herita	<u>nge</u>		Cultural Heritage									

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

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EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
8.7.1 –	8.1.1 -	An archaeological survey should be undertaken at the study areas of Pak Fu Shan	Assess the	Contractor	The study	After land	Antiquities and	N/A
8.7.4	8.1.4	and Lin Ma Hang of Section 3 after land resumption and before commencement of	archaeological impact	(through	areas of	resumption	Monuments Ordinance /	
		construction works	on the two identified	professional	Pak Fu	and before	EIAO	
			sites of archaeological	archaeologist)	Shan and	commenceme		
			potential.		Lin Ma	nt of		
					Hang of	construction		
					Section 3	works		

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

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EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
8.7.6	8.2.1	Built Heritage Resources	Avoid impacts to built	Contractor	The works	During	EIAO	N/A
		Mitigation in the form of buffer zones and safe public access have been proposed	heritage resources		that are	Construction		
		for one shrine (BF-HB1) and two graves (BF-G1 and G2)			located in			
					the vicinity			
		ВҒ-НВ1			of built			
		A buffer zone of a minimum distance of 1 metres should be established between the			heritage			
		shrine and any construction works in close proximity. The buffer zone should be			resources			
		marked out by temporary fencing. Safe public access should be provided to the			(BF-HB1			
		shrine during any construction works in close proximity.			and BF-G1			
					and G2)			
		BF-G1 and BF-G2						
		A buffer zone of a minimum distance of 1 metres should be established between the						
		graves and any construction works in close proximity. The buffer zone should be						
		marked out by temporary fencing. Safe public access should be provided to the						
		graves during any construction works in close proximity.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Lands	cape and	Visual						
		Preservation of Existing Vegetation						
Table 7-13	Table 9-1	To retain trees that have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs.	Preservation of Existing Vegetation	Project Landscape Architect / Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No.	^
CP1							3/2006	
	Table 9-1	<ul> <li>Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.</li> </ul>	To ensure the success of the tree preservation proposals.	Project Landscape Architect /	Site	Before construction phase commences	TM-EIA	^
CP1			To ensure the	Contractor		Thuoughout		
Table 7-13	Table 9-1	<ul> <li>Prohibition of the storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the precautionary area.</li> </ul>	success of the tree preservation proposals.	Project Landscape Architect /	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No.	^
CP1				Contractor			3/2006	

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

As updated on 8 June 2011 21/32

	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?	Status
Table 7-13 CP1	Table 9-1	<ul> <li>Phased segmental root pruning for trees to 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>	To ensure the success of the tree preservation proposals.	Project  Landscape  Architect /  Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Table 7-13 CP1	Table 9-1	<ul> <li>Pruning of the branches of existing trees identified for transplantation and retention to be based on the principle of crown thinning maintaining their form and amenity value.</li> </ul>	To ensure the success of the tree preservation proposals.	Project Landscape Architect / Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Table 7-13 CP1	Table 9-1	The watering of existing vegetation particularly during periods of excavation when the water table beneath the existing vegetation is lowered.	To ensure the success of the tree preservation proposals.	Project  Landscape  Architect /  Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Table 7-13 CP1	Table 9-1	The rectification and repair of damaged vegetation following the construction phase to it's 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	of the tree	Project  Landscape  Architect /  Contractor	Site	Throughout construction phase	Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	N/A

Remarks:

Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

As updated on 8 June 2011 22/32

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	• All works affecting the trees identified for retention and transplantation will be carefully monitored. This includes the key stages in the preparation of the		Project	Site	Throughout	TM-EIA Annex 18,	٨
7-13	9-1	trees, the implementation of protection measures and health monitoring through	preservation	Landscape		construction phase	ETWB TCW No. 2/2004	
		out the construction period	proposals.	Architect /			& ETWB TCW No.	
CP1				Contractor			3/2006	
Table	Table	• Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for approval under the lease conditions and in	To ensure the tree	Project	Site	Throughout	TM-EIA Annex 18,	٨
7-13	9-1	accordance with ETWB TCW No. 2/2004 and WBTC No. 3/2006.	preservation and	Landscape		construction phase	ETWB TCW No. 2/2004	
			planting proposals are integrated with the	Architect /			& ETWB TCW No.	
CP1			existing landscape	Contractor			3/2006	
			context and that the					
			landscape resources					
			are preserved where					
			appropriate.					

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

 $X \qquad \hbox{Non-compliance of mitigation measure;} \\$ 

Not satisfactory but rectified by the contractor.

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?	Status
	Table 9-1	The tree preservation works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection specification would be included within the contract documents.		Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	٨
		Preservation of Existing Topsoil	I					
Table 7-13 CP2	Table 9-1	Topsoil disturbed during the construction phase should be tested using a standard soil testing methodology and where it is found to be worthy of retention stored for re-use.	To provide a viable growing medium suited to the existing conditions and reduce the need for the importation of top soil.	Contractor	Site	Throughout construction phase	TM-EIA Annex 18	٨

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>The soil will be stockpiled to a maximum height of 2m and will be either temporarily vegetated with hydroseeded grass during construction or covered</li> </ul>	To provide a viable	Contractor	Site	Throughout	TM-EIA Annex 18	^
7-13	9-1		growing medium			construction	Annex 18	
			suited to the existing			phase		
CP2			conditions and reduce					
			the need for the					
			importation of top					
			soil.					
Table	Table	<ul> <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>	To provide a viable	Contractor	Site	Throughout	TM-EIA Annex 18	^
7-13	9-1	Alternatively, if this is not practicable, it should be considered for use	growing medium			construction	Annex 18	
		elsewhere, including other projects.	suited to the existing			phase		
CP2			conditions and reduce					
			the need for the					
			importation of top					
			soil.					
		Permanent and Temporary Works Areas						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	Where appropriate to the final design the landscape of these works areas should		Contractor	Site	Through out	TM-EIA	N/A
	9-1	be restored following the completion of the construction phase.	disturbance to existing landscape resources and change of visual amenity.			construction phase	Annex 18	
CP3								
	Table 9-1	<ul> <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>		Contractor	Site	Through out construction phase	TM-EIA Annex 18	^
CP3								
		Mitigation Planting						
	Table 9-1	<ul> <li>Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase</li> </ul>	To minimise the disturbance to existing landscape resources and change of visual	Contractor	Site	Through out construction phase	TM-EIA Annex 18	N/A
CP4			amenity.					

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>Use of native plant species predominantly in the planting design for the buffer areas.</li> </ul>	To minimise the disturbance to existing	Contractor	Site	Through out construction	TM-EIA	N/A
7-13	9-1	urcus.	landscape resources and change of visual amenity.			phase	Annex 18	
CP4								
	Table 9-1	<ul> <li>The tree planting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree planting specification would be included within the contract documents.</li> </ul>	disturbance to existing	Contractor	Site	Through out construction phase	TM-EIA Annex 18	۸
		documents.	amenity.					
CP4								
		Transplantation of Existing Trees						
Table	Table	<ul> <li>The tree transplanting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape</li> </ul>		Contractor	Site	Prior to the	TM-EIA	^
7-13	9-1	Architect. A tree protection / transplanting specification would be included	landscape resources			commencem	Annex 18, ETWB TCW	
		within the contract documents.	and minimize the impacts on the visual			ent of the	No. 2/2004 & ETWB	
CP5			amenity of the area.			proposed	TCW No. 3/2006	
						works		
		Design of the Fence and associated Structures						

Remarks: ^ Implement mitigation measure in the reporting month;

A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	<ul> <li>Design of Boundary Fence, Boundary Patrol Road and Police Check Point –</li> <li>These structural elements will be designed in accordance with security</li> </ul>	Responsive design to	ArchSD	Site	Throughout	TM-EIA	٨
7-14	9-2	requirement from Police Force and incorporate design features as part of	integrate the proposals			design phase	Annex 18 and BD	
		design mitigation measures including:	into their landscape					
OP1			and visual context.					
		Integrated design approach – the boundary fence should integrated, as						٨
		far as technically feasible, with existing built structures such as existing						
		road, footpath and track and embankment of fishponds, river and						
		drainage channel as part of design mitigation measures to reduce the						
		potential cumulative impact of the proposed works. The location and						
		orientation of the police check points should be away from landscape						
		and visually sensitive areas such wetland, fishpond and agricultural						
		field.						
		2. Building massing - the proposed use of simple responsive design for the						N/A
		built structures with a low building height profile to reduce the potential						
		visual mass of the structure within a rural context.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
		3. Treatment of built structures - the architectural design should seek to						N/A
		reduce the apparent visual mass of the facilities further through the use						
		of natural materials such as wooden frame, vertical greening or other						
		sustainable materials such as recycled plastic.						
		4. Responsive building and fence finishes - In terms of the proposed finishes natural tones should be considered for the colour palette with						N/A
		non-reflective finishes are recommended to reduce glare effect. The use						
		of colour blocking on the proposed fence could be used to break up the						
		visual mass of the structure.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

	EM&A Log Ref.		Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?	Status
		<ul> <li>5. Responsive lighting design – Aesthetic design of architectural and track lighting with following glare design measures:</li> <li>Directional and full cut off lighting is recommended particularly for areas adjacent to existing village to minimise light spillage.</li> <li>Minimise geographical spread of lighting, only applied for safety and security reasons;</li> <li>Limited lighting intensity to meet the minimum safety and operation requirement; and</li> <li>High-pressure sodium road lighting is recommended for more stringent light control reducing spillage and thus visual impacts.</li> </ul>						N/A
		Compensatory Planting Proposals		T	ı	I	T	
Table 7-14 OP2	Table 9-2		Planting will serve to visually integrate the proposals within the existing landscape framework.	Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and BD	N/A

Remarks:

Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table	A qualified or registered landscape architect will be involved in the design, construction supervision and monitoring, and maintenance period to oversee the		Contractor	Site	Throughout design phase	TM-EIA	٨
7-14	9-2	implementation of the recommended landscape and visual mitigation measures				, , , , , , , , , , , , , , , , , , ,	Annex 18, HKPSG and BD	
			framework whilst also					
OP 2 /			improving the ecological					
3			connectivity between existing and proposed					
			woodland habitats.					
Table	Table	<ul> <li>Tree and Shrub Planting – Given the rural nature of the proposed alignment it is recommended that the where possible tree and shrub species which are</li> </ul>		Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and	N/A
7-14	9-2	native to Hong Kong be used. In addition where possible the planting of new	for the predicted tree				BD	
		trees and shrubs will aim to link together existing woodland areas and small tree groups to improve the connectivity between habitats and create more						
OP 2		coherent landscape framework. The planting of small groups of trees along the						
		alignment of the proposed fence will serve to de-emphasise the horizontality of the fence structure and provide for better sense of visual integration with the						
		landscape context. Where practicable vertical greening measures should also						
		be considered on engineering structures.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

\* Not satisfactory but rectified by the contractor.

EIA	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location	When to	What requirements or	Status
Ref.	Log		Recommended	implement	of the	implement	standards for the	
	Ref.		Measures & Main	the measure?	measure	the measure?	measure to achieve?	
			Concerns to address					
Table	Table		seeks to compensate	Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and BD	N/A
7-14	9-2	settlements and valuable landscape resources such as wetland, fishpond, stream course and existing trees, and considered the importance of tree retention within the works area, new tree planting will concentrate in selected	for the predicted tree loss.					
OP 3		retention within the works area, new tree planting will concentrate in selected new amenity areas along the alignment, infilling between retained and transplanted trees. The preliminary planting proposals for the proposed works include the planting of some 357 new trees utilising a combination of mature to light standard sized stock (i.e. approximately 15% of mature trees, 75% of standard trees, and 10% light standard trees). These trees will be planted in woodland clumps and small tree groups at strategic locations to de-emphasise the horizontality of the fence alignment. Based on preliminary findings the proposed planting will result in a compensatory planting ratio of 1:1 (new planting: trees recommended for felling). This compares favourably with the report's assertion that some 357 trees would be felled due to the proposed works. With the proposed preservation of existing trees, transplantation of trees in conflict with the proposals and the planting of new trees the project area will contain approximately 2000 trees. Trees forming part of the new planting will provide screening to neighbourhood villagers and will utilise species native to Hong Kong. These proposals will be subject to review at detailed design stage of the project.						

Remarks: ^ Implement mitigation measure in the reporting month;

N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;

Not satisfactory but rectified by the contractor.

Appendix	$\overline{G}$
Complaint La	g

### Appendix G – Complaint Logs

# Complaints

Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
	Location	Location Received Date	Location Received Date Details of Complaint  Details of Complaint	Location Received Date Details of Complaint Investigation/Mitigation Action



Contract No.: SS W306

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

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

	Actual Quantities of Inert Construction Waste Generated Monthly					Actual Quantities of Non-inert Construction Waste Generated Monthly					
Month	(a)=(b)+(c)+(d)+(e)  Total Quantity Generated	(b) Broken Concrete (see Note 4)	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill	(f) Metals	(g) Paper/ cardboard packaging	(h) Plastics (see Note 3)	(i) Chemical Waste	(j) Others, e.g. general refuse disposed of at Landfill	
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )	
Jan	0	0	0	0	0	0	0	0	0	0	
Feb	0	0	0	0	0	0	0	0	0	0	
Mar	0	0	0	0	0	0	0	0	0	0.026	
Apr	0	0	0	0	0	0	0	0	0	0.033	
May	0	0	0	0	0	0	0	0	0	0.026	
Jun											
Sub-total											
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	0	0	0	0	0	0	0	0	0	0.085	

Notes:

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



#### Appendix I-Status of License and Permit

Item	Permit/License /Ref.	Vali	Remarks	
nem	No.	From	То	Remarks
Variation of Further Environmental Permit	FEP-02/347/2009/A	13 <sup>th</sup> Jul 2010	N.A.	
Variation of Environmental Permit	EP-347/2009/A	9 <sup>th</sup> Jun 2010	N.A.	
Notification Pursuant to Section 3(1) of The Air Pollution Control	313192	8 <sup>th</sup> Jan 2010	N.A.	
(Construction Dust) Regulation	313192	8 Jan 2010	N.A.	
Registration of Chemical Waste Producer	5213-542-A2587-02	4 <sup>th</sup> Mar 2010	N.A.	