

Issue No. : 1
Issue Date : October 2012
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 (SEPTEMBER 2012)**

Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

COMMERCIAL-IN-CONFIDENCE

Allied Environmental Consultants Limited
Acousticians & Environmental Engineers

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Ref.: ASDBFBPREM00_0_0426L.12

8 October 2012

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 September 2012**

Reference is made to the Environmental Team's submission of the draft Monthly EM&A Report for September 2012 (Issue No. 1) by E-mail on 8 October 2012.

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. W. K. Yiu (CPM203) / Mr. Laurence Kwan (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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Certified by:


Grace M. H. Kwok
Environmental Team Leader

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Prepared By:

ALLIED ENVIRONMENTAL CONSULTANTS LTD.

COMMERCIAL-IN-CONFIDENCE

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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.

Table of Contents

Table of Contents	i
List of Tables	ii
List of Figures	ii
List of Appendices	ii
EXECUTIVE SUMMARY	1
1. PROJECT BACKGROUND	3
1.1 Project Organization and Contact Personnel	4
2. CONSTRUCTION WORKS & PROGRAMME	4
3. SUMMARY OF EM&A REQUIREMENT	6
4. NOISE MONITORING METHODOLOGY	8
4.1 Noise Monitoring Procedure	8
4.2 Noise Monitoring Programme	8
5. RESULTS	9
6. SITE INSPECTION & AUDIT	10
7. NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS	11
8. WASTE MANAGEMENT	11
9. STATUS OF LICENSE AND PERMIT	11
10. CONCLUSIONS AND FUTURE KEY ISSUES	11

List of Tables

Table 1	Contact Details of Key Personnel
Table 2	Interrelationship between Construction Activities and Mitigation Measures
Table 3	Action and Limit Level for Noise Impact Monitoring
Table 4	Event Action Plan
Table 5	Noise Monitoring Equipment
Table 6	Descriptions of Noise Monitoring Locations
Table 7	Noise Monitoring Results
Table 8	Summary of Site Inspections

List of Figures

Figure 1	Site Location Plan
Figure 2	Location of Noise Monitoring Stations

List of Appendices

Appendix A	Project Construction Programme
Appendix B	Organization Chart
Appendix C	Calibration Certificates of Noise Monitoring Instruments
Appendix D	Detail Schedule of Noise Monitoring Programme
Appendix E	Summary and Graphical Plot of Noise Monitoring Record
Appendix F	Mitigation Measures Implementation Schedule for Construction Stage
Appendix G	Complaint Log
Appendix H	Monthly Waste Flow Table
Appendix I	Status of License and Permit

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 25th March 2010 and the construction works were commenced on 12th April 2010. This report is the thirty-first monthly EM&A report, which details the EM&A results recorded during the period from 1st September 2012 to 30th September 2012.

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 5th, 11th, 18th and 27th September 2012. 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 was no exceedance of the action and limit levels during the reporting month.

Four environmental site inspections were conducted by the Contractor and the ET on 7th, 12th, 21st and 26th September 2012. 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 of 7m³ of general refuse was disposed to NENT Landfill. A total of 514m³ of C&D waste was disposed in this reporting period.

Construction activities to be undertaken from 1st October to 31st October 2012 will include fixing and painting of PBF / SBF post, U/G ducting work, backfilling / compaction to proposed Boundary patrol road, XPM Mesh fixing to PBF / SBF fence, tree planting, painting to PBF / SBF flat bar and concreting to Boundary patrol road. Potential environmental impacts include dust emission relating to the dry weather; 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

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 (September 2012)

2

the construction works. The Contractor was reminded to maintain good housekeeping at the site.

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 25th March 2010 and the construction works commenced on 12th April 2010. This report is the thirty-first monthly EM&A report, which details the EM&A results recorded during the period from 1st September 2012 to 30th September 2012.

1.1 Project Organization and Contact Personnel

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

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

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 during 1st September 2012 to 30th September 2012 including the following works items:

- Fixing and painting of PBF / SBF post;
- U/G ducting work;
- Backfilling / compaction to proposed Boundary patrol road;
- XPM Mesh fixing to PBF / SBF fence;
- Tree planting;
- Painting to PBF / SBF post and flat bar

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

Construction Works	Major Environmental Impact	Mitigation Measures
Fixing of PBF / SBF post	Waste management.	Quantities and record of waste transferred to licensed collector should be well- maintained.
U/G ducting work	Waste management.	Quantities and record of waste transferred to licensed collector should be well- maintained.
Backfilling / compaction to proposed Boundary patrol road	Wastewater, air quality, noise quality impacts and waste management.	Proper treatment should be made prior to discharge of wastewater. Water spraying provided when necessary. Well-maintained or quiet plants were used. Quantities and record of waste transfer should be well-maintained.
XPM Mesh fixing to PBF / SBF fence	Waste management.	Quantities and record of waste transferred to licensed collector should be well- maintained.
Tree planting	Air quality	Water spraying provided when necessary
Painting to PBF / SBF post and flat bar	Waste management.	Proper storage of chemical should be provided. Quantities and record of waste transferred to licensed collector 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 Measurements in L_{eq} (30min)	When one documented complaint is received.	75 dB(A)

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	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to IEC and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation measures. 	<ol style="list-style-type: none"> 1. Review with analyzed results submitted by ET 2. Review the proposed remedial measures by the Contractor and advise ER accordingly. 3. Supervise the implement of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing, 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analyzed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify the source. 2. Notify IEC, ER, EPD and the Contractor. 3. Repeat measurement to confirm 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. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analyzed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abate. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 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 ($Leq(30mins)$) 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 5th, 11th, 18th and 27th September 2012. 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 Lung	G/F boundary wall of Village House at Ma Tso Lung

Table 6 Descriptions of Noise Monitoring Locations

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 **Appendix 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 _{eq} (30mins)	L ₁₀ (30mins)	L ₉₀ (30mins)	Remarks
MTL-01	5 September 12	Sunny	0.3	09:00 – 09:30	48.6	50.5	41.3	Noise from birdcall and traffic noise
	11 September 12	Sunny	0.3	15:10 – 15:40	44.6	46.9	38.3	Noise from birdcall
	18 September 12	Sunny	0.3	14:02 – 14:32	45.6	48.3	39.6	Noise from birdcall
	27 September 12	Sunny	0.3	16:40 – 17:10	51.6	49.8	42.3	Noise from birdcall and traffic noise

Table 7 Noise Monitoring Results

6. SITE INSPECTION & AUDIT

A total of four 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
7 September 2012	No major environmental deficiency	-	-
12 September 2012	No major environmental deficiency	-	-
21 September 2012	Breaking-up concrete slab was conducted without spraying water.	The contractor was requested to spray water to minimize dust generation.	Water spray was provided and the situation was rectified immediately. (Closed)
	Stockpiles of excavated material were not covered.	The contractor was requested to cover the material by tarpaulin sheet.	The excavated material was covered by tarpaulin sheet as photo record on 28 September 2012. (Closed)
26 September 2012	The open channel was filled with large debris.	The contractor was requested to clean up large debris.	The large debris was removed as photo record on 28 September 2012. (Closed)
	Fuel tank and other chemical materials were placed on a bare ground.	The contractor was requested to provide drip tray for the chemicals in the site.	Drip tray was provided for chemical storage as photo record on 28 September 2012. (Closed)
	Measure for concrete washing was considered inadequate.	The contractor was requested to designate an area for concrete washing.	As adequate area was designated for concrete washing as photo record on 28 September 2012. (Closed)
	Stockpiles of excavated material were not covered.	The contractor was requested to cover the material by tarpaulin sheet.	The excavated material was covered by tarpaulin sheet as photo record on 28 September 2012. (Closed)

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 514m³ inert C&D waste was disposed to Tuen Mun Area 38 Fill Bank, 0m³ of timber, 0m³ of metal wastes, 0m³ of paper and cardboard packing and 7m³ of general refuse were disposed to North East New Territories Landfill. There are 0m³ of chemical waste was transported off site 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 trip-tickets 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 1st September 2012 to 30th September 2012.

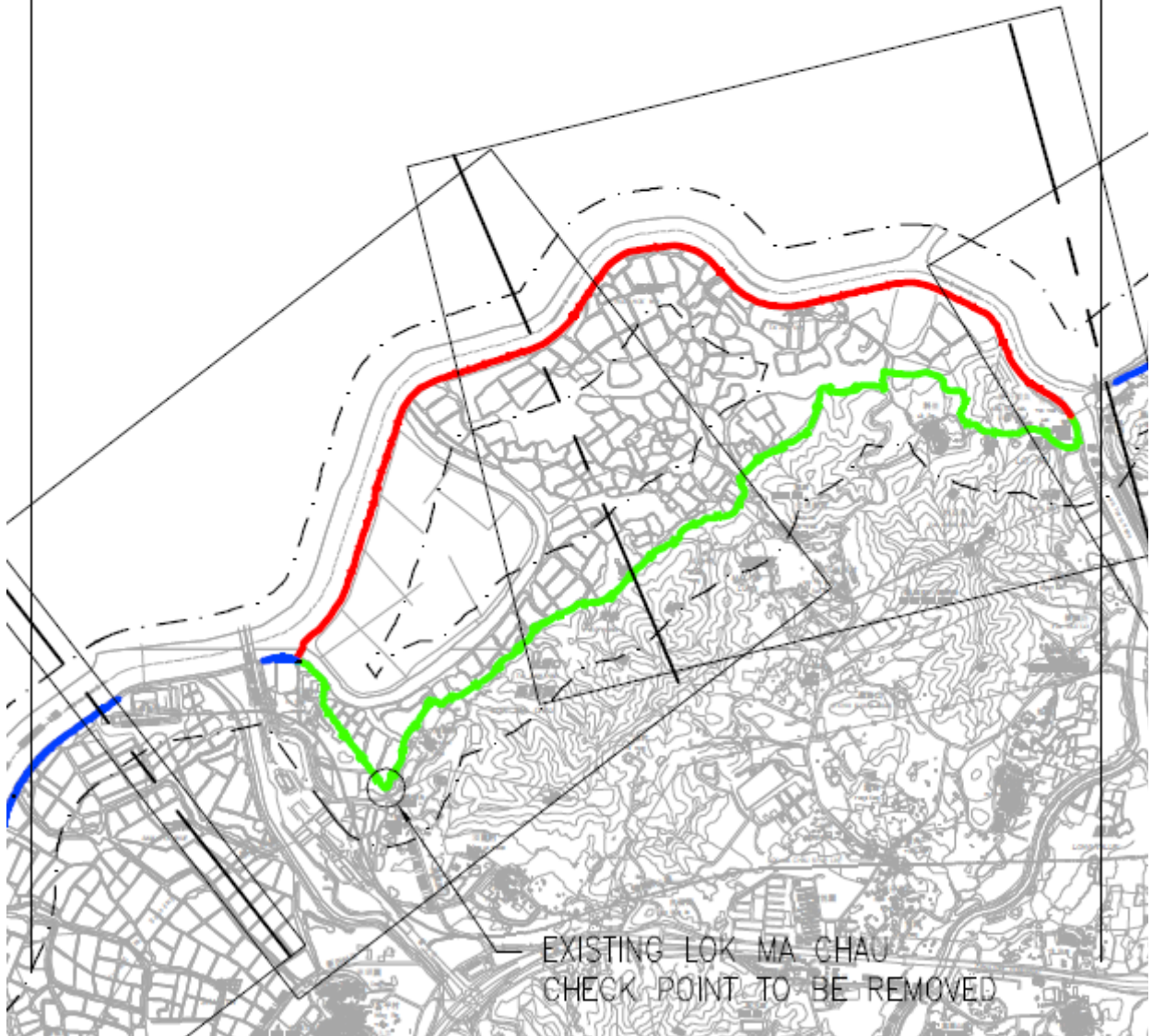
Noise monitoring was conducted at the monitoring location MTL01. All monitoring results complied with the relevant action and limit levels.

A total of 7m³ of general refuse was disposed to NENT Landfill. A total of 514m³ of C&D waste was disposed in this reporting period.

Construction activities to be undertaken from 1st October to 31st October 2012 will include fixing and painting of PBF / SBF post, U/G ducting work, backfilling / compaction to proposed Boundary patrol road, XPM Mesh fixing to PBF / SBF fence, tree planting, painting to PBF / SBF flat bar and concreting to Boundary patrol road. Potential environmental impacts include dust emission relating to the dry weather; 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.

SECTION 2

-  PROPOSED SECONDARY BOUNDARY FENCE ALONG EXISTING BOUNDARY PATROL ROAD
-  PROPOSED NEW BOUNDARY PATROL ROAD WITH PRIMARY AND SECONDARY BOUNDARY FENCES
-  EXISTING BOUNDARY FENCE TO BE REMOVED



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)
SITE LOCATION PLAN

Figure No.	Rev.:
1	0
Scale	Date
NTS	02/10





**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.

2

Rev.:

0

Scale

NTS

Date

02/10



Appendix A

Project Construction Programme



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屬機構

Our Ref.: 23909/01/S0867

21st November, 2011

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

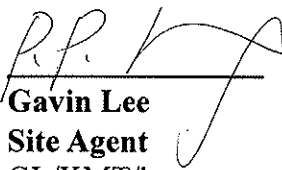
**Construction of a Secondary Boundary Fence and New Section of Primary
Boundary Fence and Boundary Patrol Road from Lok Ma Chau Control Point to
Ng Tung River**

Submission of Master Program Revision 4

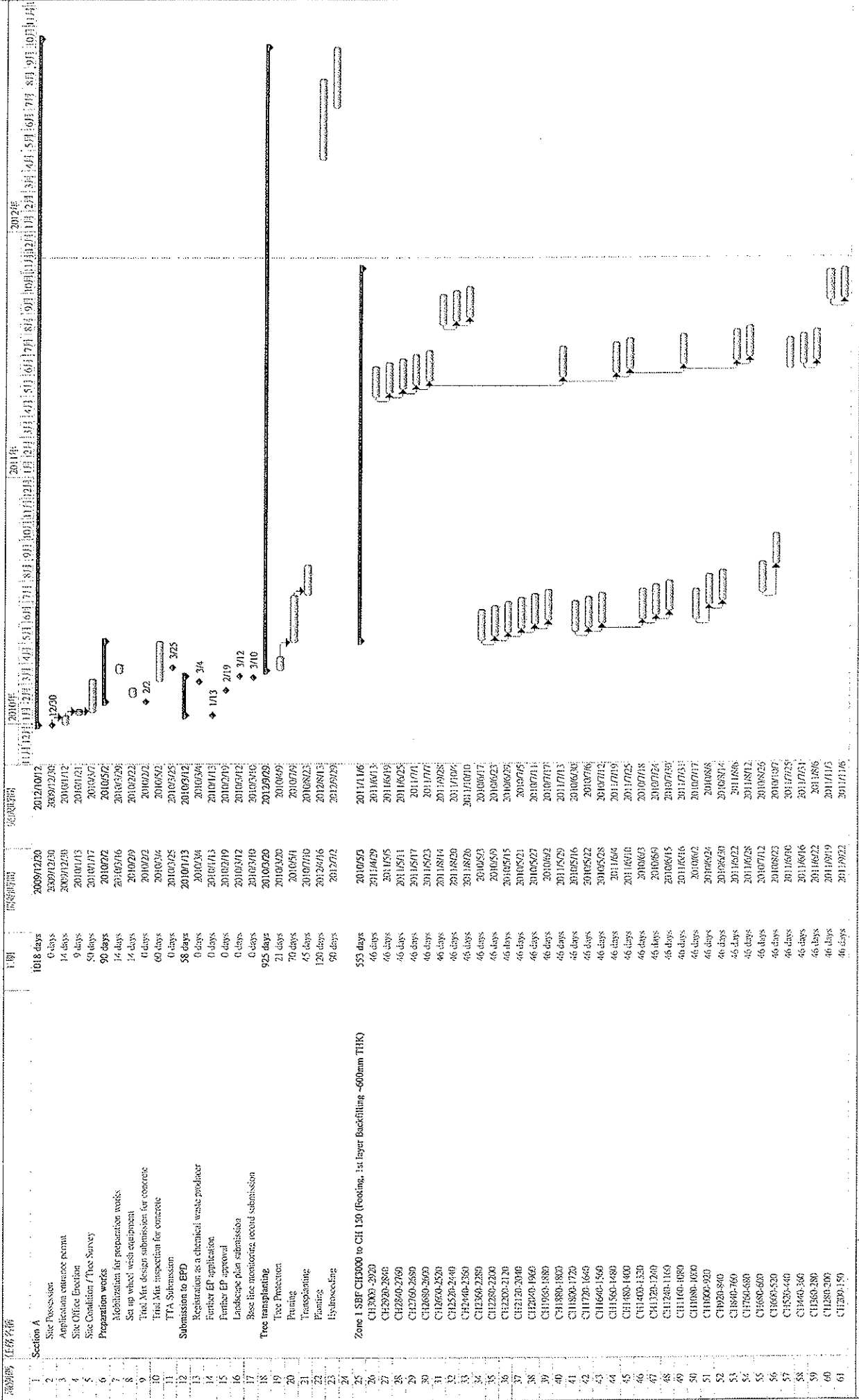
With reference to your letter SHC/JK/FYW/LW/DC/C216727/306/12/L-0162 dated 22/08/11 regarding granted EOT 6 of the captioned project, we would like to submit herewith our Master program revision 4 as per attached for your earlier comment and approval.

Thank you for your kind attention.

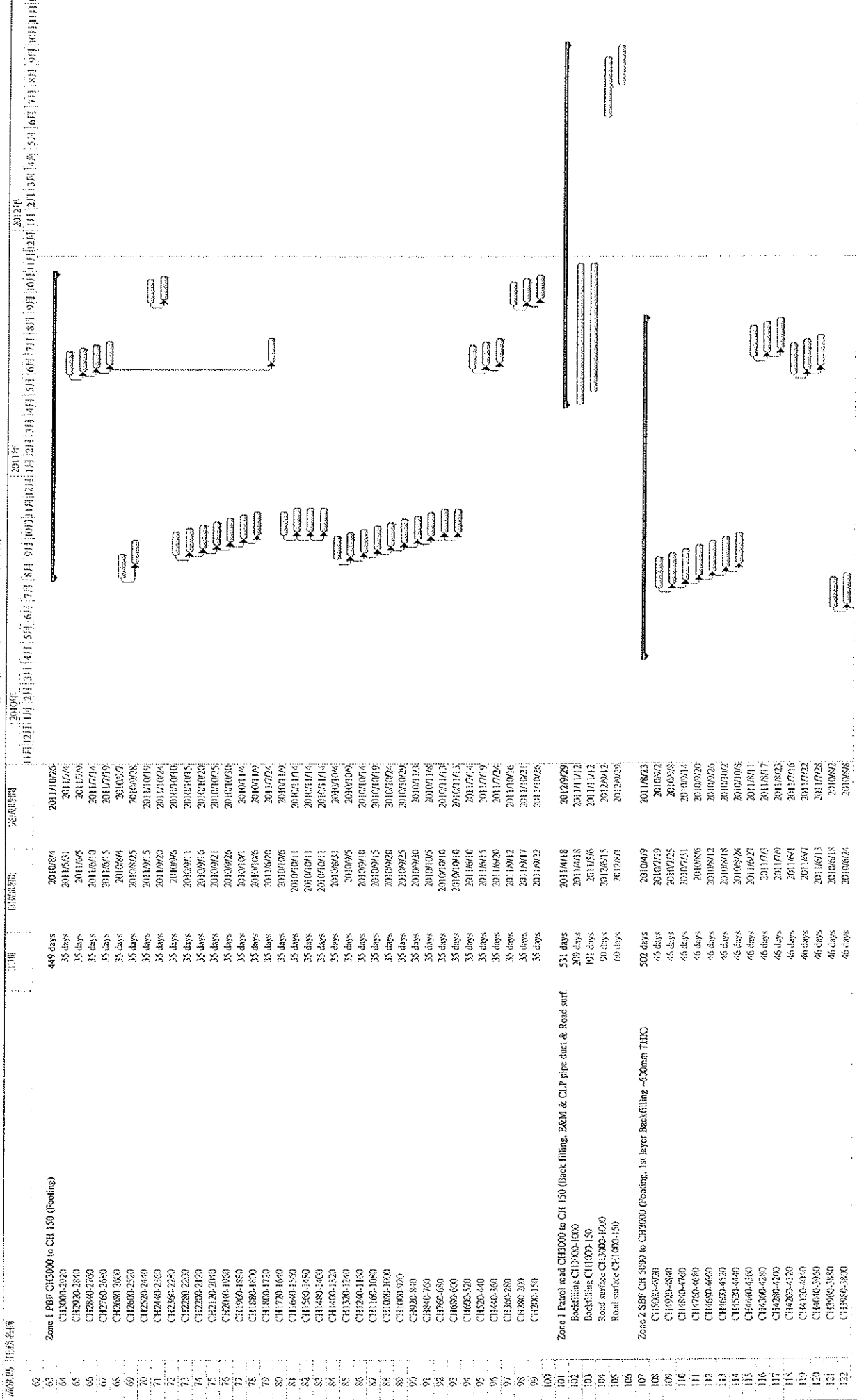
Yours faithfully
For and on behalf of
ABLE ENGINEERING CO., LTD.


Gavin Lee
Site Agent
GL/KMT/kmt
Encl.

c.c. CPM203, ArchSD (Attn: Mr. C. L. Wong / 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. Paul Chong)	w/e
PBSI Mottmac (Att.: Mr. C. K. Hui)	w/e
Site office / SQS	w/e



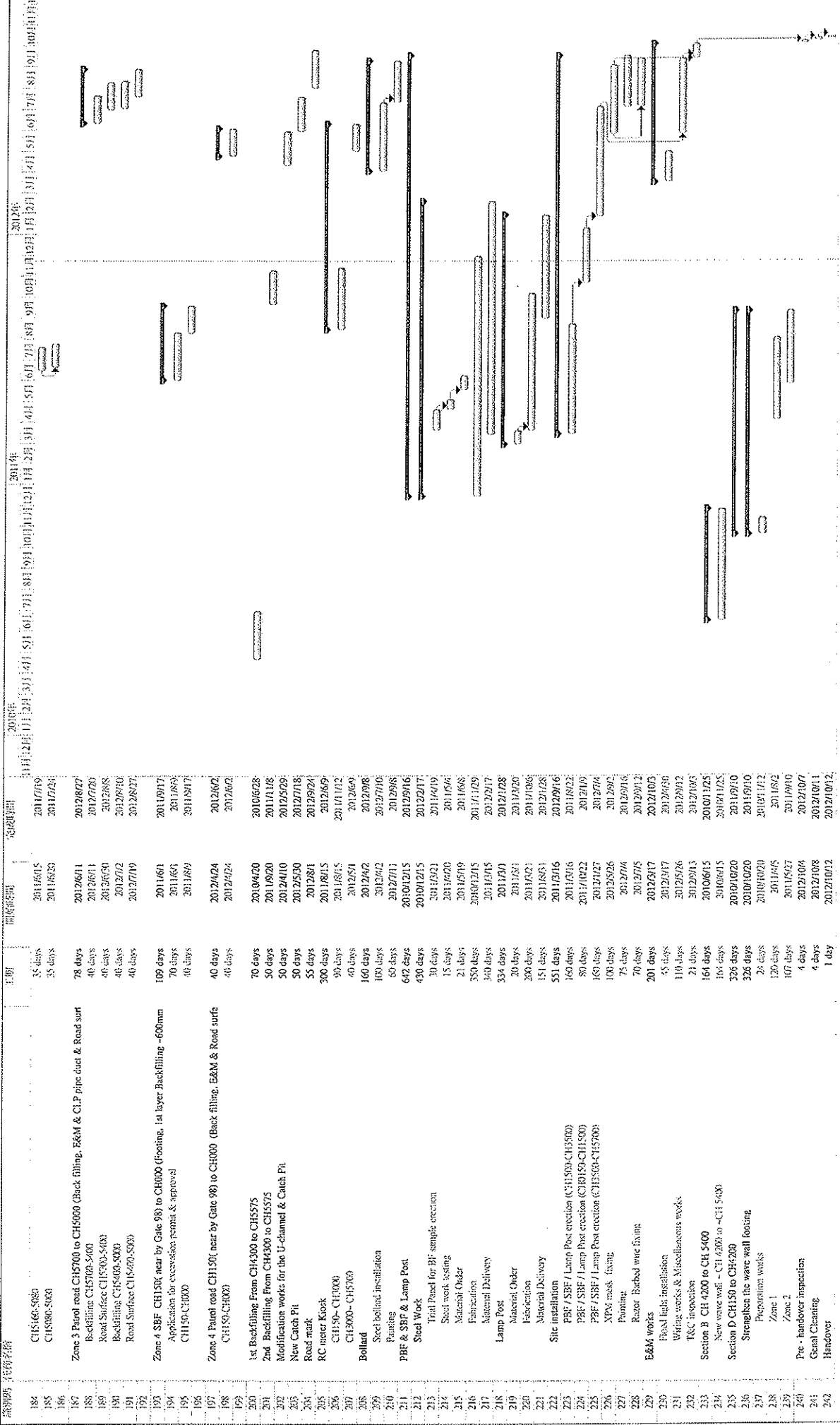
編號	任務名稱	日期	時數	狀態	外務編號
1	Section A	2010/01/20	1818 days		
2	Site Possession	2009/12/30	0 days		
3	Application concrete permit	2009/12/30	14 days		
4	Site Office Erection	2010/01/12	9 days		
5	Site Condition / Topo Survey	2010/01/13	50 days		
6	Preparation works	2010/01/17	90 days		
7	Mobilization for preparation works	2010/02/02	14 days		
8	Set up wheel wash equipment	2010/03/16	14 days		
9	Trial Mix design submission for concrete	2010/02/22	6 days		
10	Trial Mix inspection for concrete	2010/02/22	60 days		
11	TTA Submission	2010/03/25	0 days		
12	Submission to EPD	2010/03/25	38 days		
13	Registration as a chemical waste producer	2010/03/13	0 days		
14	Further EP application	2010/03/30	0 days		
15	Further EP approval	2010/04/13	0 days		
16	Landscape plan submission	2010/02/19	0 days		
17	Base line monitoring record submission	2010/03/12	0 days		
18	Tree transplanting	2010/03/20	925 days		
19	Piling	2010/04/09	21 days		
20	Tree Protection	2010/05/01	70 days		
21	Transplanting	2010/07/10	43 days		
22	Planting	2012/04/16	126 days		
23	Hydroseeding	2012/07/12	90 days		
24					
25	Zone 1 SBF CH1000 to CH 150 (footing, 1st layer backfilling -600mm THK)	2010/05/03	553 days		
26	CH1000-3920	2011/04/29	46 days		
27	CH200-2860	2011/05/15	46 days		
28	CH260-2760	2011/05/11	46 days		
29	CH2760-2680	2011/05/17	46 days		
30	CH2680-2600	2011/05/23	46 days		
31	CH2600-2520	2011/05/28	46 days		
32	CH2520-2440	2011/06/04	46 days		
33	CH2440-2360	2011/06/10	46 days		
34	CH2360-2280	2011/06/16	46 days		
35	CH2280-2200	2011/06/22	46 days		
36	CH2200-2120	2011/06/28	46 days		
37	CH2120-2040	2011/07/05	46 days		
38	CH2040-1960	2011/07/11	46 days		
39	CH1960-1880	2011/07/17	46 days		
40	CH1880-1800	2011/07/23	46 days		
41	CH1800-1720	2011/07/29	46 days		
42	CH1720-1660	2011/08/05	46 days		
43	CH1660-1560	2011/08/11	46 days		
44	CH1560-1480	2011/08/17	46 days		
45	CH1480-1400	2011/08/23	46 days		
46	CH1400-1320	2011/08/29	46 days		
47	CH1320-1240	2011/09/04	46 days		
48	CH1240-1160	2011/09/10	46 days		
49	CH1160-1080	2011/09/16	46 days		
50	CH1080-1000	2011/09/22	46 days		
51	CH1000-920	2011/09/28	46 days		
52	CH920-860	2011/10/04	46 days		
53	CH860-760	2011/10/10	46 days		
54	CH760-680	2011/10/16	46 days		
55	CH680-600	2011/10/22	46 days		
56	CH600-520	2011/10/28	46 days		
57	CH520-440	2011/11/03	46 days		
58	CH440-360	2011/11/09	46 days		
59	CH360-280	2011/11/15	46 days		
60	CH280-200	2011/11/21	46 days		
61	CH200-150	2011/11/27	46 days		



高第街	任务名称	工期	开始日期	完成日期	外部任务	外部里程碑
62	Zone 1 PDF CH1000 to CH 150 (Footing)	419 days	2010/08/4	2011/10/26		
63	CH1000-2020	35 days	2011/05/31	2011/07/4		
64	CH1000-2840	35 days	2011/06/5	2011/07/9		
65	CH1000-2760	35 days	2011/06/10	2011/07/14		
66	CH1000-2680	35 days	2011/06/15	2011/07/19		
67	CH1000-2600	35 days	2010/08/7	2010/09/7		
68	CH1000-2520	35 days	2010/08/25	2010/09/28		
69	CH1000-2440	35 days	2011/09/15	2011/10/19		
70	CH1000-2360	35 days	2011/09/20	2011/10/24		
71	CH1000-2280	35 days	2010/09/6	2010/10/10		
72	CH1000-2200	35 days	2010/09/11	2010/10/15		
73	CH1000-2120	35 days	2010/09/16	2010/10/20		
74	CH1000-2040	35 days	2010/09/21	2010/10/25		
75	CH1000-1960	35 days	2010/09/26	2010/10/30		
76	CH1000-1880	35 days	2010/10/01	2010/10/14		
77	CH1000-1800	35 days	2010/10/06	2010/10/19		
78	CH1000-1720	35 days	2010/10/11	2010/10/24		
79	CH1000-1640	35 days	2010/10/16	2010/10/29		
80	CH1000-1560	35 days	2010/10/21	2010/11/04		
81	CH1000-1480	35 days	2010/10/26	2010/11/09		
82	CH1000-1400	35 days	2010/10/31	2010/11/14		
83	CH1000-1320	35 days	2010/11/05	2010/11/18		
84	CH1000-1240	35 days	2010/11/10	2010/11/23		
85	CH1000-1160	35 days	2010/11/15	2010/11/28		
86	CH1000-1080	35 days	2010/11/20	2010/12/03		
87	CH1000-1000	35 days	2010/11/25	2010/12/08		
88	CH1000-920	35 days	2010/11/30	2010/12/13		
89	CH1000-840	35 days	2010/12/05	2010/12/18		
90	CH1000-760	35 days	2010/12/10	2010/12/23		
91	CH1000-680	35 days	2010/12/15	2010/12/28		
92	CH1000-600	35 days	2010/12/20	2010/1/02		
93	CH1000-520	35 days	2010/12/25	2010/1/07		
94	CH1000-440	35 days	2010/12/30	2010/1/12		
95	CH1000-360	35 days	2011/01/05	2011/01/18		
96	CH1000-280	35 days	2011/01/10	2011/01/23		
97	CH1000-200	35 days	2011/01/15	2011/01/28		
98	CH1000-120	35 days	2011/01/20	2011/02/02		
99	CH1000-40	35 days	2011/01/25	2011/02/07		
100						
101	Zone 2 SBF CH 5000 to CH1000 (Backfilling, EBM & CLP pipe duct & Road surf.)	531 days	2011/04/18	2012/09/29		
102	Backfilling CH1000-1000	209 days	2011/04/18	2011/11/2		
103	Backfilling CH1000-150	191 days	2011/05/6	2011/11/12		
104	Road surface CH1000-1000	90 days	2012/06/15	2012/09/29		
105	Road surface CH1000-150	69 days	2012/07/1	2012/09/29		
106						
107	Zone 2 SBF CH 5000 to CH1000 (Footing, 1st layer Backfilling -600mm THKO)	502 days	2010/04/9	2011/08/23		
108	CH1000-0720	46 days	2010/07/19	2010/09/2		
109	CH1000-840	46 days	2010/07/25	2010/09/8		
110	CH1000-960	46 days	2010/07/31	2010/09/14		
111	CH1000-1080	46 days	2010/08/6	2010/09/20		
112	CH1000-1200	46 days	2010/08/12	2010/09/26		
113	CH1000-1320	46 days	2010/08/18	2010/10/2		
114	CH1000-1440	46 days	2010/08/24	2010/10/8		
115	CH1000-1560	46 days	2010/08/30	2010/10/14		
116	CH1000-1680	46 days	2010/09/05	2010/10/19		
117	CH1000-1800	46 days	2010/09/11	2010/10/25		
118	CH1000-1920	46 days	2010/09/17	2010/10/31		
119	CH1000-2040	46 days	2010/09/23	2011/01/6		
120	CH1000-2160	46 days	2010/09/29	2011/01/12		
121	CH1000-2280	46 days	2010/10/05	2011/01/18		
122	CH1000-2400	46 days	2010/10/11	2011/01/24		

編號	工作名稱	日期	持續時間	完成日期	2010年	2011年	2012年
123	CH3800-3720		46 days	2010/6/26			
124	CH3720-3640		46 days	2011/4/29			
125	CH3640-3560		46 days	2011/5/5			
126	CH3560-3480		46 days	2011/5/11			
127	CH3480-3400		46 days	2011/5/17			
128	CH3400-3320		46 days	2011/5/23			
129	CH3320-3240		46 days	2011/5/29			
130	CH3240-3160		46 days	2010/6/24			
131	CH3160-3080		46 days	2011/6/4			
132	CH3080-3000		46 days	2011/6/25			
133							
134	Zone 2 PBF CH 3000-3000 (Footings & 2nd layer Backfilling up to sub-base)		415 days	2010/7/31			
135	CH3000-4030		46 days	2011/7/29			
136	CH4030-4070		46 days	2011/8/4			
137	CH4070-4110		46 days	2011/8/10			
138	CH4110-4150		46 days	2011/8/16			
139	CH4150-4190		46 days	2011/8/22			
140	CH4190-4230		46 days	2011/8/28			
141	CH4230-4270		46 days	2011/9/3			
142	CH4270-4310		46 days	2011/9/9			
143	CH4310-4350		46 days	2011/9/15			
144	CH4350-4390		46 days	2011/9/21			
145	CH4390-4430		46 days	2011/9/27			
146	CH4430-4470		46 days	2011/10/3			
147	CH4470-4510		46 days	2010/7/11			
148	CH4510-4550		46 days	2011/10/9			
149	CH4550-4590		46 days	2011/10/15			
150	CH4590-4630		46 days	2011/10/21			
151	CH4630-4670		46 days	2011/10/27			
152	CH4670-4710		46 days	2011/11/2			
153	CH4710-4750		46 days	2011/11/8			
154	CH4750-4790		46 days	2011/11/14			
155	CH4790-4830		46 days	2011/11/20			
156	CH4830-4870		46 days	2011/11/26			
157	CH4870-4910		46 days	2011/12/2			
158	CH4910-4950		46 days	2011/12/8			
159	CH4950-5000		46 days	2011/12/14			
160							
161	Zone 2 Patrol road CH 5000-5000 (Back filling, E&M & CLP pipe duct & Road surface)		439 days	2011/6/71			
162	Backfilling CH5000-3000		160 days	2011/6/1			
163	Road Surface CH5000-3000		93 days	2012/5/15			
164							
165	Zone 3 SBP CH5700 to CH5000 (Footings, 1st layer Backfilling -400mm FHR)		487 days	2010/7/14			
166	CH5700-5640		46 days	2011/7/12			
167	CH5640-5580		46 days	2011/7/18			
168	CH5580-5520		46 days	2011/7/24			
169	CH5520-5460		46 days	2011/7/30			
170	CH5460-5400		46 days	2011/8/5			
171	CH5400-5340		46 days	2011/8/11			
172	CH5340-5280		46 days	2011/8/17			
173	CH5280-5220		46 days	2011/8/23			
174	CH5220-5160		46 days	2010/6/28			
175	CH5160-5100		46 days	2010/7/4			
176	CH5100-5000		46 days	2010/7/10			
177							
178	Zone 3 PBF CH5700 to CH5000 (Footings)		152 days	2011/6/15			
179	CH5700-5640		35 days	2011/6/15			
180	CH5640-5580		35 days	2011/6/20			
181	CH5580-5520		35 days	2011/6/25			
182	CH5520-5460		35 days	2011/7/1			
183	CH5460-5400		35 days	2011/7/6			

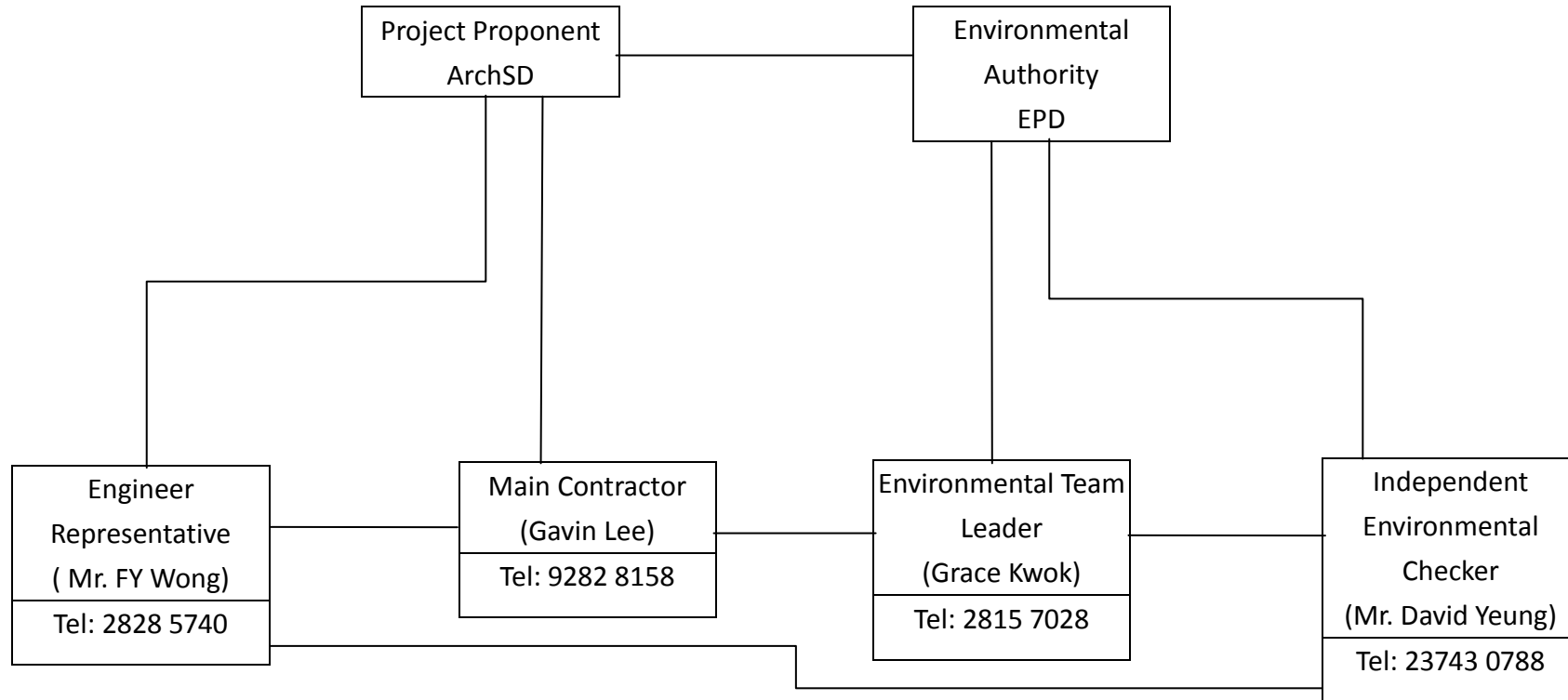
Master Programme
Construction of a Secondary Boundaries Fence and New Section of Primary Boundary Fence and Boundary Patrol Road
from Lok Ma Chau Control Point to Ng Tung River (Contract No. SSW306)



Appendix B
Organization Chart

Appendix B – Organization Chart

————— Line of communication



Appendix C

*Calibration Certificates of Noise Monitoring
Instruments*



Certificate of Calibration

校正證書

Certificate No. : C123580
 證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引|編號 : IC12-1472)

Description / 儀器名稱 : Sound Level Meter
 Manufacturer / 製造商 : Rion
 Model No. / 型號 : NL-31
 Serial No. / 編號 : 00410224
 Supplied By / 委託者 : Envirotech Services Co.
 Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
 Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C
 Relative Humidity / 相對濕度 : (55 ± 20)%
 Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 15 June 2012

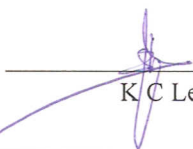
TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
 All results are within manufacturer's specification.
 The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Precision Measurement Ltd., UK
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By : 
 測試 : L K Yeung

Certified By : 
 核證 : K C Lee

Date of Issue : 15 June 2012
 簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C123580
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- Self-calibration was performed before the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C120016
CL281	Multifunction Acoustic Calibrator	DC110233

- Test procedure : MA101N.

- Results :

- 6.1 Sound Pressure Level

- 6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L _A	A	Fast	94.00	1	93.7	± 1.1

- 6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L _A	A	Fast	94.00	1	93.7 (Ref.)
				104.00		103.7
				114.00		113.7

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

- 6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L _A	A	Fast	94.00	1	93.7	Ref.
			Slow			93.6	± 0.3

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate of Calibration

校正證書

Certificate No. : C123580
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _A	A	Fast	94.00	63 Hz	67.3	-26.2 ± 1.5
					125 Hz	77.4	-16.1 ± 1.5
					250 Hz	85.0	-8.6 ± 1.4
					500 Hz	90.4	-3.2 ± 1.4
					1 kHz	93.7	Ref.
					2 kHz	95.0	+1.2 ± 1.6
					4 kHz	94.8	+1.0 ± 1.6
					8 kHz	92.7	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _C	C	Fast	94.00	63 Hz	92.8	-0.8 ± 1.5
					125 Hz	93.5	-0.2 ± 1.5
					250 Hz	93.7	0.0 ± 1.4
					500 Hz	93.8	0.0 ± 1.4
					1 kHz	93.7	Ref.
					2 kHz	93.6	-0.2 ± 1.6
					4 kHz	93.1	-0.8 ± 1.6
					8 kHz	90.8	-3.0 (+2.1 ; -3.1)
					12.5 kHz	88.0	-6.2 (+3.0 ; -6.0)

Remarks : - Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value : 94 dB : 63 Hz - 125 Hz : ± 0.35 dB
 250 Hz - 500 Hz : ± 0.30 dB
 1 kHz : ± 0.20 dB
 2 kHz - 4 kHz : ± 0.35 dB
 8 kHz : ± 0.45 dB
 12.5 kHz : ± 0.70 dB
 104 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)
 114 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C124011
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC12-1674)

Description / 儀器名稱 : Sound Level Calibrator
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-73
Serial No. / 編號 : 10997142
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$ Relative Humidity / 相對濕度 : $(55 \pm 20)\%$
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 9 July 2012

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
All results are within manufacturer's specification.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By : 
測試 : L K Yeung

Certified By : 
核證 : K C Lee

Date of Issue : 10 July 2012
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C124011
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C123541
CL281	Multifunction Acoustic Calibrator	DC110233
TST150A	Measuring Amplifier	C120886

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	94.0	± 0.5	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.990	1 kHz ± 2 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

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

Appendix D

Detail Schedule of Noise Monitoring Programme

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	Time
5 th September 2012	09:00
11 th September 2012	15:10
18 th September 2012	14:02
27 th September 2012	16:40

Monitoring schedule of the coming month

Date	Time
4 th October 2012	To be confirmed
9 th October 2012	To be confirmed
18 th October 2012	To be confirmed
25 th October 2012	To be confirmed
29 th October 2012	To be confirmed

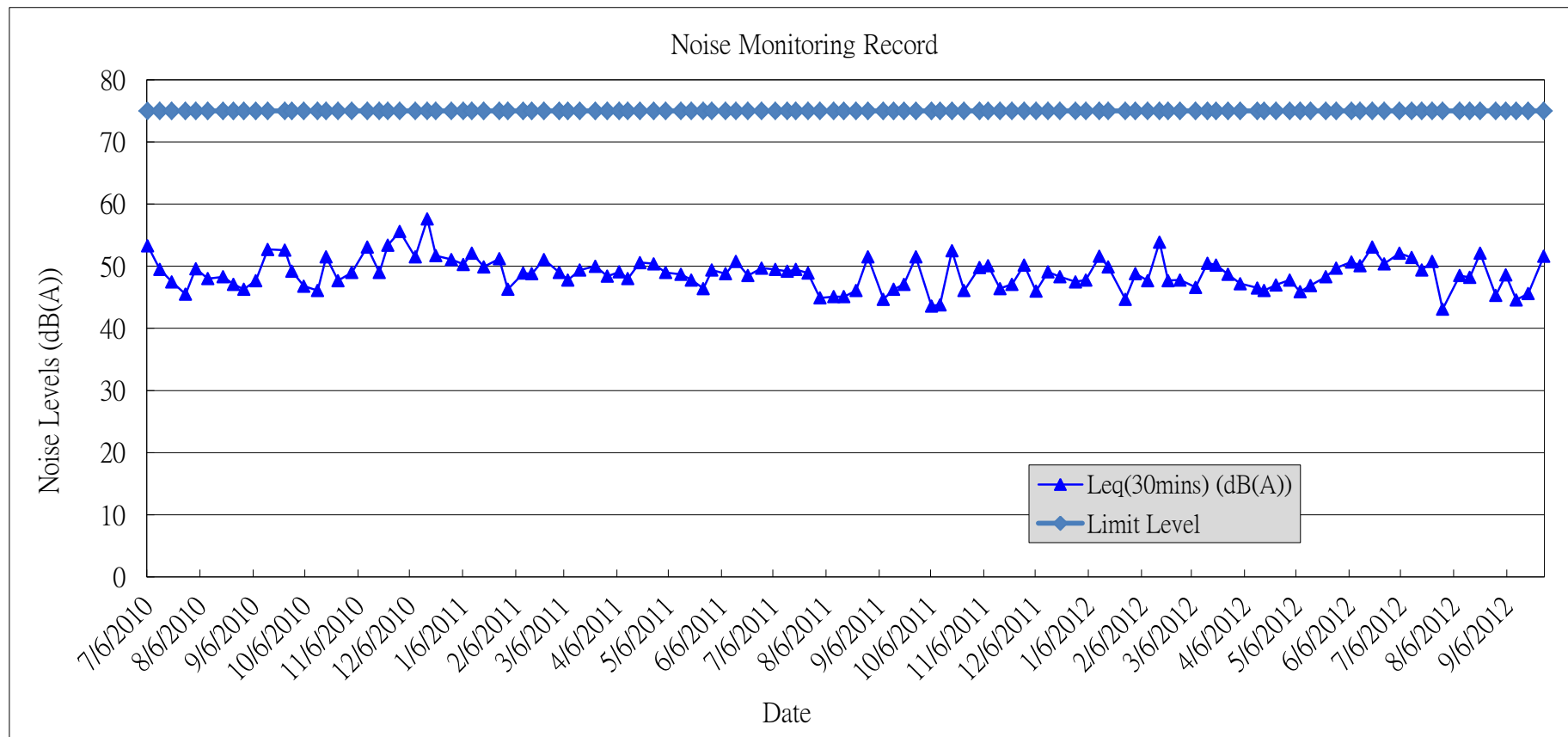
Appendix E

*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: September 2012

Date	Time	Leq(30mins) (dB(A))	L10(30mins) (dB(A))	L90(30mins) (dB(A))	Limit Level
9/5/2012	09:00 – 09:30	48.6	50.5	41.3	75
9/11/2012	15:10 – 15:40	44.6	46.9	38.3	75
9/18/2012	14:02 – 14:32	45.6	48.3	39.6	75
9/27/2012	16:40 – 17:10	51.6	49.8	42.3	75



Appendix F

*Mitigation Measures Implementation Schedule for
Construction Stage*

Appendix F Environmental Mitigation Implementation Schedule

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
<u>Air Quality</u>								
During Construction								
2.5.2	3.2.2	<p>The following good site practice should be implemented:</p> <ul style="list-style-type: none"> any excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated within 24 hours of the excavation or unloading; the working area of excavation should be sprayed with water immediately before, during and immediately after the operations so as to maintain the entire surface wet; dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting; 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; 	To minimize construction dust impact	Contractor	Construction Work Sites	During Construction	EIAO-TM, Air Pollution Control (Construction Dust) Regulation	^ * ^ ^

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.

Appendix F Environmental Mitigation Implementation Schedule

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
		<ul style="list-style-type: none"> the portion of road leading only to a construction site that is within 30m of designated vehicle entrance or exit should be kept clear of dusty materials; all dusty materials should be sprayed with water prior to any loading, unloading or transfer; vehicle speed should be limited to 10kph except on completed access roads; every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. 						^ * ^ ^
Noise								
During Construction								
3.8.14	4.8.1	<p>The following good site practical should be implemented:</p> <ul style="list-style-type: none"> The Contractor shall adopt the Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD; The Contractor shall observe and comply with the statutory and non-statutory requirements and guidelines; 	To mitigate construction noise impact	Contractor	Construction Work Sites	During Construction	EIAO-TM, NCO	^ ^

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.

Appendix F Environmental Mitigation Implementation Schedule

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
		<ul style="list-style-type: none"> • Before commencing any work, the Contractor shall submit to the Engineer Representative for approval the method of working, equipment and noise mitigation measures intended to be used at the site; • 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 NSRs as is practical; • Unused equipment should be turned off. PME should be kept to a minimum and the parallel use of noisy equipment / machinery should be avoided; • Regular maintenance of all plant and equipment; • Material stockpiles and other structures should be effectively utilised as noise barriers, where practicable. 						<p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p> <p>N/A</p>

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3.8.1 -3.8.3	4.8.2 -4.8.3	<p>Other than good site practice, the Contractor is required to adopt Levels 1 and 2 site-specific direct mitigation measures as specified below during the construction phase.</p> <p>With construction / demolition work undertaken at a distance of 60m or less to the NSRs, below mitigation measures should be included:</p> <p>Level 1 – Use of Quiet Plant and Movable Noise Barrier</p> <ul style="list-style-type: none"> • 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. 	To mitigate construction noise impact	Contractor	Construction work sites	During construction	EIAO-TM, NCO	N/A

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3.8.9	4.8.4	<p>In addition to the use of quiet plant and movable noise barrier, alternative demolition method of existing boundary fence at Section 2-3 shall be used where demolition works would be undertaken at a distance of 12m or less to the NSRs. These particular mitigation measures should be included:</p> <p>Level 2 – Alternative Demolition Method of Existing Boundary Fence</p> <ul style="list-style-type: none"> • 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. 	To mitigate construction noise impact for demolition of existing boundary fence	Contractor	Construction work sites (Section 2 - 3)	Before the commencement of demolition works	EIAO-TM, NCO	^

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<u>Water Quality</u>								
<u>During Construction</u>								
4.7.1	5.3.1	<p>Good site practices in addition to the implementation of mitigation measures would minimize the impact to the surrounding environment.</p> <p><i>General Prevention and Precaution Measures</i></p> <ul style="list-style-type: none"> The site should be confined to avoid silt runoff to the site. No discharge of silty water into the storm drain and drainage channel within and the vicinity of the site. 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; 	To avoid site runoff and chemical leakage	Contractor	Construction work sites	During construction	Practice Note for Professional Persons with regard to site drainage (ProPECC PN 1/94) and TM standard under the WPCO	<p>^</p> <p>^</p> <p>*</p> <p>^</p> <p>^</p> <p>^</p>

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		<ul style="list-style-type: none"> Chemical waste containers shall be labelled with appropriate warning signs in English and Chinese to avoid accidents. there shall also be clear instructions showing what action to take in the event of an accidental; 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 leakage of oil or fuel shall be removed off-site immediately; Spillage or leakage of chemical waste to be controlled by using suitable absorbent materials; Chemicals will always be stored on drip trays or in bunded areas where the volume is 110% of the stored volume; Regular clearance of domestic waste generated in the temporary sanitary facilities to avoid waste water spillage. Temporary sanitary facilities to be provided for on-site workers during construction. 						<p>^</p> <p>^</p> <p>N/A</p> <p>^</p> <p>^</p> <p>^</p> <p>^</p>

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4.7.2 – 4.7.3	5.3.2-5.3.3	<p>Concreting Work</p> <p>A temporary drainage channel and associated facilities should be provided to collect the runoff generated and prevent concrete-contaminated water from entering watercourses. Adjustment of pH can be achieved by adding a suitable neutralising reagent to wastewater prior to discharge.</p> <p>The concreting works should be temporarily isolated with proper methods, such as</p>	To collect runoff generated and prevent concrete-contaminated water from entering watercourses	Contractor	Construction work sites	During construction	Practice Note for Professional Persons with regard to site drainage (ProPECC PN 1/94) and TM standard under the WPCO CEDD General	^

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		by placing of sandbags or silt curtains with lead edge at bottom and properly supported props.	To prevent adverse impacts on the water quality of Lin Ma Hang Stream SSSI		Work sites of Section 3 in the proximity of Lin Ma Hang Stream SSSI		Specification- Protection of natural streams/rivers- Clause 25.09	N/A
4.7.4	5.3.4	Soil Excavation and Stockpiling Excavated soil which needs to be temporarily stockpiled should be stored in a specially designated area and provided with a tarpaulin cover to avoid runoff into the drainage channels.	To avoid site runoff	Contractor	Construction work Sites	During construction	Practice Note for Professional Persons with regard to site drainage (ProPECC PN 1/94) and TM standard under the WPCO	*

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4.7.5 - 4.7.6	5.3.5-5.3.6	<p>Site Depot</p> <p>All compounds in works areas should be located on areas of hard standing with provision of drainage channels and settlement ponds where necessary to allow interception and controlled release of settled/treated water. Hard standing compounds should drain via an oil interceptor. The oil interceptor should be regularly inspected and cleaned to avoid wash-out of oil during storm conditions. A 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</p>	To avoid wash-out of oil during storm conditions	Contractor	Construction work Sites	During construction	Practice Note for Professional Persons with regard to site drainage (ProPECC PN 1/94) and TM standard under the WPCO	N/A

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		<p>register as a chemical waste producer. Disposal of the waste oil should be done by a licensed collector.</p> <p>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.</p> <p>Appropriate training including safety codes and relevant manuals should be given to the personnel who regularly handle the chemicals on site.</p>						^
4.7.7	5.3.7	<p>Construction of Checkpoint</p> <p>Sewage system should be constructed to divert domestic sewage, which will be generated from the sanitary facilities provided in the new checkpoint at Shek Chung Au, to public sewer connected to government sewage treatment facilities.</p>	To avoid disposal of domestic sewage into watercourses.	Contractor	Construction work Site at Checkpoint	During construction	N/A	N/A
Waste Management								
During Construction								

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5.6.7	6.3.6	<p>Site Clearance</p> <p>The topsoil and vegetation removed and excavated material may have to be temporarily stockpiled on-site. Control measures should be taken at the stockpiling area to prevent the generation of dust and pollution of stormwater channels, fish ponds or river channels. However, to eliminate the risk of blocking drains in the wet season, it is recommended that stockpiling of excavated materials during the wet season should be avoided as far as practicable.</p>	Prevent the generation of dust and pollution of storm water channels	Contractor	Construction work sites	During construction	Waste Disposal Ordinance (Cap.354); ETWBTC No. 15/2003, Waste Management on Construction Site	^
5.6.10 – 5.6.12	6.3.8	<p>Construction and Demolition Materials</p> <p>Careful design, planning and good site management can minimize over-ordering and generation of waste materials such as concrete mortars and cement grouts. The design of formwork should maximize the use of standard wooden panels so to achieve high reuse levels. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse.</p>	Minimize over-ordering and generation of waste materials	Contractor	Construction work sites	During construction	Waste Disposal Ordinance (Cap.354); ETWBTC No. 15/2003, Waste Management on Construction Site	^

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		<p>The Contractor should recycle as much of the C&D materials as possible on-site. 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.</p> <p>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.</p> <p>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.</p>						^
5.6.13-5.6.14	6.3.9 – 6.3.13	<p>Chemical Waste</p> <p>For those processes which generate chemical waste, it may be possible to find alternatives which generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste.</p>	To avoid chemical leakage	Contractor	Constructi on work sites	During construction planning	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, Waste Disposal	^

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		<p>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handed in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Waste as follows:</p> <p>Containers used for the storage of chemical wastes should:</p> <ul style="list-style-type: none"> • 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, <p>The storage area for chemical wastes should:</p> <ul style="list-style-type: none"> • 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; 					(Chemical Waste) (General) Regulation	^ ^ ^ ^ ^ ^ *

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		<ul style="list-style-type: none"> • have adequate ventilation; • be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); and • be arranged so that incompatible materials are adequately separated. Disposal of chemical waste should: <ul style="list-style-type: none"> • be via a licensed waste collector; and • be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Facility which also offers a chemical waste collection service and can supply the necessary storage containers, or • to be re-user of the waste, under approval from the EPD. 						^ ^ ^ ^ ^ ^ N/A
5.6.16	6.3.15	General Refuse Should be stored in enclosed bins or compaction units separate from C&D and chemical wastes. The Contractor should employ a reputable waste collector to remove general refuse from the site, separate from C&D and chemical wastes, on a regular basis to minimise odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.	Minimise odour, pest and litter impacts	Contractor	Construction work sites	During construction	Public Health and Municipal Services Ordinance (Cap. 132)	^

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5.6.18	6.3.16	<p>Construction Waste Management Plan</p> <p>A construction waste management plan (CWMP) should be prepared and developed by the contractor to ensure proper collection, treatment and disposal of waste on site. This CWMP will also take into account the requirement to handle chemical wastes on site which will need to be managed by a licensed waste collection contractor.</p>	Waste management during construction	Contractor	Construction work sites	During construction	ETWB TCW No. 19/2005, Waste Management on Construction Sites	^
<u>Ecology</u>								
Table 6.38	7.2	<p>Ecological Impacts on Floral Species of Conservation Concern</p> <p>Erection of protective fencing to protect the plant during construction period</p>	Protect the plant during construction period	Contractor	Construction work sites	During construction	EIAO	^

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Table 6.40	7.2	<p>Potential Ecological Impacts on Offsite Habitats</p> <p>Good site practices for controlling the dust and water quality (avoid stockpiles adjacent to wetlands, covering the stockpiles with impervious sheeting, control of vehicle speed, no discharge of silty water to the rivers, streams and drainage channels);</p> <p>Clear definition of works limit to avoid impact on adjacent habitats</p>	To avoid site runoff and dust impact	Contractor	Construction work sites	During construction	EIAO / Air Pollution Control (Construction Dust) Regulation / WPCO	^

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Table 6.39-T able 6.45	7.2	<p>Disturbance to Wetland-Dependent Birds, Raptors, Terrestrial Birds and Egretry</p> <p>Good working practices include switching off unused equipment, keep minimum number of powered mechanical equipment in operation at the same period, the use 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;</p> <p>Avoidance of construction works using Power Mechanical Equipments within the Wetland Conservation Area during bird migratory season (15th November – 15th March); and</p> <p>Restriction of excavation works within a 150m buffer zone from the egretry to ardeid non-breeding season (from August to February).</p>	To minimize disturbance to wildlife	Contractor	Constructi on work sites	During construction	EIAO / Air Pollution Control (Construction Dust) Regulation / WPCO	^
<u>Cultural Heritage</u>								

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8.7.1 – 8.7.4	8.1.1 - 8.1.4	An archaeological survey should be undertaken at the study areas of Pak Fu Shan and Lin Ma Hang of Section 3 after land resumption and before commencement of construction works	Assess the archaeological impact on the two identified sites of archaeological potential.	Contractor (through professional archaeologist)	The study areas of Pak Fu Shan and Lin Ma Hang of Section 3	After land resumption and before commencement of construction works	Antiquities and Monuments Ordinance / EIAO	N/A

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8.7.6	8.2.1	<p>Built Heritage Resources</p> <p>Mitigation in the form of buffer zones and safe public access have been proposed for one shrine (BF-HB1) and two graves (BF-G1 and G2)</p> <p>BF-HB1</p> <p>A buffer zone of a minimum distance of 1 metres should be established between the shrine 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 shrine during any construction works in close proximity.</p> <p>BF-G1 and BF-G2</p> <p>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.</p>	Avoid impacts to built heritage resources	Contractor	The works that are located in the vicinity of built heritage resources (BF-HB1 and BF-G1 and G2)	During Construction	EIAO	N/A

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<u>Landscape and Visual</u>								
Preservation of Existing Vegetation								
Table 7-13 CP1	Table 9-1	<ul style="list-style-type: none"> 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. 3/2006	^
Table 7-13 CP1	Table 9-1	<ul style="list-style-type: none"> Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced. 	To ensure the success of the tree preservation proposals.	Project Landscape Architect / Contractor	Site	Before construction phase commences	TM-EIA	^
Table 7-13 CP1	Table 9-1	<ul style="list-style-type: none"> 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. 	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	^

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Table 7-13 CP1	Table 9-1	<ul style="list-style-type: none"> 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. 	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 style="list-style-type: none"> 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. 	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 style="list-style-type: none"> 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	<ul style="list-style-type: none"> The rectification and repair of damaged vegetation following the construction phase to its original condition prior to the commencement of the works or replacement using specimens of the same species, size and form where appropriate to the design intention of the area affected 	To ensure the success of the tree preservation proposals.	Project Landscape Architect / Contractor	Site	Throughout construction phase	Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	N/A

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Table 7-13 CP1	Table 9-1	<ul style="list-style-type: none"> All works affecting the trees identified for retention and transplantation will be carefully monitored. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring throughout the construction period 	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 style="list-style-type: none"> Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for approval under the lease conditions and in accordance with ETWB TCW No. 2/2004 and WBTC No. 3/2006. 	To ensure the tree preservation and planting proposals are integrated with the existing landscape context and that the landscape resources are preserved where appropriate.	Project Landscape Architect / Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^

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Table 7-13 CP1	Table 9-1	<ul style="list-style-type: none"> 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. 	To ensure the tree preservation and planting proposals are integrated with the existing landscape context and that the landscape resources are preserved where appropriate.	Contractor	Site	Throughout construction phase	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^	
		Preservation of Existing Topsoil							
Table 7-13 CP2	Table 9-1	<ul style="list-style-type: none"> 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	^	

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 N/A Not Applicable in the reporting month;

X Non-compliance of mitigation measure;
 * Not satisfactory but rectified by the contractor.

Appendix F Environmental Mitigation Implementation Schedule

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 7-13 CP2	Table 9-1	<ul style="list-style-type: none"> The soil will be stockpiled to a maximum height of 2m and will be either temporarily vegetated with hydroseeded grass during construction or covered with a waterproof covering to prevent erosion. 	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	^
Table 7-13 CP2	Table 9-1	<ul style="list-style-type: none"> The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion. Alternatively, if this is not practicable, it should be considered for use elsewhere, including other projects. 	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	^
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.

Appendix F Environmental Mitigation Implementation Schedule

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 7-13 CP3	Table 9-1	<ul style="list-style-type: none"> Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase. 	To minimise the disturbance to existing landscape resources and change of visual amenity.	Contractor	Site	Through out construction phase	TM-EIA Annex 18	N/A
Table 7-13 CP3	Table 9-1	<ul style="list-style-type: none"> 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. 	To minimise the disturbance to existing landscape resources and change of visual amenity.	Contractor	Site	Through out construction phase	TM-EIA Annex 18	^
Mitigation Planting								
Table 7-13 CP4	Table 9-1	<ul style="list-style-type: none"> Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase 	To minimise the disturbance to existing landscape resources and change of visual amenity.	Contractor	Site	Through out construction phase	TM-EIA Annex 18	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.

Appendix F Environmental Mitigation Implementation Schedule

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 7-13 CP4	Table 9-1	<ul style="list-style-type: none"> Use of native plant species predominantly in the planting design for the buffer areas. 	To minimise the disturbance to existing landscape resources and change of visual amenity.	Contractor	Site	Through out construction phase	TM-EIA Annex 18	N/A
Table 7-13 CP4	Table 9-1	<ul style="list-style-type: none"> 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. 	To minimise the disturbance to existing landscape resources and change of visual amenity.	Contractor	Site	Through out construction phase	TM-EIA Annex 18	^
Transplantation of Existing Trees								
Table 7-13 CP5	Table 9-1	<ul style="list-style-type: none"> The tree transplanting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection / transplanting specification would be included within the contract documents. 	To minimise the disturbance to existing landscape resources and minimize the impacts on the visual amenity of the area.	Contractor	Site	Prior to the commencement of the proposed works	TM-EIA Annex 18, ETWB TCW No. 2/2004 & ETWB TCW No. 3/2006	^
Design of the Fence and associated Structures								

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.

Appendix F Environmental Mitigation Implementation Schedule

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 7-14 OP1	Table 9-2	<ul style="list-style-type: none"> Design of Boundary Fence, Boundary Patrol Road and Police Check Point – These structural elements will be designed in accordance with security requirement from Police Force and incorporate design features as part of design mitigation measures including: 	Responsive design to integrate the proposals into their landscape and visual context.	ArchSD	Site	Throughout design phase	TM-EIA Annex 18 and BD	^
		<ol style="list-style-type: none"> Integrated design approach – the boundary fence should be integrated, as 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 as wetland, fishpond and agricultural field. 						^
		<ol style="list-style-type: none"> Building massing - the proposed use of simple responsive design for the built structures with a low building height profile to reduce the potential visual mass of the structure within a rural context. 						N/A

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.

Appendix F Environmental Mitigation Implementation Schedule

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
		3. Treatment of built structures - the architectural design should seek to 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.						N/A
		4. Responsive building and fence finishes - In terms of the proposed finishes natural tones should be considered for the colour palette with 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.						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.

Appendix F Environmental Mitigation Implementation Schedule

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
		<p>5. Responsive lighting design – Aesthetic design of architectural and track lighting with following glare design measures:</p> <ul style="list-style-type: none"> ▪ Directional and full cut off lighting is recommended particularly for areas adjacent to existing village to minimise light spillage. ▪ Minimise geographical spread of lighting, only applied for safety and security reasons; ▪ Limited lighting intensity to meet the minimum safety and operation requirement; and ▪ High-pressure sodium road lighting is recommended for more stringent light control reducing spillage and thus visual impacts. 						N/A
Compensatory Planting Proposals								
Table 7-14 OP2	Table 9-2	<ul style="list-style-type: none"> • Utilise native to Hong Kong will be utilized within the buffer planting areas. 	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; X Non-compliance of mitigation measure;
 N/A Not Applicable in the reporting month; * Not satisfactory but rectified by the contractor.

Appendix F Environmental Mitigation Implementation Schedule

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 7-14 OP 2 / 3	Table 9-2	<ul style="list-style-type: none"> A qualified or registered landscape architect will be involved in the design, construction supervision and monitoring, and maintenance period to oversee the implementation of the recommended landscape and visual mitigation measures including the tree preservation and landscape works on site. 	Provide a linkage with the existing wooded areas creating a more coherent landscape framework whilst also improving the ecological connectivity between existing and proposed woodland habitats.	Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and BD	^
Table 7-14 OP 2	Table 9-2	<ul style="list-style-type: none"> 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 native to Hong Kong be used. In addition where possible the planting of new trees and shrubs will aim to link together existing woodland areas and small tree groups to improve the connectivity between habitats and create more 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. 	The planting proposal seeks to compensate for the predicted tree loss.	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.

Appendix F Environmental Mitigation Implementation Schedule

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 7-14 OP 3	Table 9-2	<ul style="list-style-type: none"> Compensatory Planting Proposals – Given the works extent is largely limited along existing roadside embankment to minimise impact to existing village 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 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. 	The planting proposal seeks to compensate for the predicted tree loss.	Contractor	Site	Throughout design phase	TM-EIA Annex 18, HKPSG and BD	N/A

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.

Appendix G
Complaint Log

Appendix G – Complaint Logs

Complaints

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status

Appendix H
Monthly Waste Flow Table

Contract No. / Works Order No.: - SS W 306**Monthly Summary Waste Flow Table for September** [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.)

Month	Actual Quantities of Inert Construction Waste Generated Monthly				
	(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
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	0	0	0	0	0
Feb	0	0	0	0	0
Mar	0	0	0	0	0
Apr	0	0	0	0	0
May	0	0	0	0	0
Jun	0	0	0	0	0
Sub-total	0	0	0	0	0
Jul	0	0	0	0	0
Aug	0.13	0	0	0	0.13
Sep	0.514	0	0	0	0.514
Oct					
Nov					
Dec					
Total	0.644	0	0	0	0.644

Month	Actual Quantities of Non-inert Construction Waste Generated Monthly												
	Timber		Metals		Paper/ cardboard packaging		Plastics (see Note 3)		Chemical Waste		Other Recyclable Materials (pls. specify)		General Refuse disposed of at Landfill
	(in '000kg)		(in '000kg)		(in '000kg)		(in '000kg)		(in '000kg)		(in '000kg)		(in '000m ³)
	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0.013
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0.007
May	0	0	0	0	0	0	0	0	0	0	0	0	0.007
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0.007
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0.034
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0.013
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0.007
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0.007
Oct													
Nov													
Dec													
Total	0	0	0	0	0	0	0	0	0	0	0	0	0.061

Description of mode and details of recycling if any for the month e.g. XX kg of used timber was sent to YY site for transformation into fertilizers					

- 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 m³ by volume.

Appendix I

Status of License and Permit

Appendix I-Status of License and Permit

Item	Permit/License /Ref. No.	Validity		Remarks
		From	To	
Variation of Further Environmental Permit	FEP-02/347/2009/A	13 th Jul 2010	N.A.	
Variation of Environmental Permit	EP-347/2009/A	9 th Jun 2010	N.A.	
Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	313192	8 th Jan 2010	N.A.	
Registration of Chemical Waste Producer	5213-542-A2587-02	4 th Mar 2010	N.A.	
Construction Noise Permit for Generator	GW-RN0273-12	5 th Jun 2012	4 th Dec 2012	