

Highways Department

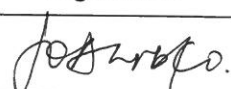
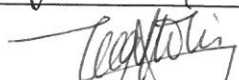
Agreement No. CE 20/2009 (EP)

**Environmental Team for the Widening of
Tolo Highway / Fanling Highway between
Island House Interchange and Fanling**

**(Stage 1)
Between Island House Interchange and
Tai Hang - Investigation**

**Supplementary EM&A Report
for December 2014**

[02/2015]

	Name	Signature
Prepared & Checked:	Joanne Ko	
Reviewed & Approved:	Y T Tang	

Version:	Rev. 0	Date: 16 February 2015
----------	--------	------------------------

Disclaimer

This report is prepared for Highways Department and is given for its sole benefit in relation to and pursuant to Environmental Team for the Widening of Tolo Highway/Fanling Highway between Island House Interchange and Fanling (Stage 1) Between Island House Interchange and Tai Hang - Investigation and may not be disclosed to, quoted to or relied upon by any person other than Highways Department without our prior written consent. No person (other than Highways Department) into whose possession a copy of this report comes may rely on this report without our express written consent and Highways Department may not rely on it for any purpose other than as described above.

AECOM Asia Co. Ltd.
15/F, Grand Central Plaza, Tower 1, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3922 9000 Fax: (852) 2317 7609 www.aecom.com



Our ref AFK/TK/bw/T264022/22.01/L-0221
T 2828 5919
E terence.kong@mottmac.com.hk
Your ref

Hyder-Arup-Black & Veatch Joint Venture
c/o Hyder Consulting Limited
47/F Hopewell Centre
183 Queen's Road East
Wanchai
Hong Kong

16 February 2015
By Fax (2805 5028) and Post

Attn.: Mr. James Penny

Dear Sir,

**Widening of Tolo Highway between
Island House Interchange and Tai Hang
Environmental Permit (EP) No.: EP-324/2008/B
Submission of Supplementary EM&A Report for December 2014 (Stage 1)**

We refer to the captioned Supplementary EM&A Report submitted by Environmental Team (ET) via email on 10 February 2015. We confirm we have no comment.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

A handwritten signature in black ink, appearing to read 'Terence Kong'.

Terence Kong
Independent Environmental Checker

c.c. HyD – Mr. Raymond T W Kong / Mr. Dennis Wong
ETL, AECOM – Mr. Y T Tang

(Fax: 2714 5198)
(Fax: 2317 7609)

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
1 BACKGROUND	2
2 SUMMARY OF CONSTRUCTION WORKS	3
3 STATUS OF EM&A PROGRAMME	3
4 ENVIRONMENTAL LICENSES AND PERMITS	3
5 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES	5
6 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS	5
7 CONCLUSIONS	5

List of Tables

Table 4.1 Summary of Environmental Licensing and Permit Status

Figures

Figure 2.1 General Project Layout Plan

Figure 6.1 Environmental Complaint Handling Procedures

List of Appendices

Appendix A Construction Programmes

Appendix B Implementation Schedule of Environmental Mitigation Measures (EMIS)

Appendix C Statistics on Complaints, Notifications of Summons and Successful Prosecutions

EXECUTIVE SUMMARY

The proposed widening of Tolo Highway and Fanling Highway between Island House Interchange and Fanling (the Project) is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is governed by an Environmental Permit (EP-324/2008)(EP) issued by EPD on 23 December 2008. Subsequently, EPD issued a Variation of Environmental Permit (EP-324/2008/A) (VEP) on 31 January 2012. The VEP (EP-324/2008/B) was subsequently granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). The most recent variation of the EP does not cover Stage 1 (between Island House Interchange and Tai Hang) of the Project.

The Project aims to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.

The construction works for this Project are delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 commenced on 23 November 2009 and substantially completed on 30 September 2014. This report focuses on Stage 1 of the Project only.

The constructional phase Environmental Monitoring and Audit (EM&A) programme for Stage 1 of the Project comprised impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit. It commenced on 23 November 2009 and has been mostly completed by the reporting period. The operational phase EM&A programme which includes noise monitoring will commence in March 2015.

The impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit for Contract 1 of the Project was completed on 15 July 2014.

The impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit for Contract 2 of the Project was completed on 30 September 2014.

This report mainly documents the construction activities carried out by the Contractors during the Maintenance Period of the Project, the status of the environmental licenses and permits, and the status of the operational phase EM&A programme in the period between 1 and 31 December 2014.

As informed by the Contract 1 Contractor (China State Construction Engineering (Hong Kong) Ltd.), the summary of major construction activities during the Maintenance Period in the reporting period is as follows:

- Asphalt laying; and
- Landscape softworks.

As informed by the Contract 2 Contractor (Gammon Construction Ltd.), the summary of major construction activities during the Maintenance Period in the reporting period is as follows:

- Temporary traffic arrangements;
- Road and drainage outstanding and remedial works; and
- Landscaping works.

No complaint, notification of summons and successful prosecution was received in the reporting period.

1 BACKGROUND

- 1.1. Tolo Highway and Fanling Highway are expressways in the North East New Territories connecting Sha Tin, Tai Po and Fanling. These highways form a vital part of the strategic Route 9, which links other major strategic routes to Shenzhen. At present, this section of Route 9 is dual 3-lane carriageway. However, at several major interchanges along this section of Route 9, the highway is only dual-2 lane. Severe congestion is a frequent occurrence during peak periods, particularly in the Kowloon bound direction.
- 1.2. The objective of the Project “Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling” is to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.
- 1.3. The Project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is governed by an Environmental Permit (EP-324/2008)(EP) issued by EPD on 23 December 2008. Subsequently, EPD issued a Variation of Environmental Permit (EP-324/2008/A) (VEP) on 31 January 2012. The VEP (EP-324/2008/B) was subsequently granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). The most recent variation of the EP does not cover Stage 1 (between Island House Interchange and Tai Hang) of the Project.
- 1.4. The scope of the Project comprises mainly:-
 - (i) Widening of a 5.7 km section of Tolo Highway and 3.0 km section of Fanling Highway between Island House Interchange and Wo Hop Shek Interchange from the existing dual 3-lane to dual 4-lane, including construction of new vehicular bridges;
 - (ii) Widening of interchange sections at Island House Interchange, Tai Po North Interchange, and Lam Kam Road Interchange from dual 2-lane to dual 3-lane, except Sha Tin bound carriageway at Tai Po North Interchange, which is widened from 3-lane to 4-lane, including realignment of various slip roads;
 - (iii) Modification and reconstruction of highways, vehicular bridges, underpasses and footbridges.
- 1.5. The construction works for this Project are delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 commenced on 23 November 2009 and substantially completed on 30 September 2014. This report focuses on Stage 1 of the Project only.
- 1.6. The construction works for Stage 1 of the Project are implemented under 2 works contracts (Contract 1 and Contract 2). Contract 1 covers the section of Tolo Highway between Island House Interchange and Ma Wo, Contract 2 covers the section of Tolo Highway between Ma Wo and Tai Hang.
- 1.7. Hyder-Arup-Black and Veatch Joint Venture (HABVJV) are appointed by Highways Department (HyD) as the consultants for the design and construction assignment for the Tolo project under Agreement No. CE 58/2000 Supplementary Agreement No. 3 (SA3) (i.e. the Engineer for the Contracts).
- 1.8. China State Construction Engineering (Hong Kong) Ltd. (CSHK) was commissioned as the Contractor of Contract 1 of Stage 1 of the Project, while Gammon Construction Limited (GCL) was commissioned as the Contractor of Contract 2 of Stage 1 of the Project.
- 1.9. AECOM Asia Co. Ltd. was employed by HyD as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) works for Stage 1 of the Project and Mott MacDonald Hong Kong Ltd. acts as the Independent Environmental Checker (IEC) for the Contracts.
- 1.10. The constructional phase Environmental Monitoring and Audit (EM&A) programme for Stage 1 of the Project commenced on 23 November 2009 and has been mostly completed by the reporting period. The operational phase EM&A programme which includes noise monitoring will commence in March 2015.

2 SUMMARY OF CONSTRUCTION WORKS

- 2.1 The construction works of Stage 1 commenced on 23 November 2009 and substantially completed on 30 September 2014.
- 2.2 The summary of major construction activities carried out by the Contract 1 Contractor (China State Construction Engineering (Hong Kong) Ltd.) during the Maintenance Period in the reporting period is as follows:
 - Asphalt laying; and
 - Landscape softworks.
- 2.3 The summary of major construction activities carried out by the Contract 2 Contractor (Gammon Construction Ltd.) during the Maintenance Period in the reporting period is as follows:
 - Temporary traffic arrangements;
 - Road and drainage outstanding and remedial works; and
 - Landscaping works.
- 2.4 The summary of major construction activities during the Maintenance Period for Contract 1 in January 2015 will be:
 - Asphalt laying; and
 - Landscape softworks.
- 2.5 The summary of major construction activities during the Maintenance Period for Contract 2 in January 2015 will be:
 - Temporary traffic arrangements;
 - Road and drainage outstanding and remedial works; and
 - Landscaping works.
- 2.6 The Construction Programmes are shown in Appendix A, detailing the aforementioned construction activities.
- 2.7 The general layout plan of the Project site showing the contract areas is shown in Figure 2.1.
- 2.8 The environmental mitigation measures implementation schedule are presented in Appendix B.

3 STATUS OF EM&A PROGRAMME

- 3.1 The constructional phase Environmental Monitoring and Audit (EM&A) programme for Stage 1 of the Project comprised impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit. It commenced on 23 November 2009 and has been mostly completed by the reporting period. The operational phase EM&A programme which includes noise monitoring will commence in March 2015.
- 3.2 The impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit for Contract 1 of the Project was completed on 15 July 2014.
- 3.3 The impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit for Contract 2 of the Project was completed on 30 September 2014.

4 ENVIRONMENTAL LICENSES AND PERMITS

- 4.1 The environmental licenses and permits for Stage 1 of the Project and valid in the reporting period is summarized in Table 4.1.

Table 4.1 Summary of Environmental Licensing and Permit Status

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
EIAO	Environmental Permit	EP-324/2008/B	17/03/2014	N/A	HyD	Tolo Highway/Fanling Highway between Island House Interchange and Ma Wo The VEP (EP-324/2008/B) was granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A).
WPCO	Discharge License (Office)	WT00005096-2009	03/12/2009	31/12/2014	CSHK	Discharge at Site Office
	Discharge License (Site)	WT00005445-2009	15/12/2009	31/12/2014	CSHK	Discharge of Construction Runoff
	Discharge License (Office)	WT00006782-2010	25/06/2010	30/06/2015	GCL	Discharge at Site Office
	Discharge License (Site)	WT00007162-2010	09/08/2010	31/07/2015	GCL	Discharge of Construction Runoff
WDO	Chemical Waste Producer Registration	5213-727-C3249-46	25/09/2009	N/A	CSHK	Chemical waste produced in Contract HY/2008/09
		5213-722-G2347-18	18/05/2010	N/A	GCL	Chemical waste produced in Contract HY/2009/08
	Billing Account for Disposal of Construction Waste	7009328	08/09/2009	N/A	CSHK	Waste disposal in Contract HY/2008/09
		7010320	02/03/2010	N/A	GCL	Waste disposal in Contract HY/2009/08
NCO	Construction Noise Permit	GW-RN0597-14	30/09/2014	11/12/2014	CSHK	Installation of Noise Barrier at Slip Road A
		GW-RN0628-14	14/10/2014	13/01/2015	CSHK	Construction works next to MTRC's track protection zone
		GW-RN0710-14	20/11/2014	31/12/2014	CSHK	Completion of Outstanding Works
		GW-RN0620-14	08/10/2014	17/12/2014	GCL	Tolo Highway at ch.17..96 - 21.00 both bounds
		GW-RN0647-14	21/10/2014	18/12/2014	GCL	Tai Wo Service Road West / Hong Lok Yuen Road Junction
		GW-RN0723-14	26/11/2014	31/12/2014	GCL	Completion of Outstanding Works

Statutory Reference	License/ Permit	License or Permit No.	Valid Period		License/ Permit Holder	Remarks
			From	To		
		GW-RN0799-14	18/12/2014	31/12/2014	GCL	Completion of Outstanding Works

5 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

- 5.1 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in Appendix B.

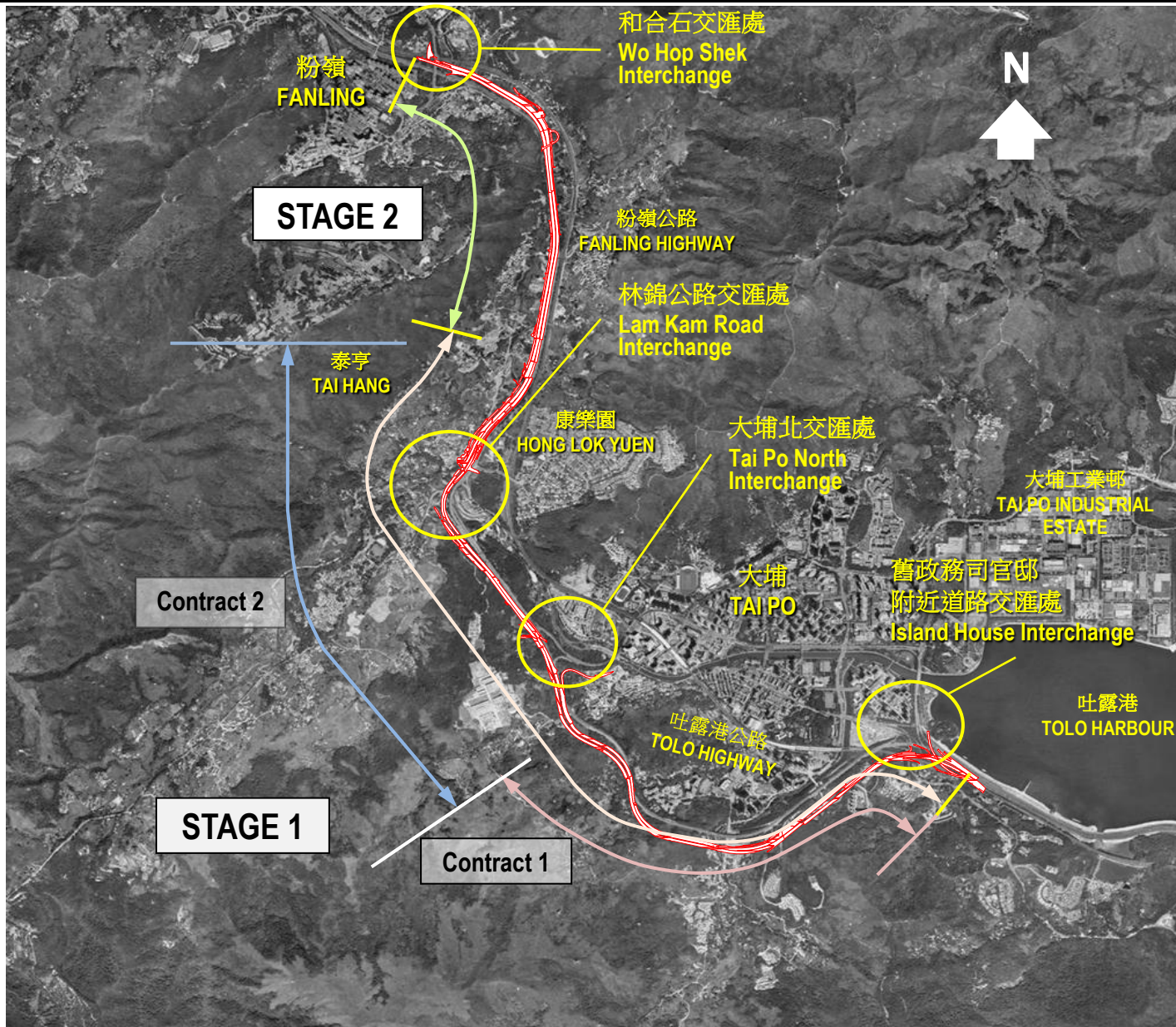
6 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

- 6.1 The Environmental Complaint Handling Procedure is annexed in Figure 6.1.
- 6.2 No complaint, notification of summons and successful prosecution was received in the reporting period. Statistics on complaints, notifications of summons and successful prosecutions are summarized in Appendix C.

7 CONCLUSIONS

- 7.1 The constructional phase Environmental Monitoring and Audit (EM&A) programme for Stage 1 of the Project comprised impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit. It commenced on 23 November 2009 and has been mostly completed by the reporting period. The operational phase EM&A programme which includes noise monitoring will commence in March 2015.
- 7.2 The impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit for Contract 1 of the Project was completed on 15 July 2014.
- 7.3 The impact environmental monitoring including air quality and noise monitoring, and environmental site inspection and audit for Contract 2 of the Project was completed on 30 September 2014.
- 7.4 No new complaint, notification of summons or prosecution was received in the reporting period.

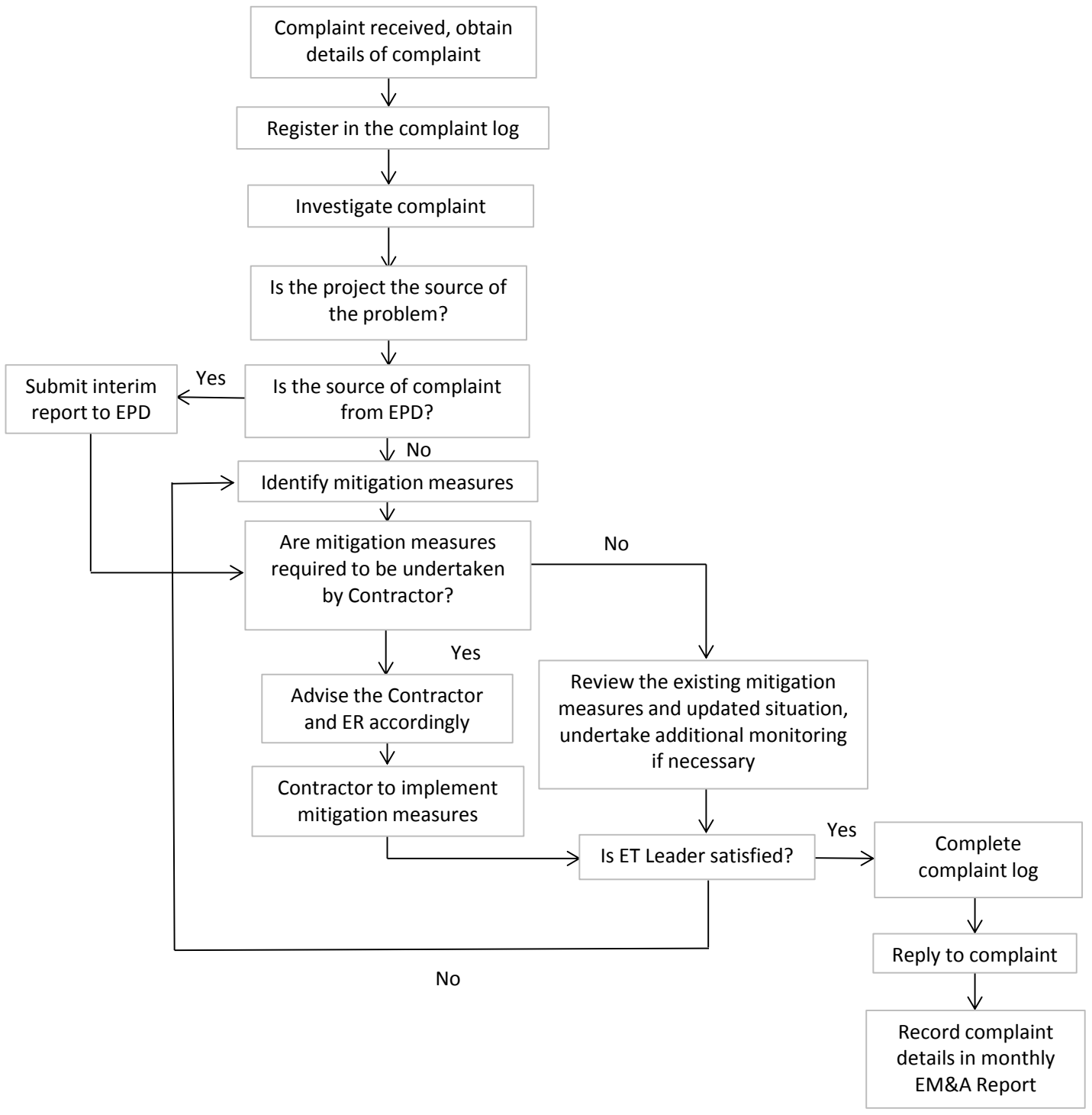
FIGURES



**Environmental Team for the Widening of Tolo Highway between
Island House Interchange and Tai Hang - Investigation**

General Project Layout Plan

SCALE	N.T.S.	DATE	Dec-09
CHECK	ENFL	DRAWN	RWHW
JOB NO.	60102979	FIGURE NO.	2.1
		Rev	0



Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation

Environmental Complaint Handling Procedure

SCALE	N.T.S.	DATE	Mar-13
CHECK	ENFL	DRAWN	CHCL
JOB NO.	60102979	FIGURE	Rev.
		6.1	-

**APPENDIX A
CONSTRUCTION PROGRAMMES**

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
1	Geotechnical Works				
1.10	Slopeworks (incl. reinstatement of the slope profile) and landscaping works (incl. laying erosion control mat & hydroseeding) for Cut Slope S4B	93%	93%	Feb 2015 Jul 2014	Construction of firemain, additional gravity wall and planter wall were completed. Backfilling of inspection pit for leakage DSD pipe was completed. Reinstatement of slope is suspended due to DSD pipe leakage
1.11	Construction of catchment drainage, construction of maintenance access, installation of handrailing and painting of handrailing for Cut Slope S4B	98%	98%	Jan 2015 Jul 2014	Construction of maintenance access in progress.
1.12	Construction of catchment drainage, maintenance access and handrailing at Slope S5	94%	93%	Jan 2015 Jul 2014	Diversion of Slip Road M on 22 Oct 2014. Filling of S5 slope in progress.
2	Road Works				
2.1	General				
2.1.10	Ground Reinstatement at YCT additional works area	89%	87%	Jan 2015 Aug 2014	To be reinstated upon the completion of adjacent slope of KFWV pier 6A, 6B.
2.1.11A	DSD entrustment works for the foul sewer at YCT – Additional Manhole	20%	20%	Jan 2015	VO for additional manhole is issued. Shoring was completed. Install pipe collars and construction of manhole will be started subject to DSD's notification.
2.2	Firemain & Irrigation System				

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
2.2.1	DN40 Irrigation Main (including main laying, fittings installation, connection to existing main and chamber construction)	70%	70%	Jan 2015 Jul 2014	Additional waterproofing painting to planter was issued. Works to be resumed after waterproofing works of planter.
2.2.2	DN150 Fire Main from Jacking/Receiving Pit (including main laying, fittings installation, connection to existing main and chamber construction)	97%	97%	Jan 2015 Jul 2014	Firemain was completed. Pressure testing for DN150 firemain outside S2 (Northbound) was completed. Permanent connection is subject to WSD final inspection and water sampling. Pressure testing for DN150 firemain outside NB12 (Southbound) was found leakage. TTA scheme for road closure was circulated to TMLG members for comment prior to start the repairing works.
2.2.3	DN600 Fresh Water Main Chambers Minor Details (including extension key installation and covers)	99%	99%	Dec 2014 Jul 2014	Rise valve chamber cover and extension key are in progress.
2.3	Drainage				
2.4.5	Outstanding civil & E&M provision and ground reinstatement at YCT Hub Room	99%	99%	Jan 2015 Jun 2014	Handed over to EMSD. U-channel outside hub room is outstanding.
2.4.6	Additional Enhancement of Pavement Drainage at Shatin Bound Tolo Highways at CH 15.88	80%	70%	Jan 2015	V.O. was receipted on 31 Oct 2014. Works were started on 21 November 2014. Pipe laying work and manhole construction is in progress.

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
2.4.7	Additional Enhancement of Pavement Drainage at Fanling Bound Tolo Highways at CH 15.88 near New Banyan Bridge	45%	40%	Jan 2015	V.O. was receipted on 31 Oct 2014. Works were started on 4 November 2014. Excavation work and manhole construction is in progress.
2.5	<i>Road Lighting & High Mast Lighting</i>				
2.5.1	Light posts at NB2, NB3, NB9, NB10, W3A, SRB, SRD for Pillar Box P1	99%	99%	Jan 2015 Jun 2014	Cabling works are in progress. All street lights are target to commission in Jan 2015.
2.5.3	High mast lighting system (including Footing, ducting, HM post pillar box & cabling)	99%	99%	Early Jan 2015 Dec 2014	All high mast (HM) posts erected. All Lanterns replaced. All HM are switched on. Installation of change boxes for connection of new cable to the existing cable inside HM posts are in progress. Change boxes for 3 nos. outstanding HM lights are in progress.
2.5.5	Removal of Temporary Lighting	98%	97%	Early Jan 2015 Oct 2014	Some temporary lighting with concrete block footing had been removed. The remaining temporary lighting will be removed.
3	Noise Barriers				
3.3	Slope reinstatement works for 7NW-B/F114 & F126 (in order to facilitate Kwong Fuk Noise Barrier Construction)	94%	92%	Early Jan 2015 Jul 2014	As the reinstatement of the slope would involve backfilling works and some layers of soil testing. Backfilling of slope was completed. Stone pitching to be started in this week.
4	Landscaping Works				

Contract No. HY/2008/09**List of Outstanding Works – Zone 1**

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
4.1	Heavy standard trees	85%	85%	Jan 2015 Jul 2014	In progress.
4.2	Woodland mix	82%	80%	Jan 2015 Jul 2014	In progress.
4.3	Amenity shrub planting	80%	80%	Jan 2015 Jul 2014	In progress.
5	Bridgeworks				
5.1	New Banyan Bridge & New Banyan West Bridge				
5.1.4	Re-painting some defects	0%	0%	Jan 2015 Jul 2014	Remedial works to be started.
5.1.5	Landscaping & planting works	40%	30%	Jan 2015 Jun 2014	Removal of soil material at BYB&BYWB planter for water proofing is in progress.

List of Outstanding Works – Zone 2

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
1	Geotechnical Works				
1.4	Slopeworks (incl. re-compaction and slope trimming works), landscaping works (incl. laying erosion control mat & hydroseeding) for part of existing slope 7NW-B/F121, i.e. the slope in front of W4A.	75%	75%	Jan 2015 Oct 2014	The re-compaction of the existing soil is change to rockfill to speed up the works. The Slip Road M was partially completed, the filling of rockfill delivered. Construction of u-channel will be resumed this week.
1.5	Construction of catchment drainage, maintenance access, installation of handrailing and painting of handrailing for part of existing slope 7NW-B/F121, i.e. the slope in front of W4A	0%	0%	Jan 2015 Oct 2014	The construction of u-channel and maintenance will be started after rock filling completed.
1.7	Slopeworks (incl. filling works and slope trimming works) and landscaping works (incl. laying erosion control mat & hydroseeding) for Fill Slope S7	95%	93%	Early Jan 2015 Nov 2014	Backfill behind retaining wall W7 in progress.
1.8	Construction of catchment drainage, maintenance access, installation of handrailing for Fill Slope S7	97%	96%	Early Jan 2015 Nov 2014	Construction of surface channel in progress.
1.9	Backfilling in front of Retaining Wall W8 and construction of catchment drainage, maintenance access and handrailing for Retaining Wall W8.	35%	30%	Feb 2015 Sept 2014	Drainage outlet and removal of temporary works were completed. Construction of maintenance access and u-channel in progress.
2	Road Works				
2.1	General				
2.1.3	Road works at Slip Road L (including road pavement, road marking, traffic aids, verge, U channel & street furniture)	98%	98%	Early Jan 2015 Jun 2014	Pavement and road marking completed. U-channel will be started in this week.

List of Outstanding Works – Zone 2

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
2.1.4	Road works at Slip Road M (including road pavement, road marking, traffic aids, verge, U channel & street furniture)	98%	98%	Dec 2014 Jul 2014	Slip Road M was diverted, trimming formation completed. Kerb laying completed and street furniture are in progress.
2.1.6	Boundary Fencing	20%	20%	Feb 2015 Jun 2014	Boundary Fencing at the entrance of maintenance access of W8 still being used as an access will be the last activity in this area.
2.1.8	Reinstatement works underneath Bridge 11 & Bridge 11A (including footpath adjacent to Shan Tong Road)	60%	50%	Feb 2015	Being occupied for the contractor's site office and to be started in early Dec 2014. Construction of end wall between Bridge 11 and 11A completed. Backfilling works are in progress.
2.2	Firemain				
2.2.1	DN150 Fire Main (including main laying, fittings installation, connection to existing main and chamber construction)	99%	98%	Jan 2015 Jul 2014	Installation of DN150 firemain in Shan Tong Road completed. Pressure testing completed. Installation of valve pit, cover and hydrant in progress. Firemain connection subject to WSD arrangement.
2.3	Drainage				
2.3.4	Drainage and reinstatement works at Kwong Fuk Dog Garden (including U channel and kerb)	99%	98%	Jan 2015 Aug 2014	HKCG completed the tie-in connection and backfilling completed. The reinstatement works are in progress.
2.4	TCSS/SEC				
4	Landscaping Works				

List of Outstanding Works – Zone 2

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
4.1	Heavy standard trees	82%	82%	Jan 2015 Jun 2014	Except area at W8 and W4A to be carried out in Oct 2014
4.2	Woodland mix	84%	84%	Jan 2015 Jun 2014	Except area at W8 and W4A to be carried out in Oct 2014
4.3	Amenity shrub planting	84%	84%	Jan 2015 Jun 2014	Except area at W8 and W4A to be carried out in Oct 2014
5	Bridgeworks				
5.1	New Lam Kam Railway Bridge				
5.1.2	Landscaping & planting works	86%	86%	Jan 2015 Jun 2014	Filling planter to be carried out in this week.
5.1.3	Maintenance Access for both abutments	0%	0%	Jan 2015 Jun 2014	I&P needed for carrying out works in the vicinity. The works area is away from highway and has no impact on the traffic in Tolo. I&P were granted on 7/1 ,8/1, 13/1, 14/1, 15/1 and 16/1.
5.1.4	Slope reinstatement works & drainage works at South & North Abutments	50%	40%	Jan 2015 Jun 2014	Gas main diversion was completed and reinstatement works at south abutment are in progress. Reinstatement works at north abutment is in progress.
5.1.7	Wing wall at South Abutment	100%	99%	Dec 2014 Jun 2014	Remaining portion of wing wall was cast on 23 December 2014. Works were completed.
5.2	Existing Lam Kam Railway Bridge				
5.2.1	Parapet modification works (Fanling Bound) for NB on bridge	99%	99%	Early Jan 2015 Jun 2014	Edge Barrier completed. Defects to be rectified by early Jan 2015.

Contract No. HY/2008/09

List of Outstanding Works – Zone 4

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
1	Geotechnical Works				
1.19	Rock filling works in front of Retaining Wall W20A and laying wire mesh	70%	68%	Feb 2015 Oct 2014	Filling work is in progress.
1.20	Construction of catchment drainage, construction of maintenance access, installation of handrailing and painting of handrailing for Retaining Wall W20A	25%	25%	Feb 2015 Oct 2014	Filling work is in progress.
1.21	Slopeworks (incl. reinstatement works and slope trimming works) and landscaping (incl. laying erosion control mat and hydroseeding) for Fill Slope S20A	42%	42%	Feb 2015 Oct 2014	Filling work was resumed.
1.22	Construction of catchment drainage, construction of maintenance access, installation of handrailing and painting of handrailing for Fill Slope S20A	23%	23%	Feb 2015 Oct 2014	Filling work is in progress.
2	Road Works				
2.1	General				
2.1.7	Boundary Fencing	80%	80%	Jan 2015 Aug 2014	Installation of boundary fencing at Shan Tong morning trail was completed.

Contract No. HY/2008/09

List of Outstanding Works – Zone 4

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
2.1.9	Reinstatement works underneath Bridge 10 & Bridge 10A (including footpath and cycle track adjacent to Tat Wan Road)	80%	78%	Feb 2015 Aug 2014	Stone pitching for Tai Po Nullah except steel bridge completed. Backfilling abutment of Bridge 10A was completed. Re-construction of public access was completed last week. Demolition of steel bridge will be started in this week.
2.2	Firemain				
2.2.1	DN150 Fire Main (including main laying, fittings installation, connection to existing main and chamber construction)	98%	98%	Jan 2015 Jun 2014	Laying of DN150 firemain completed. Pressure test of firemain was completed on 13 Dec 2014. Installation of valve cover and fire hydrant are in progress. Firemain connection subject to WSD arrangement.
2.3	Drainage				
2.5.5	Removal of Temporary Lighting	94%	93%	Jan 2015 Dec 2014	All Temporary lighting with concrete block footing at central median were removed, Temporary street light at Slip Road P are outstanding and in progress.
4	Landscaping Works				
4.1	Heavy standard trees	99%	99%	Dec 2014 Jun 2014	Outstanding at NB19. Backfilling of remaining portion in progress.
4.2	Woodland mix	99%	99%	Dec 2014 Jun 2014	Outstanding at NB19. Backfilling of remaining portion in progress.

Contract No. HY/2008/09

List of Outstanding Works – Zone 4

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
4.3	Amenity shrub planting	99%	99%	Dec 2014 Jun 2014	Outstanding at NB19. Backfilling of remaining portion in progress.
5	Bridgeworks				
5.1	Bridge 11				
5.1.1	Slope reinstatement works at North & South Abutments	98%	98%	Early Jan 2015 Jun 2014	Backfilling for slope reinstatement at North abutment completed. U-channel construction completed. Stone pitching work will be started in this week.
5.1.3	Bridge drainage system at ground level	37%	35%	Feb 2015 Aug 2014	Removal of Containers and stockpile materials are in progress. Bridge drainage works to be started.
5.1.6	Maintenance steel gates & drainage system	37%	35%	Jan 2015 Jun 2014	Removal of Containers and stockpile materials are in progress. Drainage system works to be started.
5.2	Bridge 10				
1.10	Drainage works, maintenance access and installation of joint sealant to expansion joint at Retaining Wall W28	90%	90%	Feb 2015 Sep 2014	Mobile crane is required for accessing the area after the completion of the noise barrier. Remedial proposal for W29A to be submitted.
1.15	Backfilling in front of wall and construction of catchment drainage, maintenance access and handrailing for Retaining Wall W34	98%	98%	Jan 2015 Aug 2014	Details refer to the pre-handover inspection carried out on 28 Jan 14. Backfilling works will be resumed in this week.
1.16	Defect rectification works for Retaining Wall W34	90%	90%	Jan 2015 Aug 2014	U-channel at W34 is outstanding. The newly installed noise barrier has physically blocked the access, requiring a mobile crane for accessing the area. Backfilling works will be resumed in this week

Contract No. HY/2008/09

List of Outstanding Works – Zone 4

Item	Outstanding Works	Progress as of 29 Dec 2014	Progress as of 22 Dec 2014	Target Completion Date	Remarks
2	Road Works				
2.2	Soft landscape works in roadside planters	99%	99%	Jan 2015 Jul 2014	Backfilling of planter completed. Planting works in progress.
5.3	Commissioning of High Mast Light	99%	99%	Early Jan 2014 Nov 2014	Cabling works were completed. All 13 high masts are working (10 under permanent power and 3 are supplied with temporary power)
5.4	Removal of Temporary Lighting	95%	92%	Early Jan 2015 Dec 2014	Removal of temporary lighting after commissioning of permanent lighting.
6	Street Lighting (P1 to P5 System) – Whole Site				
6.2	Street Light Post Installation	96%	96%	Jan 2015 Dec 2014	Slip Roads D, M, P are outstanding. Street light post at Slip road D will be installed in this week.
6.4	Removal of Temporary Lighting	95%	92%	Jan 2015 Dec 2014	Removal of temporary lighting after commissioning of permanent lighting.

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2013		2014		
							47	48	Q1 49	50	Q2 51
HY/2009/08 TOLO HIGHWAY WIDENING, Based on UWP Jan 14, upto Feb progress											
EXECUTIVE SUMMARY											
Construction											
Section 2											
A1040	SA22 - South Bound	-170	99.63%	1037	01-Apr-10 A	29-Dec-14					
A1070	SA24 - North Bound	-280	99.81%	787	25-Aug-10 A	27-Dec-14					
Section 3											
A1110	SA26A - North Bound	-221	99.08%	1191	26-Feb-10 A	05-Jan-15					
A1120	SA26A - South Bound	-134	98.75%	879	26-Feb-10 A	05-Jan-15					
Section 4											
A1160	SA28 - South Bound	-48	98.91%	1099	23-Jun-10 A	06-Jan-15					
Section 7											
A1200	SA41 - Site Office	-139	85.77%	1581	26-Feb-10 A	07-Aug-15					
A1210	SA42 - Temporary Contractor's Works Area	-183	100%	1582	25-Feb-10 A	26-Dec-14					
Section 17 (Subject to Excision, Engineer may instruct within 819 days)											
A1300	Validity Period	76	98.6%	819	25-Feb-10 A	06-Jan-15					
KEY DATES/ MILESTONES											
Key Dates (include EOT GCL submitted and awarded upto Dec 2013)											
HDS01000	KD1: Completion of Section 1 - (Day1216) - Overall Completion of Works	-334	0%	0		26-Dec-14*					
HDS01100	KD1: Completion of Section 1 - (Day1216) - Substantial Completion for Road Op		100%	0		25-Jan-14 A					◆ KD1: Completion of Section 1 - (Day1216) - Substantial Completion for Road Op
HDS02000	KD2: Completion of Section 2 - (Day1216) - Overall Completion of Works	-282	0%	0		29-Dec-14*					
HDS03000	KD3: Completion of Section 3 - (Day1216) - Overall Completion of Works	-311	0%	0		05-Jan-15*					
HDS04000	KD4: Completion of Section 4 - (Day1216) - Overall Completion of Works	-328	0%	0		22-Jan-15*					
HDS07000	KD7: Completion of Section 7 - (Day1581)	-183	0%	0		26-Dec-14*					
HDS08000	KD8: Completion of Section 8 - (Day1581)	-214	0%	0		27-Aug-15*					
HDS09000	KD9: Completion of Section 9 - (Day1581)	-159	0%	0		29-Aug-15*					
HDS10000	KD10: Completion of Section 10 - (Day1581)	-213	0%	0		30-Sep-15*					
HDS11000	KD11: Completion of Section 11 - (Day1581)	-213	0%	0		30-Sep-15*					
HDS12000	KD12: Completion of Section 12 - (Day1581)	-183	0%	0		26-Dec-14*					
HDS13000	KD13: Completion of Section 13 - (Day1581)	-214	0%	0		25-Sep-15*					
HDS14000	KD14: Completion of Section 14 - (Day1581)	-183	0%	0		26-Dec-14*					
CONSTRUCTION PHASE											
Section 1											
Site Area SA21											
SA210000	Site Area SA21 Works Period	87	100%	1076	16-Jul-10 A	26-Dec-14					
SA210010	Site Area SA21 Works Completion	87	0%	0		26-Dec-14					
SA210020	Temporary Traffic Management (Detail shall refer to supplementary informatio	70	100%	872	16-Jul-10 A	27-Dec-14					
Section 2											
Site Area SA22											

Project ID: J3318-UPDATE 2014FEB-10
 Project Name: HY/2009/08 TOLO HIGHWAY WIDENING...
 Print Date: 31-Dec-14
 Data Date: 26-Dec-14
 Page 1 of 4

- Current Bar
- Level of Effort
- Critical
- Milestone

Highways Department - Contract No. HY/2009/08

**Widening of Tolo Highway/ Fanling Highway
 Stage 1 - Between Ma Wo and Tai Hang**

3 MRP, 26 December 2014

UWP Revision			
Date	Revision	Checked	Approved
27-Jan-14	3MRP January 2014	WY	JC

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2013		2014		
							47	48	Q1		Q2
									49	50	51
SA220010	Site Area SA22 Works Completion	86	0%	0		27-Dec-14					
SA220020	Temporary Traffic Management (Detail shall refer to supplementary informatio	86	99.87%	985	25-Feb-10 A	27-Dec-14					
South Bound											
Road Re-construction Works, Roadworks & Drainage											
S22S4441	Claim 40: Revised Traffic signs & road markings	-227	97.99%	8	28-Jun-14 A	27-Dec-14					
S22S4442	Claim 41: Revised kerb & fencing layout	-227	97.99%	6	28-Jun-14 A	27-Dec-14					
S22S4500	Roadworks for Realignment of Existing Shek Lin Road	-229	90%	18	01-Sep-14 A	29-Dec-14					
Landscaping											
S22S6000	Landscaping Works	-227	99%	30	23-Sep-13 A	27-Dec-14					
Site Area SA23											
SA230010	Site Area SA23 Works Completion	87	0%	0		26-Dec-14					
Site Area SA24											
SA240000	Site Area SA24 Works Period	-280	99.81%	788	04-May-10 A	27-Dec-14					
SA240010	Site Area SA24 Works Completion	86	0%	0		27-Dec-14					
North Bound											
Landscaping											
S24N6000	Landscaping Works	-228	99%	50	27-Jan-14 A	27-Dec-14					
Site Area SA25											
SA250000	Site Area SA25 Works Period (incl. Provision of hoarding at site boundary of S	87	100%	770	04-May-10 A	26-Dec-14					
SA250010	Site Area SA25 Works Completion	87	0%	0		26-Dec-14					
SA250020	Temporary Traffic Management (Detail shall refer to supplementary informatio	70	100%	765	04-May-10 A	27-Dec-14					
South Bound											
Road Re-construction Works, Roadworks & Drainage											
S25S4000	Roadworks, Drainages & Utilities (CH 3400 - 3600)	70	100%	109	27-Feb-13 A	27-Dec-14					
Site Area SA26											
SA260010	Site Area SA26 Works Completion	-282	0%	0		29-Dec-14					
North Bound											
Landscaping											
S26N6040	Landscaping Works (CH3400 - 3720)	-228	99%	50	16-Sep-13 A	27-Dec-14					
South Bound											
Slopeworks											
S26S5110	Slope Reinstatement Works (besides LB3)	-228	97.5%	24	04-Mar-13 A	27-Dec-14					
S26S5120	Slope Reinstatement Works (besides LB3) - Lower: below +24mPD	-228	98%	20	04-Mar-13 A	27-Dec-14					
S26S5130	Slope Reinstatement Works (besides LB3) - Upper: above +24mPD	-228	99%	20	27-Aug-13 A	27-Dec-14					
Noise Barriers & Road Barriers											
Noise Barrier NB35											
S26S3030	Remaining Works of NB35	-229	96%	50	27-Aug-13 A	29-Dec-14					
Section 3											
Site Area SA26A											
SA26A000	Site Area SA26A Works Period	-300	100%	1215	26-Feb-10 A	26-Dec-14					
SA26A010	Site Area SA26A Works Completion	-300	0%	0		26-Dec-14					
SA26A020	Temporary Traffic Arrangement (Detail shall refer to supplementary informatio	-246	100%	983	26-Feb-10 A	27-Dec-14					
North Bound											
Landscaping											
S26AN610	Landscaping Works	-246	99%	29	15-Mar-13 A	27-Dec-14					
South Bound											

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2013		2014		
									Q1	Q2	
							47	48	49	50	51
Landscaping											
S26AS600	Landscaping	70	99%	30	27-Jan-14 A	27-Dec-14					
Road Re-Construction Works, Roadworks, Drainage & Utilities											
S27S4111	Claim 40: Revised traffic signs & road markings	-253	0%	5	27-Dec-14	02-Jan-15					
S27S4112	Claim 41: Revised kerb & fencing layout	-253	0%	2	03-Jan-15	05-Jan-15					
Site Area SA27											
SA270000	Site Area SA27 Works Period	-300	100%	1187	26-Mar-10 A	26-Dec-14					
SA270010	Site Area SA27 Works Completion	-300	0%	0		26-Dec-14					
SA270020	Temporary Traffic Arrangement (Detail shall refer to supplementary informatio	-246	100%	959	26-Mar-10 A	27-Dec-14					
SA270030	Overall Utilities Diversion (Detail shall refer to supplementary information)	-246	100%	959	26-Mar-10 A	27-Dec-14					
South Bound											
Landscaping											
S27S6010	Landscaping	-246	99%	40	11-Feb-14 A	27-Dec-14					
Section 4											
Site Area SA28											
SA280000	Site Area SA28 Works Period	59	97.7%	1216	26-Feb-10 A	22-Jan-15					
SA280010	Site Area SA28 Works Completion	59	0%	0		22-Jan-15					
SA280030	Temporary Traffic Arrangement (Detail shall refer to supplementary informatio	48	97.77%	983	26-Feb-10 A	22-Jan-15					
SA280040	Overall Utilities Diversion (Detail shall refer to supplementary information)	48	97.77%	983	26-Feb-10 A	22-Jan-15					
North Bound											
Road Re-Construction Works, Roadworks, Drainage & Utilities											
S28N4310	Remaining Works for Water Pipe installation (DN300 CH183 - 227 cross road	-256	93%	140	26-Nov-13 A	08-Jan-15					
S28N4330	Roadwork, Drainages & Utilities at TWSRW Road from NB38 to NB41-bay6 (-265	0%	0	26-Nov-12 A	29-Dec-14					
S28N4360	Road Works and Road surfacing at Tai Wo Service Road West from NB38 to	-268	93%	35	01-Apr-14 A	30-Dec-14					
S28N4370	Road Works and Road Surfacing at Slip Road T (Slow Lane)	-265	95%	40	15-Feb-14 A	29-Dec-14					
S28N4380	Roadworks, Drainages & Utilities at TWSRW Road from NB38 to NB41- bay6	-268	88.31%	68	15-Feb-14 A	06-Jan-15					
S28N4400	Road Works and Road surfacing at Tai Wo Service Road West from NB38 to	-268	85%	18	17-Mar-14 A	03-Jan-15					
S28N4420	Remaining Road Works at Slip Road T and TWSRW Road from NB38 to NB4	-268	93%	40	27-Jan-14 A	06-Jan-15					
S28N4421	Claim 40: Revised traffic signs & road marking	-268	0%	12	06-Jan-15	20-Jan-15					
S28N4422	Claim 41: Revised kerb & fencing layout	-268	0%	2	20-Jan-15	22-Jan-15					
South Bound											
Road Construction and Road Resurfacing											
S28S4960	Road Construction and Resurfacing S/B for SA28	-249	95%	60	26-Sep-13 A	30-Dec-14					
Site Area SA29											
SA290000	Site Area SA29 Works Period (incl. VO002 & VO0011: Fencing details along si	87	100%	946	27-Jul-10 A	26-Dec-14					
SA290010	Site Area SA29 Works Completion	87	0%	0		26-Dec-14					
SA290020	Temporary Traffic Arrangement (Detail shall refer to supplementary informatio	70	100%	764	27-Jul-10 A	27-Dec-14					
SA290030	Overall Utilities Diversion (Detail shall refer to supplementary information)	70	100%	764	27-Jul-10 A	27-Dec-14					
Site Area SA32											
SA320010	Site Area SA32 Works Completion	-300	0%	0		26-Dec-14					
Section 5											
Site Area SA31											
SA310000	Site Area SA31 Works Period (incl. VO42, VO52, VO59 & VO65)	84	99.6%	884	26-Feb-10 A	29-Dec-14					
SA310010	Site Area SA31 Works Completion	84	0%	0		29-Dec-14					
South Bound											
Roadworks, Drainage & Utilities											

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2013		2014		
							47	48	Q1		Q2
									49	50	51
Portion 3											
S31S5120	Traffic Lights	69	70%	5	30-May-14 A	29-Dec-14					
Section 7											
Site Area SA41											
SA410000	Site Area SA41 Works Period	-139	85.77%	1581	26-Feb-10 A	07-Aug-15					
SA410010	Site Area SA41 Works Completion	-138	0%	0		07-Aug-15					
Temporary Site Office											
S41G9100	Temp Warehouse, Fabrication & Equip Yard	-330	90%	1419	13-May-10 A	16-May-15					
S41G9120	Dismantle of ER & Contractor's Office	-112	0%	68	16-May-15	07-Aug-15					
Site Area SA42 (Core Storage & Works Area)											
SA410040	Site Area SA42 Works Period	-183	100%	1581	26-Feb-10 A	26-Dec-14					
SA420010	Site Area SA42 Works Completion	-183	0%	0		26-Dec-14*					
Site Area SA43											
SA410020	Site Area SA43 Works Period	-330	90.15%	1492	04-May-10 A	21-May-15					
SA410030	Site Area SA43 Works Completion	-330	0%	0		21-May-15*					
Mulching Production Area											
S41G050	Temp Warehouse, Fabrication & Equip Yard (Site allocated for period till 8 May	87	100%	1260	13-Sep-10 A	26-Dec-14					
S41G280	Dismantle of Mulching Production Yard : Removing Security Fence and Securi	-270	80%	20	16-Oct-14 A	21-May-15					
Section 8											
Establishment Works											
S21G8000	SA21 Establishment Works	-214	33%	365	26-Jan-14 A	27-Aug-15					
Section 9											
Establishment Works											
S22G8000	SA22 Establishment Works	-159	33.9%	365	24-Mar-14 A	29-Aug-15					
S23G8000	SA23 Establishment Works	-159	33.9%	365	24-Mar-14 A	29-Aug-15					
S24G8000	SA24 Establishment Works	-159	33.9%	365	24-Mar-14 A	29-Aug-15					
S25G8000	SA25 Establishment Works	-159	33.9%	365	24-Mar-14 A	29-Aug-15					
S26G8000	SA26 Establishment Works	-159	33.9%	365	24-Mar-14 A	29-Aug-15					
Section 10											
Establishment Works											
S26AG800	SA26A Establishment Works	-213	23.8%	365	01-Mar-14 A	30-Sep-15					
S27G8000	SA27 Establishment Works	-213	23.8%	365	01-Mar-14 A	30-Sep-15					
Section 11											
Establishment Works											
S28G8000	SA28 Establishment Works	-213	23.8%	365	01-Mar-14 A	30-Sep-15					
S29G8000	SA29 Establishment Works	-213	23.8%	365	01-Mar-14 A	30-Sep-15					
Section 12											
Establishment Works											
S30AG800	SA30A Establishment Works	-278	0%	365	26-Dec-14	25-Dec-15					
S30G8000	SA30 Establishment Works	-278	0%	365	26-Dec-14	25-Dec-15					
Section 13											
Establishment Works											
S30AG810	Remainder of Establishment Works (Exclude Section 8 to 12)	-214	25%	365	25-Jan-14 A	25-Sep-15					

**APPENDIX B
IMPLEMENTATION SCHEDULE OF
ENVIRONMENTAL MITIGATION MEASURES
(EMIS)**

Appendix B - Implementation Schedule of Environmental Mitigation Measures (EMIS)

Air Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Air Quality during Construction	<ul style="list-style-type: none"> Restricting heights from which materials are dropped, as far as practicable to minimize the fugitive dust arising from unloading/loading. 	During construction	V
	<ul style="list-style-type: none"> All stockpiles of excavated materials or spoil of more than 50m³ shall be enclosed, covered or dampened during dry or windy conditions. 		V
	<ul style="list-style-type: none"> Effective water sprays shall be used to control potential dust emission sources such as unpaved haul roads and active construction areas. 		V
	<ul style="list-style-type: none"> All spraying of materials and surfaces shall avoid excessive water usage. 		V
	<ul style="list-style-type: none"> Vehicles that have the potential to create dust while transporting materials shall be covered, with the cover properly secured and extended over the edges of the side and tail boards. 		V
	<ul style="list-style-type: none"> Materials shall be dampened, if necessary, before transportation. 		V
	<ul style="list-style-type: none"> Travelling speeds shall be controlled to reduce traffic induced dust dispersion and resuspension within the site from the operating haul trucks. 		V
	<ul style="list-style-type: none"> Vehicle washing facilities shall be provided to minimize the quantity of material deposited on public roads. 		V

Noise - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Noise during Construction	<ul style="list-style-type: none"> Use of silenced plant or plant equipped with mufflers or dampers in substitute of ordinary plant. 	During construction	V
	<ul style="list-style-type: none"> Reduce the number of equipment and their percentage on-time. 		V
	<ul style="list-style-type: none"> 3.5 m and 5.5 m high temporary noise barrier at culvert construction work area (Figure 2a of the Environmental Permit). 		V
	<ul style="list-style-type: none"> 3 m high temporary noise barrier along the northern edge of Bridge 12 at ground level (Figure 2b of the Environmental Permit). 		V
	<ul style="list-style-type: none"> 2 m high temporary noise barrier along the northern edge of Bridge 12 at bridge level (Figure 2b of the Environmental Permit). 		In progress
	<ul style="list-style-type: none"> 2.5 m high temporary noise barrier along Tai Wo Service Road West (Figure 2c of the Environmental Permit). 		V
	<ul style="list-style-type: none"> 3.5m high temporary noise barrier along Tai Wo Services Road West near Tai Hang (Figure2c of the Environmental Permit). 		In progress

Water Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Water quality during Construction	Demolition and reconstruction of bridges	During construction	
	<ul style="list-style-type: none"> Prevent off-site migration through use of sheet piles. 		V
	<ul style="list-style-type: none"> Minimize duration of works as far as practical. 		V
	<ul style="list-style-type: none"> All sewer and drainage connections should be sealed to prevent debris, soil, sand, etc, from entering public sewers/drains. 		V
	<ul style="list-style-type: none"> Site surface runoff should be settled to remove sand/silt before it is discharged into the existing storm drains. 		V
	River training works		
	<ul style="list-style-type: none"> Inspection and testing of water quality in the nullah on the Tai Po River. 		N/A
	Road Widening Works and Earthworks		
	<ul style="list-style-type: none"> Wastewater generated from any concrete batching washdown of equipment or similar activities should be discharged into foul sewers, after the removal of settable solids, and pH adjustment as necessary. All sewage discharges from the study area should meet the TM standards and approval from EPD through the licensing process is required. 		V
	<ul style="list-style-type: none"> Sand traps, oil interceptors and other pollution prevention installations should be provided, properly cleaned and maintained. 		V
	<ul style="list-style-type: none"> Runoff from exposed working areas, unfinished slopes and from unlined temporary channels should be directed to stilling basins and/or silt traps before discharging to the drainage outfalls. 		V
	<ul style="list-style-type: none"> Regular inspections of stilling basins and/or silt traps are required to ensure that sediment is not conveyed into the existing drainage system. 		V
	<ul style="list-style-type: none"> Open stockpiles should be covered with a tarpaulin cover. 		V
	<ul style="list-style-type: none"> During the wet season, any exposed top soils should be covered with a tarpaulin, shotcreted or hydroseeded. 		V
	<ul style="list-style-type: none"> Sand and silt from wash-water from vehicle washing should be settled out before discharging into storm drains. 		V
<ul style="list-style-type: none"> Fuels should be stored in bunded areas such that spillage can be easily collected. 	V		

Waste - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Waste Management during Construction	General Waste	During construction	
	<ul style="list-style-type: none"> Transport of wastes off site as soon as possible. 		V
	<ul style="list-style-type: none"> Maintenance of accurate waste records 		V
	<ul style="list-style-type: none"> Minimization of waste generation for disposal (via reduction/recycling/re-use). 		V
	<ul style="list-style-type: none"> No on-site burning will be permitted. 		V
	<ul style="list-style-type: none"> Use of re-useable metal hoardings/signboards. 		V
	Vegetation from site clearance		
	<ul style="list-style-type: none"> Segregation of materials to facilitate disposal. 		V
	<ul style="list-style-type: none"> Mulching to reduce bulk and where possible review opportunities for the possible beneficial use within landscaping areas. 		V
	Demolition Wastes		
<ul style="list-style-type: none"> Segregation of materials to facilitate disposal. 	V		

• Appropriate stockpile management.	V
Excavated Materials	
• Segregation of materials to facilitate disposal / reuse.	V
• Appropriate stockpile management.	V
• Re-use of excavated material on or off site (where possible).	V
• Special handling and disposal procedures in the event that contaminated materials are excavated.	N/A
Construction Wastes	
• Segregation of materials to facilitate recycling/reuse (within designated area in appropriate containers/stockpiles).	V
• Appropriate stockpile management.	V
• Planning to reduce over ordering and waste generation.	V
• Recycling and re-use of materials where possible (e.g. metal, wood from formwork)	V
• For material which cannot be re-used/recycled, collection should be carried out by an approved waste contractor for landfill disposal.	V
Bentonite Slurries	
• Bentonite slurries should be reused as far as possible.	N/A
• Disposal in accordance with <i>Practice Note For Professional Persons ProPECC PN 1/94</i> .	N/A
Chemical Wastes	
• Storage within locked, covered and bunded area.	V
• The storage area shall not be located adjacent to sensitive receivers e.g. drains.	V
• Minimize waste production and recycle oils/solvents where possible.	V
• A spill response procedure shall be in place and absorption material available for minor spillages.	V
• Use appropriate and labelled containers.	V
• Educate site workers on site cleanliness/waste management procedures.	V
• If chemical wastes are to be generated, the contractor must register with EPD as a Chemical Waste Producer.	V
• The chemical wastes shall be collected by a licensed chemical waste collector.	V
Municipal Wastes	
• Waste shall be stored within a temporary refuse collection facility, in appropriate containers prior to collection and disposal.	V
• Regular, daily collections are required by an approved waste collector.	V

Ecology - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Ecology during Construction	Accurate Delineation of Works Area	During construction	
	• Boundaries of proposed works areas shall be clearly identified and separated from external areas by a physical barrier to prevent encroachment of adjacent habitats.		V
	• Individual trees which fall within the works areas but which work plans show do not require removal are to be retained and fenced off to maximize protection.		V
	Vegetation Clearance		
	• No fires shall be lit within the works area for the purpose of burning cleared vegetation.		V
	• The Contractor shall give consideration to mulching the cleared vegetation for recycling within the works area /	V	

	adjacent land.		
	Dust generation		
	• Vehicle washing facilities to be provided at every discernible or designated vehicle exit point;		V
	• All temporary site access roads shall be sprayed with water to suppress dust as necessary;		V
	• All dusty materials should be sprayed with water immediately prior to any handling; and		V
	• All debris should be covered entirely by impervious sheeting or stored in a sheltered debris collection area.		V
	Surface Run-off		
	• Bund and cover stockpiles to avoid run-off;		V
	• Channel any run-off through a system of oil, grease and sediment / silt traps and reuse water on site where ever practical;		V
	• All vehicle maintenance to be undertaken within a bunded area; and		N/A
	• Maximize vegetation retention on-site to maximize absorption (minimize transport).		V

Landscape and Visual Impact - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status
Landscape and Visual Impact during Construction	Preservation of Existing Vegetation	During construction	
	• Trees identified for retention within the project limit would be protected during the works		V
	• The tree transplanting and planting works shall be implemented by approved Landscape Contractors		V
	Temporary Works Areas		
	• Where feasible the works areas would be screened using hoarding and existing vegetation would be retained where possible to reduce the landscape and visual impacts arising from the construction activity. The landscape of these works areas would be restored following the completion of the construction phase.		V
	Hoarding		
	• A hoarding would be erected where practicable in the most visually sensitive locations to screen the temporary construction works from the local VSR's.		V
	Top Soils		
	• The works will result in disturbance to extensive areas of topsoil. Topsoil worthy of retention should be stockpiled for use following completion of the civil engineering works. It should either be temporarily vegetated with hydroseeded grass or turned over on a regular basis.		N/A
Protection of Important Landscape Features			
• Important features such as temples, Island House and kilns within the study area, although remote from the proposed works retained and adequately protected.	V		

Legend: V = implemented;
x = not implemented;
@ = partially implemented;
N/A = not applicable - No such work was undertaken or no such material was used on site.

**APPENDIX C
STATISTICS ON COMPLAINTS,
NOTIFICATION OF SUMMONS AND
SUCCESSFUL PROSECUTIONS**

Appendix C

Statistics on Complaints, Notifications of Summons and Successful Prosecutions

	Date Received	Subject	Status	Total no. followed up by ET this month	Total no. followed up by ET since project commencement
Environmental complaints	-	-	-	0	39
Notification of summons	-	-	-	0	0
Successful Prosecutions	-	-	-	0	0