

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 November 2014**

[02/2015]

| | Name | Signature |
|----------------------|-----------|---|
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| | | |
|---|--------|------------------------|
| Version: | Rev. 0 | Date: 11 February 2015 |
| Disclaimer | | |
| <p>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.</p> | | |

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10 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 November 2014 (Stage 1)**

We refer to the captioned Supplementary EM&A Report submitted by Environmental Team (ET) via email on 3 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)

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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 30 November 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;
- Slope outstanding and remedial works;
- Noise barrier outstanding and remedial works;
- Entrusted watermains works;
- 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;
 - Slope outstanding and remedial works;
 - Noise barrier outstanding and remedial works;
 - Entrusted watermains works;
 - 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 December 2014 will be:
- Asphalt laying; and
 - Landscape softworks.
- 2.5 The summary of major construction activities during the Maintenance Period for Contract 2 in December 2014 will be:
- Temporary traffic arrangements;
 - Slope outstanding and remedial works;
 - Noise barrier outstanding and remedial works;
 - Entrusted watermains works;
 - 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 | Environmenta l 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-RN0641-14 | 16/10/2014 | 15/11/2014 | CSHK | Completion of Outstanding Works |

| Statutory Reference | License/ Permit | License or Permit No. | Valid Period | | License/ Permit Holder | Remarks |
|---------------------|-----------------|-----------------------|--------------|------------|------------------------|--|
| | | | From | To | | |
| | | 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 |

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.

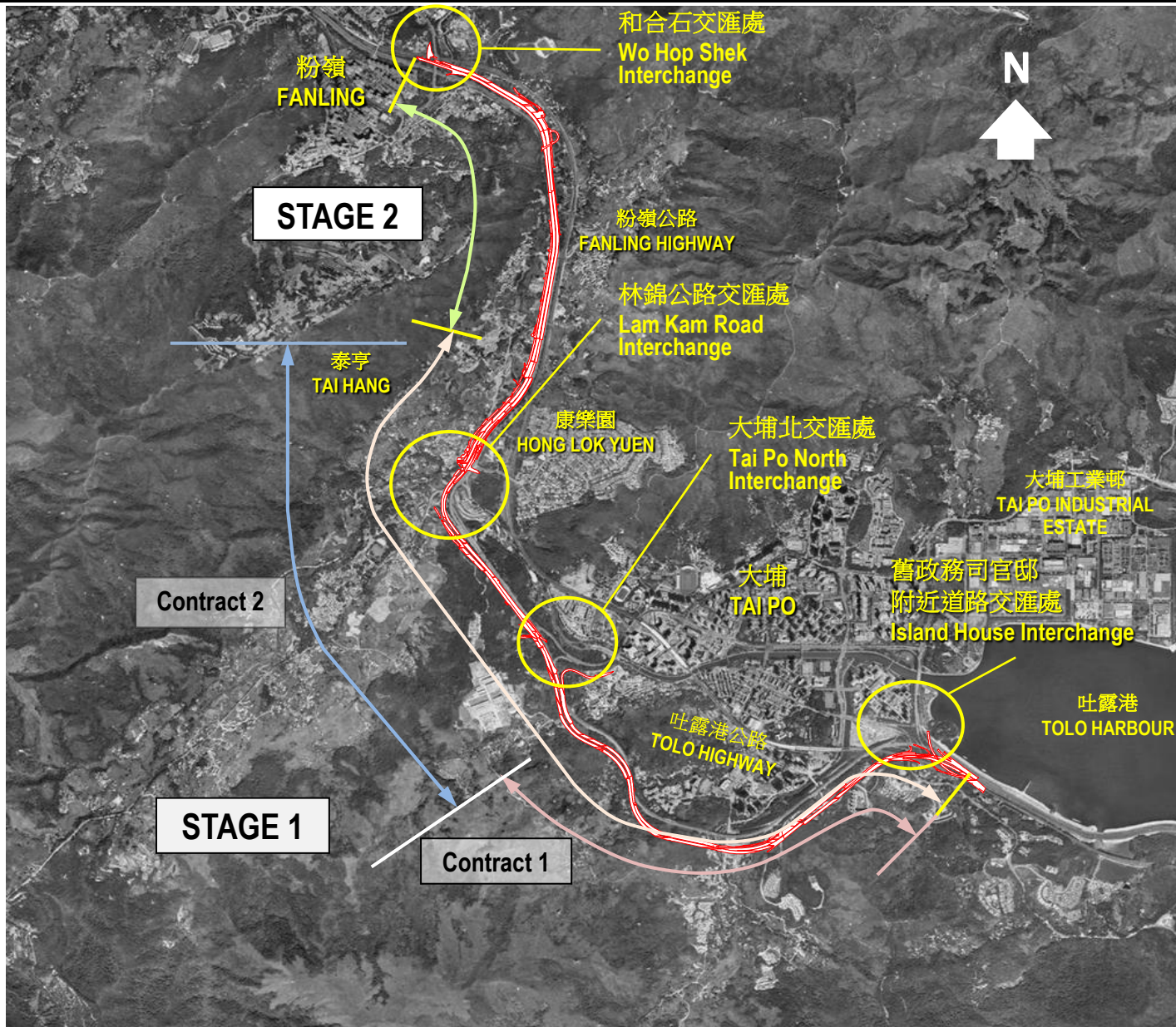
6 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

- 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.

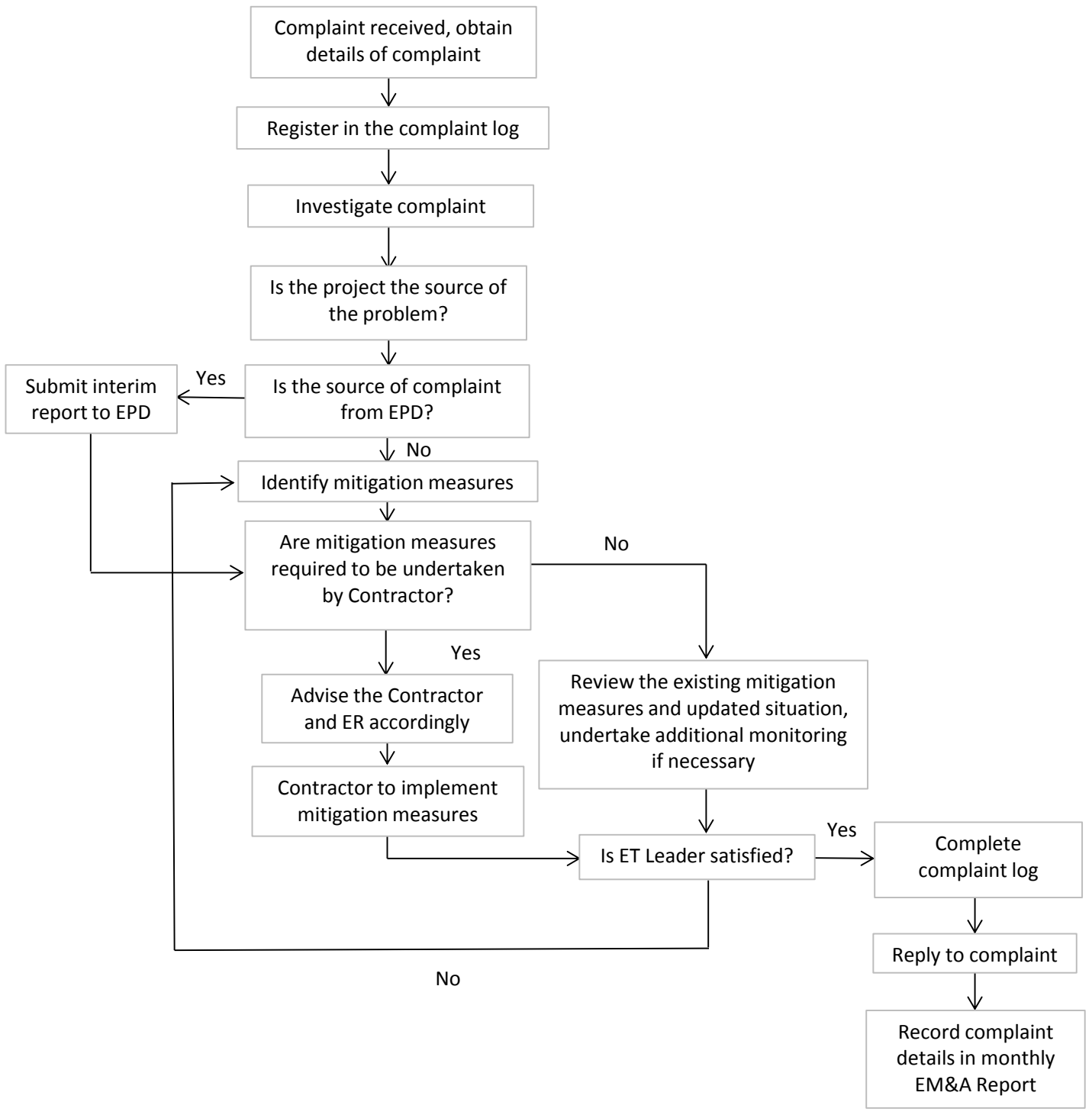
FIGURES



**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 1 Dec 2014 | Progress as of 14 Nov 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 | 92% | 92% | Dec 2014 Jul 2014 | Construction of firemain, additional gravity wall and planter wall were completed. Backfilling of inspection pit for leakage DSD pipe was completed. <i>Works suspended due to additional inspection pit for leakage DSD pipe</i> |
| 1.11 | Construction of catchment drainage, construction of maintenance access, installation of handrailing and painting of handrailing for Cut Slope S4B | 98% | 98% | <i>Early Dec 2014</i> Jul 2014 | Construction of maintenance access in progress. |
| 1.12 | Construction of catchment drainage, maintenance access and handrailing at Slope S5 | <i>88%</i> | 83% | Dec 2014 Jul 2014 | <i>Diversion of Slip Road M on 22 Oct 2014, trimming formation and kerb laying in progress</i> |
| 1.13 | Backfilling works and construction of no-fine concrete infill behind Retaining Wall W3A Reinstatement of granite stone facing slope behind Retaining Wall W3A | <i>80%</i> | 60% | <i>Early Dec 2014</i> Aug 2014 | No-fine concrete works partial completed. <i>Remaining no-fine concrete works to be completed on 4 December 2014 subject to TTA.</i> |
| 2 | Road Works | | | | |
| 2.1 | General | | | | |

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 14 Nov 2014 | Target Completion Date | Remarks |
|------------|---|------------------------------|-------------------------------|----------------------------|--|
| 2.1.2 | Road works at Slip Road B (including road pavement, road marking, traffic aids, verge, U channel & street furniture) | 99% | 98% | Dec 2014 Jul 2014 | KFWV noise barrier installation completed. Re-surfacing work pending the completion of the replacement of the movement joints by HyD/HSR. Replacement of MJ by Welcome Construction CO. Ltd. and resurfacing works of slow lane was completed. MJ and resurfacing works at fast lane are in progress. |
| 2.1.10 | Ground Reinstatement at YCT additional works area | 75% | 70% | Dec 2014 Aug 2014 | Breaking works and kerb laying were completed. Street furniture is in progress. |
| 2.1.11 | DSD entrustment works for the foul sewer at YCT | 92% | 90% | Dec 2014 Jun 2014 | Construction of proposed manhole and 2nos. inspection pit completed. Additional inspection pit is in progress. |
| 2.1.12 | Permanent Traffic Signs installation | 99% | 99% | Early Dec 2014 Jun 2014 | Target completion in early Dec 2014 |
| 2.2 | <i>Firemain & Irrigation System</i> | | | | |
| 2.2.1 | DN40 Irrigation Main (including main laying, fittings installation, connection to existing main and chamber construction) | 70% | 70% | Dec 2014 Jul 2014 | Additional waterproofing painting to planter was issued. Works to be started. |

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 14 Nov 2014 | Target Completion Date | Remarks |
|------------|---|------------------------------|-------------------------------|---------------------------------------|---|
| 2.2.2 | DN150 Fire Main from Jacking/Receiving Pit (including main laying, fittings installation, connection to existing main and chamber construction) | 97% | 97% | Dec 2014 Jul 2014 | Firemain was completed. Pressure testing for DN150 firemain outside S2 (Northbound) was completed. Permanent connection to be completed in end November 2014. Pressure testing for DN150 firemain outside NB12 (Southbound) is in progress. |
| 2.2.3 | DN600 Fresh Water Main Chambers Minor Details (including extension key installation and covers) | 99% | 99% | Mid Dec 2014 Jul 2014 | Rise valve chamber cover and extension key are in progress. |
| 2.3 | <i>Drainage</i> | | | | |
| 2.4.5 | Outstanding civil & E&M provision and ground reinstatement at YCT Hub Room | 98% | 98% | Dec 2014 Jun 2014 | Handed over to EMSD. Reinstatement works in progress. |
| 2.4.6 | Additional Enhancement of Pavement Drainage at Shatin Bound Tolo Highways n at CH 15.88 | 15% | 5% | Jan 2015 | V.O. was receipted on 31 Oct 2014. Works were started on 21 November 2014. Excavation is in progress. |
| 2.4.7 | Additional Enhancement of Pavement Drainage at Fanling Bound Tolo Highways at CH 15.88 near New Banyan Bridge | 18% | 15% | Jan 2015 | V.O. was receipted on 31 Oct 2014. Works were started on 4 November 2014. Excavation 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% | Early Dec 2014 Jun 2014 | Cabling works are in progress. All street lights are target to commission in early Dec 2014. |

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 14 Nov 2014 | Target Completion Date | Remarks |
|-------|---|------------------------------|-------------------------------|----------------------------|---|
| 2.5.3 | High mast lighting system (including Footing, ducting, HM post pillar box & cabling) | 99% | 99% | Early Dec 2014 Jul 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. HM lights are outstanding. |
| 2.5.5 | Removal of Temporary Lighting | 80% | 75% | mid Dec 2014 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) | 85% | 82% | Dec 2014 Jul 2014 | As the reinstatement of the slope would involve backfilling works and some layers of soil testing. Backfilling of slope is in progress. |
| 4 | Landscaping Works | | | | |
| 4.1 | Heavy standard trees | 70% | 70% | Dec 2014 Jul 2014 | In progress. |
| 4.2 | Woodland mix | 80% | 80% | Dec 2014 Jul 2014 | In progress. |
| 4.3 | Amenity shrub planting | 80% | 80% | Dec 2014 Jul 2014 | In progress. |
| 5 | Bridgeworks | | | | |
| 5.1 | New Banyan Bridge & New Banyan West Bridge | | | | |

Contract No. HY/2008/09

List of Outstanding Works – Zone 1

List of Outstanding Works – Zone 2

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 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% | Dec 2014 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. Works to be resumed. |
| 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% | Dec 2014 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 | 83% | 79% | Dec 2014 Nov 2014 | Backfill behind retaining wall W7 in progress. |
| 1.8 | Construction of catchment drainage, maintenance access, installation of handrailing for Fill Slope S7 | 91% | 88% | Dec 2014 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 | 5% | 5% | Dec 2014 Sept 2014 | Drainage outlet was completed. Reinstatement works at south abutment of the NLKRB to be resumed in early Dec 2014. Maintenance access to be constructed after reinstatement works. |
| 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% | Dec 2014 Jun 2014 | Pavement and road marking completed. Street furniture to be started. |

List of Outstanding Works – Zone 2

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 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) | 94% | 92% | Mid Dec 2014 Jul 2014 | Slip Road M was diverted, trimming formation and kerb laying are in progress. |
| 2.1.6 | Boundary Fencing | 20% | 20% | Jan 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) | 20% | 15% | Jan 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) | 98% | 98% | Dec 2014 Jul 2014 | Installation of DN150 firemain in Shan Tong Road completed. Pressure testing is in progress. |
| 2.3 | Drainage | | | | |
| 2.3.4 | Drainage and reinstatement works at Kwong Fuk Dog Garden (including U channel and kerb) | 96% | 96% | Dec 2014 Aug 2014 | HKCG completed the tie-in connection and backfilling completed. The reinstatement works are in progress. |
| 2.3.6 | Additional Enhancement of Pavement Drainage at Fanling Bound Tolo Highways at CH16.52 near Shan Tong Road | 100% | 900% | Early Dec 2014 | V.O. was receipted on 30 Oct 2014. Additional enhancement of pavement drainage was completed. Reinstatement of bitumen paving is outstanding. |
| 2.4 | TCSS/SEC | | | | |

List of Outstanding Works – Zone 2

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 2014 | Target Completion Date | Remarks |
|------------|--|------------------------------|-------------------------------|---------------------------------------|--|
| 2.5 | Road Lighting | | | | |
| 2.5.1 | Road light system (including canopy lights, light posts, ducting, drawpits at central median (CH500-750) & H/S (CH500-1100)) for Pillar Box P2 | 100% | 99% | Nov 2014 Jun 2014 | Completed. |
| 2.5.2 | Pillar box P2 | 100% | 99% | Nov 2014 Jun 2014 | System P2 power meter to be installed on 3 Dec 2014 Nov 2014. |
| 2.5.3 | Power Provision for Lighting Pillars | 99% | 98% | Early Dec 2014 Jun 2014 | Works were completed. Installation of power meter is outstanding. |
| 2.5.5 | Removal of Temporary Lighting | 50% | 50% | Mid Dec 2014 Oct 2014 | Temporary street lighting with concrete block footing to be removed by mid Dec 2014. |
| 3 | Noise Barriers | | | | |
| 4 | Landscaping Works | | | | |
| 4.1 | Heavy standard trees | 82% | 82% | Dec 2014 Jun 2014 | Except area at W8 and W4A to be carried out in Oct 2014 |
| 4.2 | Woodland mix | 84% | 84% | Dec 2014 Jun 2014 | Except area at W8 and W4A to be carried out in Oct 2014 |
| 4.3 | Amenity shrub planting | 84% | 84% | Dec 2014 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% | Dec 2014 Jun 2014 | To be carried out this week. |

List of Outstanding Works – Zone 2

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 2014 | Target Completion Date | Remarks |
|-------|---|------------------------------|-------------------------------|----------------------------|--|
| 5.1.3 | Maintenance Access for both abutments | 0% | 0% | Jan 2014 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. Application of I&P in process. |
| 5.1.4 | Slope reinstatement works & drainage works at South & North Abutments | 5% | 0% | Dec 2014 Jun 2014 | Gas main diversion was completed and reinstatement works at W7 was resumed on 1 Dec 2014. |
| 5.1.6 | Parapet silane painting | 100% | 25% | Nov 2014 Jun 2014 | Completed |
| 5.1.7 | Wing wall at South Abutment | 96% | 96% | Dec 2014 Jun 2014 | Preparation work was completed. Works to be resumed this week. |
| 5.2 | Existing Lam Kam Railway Bridge | | | | |
| 5.2.1 | Parapet modification works (Fanling Bound) for NB on bridge | 99% | 99% | Early Dec 2014 Jun 2014 | Edge Barrier completed. Defects to be rectified. |
| 5.2.3 | Reinstatement of existing transition slab at North Abutments | 100% | 50% | Nov 2014 Jul 2014 | Reinstatement of transition slab is completed |

Contract No. HY/2008/09

List of Outstanding Works – Zone 3

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 2014 | Target Completion Date | Remarks |
|-------|---|------------------------------|-------------------------------|---------------------------------------|--|
| 1 | Road Works | | | | |
| 1.19 | Rock filling works in front of Retaining Wall W20A and laying wire mesh | 60% | 57% | Jan 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% | Jan 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% | Jan 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% | Jan 2015 Oct 2014 | Filling work is in progress. |
| 2 | Road Works | | | | |
| 2.1 | General | | | | |
| 2.1.6 | Permanent traffic signs and road stud installation | 99% | 99% | Early Dec 2014 Jun 2014 | Installation of road stud were completed. Outstanding traffic signs to be completed in early Dec 2014 |
| 2.1.7 | Boundary Fencing | 80% | 80% | Dec 2014 Aug 2014 | Installation of boundary fencing at Shan Tong completed. |

Contract No. HY/2008/09

List of Outstanding Works – Zone 3

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 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) | 68% | 64% | Jan 2015 Aug 2014 | Stone pitching for Tai Po Nullah was started in Oct 2014. Backfilling abutment of Bridge 10A was completed. Construction of toe channel is in progress. Target completion in January 2015 as the removal of the temporary steel access is only allowed to be carried out in dry season, i.e. December 2014. |
| 2.2 | Firemain | | | | |
| 2.2.1 | DN150 Fire Main (including main laying, fittings installation, connection to existing main and chamber construction) | 98% | 98% | Dec 2014 Jun 2014 | Laying of DN150 firemain completed. Pressure test of firemain is in progress. |
| 2.3 | Drainage | | | | |
| 2.5 | Road Lighting | | | | |
| 2.5.5 | Removal of Temporary Lighting | 90% | 90% | Dec 2014 | All Temporary lighting with concrete block footing at central median were removed, Temporary street light at Slip Road P are outstanding. |
| 4 | Landscaping Works | | | | |
| 4.1 | Heavy standard trees | 99% | 99% | Dec 2014 Jun 2014 | Outstanding at NB19. |
| 4.2 | Woodland mix | 99% | 99% | Dec 2014 Jun 2014 | Outstanding at NB19. |

Contract No. HY/2008/09

List of Outstanding Works – Zone 3

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 2014 | Target Completion Date | Remarks |
|-------|---|---------------------------|----------------------------|----------------------------|---|
| 4.3 | Amenity shrub planting | 99% | 99% | Dec 2014 Jun 2014 | Outstanding at NB19. |
| 5 | Bridgeworks | | | | |
| 5.1 | Bridge 11 | | | | |
| 5.1.1 | Slope reinstatement works at North & South Abutments | 96% | 95% | Dec 2014 Jun 2014 | Backfilling for slope reinstatement at North abutment completed. U-channel construction is in progress. |
| 5.1.3 | Bridge drainage system at ground level | 10% | 0% | Dec 2014 Aug 2014 | Removal of Containers and stockpile materials are in progress. Bridge drainage works to be started. |
| 5.1.4 | Parapet silane painting for Bridge 11A | 100% | 10% | Nov 2014 Aug 2014 | Completed. |
| 5.1.6 | Maintenance steel gates & drainage system | 0% | 0% | Dec 2014 Jun 2014 | Removal of Containers and stockpile materials are in progress. Drainage system works to be started. |
| 5.2 | Bridge 10 | | | | |
| 5.2.1 | Slope stabilization works for 10AWA (remaining 2 nos. of soil nail heads) & drainage system | 99% | 99% | Early Dec 2014 Jun 2014 | Soil Nail head completed. Drainage system completed and erosion control mat to be laid. |
| 5.2.2 | Parapet silane painting for Bridge 10A | 100% | 75% | Nov 2014 Jun 2014 | Completed |

Contract No. HY/2008/09

List of Outstanding Works – Zone 4

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 2014 | Target Completion Date | Remarks |
|------|---|------------------------------|-------------------------------|---------------------------------------|---|
| 1 | Geotechnical Works | | | | |
| 1.6 | Outstanding slope cutting works, construction of maintenance access, construction of catchment drainage, installation of handrailing and painting at handrailing at Slope S17 | 99% | 99% | Early Dec 2014 Aug 2014 | Outstanding works for rib pattern of retaining wall is in progress and to be completed in early Dec 2014. |
| 1.10 | Drainage works, maintenance access and installation of join sealant to expansion joint at Retaining Wall W28 | 90% | 90% | Dec 2014 Sep 2014 | Mobile crane is required for accessing the area after the completion of the noise barrier. Remedial proposal 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% | Dec 2014 Aug 2014 | Details refer to the pre-handover inspection carried out on 28 Jan 14. |
| 1.16 | Defect rectification works for Retaining Wall W34 | 90% | 90% | Dec 2014 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. |
| 2 | Road Works | | | | |
| 2.2 | Soft landscape works in roadside planters | 99% | 99% | Dec 2014 Jul 2014 | Backfilling of planter completed. Planting works in progress. |

Contract No. HY/2008/09
List of Outstanding Works – Zone 4

| Item | Outstanding Works | Progress as of 1 Dec 2014 | Progress as of 24 Nov 2014 | Target Completion Date | Remarks |
|------|---|------------------------------|-------------------------------|---------------------------------------|---|
| 5 | High Mast Lighting at Yuen Chai Tsui | | | | |
| 5.3 | Commissioning of High Mast Light | 99% | 99% | Early Dec 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 | 75% | 75% | Dec 2014 | Removal of temporary lighting after commissioning of permanent lighting. |
| 6 | Street Lighting (P1 to P5 System) – Whole Site | | | | |
| 6.1 | Permanent Power Supply | 92% | 90% | Early Dec 2014 | System P3, P4 and P5 were completed. System P1 power meter to be installed on 8 Dec 2014. System P2 power meter to be installed on 3 Dec 2014 Nov 2014. |
| 6.2 | Street Light Post Installation | 96% | 95% | Dec 2014 | Slip Road D, M, P are outstanding. |
| 6.3 | Commissioning of Street Lighting | 70% | 75% | Dec 2014 Nov 2014 | System P3, P4 and P5 were commissioning. System P1 and P2 schedule to complete in early Dec 2014. |
| 6.4 | Removal of Temporary Lighting | 75% | 75% | 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 49 | 50 | Q2 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 |