



**DRAINAGE SERVICES DEPARTMENT
CONTRACT NO. DC/2011/06**

**REPROVISIONING OF BOUNDARY PATROL ROAD
AND ASSOCIATED SECURITY FACILITIES
BETWEEN PING YUEN RIVER AND PAK FU SHAN
AND DRAINAGE WORKS IN NORTH DISTRICT**

**THE TWELFTH QUARTERLY
EM&A SUMMARY REPORT FOR DRAINAGE
WORKS UNDER EP-277/2007/A
(MARCH 2015 – MAY 2015)**

**PREPARED FOR
SANG HING CIVIL CONSTRUCTORS CO., LTD.**

Quality Index

| Date | Reference No. | Prepared By | Approval By |
|--------------|-----------------------|--|--|
| 15 June 2015 | TCS00599/12/600/R0423 |  Donald Kwok Assistant Environmental Consultant |  T. W. Tam Environmental Team Leader |

| Version | Date | Description |
|----------------|--------------|--------------------|
| 1 | 15 June 2015 | First submission. |

This report has been prepared by Action-United Environmental Services & Consulting with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

Ref.: DSDBPRNDEM00_0_0417L.15

3 July 2015

By Post and Fax (2959 6079)

Action-United Environmental Services & Consulting
Unit A, 20/F,
Gold King Industrial Building,
New Territories, Hong Kong

Attention: Mr. TW Tam

Dear Sir,

**Re: Contract No. DC/2011/06
Reprovisioning of Boundary Patrol Road and Associated Security Facilities
between Ping Yuen River and Pak Fu Shan and Drainage Works in North
District
Twelfth Quarterly EM&A Summary Report for Drainage Works under EP-
277/2007/A (March 2015 – May 2015)**

Reference is made to the Environmental Team's submission of the captioned report (Version 1) dated 15 June 2015 received through E-mail on 15 June 2015 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission.

Should you have any queries, please do not hesitate to contact the undersigned.

Yours sincerely,



Roger Leung
Independent Environmental Checker

c.c. DSD Mr. Eric Cheng by fax: 2827 8700
 SHCCCL Mr. Raymond W.M. Yau by fax: 2403 1162

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EXECUTIVE SUMMARY

REPORTING OF THE CONTRACT

ES01. In order to ease reporting of the Contract, it has been agreed among the Engineer, IEC, Contractor and ET that the EM&A reports for the Contract are split into three stand-alone reports, namely EM&A Report for Advanced Works under EP-430/2011, EM&A Report for Drainage Works under EP-277/2007/A and EM&A Report for Drainage Works at Ma Wat Wai. This is the twelfth quarterly EM&A summary report for Drainage Works under EP-277/2007/A, covering the construction period of the Works from 1 March 2015 to 31 May 2015.

ES02. The structure of this Report is as follows:

EXECUTIVE SUMMARY

- 1 *Introduction*
- 2 *Requirements for Construction Impact monitoring*
- 3 *Environmental monitoring Results*
- 4 *solid and liquid Waste Management*
- 5 *Complaints, Notification of Summons and Successful Prosecution*
- 6 *Conclusions and Recommendations*

Annex

- Annex A Location plan for the Works*
Annex B Environmental Management Organization, Communication Lines and 24-Hour Hotline
Annex C Construction Program
Annex D Status of Environmental Licenses and Permits
Annex E Environmental Monitoring Locations
Annex F Graphical Plots of the Trends of Monitored Parameters
Annex G Monthly Summary of Waste Flow Table

BREACH OF ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

ES03. No exceedances of environmental quality performance limits for air quality and construction noise were recorded. However, a total of seven (7) water quality exceedances occurred in this reporting period, and NOEs were issued to relevant parties. Based on the investigation and consider that the exceedances should not be due to the Project works. Therefore, nor remedial actions were required.

COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES04. No environmental complaints, notifications of summons and successful prosecutions were registered during the quarter.

CONCLUSIONS

ES05. The EM&A results for the Reporting Period confirmed that the monitoring work was effective and was generating data with the necessary statistical power to categorically identify or confirm the absence of impact attributable to the works.

ES06. Neither breaches of environmental quality performance limits nor written or verbal environmental complaints, notification of summons and successful prosecutions were recorded during the Reporting Period, indicating the implemented environmental mitigation measures were effective and efficient to alleviate adverse environmental impacts generated from the construction activities of the Works.

RECOMMENDATIONS

ES07. The Contractor is reminded to fully comply with all the environmental requirements stipulated in the environmental regulations, guidelines and Particular Specifications under the Contract, in particular construction suppression measures during dusty construction activities under dry and windy conditions and water quality mitigation measures during rainy conditions.

ES08. In addition, attention is drawn to implementation of the construction noise mitigation measures during noisy construction works.

1 INTRODUCTION

BASIC PROJECT INFORMATION

- 1.01 Sang Hing Civil Contractors Company Limited has been awarded by DSD since 31 March 2012 Contract No. DC/2011/06 – Re-provisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District (hereafter “the Contract”). The Contract comprises:
- 1) Drainage Works in North District to be implemented under Environmental Permit No. EP-277/2007/A (hereinafter “Drainage Works under EP-277/2007/A or “the Works”);
 - 2) Re-provisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan; and
 - 3) Drainage Works in North District, a non-designated project of drainage works at Ma Wat Wai.
- 1.02 Location plan for the Works is shown in **Annex A**, whereas environmental management organization and communication lines, including contacts of key personnel under the Contract are shown in **Annex B**.
- 1.03 The Works has been commenced since 21 May 2012 upon completion of the site clearance and preparation activities after commencement of the Contract since 31 April 2012.
- 1.04 Action-United Environmental Services and Consulting (hereinafter “AUES”) has been commissioned by the Contractor as the Environmental Team (hereinafter “the ET”) to implement the environmental monitoring and audit (hereinafter “EM&A”) under the Contract.
- 1.05 In order to ease reporting of the Contract, it has been agreed among the Engineer, IEC, Contractor and ET that the EM&A reports for the Contract are split into three stand-alone reports, namely EM&A Report for Advanced Works under EP-430/2011, EM&A Report for Drainage Works under EP-277/2007/A and EM&A Report for Drainage Works at Ma Wat Wai.
- 1.06 This is the twelfth quarterly EM&A summary report (herein after “this Report”) for Drainage Works under EP-277/2007/A, covering the construction period from 1 March 2015 to 31 May 2015 (hereinafter “the Reporting Period”).

WORK UNDERTAKEN DURING THE QUARTER

- 1.07 Construction program is presented in **Annex C**, whereas construction activities undertaken during the Reporting Period are summarized in the following **Table 1-1**.

Table 1-1 Major Construction Activities of the Works during the Reporting Period

| Major Construction Activities during the Reporting Period at Portion E (Man Uk Pin) | |
|--|---|
| March 2015 | <ul style="list-style-type: none"> • Establishment of Transplanted Tree T1107 • Liaise with lot owner for the access • Construction of Gabion Block at the upstream • Underground Utilities Detection • Reinstatement of the existing road and footpath • Rectifying defect |
| April 2015 | <ul style="list-style-type: none"> • Establishment of Transplanted Tree T1107 • Liaise with lot owner for the access • Underground Utilities Detection • Reinstatement of the existing road and footpath • Rectifying defect • Construction of u-channel and catchpit • Installation of street furniture |
| May 2015 | <ul style="list-style-type: none"> • Establishment of Transplanted Tree T1107 • Liaise with lot owner for the access • Underground Utilities Detection |

| | |
|--|--|
| | <ul style="list-style-type: none"> • Reinstatement of the existing road and footpath • Rectifying defect • Construction of u-channel and catchpit • Installation of street furniture |
|--|--|

ENVIRONMENTAL MITIGATION MEASURES AND ENVIRONMENTAL IMPLEMENTATION STATUS

- 1.08 Environmental mitigation measures to minimize potential environmental impacts arising from the construction of the project have been recommended the Final EIA and summarized in the stand-alone EM&A Manual. They can be found in the *First Monthly EM&A Report for Drainage Works under EP-277/2007/A* (ref. TCS00599/12/600/R0017v4, dated 16 July 2012).
- 1.09 Implementation status of environmental protection and pollution control/mitigation measures, as recommended in the Final EIA and summarized in the updated implementation schedule is detailed in the following *Section 3 to 5* of this Report, whereas status of environmental licenses and permit is summarized in the *Annex D*.

2 REQUIREMENTS FOR CONSTRUCTION IMPACT MONITORING

MONITORING PARAMETERS

- 2.01 The monitoring parameters to be monitored are summarized in *Table 2-1*.

Table 2-1 Summary of Environmental Monitoring Parameters

| Aspect | Parameters | |
|--------------------|---|---|
| Air Quality | <ul style="list-style-type: none"> • 1-Hour Total Suspended Particulate (hereinafter ‘1-Hr TSP’); and • 24-Hour Total Suspended Particulate (hereinafter ‘24-Hr TSP’). | |
| Construction Noise | <ul style="list-style-type: none"> • A-weighted equivalent continuous sound pressure level (30min) (hereinafter ‘Leq(30min)’ during the normal working hours; and • A-weighted equivalent continuous sound pressure level (5min) (hereinafter ‘Leq(5min)’ for construction work during the restricted hours. | |
| Water Quality | In Situ Measurement: | Temperature, Dissolved Oxygen, Dissolved Oxygen Saturation, pH value, Water Depth & Turbidity |
| | Laboratory Analysis | Suspended Solids (hereinafter ‘SS’), |
| Ecology | <ul style="list-style-type: none"> • The stream conditions monitoring (in-situ measurements of DO, pH and turbidity; laboratory testing of SS); • Riparian vegetation along the banks of channel monitoring; • General site audit to ensure the existing natural stream channel is protected; and • Reported the sediment condition during the construction phase | |

- 2.02 As there was neither riparian vegetation along the banks of channel nor existing natural stream channel within the construction site under the Works, no ecology monitoring is required.

MONITORING LOCATIONS

Monitoring Locations Designated in the EM&A Manual

- 2.03 The sensitive receiver designated in the EM&A Manual, namely MUP05-2, which is the closest to the construction site, is selected as monitoring location for air quality namely MUP-A1 and construction noise namely MUP-N1 respectively. They are shown in *Annex E* and summarized in *Table 2-2* below.

Table 2-2 Designated Monitoring Locations

| Issue | Channel | Sensitive Receiver | Location ID | Detailed Address |
|-------|---------|--------------------|-------------|--|
| Air | MUP05 | MUP05-2 | MUP-A1 | A village house at Man Uk Pin |
| Noise | MUP05 | MUP05-2 | MUP-N1 | Same village house at Man Uk Pin as MUP-A1 |

Additional Monitoring Locations

- 2.04 Additional monitoring locations for construction noise and water quality are also shown in *Annex E* and summarized in *Table 2-3* below.

Table 2-3 Summary of Additional Environmental Monitoring Locations

| Issue | Channel | Sensitive Receiver | Location ID | Detailed Address |
|---------------|---------|--------------------|-------------|---|
| Noise | MUP05 | MUP05-2 | MUP-Nx | Village house |
| Water Quality | MUP05 | - | MUP-Wx1 | Additional Up-Stream Control Station: (Prior to and after connection of stream diversion) |
| | | - | MUP-Wx2 | Additional Impact Monitoring Station: (Prior to connection of stream diversion) |
| | | - | MUP-Wx3 | Additional Impact Monitoring Station: (After connection of stream diversion) |
| | | - | MUP-Wx4 | Relocation for MUP-Wx2 since 19 th September 2014 |

ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

- 2.05 The environmental quality performance limits, i.e. Action/Limit Levels, for air quality and construction noise are summarized in *Table 2-4* and *Table 2-5* respectively.

Table 2-4 Action and Limit Levels for Air Quality

| Monitoring Station | Action Level ($\mu\text{g}/\text{m}^3$) | | Limit Level ($\mu\text{g}/\text{m}^3$) | |
|--------------------|---|-------------|--|-------------|
| | 1-Hour TSP | 24-Hour TSP | 1-Hour TSP | 24-Hour TSP |
| MUP-A1 | 307 | 156 | 500 | 260 |

Table 2-5 Action and Limit Levels for Construction Noise (dB(A))

| Time Period | Action Level | Limit Level |
|------------------------------------|---|-------------|
| 0700-1900 hours on normal weekdays | When one documented complaint is received | 75 dB(A) |

- 2.06 Environmental quality criteria for additional water quality monitoring are presented in *Table 2-6* below.

Table 2-6 Action and Limit Levels for Water Quality

| Water Parameter | Action Level | Limit Level |
|-----------------------------------|---|---|
| Dissolved Oxygen (DO) | 4.42 mg/L | 4.37 mg/L |
| Turbidity & Suspended Solids (SS) | 120% of the Levels of Up-Stream Control Station | 130% of the Levels of Up-Stream Control Station |

3 ENVIRONMENTAL MONITORING RESULTS

- 3.01 Graphical plots of the trends of monitored parameters over the past 4 months, including the last month of the previous quarter and the Reporting Period, are presented in *Annex F*.
- 3.02 Weather conditions extracted from Hong Kong Observatory have been used in interpretation of this Report. They can be found in corresponding Monthly EM&A Reports.
- 3.03 A total of four (4) exceedances for water quality monitoring were recorded during the reporting period. Moreover, NOEs were issued in this reporting period. As compared the results of Upstream Control Station and Downstream Impact Station on exceedance days, difference of both results were less than 2 and it is considered as insignificant. Therefore it is concluded that the exceedances at MUP-Wx4 were likely due to natural variation and not related to the project.
- 3.04 During the waste quality monitoring on 25th to 30th April 2015 and 1st to 31th May 2015, extreme shallow water was observed at the Upstream Control Station MUP05-Wx1. Hence, no water samplings at Control Station were conducted in those monitoring date. Moreover, no water was discharged or passed through the site area, the monitoring results at Downstream Impact Station on those days are provided for reference only.

EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

- 3.05 No exceedances of environmental quality performance limits were registered and found related to the Project during the Reporting Period. However, a total of 8 Action and Limit Level exceedances on water quality were occurred, Notice Of Exceedances of the environmental quality performance limits (hereinafter “NOE”) were issued and nor the associated remediation actions were required during the Reporting Period.

CONCLUSIONS

- 3.06 The EM&A results confirmed that the monitoring work was effective and generating data with necessary statistical power to categorically identify the absence of impact attributable to the works.
- 3.07 Monitoring results recorded no exceedances of the environmental quality performance limits during the Reporting Period, indicating no adverse environmental impacts were generated from construction activities during the Reporting Period. No remediation actions were required.

4 SOLID AND LIQUID WASTE MANAGEMENT

- 4.01 The quantity of solid and liquid waste for disposal or reuse is summarized in Monthly Summary of Waste Flow Table in *Annex G*.

5 COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTION

- 5.01 No written or verbal environmental complaints, notification of summons and successful prosecutions were recorded during the Reporting Period. They are summarized in *Table 5-1*.

Table 5-1 Summary of Complaints, Notification of Summons and Successful Prosecutions

| Environmental Issue | Frequency of Occurrence | |
|----------------------|---|------------------------|
| | From the project commencement to last reporting month | This reporting Period |
| | December 2012 – February 2015 | March 2015 to May 2015 |
| Complaints | 0 | 0 |
| Nature of Complaints | Not Applicable | Not Applicable |

| | | |
|--------------------------------|----------------|----------------|
| Notification of Summons | 0 | 0 |
| Nature of Summons | Not Applicable | Not Applicable |
| Successful Prosecutions | 0 | 0 |
| Nature of Prosecutions | Not Applicable | Not Applicable |

- 5.02 Project proponents' contacts and hotline telephone number for the public to make enquiries can be found in *Annex B*.

6 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

- 6.01 Neither breaches of environmental quality performance limits nor written/verbal environmental complaints, notification of summons and successful prosecutions were recorded during the Reporting Period, indicating the implemented environmental mitigation measures were effective and efficient to alleviate adverse environmental impacts generated from the construction activities of the Works.

RECOMMENDATIONS

- 6.02 The Contractor is reminded to fully comply with all the required environmental mitigation measures, in particular construction dust suppression measures during dusty construction activities under dry and windy conditions and water quality mitigation measures during rainy conditions. In addition, attention is drawn to implementation of the construction noise mitigation measures during noisy construction works.
- 6.03 During the rainy season, muddy water and other water quality pollutants via site surface water runoff get into public areas should be avoided. Mitigation measures for water quality should be properly implemented to avoid adverse water quality impacts on the receiving water bodies.
- 6.04 Moreover, attention is drawn to implementation of the construction noise mitigation measures during noisy construction works. The temporary noise barrier should be modified in compliance with the Environment Permit and contract specific requirement.

ANNEX A

LOCATION PLAN FOR THE WORKS

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NOTES:

1. ALL LEVELS ARE IN METERS ABOVE MEAN SEA LEVEL UNLESS OTHERWISE SPECIFIED.
2. EXISTING AND PROPOSED CHANNELS ARE SHOWN IN RED.
3. EXISTING AND PROPOSED CHANNELS ARE IN METERS, UNLESS OTHERWISE SPECIFIED.
4. THE CHANNELS FOR THE CHANNELS ARE TO BE CONSTRUCTED TO THE DESIGN STANDARD AND TO BE MAINTAINED IN ACCORDANCE WITH THE DESIGN STANDARD.
5. THE CHANNELS FOR THE CHANNELS ARE TO BE CONSTRUCTED TO THE DESIGN STANDARD AND TO BE MAINTAINED IN ACCORDANCE WITH THE DESIGN STANDARD.
6. FLOOD WARNING SIGN POSTS TO GDS STANDARD, DRAWING NO. 2003/2.
7. EXIST. LOCATION OF FLOOD WARNING SIGN SHALL BE ADJUSTED WITH THE PROVISION OF A.F.S.

LEGEND:

- (Symbol) FLOOD WARNING SIGN
- (Symbol) PROPOSED FLOOD WARNING SIGN
- (Symbol) FLOOD WARNING SIGN
- (Symbol) PROPOSED FLOOD WARNING SIGN

POINTS LIGHT

SETTING OUT POINT (S.O.P.) FOR CHANNEL

ALIGNMENT OF ALIGNMENT

LINE OF ALIGNMENT

POSSIBLE WITH CORRECTED DATA

PROPOSED CHANNEL

PROPOSED CHANNEL

FOR TENDER PURPOSES ONLY

| Description | Quantity | Unit | Rate | Amount |
|-------------------|----------|------|---------|---------|
| PRELIMINARY WORKS | 1.000 | CUM | 1000.00 | 1000.00 |
| EXCAVATION | 1.000 | M³ | 1000.00 | 1000.00 |
| CONCRETE | 1.000 | M³ | 1000.00 | 1000.00 |
| STEELWORK | 1.000 | T | 1000.00 | 1000.00 |
| PAVING | 1.000 | M² | 1000.00 | 1000.00 |
| PLUMBING | 1.000 | NO. | 1000.00 | 1000.00 |
| ELECTRICAL | 1.000 | NO. | 1000.00 | 1000.00 |
| LANDSCAPE | 1.000 | NO. | 1000.00 | 1000.00 |
| OTHER | 1.000 | NO. | 1000.00 | 1000.00 |
| TOTAL | | | | |

Contract No. DC/2011/06

REPRODUCTION OF BOUNDARY, FENCED ROAD AND ASSOCIATED SECURITY FACILITIES BETWEEN PING TSEN RIVER AND PAK FU SHAI AND DRAINAGE NOBLS IN NORTH DISTRICT

GENERAL LAYOUT PLAN FOR DRAINAGE CHANNEL MUP05

Scale: 1:500 A1, 1:1000 A3

DDP/DC/1106/41011

香港特別行政區政府渠務署
S
THE ENVIRONMENTAL & WATER SERVICES DEPARTMENT

HOARE & PARTNERS LIMITED
HOARE & PARTNERS LIMITED



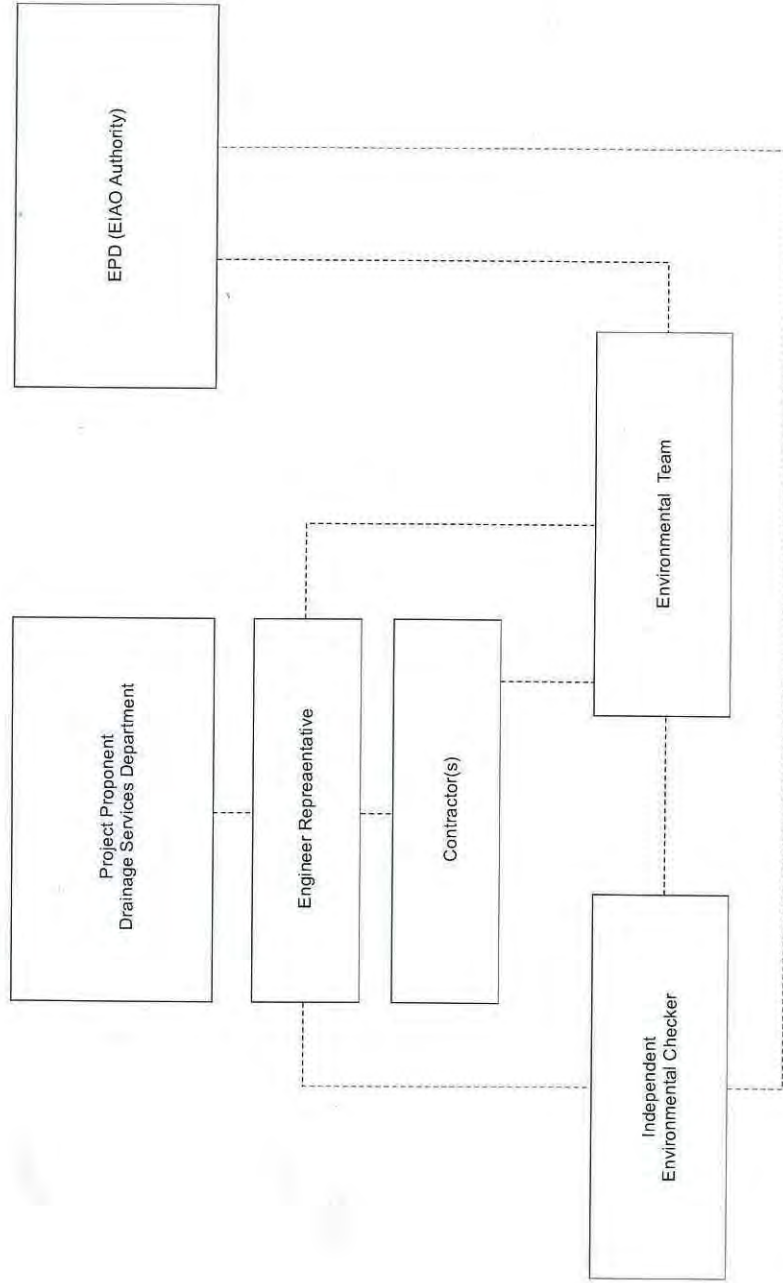
EXISTING AND PROPOSED CHANNEL DATA

| S.E.P. | CHANNEL ID | LENGTH | NUMBER |
|--------|-------------|---------|--------|
| 1 | SKA TAI KOK | 4745.00 | 27 |
| 2 | SKA TAI KOK | 4745.00 | 27 |
| 3 | SKA TAI KOK | 4745.00 | 27 |
| 4 | SKA TAI KOK | 4745.00 | 27 |
| 5 | SKA TAI KOK | 4745.00 | 27 |
| 6 | SKA TAI KOK | 4745.00 | 27 |
| 7 | SKA TAI KOK | 4745.00 | 27 |
| 8 | SKA TAI KOK | 4745.00 | 27 |
| 9 | SKA TAI KOK | 4745.00 | 27 |
| 10 | SKA TAI KOK | 4745.00 | 27 |
| 11 | SKA TAI KOK | 4745.00 | 27 |
| 12 | SKA TAI KOK | 4745.00 | 27 |
| 13 | SKA TAI KOK | 4745.00 | 27 |
| 14 | SKA TAI KOK | 4745.00 | 27 |
| 15 | SKA TAI KOK | 4745.00 | 27 |
| 16 | SKA TAI KOK | 4745.00 | 27 |
| 17 | SKA TAI KOK | 4745.00 | 27 |
| 18 | SKA TAI KOK | 4745.00 | 27 |
| 19 | SKA TAI KOK | 4745.00 | 27 |
| 20 | SKA TAI KOK | 4745.00 | 27 |
| 21 | SKA TAI KOK | 4745.00 | 27 |
| 22 | SKA TAI KOK | 4745.00 | 27 |
| 23 | SKA TAI KOK | 4745.00 | 27 |
| 24 | SKA TAI KOK | 4745.00 | 27 |
| 25 | SKA TAI KOK | 4745.00 | 27 |
| 26 | SKA TAI KOK | 4745.00 | 27 |
| 27 | SKA TAI KOK | 4745.00 | 27 |
| 28 | SKA TAI KOK | 4745.00 | 27 |
| 29 | SKA TAI KOK | 4745.00 | 27 |
| 30 | SKA TAI KOK | 4745.00 | 27 |
| 31 | SKA TAI KOK | 4745.00 | 27 |
| 32 | SKA TAI KOK | 4745.00 | 27 |
| 33 | SKA TAI KOK | 4745.00 | 27 |
| 34 | SKA TAI KOK | 4745.00 | 27 |
| 35 | SKA TAI KOK | 4745.00 | 27 |
| 36 | SKA TAI KOK | 4745.00 | 27 |
| 37 | SKA TAI KOK | 4745.00 | 27 |
| 38 | SKA TAI KOK | 4745.00 | 27 |
| 39 | SKA TAI KOK | 4745.00 | 27 |
| 40 | SKA TAI KOK | 4745.00 | 27 |

26/7/2011 10:51:11 AM

ANNEX B

***ENVIRONMENTAL MANAGEMENT ORGANIZATION AND
COMMUNICATION LINES
AND
24-HOUR HOTLINE***



Key
- - - - - Line of Communication

EM&A Organisation Chart

Contact Details of Key Personnel

| Organization | Project Role | Name of Key Staff | Tel No. | Fax No. |
|---------------------|-----------------------------------|--------------------------|----------------|----------------|
| DSD | Project Proponent / Employer | Mr. Eric Y. M. Cheng | 2594-7341 | 2827-8700 |
| Environ | Independent Environmental Checker | Mr. Roger W. K. Leung | 3465 2888 | 3465 2899 |
| SHCC | Project Manager | Mr. Raymond Yau | 2403 1165 | 2403 1165 |
| SHCC | Site Agent | Mr. Elvin Lam | 2640 9286 | 2640 9286 |
| AUES | Environmental Team Leader | Mr. T. W. Tam | 2959-6059 | 2959-6079 |
| AUES | Environmental Consultant | Miss Nicola Hon | 2959-6059 | 2959-6079 |
| AUES | Environmental Team Supervisor | Mr. Ben Tam | 2959-6059 | 2959-6079 |

24-Hour Hotline Telephone Number for the Public to Make Enquiries

| |
|--------------------------------------|
| 24-Hour Hotline: 6770 3827 |
| Contact Person: Mr. Mocha Mok |

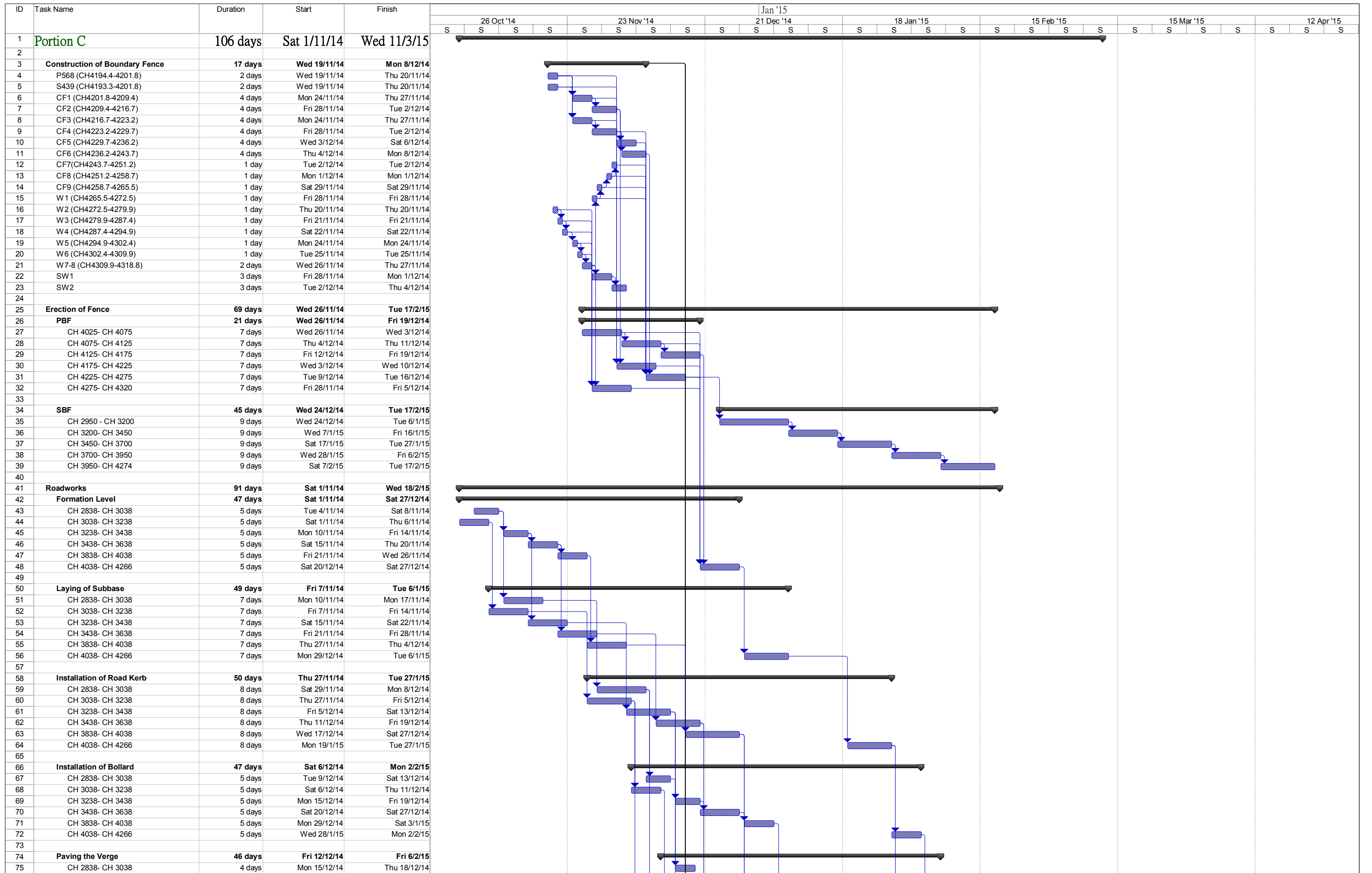
Legends:

- DSD (Project Proponent / Engineer) – Drainage Services Department*
SHCC (Main Contractor) – Sang Hing Civil Constructors Co., Ltd
Environ (IEC) – Environ Hong Kong Limited
AUES (ET) – Action-United Environmental Services & Consulting

ANNEX C

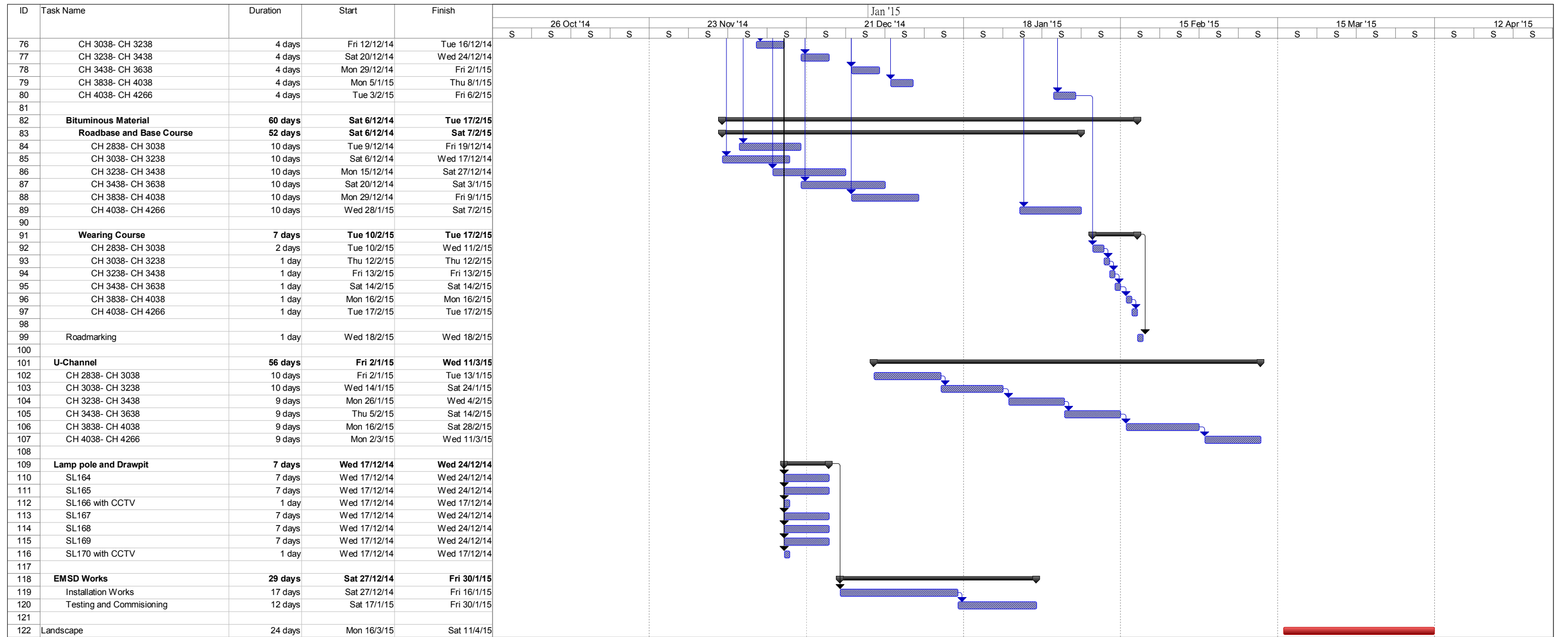
CONSTRUCTION PROGRAM

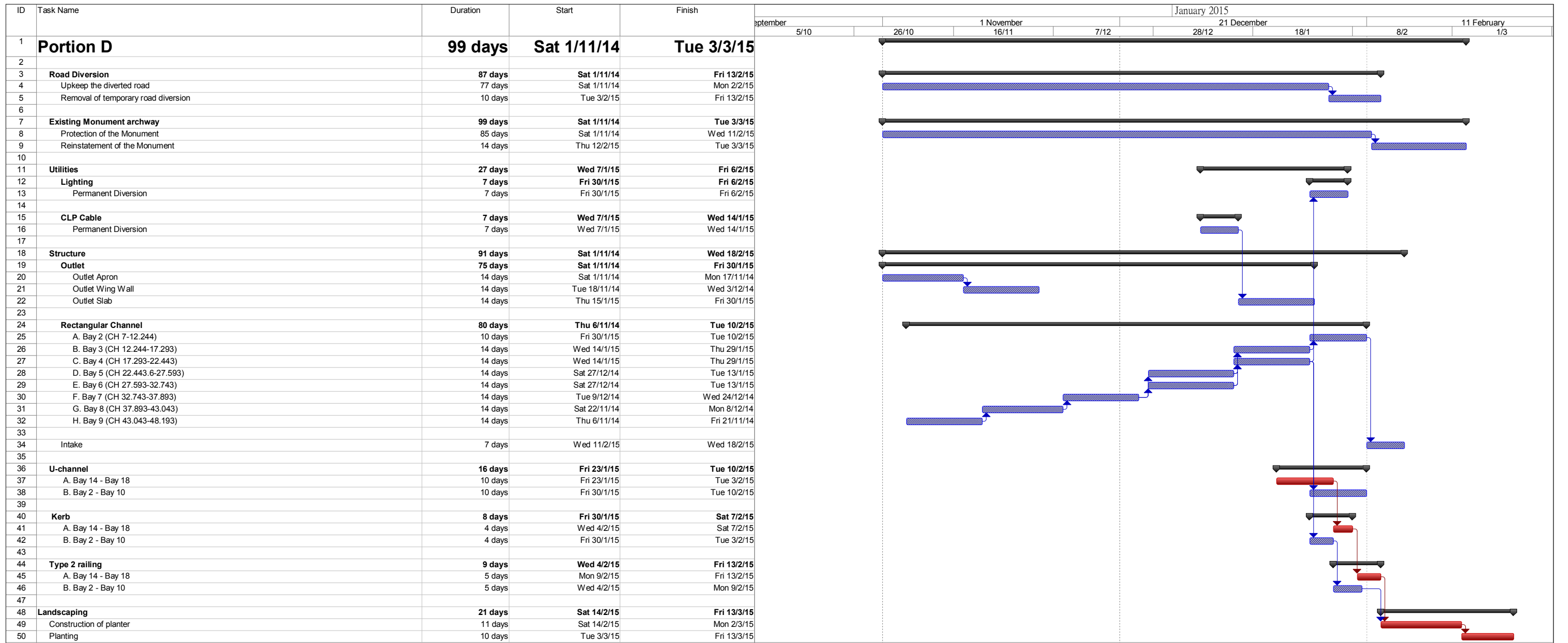
| ID | Task Name | Duration | Start | Finish | Gantt Chart | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|---|----------|--------------|--------------|-------------|-----------|-----------|-----------|----------|-----------|-----------|------------|---------|----------|----------|----------|---------|---------|----------|----------|---------|---------|----------|----------|----------|------------|--|--|--|--|--|--|------------|--|--|--|--|--|--|------------|--|
| | | | | | Oct '14 | | | | | | | 23 Nov '14 | | | | | | | Jan '15 | | | | | | | 18 Jan '15 | | | | | | | 15 Feb '15 | | | | | | | 15 Mar '15 | |
| | | | | | Sun 9/11 | Sun 16/11 | Sun 23/11 | Sun 30/11 | Sun 7/12 | Sun 14/12 | Sun 21/12 | Sun 28/12 | Sun 4/1 | Sun 11/1 | Sun 18/1 | Sun 25/1 | Sun 1/2 | Sun 8/2 | Sun 15/2 | Sun 22/2 | Sun 1/3 | Sun 8/3 | Sun 15/3 | Sun 22/3 | Sun 29/3 | | | | | | | | | | | | | | | | |
| 1 | Portion A | 30 days? | Mon 17/11/14 | Sat 20/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | U-Channel | 29 days | Tue 18/11/14 | Sat 20/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 675U: CH1070 to CH 1100 (Temp Access) | 4 days | Wed 17/12/14 | Sat 20/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 675U: CH1289 to CH 1345 | 3 days | Tue 18/11/14 | Thu 20/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 675U: CH1357 to CH 1415 | 6 days | Wed 10/12/14 | Tue 16/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 300U: CH1415 to CH 1460 | 4 days | Fri 5/12/14 | Tue 9/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 750 Drain Pipe: CH 1415 to CH 1460 | 10 days | Mon 24/11/14 | Thu 4/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 675U: CH 1460 to CH 1617 | 16 days | Tue 18/11/14 | Fri 5/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 300U: CH 1656 to CH 1674 | 4 days | Mon 8/12/14 | Thu 11/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 300U: CH 1674 to CH 1780 | 8 days | Fri 21/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | SBF | 12 days | Mon 17/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S79- S112 | 7 days | Sat 22/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | S147- S153 (Temp Access) | 3 days | Thu 27/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | S181- S202 | 5 days | Mon 17/11/14 | Fri 21/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | S203- S237 | 7 days | Sat 22/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | Bituminous Material (Wearing Course) | 5 days | Tue 25/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | CH 0 to CH 400 | 1 day | Wed 26/11/14 | Wed 26/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | CH 400 to CH 800 | 1 day | Tue 25/11/14 | Tue 25/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | CH 800 to CH 1200 | 1 day | Thu 27/11/14 | Thu 27/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | CH 1200 to CH 1600 | 1 day | Fri 28/11/14 | Fri 28/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | CH 1600 to CH 2050 | 1 day | Sat 29/11/14 | Sat 29/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | Box Culvert | 21 days | Tue 18/11/14 | Thu 11/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | Box Culvert 1 | 7 days | Mon 24/11/14 | Mon 1/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | Security Grille | 7 days | Mon 24/11/14 | Mon 1/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | Box Culvert 2 | 21 days | Tue 18/11/14 | Thu 11/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | Inlet | 10 days | Tue 18/11/14 | Fri 28/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | Security Grille | 10 days | Mon 1/12/14 | Thu 11/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | Verge | 8 days | Tue 18/11/14 | Wed 26/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | Bollard | 6 days | Tue 18/11/14 | Mon 24/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | P209- P243 | 3 days | Tue 18/11/14 | Thu 20/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | P243- P277 | 3 days | Fri 21/11/14 | Mon 24/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 39 | Pavement and Traffic Sign | 8 days | Tue 18/11/14 | Wed 26/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | P126- P151 | 2 days | Tue 18/11/14 | Wed 19/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 41 | P175- P188 | 3 days | Thu 20/11/14 | Sat 22/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 42 | P189- P243 | 3 days | Fri 21/11/14 | Mon 24/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | P243- P277 | 2 days | Tue 25/11/14 | Wed 26/11/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | Staircase for Irrigation | 20 days | Wed 26/11/14 | Thu 18/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 46 | at PG 3 | 10 days | Wed 26/11/14 | Sat 6/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 47 | at PG 8 | 10 days | Mon 8/12/14 | Thu 18/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 49 | Roadmarking | 1 day? | Mon 1/12/14 | Mon 1/12/14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 51 | Landscape | 25 days | Mon 2/3/15 | Mon 30/3/15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

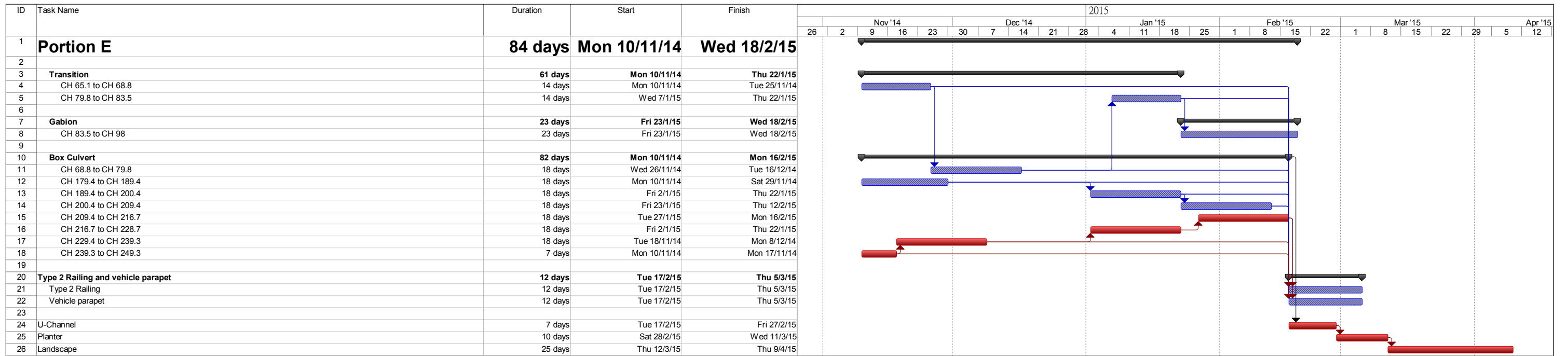


Project No: DC/2011/06
 Programme: Portion C
 Date: 1-11-2014

progress Summary Duration-only Critical Progress
 Split Project Summary Manual Summary Critical Split







ANNEX D

SUMMARY OF STATUS OF ENVIRONMENTAL LICENSES AND PERMIT



| Permit Type | Licenses / Permit No. | Date of Issuance by EPD | Expiry Date | Concerned Location | Status |
|--|-----------------------|-------------------------|-------------|---|--|
| Environmental Permit | EP-277/2007 | 09 Jul 2007 | N.A. | Man Uk Pin | EP-277/2007/A to supersede EP-277/2007 |
| | EP-277/2007/A | 01 Dec 2009 | | | |
| Notification pursuant to Section 3(1) of the Air Pollution Control Ordinance (APCO) (Construction Dust) Regulation | N.A. | N.A. | N.A. | Contract Area (Lin Ma Hang, Man Uk Pin, Ma Wat Wai and Ping Yuen River) | Valid |
| Account for Disposal of Construction Waste | 7015003 | 07 May 2012 | N.A. | Contract Area (Lin Ma Hang, Man Uk Pin, Ma Wat Wai and Ping Yuen River) | Valid |
| Application for Wastewater Discharge License under Water Pollution Control Ordinance (WPCO) | W5/11363/1 | 29 August 2012 | 31 Aug 2017 | Man Uk Pin | Valid |
| Register as a Chemical Waste Producer under Waste Disposal Ordinance | 5123-642-S3565-03 | 3 October 2012 | N.A. | Contract Area (Lin Ma Hang, Man Uk Pin, Ma Wat Wai and Ping Yuen River) | Valid |

ANNEX E


ENVIRONMENTAL MONITORING LOCATIONS

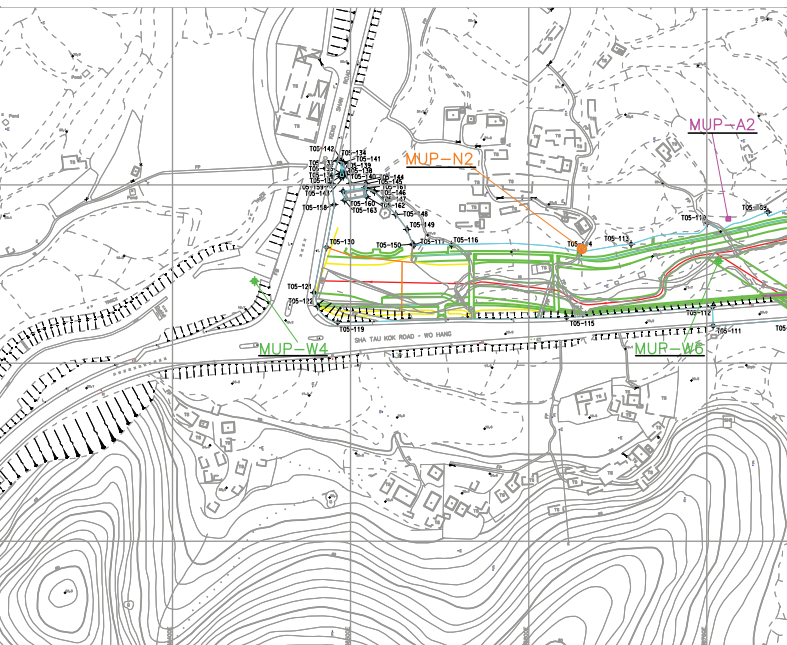
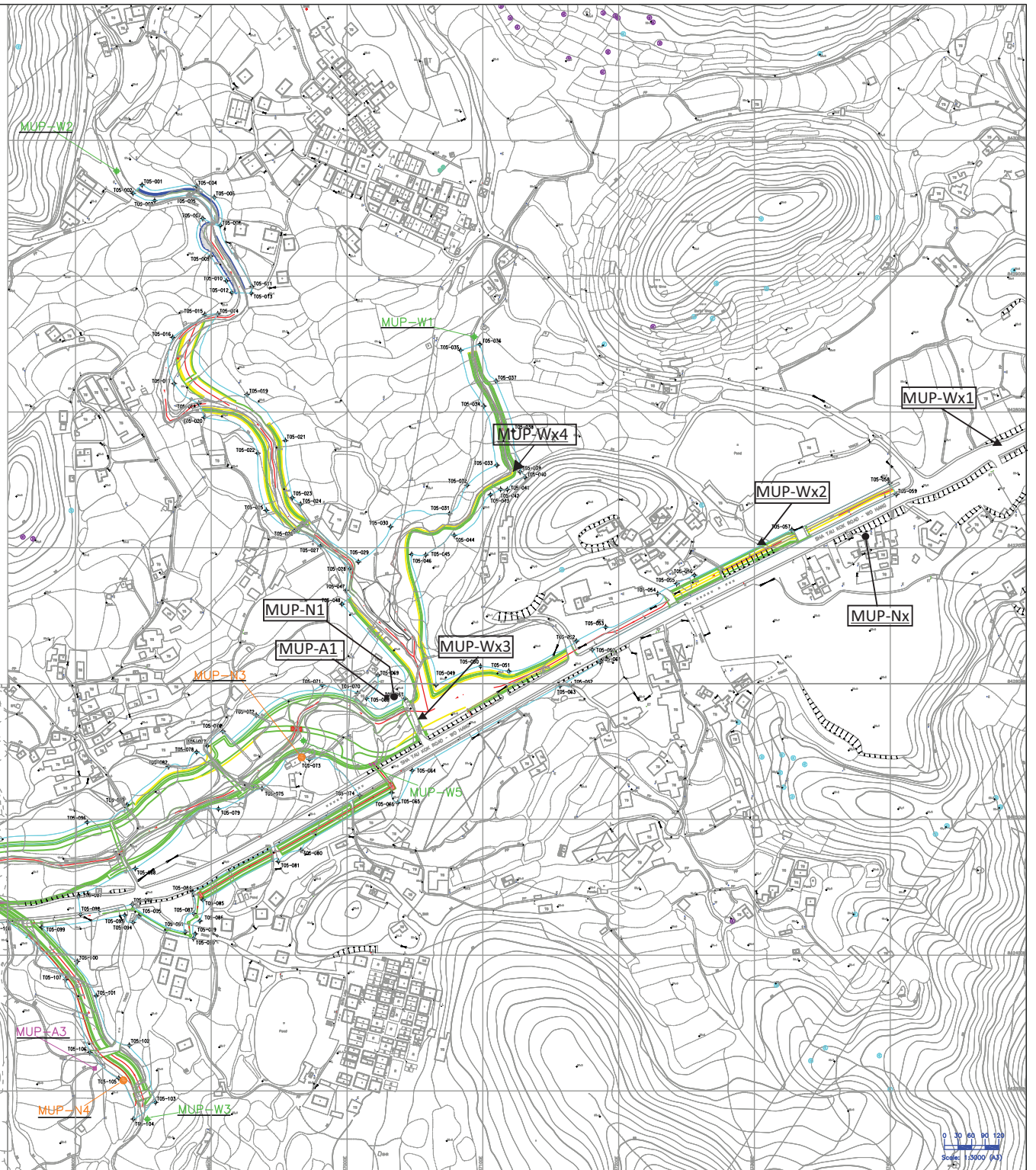
Location Plan for Environmental Monitoring Station

Legend:

 **Air Quality Monitoring Location**
 MUP-N1

 **Construction Noise Monitoring Location**
 MUP-A1

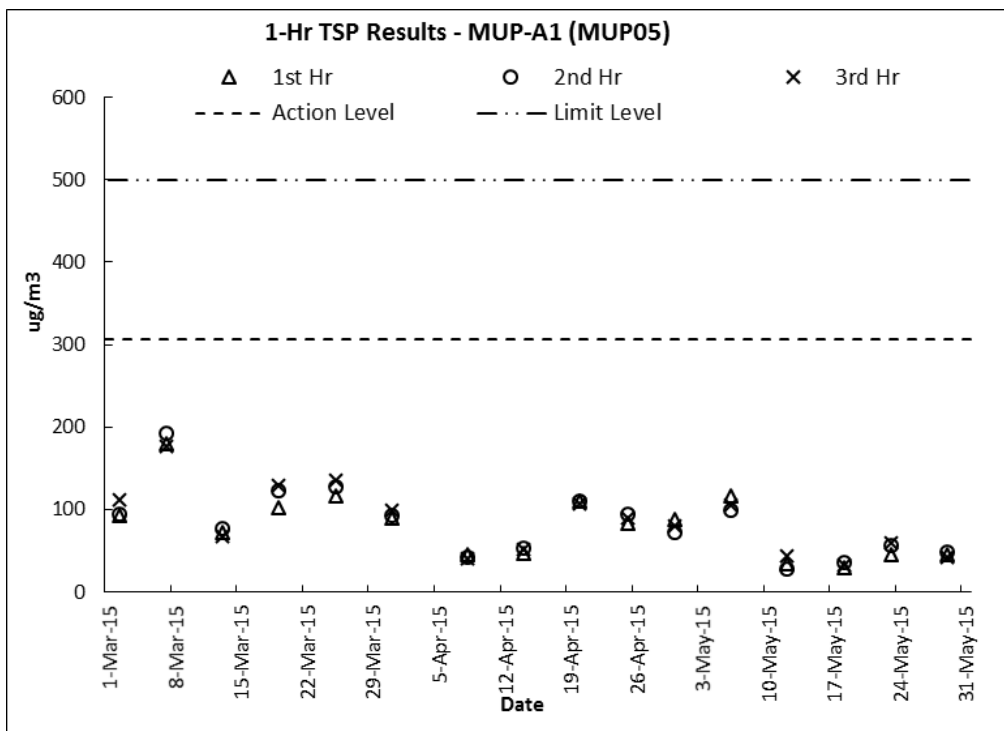
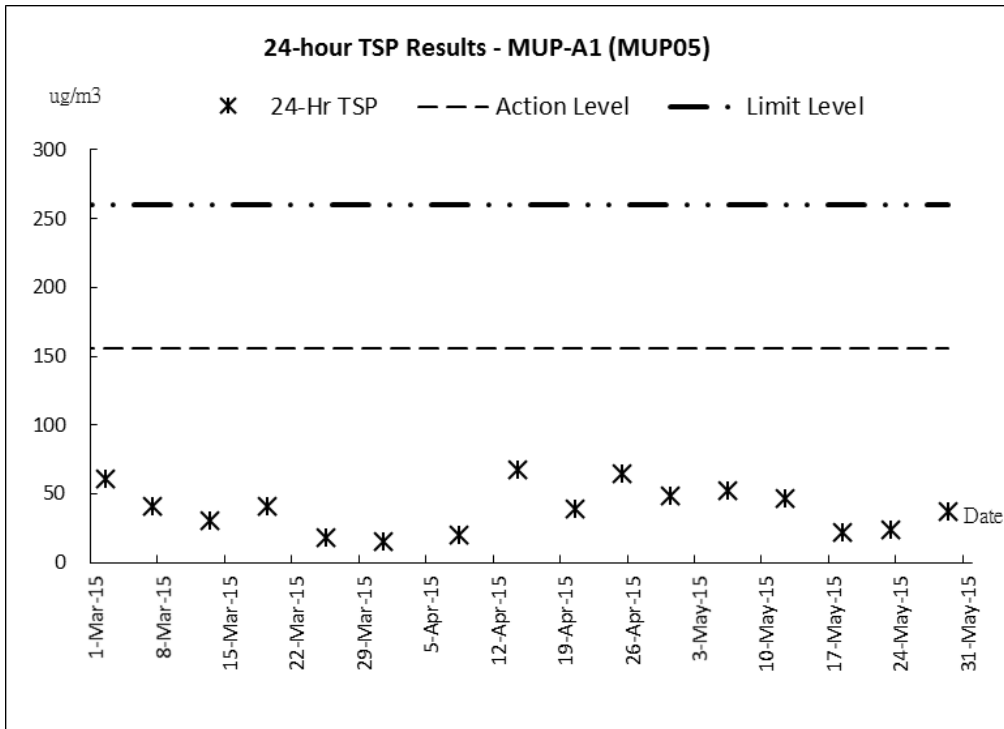
 **Water Quality Monitoring Location**
 MUP-Wx1



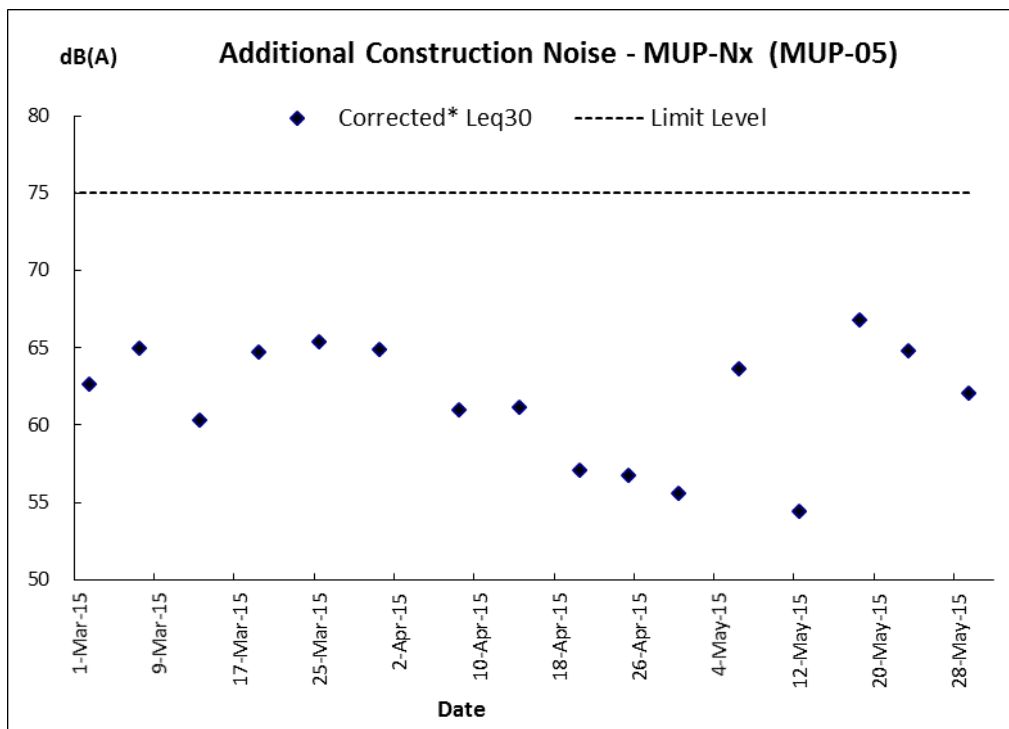
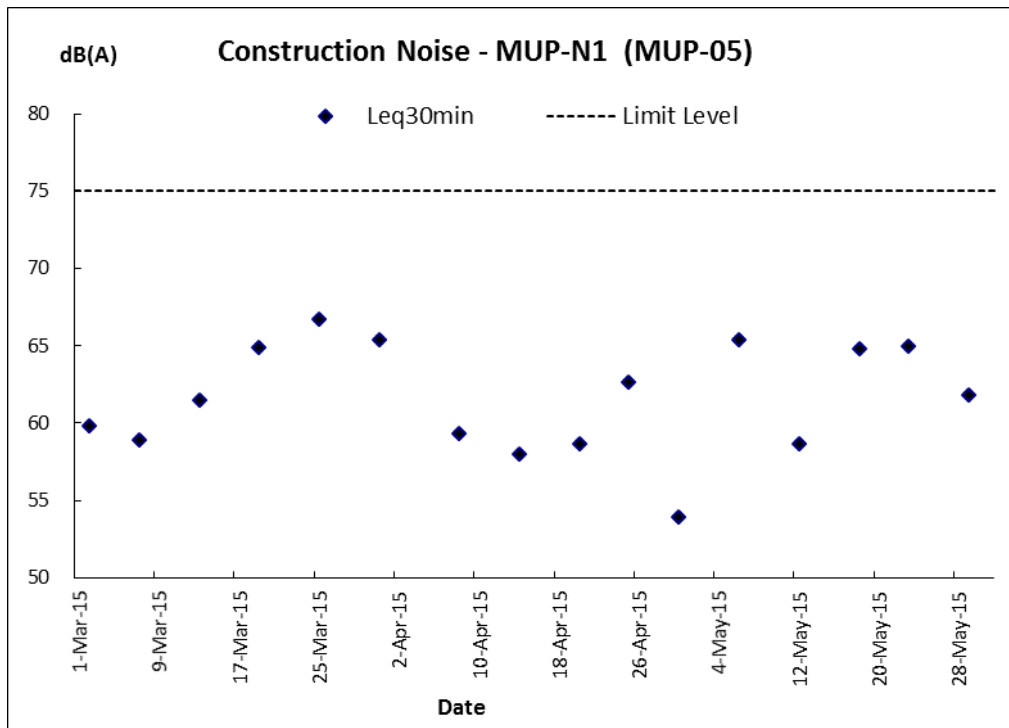
ANNEX F

GRAPHICAL PLOTS OF THE TRENDS OF MONITORED PARAMETERS

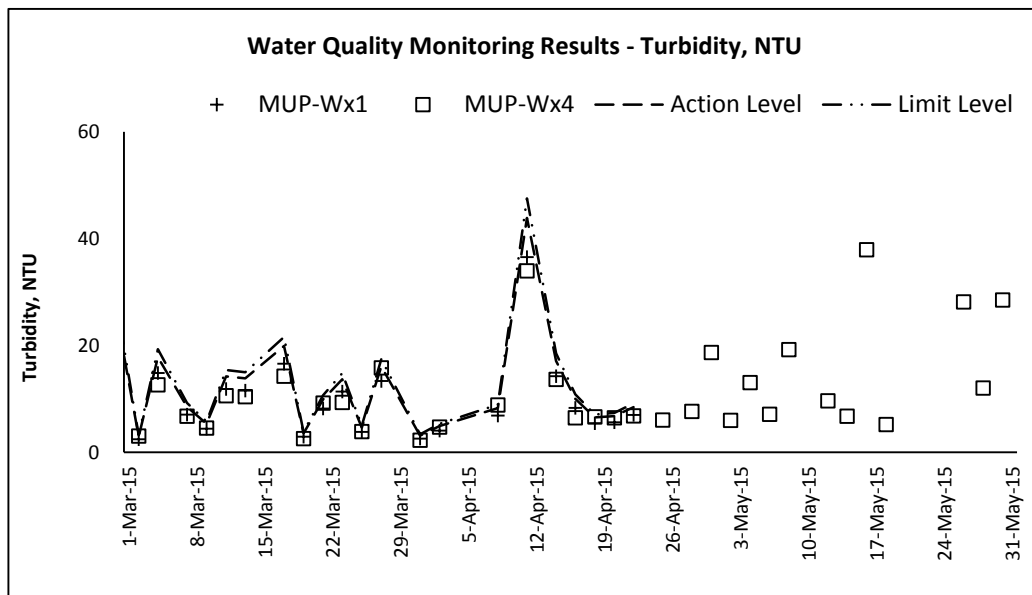
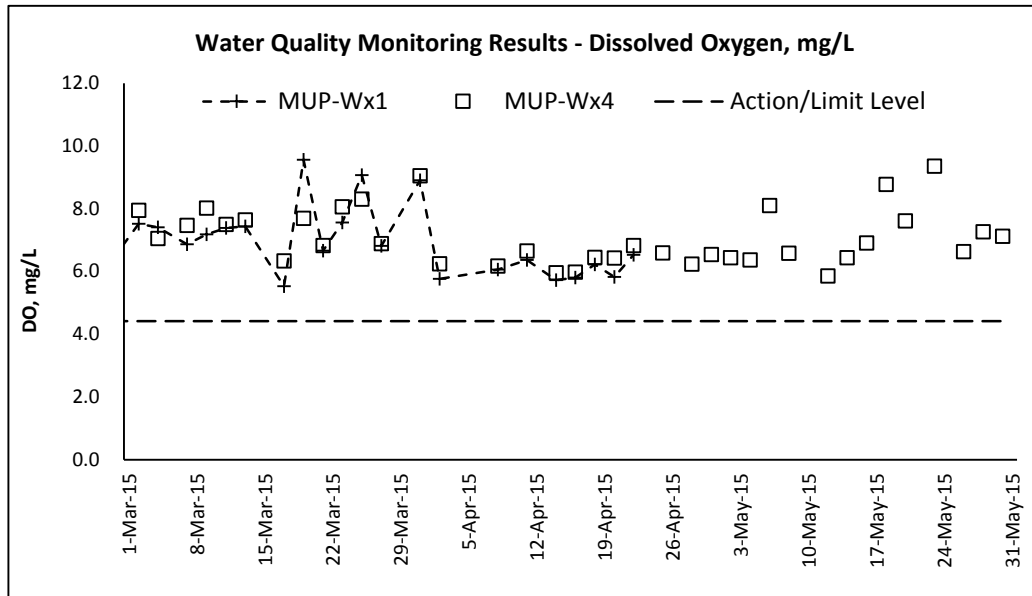
Air Quality



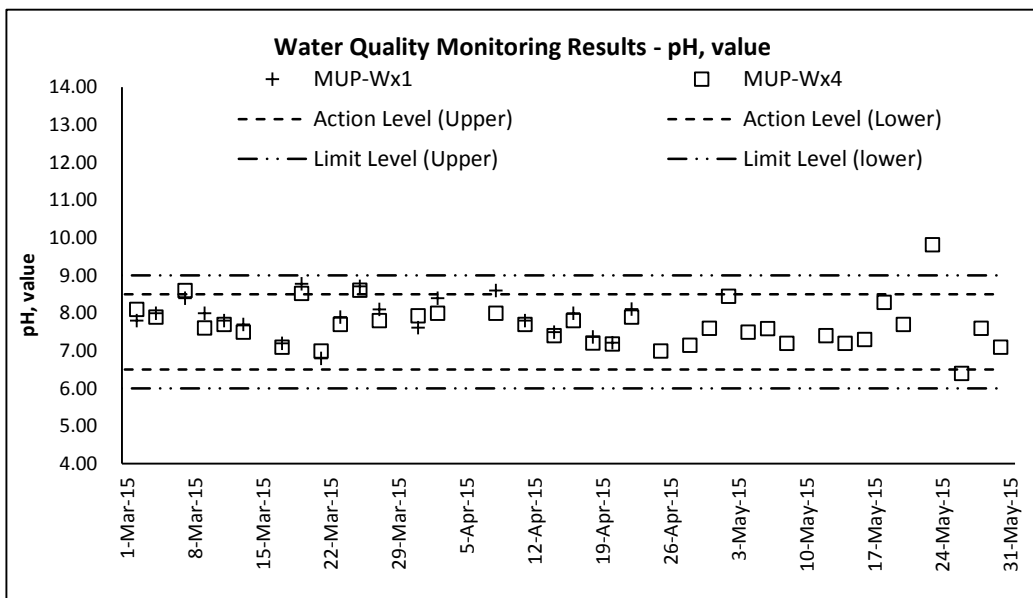
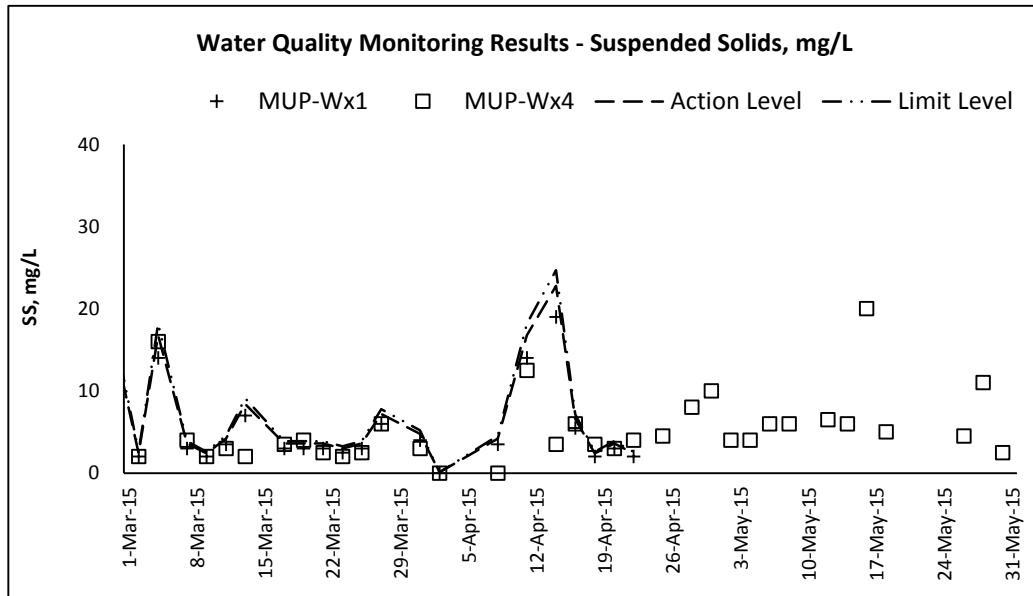
Construction Noise



Water Quality



Water Quality



ANNEX G

MONTHLY SUMMARY OF WASTE FLOW TABLE

Monthly Summary Waste Flow Table

Name of Department: DSD

Contract No.: DC/2011/06

Monthly Summary Waste Flow Table for 2015

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | | Actual Quantities of Non C&D Wastes Generated Monthly | | | | |
|--------|--|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|----------------------------|-----------------------|----------------|-----------------------------|
| | Total Quantity Generated | Hard Rock and Large Broken Concrete | Reused in the Contract | Reused in other Projects | Disposed as Public Fill | Imported Fill | Metals | Paper/ cardboard packaging | Plastics (see Note 3) | Chemical Waste | Others, e.g. general refuse |
| | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m ³) |
| Jan-15 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Feb-15 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Mar-15 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.023 | 0.050 |
| Apr-15 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 |
| May-15 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.045 |
| Jun-15 | | | | | | | | | | | |
| Jul-15 | | | | | | | | | | | |
| Aug-15 | | | | | | | | | | | |
| Sep-15 | | | | | | | | | | | |
| Oct-15 | | | | | | | | | | | |
| Nov-15 | | | | | | | | | | | |
| Dec-15 | | | | | | | | | | | |
| Total | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.023 | 0.100 |

Notes :

- (1) Note Used.
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Sites.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
- (4) The summary table shall be submitted to the Engineer's Representative monthly together with the Waste Flow Table for review and monitoring.

Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: Mar-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m ³) | Actual Quantities used (m ³) | Remarks |
|---------|--|---|--|--|---------|
| 1 | Transition formwork & falsework (Portion A,B,E) | Temporary formwork & falsework design | 10 | 9 | |
| 2 | Transition formwork & falsework (Portion A,B,C) | Temporary formwork & falsework design | 25 | 18 | |
| 3 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 52 | 40 | |
| 4 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 77 | 72 | |
| 5 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 102 | 86 | |
| 6 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 115 | 103 | |
| 7 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 121 | 112 | |
| 8 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 145 | 139 | |

Notes

(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

(b) The summary table shall be submitted to the Engineer's Representative monthly together with the Waste Flow Table for review and monitoring

Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: Mar-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m ³) | Actual Quantities used (m ³) | Remarks |
|---------|--|---|--|--|---------|
| 9 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 154 | 151 | |
| 10 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 156 | 155 | |
| 11 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 157 | 156 | |
| 12 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 160 | 157 | |
| 13 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 160 | 157 | |
| 14 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 171 | 166 | |
| 15 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 178 | 173 | |
| 16 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 191 | 186 | |

Notes

(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

(b) The summary table shall be submitted to the Engineer's Representative monthly together with the Waste Flow Table for review and monitoring

Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: Mar-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m ³) | Actual Quantities used (m ³) | Remarks |
|---------|---|--|---|---|---------|
| 17 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 200 | 194 | |
| 18 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 205 | 201 | |
| 19 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 215 | 212 | |
| 20 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 225 | 222 | |
| 21 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 226 | 223 | |
| 22 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 230 | 229 | |
| 23 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 231 | 230 | |
| 24 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 236 | 237 | |
| 25 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 239 | 239 | |
| 26 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 240 | 240 | |

Notes

(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

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Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: Apr-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m ³) | Actual Quantities used (m ³) | Remarks |
|---------|--|---|--|--|---------|
| 1 | Transition formwork & falsework (Portion A,B,E) | Temporary formwork & falsework design | 10 | 9 | |
| 2 | Transition formwork & falsework (Portion A,B,C) | Temporary formwork & falsework design | 25 | 18 | |
| 3 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 52 | 40 | |
| 4 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 77 | 72 | |
| 5 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 102 | 86 | |
| 6 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 115 | 103 | |
| 7 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 121 | 112 | |
| 8 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 145 | 139 | |

Notes

(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

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Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: Apr-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m³) | Actual Quantities used (m³) | Remarks |
|----------------|--|--|---|---|----------------|
| 9 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 154 | 151 | |
| 10 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 156 | 155 | |
| 11 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 157 | 156 | |
| 12 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 160 | 157 | |
| 13 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 160 | 157 | |
| 14 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 171 | 166 | |
| 15 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 178 | 173 | |
| 16 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 191 | 186 | |

Notes

- (a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.
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Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: Apr-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m ³) | Actual Quantities used (m ³) | Remarks |
|---------|---|--|---|---|---------|
| 17 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 200 | 194 | |
| 18 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 205 | 201 | |
| 19 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 215 | 212 | |
| 20 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 225 | 222 | |
| 21 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 226 | 223 | |
| 22 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 230 | 229 | |
| 23 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 231 | 230 | |
| 24 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 236 | 237 | |
| 25 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 239 | 239 | |
| 26 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 240 | 240 | |

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(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

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Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: May-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m³) | Actual Quantities used (m³) | Remarks |
|----------------|--|--|---|---|----------------|
| 1 | Transition formwork & falsework (Portion A,B,E) | Temporary formwork & falsework design | 10 | 9 | |
| 2 | Transition formwork & falsework (Portion A,B,C) | Temporary formwork & falsework design | 25 | 18 | |
| 3 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 52 | 40 | |
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| 6 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 115 | 103 | |
| 7 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 121 | 112 | |
| 8 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 145 | 139 | |

Notes

(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

(b) The summary table shall be submitted to the Engineer's Representative monthly together with the Waste Flow Table for review and monitoring

Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Contract No.: DC/2011/06

Contract Title: *Reprovisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District*

Report Period: May-15

| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m³) | Actual Quantities used (m³) | Remarks |
|----------------|--|--|---|---|----------------|
| 9 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 154 | 151 | |
| 10 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 156 | 155 | |
| 11 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 157 | 156 | |
| 12 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 160 | 157 | |
| 13 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 160 | 157 | |
| 14 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 171 | 166 | |
| 15 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 178 | 173 | |
| 16 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 191 | 186 | |

Notes

- (a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.
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| Item No | Description of Works Process or Activity [see note (a) below] | Justifications for Using Timber in Temporary Construction Works | Est. Quantities of Timber Used (m ³) | Actual Quantities used (m ³) | Remarks |
|---------|---|--|---|---|---------|
| 17 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 200 | 194 | |
| 18 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 205 | 201 | |
| 19 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 215 | 212 | |
| 20 | Transition formwork & falsework (Portion A,B,C,E) | Temporary formwork & falsework design | 225 | 222 | |
| 21 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 226 | 223 | |
| 22 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 230 | 229 | |
| 23 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 231 | 230 | |
| 24 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 236 | 237 | |
| 25 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 239 | 239 | |
| 26 | Transition formwork & falsework (Portion A,B,C,D,E) | Temporary formwork & falsework design | 240 | 240 | |

Notes

(a) The Contractor shall list out all the work items requiring timber for use in temporary construction works. Several minor work items may be grouped into one for ease of updating.

(b) The summary table shall be submitted to the Engineer's Representative monthly together with the Waste Flow Table for review and monitoring