


Civil Engineering and Development Department

**Agreement No. CE 67/2015 (HY)
Cycle Tracks from Tuen Mun
to Sheung Shui – Remaining Works
Design and Construction**

**Monthly EM&A Report
(Version 1.0)**

April 2017

Approved By



(Dr. Priscilla Choy,
Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

CINOTECH CONSULTANTS LTD

Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong
Tel: (852) 2151 2083 Fax: (852) 3107 1388
Email: info@cinotech.com.hk

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EXECUTIVE SUMMARY

Introduction

1. This is the 6th Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the “Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction” (hereinafter called “the Project”). This report documents the findings of EM&A Works conducted in 1 – 30 April 2017.
2. During the reporting month, the major site activities undertaken in the reporting month included:
 - Site Clearance in Portions G, H, M and N;
 - Construction of wheel washing facilities in Portions B;
 - Ground investigation in Portions F, H and J;
 - Construction of RC structure and public toilet in Portion L;
 - Tree felling in Portions G, H, M and N;
 - Construction of retaining wall in Portions A, C, D, E and K;
 - Construction of subway in Portions B and I;
 - Utilities diversion works in Portions A, C, D, E and K;
 - Earth and drainage works in Portions A, C, D, E and K;
 - Construction of rectangular channel in Portion E; and
 - Construction of project signboards in Works Area 3.

Environmental Monitoring Works

3. Environmental monitoring for the Project shall be performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Site Inspections/Audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
4. Summary of the non-compliance in the reporting month for the Project is tabulated in **Table I**.

Table I Non-compliance Record for the Project in the Reporting Month

Parameter	No. of Exceedance		Action Taken
	Action Level	Limit Level	
Noise	0	0	N/A

Key Information in the Reporting Month

5. Summary of key information in the reporting month is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Reporting Changes	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---

Environmental License and Permits

6. Licenses/Permits granted to the Project include:
- Environmental Permits (EP) for the Project,
 - EP-450/2013 issued on 30 May 2013 and EP-450/2013/A issued on 25 August 2015; and
 - EP-501/2015 issued on 2 September 2015
 - Billing Account for Waste Disposal (Acc No.: 7025411)

Future Key Issues

7. The future key environmental issues in the coming two months include:
- Wastewater and runoff generation on-site;
 - Regular removal of silt, mud and sand along u-channels and inside sedimentation tanks;
 - Review and implementation of temporary drainage system for the surface runoff;
 - Noise from operation of the equipment, especially for excavation works and machinery on-site;
 - Dust generation from stockpiles of dusty materials, exposed site area, excavation works and other dust-generating activities;
 - Water spraying for dust generating activities and on haul road;
 - Proper storage of construction materials on-site;
 - Storage of chemicals/fuel and chemical waste/ waste oil on-site;
 - Accumulation of general refuse and construction waste on-site; and
 - Protection measures for retained trees on-site.

1 INTRODUCTION

Background

- 1.1 “Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River” (the EIA Report) is a Schedule 2 Designated Project (DP) under Environmental Impact Assessment Ordinance (EIAO). The Environmental Impact Assessment (EIA) Report (Registered No.: AEIAR-133/2009) and the associated Environmental Monitoring and Audit (EM&A) Manual was approved on 12 March 2009.
- 1.2 Civil Engineering and Development Department (CEDD) implemented the DP in two stages, i.e. Stage 1 and Stage 2. An Environmental Permit (EP) No. EP-450/2013 has been granted for Stage 1 works on 30 May 2013. Pursuant to Section 13 of the EIAO, the Director of Environmental Protection amends the Environmental Permit (No. EP-450/2013) based on the Application No. VEP-478/2015 and the EP (Permit No. EP-450/2013/A) was issued on 25 August 2015 to CEDD as the Permit Holder.
- 1.3 An Environmental Review (ER) Report of the “Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 2” had been prepared in July 2015 and the Environmental Monitoring and Audit Manual (EM&A Manual) was also included as part of the ER report in the application (Application No.: AEP-501-2015). An Environmental Permit No. EP-501/2015 was issued on 2 September 2015 for Stage 2 works to CEDD as the Permit Holder.
- 1.4 “Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction” (hereinafter called the “Project”) covers the Stage 1 (Part) and Stage 2 works of the DP. This Project was commissioned to Sang Hing – Kuly Joint Venture (hereinafter called the “Contractor”) for “Contract No.: YL/2015/01 Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works”. The site location and work programme are shown in **Figure 1a-1h** and **Appendix A** respectively.
- 1.5 Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The construction commencement of the Project was on 23th November 2016. This is the 6th Monthly EM&A Report summarizing the EM&A works for the Project from 1 – 30 April 2017.

Project Organizations

- 1.6 Different parties with different levels of involvement in the project organization include:
 - Project Proponent – Civil Engineering and Development Department (CEDD)
 - Supervisor Representative – Mannings (Asia) Consultants Limited (Mannings)
 - Environmental Team (ET) – Cinotech Consultants Limited (Cinotech)
 - Independent Environmental Checker (IEC) – ANewR Consulting Limited (ANewR)
 - Contractor – Sang Hing – Kuly Joint Venture (SKJV)
- 1.7 The Organizational Structure for Environmental Management is shown in **Figure 3**.

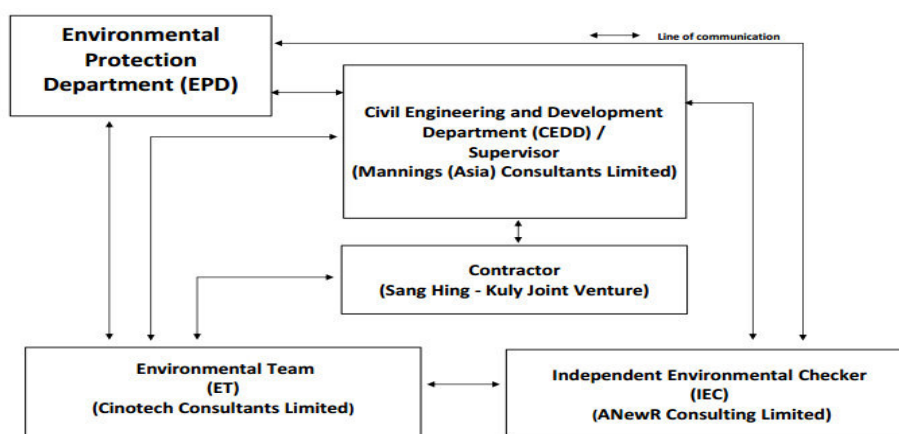


Figure 3 Organization Structure (Environmental Aspects)

1.8 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

Party	Role	Contact Person	Phone No.	Fax No.
CEDD	Project Proponent	Mr. Chu Wai Lun, Thomas	2417 6370	2412 0358
Mannings	Supervisor Representative	Mr. Simon Ng	3168 2028	3168 2022
Cinotech	Environmental Team	Dr. Priscilla Choy	2151 2089	3107 1388
		Ms. Ivy Tam	2151 2090	
ANewR	Independent Environmental Checker	Mr. Adi Lee	2618 2836	3007 8648
SKJV	Contractor	Mr. Michael Wan	9222 3089	N/A

Construction Activities undertaken during the Reporting Month

1.9 The major site activities undertaken in the reporting month included:

- Site Clearance in Portions G, H, M and N;
- Construction of wheel washing facilities in Portions B;
- Ground investigation in Portions F, H and J;
- Construction of RC structure and public toilet in Portion L;
- Tree felling in Portions G, H, M and N;
- Construction of retaining wall in Portions A, C, D, E and K;
- Construction of subway in Portions B and I;
- Utilities diversion works in Portions A, C, D, E and K;
- Earth and drainage works in Portions A, C, D, E and K;
- Construction of rectangular channel in Portion E; and
- Construction of project signboards in Works Area 3.

1.10 The construction programme showing the inter-relationship with environmental protection/mitigation measures are presented in **Table 1.2**.

Table 1.2 Construction Programme Showing the Inter-Relationship with Environmental Protection/Mitigation Measures

Construction Works	Major Environmental Impact	Control Measures
As mentioned in Section 1.8	Noise, dust impact, water quality and waste generation	<ul style="list-style-type: none"> • Sufficient watering of the works site with active dust emitting activities • Properly cover the stockpiles • On-site waste sorting and implementation of trip ticket system • Appropriate desilting/sedimentation devices provided on site for treatment with valid Discharge License before discharge • Well maintain the drainage system to prevent the spillage of wastewater during heavy rainfall • Use of quiet plant and well-maintained construction plant • Provide movable noise barrier • Proper wheel washing for construction vehicles before leaving the site • Provide sufficient mitigation measures as recommended in Approved EM&A Manual/Lease requirement

Summary of EM&A Requirements

1.11 The EM&A programme requires construction noise monitoring, air quality monitoring, landscape and visual monitoring and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:

All monitoring parameters;
Action and Limit levels for all environmental parameters;
Event and Action Plans;
Environmental mitigation measures, as recommended in the EIA Reports, Environmental Review Reports and EM&A Manuals

1.12 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 8 of this report.

1.13 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required noise monitoring and audit works for the Project in 1 – 30 April 2017.

2 AIR QUALITY

Monitoring Requirements

- 2.1 According to the approved EM&A Manuals for Stage 1 works and Stage 2 works in Year 2015, no air quality monitoring is required for the Project.
- 2.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of air quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix G**.

3 WATER QUALITY

Monitoring Requirements

- 3.1 According to the approved EM&A Manuals for Stage 1 works and Stage 2 works in Year 2015, no water quality monitoring is required for the Project.
- 3.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of water quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix G**.

4 NOISE

Monitoring Requirements

- 4.1 In accordance with approved EM&A Manuals for Stage 1 works in Year 2015, no noise impact monitoring is required for Stage 1 works of the Project.
- 4.2 According to approved EM&A Manual for Stage 2 works (Year 2015), construction noise monitoring was conducted to monitor the construction noise arising from the construction activities under the Stage 2 works of the Project. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix B** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

- 4.3 Noise monitoring was conducted at 6 designated monitoring stations (N1, N2, N3, N5, N6 and N7) in the reporting month. **Figures 2a – 2c** shows the locations of these stations.

Table 4.1 Noise Monitoring Stations

Monitoring Stations	Locations	Location of Measurement
N1	HKMLC Wong Chan Sook Ying Memorial School	Rooftop (about 5/F) area
N2	Bethel High School	Rooftop (about 4/F) area
N3	No. 159 Mai Po San Tsuen	G/F area
N5	Block 2, Dills Corner Garden	G/F area
N6	Home of Loving Faithfulness	Rooftop (about 3/F) area
N7	Village House in Shek Wu Wai	G/F area

Monitoring Equipment

- 4.4 Integrating Sound Level Meter was used for impact noise monitoring. The meters are Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications.
- 4.5 Acoustic Calibrator was used to check the accuracy of the sound level meter. The calibrators generate a continuous and highly stable sound pressure level at known frequency of 1 kHz that also complied with IEC 942: 1988 Class 1 specifications. **Table 4.2** summarizes the noise monitoring equipment in reporting period. Copies of calibration certificates are provided in **Appendix C**.

Table 4.2 Noise Monitoring Equipment

Equipment	Model and Make	Qty.
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Integrating Sound Level Meter	SVAN 955	2
Acoustic Calibrator	SV30A	2
Sound and Vibration Analyzer	BSWA 801	1

Monitoring Parameters and Frequency

4.6 **Table 4.3** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix D**.

Table 4.3 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Parameter	Period	Frequency	Measurement
N1	L _{eq} (30 min.) dB(A) L ₁₀ (30 min.) dB(A) L ₉₀ (30 min.) dB(A)	0700-1900 hrs on normal weekdays	Once per week	Façade
N2				Façade
N3				Free Field
N5				Free Field
N6				Façade
N7				Free Field

Monitoring Methodology and QA/QC Procedures

4.7 The monitoring procedures are as follows:

- The monitoring station were normally be at a point 1m from the exterior of the sensitive receivers building façade and be at a position 1.2m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting: A
 - time weighting : Fast
 - measurement time : 30 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement was required after re-calibration or repair of the equipment.
- At the end of the monitoring period, the L_{eq}, L₉₀ and L₁₀ were recorded. In addition, noise sources were recorded on a standard record sheet.
- Noise measurement would be paused temporarily during periods of high intrusive noise if possible and observation would be recorded when intrusive noise was not avoided.
- Noise monitoring would be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. supplementary monitoring would be provided to ensure sufficient data would be obtained.

Maintenance and Calibration

- 4.8 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 4.9 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 4.10 Immediately prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

- 4.11 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The summary of exceedance record in the reporting month is shown in **Appendix F**.
- 4.12 The baseline noise level and the Noise Limit Level at each designated noise monitoring stations are presented in **Table 4.4**.
- 4.13 Noise monitoring results and graphical presentations are shown in **Appendix E**.
- 4.14 The other noise sources identified which might affect the noise monitoring results at the designated noise monitoring stations are as follows:

Monitoring Stations	Locations	Other Noise Source(s)
N1	HKMLC Wong Chan Sook Ying Memorial School	Road traffic noise Noise from daily school activities
N2	Bethel High School	Road traffic noise Noise from daily school activities
N3	No. 159 Mai Po San Tsuen	Road traffic noise
N5	Block 2, Dills Corner Garden	Road traffic noise
N6	Home of Loving Faithfulness	Road traffic noise Noise from activities at the premise and workshops near the premise
N7	Village House in Shek Wu Wai	Road traffic noise Noise from activities at workshops near the village house

Table 4.4 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Station	Baseline Noise Level, dB (A)	Noise Limit Level, dB (A)
N1	62.2 (at 0700 – 1900 hrs on normal weekdays)	70* (at 0700 – 1900 hrs on normal weekdays)

N2	55.2 (at 0700 – 1900 hrs on normal weekdays)	
N3	68.8 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)
N5	70.7 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)
N6	72.0 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)
M7	70.7 (at 0700 – 1900 hrs on normal weekdays)	75 (at 0700 – 1900 hrs on normal weekdays)

(*) Noise Limit Level is 65 dB(A) during school examination periods.

5 COMPARISON OF EM&A RESULTS WITH EIA PREDICTIONS

5.1 The EM&A data was compared with the predictions in EIA Report (Year 2009) and Environmental Review Report (ERR) for Stage 2 Works (Year 2015) as summarized in **Table 5.1**.

Table 5.1 Comparison of Noise Monitoring Data with Predictions in EIA Report and ERR

Stations	Predicted Mitigated Construction Noise Levels in EIA (2009), dB(A)	Predicted Mitigated Worst Case Construction Noise Levels in ERR for Stage 2 (2015), dB(A)	Reporting Month (Apr 17), Leq (30min) dB(A)
N1 - HKMLC Wong Chan Sook Ying Memorial School	55-62	62 ⁽¹⁾	52.0 – 61.5
N2 – Bethel High School	57-64	64 ⁽¹⁾	38.9 – 61.8
N3 – No. 159 Mai Po San Tsuen	70-73	74 ⁽²⁾	60.5 – 71.9
N5 – Block 2, Dills Corner Garden	73-75	75 ⁽²⁾	71.1 – 72.8
N6 – Home of Loving Faithfulness	64-73	74 ⁽¹⁾	67.4 – 70.0
N7 – Village House in Shek Wu Wai	N/A ⁽³⁾	70 ⁽²⁾	69.6 – 71.6

Remark:

(1) With adoptions of quiet PMEs, temporary noise barrier and enclosure

(2) With sub-grouping of construction activities

(3) No construction noise level was predicted in EIA Report (2009)

5.2 Comparing the noise monitoring results to the predicted mitigated construction noise levels in the EIA Report, the results in the reporting month at monitoring stations N1, N2, N3 and N5 were lower than the predicted mitigated construction noise levels in the EIA Report. The result at N6 was within the range of prediction in the EIA Report.

5.3 Comparing the noise monitoring results to the predicted mitigated worst case construction noise levels in the ERR for Stage 2 Works, the results at monitoring stations N1, N2, N3, N5 and N6 were lower than the predicted mitigated worst case construction noise levels in the ERR for Stage 2 Works. The noise monitoring result at monitoring station N7 was slightly higher than the predicted mitigated worst case construction noise levels in the ERR for Stage 2 Works.

6 ECOLOGY AND FISHERIES

- 6.1 In accordance with the EM&A Manuals for Stage 1 and Stage 2 works in Year 2015, no specific ecological or fisheries monitoring is required during the construction phase of the Project.
- 6.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of ecology and fisheries mitigation measure. The summaries of site audits are attached in **Appendix G**.

7 LANDSCAPE AND VISUAL IMPACT

- 7.1 In accordance with the EM&A Manuals for Stage 1 and Stage 2 works in Year 2015, regular audits should be carried out to ensure all the recommended landscape and visual mitigation measures in EIA Report, Environmental Review Reports and EM&A Manuals were effectively implemented.
- 7.2 ET Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measure. The summaries of site audits are attached in **Appendix G**.

8 ENVIRONMENTAL AUDIT

Site Audits

- 8.1 Site audit was carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix G**.
- 8.2 Site audits were conducted on 5, 11, 18 and 26 April 2017 in the reporting month. IEC joint site inspection was conducted on 26 April 2017. No non-compliance was observed during the site audit.

Review of Environmental Monitoring Procedures

- 8.3 The monitoring works conducted by the monitoring were inspected regularly. The following observations have been recorded for the monitoring works:

Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

Statues of Environmental Licensing and Permitting

- 8.4 All permits/licenses obtained for the Project are summarized in **Table 10.1**.

Table 10.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Details	Status
	From	To		
Environmental Permit (EP)				
EP-450/2013/A	25/08/15	N/A	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 1	Valid
EP-501/2015	02/09/15	N/A	Construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 2	Valid
Billing Account for Construction Waste Disposal				
A/C No.: 7025411	N/A	N/A	Billing Account for construction waste disposal under Waste Disposal (Charges for Disposal of Construction Waste) Regulation	Valid
Effluent Discharge License				
WT00027672-2017	--	31/3/2022	Discharge License for the discharge of wastewater from the construction site including contaminated surface run-off to the communal storm water drain	Valid
WT00027661-2017				
WT00027606-2017				
WT00027510-2017				
WT00027509-2017				
WT00027603-2017				
WT00027508-2017				
WT00027582-2017				

Permit No.	Valid Period		Details	Status
	From	To		
WT00027584-2017	--	31/7/2019		Valid
WT00027605-2017				
WT00027607-2017		31/3/2022		
Registration of Chemical Waste Producer				
No.:WPN5213-524-K3261-01	--	N/A	Registration of chemical waste producer for chemical waste produced during construction of Cycle Tracks and the Associated Supporting Facilities from Sha Po Tsuen to Shek Sheung River – Stage 2	Valid
Construction Noise Permit (CNP)				
N/A				

Status of Waste Management

- 8.5 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix K**.
- 8.6 In respect of the dump truck cover, the Contractor is advised to take record photos and inspection to ensure that all dump trucks have fully covered the skip before leaving the site.

Implementation Status of Environmental Mitigation Measures

- 8.7 According to the Environmental Review Reports, Environmental Permits and the EM&A Manuals of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix I**.
- 8.8 During site inspections in the reporting month, no non-conformance was identified. The ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Table 10.2**.

Table 10.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
<i>Water Quality</i>	29 Mar, 5, 11, 18 and 26 Apr 2017	Wheel washing bays in Portion C and K were found silty and containing some litters, the water should be replaced or maintained more frequently to ensure clean water is used for wheel washing of vehicles.	Follow up actions will be reported in the next month.
<i>Air Quality</i>	29 Mar, 5, 11, 18 and 26 Apr 2017	Tarpaulin coverage should be provided to the stockpiles in Portions A, C and Works Area 3 for dust suppression.	Follow up actions will be reported in the next month.
	5 Apr 2017	Water spraying should be provided more frequently at Portion E for dust suppression.	Haul roads were not observed dusty on 11 Apr 2017.
	26 Apr 2017	Slope surfaces in Portion A and K should be covered with tarpaulin to prevent silty slides.	Follow up actions will be reported in the next month.
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A
<i>Waste / Chemical Management</i>	29 Mar, 5, 11, 18 and 26 Apr 2017	Drip trays should be provided to chemical containers in Portion C, E, K and Works Area 3.	Follow up actions will be reported in the next month.
	29 Mar, 5, 11, 18 and 26 Apr 2017	Rubbish bins or waste collectors should be provided in Portion C for proper disposal and storage of solid waste.	Follow up actions will be reported in the next month.
	11 and 18 Apr 2017	PME in Portion C should be maintained to avoid any oil leakage.	The oil leakage from the PME in Portion C was cleared on 26 Apr 2017.
	11 and 18 Apr 2017	General refuse collectors in Portion A should be maintained more frequently.	General refuse collectors were maintained on 26 Apr 2017.
<i>Ecology and Fisheries</i>	N/A	There was no observation in the reporting period.	N/A

Parameters	Date	Observations and Recommendations	Follow-up
<i>Landscape and Visual</i>	29 Mar 2017	Fencing of tree protection zones in Works Area 3 should be provided to protect all existing trees.	Fencing of existing trees was provided on 5 Apr 2017.
	11, 18 and 26 Apr 2017	Fencing of tree protection zones in Portion E, K and WA3 should be enhanced to protect all existing trees.	Follow up actions will be reported in the next month.
<i>Permits/Licenses</i>	N/A	There was no observation in the reporting period.	N/A

Implementation Status of Event and Action Plans

8.9 The Event and Action Plan for noise is presented in **Appendix H**.

Construction Noise

8.10 No Action/Limit Level exceedance was recorded in the reporting month.

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

8.11 The summaries of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix J**.

9 FUTURE KEY ISSUES

9.1 Major site activities undertaken for the coming two months include:

- Site Clearance in Portions G, H, M and N;
- Construction of wheel washing facilities in Portions B;
- Ground investigation in Portions F, H and J;
- Construction of RC structure and public toilet in Portion L;
- Tree felling in Portions G, H, M and N;
- Construction of retaining wall in Portions C, E and K;
- Construction of subway in Portions B and I;
- Utilities diversion works in Portions G, H and N;
- Construction of rectangular channel in Portion E; and
- Construction of project signboards in Works Area 3.

Key Issues for the Coming Month

9.2 Key environmental issues in the coming months include:

- Wastewater and runoff generation on-site;
- Regular removal of silt, mud and sand along u-channels and inside sedimentation tanks;
- Review and implementation of temporary drainage system for the surface runoff;
- Noise from operation of the equipment, especially for excavation works and machinery on-site;
- Dust generation from stockpiles of dusty materials, exposed site area, excavation works and other dust-generating activities;
- Water spraying for dust generating activities and on haul road;
- Proper storage of construction materials on-site;
- Storage of chemicals/fuel and chemical waste/waste oil on-site;
- Accumulation of general refuse and construction waste on-site; and
- Protection measures for retained trees.

9.3 The tentative program of major site activities and the impact prediction and control measures for the coming months, i.e. May 2017 to June 2017, are summarized as follows:

Construction Works	Major Impact Prediction	Control Measures
As mentioned in Section 9.1	Air quality impact (dust)	(a) Frequent watering of haul road and unpaved/exposed areas; (b) Frequent watering or covering stockpiles with tarpaulin or similar means; and (c) Watering of any earth moving activities.
	Water quality impact (surface run-off)	(d) Diversion of the collected effluent to de-silting facilities for treatment in compliance with valid Discharge License prior to discharge to public storm water drains; (e) Provision of adequate de-silting facilities for treating surface run-off and other collected effluents prior to discharge;

		(f) Provision of perimeter protection such as sealing of hoarding footings to avoid run-off from entering the existing storm water drainage system via public road; and (g) Provision of measures to prevent discharge into the stream.
	Noise impact	(h) Scheduling of noisy construction activities if necessary to avoid persistent noisy operation; (i) Controlling the number of plants use on site; (j) Regular maintenance of machines (k) Use of quiet PME's on-site; and (l) Use of acoustic barriers and noise enclosure if necessary.
	Landscape and Visual	(m) Proper setup of precautionary area for retained trees.

Monitoring Schedule for the Next Month

9.4 The tentative environmental monitoring schedules for the next month are shown in **Appendix D**.

10 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 10.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.

Construction Noise Monitoring

- 10.2 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was record.

Site Audit

- 10.3 4 times of ET joint weekly environmental site inspections were conducted in the reporting month.

Complaint and Prosecution

- 10.4 No environmental complaints and environmental prosecution was received in the reporting month.
- 10.5 No environmental prosecution was received in the reporting month.

Recommendations

- 10.6 According to the environmental audit performed in the reporting month, the following recommendations were made:

Air Quality

- Water spraying should be provided frequently to unpaved and exposed area, and haul roads for dust suppression.
- Site area near site entrance/exit should be kept clear of dust and proper wheel washing facility should be provided for wheel washing before vehicle leaving the site.
- Slope surfaces in all Portions should be provide coverage where practicable to avoid silty runoff leaving the Site boundary.

Water Quality

- Wheel washing bays in all Portions within the Site should be maintained as far as practicable by means of removing silty water or using cleaner water in order to enhance the effectiveness of wheel washing in every portion within the Site.

Waste/Chemical Management

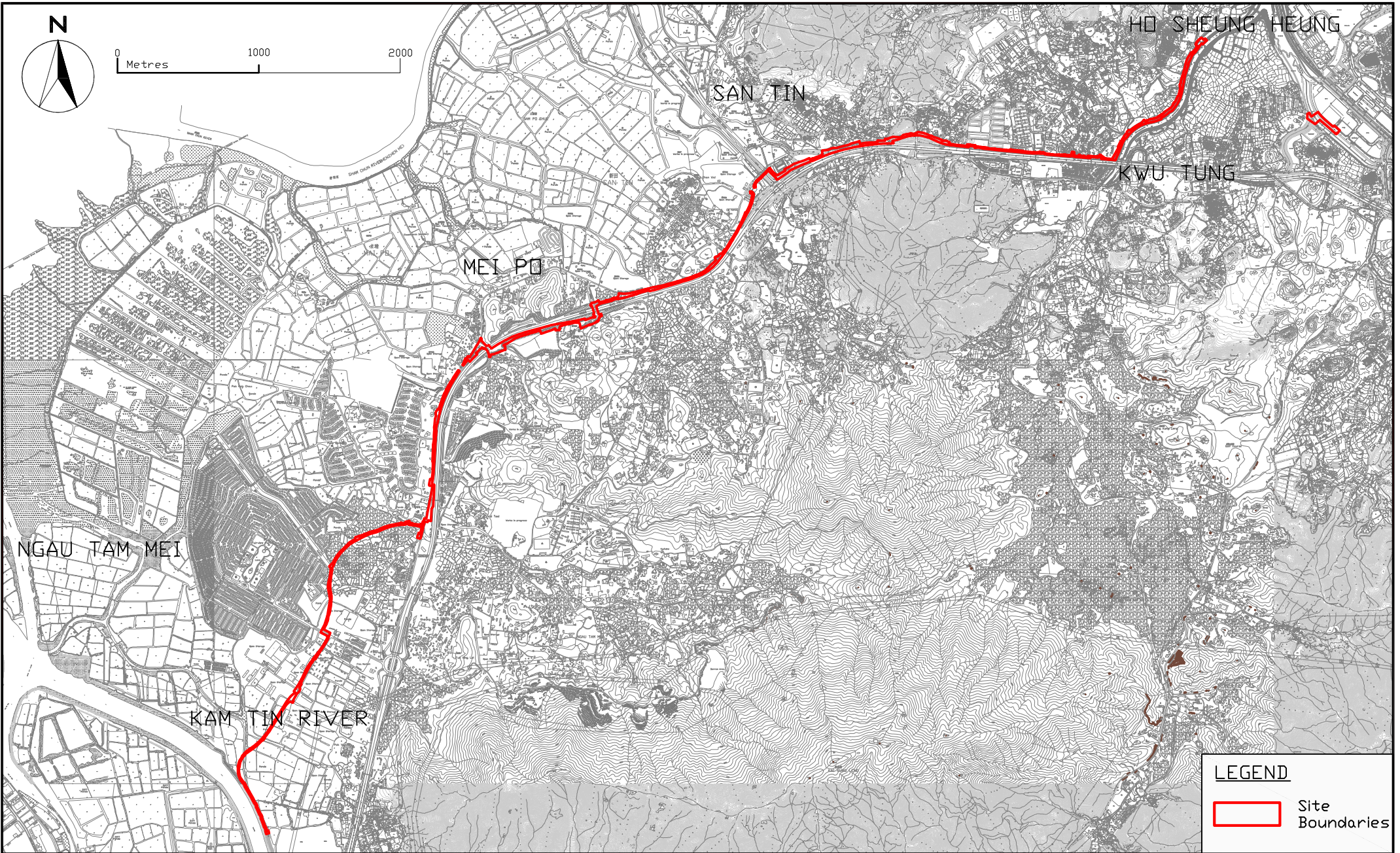
- General refuse should be removed regularly to prevent accumulation on-site. Proper enclosed bin should be provided with maintenance for collection of general refuse from workforce.
- Powered mechanical equipment should be checked and maintained on a regular basis to avoid any oil leakage to the ground.
- Drip tray should be provided to oil/chemical containers and generator to avoid oil

leakage. Any oil stain observed on ground should be properly removed as chemical waste.

Landscape and Visual

- Adequate tree protection zones should be established to protect retained and existing trees. Conspicuous signs of status of trees should be clearly shown to avoid damage from PMEs or workers.

FIGURES



LEGEND

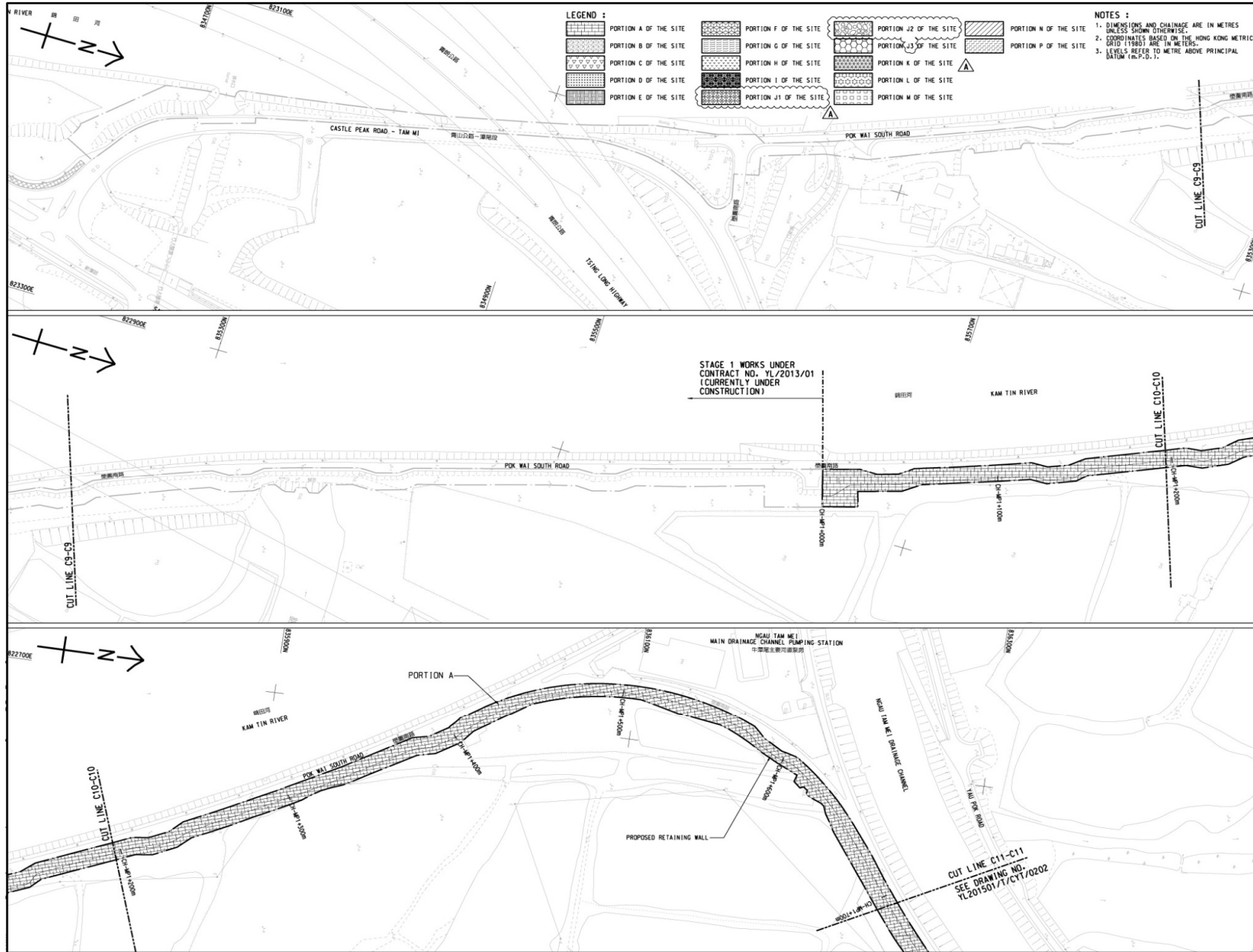
Site Boundaries



Agreement No. CE 67/2015(HY) - Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction

SITE LAYOUT PLAN

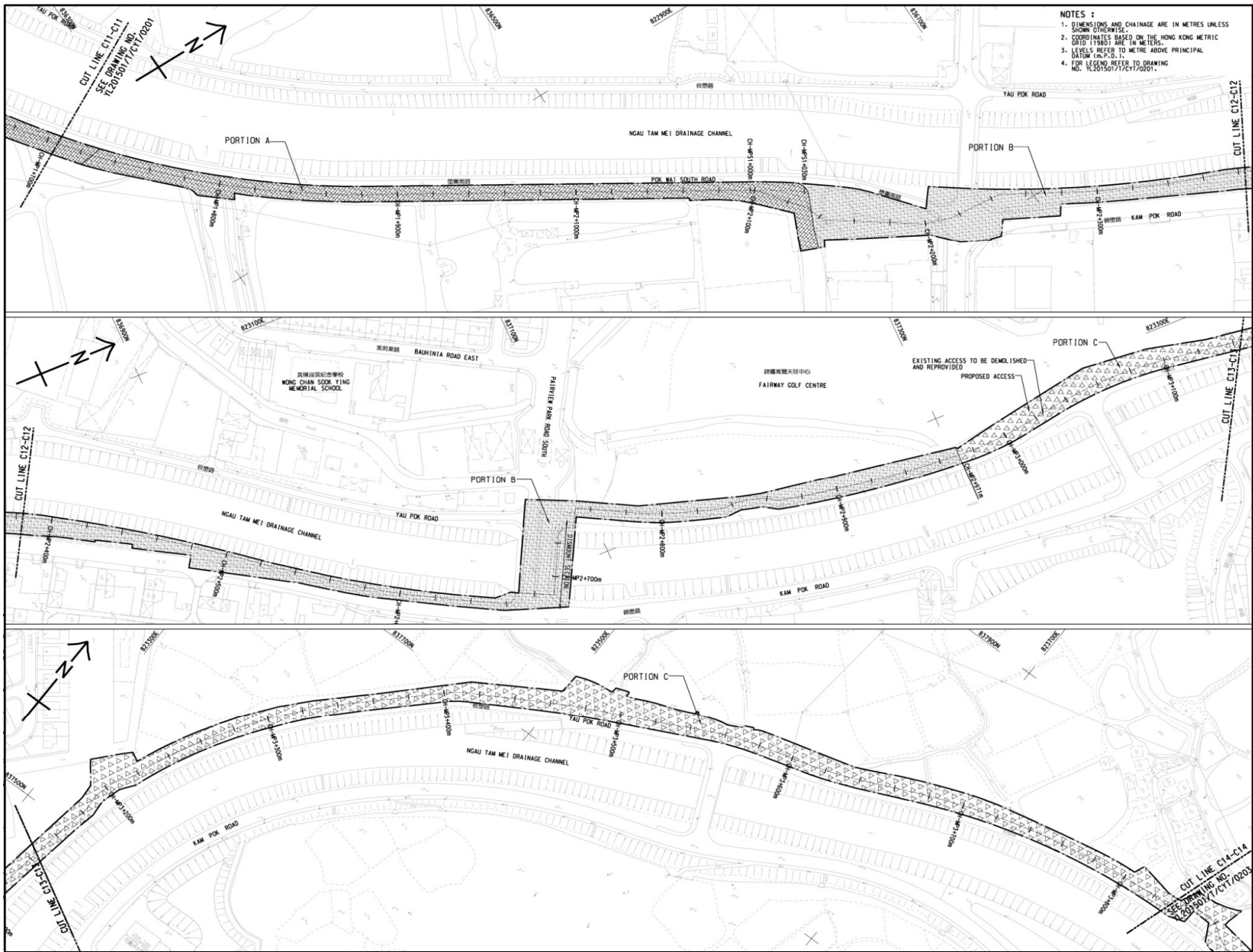
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CHECK	JL	DRAWN	VW
JOB No.	MA16036	FIGURE NO.	1a
		REV	-



Title Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale	N.T.S	Project No.	MA16036
Date	Dec-16	Figure	1b

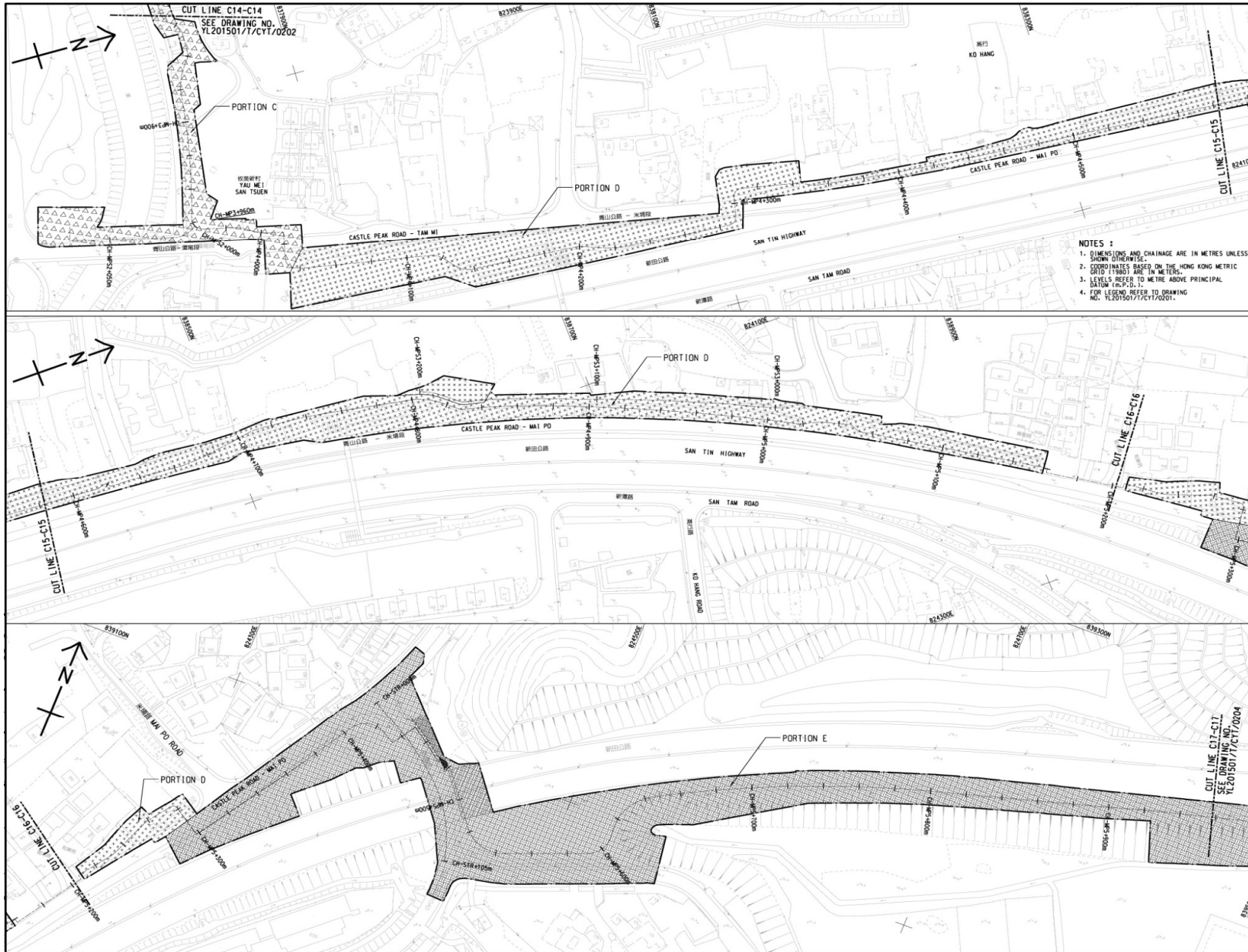
CINOTECH



Title Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale	N.T.S	Project No.	MA16036
Date	Dec-16	Figure	1c

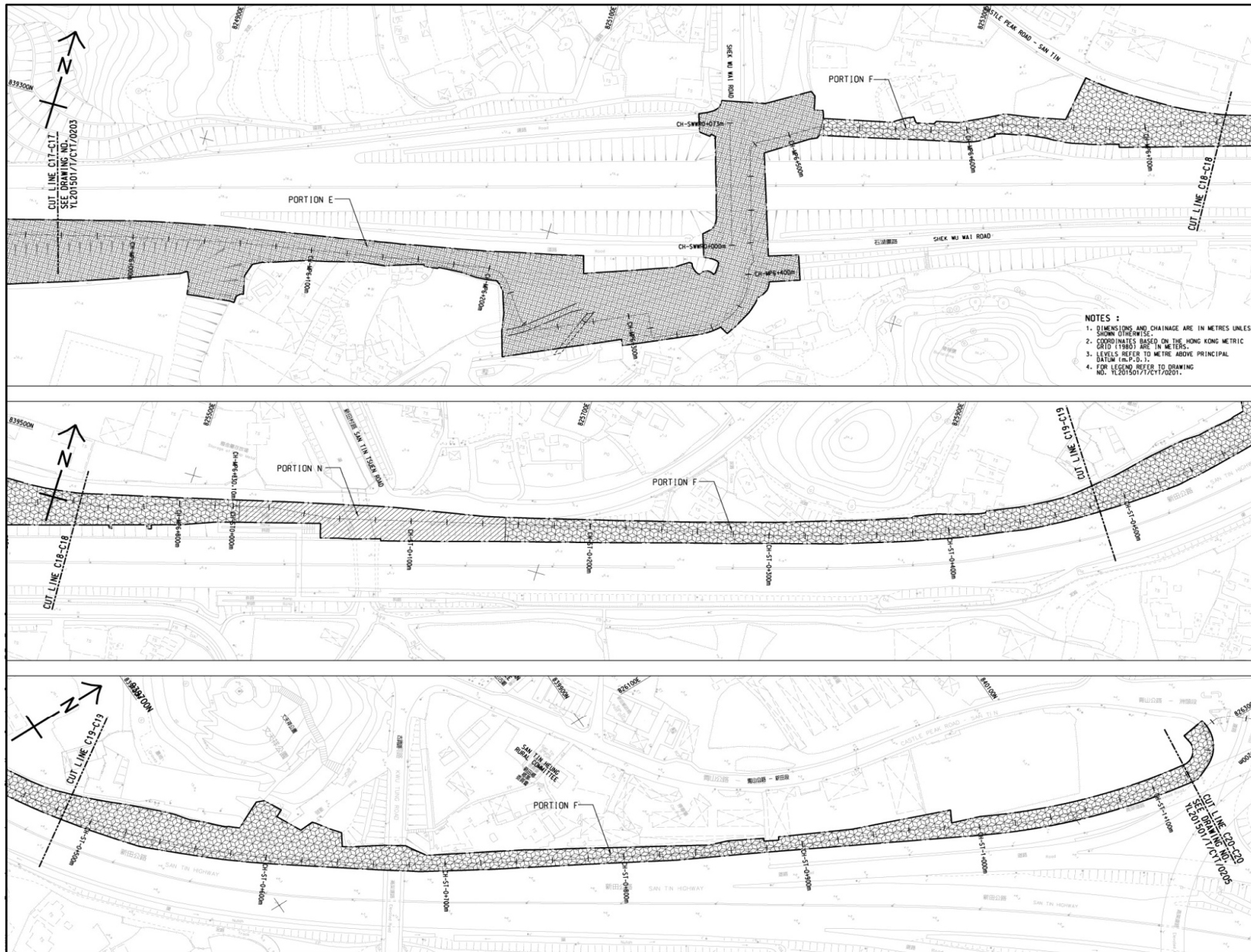




Title Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale	N.T.S	Project No.	MA16036
Date	Dec-16	Figure	1d





Title

Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale

N.T.S

Date

Dec-16

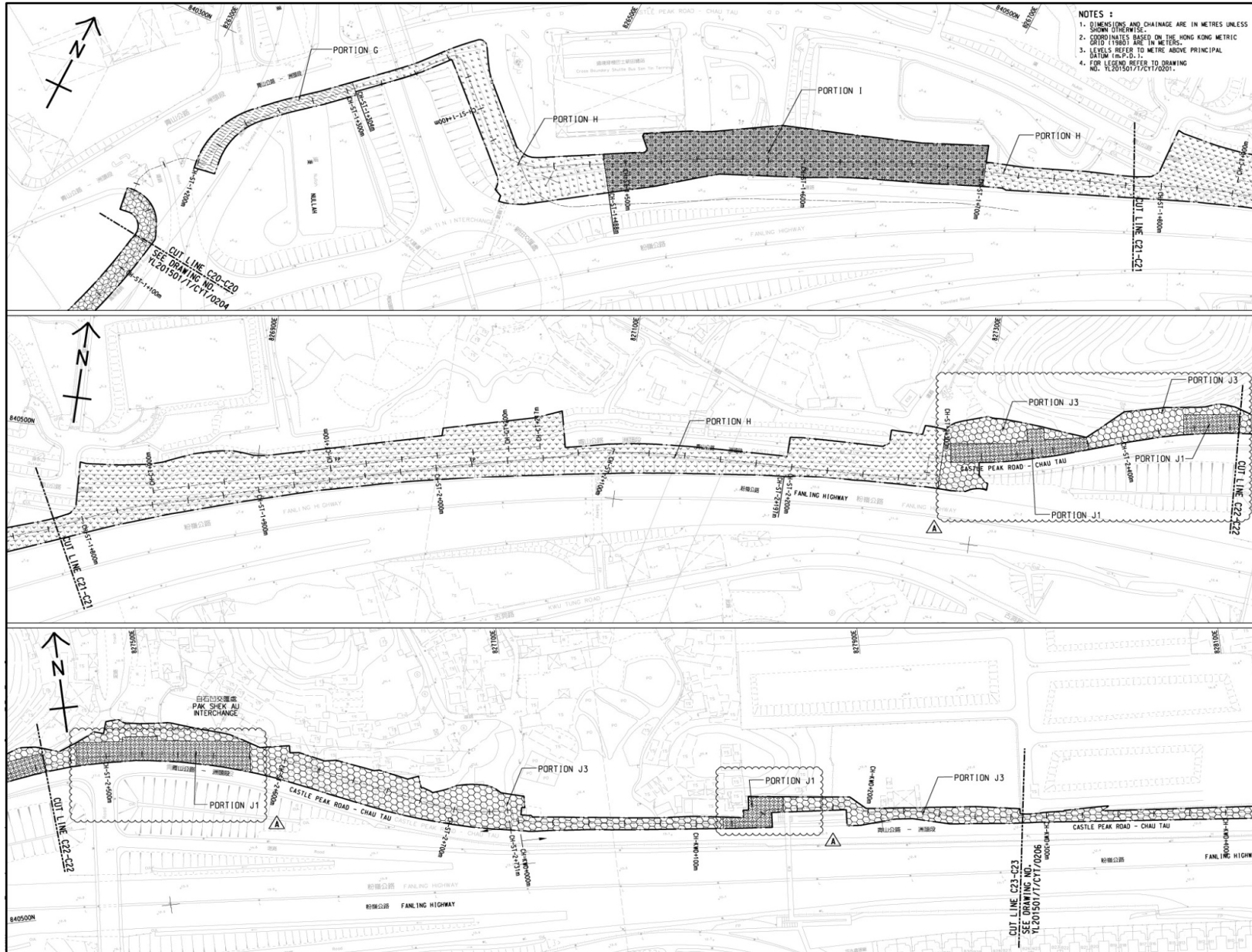
Project

No. MA16036

Figure

1e

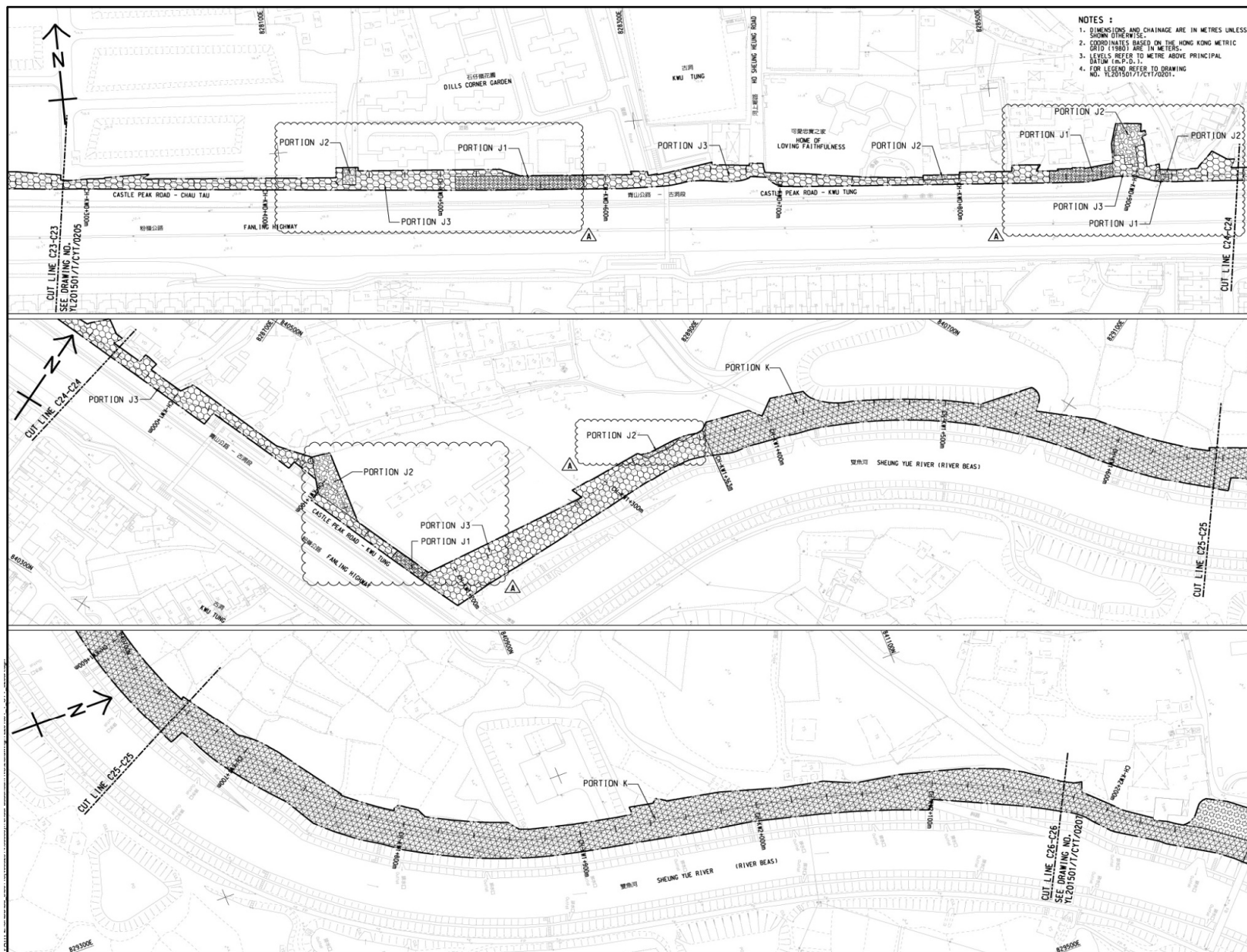




Title Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale	N.T.S	Project No.	MA16036
Date	Dec-16	Figure	1f

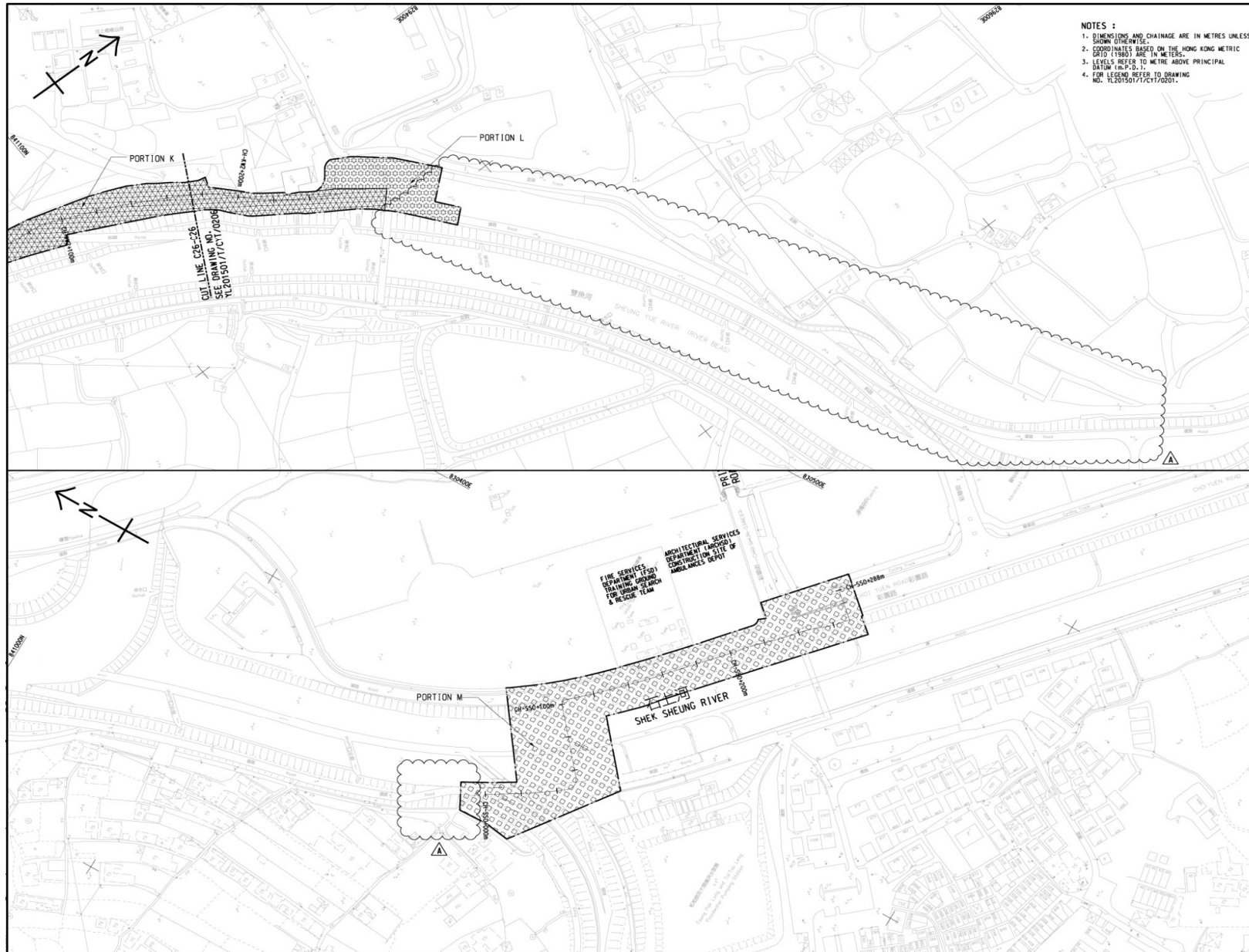




Title Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale	N.T.S	Project No.	MA16036
Date	Dec-16	Figure	1g





Title



Agreement No. CE 67/2015(HY)
 Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works
 Design and Construction
 Site Layout Plan

Scale	N.T.S	Project No.	MA16036
Date	Dec-16	Figure	1h





LEGEND

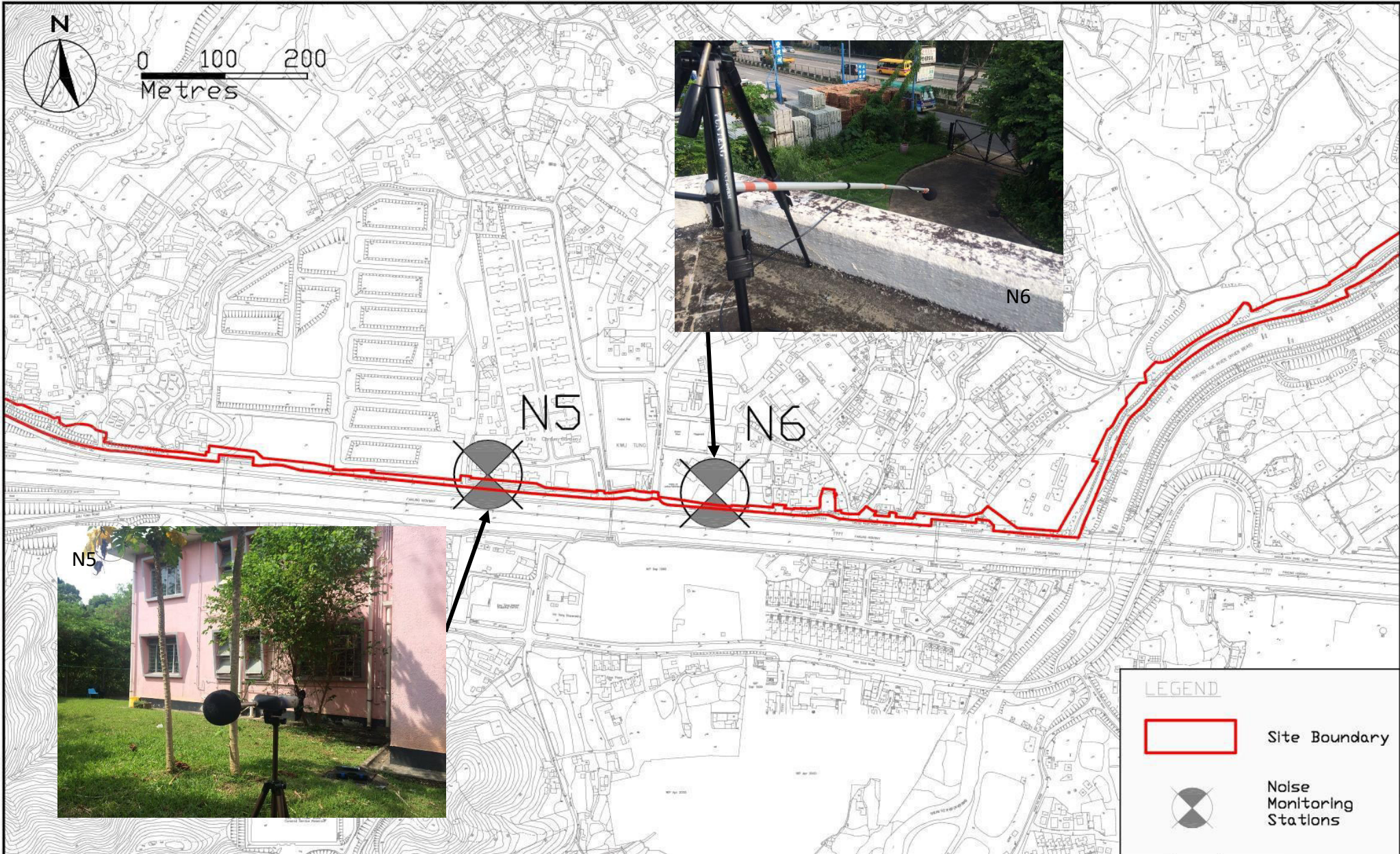
-  Site Boundary
-  Noise Monitoring Stations





Agreement No. CE 67/2015(HY) - Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction

Locations of the Noise Monitoring Stations (N1, N2)

SCALE	A4 1:6m	DATE	Aug 2016	
CHECK	JL	DRAWN	VW	
JOB No.	MA16036	FIGURE NO.	2a	REV
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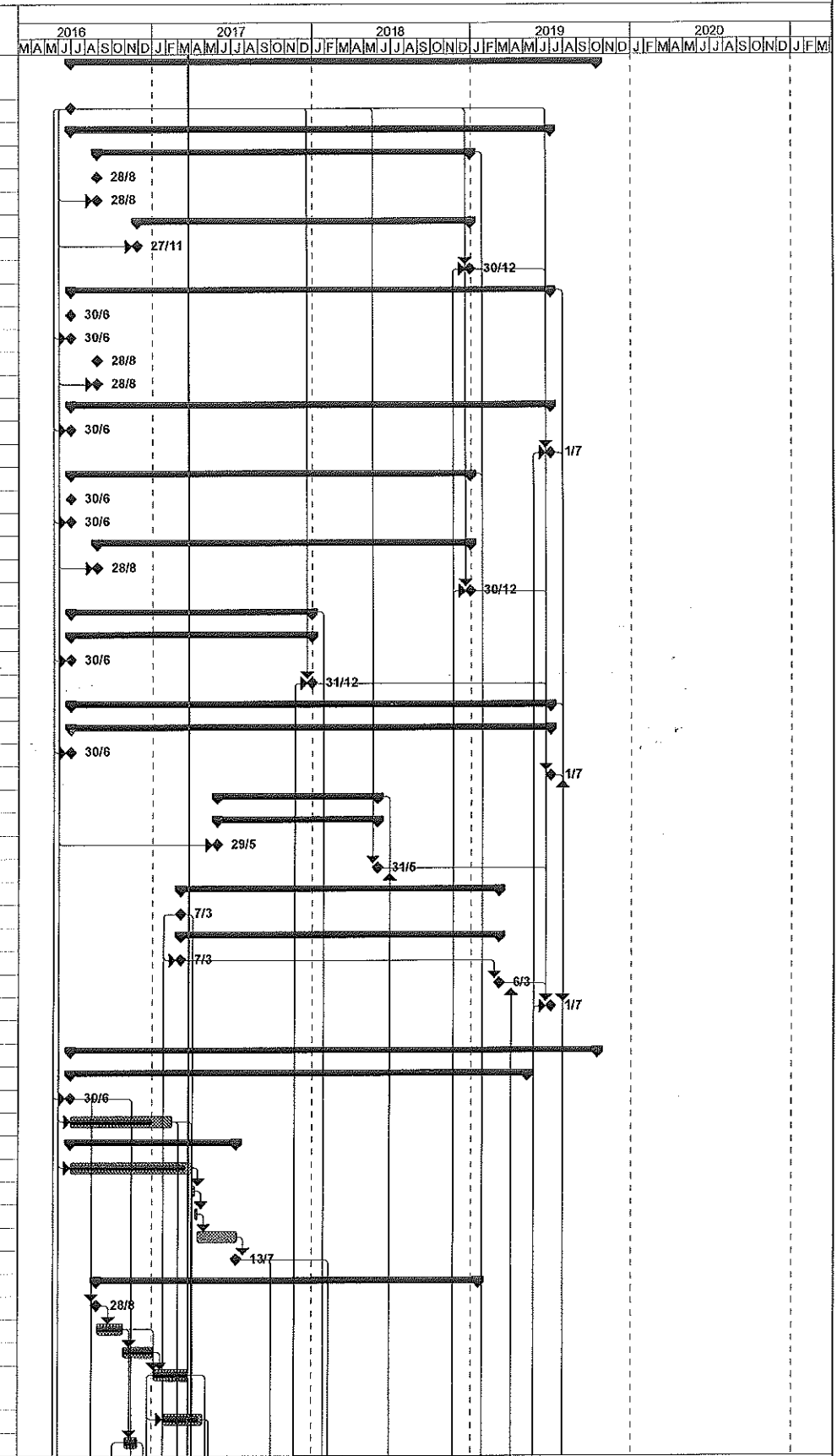


LEGEND	
	Site Boundary
	Noise Monitoring Stations

SCALE	A4 1:6m	DATE	Aug 2016
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JOB No.	MA16036	FIGURE NO.	2c
		REV	-

**APPENDIX A
WORK PROGRAMME**

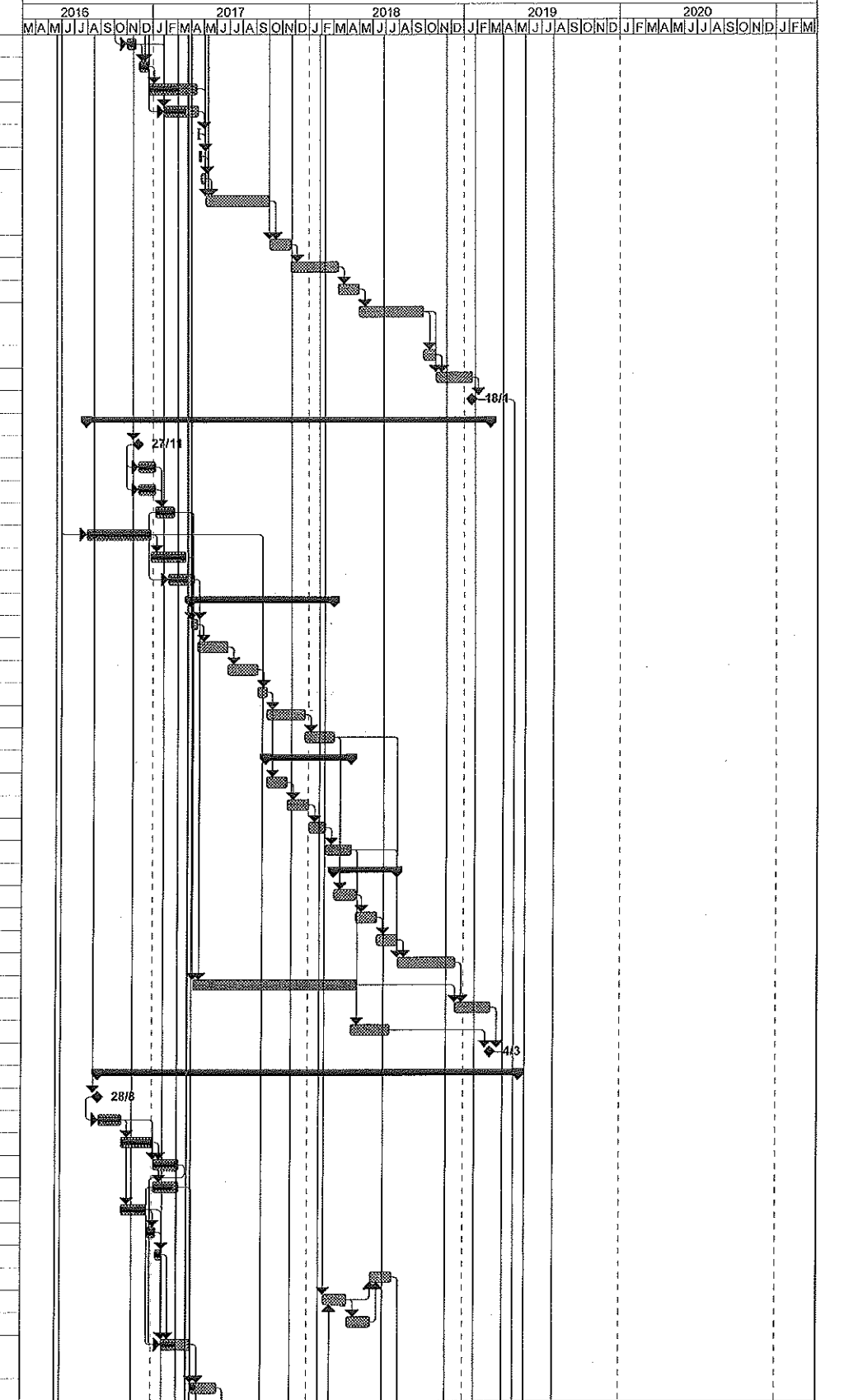
ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors	2016	2017	2018	2019	2020
1	CONTRACT DURATION (ALL WORKS EXCEPT LANDSCAPING AND ESTABLISHMENT)	1204 days		Thu 30/6/16	Wed 16/10/19	-107 days	32%						
2	COMMENCEMENT OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%						
3	ACCESS DATES AND COMPLETION DATES FOR CONTRACTS	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	0%						
4	SECTION W1 (PORTION A,B,C & D)	854 days		Sun 28/8/16	Sun 30/12/18	0 days	0%						
5	PORTION A & C	0 days		Sun 28/8/16	Sun 28/8/16	854 days	0%						
6	ACCESS DATE	0 days		Sun 28/8/16	Sun 28/8/16	854 days	0%	2SS+60 days					
7	PORTION B & D	783 days		Sun 27/11/16	Sun 30/12/18	0 days	0%						
8	ACCESS DATE	0 days		Sun 27/11/16	Sun 27/11/16	783 days	0%	2SS+151 days					
9	COMPLETION DATE	0 days		Sun 30/12/18	Sun 30/12/18	0 days	0%	2FS+913 days,157					
10	SECTION W2 (PORTION E, F, G, H, I & N)	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	0%						
11	PORTION G, I & N	0 days		Thu 30/6/16	Thu 30/6/16	1097 days	0%						
12	ACCESS DATE	0 days		Thu 30/6/16	Thu 30/6/16	1097 days	0%	2SS					
13	PORTION E & H	0 days		Sun 28/8/16	Sun 28/8/16	1037 days	0%						
14	ACCESS DATE	0 days		Sun 28/8/16	Sun 28/8/16	1037 days	0%	2SS+60 days					
15	PORTION F	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	0%						
16	ACCESS DATE	0 days		Thu 30/6/16	Thu 30/6/16	1097 days	0%	2SS					
17	COMPLETION DATE	0 days		Mon 1/7/19	Mon 1/7/19	0 days	0%	2FS+1097 days,331					
18	SECTION W3 (PORTION K, J1)	914 days		Thu 30/6/16	Sun 30/12/18	0 days	0%						
19	PORTION K	0 days		Thu 30/6/16	Thu 30/6/16	914 days	0%						
20	ACCESS DATE	0 days		Thu 30/6/16	Thu 30/6/16	914 days	0%	2SS					
21	PORTION J1	854 days		Sun 28/8/16	Sun 30/12/18	0 days	0%						
22	ACCESS DATE	0 days		Sun 28/8/16	Sun 28/8/16	854 days	0%	2SS+60 days					
23	COMPLETION DATE	0 days		Sun 30/12/18	Sun 30/12/18	0 days	0%	2FS+913 days,366					
24	SECTION W4	550 days		Thu 30/6/16	Sun 31/12/17	0 days	0%						
25	PORTION L	550 days		Thu 30/6/16	Sun 31/12/17	0 days	0%						
26	ACCESS DATE	0 days		Thu 30/6/16	Thu 30/6/16	550 days	0%	2SS					
27	COMPLETION DATE	0 days		Sun 31/12/17	Sun 31/12/17	0 days	0%	2FS+548 days,391					
28	SECTION W5	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	0%						
29	PORTION M	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	0%						
30	ACCESS DATE	0 days		Thu 30/6/16	Thu 30/6/16	1097 days	0%	2SS					
31	COMPLETION DATE	0 days		Mon 1/7/19	Mon 1/7/19	0 days	0%	2FS+1097 days,425					
32	SECTION W6	367 days		Mon 29/5/17	Thu 31/5/18	0 days	0%						
33	PORTION P	367 days		Mon 29/5/17	Thu 31/5/18	0 days	0%						
34	ACCESS DATE	0 days		Mon 29/5/17	Mon 29/5/17	367 days	0%	2SS+334 days					
35	COMPLETION DATE	0 days		Thu 31/5/18	Thu 31/5/18	0 days	0%	2FS+701 days,436					
36	SECTION W7	730 days		Tue 7/3/17	Wed 6/3/19	0 days	0%						
37	INSTRUCTION TO EXECISE	0 days		Tue 7/3/17	Tue 7/3/17	0 days	0%						
38	PORTION J2 & J3	730 days		Tue 7/3/17	Wed 6/3/19	0 days	0%						
39	ACCESS DATE	0 days		Tue 7/3/17	Tue 7/3/17	0 days	0%	37SS					
40	COMPLETION DATE	0 days		Wed 6/3/19	Wed 6/3/19	0 days	0%	39FS+730 days,473					
41	COMPLETION FROM SECTION W1 TO SECTION W7	0 days		Mon 1/7/19	Mon 1/7/19	0 days	0%	9,17,23,27,31,35,40,474					
42													
43	PLANNED WORKS PROGRAMME	1204 days		Thu 30/6/16	Wed 16/10/19	-107 days	32%						
44	SECTION W1 (PORTION A,B,C & D)	1044 days		Thu 30/6/16	Thu 9/5/19	-130 days	31%						
45	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS					
46	APPLICATION FOR INDIVIDUAL EXCAVATION PERMIT FOR SECTION W1	230 days		Thu 30/6/16	Tue 14/2/17	-19 days	80%	2SS					
47	CONTRACTOR DESIGN FOR RETAINING WALL	379 days		Thu 30/6/16	Thu 13/7/17	0 days	69%						
48	PREPARATION FOR CONTRACTOR SAVING DESIGN (CSD)	275 days		Thu 30/6/16	Fri 31/3/17	0 days	95%	45SS					
49	REVIEW AND APPROVED BY SUPERVISOR	7 days		Sat 1/4/17	Fri 7/4/17	0 days	0%	48					
50	REVIEW AND APPROVED BY PM	7 days		Sat 8/4/17	Fri 14/4/17	0 days	0%	49					
51	REVIEW AND APPROVED BY GEO/HYD	90 days		Sat 15/4/17	Thu 13/7/17	0 days	0%	50					
52	COMMENCEMENT OF SITE WORK	0 days		Thu 13/7/17	Thu 13/7/17	0 days	0%	51					
53	PORTION A - POK WAI ROAD SOUTH (MP 1+000 - MP 2+130)	873 days		Sun 28/8/16	Fri 18/1/19	-19 days	40%						
54	POSSESSION OF SITE	0 days		Sun 28/8/16	Sun 28/8/16	0 days	100%	45FS+60 days					
55	INITIAL SURVEY	60 days	3 days	Mon 29/8/16	Thu 27/10/16	0 days	100%	54					
56	TREE SURVEY	70 days	3 days	Fri 29/10/16	Thu 5/1/17	0 days	100%	55					
57	TREE FELLING / TRANSPLANTING AND SITE CLEARANCE (FOR NEW DLO MEMO)	80 days	5 days	Fri 6/1/17	Sun 26/3/17	0 days	100%	56,55					
58	UTILITIES DIVERSION WORKS (CLP & PCCW)	90 days	0 day	Fri 27/1/17	Wed 26/4/17	-12 days	90%	57SS+21 days					
59	GROUND INVESTIGATION WORKS (1 NO. BOREHOLE & TRIAL PITS)	28 days	2 days	Tue 1/11/16	Mon 28/11/16	0 days	100%	55					



Task		Summary		External Milestone		Inactive Summary		Manual Summary Rollup		Finish-only		Progress	
Split		Project Summary		Inactive Task		Manual Task		Manual Summary		Critical		Deadline	
Milestone		External Tasks		Inactive Milestone		Duration-only		Start-only		Critical Split			

REMARK: ALL SUNDAYS AND HOLIDAYS ARE INCLUDED IN THIS PROGRAMME

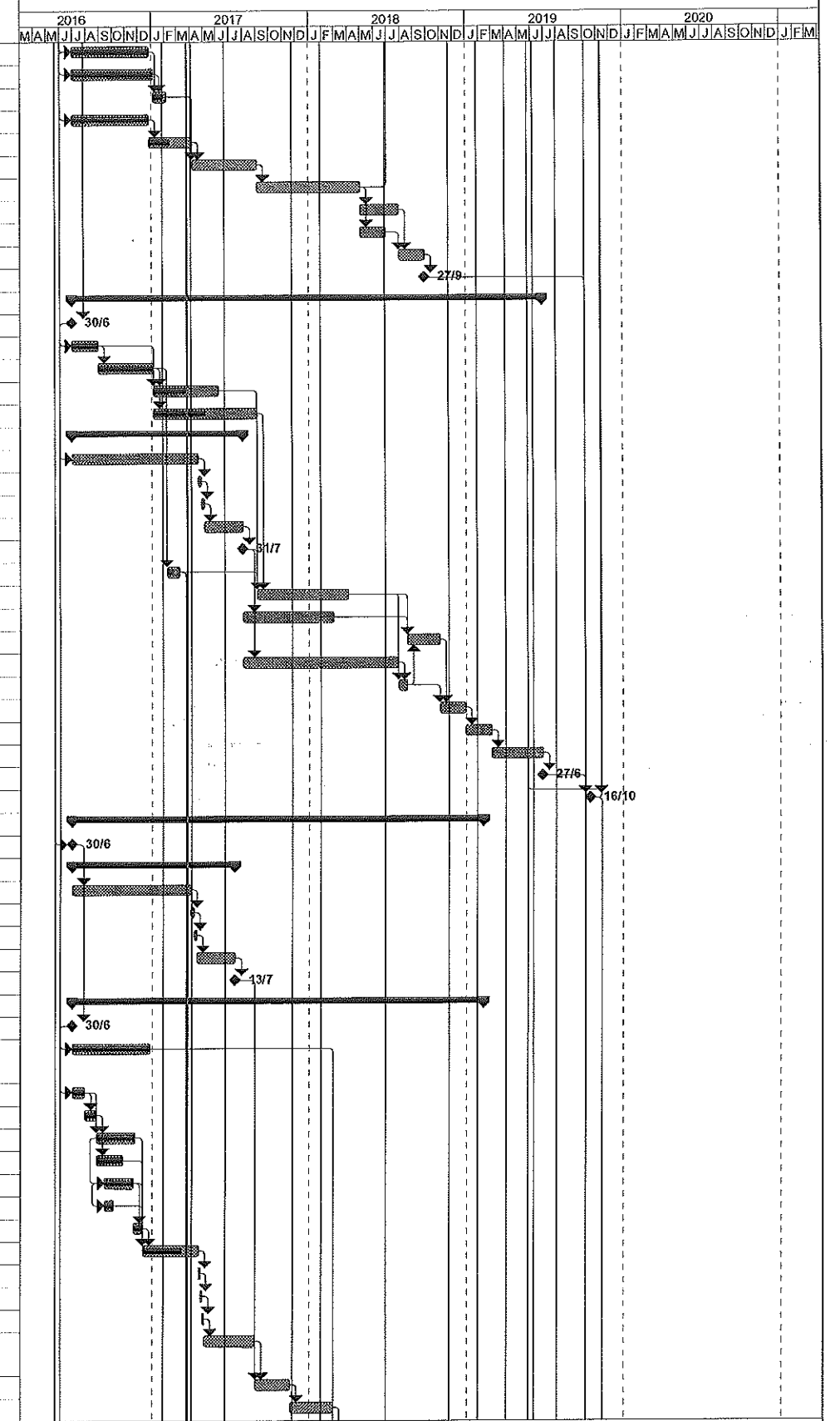
ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors	2016	2017	2018	2019	2020
60	SUBMISSION AND APPROVAL OF MONITORING PROPOSAL	21 days	2 days	Tue 1/11/16	Mon 21/11/16	0 days	100%	59SS					
61	INSTALLATION OF MONITORING MARKERS	21 days	2 days	Tue 29/11/16	Mon 19/12/16	0 days	100%	59,60					
62	RETAINING WALL - RW 8A (60M)	115 days	5 days	Tue 20/12/16	Thu 13/4/17	1 day	63%	61					
63	RETAINING WALL - RW 8B (40M)	80 days	5 days	Fri 27/1/17	Sun 16/4/17	-19 days	64%	60,57SS+21 days					
64	NCE EFFECT ON ADDED SUB SOIL DRAIN	2 days	0 day	Mon 17/4/17	Tue 18/4/17	-19 days	0%	63					
65	NCE EFFECT ON ADDED WATER STOP	5 days	0 day	Wed 19/4/17	Sun 23/4/17	-19 days	0%	64					
66	NCE EFFECT ON ADDED CHAMFER	10 days	0 day	Mon 24/4/17	Wed 3/5/17	-19 days	0%	65					
67	EARTHWORKS AND DRAINAGE WORKS, UTILITIES LAYING BETWEEN MP1+000 TO MP 1+600 (EXCLUDING RETAINING WALL RW7, 7A & 7B)	150 days	10 days	Thu 4/5/17	Sat 30/9/17	-19 days	0%	62,57,58,66					
68	RETAINING WALL - RW7 (20M) (CSD - FILL SLOPE)	50 days	4 days	Sun 1/10/17	Sun 19/11/17	-19 days	0%	67,52					
69	RETAINING WALL - RW 7A (67M) (CSD - FILL SLOPE)	110 days	7 days	Mon 20/11/17	Fri 9/3/18	-19 days	0%	68					
70	RETAINING WALL - RW 7B (20M) (CSD - FILL SLOPE)	50 days	3 days	Sat 10/3/18	Sat 29/4/18	-19 days	0%	69					
71	EARTHWORKS AND DRAINAGE WORKS BETWEEN MP1+600 TO MP 2+100	150 days	10 days	Sun 29/4/18	Tue 25/9/18	-19 days	0%	70					
72	STAIRCASE	30 days	3 days	Wed 25/9/18	Thu 25/10/18	-19 days	0%	71					
73	ROAD WORKS	85 days	7 days	Fri 26/10/18	Fri 18/1/19	-19 days	0%	71,72					
74	COMPLETION OF PORTION A	0 days	0 days	Fri 18/1/19	Fri 18/1/19	-19 days	0%	73					
75	PORTION B (MP 2+130 - MP 2+950)	948 days		Sat 30/7/16	Mon 4/3/19	-64 days	23%						
76	POSSESSION OF SITE	0 days		Sun 27/11/16	Sun 27/11/16	0 days	100%	45FS+151 days					
77	INITIAL SURVEY	40 days	3 days	Mon 29/11/16	Fri 6/1/17	0 days	100%	76SS					
78	TREE SURVEY	40 days	3 days	Mon 29/11/16	Fri 6/1/17	0 days	100%	76SS					
79	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	45 days	4 days	Mon 20/2/17	Mon 20/2/17	0 days	100%	78,77					
80	TTM PREPARATION	150 days	days	Sat 30/7/16	Mon 26/12/16	0 days	100%	2SS+30 days					
81	TTM APPROVAL BY SUPERVISOR/PM/MLG	82 days	2 days	Tue 27/12/16	Sat 18/3/17	0 days	100%	80					
82	UTILITIES DIVERSION WORKS (CLP, PCCW & HCL)	60 days	0 day	Mon 6/2/17	Thu 6/4/17	-25 days	80%	79SS+30 days					
83	SUBWAY A WITH PUMP ROOM (4 BAYS) CONSTRUCTION	336 days		Sat 1/4/17	Fri 2/3/18	-64 days	0%						
84	TTA ENABLING WORKS (STAGE 1)	15 days	2 days	Sat 1/4/17	Sat 15/4/17	-64 days	0%	46,81FS+13 days,79,82FS-45 days					
85	BAY PW8	70 days	7 days	Sun 16/4/17	Sat 24/6/17	-64 days	0%	84					
86	BAY PW9	70 days	7 days	Sun 25/6/17	Sat 2/9/17	-64 days	0%	85					
87	TTA ENABLING WORKS (STAGE 2)	21 days	3 days	Sun 3/9/17	Sat 23/9/17	-64 days	0%	86					
88	BAY PW10 WITH PUMP HOUSE	90 days	7 days	Sun 24/9/17	Fri 22/12/17	-64 days	0%	87					
89	BAY PW11	70 days	7 days	Sat 23/12/17	Fri 2/3/18	-64 days	0%	88					
90	SOUTHERN RAMP (7 BAYS) CONSTRUCTION	200 days		Sun 24/9/17	Wed 11/4/18	45 days	0%						
91	BAY PW6&7	50 days	5 days	Sun 24/9/17	Sun 12/11/17	45 days	0%	87					
92	BAY PW4&5	50 days	5 days	Mon 13/11/17	Mon 1/1/18	45 days	0%	91					
93	BAY PW2&3	40 days	4 days	Tue 2/1/18	Sat 10/2/18	45 days	0%	92					
94	BAY PW1 AND ASSOCIATED WORKS	60 days	5 days	Sun 11/2/18	Wed 11/4/18	45 days	0%	93					
95	NORTHERN RAMP (6 BAYS) CONSTRUCTION	149 days		Sat 3/3/18	Sun 29/7/18	-64 days	0%						
96	BAY PW12 & 13	50 days	5 days	Sat 3/3/18	Sat 21/4/18	-64 days	0%	89					
97	BAY PW14 & 15	50 days	5 days	Sun 22/4/18	Sun 10/6/18	-64 days	0%	96					
98	BAY PW16 AND ASSOCIATED WORKS	49 days	5 days	Mon 11/6/18	Sun 29/7/18	-64 days	0%	97					
99	FINISHING WORKS AND E&M WORKS	134 days	10 days	Mon 30/7/18	Mon 10/12/18	-64 days	0%	98,94,89					
100	EARTHWORKS AND DRAINAGE WORKS	384 days	30 days	Fri 7/4/17	Wed 25/4/18	165 days	0%	79,81,82					
101	ROAD WORKS	84 days	7 days	Tue 11/12/18	Mon 4/3/19	-64 days	0%	99,100					
102	RESTING STATION R6	90 days	7 days	Thu 12/4/18	Tue 10/7/18	173 days	0%	94					
103	COMPLETION OF PORTION B	0 days		Mon 4/3/19	Mon 4/3/19	-64 days	0%	101,102					
104	PORTION C (MP 2+950 - MP 4+010)	984 days		Sun 28/8/16	Thu 9/5/19	-130 days	25%						
105	POSSESSION OF SITE	0 days		Sun 28/8/16	Sun 28/8/16	0 days	100%	45FS+60 days					
106	INITIAL SURVEY	64 days	4 days	Mon 29/8/16	Fri 21/10/16	0 days	100%	105SS					
107	TREE SURVEY	75 days	7 days	Sat 22/10/16	Wed 4/1/17	0 days	100%	106					
108	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	60 days	5 days	Thu 5/1/17	Sun 5/3/17	35 days	90%	107,106					
109	UTILITIES DIVERSION WORKS (CLP & PCCW)	60 days	0 day	Thu 5/1/17	Sun 5/3/17	42 days	80%	107					
110	GROUND INVESTIGATION WORKS (11 NOS. BOREHOLES & TRIAL PITS)	60 days	5 days	Sat 22/10/16	Tue 20/12/16	0 days	100%	106					
111	SUBMISSION AND APPROVAL OF MONITORING PROPOSAL	21 days	3 days	Wed 21/12/16	Tue 10/1/17	0 days	100%	110					
112	INSTALLATION OF MONITORING MARKERS	14 days	2 days	Wed 11/1/17	Tue 24/1/17	0 days	100%	111					
113	RETAINING WALL - RW 11A (50M) (CSD)	50 days	5 days	Wed 30/5/18	Wed 18/7/18	-130 days	0%	115,114					
114	RETAINING WALL - RW 11B : BAY 1 - BAY 6 (60M)	55 days	5 days	Fri 9/2/18	Wed 4/4/18	-130 days	0%	122,52FS+80 days					
115	RETAINING WALL - RW 11B : BAY 7 - BAY 12 (60M)	55 days	5 days	Thu 5/4/18	Tue 29/5/18	-130 days	0%	114					
116	RETAINING WALL - RW 11C : BAY 8 - BAY 14 (70M)	70 days	7 days	Wed 25/1/17	Tue 4/4/17	-130 days	50%	109SS+7 days,108FS-40 days,110,112,111					
117	RETAINING WALL - RW 11C : BAY 1 - BAY 7, STAIRCASE S1 (70M)	60 days	5 days	Wed 5/4/17	Sat 3/6/17	-80 days	20%	116,109					



Task		Summary		External Milestone		Inactive Summary		Manual Summary Rollup		Finish-only		Progress	
Split		Project Summary		Inactive Task		Manual Task		Manual Summary		Critical		Deadline	
Milestone		External Tasks		Inactive Milestone		Duration-only		Start-only		Critical Split			

REMARK: ALL SUNDAYS AND HOLIDAYS ARE INCLUDED IN THIS PROGRAMME

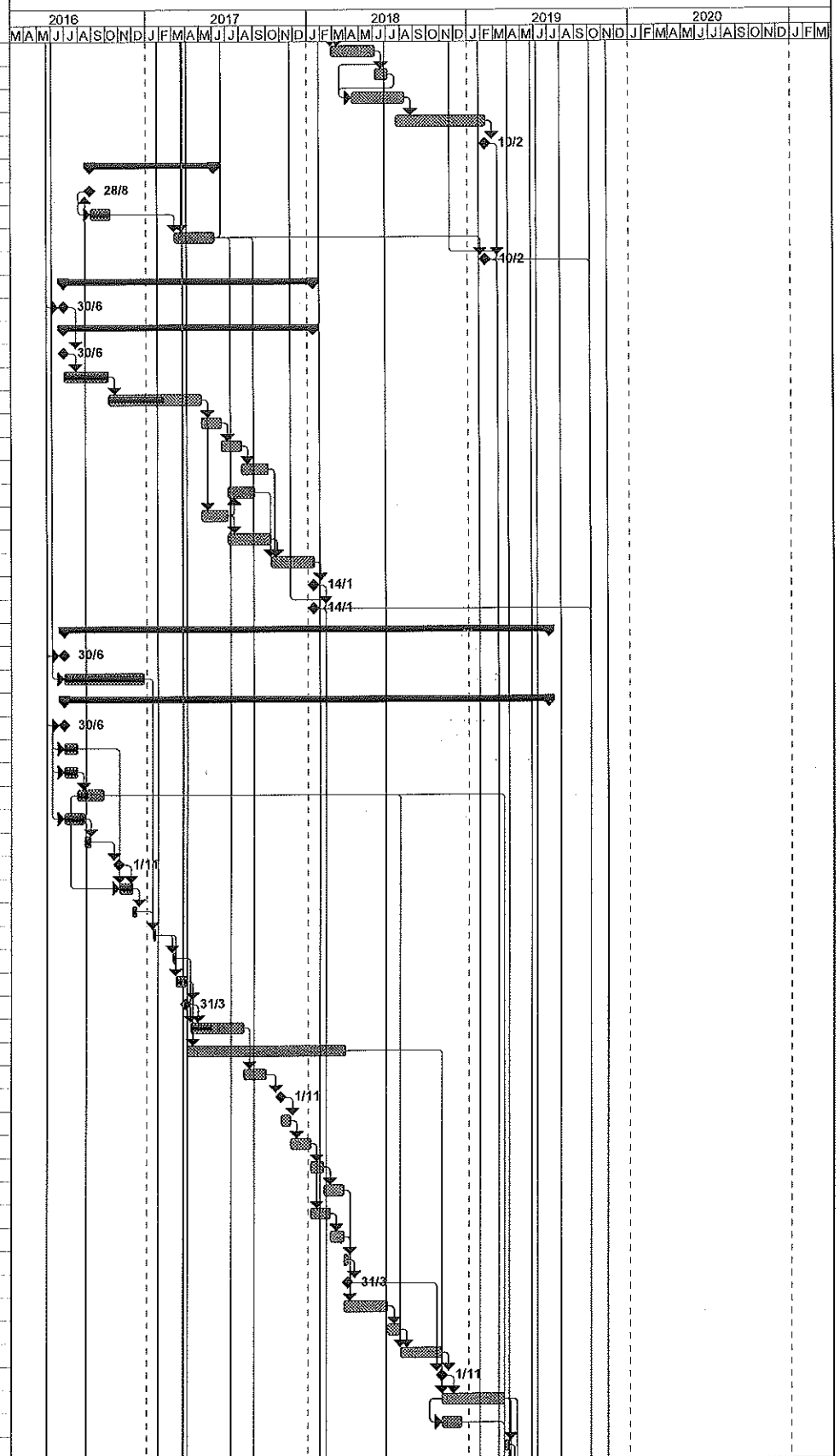
ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors
298	INITIAL SURVEY	180 days	14 days	Thu 30/6/16	Mon 26/12/16	0 days	100%	297SS
299	TREE SURVEY	190 days	14 days	Thu 30/6/16	Thu 5/1/17	0 days	100%	298SS
300	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	30 days	2 days	Fri 6/1/17	Sat 4/2/17	-3 days	80%	299,298
301	TTM PREPARATION	180 days	14 days	Thu 30/6/16	Mon 26/12/16	0 days	100%	2SS
302	TTM APPROVAL BY RSS/TMLG	100 days	5 days	Tue 27/12/16	Wed 5/4/17	-63 days	48%	301
303	SUBWAY D WITH PUMP ROOM CONSTRUCTION (3BAYS)	150 days	14 days	Thu 6/4/17	Sat 2/8/17	-63 days	0%	302,300
304	RAMP (14 BAYS)	240 days	21 days	Sun 3/9/17	Mon 30/4/18	-63 days	0%	303
305	FINISHING WORKS AND E&M WORKS	90 days	7 days	Tue 1/5/18	Sun 29/7/18	277 days	0%	304
306	EARTHWORKS AND DRAINAGE WORKS	60 days	5 days	Tue 1/5/18	Fri 29/6/18	307 days	0%	304
307	ROAD WORKS	60 days	5 days	Mon 30/7/18	Thu 27/9/18	277 days	0%	306,305
308	COMPLETION OF PORTION I	0 days		Thu 27/9/18	Thu 27/9/18	277 days	0%	307
309	PORTION N (BRIDGE B : CSD) CH ST 0.150 - CH ST 1.097	1093 days		Thu 30/6/16	Thu 27/6/19	4 days	19%	
310	POSSESSION OF SITE	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	159
311	INITIAL SURVEY	60 days	5 days	Thu 30/6/16	Sun 28/8/16	0 days	100%	310SS
312	TREE SURVEY	130 days	10 days	Mon 29/8/16	Thu 5/1/17	0 days	100%	311
313	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	150 days	5 days	Fri 6/1/17	Sun 4/6/17	211 days	50%	312,311
314	UTILITIES DIVERSION WORKS (HKB, TGT & CLP)	240 days	10 days	Fri 6/1/17	Sat 2/9/17	121 days	50%	312
315	CONTRACTOR DESIGN FOR FOUNDATION	397 days		Thu 30/6/16	Mon 31/7/17	4 days	0%	
316	PREPARATION FOR CONTRACTOR SAVING DESIGN (CSD)	293 days		Thu 30/6/16	Tue 18/4/17	4 days	0%	310SS
317	REVIEW AND APPROVED BY SUPERVISOR	7 days		Wed 19/4/17	Tue 25/4/17	4 days	0%	316
318	REVIEW AND APPROVED BY PM	7 days		Wed 26/4/17	Tue 2/5/17	4 days	0%	317
319	REVIEW AND APPROVED BY DSD/HYD	90 days		Wed 3/5/17	Mon 31/7/17	4 days	0%	318
320	COMMENCEMENT OF SITE WORKS	0 days		Mon 31/7/17	Mon 31/7/17	4 days	0%	319
321	PRE-DRILLING WORKS FOR PILES	30 days	3 days	Sun 5/2/17	Mon 6/3/17	36 days	50%	312FS+30 days
322	ABUTMENT CONSTRUCTION	210 days	7 days	Sun 3/9/17	Sat 31/3/18	121 days	0%	320,321,313,314
323	OFFSITE FABRICATION OF BRIDGE MEMBERS	210 days	10 days	Tue 1/8/17	Mon 26/2/18	175 days	0%	320
324	STEEL TRUSS AND DECK CONSTRUCTION	75 days	7 days	Fri 17/8/18	Tue 30/10/18	4 days	0%	323,322,326
325	PROCURE AND DELIVERY OF BEARINGS AND MOVEMENT JOINTS	360 days	10 days	Tue 1/8/17	Thu 26/7/18	4 days	0%	320
326	INSTALLATION OF BEARINGS AND MOVEMENT JOINTS	21 days	2 days	Fri 27/7/18	Thu 16/8/18	4 days	0%	325,322
327	EARTHWORKS AND DRAINAGE WORKS	60 days	5 days	Wed 31/10/18	Sat 29/12/18	4 days	0%	324,326
328	ROAD WORKS	60 days	5 days	Sun 30/12/18	Wed 27/2/19	4 days	0%	327
329	BRIDGE ASSOCIATED WORKS AND WATERMAIN WORKS	120 days	10 days	Thu 28/2/19	Thu 27/6/19	4 days	0%	328
330	COMPLETION OF PORTION N	0 days		Thu 27/6/19	Thu 27/6/19	4 days	0%	329
331	COMPLETION OF SECTION W2	0 days		Wed 16/10/19	Wed 16/10/19	-107 days	0%	224,251,273,295,308,330
332	SECTION W3	956 days		Thu 30/6/16	Sun 10/2/19	-42 days	33%	
333	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS
334	CONTRACTOR DESIGN FOR RETAINING WALL	379 days		Thu 30/6/16	Thu 13/7/17	4 days	0%	
335	PREPARATION FOR CONTRACTOR SAVING DESIGN (CSD)	275 days		Thu 30/6/16	Fri 31/3/17	4 days	0%	333
336	REVIEW AND APPROVED BY SUPERVISOR	7 days		Sat 1/4/17	Fri 7/4/17	4 days	0%	335
337	REVIEW AND APPROVED BY PM	7 days		Sat 8/4/17	Fri 14/4/17	4 days	0%	336
338	REVIEW AND APPROVED BY GEO/HYD	90 days		Sat 15/4/17	Thu 13/7/17	4 days	0%	337
339	COMMENCEMENT OF SITE WORK	0 days		Thu 13/7/17	Thu 13/7/17	4 days	0%	338
340	PORTION K (CH KW 1+360 - CH KW 2+070)	956 days		Thu 30/6/16	Sun 10/2/19	-42 days	42%	
341	POSSESSION OF SITE	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	333
342	APPLICATION AND OBTAIN APPROVAL FROM MTRC FOR WORKS AT RPA	180 days	0 day	Thu 30/6/16	Mon 26/12/16	0 days	100%	341SS
343	INITIAL SURVEY	28 days	2 days	Thu 30/6/16	Wed 27/7/16	0 days	100%	341SS
344	TREE SURVEY	28 days	2 days	Thu 28/7/16	Wed 24/8/16	0 days	100%	343
345	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	90 days	7 days	Thu 25/8/16	Tue 22/11/16	0 days	100%	344,343
346	UTILITIES DIVERSION WORKS (CLP, PCCW & FW MAINS)	60 days	0 day	Thu 25/8/16	Sun 23/10/16	0 days	100%	344
347	GROUND INVESTIGATION WORKS (4 NOS. BOREHOLES & TRIAL PITS)	68 days	5 days	Mon 12/9/16	Fri 18/11/16	0 days	100%	345SS+18 days
348	SUBMISSION AND APPROVAL OF MONITORING PROPOSAL	21 days	2 days	Mon 12/9/16	Sun 2/10/16	0 days	100%	347SS
349	INSTALLATION OF MONITORING MARKERS	21 days	2 days	Sat 19/11/16	Fri 9/12/16	0 days	100%	347
350	RW 29C (66M)	130 days	7 days	Sat 10/12/16	Tue 18/4/17	-42 days	70%	345,346,347,349,348
351	NCE EFFECT ON ADDED SUB SOIL DRAIN (RW29C ONLY)	3 days		Wed 19/4/17	Fri 21/4/17	-42 days	0%	350
352	NCE EFFECT ON ADDED CHAMFER (RW29C ONLY)	6 days		Sat 22/4/17	Thu 27/4/17	-42 days	0%	351
353	NCE EFFECT ON ADDED WATER STOP (RW29C ONLY)	3 days		Fri 28/4/17	Sun 30/4/17	-42 days	0%	352
354	EARTHWORKS AND DRAINAGE WORKS, KW1+360 - KW1+460; KW 1+600 - KW1+900 ; KW 1+2+140 - KW 2+450	120 days	21 days	Mon 1/5/17	Mon 28/8/17	-42 days	0%	353
355	RW 29B (50M) (CSD - FILL SLOPE)	80 days	7 days	Tue 29/8/17	Thu 16/11/17	-42 days	0%	339,354
356	RW 29A (90M) (CSD - FILL SLOPE)	100 days	7 days	Fri 17/11/17	Sat 24/2/18	-42 days	0%	355



Task		Summary		External Milestone		Inactive Summary		Manual Summary Rollup		Finish-only		Progress
Split		Project Summary		Inactive Task		Manual Task		Manual Summary		Critical		Deadline
Milestone		External Tasks		Inactive Milestone		Duration-only		Start-only		Critical Split		

REMARK: ALL SUNDAYS AND HOLIDAYS ARE INCLUDED IN THIS PROGRAMME

ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors	Gantt Chart													
									2016	2017	2018	2019	2020									
357	RW 27 (90M) (CSD - FILL SLOPE)	100 days	7 days	Sun 25/2/18	Mon 4/8/18	-42 days	0%	356,342														
358	STREAM DECKING D9	30 days	7 days	Tue 5/6/18	Wed 4/7/18	-35 days	0%	357														
359	EARTHWORKS AND DRAINAGE WORKS	120 days	21 days	Fri 10/8/18	Fri 10/8/18	-42 days	0%	358FS-90 days, 357FS-53 days														
360	ROAD WORKS	204 days	21 days	Sun 22/7/18	Sun 10/2/19	-42 days	0%	359FS-20 days														
361	COMPLETION OF PORTION K	0 days		Sun 10/2/19	Sun 10/2/19	-42 days	0%	360														
362	PORTION J1	280 days		Sun 28/8/16	Sun 4/6/17	36 days	33%															
363	POSSESSION OF SITE (J1)	0 days		Sun 28/8/16	Sun 28/8/16	0 days	100%	438FS+60 days														
364	INITIAL SURVEY	45 days	4 days	Mon 29/8/16	Wed 12/10/16	0 days	100%	363SS														
365	SITE INVESTIGATION	90 days	10 days	Tue 7/3/17	Sun 4/6/17	38 days	0%	321,364														
366	COMPLETION OF SECTION W3	0 days		Sun 10/2/19	Sun 10/2/19	-42 days	0%	361,365														
367	SECTION W4 PUBLIC TOILET	564 days		Thu 30/6/16	Sun 14/1/18	-14 days	29%															
368	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS														
369	PORTION L	564 days		Thu 30/6/16	Sun 14/1/18	-14 days	29%															
370	POSSESSION OF SITE	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	368														
371	DOCUMENT SUBMISSION	100 days	7 days	Thu 30/6/16	Fri 7/10/16	0 days	100%	370														
372	R.C. STRUCTURE	210 days	10 days	Sat 8/10/16	Fri 5/5/17	-14 days	60%	371														
373	EQUILIZATION TANL	45 days	4 days	Sat 6/5/17	Mon 19/6/17	-8 days	0%	372														
374	SLUDGE HOLDING TANK	45 days	4 days	Tue 20/6/17	Thu 3/8/17	-8 days	0%	373														
375	BIO-TREATMENT FACILITY	60 days	5 days	Fri 4/8/17	Mon 2/10/17	-8 days	0%	374														
376	STEEL HOLLOW SECTION AT ROOF	60 days	5 days	Wed 5/7/17	Sat 2/9/17	22 days	0%	377														
377	INTERNAL FINISHES	60 days	5 days	Sat 6/5/17	Tue 4/7/17	-14 days	0%	372														
378	E&M. WORKS AND PD INSTALLATION	96 days	7 days	Wed 5/7/17	Sun 8/10/17	-14 days	0%	377														
379	EXTERNAL FINISHES AND SURROUNDING AREA	98 days	7 days	Mon 9/10/17	Sun 14/1/18	-14 days	0%	378,376,375														
380	COMPLETION OF PORTION L	0 days		Sun 14/1/18	Sun 14/1/18	-14 days	0%	379														
381	COMPLETION OF SECTION W4	0 days		Sun 14/1/18	Sun 14/1/18	-14 days	0%	380														
382	SECTION W5 (SS 0.0 - 270)	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	23%															
383	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	2SS														
384	APPLICATION OF EXCAVATION PERMIT	180 days	0 day	Thu 30/6/16	Mon 28/12/16	0 days	100%	2SS														
385	PORTION M (BRIDGE E)	1097 days		Thu 30/6/16	Mon 1/7/19	0 days	15%															
386	POSSESSION OF SITE	0 days		Thu 30/6/16	Thu 30/6/16	0 days	100%	383SS														
387	INITIAL SURVEY	28 days	2 days	Thu 30/6/16	Wed 27/7/16	0 days	100%	386SS														
388	TREE SURVEY	28 days	2 days	Thu 30/6/16	Wed 27/7/16	0 days	100%	386SS														
389	TREE FELLING/TRANSPLANTING AND SITE CLEARANCE	60 days	5 days	Thu 28/7/16	Sun 25/9/16	672 days	40%	388														
390	PREPARATION TDMP FOR PRE-DRILLING WORKS	45 days	4 days	Thu 30/6/16	Sat 13/8/16	0 days	100%	386SS														
391	APPROVAL OF TDMP BY SUPERVISOR/DSD	14 days	2 days	Sun 14/8/16	Sat 27/8/16	0 days	100%	390														
392	STARTING DATE OF 1ST DRY SEASON	0 days		Tue 1/11/16	Tue 1/11/16	0 days	100%	391														
393	TEMPORARY DRAINAGE WORKS	30 days	4 days	Tue 1/11/16	Wed 30/11/16	0 days	100%	392,387,389SS+10 days														
394	PRE-DRILLING WORKS FOR PILES AT GRID 2	7 days	4 days	Thu 1/12/16	Wed 7/12/16	0 days	100%	393														
395	PRE-DRILLING WORKS FOR PILES AT GRID 3	7 days	4 days	Sun 15/1/17	Sat 21/1/17	0 days	100%	394,384														
396	PRE-DRILLING WORKS FOR PILES AT GRID 1	7 days	4 days	Wed 1/3/17	Tue 7/3/17	0 days	100%	395														
397	REMOVAL OF TEMPORARY DRAINAGE WORK	24 days	2 days	Wed 8/3/17	Fri 31/3/17	0 days	100%	395FS+7 days														
398	END DATE OF 1ST DRY SEASON	0 days		Fri 31/3/17	Fri 31/3/17	92 days	0%	397														
399	PREPARATION OF TDMP FOR PILING WORKS	120 days	7 days	Mon 10/4/17	Mon 7/8/17	35 days	40%	398,396														
400	PROCURE AND DELIVERY OF BEARINGS AND MOVEMENT JOINTS	360 days	30 days	Sat 1/4/17	Mon 28/3/18	219 days	0%	397														
401	APPROVAL OF TDMP BY SUPERVISOR/DSD	50 days	2 days	Tue 8/8/17	Tue 28/8/17	35 days	0%	399														
402	STARTING DATE OF 2ND DRY SEASON	0 days		Wed 1/11/17	Wed 1/11/17	0 days	0%	401														
403	TEMPORARY DRAINAGE WORKS (2ND DRY SEASON)	21 days	2 days	Wed 1/11/17	Tue 21/11/17	0 days	0%	402														
404	PILING WORKS AT GRID 2	45 days	4 days	Wed 22/11/17	Fri 5/1/18	0 days	0%	403														
405	PILE CAP AT GRID 2	30 days	3 days	Sat 6/1/18	Sun 4/2/18	0 days	0%	404														
406	PIER CONSTRUCTION AT GRID 2	45 days	4 days	Mon 5/2/18	Wed 21/3/18	0 days	0%	405														
407	PILING WORKS AT GRID 3	45 days	4 days	Sat 6/1/18	Mon 19/2/18	0 days	0%	404														
408	PILE CAP AT GRID 3	30 days	3 days	Tue 20/2/18	Wed 21/3/18	0 days	0%	407														
409	REMOVAL OF TEMPORARY DRAINAGE WORK	10 days	2 days	Thu 22/3/18	Sat 31/3/18	0 days	0%	408,406														
410	END DATE OF 2ND DRY SEASON	0 days		Sat 31/3/18	Sat 31/3/18	0 days	0%	409														
411	PILING WORKS AT GRID 1 WITH ALL PILE LOAD TESTING	100 days	7 days	Thu 22/3/18	Fri 29/6/18	0 days	0%	408														
412	PILE CAP AT GRID 1	30 days	3 days	Sat 30/6/18	Sun 29/7/18	0 days	0%	411														
413	ABUTMENT AT GRID 1	94 days	7 days	Mon 30/7/18	Wed 31/10/18	0 days	0%	412,389														
414	STARTING DATE OF 3RD DRY SEASON	0 days		Thu 1/11/18	Thu 1/11/18	0 days	0%	413,410FS+214 days														
415	BRIDGE DECK CONSTRUCTION WITH TEMPORARY DRAINAGE WORKS	141 days	10 days	Thu 1/11/18	Thu 21/3/19	0 days	0%	414,400														
416	ABUTMENT AND MOVEMENT JOINT AT GRID 3	45 days	4 days	Thu 1/11/18	Sat 15/12/18	96 days	0%	415SS														
417	REMOVAL OF TEMPORARY DRAINAGE WORK	10 days	2 days	Fri 22/3/19	Sun 31/3/19	0 days	0%	415														



Task: [Solid Bar] Summary: [Hatched Bar] External Milestone: [Diamond] Inactive Summary: [Dotted Bar] Manual Summary Rollup: [Arrow] Finish-only: [Thick Bar] Progress: [Thin Bar]

Split: [Dotted Bar] Project Summary: [Hatched Bar] Inactive Task: [Dotted Bar] Manual Task: [Solid Bar] Manual Summary: [Hatched Bar] Critical: [Thick Bar] Deadline: [Dotted Bar]

Milestone: [Diamond] External Tasks: [Hatched Bar] Inactive Milestone: [Diamond] Duration-only: [Dotted Bar] Start-only: [Arrow] Critical Split: [Thick Bar]

REMARK: ALL SUNDAYS AND HOLIDAYS ARE INCLUDED IN THIS PROGRAMME

ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors	2016 2017 2018 2019 2020											
									M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M											
477	ACCESS DATES AND COMPLETION DATES FOR CONTRACTS	1332 days		Tue 7/3/17	Wed 28/10/20	0 days	0%		[Gantt bar from 7/3/17 to 28/10/20]											
478	SECTION W8A	90 days		Sun 30/12/18	Sat 30/3/19	0 days	0%		[Gantt bar from 30/12/18 to 30/3/19]											
479	ACCESS DATE	0 days		Sun 30/12/18	Sun 30/12/18	0 days	0%	4	[Milestone diamond at 30/12/18]											
480	COMPLETION DATE	0 days		Sat 30/3/19	Sat 30/3/19	0 days	0%	479FS+90 days	[Milestone diamond at 30/3/19]											
481	SECTION W8B	120 days		Mon 1/7/19	Tue 29/10/19	0 days	0%		[Gantt bar from 1/7/19 to 29/10/19]											
482	ACCESS DATE	0 days		Mon 1/7/19	Mon 1/7/19	0 days	0%	10	[Milestone diamond at 1/7/19]											
483	COMPLETION DATE	0 days		Tue 29/10/19	Tue 29/10/19	0 days	0%	482FS+120 days	[Milestone diamond at 29/10/19]											
484	SECTION W8C	30 days		Sun 30/12/18	Tue 29/1/19	0 days	0%		[Gantt bar from 30/12/18 to 29/1/19]											
485	ACCESS DATE	0 days		Sun 30/12/18	Sun 30/12/18	0 days	0%	18	[Milestone diamond at 30/12/18]											
486	COMPLETION DATE	0 days		Tue 29/1/19	Tue 29/1/19	0 days	0%	485FS+30 days	[Milestone diamond at 29/1/19]											
487	SECTION W8D	30 days		Sun 31/12/17	Tue 30/1/18	0 days	0%		[Gantt bar from 31/12/17 to 30/1/18]											
488	ACCESS DATE	0 days		Sun 31/12/17	Sun 31/12/17	0 days	0%	24	[Milestone diamond at 31/12/17]											
489	COMPLETION DATE	0 days		Tue 30/1/18	Tue 30/1/18	0 days	0%	488FS+30 days	[Milestone diamond at 30/1/18]											
490	SECTION W8E	30 days		Mon 1/7/19	Wed 31/7/19	0 days	0%		[Gantt bar from 1/7/19 to 31/7/19]											
491	ACCESS DATE	0 days		Mon 1/7/19	Mon 1/7/19	0 days	0%	28	[Milestone diamond at 1/7/19]											
492	COMPLETION DATE	0 days		Wed 31/7/19	Wed 31/7/19	0 days	0%	491FS+30 days	[Milestone diamond at 31/7/19]											
493	SECTION W8F	30 days		Thu 31/5/18	Sat 30/6/18	0 days	0%		[Gantt bar from 31/5/18 to 30/6/18]											
494	ACCESS DATE	0 days		Thu 31/5/18	Thu 31/5/18	0 days	0%	32	[Milestone diamond at 31/5/18]											
495	COMPLETION DATE	0 days		Sat 30/6/18	Sat 30/6/18	0 days	0%	494FS+30 days	[Milestone diamond at 30/6/18]											
496	SECTION W8G	820 days		Tue 7/3/17	Tue 4/6/19	0 days	0%		[Gantt bar from 7/3/17 to 4/6/19]											
497	ACCESS DATE	0 days		Tue 7/3/17	Tue 7/3/17	730 days	0%	37	[Milestone diamond at 7/3/17]											
498	COMPLETION DATE	0 days		Tue 4/6/19	Tue 4/6/19	0 days	0%	497FS+90 days	[Milestone diamond at 4/6/19]											
499	SECTION W8A	365 days		Sat 30/3/19	Sun 29/3/20	0 days	0%		[Gantt bar from 30/3/19 to 29/3/20]											
500	ACCESS DATE	0 days		Sat 30/3/19	Sat 30/3/19	0 days	0%	478	[Milestone diamond at 30/3/19]											
501	COMPLETION DATE	0 days		Sun 29/3/20	Sun 29/3/20	0 days	0%	500FS+365 days	[Milestone diamond at 29/3/20]											
502	SECTION W8B	365 days		Tue 29/10/19	Wed 28/10/20	0 days	0%		[Gantt bar from 29/10/19 to 28/10/20]											
503	ACCESS DATE	0 days		Tue 29/10/19	Tue 29/10/19	0 days	0%	481	[Milestone diamond at 29/10/19]											
504	COMPLETION DATE	0 days		Wed 28/10/20	Wed 28/10/20	0 days	0%	503FS+365 days	[Milestone diamond at 28/10/20]											
505	SECTION W8C	365 days		Tue 29/1/19	Wed 29/1/20	0 days	0%		[Gantt bar from 29/1/19 to 29/1/20]											
506	ACCESS DATE	0 days		Tue 29/1/19	Tue 29/1/19	0 days	0%	484	[Milestone diamond at 29/1/19]											
507	COMPLETION DATE	0 days		Wed 29/1/20	Wed 29/1/20	0 days	0%	506FS+365 days	[Milestone diamond at 29/1/20]											
508	SECTION W8D	365 days		Tue 30/1/18	Wed 30/1/19	0 days	0%		[Gantt bar from 30/1/18 to 30/1/19]											
509	ACCESS DATE	0 days		Tue 30/1/18	Tue 30/1/18	0 days	0%	487	[Milestone diamond at 30/1/18]											
510	COMPLETION DATE	0 days		Wed 30/1/19	Wed 30/1/19	0 days	0%	509FS+365 days	[Milestone diamond at 30/1/19]											
511	SECTION W8E	365 days		Wed 31/7/19	Thu 30/7/20	0 days	0%		[Gantt bar from 31/7/19 to 30/7/20]											
512	ACCESS DATE	0 days		Wed 31/7/19	Wed 31/7/19	0 days	0%	490	[Milestone diamond at 31/7/19]											
513	COMPLETION DATE	0 days		Thu 30/7/20	Thu 30/7/20	0 days	0%	512FS+365 days	[Milestone diamond at 30/7/20]											
514	SECTION W8F	365 days		Sat 30/6/18	Sun 30/6/19	0 days	0%		[Gantt bar from 30/6/18 to 30/6/19]											
515	ACCESS DATE	0 days		Sat 30/6/18	Sat 30/6/18	0 days	0%	493	[Milestone diamond at 30/6/18]											
516	COMPLETION DATE	0 days		Sun 30/6/19	Sun 30/6/19	0 days	0%	515FS+365 days	[Milestone diamond at 30/6/19]											
517	SECTION W8G	365 days		Tue 4/6/19	Wed 3/6/20	0 days	0%		[Gantt bar from 4/6/19 to 3/6/20]											
518	ACCESS DATE	0 days		Tue 4/6/19	Tue 4/6/19	0 days	0%	496	[Milestone diamond at 4/6/19]											
519	COMPLETION DATE	0 days		Wed 3/6/20	Wed 3/6/20	0 days	0%	518FS+365 days	[Milestone diamond at 3/6/20]											
520																				
521	PLANNED WORK PROGRAMME	1689 days		Thu 30/6/16	Fri 12/2/21	0 days	0%		[Gantt bar from 30/6/16 to 12/2/21]											
522	SECTION W8A	1134 days		Thu 30/6/16	Wed 7/8/19	0 days	0%		[Gantt bar from 30/6/16 to 7/8/19]											
523	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1044 days	0%	2SS	[Milestone diamond at 30/6/16]											
524	LANDSCAPING SOFTWORKS	90 days	7 days	Fri 10/5/19	Wed 7/8/19	0 days	0%	157,523	[Gantt bar from 10/5/19 to 7/8/19]											
525	COMPLETION OF SECTION W8A	0 days		Wed 7/8/19	Wed 7/8/19	0 days	0%	524	[Milestone diamond at 7/8/19]											
526	SECTION W8B	1324 days		Thu 30/6/16	Thu 13/2/20	0 days	0%		[Gantt bar from 30/6/16 to 13/2/20]											
527	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1204 days	0%	2SS	[Milestone diamond at 30/6/16]											
528	LANDSCAPING SOFTWORKS	120 days	10 days	Thu 17/10/19	Thu 13/2/20	0 days	0%	527,331	[Gantt bar from 17/10/19 to 13/2/20]											
529	COMPLETION OF SECTION W8B	0 days		Thu 13/2/20	Thu 13/2/20	0 days	0%	528	[Milestone diamond at 13/2/20]											
530	SECTION W8C	1046 days		Thu 30/6/16	Sat 11/5/19	0 days	0%		[Gantt bar from 30/6/16 to 11/5/19]											
531	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	956 days	0%	2SS	[Milestone diamond at 30/6/16]											
532	LANDSCAPING SOFTWORKS	90 days	7 days	Mon 11/2/19	Sat 11/5/19	0 days	0%	366,531	[Gantt bar from 11/2/19 to 11/5/19]											
533	COMPLETION OF SECTION W8C	0 days		Sat 11/5/19	Sat 11/5/19	0 days	0%	532	[Milestone diamond at 11/5/19]											
534	SECTION W8D	694 days		Thu 30/6/16	Tue 13/2/18	0 days	0%		[Gantt bar from 30/6/16 to 13/2/18]											
535	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	564 days	0%	2SS	[Milestone diamond at 30/6/16]											
536	LANDSCAPING SOFTWORKS	30 days	3 days	Mon 15/1/18	Tue 13/2/18	0 days	0%	381,535	[Gantt bar from 15/1/18 to 13/2/18]											
537	COMPLETION OF SECTION W8D	0 days		Tue 13/2/18	Tue 13/2/18	0 days	0%	536	[Milestone diamond at 13/2/18]											

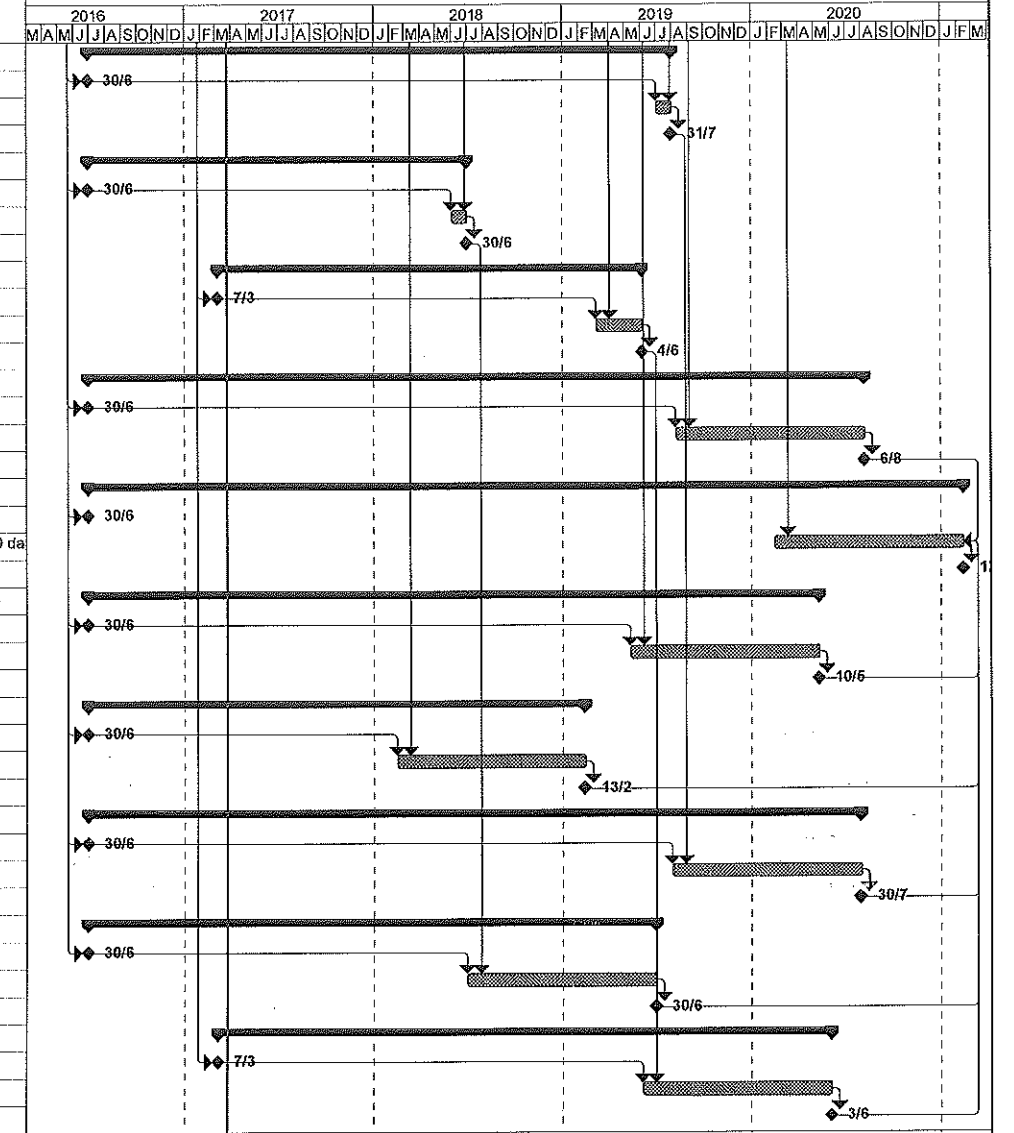
Task: [Solid bar] Summary: [Dotted bar] External Milestone: [Diamond] Inactive Summary: [Dashed bar] Manual Summary Rollup: [Arrow] Finish-only: [Thin bar] Progress: [Thick bar]

Split: [Dotted bar] Project Summary: [Dotted bar] Inactive Task: [Dashed bar] Manual Task: [Dashed bar] Manual Summary: [Dotted bar] Critical: [Thick bar] Deadline: [Dotted bar]

Milestone: [Diamond] External Tasks: [Dotted bar] Inactive Milestone: [Dashed diamond] Duration-only: [Dotted bar] Start-only: [Arrow] Critical Split: [Thick bar]

REMARK: ALL SUNDAYS AND HOLIDAYS ARE INCLUDED IN THIS PROGRAMME

ID	Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	Float	% Complete	Predecessors
538	SECTION W8E	1127 days		Thu 30/6/16	Wed 31/7/19	0 days	0%	
539	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1097 days	0%	2SS
540	LANDSCAPING SOFTWARES	30 days	3 days	Tue 2/7/19	Wed 31/7/19	0 days	0%	425,539
541	COMPLETION OF SECTION W8E	0 days		Wed 31/7/19	Wed 31/7/19	0 days	0%	540
542	SECTION W8F	731 days		Thu 30/6/16	Sat 30/6/18	0 days	0%	
543	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	701 days	0%	2SS
544	LANDSCAPING SOFTWARES	30 days	3 days	Fri 1/6/18	Sat 30/6/18	0 days	0%	543,546
545	COMPLETION OF SECTION W8F	0 days		Sat 30/6/18	Sat 30/6/18	0 days	0%	544
546	SECTION W8G	820 days		Tue 7/3/17	Tue 4/6/19	0 days	0%	
547	INSTRUCTION TO EXECISE	0 days		Tue 7/3/17	Tue 7/3/17	730 days	0%	37SS
548	LANDSCAPING SOFTWARES	90 days	7 days	Thu 7/3/19	Tue 4/6/19	0 days	0%	473,547
549	COMPLETION OF SECTION W8G	0 days		Tue 4/6/19	Tue 4/6/19	0 days	0%	548
550	SECTION W9A	1499 days		Thu 30/6/16	Thu 6/8/20	0 days	0%	
551	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1134 days	0%	2SS
552	ESTABLISHMENT WORKS	365 days	30 days	Thu 8/8/19	Thu 6/8/20	0 days	0%	525,551
553	COMPLETION OF SECTION W9A	0 days		Thu 6/8/20	Thu 6/8/20	0 days	0%	552
554	SECTION W9B	1689 days		Thu 30/6/16	Fri 12/2/21	0 days	0%	
555	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1689 days	0%	2SS
556	ESTABLISHMENT WORKS	365 days	30 days	Fri 14/2/20	Fri 12/2/21	0 days	0%	529,553FF+190 days,561FF+278 days,565FF+730 da
557	COMPLETION OF SECTION W9B	0 days		Fri 12/2/21	Fri 12/2/21	0 days	0%	556
558	SECTION W9C	1411 days		Thu 30/6/16	Sun 10/5/20	0 days	0%	
559	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1046 days	0%	2SS
560	ESTABLISHMENT WORKS	365 days	30 days	Sun 12/5/19	Sun 10/5/20	0 days	0%	533,559
561	COMPLETION OF SECTION W9C	0 days		Sun 10/5/20	Sun 10/5/20	0 days	0%	560
562	SECTION W9D	969 days		Thu 30/6/16	Wed 13/2/19	0 days	0%	
563	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	594 days	0%	2SS
564	ESTABLISHMENT WORKS	365 days	30 days	Wed 14/2/18	Wed 13/2/19	0 days	0%	537,563
565	COMPLETION OF SECTION W9D	0 days		Wed 13/2/19	Wed 13/2/19	0 days	0%	564
566	SECTION W9E	1492 days		Thu 30/6/16	Thu 30/7/20	0 days	0%	
567	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	1127 days	0%	2SS
568	ESTABLISHMENT WORKS	365 days	30 days	Thu 1/8/19	Thu 30/7/20	0 days	0%	541,567
569	COMPLETION OF SECTION W9E	0 days		Thu 30/7/20	Thu 30/7/20	0 days	0%	568
570	SECTION W9F	1096 days		Thu 30/6/16	Sun 30/6/19	0 days	0%	
571	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	731 days	0%	2SS
572	ESTABLISHMENT WORKS	365 days	30 days	Sun 1/7/18	Sun 30/6/19	0 days	0%	545,571
573	COMPLETION OF SECTION W9F	0 days		Sun 30/6/19	Sun 30/6/19	0 days	0%	572
574	SECTION W9G	1185 days		Tue 7/3/17	Wed 3/6/20	0 days	0%	
575	LAST DAY FOR INSTRUCTION TO EXECISE	0 days		Tue 7/3/17	Tue 7/3/17	820 days	0%	37SS
576	ESTABLISHMENT WORKS	365 days	30 days	Wed 5/6/19	Wed 3/6/20	0 days	0%	549,575
577	COMPLETION OF SECTION W8A	0 days		Wed 3/6/20	Wed 3/6/20	0 days	0%	576



Task	Summary	External Milestone	Inactive Summary	Manual Summary Rollup	Finish-only	Progress
Split	Project Summary	Inactive Task	Manual Task	Manual Summary	Critical	Deadline
Milestone	External Tasks	Inactive Milestone	Duration-only	Start-only	Critical Split	

REMARK: ALL SUNDAYS AND HOLIDAYS ARE INCLUDED IN THIS PROGRAMME

**APPENDIX B
ACTION AND LIMIT LEVELS FOR
NOISE**

Appendix B - Action and Limit Levels

Table B-1 Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) 70dB(A)/65dB(A)*

Remarks: If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed. *70dB(A) and 65dB(A) for schools during normal teaching periods and school examination periods, respectively.

**APPENDIX C
COPIES OF CALIBRATION
CERTIFICATES**

TEST REPORT

APPLICANT: Cinotech Consultants Limited
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/160917B
Date of Issue:	2016-09-19
Date Received:	2016-09-17
Date Tested:	2016-09-17
Date Completed:	2016-09-19
Next Due Date:	2017-09-18

ATTN: Mr. W.K. Tang

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: 'SVANTEK' Integrating Sound Level Meter
Manufacturer	: SVANTEK
Model No.	: SVAN 955
Serial No.	: 12553
Microphone No.	: 35222
Equipment No.	: N-08-02

Test conditions:

Room Temperature	: 24 degree Celsius
Relative Humidity	: 57%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
Laboratory Manager

TEST REPORT

APPLICANT: Cinotech Consultants Limited
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/161230
Date of Issue:	2017-01-03
Date Received:	2016-12-30
Date Tested:	2016-12-30
Date Completed:	2017-01-03
Next Due Date:	2018-01-02

ATTN: Mr. W. K. Tang

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: 'SVANTEK' Integrating Sound Level Meter
Manufacturer	: SVANTEK
Model No.	: SVAN 955
Serial No.	: 14303
Microphone No.	: 35222
Equipment No.	: N-08-05

Test conditions:

Room Temperature	: 21 degree Celsius
Relative Humidity	: 62 %

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

Remark: 1) This report supersedes the one dated 2012/01/21 with certificate number C/N/120120/1.

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
Laboratory Manager

TEST REPORT

APPLICANT: Cinotech Consultants Limited
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/161216
Date of Issue:	2016-12-19
Date Received:	2016-12-16
Date Tested:	2016-12-16
Date Completed:	2016-12-19
Next Due Date:	2017-12-15

ATTN: Mr. W. K. Tang

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: Sound & Vibration Analyser
Manufacturer	: BSWA
Model No.	: BSWA 801
Serial No.	: 35924
Equipment No.	: N-13-01

Test conditions:

Room Temperature	: 21 degree Celsius
Relative Humidity	: 60 %

Test Specifications:

Performance checking at 94 and 114 dB


Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
Laboratory Manager

TEST REPORT

APPLICANT: Cinotech Consultants Limited
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/160930B
Date of Issue:	2016-10-03
Date Received:	2016-09-30
Date Tested:	2016-09-30
Date Completed:	2016-10-03
Next Due Date:	2017-10-02

ATTN: Mr. W.K. Tang

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24791
Equipment No.	: N-09-04

Test conditions:

Room Temperature	: 25 degree Celsius
Relative Humidity	: 60%

Methodology:


The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**


BATRICK TSE
Laboratory Manager

TEST REPORT

APPLICANT: Cinotech Consultants Limited
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/160930C
Date of Issue:	2016-10-03
Date Received:	2016-09-30
Date Tested:	2016-09-30
Date Completed:	2016-10-03
Next Due Date:	2017-10-02

ATTN: Mr. W.K. Tang

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24780
Equipment No.	: N-09-05

Test conditions:

Room Temperature	: 25 degree Celsius
Relative Humidity	: 60%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Laboratory Manager

**APPENDIX D
ENVIRONMENTAL MONITORING
SCHEDULES**

Agreement No. CE 67/2015 (HY)
Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction
Impact Noise Monitoring Schedule (April 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Apr
2-Apr	3-Apr	4-Apr	5-Apr	6-Apr	7-Apr	8-Apr
				Noise		
9-Apr	10-Apr	11-Apr	12-Apr	13-Apr	14-Apr	15-Apr
			Noise			
16-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	22-Apr
					Noise	
23-Apr	24-Apr	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr
				Noise		
30-Apr						

Noise Monitoring Station

- N1 - HKMLC Wong Chan Sook Ying Memorial School
- N2 - Bethel High School
- N3 - No. 159 Mai Po San Tsuen
- N5 - Dills Corner Garden Block 2
- N6 - Home of Loving Faithfulness
- N7 - Village House in Shek Wu Wai

Agreement No. CE 67/2015 (HY)
Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction
Tentative Impact Noise Monitoring Schedule (May 2017)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-May	2-May	3-May	4-May	5-May	6-May
					Noise	
7-May	8-May	9-May	10-May	11-May	12-May	13-May
					Noise	
14-May	15-May	16-May	17-May	18-May	19-May	20-May
				Noise		
21-May	22-May	23-May	24-May	25-May	26-May	27-May
		Noise				
28-May	29-May	30-May	31-May			

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Noise Monitoring Station

- N1 - HKMLC Wong Chan Sook Ying Memorial School
- N2 - Bethel High School
- N3 - No. 159 Mai Po San Tsuen
- N5 - Dills Corner Garden Block 2
- N6 - Home of Loving Faithfulness
- N7 - Village House in Shek Wu Wai

**APPENDIX E
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATIONS**

Appendix E - Noise Monitoring Results

(0700-1900 hrs on Normal Weekdays)

Location N1 - HKMLC Wong Chan Sook Ying Memorial School							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Apr-17	9:00	Cloudy	61.5	62.8	58.3	62.2	61.5 Measured ≤ Baseline
12-Apr-17	13:00	Cloudy	64.1	66.7	58.5		59.6
21-Apr-17	9:00	Cloudy	61.5	64.2	57.1		61.5 Measured ≤ Baseline
27-Apr-17	9:00	Cloudy	62.6	65.9	58.4		52.0

Location N2 - Bethel High School							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Apr-17	9:45	Cloudy	55.3	56.2	51.4	55.2	38.9
12-Apr-17	13:50	Cloudy	62.7	64.2	57.0		61.8
21-Apr-17	9:10	Cloudy	54.5	56.2	51.4		54.5 Measured ≤ Baseline
27-Apr-17	9:20	Cloudy	61.2	62.9	53.4		59.9

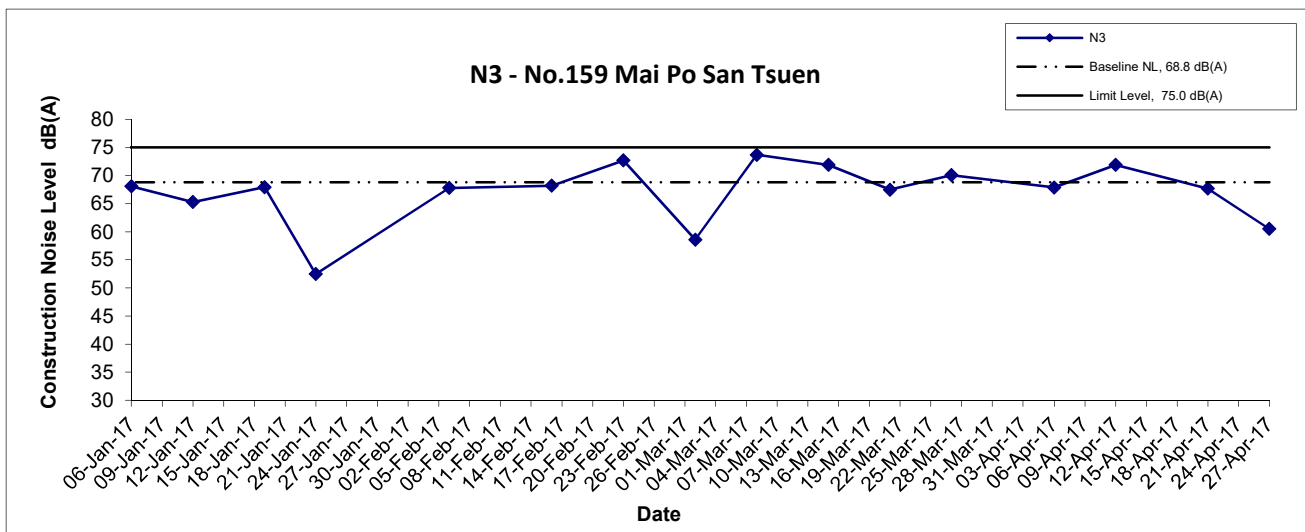
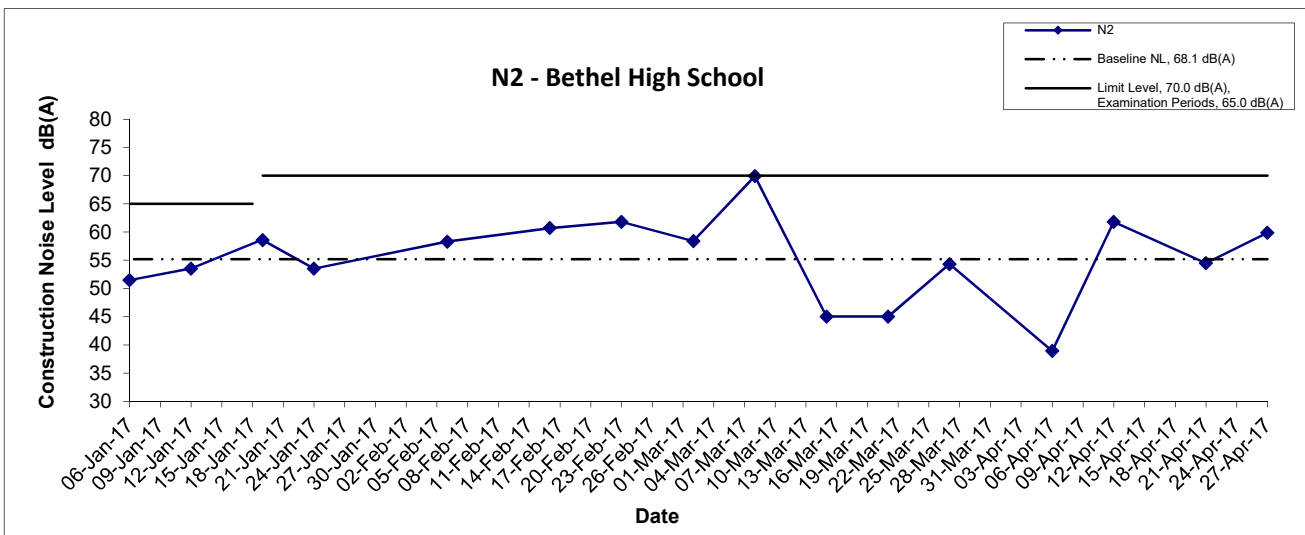
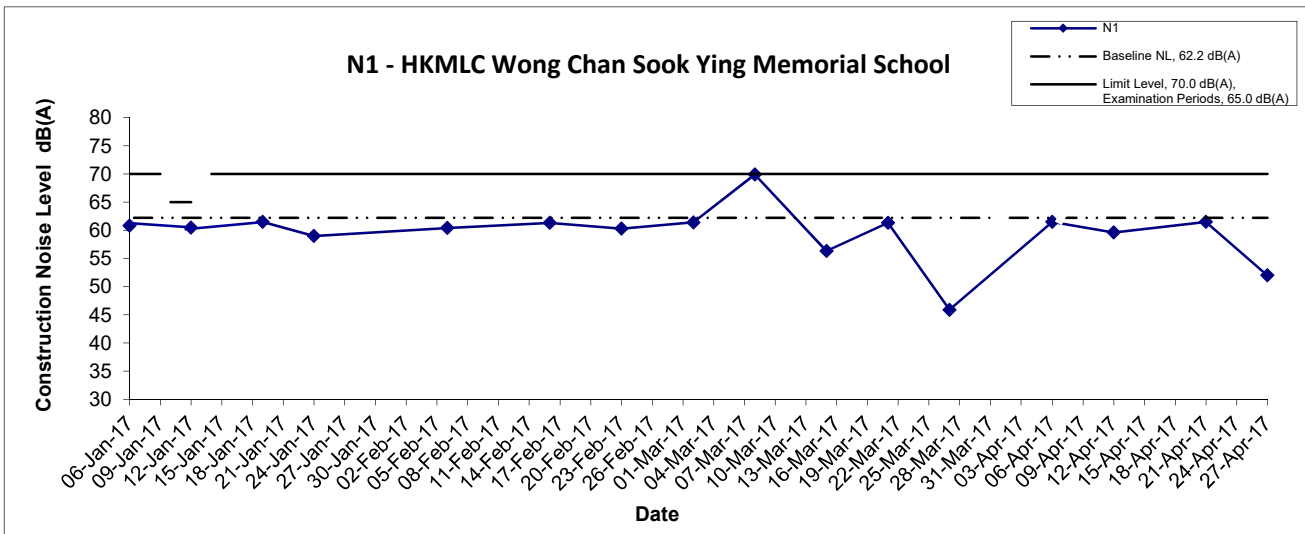
Location N3 - No.159 Mai Po San Tsuen							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Apr-17	10:30	Cloudy	71.4	73.6	67.4	68.8	67.9
12-Apr-17	9:00	Cloudy	73.6	75.2	69.7		71.9
21-Apr-17	9:45	Cloudy	71.3	73.4	67.0		67.7
27-Apr-17	10:00	Cloudy	69.4	71.2	65.4		60.5

Location N5 - Block 2, Dills Corner Garden							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Apr-17	13:00	Cloudy	74.4	75.9	74.0	70.7	72.0
12-Apr-17	15:50	Cloudy	74.8	77.1	67.4		72.7
21-Apr-17	10:00	Cloudy	74.9	76.1	73.8		72.8
27-Apr-17	11:00	Cloudy	73.9	75.6	72.8		71.1

Location N6 - Home of Loving Faithfulness							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Apr-17	13:45	Cloudy	74.0	75.2	68.3	72.0	69.7
12-Apr-17	15:00	Cloudy	74.1	75.7	69.5		69.9
21-Apr-17	11:30	Cloudy	73.3	74.9	68.0		67.4
27-Apr-17	11:25	Cloudy	70.0	71.9	67.1		70.0 Measured ≤ Baseline

Location N7 - Village House in Shek Wui Wai							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
6-Apr-17	11:15	Cloudy	74.2	76.1	67.0	70.7	71.6
12-Apr-17	10:00	Cloudy	74.1	76.8	70.0		71.4
21-Apr-17	11:15	Cloudy	74.1	76.3	67.0		71.4
27-Apr-17	10:20	Cloudy	73.2	74.2	69.4		69.6

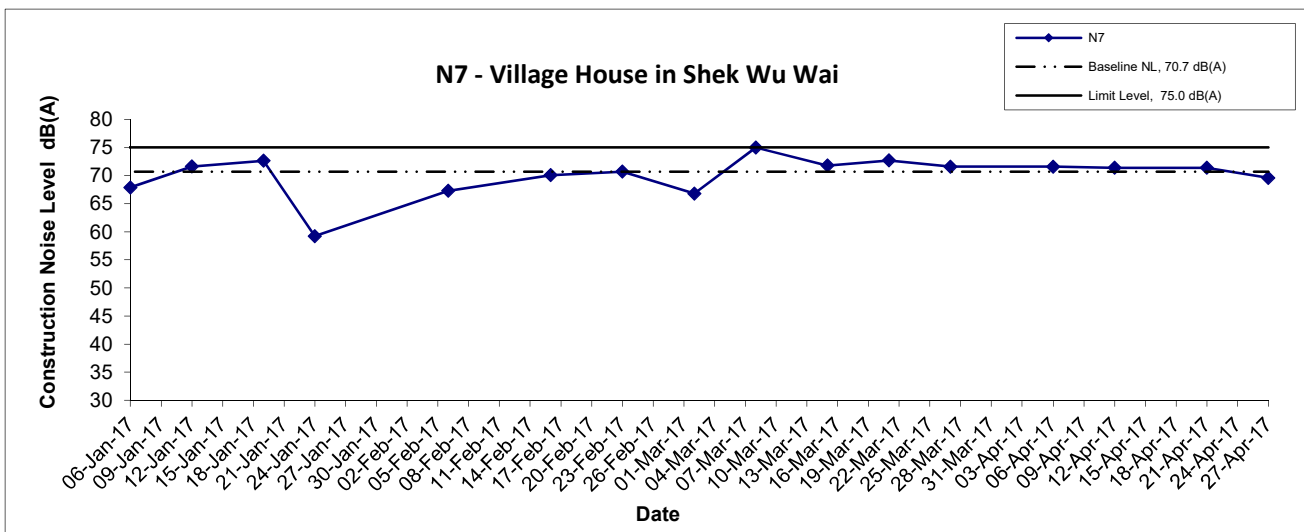
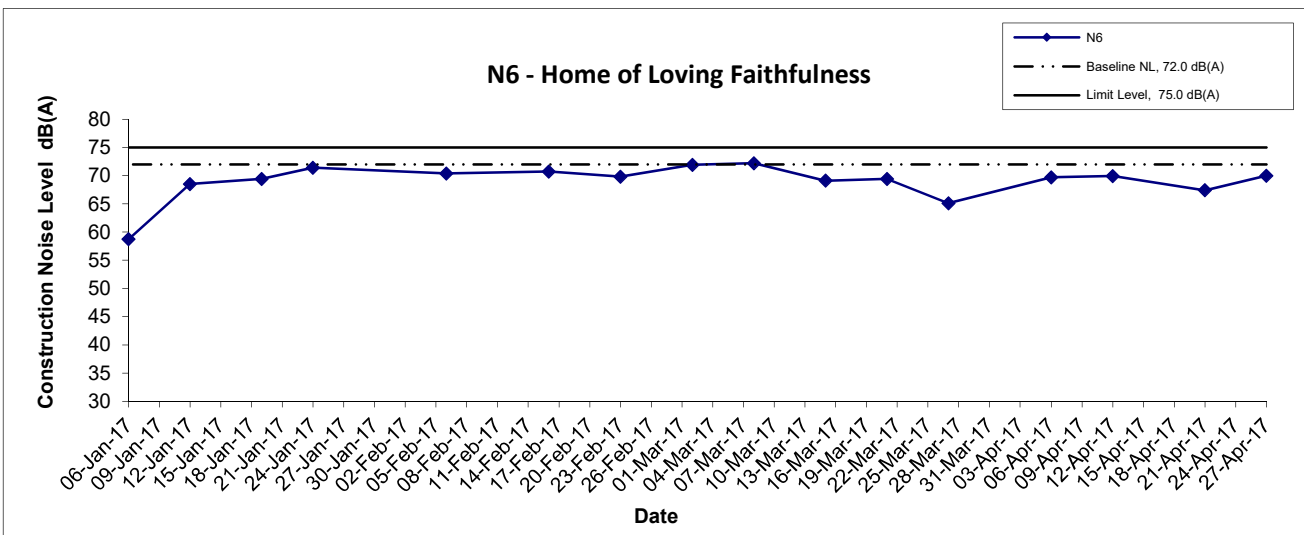
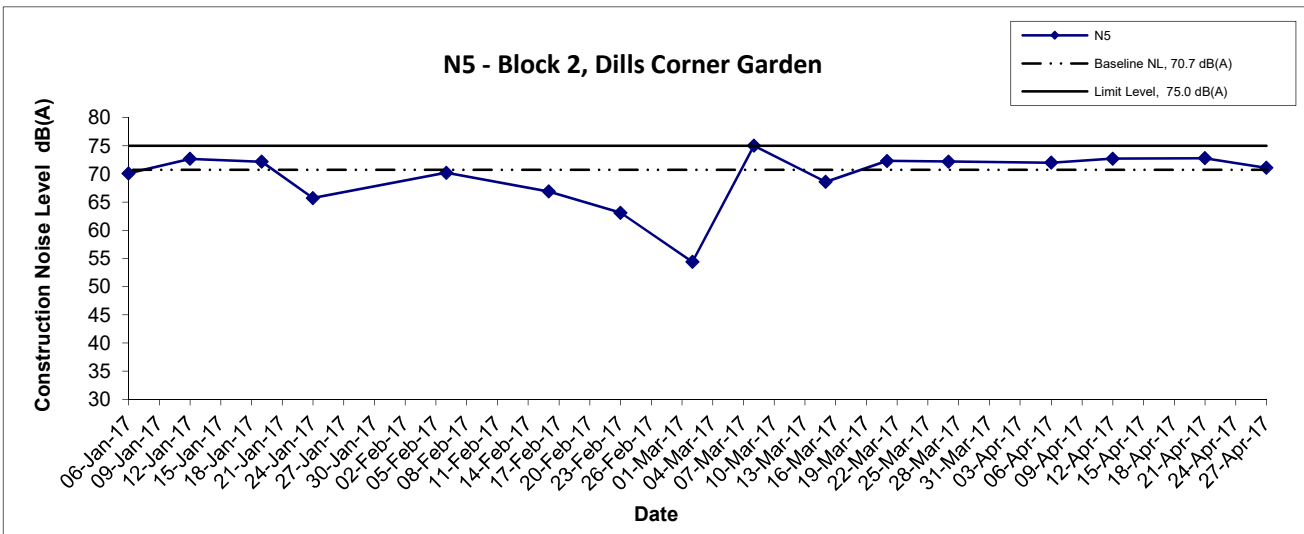
Noise Levels



Title Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction Graphical Presentation of Construction Noise Monitoring Results	Scale	N.T.S	Project No.	MA16036
	Date	Apr 17	Appendix	E

CINOTECH

Noise Levels



Title Agreement No. CE 67/2015 (HY) Cycle Tracks from Tuen Mun to Sheung Shui - Remaining Works - Design and Construction Graphical Presentation of Construction Noise Monitoring Results	Scale	Project No.	CINOTECH
	N.T.S	MA16036	
	Date	Appendix	
	Apr 17	E	

APPENDIX F
SUMMARY OF EXCEEDANCE

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

Appendix F – Summary of Exceedance

Exceedance Report for Contract No. YL/2015/01 – Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

**(A) Exceedance Report for Construction Noise
(NIL in the reporting month)**

APPENDIX G
SITE AUDIT SUMMARY

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

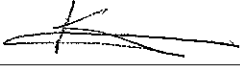
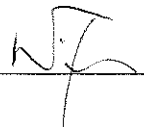
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	170405
Date	5 April 2017 (Wednesday)
Time	09:30-12:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
170405-O01	<p>B. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	C 7
170405-O03	<p>C. Air Quality</p> <ul style="list-style-type: none"> Stockpiles were found exposed at Portion A and Works Area 3, the Contractor should cover stockpiles by impervious sheets for dust suppression. Dust was generated when vehicles moving along the unpaved haul roads at Portion E. The Contractor was reminded to spray water regularly for dust suppression. 	C 5
170405-O02	<p>D. Construction Noise Impact</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>E. Waste / Chemical Management</p> <ul style="list-style-type: none"> Several cans of paints were placed on the public access road at Portion C, chemicals that are not in use should be properly stored in a bunded area. 	E 2
170405-R04	<ul style="list-style-type: none"> The waste oil and chemical tanks at Works Area 3 should be better stored in bunded area or be disposed of properly to maintain the site area clean and tidy. 	E 3i
	<p>F. Ecology and Fisheries</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>G. Landscape & Visual</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>H. Permits/Licences</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>I. Others</p> <ul style="list-style-type: none"> Follow-up on previous audit session (Ref. No.: 170329), items 170329-O01 and 170329-O02, 170329-O03 and 170329-O05 were remarked as 170405-F05, 170405-F06, 170405-O02 and 170405-F08 respectively. Review will be needed during the next audit session. 	

	Name	Signature	Date
Recorded by	Kelvin Koo		5 April 2017
Checked by	Dr. Priscilla Choy		5 April 2017

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

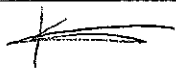
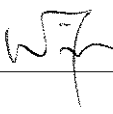
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	170411
Date	11 April 2017 (Tuesday)
Time	14:00-17:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
170411-O02	B. Water Quality <ul style="list-style-type: none">Wheel washing bays in Portion A, C and K should be maintained more frequently.	B 10iii & iv
170411-O01	C. Air Quality <ul style="list-style-type: none">Stockpiles in Portion A should be properly covered with impervious sheets for dust suppression.	C 5
	D. Construction Noise Impact <ul style="list-style-type: none">No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management <ul style="list-style-type: none">General refuse collectors in Portion A should be maintained more frequently.	E 2
170411-O03		E 3
170411-O04		E 8
170411-O05		E 2
170411-O06	<ul style="list-style-type: none">General refuse skips or collectors should be provided in Portion C to collect general refuse at Portion C.	
	F. Ecology and Fisheries <ul style="list-style-type: none">No environmental deficiency was identified during site inspection.	
170411-O07	G. Landscape & Visual <ul style="list-style-type: none">Fencing of tree protection zones in Portion K should be enhanced to protect all existing trees.	D 2
	H. Permits/Licences <ul style="list-style-type: none">No environmental deficiency was identified during site inspection.	
	I. Others <ul style="list-style-type: none">Follow-up on previous audit session (Ref. No.: 170405), items 170405-O01 and 170405-O02, 170405-O03 and 170405-O05 were remarked as 170411-O01, 170411-O02, 170411-O06 and 170411-O05 respectively. Review will be needed during the next audit session.	

	Name	Signature	Date
Recorded by	Kelvin Koo		11 April 2017
Checked by	Dr. Priscilla Choy		11 April 2017

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works


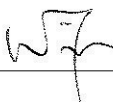
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	170418
Date	18 April 2017 (Tuesday)
Time	09:30-12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
170418-002	<p>B. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>C. Air Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>D. Construction Noise Impact</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>E. Waste / Chemical Management</p> <ul style="list-style-type: none"> Drip trays for chemical containers in Portion C, E and K should be provided and maintained more frequently. 	E 8
170418-001	<p>F. Ecology and Fisheries</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>G. Landscape & Visual</p> <ul style="list-style-type: none"> Construction materials should not be placed within or near tree protection zones in Portion E and K to protect all retained and existing trees. <p>H. Permits/Licences</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>I. Others</p> <ul style="list-style-type: none"> Follow-up on previous audit session (Ref. No.: 170411), items 170411-O01, 170411-O02, 170411-O03, 170411-O04, 170411-O05, 170411-O06 and 170411-O07 were remarked as 170418-F03, 170418-F04, 170418-F05, 170418-F06, 170418-F07 and 170418-O01 respectively. Review will be needed during the next audit session. 	D 2

	Name	Signature	Date
Recorded by	Kelvin Koo		18 April 2017
Checked by	Dr. Priscilla Choy		18 April 2017

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

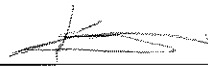
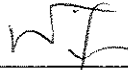
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	170426
Date	26 April 2017 (Wednesday)
Time	09:30-12:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
170426-O06	<p>B. Water Quality</p> <ul style="list-style-type: none"> Exposed muddy slope surfaces in Portion A and K should be covered by well-maintained tarpaulins to prevent muddy and silty slides. 	B 5
170426-O02		
170426-O01	<p>C. Air Quality</p> <ul style="list-style-type: none"> Stockpiles were found exposed in Portion A and Works Area 3, and they should be properly covered with impervious materials for dust suppression. 	C 5
	<p>D. Construction Noise Impact</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
170426-O03	<p>E. Waste / Chemical Management</p> <ul style="list-style-type: none"> Drip trays should be provided for chemical containers in Portion C and E to prevent leakage. 	E 8
170426-O04	<ul style="list-style-type: none"> Accumulation of general refuse was found in Portion C, proper collectors should be provided on site area for collection. 	E 1
	<p>F. Ecology and Fisheries</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
170418-O05	<p>G. Landscape & Visual</p> <ul style="list-style-type: none"> Existing trees in Portion E and Works Area 3 were not properly protected, non-intrusion zones should be set up by providing adequate fencing around the trees. 	D 2
	<p>H. Permits/Licences</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<p>I. Others</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	

	Name	Signature	Date
Recorded by	Kelvin Koo		26 April 2017
Checked by	Dr. Priscilla Choy		26 April 2017

APPENDIX H
EVENT AND ACTION PLANS

Appendix H - Event and Action Plans

Event and Action Plan for Construction Noise

EVENT	ACTION			
	ET LEADER	IEC	ER	CONTRACTOR
Action Level being exceeded	<ol style="list-style-type: none"> 1. Notify IC(E) and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IC(E) and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IC(E); 2. Implement noise mitigation proposals.
Limit Level being exceeded	<ol style="list-style-type: none"> 1. Notify IC(E), ER, EPD and Contractor; 2. Identify source; 3. Repeat measurement to confirm findings 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IC(E), ER and EPD the causes & actions taken for the exceedances; 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. 3. Supervise the implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, consider what portion of the 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposal if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix H - Event and Action Plans

	<p>7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results;</p> <p>8. If exceedance stops, cease additional monitoring</p>		<p>work is responsible and instruct the Contractor to stop that portion of the work until the exceedance is abated.</p>	
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**APPENDIX I
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)**

Appendix I - Summary of Implementation Schedule of Mitigation Measures for Construction Phase

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Construction Air Quality			
S.3.6.2	S.3.2.3	All the dust control measures as recommended in the Air Pollution Control (Construction Dust) Regulation, where applicable, should be implemented. Typical dust control measures include:	^
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● The works area for site clearance shall be sprayed with water before, during and after the operation so as to maintain the entire surface wet 	*
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● Restricting heights from which materials are to be dropped, as far as practicable to minimize the fugitive dust arising from unloading/ loading 	^
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● Immediately before leaving a construction site, all vehicles shall be washed to remove any dusty materials from the bodies and wheels. However, all spraying of materials and surfaces should avoid excessive water usage 	^
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● Where a vehicle leaving a construction site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials will not leak from the vehicle 	^
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● Travelling speeds should be controlled to reduce traffic induced dust dispersion and re-suspension within the site from the operating haul trucks 	^
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● Erection of hoarding of not less than 2.4 m high from ground level along the site boundary, where appropriate 	^
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> ● Any stockpile of dusty materials shall be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides 	*

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.3.6.2	S.3.2.3	<ul style="list-style-type: none"> All dusty materials shall be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet 	^
Construction Noise Impact			
S5.5.11	S4.2.17 (Stage 1 only)	In order to prevent potential cumulative construction noise impacts to NSRs at Mai Po San Tsuen and Palm Springs, the works at the cycle track section (near CH-MP5+100m) are recommended to be scheduled to avoid works at the areas near Castle Peak Road of the Proposed Comprehensive Development at Wo Shang Wai (CDWSW) project if the works site of the CDWSW project is less than 300 m away from Castle Peak Road.	N/A
S.5.5.14	S.4.2.2 (Stage 1 only)	The contractor shall liaise with the Yuen Long and Kam Tin Sewerage and Sewage Disposal Stage 2 (YLKTSSD2) and North West New Territories Salt Water Supply (NWNTSWS) works contractors so as to avoid undertaking works concurrently with the works when they are in the close proximity as far as practicable. As a conservative approach, works for the cycle track shall be carried out when the works from the other projects are over 300 m away. The requirements shall be included in the works contracts.	N/A
N/A	N/A (Stage 2 only)	The contractor shall liaise with Yuen Long and Kam Tin Sewerage and Sewage Disposal (YLKSSD), Construction of Cycle Tracks and the associated Supporting Facilities at Nam Sang Wai, Yuen Long (NSWCT), Drainage Improvement at Northern NT - Package A – Drainage Improvement Works in San Tin (Remaining Works) - Investigation, North East New Territories New Development Areas Planning and Engineering Study (Investigation) (NENTNDA) and the Proposed Residential cum Passive Recreational Development within “Recreation” (“REC”) zone and “Residential (Group C)” Zone at Various Lots in DD 104, Yuen Long, N.T. (RCPRD) contractors so as to avoid undertaking works concurrently with their works (refer to S. 4.2.2 of the EM&A Manual for Stage 2 Works).	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
Table 5-7	S.4.2.19	Use of quiet plant (PME): <ul style="list-style-type: none"> - mini excavator - mobile crane - dump truck - hand-held electric circular saw - concrete lorry mixer - lorry - vibratory poker - asphalt paver - crane mounted auger - road roller - road ripper, excavator mounted 	^
S.5.6.2 Table 5-8	S.4.2.19	Noise barrier in the form of site hoarding shall be used for the following PMEs where practicable: <ul style="list-style-type: none"> - mini excavator - mobile crane - dump truck - hand-held electric circular saw - bar bender - vibrating hammer - generator - concrete lorry mixer - lorry - vibratory poker - asphalt paver - compactor - road roller - crane mounted auger 	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		<ul style="list-style-type: none"> - grout mixer - grout pump - drill - road ripper, excavator mounted 	
S.5.6.2	S.4.2.19	Noise enclosure shall be used for the following PME's where practicable: <ul style="list-style-type: none"> - air compressor - hand-held breaker 	N/A(1)
S.5.6.2	S.4.2.19	The barrier / enclosure material's surface mass shall be in excess of 7 kg/m ² .	^
S.5.6.6	S.4.2.19	Use of alternative quieter plant such as road ripper, excavator mounted instead of handheld breaker during levelling/excavation works.	^
S.5.6.8	S.4.2.19	The Contractor shall adopt the Code of Practice on Good Management Practice to Prevent Violation of the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD	^
S.5.6.8	S.4.2.19	The Contractor shall observe and comply with the statutory and non-statutory requirements and guidelines	^
S.5.6.8	S.4.2.19	Before commencing any work, the Contractor shall submit to the project Engineer for approval the method of working, equipment and noise mitigation measures intended to be used at the site	^
S.5.6.8	S.4.2.19	The Contractor shall devise and execute working methods to minimize the noise impact on the surrounding sensitive uses, and provide experienced personnel with suitable training to ensure that those methods are implemented	^
S.5.6.8	S.4.2.19	Noisy equipment and noisy activities should be located as far away from the NSRs as is practical	^
S.5.6.8	S.4.2.19	Unused equipment should be turned off. PME should be kept to a minimum and the parallel use of noisy equipment / machinery should be avoided	^
S.5.6.8	S.4.2.19	Regular maintenance of all plant and equipment	^
S.5.6.8	S.4.2.19	Material stockpiles and other structures should be effectively utilised as noise barriers, where practicable	N/A

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.5.6.8	S.4.2.19	The Contractor shall liaise with the schools that are located near the works sites regarding their examination period and schedule the noisy works to avoid the examination period as far as possible	^
Construction Water Quality			
S.6.6.1	S.5.2.4	Mitigation measures should be implemented to prevent the uncontrolled discharge of wastewater from the construction site in accordance with Practice Note for Professional Persons ProPECC PN1/94 - Construction Site Drainage	^
S.6.6.1	S.5.2.4	Surface run-off from the construction sites will be directed into storm drains via adequately designed wastewater treatment facilities such as sand traps, silt traps and sediment settling basins. This is important for works immediately along the Kam Tin River, Ngau Tam Mei Main Drainage Channel, River Beas and Shek Sheung River	^
S.6.6.1	S.5.2.4	Channels, earth bunds or sand bag barriers will be provided on-site to properly direct stormwater to the above-mentioned facilities	^
S.6.6.1	S.5.2.4	Existing silt removal facilities, channels and manholes along roads and pedestrian walkways will be maintained and the deposited silt and grit will be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times	^
S.6.6.1	S.5.2.4	Other manholes (including any newly constructed ones) will be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system	^
S.6.6.1	S.5.2.4	Open stockpiles of materials on site will be avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system	^
S.6.6.1	S.5.2.4	Where possible, works entailing soil excavation will be minimized during the rainy season (i.e. April to September);	^
S.6.6.1	S.5.2.4	Where applicable, final earthworks surfaces/ slopes will be well compacted and	N/A

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		hydro-seeded following completion to prevent erosion	
S.6.6.1	S.5.2.4	During construction works, chemical toilets will be provided for the use of site staff. These will be provided by a licensed contractor, who will be responsible for appropriate disposal and maintenance of the effluent	^
S.6.6.1	S.5.2.4	Works adjacent to the fishponds near Mai Po San Tsuen should be avoided as far as possible during the wet season to avoid runoff into the fishponds	^
S.6.6.1	S.5.2.4	Wastewater from site facilities (such as toilets) should be discharged to foul sewer, where available. Chemical toilets will be considered where there is no foul sewer connection. There is not expected to be a temporary canteen.	^
S.6.6.1	S.5.2.4	All site discharges within Water Control Zones must comply with the terms and conditions of a valid discharge licence issued by EPD	^
S.6.6.1	S.5.2.4	Vehicle wheel washing facilities should be provided, where applicable, at the site exit such that mud, debris, etc. deposited onto the vehicle wheels or body can be washed off before the vehicles are leaving the site area	*
S.6.6.1	S.5.2.4	Section of the road between the wheel washing bay and the public road should be paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains	^
S.6.6.1	S.5.2.4	The project may occasionally involve the handling of fuel and generates chemical wastes. It must be ensured that all fuel tanks and chemical storage are sited on sealed areas and provided with locks	^
S.6.6.1	S.5.2.4	The storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent accidentally spilled oil, fuel or chemicals from reaching the receiving waters	^
S.6.6.1	S.5.2.4	Oil and grease removal facilities will be provided where appropriate, for example, in area near plant workshop/ maintenance areas	N/A
S.6.6.1	S.5.2.4	Chemical waste arising from the site should be properly stored, handled, treated and disposed of in compliance with the requirements stipulated under the Waste Disposal (Chemical Waste) (General) Regulation	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
-	S.5.2.7 (Stage 1 only)	The construction work of cycle bridge at Shek Sheung River is not recommended to be carried out during wet seasons (April to October), and the dry weather flow will be diverted to avoid entering the works area. In order to further protect the river water quality from disturbance, the construction work especially excavation works, will be surrounded by cofferdams to ensure the works will be carried out in a dry condition to prevent water pollution to the river.	^
N/A	S.5.2.4 (Stage 2 only)	Stream decking is recommended to be carried out during dry weather condition. To prevent disturbance to the river water quality, measures will be taken to ensure the works to be carry out in a dry condition to prevent water pollution to the river, such as sandbag barriers.	^
N/A	S.5.2.6 (Stage 2 only)	Based on the current available information, the tentative programmes of some construction works for the Agreement No. CE 57/2011 (DS) Drainage Improvement at Northern NT - Package A Drainage Improvement Works in San Tin (Remaining Works) - Investigation (DIST) and the Construction of Cycle Tracks and the associated Supporting Facilities at Nam Sang Wai, Yuen Long (NSWCT) projects may overlap with Stage 2 cycle track construction works. It is recommended that the Contractor should liaise with the project contractor(s) of the DIST and the NSWCT projects to schedule the construction works and allow programme phrasing to avoid major concurrent activities to be undertaken simultaneously in the vicinity.	^
Construction Waste Management			
S.7.4.1	S.6.2.1 – S.6.2.4	An on-site environmental co-ordinator employed by the Contractor should be identified at the outset of the works. Prior to commencement of Project works, the co-ordinator shall prepare a WMP in accordance with the requirements set out in the ETWB TCW No. 19/2005, Waste Management on Construction Sites, for the ER’s approval. The WMP shall include monthly and yearly Waste Flow Tables (“WFT”) that indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and which should be regularly updated;	^
S.7.4.1	S.6.2.6	Given the potential for secondary environmental impacts (dust, noise, water quality	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		and visual impacts), mitigation measures are required to ensure proper handling, storage, transportation and disposal of materials at the outset and throughout the construction phase of the project	
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● The reuse/ recycling of all materials on site shall be investigated and exhausted prior to treatment/ disposal off-site 	^
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● Good site practices shall be adopted from the commencement of works to avoid the generation of waste, reduce cross contamination of waste and to promote waste minimisation 	^
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● All waste materials shall be sorted on-site into inert and non-inert C&D materials, and where the materials can be recycled or reused, they shall be further segregated. Inert material, or public fill will comprise stone, rock, masonry, brick, concrete and soil which is suitable for land reclamation and site formation whilst non-inert materials include all other wastes generated from the construction process such as plastic packaging and vegetation (from site clearance) 	^
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● The Contractor shall be responsible for identifying what materials can be recycled/ reused, whether on-site or off-site. In the event of the latter, the Contractor shall make arrangements for the collection of the recyclable materials. Any remaining non-inert waste shall be collected and disposed of to the Public Filling Areas whilst any inert C&D materials shall be re-used on site as far as possible. Alternatively, if no use of the inert material can be found onsite, the materials can be delivered to a Public Fill Area or Public Fill Bank after obtaining the appropriate licence 	^
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills, and control fly-tipping, a trip-ticket system shall be implemented by the Contractor, in accordance with the contract and the requirements of DEVB Technical Circular (Works) No. 6/2010 “Trip Ticket System for Disposal of Construction and Demolition Material”. 	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● Under the Waste Disposal (Chemical Waste) (General) Regulation, the Contractor shall register as a Chemical Waste Producer if chemical wastes such as spent lubricants and paints are generated on site. Only licensed chemical waste collectors shall be employed to collect any chemical waste generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD; 	*
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● A sufficient number of covered bins shall be provided on site for the containment of general refuse to prevent visual impacts and nuisance to the sensitive surroundings. These bins shall be cleared daily and the collected waste disposed of to the refuse transfer station. Further to the issue of ETWB Technical Circular (Works) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness, the Contractor is required to maintain a clean and hygienic site throughout the project works; 	*
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● All chemical toilets, if any, shall be regularly cleaned and the night-soil collected and transported by a licensed contractor to a Government Sewage Treatment Works facility for disposal; and 	^
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● Toolbox talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling. 	^
S.7.4.1	S.6.2.6	<ul style="list-style-type: none"> ● The Contractor shall comply with all relevant statutory requirements and guidelines and their updated versions that may be issued during the course of project construction. 	^
Land Contamination			
S.8.7.2 – S.8.7.3	S.7.2.2	Preparation of Contamination Assessment Plan (CAP), which should be submitted to EPD for endorsement, prior to investigation.	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		Site investigation and sampling works in accordance with the approved CAP. If contamination is identified, Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) shall be prepared and submitted for EPD's approval.	
S.8.7.5	S.7.3.1	<p>The following control measures should be implemented when handling identified contaminated materials:</p> <ul style="list-style-type: none"> ▪ General site safety shall be enforced to include basic practices such as the use of safety boots, hard hats, coveralls, gloves and eye protection; ▪ Avoid skin contact, ingestion and inhalation of excavated contaminated soils. Basic personal protective equipment should be used; ▪ Site staff and workers shall be given adequate training and instructions specific to the potential hazards, their health and safety responsibilities and safe working practice including basic personal hygiene; ▪ Measures shall be implemented to prevent non-workers from approaching the identified works areas in order to avoid exposure to contaminants. 	N/A
S.8.7.5	S.7.3.1	<p><u>Management of Contaminated Soils</u></p> <ul style="list-style-type: none"> ▪ Where appropriate, the use of bulk handling equipment should be maximised to reduce the potential contacts between excavated contaminated materials and associated workers; ▪ The plants for excavation and transportation of the material shall be cleaned prior to leaving the Site; ▪ All temporary stockpiles of the materials shall be completely covered with plastic/ tarpaulin sheets, particularly during heavy rainstorms. The stockpiling areas should be concrete-paved or lined with its perimeter constructed of a concrete bund where appropriate in order to avoid any leachate from migrating out of the area; ▪ Any vehicles transporting the material shall be suitably covered to limit potential dust emissions; ▪ Surface waters shall be diverted around any contaminated areas or stockpiles to minimize potential runoff into excavations, as runoff might increase the volume of 	N/A

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		contaminated water requiring disposal and suspended solids in the wastewater stream	
Ecological & Fisheries Impact			
S.9.11.4	S.8.2.2	Prior to tree felling, survey inspections should be made for their suitability for roosting bats. Once these trees have been highlighted, then appropriate checks of each tree for bats should be made prior to removal as a precautionary measure.	^
S.9.11.7	S.8.2.3 (Stage 1 only)	<i>In situ</i> compensation planting at the Information Kiosk and R9 should occur to provide continuing function of the bamboo and plantation (see Figure 8-1 of EM&A Manual for Stage 1 Works (Year 2015)). It is recommended that the Information Kiosk and Resting Station R9 should be designed sympathetically to the natural surroundings. Compensation planting along the Sheung Yue River and Shek Sheung River including at R9 and Information Kiosk could be implemented as appropriate.	N/A
S.9.11.17 – S.9.11.19	S.8.2.4 (Stage 1) S.8.2.3 (Stage 2)	For the Kam Tin section and the Long Valley section of the Project, construction works shall not be carried out during the wet season (April to October) which is considered to have no significant impact to wildlife and to avoid the breeding season of Greater Painted-snipes at Long Valley. This is also to prevent any site run-off to adjacent water channels and fishponds including those fishponds along San Tin Tsuen Road.	^
S.9.11.23	S.8.2.4 (Stage 2 only)	Construction of the section in the vicinity of Mai Po Village SSSI shall be undertaken beyond the recognised breeding seasons for ardeids in Hong Kong to prevent any potential disturbance to the nesting birds, i.e., from September to February.	^
-	S.8.2.5 (Stage 1 only)	In order to avoid any adverse impact to the healthiness of the bamboo grove from dust-coating on leave next to the R9 and hence affect the breeding habitat of the very rare Dark Brown Ace, a dust barrier should be installed between the bamboo and the construct site.	N/A
-	S.8.2.6 (Stage 1 only)	For the lower Shek Sheung River, construction works should be scheduled in dry season to minimize the disturbance to the foraging ardeids and the Quiet PME shall	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		be implemented practicable to minimize the noise disturbance to the foraging ardeids.	
S.10.5.4	S.8.2.7 (Stage 1) S.8.2.5 (Stage 2)	To prevent any negative impact to water quality as a result of site run-off, good site practice must be employed at all times, particularly in the areas close to fishponds. Practice Note for Professional Persons ProPECC PN1/94 – Construction Site Drainage shall be implemented.	^
S.10.5.4	S.8.2.8 (Stage 1) S.8.2.6 (Stage 2)	Along Pok Wai South Road, once the final construction sequencing is known, liaison with local residents and aquaculturists should be implemented in order to minimise temporary road blockages and to identify the best timing for works along this area.	N/A
S.10.5.3	S.8.2.9 (Stage 1) S.8.2.7 (Stage 2)	During wet seasons, surface run-off from the construction sites will need to be directed into storm drains via adequately designed wastewater treatment facilities such as sand traps, silt traps, oil interceptors and sediment settling basins. Works adjacent to the fishponds near NTMDC inside the Wetland Conservation Area (WCA) and Mai Po San Tsuen should be avoided, as far as practicable, during the wet season to avoid runoff into the fishponds.	^
-	S.8.2.10 (Stage 1 only)	The use of signage at the Resting Stations to indicate that wildlife may be present and that noise levels and activities should be kept to a minimum could be implemented. This may help to reduce any potential disturbance to wildlife from human activity. At Long Valley, to mitigate against potential indirect human disturbance to Greater Painted-snipe, planting could be undertaken as appropriate along the proposed cycle track at meander 8 to act as screening.	N/A
S.9.11.27	S.8.2.11 (Stage 1) S.8.2.9 (Stage 2)	The following good work practices are recommended: <ul style="list-style-type: none"> ▪ Avoid soil storage against trees; ▪ Fence off any potentially ecologically sensitive areas; ▪ Delineation of works area to prevent encroachment onto adjacent habitats; ▪ Reinstatement of habitat after works; ▪ No on-site burning of waste; 	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		<ul style="list-style-type: none"> ▪ Waste and refuse in appropriate receptacles; ▪ Staff training/toolbox talks for site work near Long Valley and WCA – important areas for birds therefore staff should reduce amount of noise whilst working and during breaks where possible; ▪ Regular ecological checks; and ▪ Silt/ Sediment/ Oil traps for drainage to prevent site run-off 	
Cultural Heritage Impact			
S.11.5.1	S.9.2.1	Care should be taken during the construction stage to report any signs of possible discovery of artefacts.	N/A
Landscape and Visual			
<i>Detailed Design Phase</i>			
Table 12-11	CP1	A detailed tree survey to be carried out by the IDC Consultant during the detailed design stage. The recommendations of the preliminary tree survey shall be reviewed and confirmed during the detailed survey. Should tree felling be required, tree felling application is required in accordance with DEVB Technical Circular (Works) No. 10/2013 Tree Preservation	^
S.12.9.3	CP6	It has been agreed that the proposed landscape areas under DSD's 4215DS project which falls within the cycle track works area will be implemented by Project proponent of this Project in form of roadside amenity areas after completion of the cycle track. During the detailed design, the works programme of this Project shall be coordinated with the above-mentioned DSD project in order to avoid abortive planting works and impact on landscape resources between the interface of different public works. The proposed landscape areas under 4215DS fallen within the cycle track works area shall be incorporated in the final landscape design of this Project.	^
S.12.10.1	OP1	The Design Concept Drawings and Conceptual Landscape Master Plan of cycle track and associated facilities demonstrate landscape and visual mitigation strategies and design measures including integrated design approach, amenity and compensatory	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		planting proposals and treatment of retaining structure and slopes have been recommended in the EIA. More detailed landscape and compensatory planting proposals shall be developed by IDC consultants at later stage during detailed design and construction phase of this project following the completion of the detailed Tree Survey Report and approval from relevant departments at that stage	
<i>Construction Phase</i>			
Table 12-11	CP1.1	To retain trees, which have high amenity or ecology value and contribute most to the landscape and visual amenity of the site and its immediate environs.	^
	CP1.2	Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.	*
	CP1.3	Prohibition of the storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the precautionary area.	^
	CP1.4	Phased segmental root pruning for trees to be retained and transplanted over a suitable period (determined by species and size) prior to lifting or site formation works which affect the existing rootball of trees identified for retention. The extent of the pruning will be based on the size and the species of the tree in each case.	^
	CP1.5	Pruning of the branches of existing trees identified for transplantation and retention to be based on the principle of crown thinning maintaining their form and amenity value.	^
	CP1.6	The watering of existing vegetation particularly during periods of excavation when the water table beneath the existing vegetation is lowered.	^
	CP1.7	The rectification and repair of damaged vegetation following the construction phase to its original condition prior to the commencement of the works or replacement using specimens of the same species, size and form where appropriate to the design intention of the area affected	N/A
	CP1.8	All works affecting the trees identified for retention and transplantation will be carefully monitored. This includes the key stages in the preparation of the trees, the	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		implementation of protection measures and health monitoring throughout the construction period	
	CP1.9	Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for approval under the lease conditions and in accordance with ETWB TCW No. 2/2004 and WB Technical Circular No. 14/2002.	N/A
	CP2.0	The tree preservation works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection specification would be included within the contract documents.	^
	CP2.1	Topsoil disturbed during the construction phase should be tested using a standard soil testing methodology and where it is found to be worthy of retention stored for re-use.	^
	CP2.2	The soil will be stockpiled to a maximum height of 2m and will be either temporarily vegetated with hydroseeded grass during construction or covered with a waterproof covering to prevent erosion.	^
	CP2.3	The stockpile should be turned over on a regular basis to avoid acidification and the degradation of the organic material, and reused after completion. Alternatively, if this is not practicable, it should be considered for use elsewhere, including other projects.	^
	CP3.1	Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.	N/A
	CP3.2	Construction site controls should be enforced including the storage of materials, the location and appearance of site accommodation and the careful design of site lighting to prevent light spillage.	^
	CP3.3	Screen the works area during the construction phase through the use of decorative hoarding along the site boundary facing adjacent VSRs	^
	CP4.1	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase	^
	CP4.2	Use of native plant species predominantly in the planting design for the buffer areas.	^
	CP4.3	The tree planting works should be implemented by approved Landscape Contractors	^

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		and inspected and approved on site by a qualified Landscape Architect. A tree planting specification would be included within the contract documents	
	CP5.1	The tree transplanting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection / transplanting specification would be included within the contract documents.	^
	CP5.2	The implementation program should reserve enough time for advance tree transplanting preparation.	^

Remarks:	EM&A Manual for Stage 1 Works under EP-450/2013/A (App No.: VEP-478/2015) EM&A Manual for Stage 2 Works under EP-501/2015 (App No.: AEP-501/2015)	
	^ Compliance of mitigation measure;	X Non-compliance of mitigation measure;
	N/A Not Applicable at this stage; N/A(1) Not observed;	• Non-compliance but rectified by the contractor;
	* Recommendation was made during site audit but improved/rectified by the contractor.	

**APPENDIX J
SUMMARIES OF ENVIRONMENTAL
COMPLAINT, WARNING, SUMMON
AND NOTIFIATION OF SUCCESSFUL
PROSECUTION**

Agreement No. CE 67/2015 (HY)

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works – Design and Construction

Appendix J – Summary of environmental complaint, warning, summon and notification of successful prosecution

Reporting Month: April 2017

Contract No. YL/2015/01

Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

Log Ref.	Location	Received Date	Details of Complaint/warning/summon and prosecution	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A

Remarks: No environmental complaint/warning/summon and prosecution were received in the reporting period.

**APPENDIX K
SUMMARY OF WASTE GENERATION
AND DISPOSAL RECORDS**

Sang Hing – Kuly Joint Venture
Environmental Management Plan for Contract No. YL/2015/01
Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

Name of Department: CEDD

Contract No.: YL/2015/01

Monthly Summary Waste Flow Table for 2017 (Year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of 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 '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.04	-	-	-	0.04	0.124	0.05	0.05	0.05	-	0.06
Feb	0.02	-	-	-	0.02	-	0.05	0.05	0.05	-	0.01
Mar	1.15	-	-	-	1.15	0.369	0.05	0.05	0.05	-	0.02
Apr	0.65	-	-	-	0.65	-	0.05	0.05	0.05	-	0.02
May	-	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-	-
Sub-total	1.86	-	-	-	1.86	0.493	0.2	0.2	0.2	-	0.11
July	-	-	-	-	-	-	-	-	-	-	-
Aug	-	-	-	-	-	-	-	-	-	-	-
Sept	-	-	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-	-	-
Total	1.86	-	-	-	1.86	0.493	0.2	0.2	0.2	-	0.11

*Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Sang Hing – Kuly Joint Venture
Environmental Management Plan for Contract No. YL/2015/01
Cycle Tracks from Tuen Mun to Sheung Shui – Remaining Works

Forecast of Total Quantities of C&D Materials to be Generated from the Contract*										
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 '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
5	2	1	1	1	10	3	3	1	1	3

*Remark: Figure to be revised if necessary

Notes:

- (1) The performance targets are given in ETWB Technical Circular PS Clause 6(14).
- (2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
- (4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m³. (ETWB Technical Circular PS Clause 5(4)(b) refers).
 [Delete Note (4) and the table above on the forecast, where inapplicable].