# Civil Engineering and Development Department

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

Quarterly EM&A Report (Version 1.0)

February 2018 to April 2018

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.

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#### **EXECUTIVE SUMMARY**

#### Introduction

- 1. This is the 6<sup>th</sup> Quarterly 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 between 1<sup>st</sup> February 2018 and 30<sup>th</sup> April 2018.
- 2. The construction programme is presented in **Appendix A**. The construction activities undertaken in the reporting quarter were:

Portion A – Construction of Cycle Track, Construction of Retaining Wall;

Portion B –Construction of Subway A;

Portion C – Construction of Retaining Wall and Resting Station;

Portion D – Construction of Retaining Wall, Construction of Stream Decking, Utilities Diversion Works, Construction of pedestrian ramp;

Portion E – Construction of Retaining Wall, Construction of Box Culvert, Road works for Realignment, Drainage Works and Earthworks, Construction of Utilities Works;

Portion F – Construction of Utilities Works, Construction of Retaining wall, Construction of Drainage Pipe, Soil Treatment for RAP, Construction of Resting Station at Man Tin Cheung Park:

Portion G – Abutment Construction, Construction of Box Culvert C;

Portion H – Construction of Retaining Wall;

Portion I – Construction of Subway D;

Portion J – Construction of Retaining Wall, Construction of Utilities Works, Construction of Stream Decking;

Portion K – Construction of Retaining Wall, Construction of Drainage Pipe;

Portion L – Construction of Public Toilet;

Portion M – Construction of Pile Cap, Loading Test for pile, Plate Load Test for Retaining Wall, Pile Cap & Column at Grid;

Portion N – Utilities Diversion Works, Pre-Drilling Works for Piles, Pile Works;

Portion P – Construction of Drainage Works, Construction of Cycle Track and Planting; and Work Area 4 (Shui Fu Road) – Decontamination of soil

#### **Environmental Monitoring Works**

- 3. Environmental monitoring for the Project was 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 quarter for the Project is tabulated in Table I

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

Quarterly EM&A Report – February 2018 to April 2018

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

Parameter	No. of Exce	Action	
Parameter	Action Level	Limit Level	Taken
February 2018			
Noise	0	0	N/A
March 2018			
Noise	0	0	N/A
April 2018			
Noise	0	0	N/A

5. No exceedance was recorded at any air quality or noise monitoring station during the reporting period.

#### **Environmental Licenses 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)
  - Chemical Waste Producer (No.:WPN5213-524-K3261-01)
  - Effluent Discharge Licenses
    - WT00027672-2017
    - WT00027661-2017
    - WT00027606-2017
    - WT00027510-2017
    - WT00027509-2017
    - WT00027603-2017
    - WT00027508-2017
    - WT00027582-2017
    - WT00027584-2017
    - WT00027431-2017 - WT00027605-2017
    - WT00027607-2017
    - WT00027834-2017
    - WT00027748-2017
    - WT00027850-2017
    - WT00030236-2018
  - Construction Noise Permit (CNP) (No. GW-RN0702-17) (Expired at 21/1/2018)
  - Construction Noise Permit (CNP) (No. GW-RN0852-17) (Expired at 31/3/2018)

# **Key Information in the Reporting Quarter**

7. Summary of key information in the reporting quarter is tabulated in Table II.

Table II Summary Table for Key Information in the Reporting Quarter

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	

8. Environmental monitoring works for the Project are considered effective and is generating data to categorically identify the environmental impacts from the works and influencing factors in the vicinity of monitoring stations.

#### 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 is shown in **Figure 1a-1h** 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 23<sup>rd</sup> November 2016. This is the 6<sup>th</sup> Quarterly EM&A Report summarizing the EM&A works for the Project from 1<sup>st</sup> February 2018 30<sup>th</sup> April 2018.

# **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 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
G: Env	Environmental Team	Dr. Priscilla Choy	2151 2089	3107 1388
Cinotech		Ms. Ivy Tam	2151 2090	
ANewR	Independent Environmental Checker	Mr. Adi Lee	2618 2836	3007 8648
SKJV	Contractor	Mr. Ma Kin Man	9552 1734	2890 8205

# 2. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

2.1 The monitoring locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters designed for the routine impact monitoring were complied with the requirements stipulated under the EM&A Manual.

#### **Monitoring Parameters and Monitoring Locations**

2.2 The EM&A Manual designates locations for the ET to monitor environmental impacts in terms of air quality, noise, landscape and visual due to the Project. The Project area and monitoring locations are depicted in **Figures 2a-2c**. **Appendix B** gives details of monitoring requirements.

# **Monitoring Methodology**

2.3 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manual. Copies of calibration certificates are attached in the appendices of the Monthly EM&A Reports.

#### **Environmental Quality Performance Limits (Action and Limit Levels)**

2.4 Should the environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix C**.

# **Implementation Status of Environmental Mitigation Measures**

2.5 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and EM&A Manual. The implementation status of environmental mitigation measures (EMIS) is given in **Appendix E**. Status of required submissions under the Environmental Permit (EP) of the reporting period is presented in **Table 2.1**.

Table 2.1 Status of Required Submissions under EP

EP Condition	Submission	Submission Date
	Monthly Environmental Monitoring & Audit Report (February 2018)	13 March 2018
3.5	Monthly Environmental Monitoring & Audit Report (March 2018)	12 April 2018
	Monthly Environmental Monitoring & Audit Report (April 2018)	11 May 2018

# **Site Audit Summary**

2.6 Site audits were carried out on a weekly basis. During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made during the reporting period are summarized in **Appendix F**.

## **Status of Waste Management**

2.7 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix G**.

# 3. MONITORING RESULTS AND NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

3.1 Environmental monitoring works were performed in the reporting period and all monitoring results were checked and reviewed. A summary of exceedances is attached in **Appendix H**.

#### **Weather Conditions**

3.2 The detail of weather conditions for each individual monitoring session was presented in monthly EM&A report.

#### **Air Quality**

3.3 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.

#### **Construction Noise**

- 3.4 All construction noise monitoring was conducted as scheduled in the reporting period. No Action and Limit Level exceedance was recorded.
- 3.5 The graphical presentations of the noise monitoring results are shown in **Appendix D**.

#### Landscape and Visual

3.6 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures of this project. No non-compliance of the landscape and visual impact was recorded in the reporting quarter.

## **Influencing Factors on the Monitoring Results**

3.7 During the reporting period, the major noise sources identified at the designated monitoring stations are as follows:

3.8

Table 3.1 Major Noise Sources during the Monitoring in the Reporting Period

<b>Monitoring Stations</b>	Locations	Major 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

# Comparison of EM&A results with EIA predictions

- 3.9 According to Section 12.5.1 (viii) of the EM&A Manual, the EM&A data are compared with the EIA predictions and summarized in **Annex I**.
- 3.10 When comparing the noise monitoring results to the predicted mitigated construction noise levels in the EIA Report, the results in the reporting months at monitoring station N2, N3, N5 and N6 were lower than the range of predicted mitigated construction noise levels in the EIA Report.
- 3.11 The results at N1 were lower than the range of predicted mitigated construction noise levels in the EIA Report in April, but slightly higher than the range in February and March.

#### 4. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

# Review of the Reasons for and the Implications of Non-compliance

4.1 No Action/Limit Level exceedance was recorded at all noise monitoring stations in the reporting quarter.

# Review of Monitoring Methodology and the Practicality and Effectiveness of EM&A Programme

4.2 The EM&A methodology has been effective in monitoring the environmental impacts of the Project and the effectiveness of the mitigation measures. The data collected were useful in determining whether the Project had caused unacceptable impacts on the sensitive receivers. Analysis of all EM&A data collected throughout the baseline and the impact periods demonstrated the environmental acceptability of the Project.

#### **Effectiveness of Mitigation Measures**

- 4.3 The mitigation measures recommended in the EIA report are considered effective in minimizing environmental impacts.
- 4.4 The Contractor has implemented the recommended mitigation measures except those mitigation measures not applicable at this stage.
- 4.5 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed. No non-compliance (exceedances) of Action/Limit Level was recorded.
- 4.6 No environmental complaints and environmental prosecution were received in the reporting quarter.
- 4.7 The effectiveness of environmental management is satisfactory given that the recommendations given in the site inspections performed in the reporting period (as shown in **Appendix F**) are met.

#### Recommendations

4.8 According to the environmental audits performed in the reporting quarter, the following recommendations were made:

#### Air Quality

- Water spraying should be provided frequently to unpaved and exposed area, and haul roads for dust suppression.
- Proper tarpaulin coverage should be provided to all stockpiles in the Site to prevent dust generation.

#### 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.
- Embankment or dikes should be established at the site boundary to direct any untreated wastewater from the Site to wastewater treatment facility during rain events to perform water treatment before discharge.
- Standing or ponding water within the Site should be cleared as far as practicable.

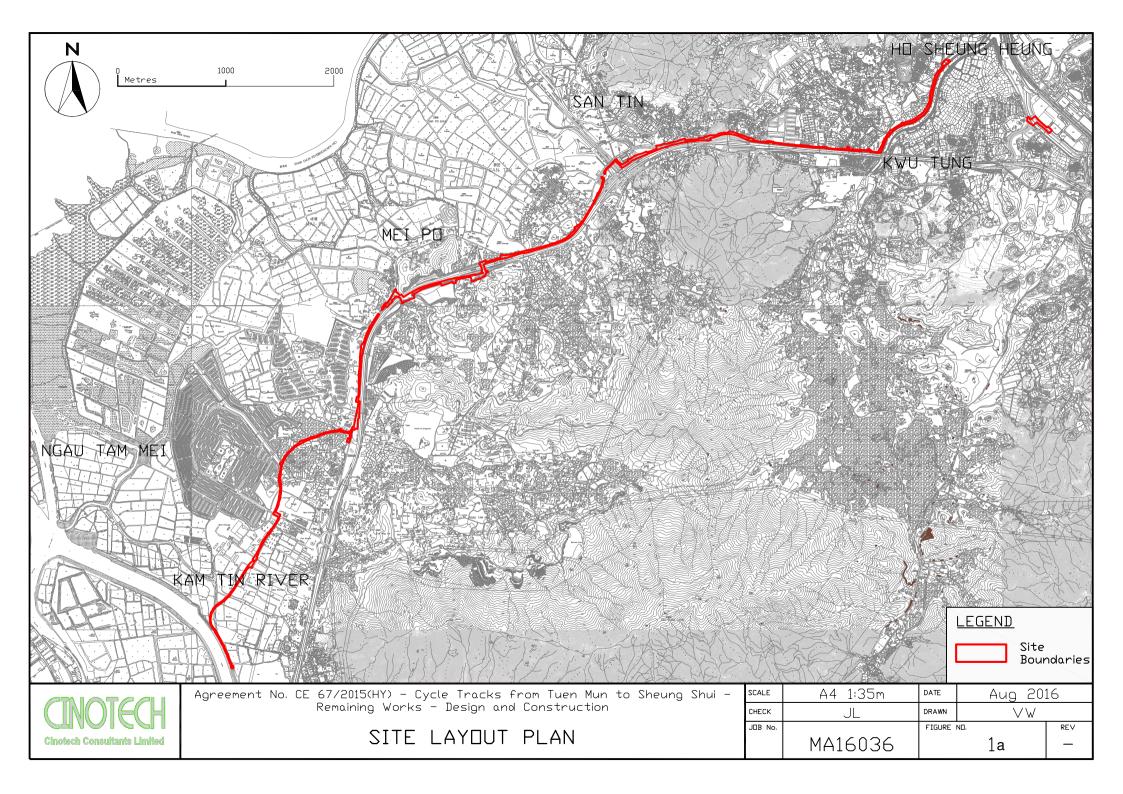
#### Waste/Chemical Management

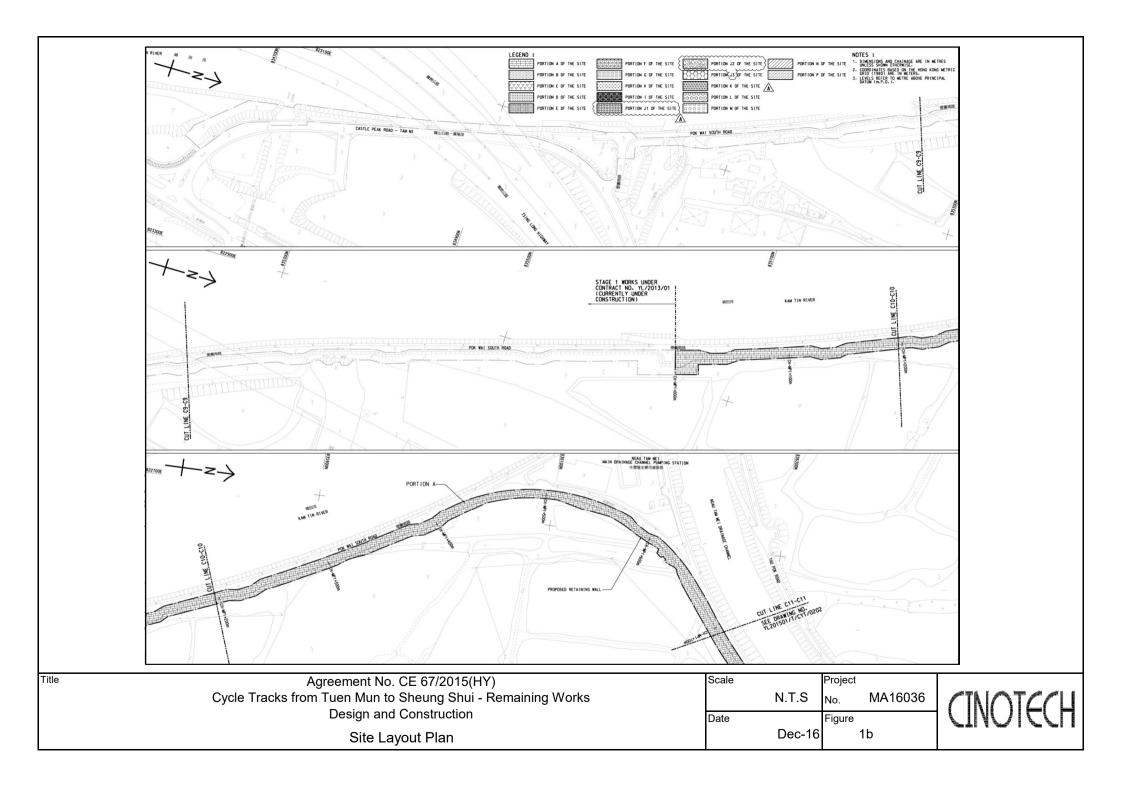
- General refuse should be removed regularly to prevent accumulation on-site.
   Proper enclosed bin should be provided with maintenance for collection of general refuse from workforce.
- Drip tray should be provided to oil/chemical containers and generator to avoid oil leakage. Any oil stain observed on ground should be properly removed as chemical waste.

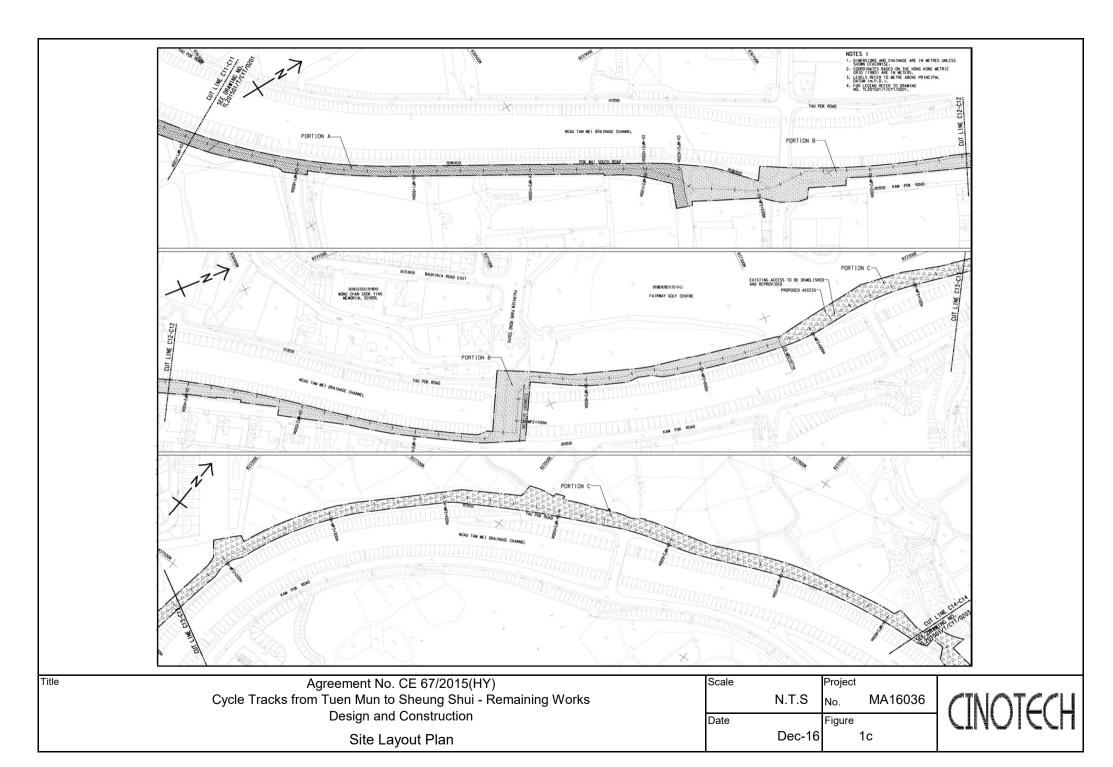
#### Landscape and Visual

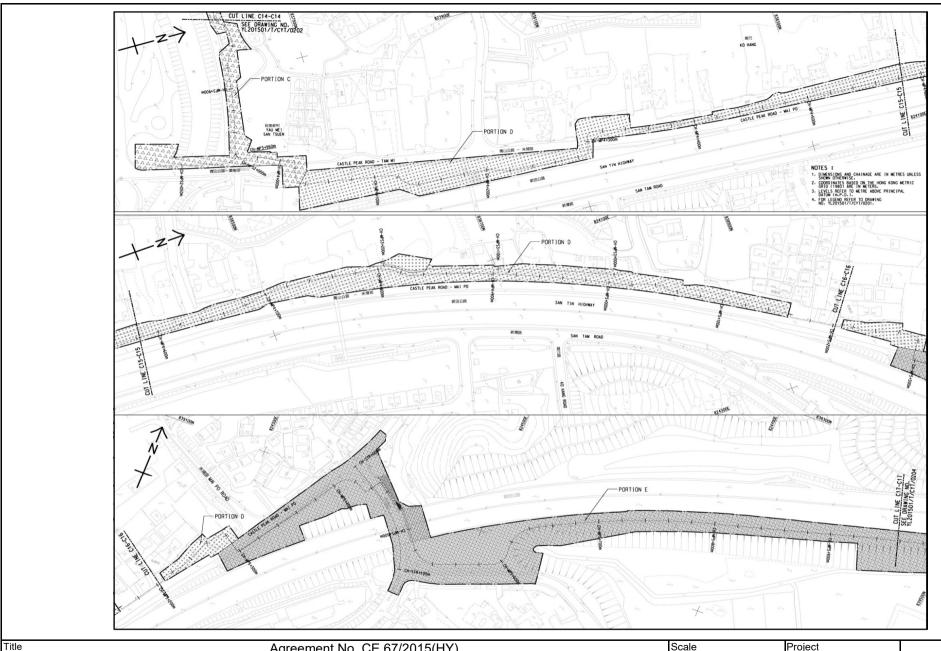
• Adequate tree protection zones should be established to protect retained and existing trees. Conspicuous signs of status of trees should be clearly shown to avoid damage from PMEs or workers.

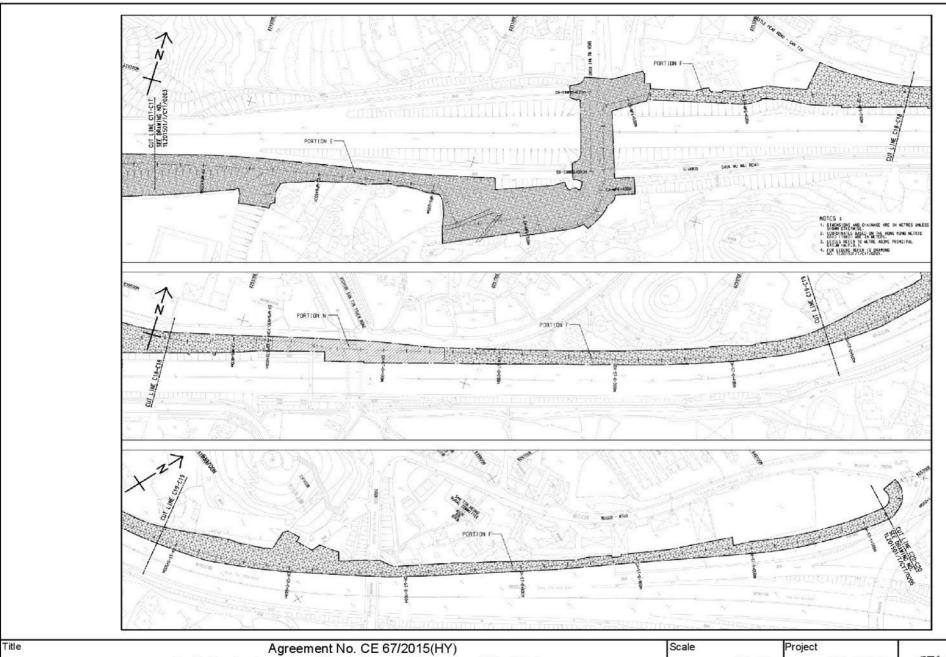
# **FIGURES**





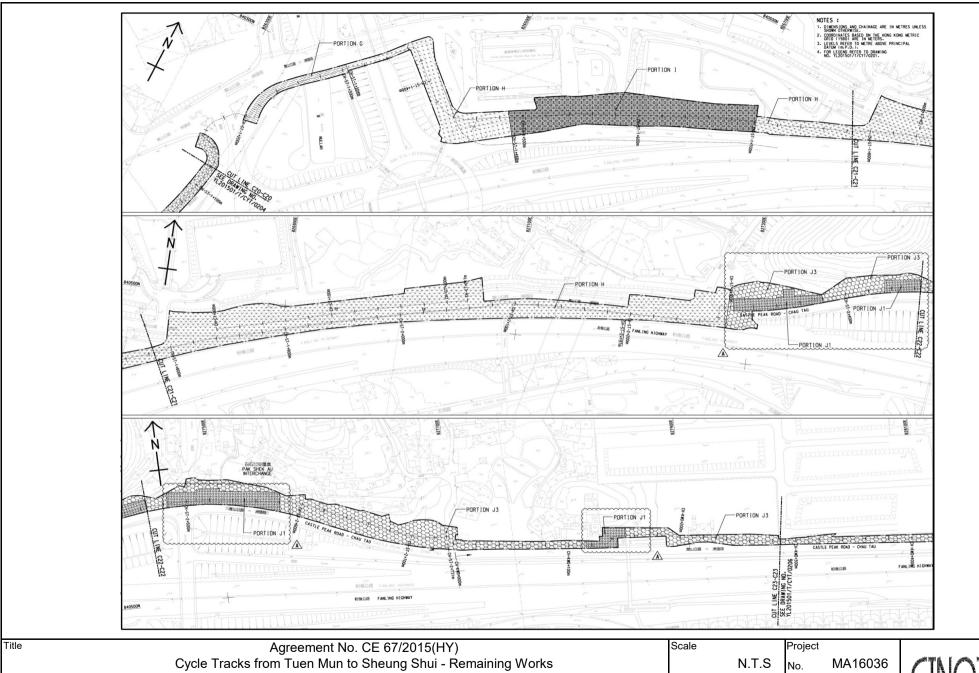






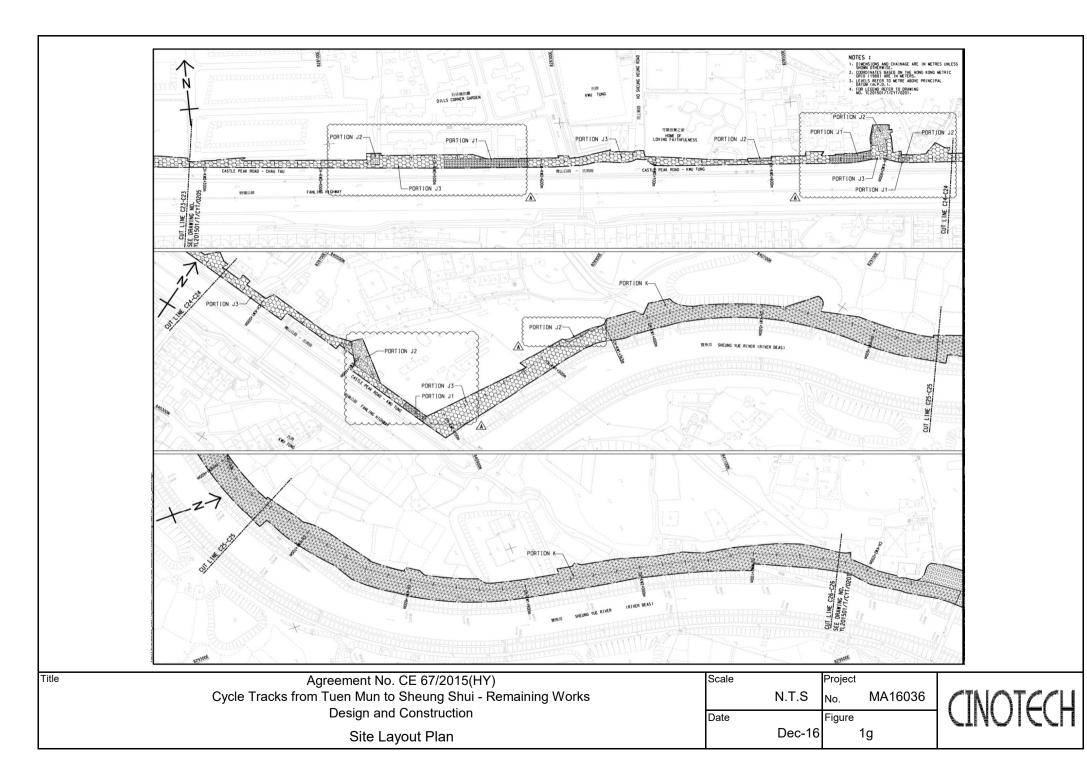
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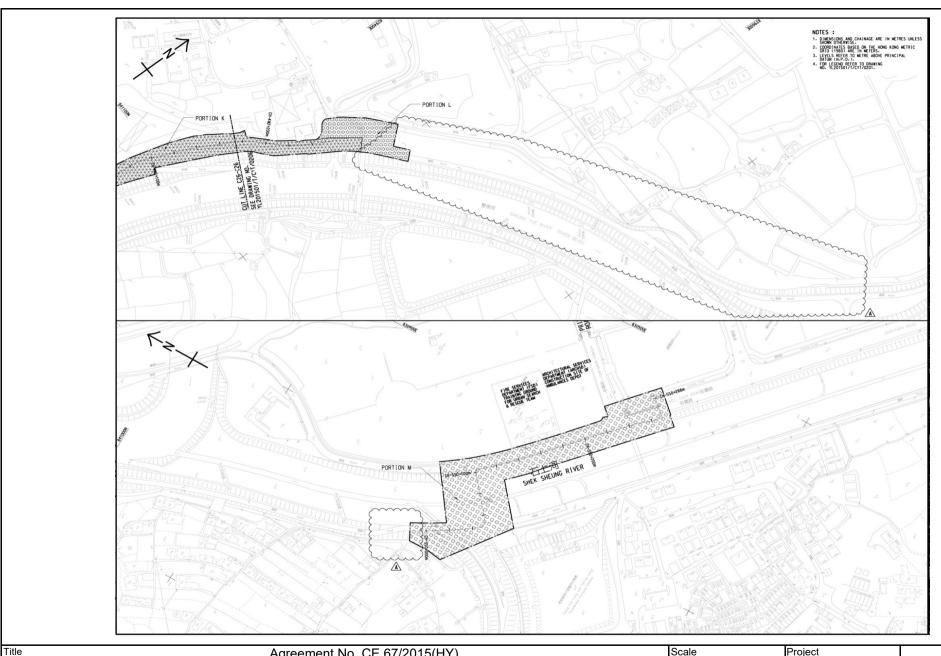
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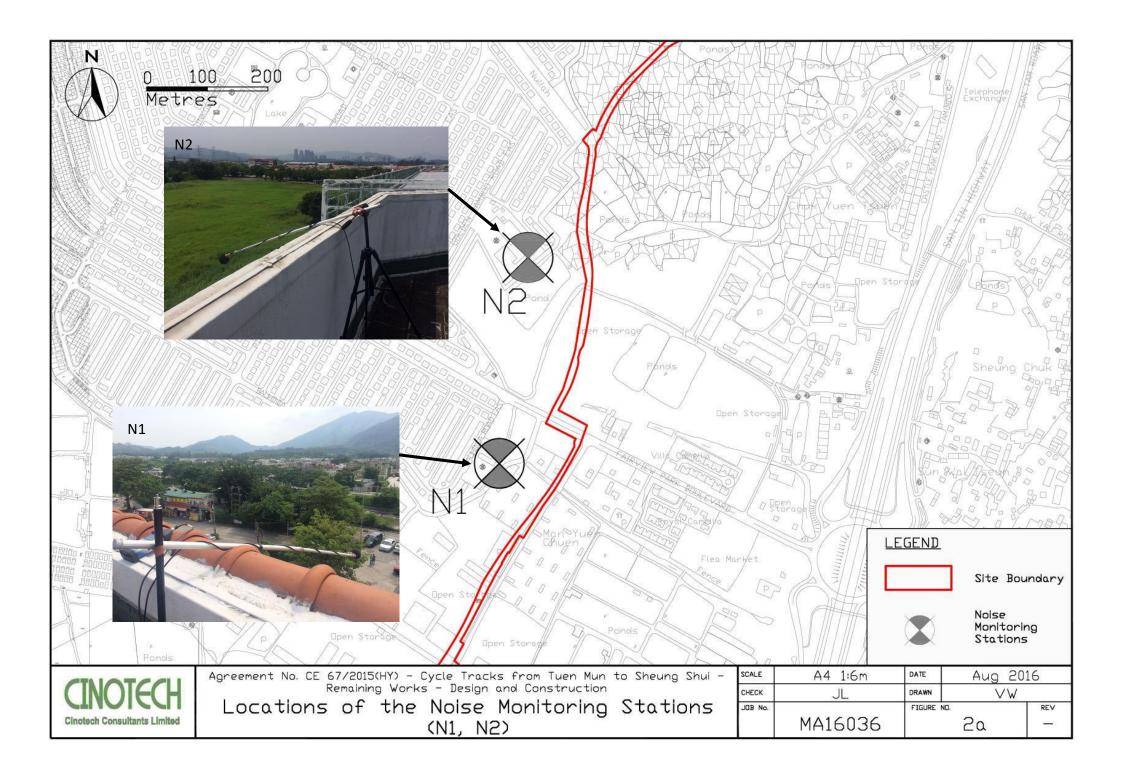
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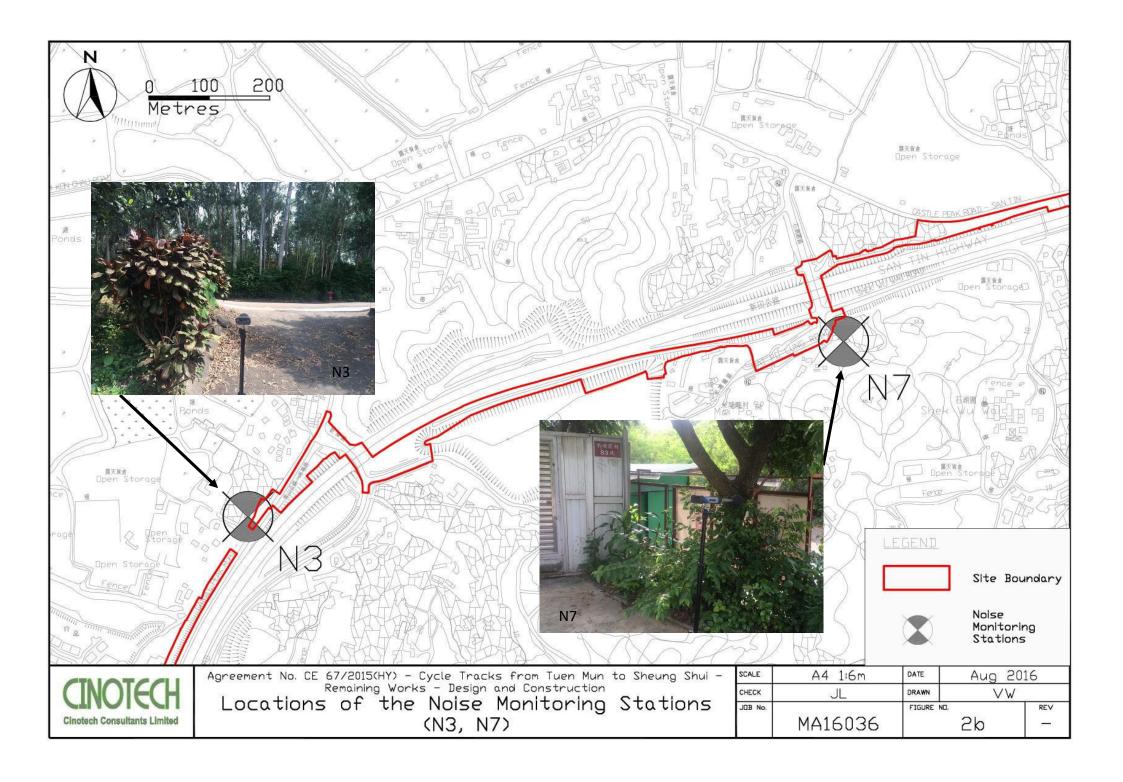


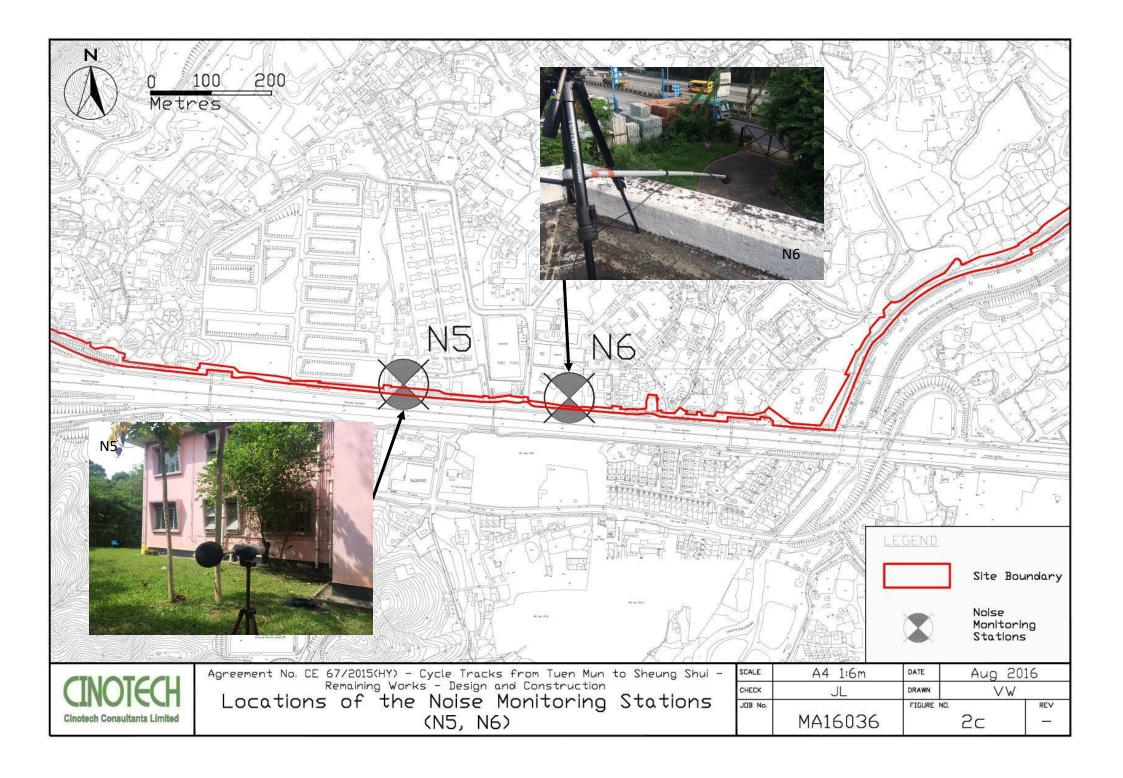


Scale Project
N.T.S No. MA16036

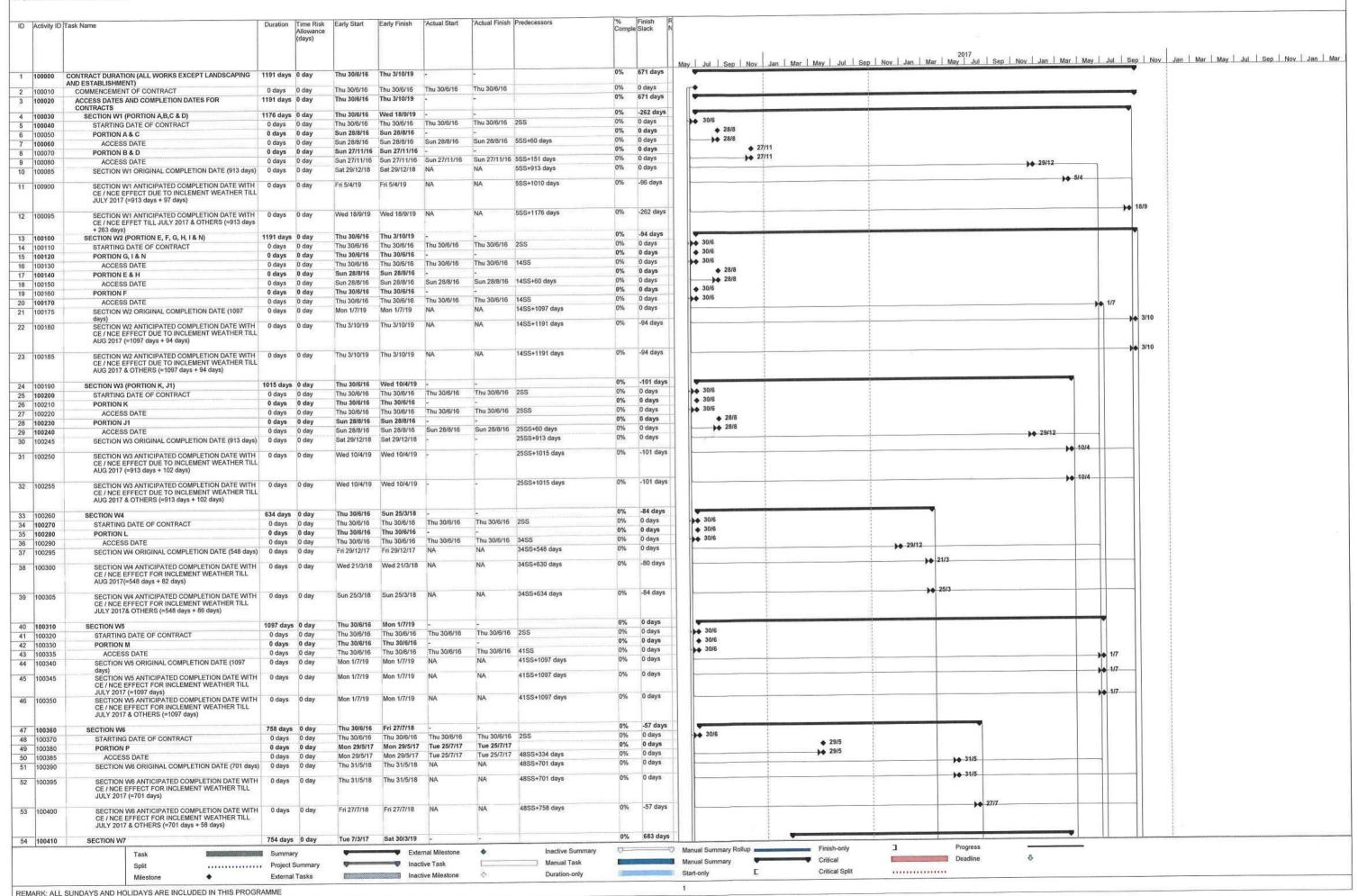
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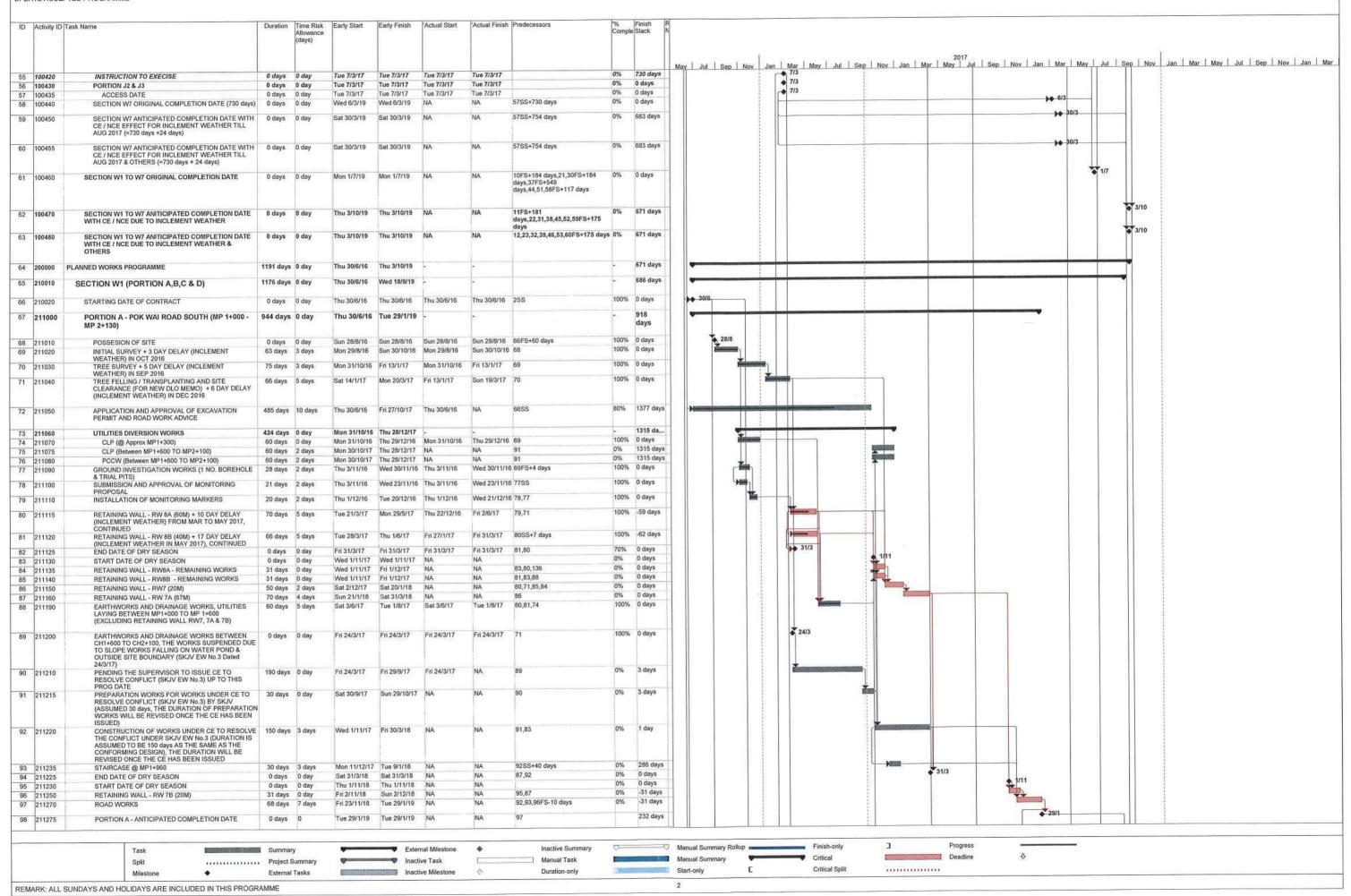


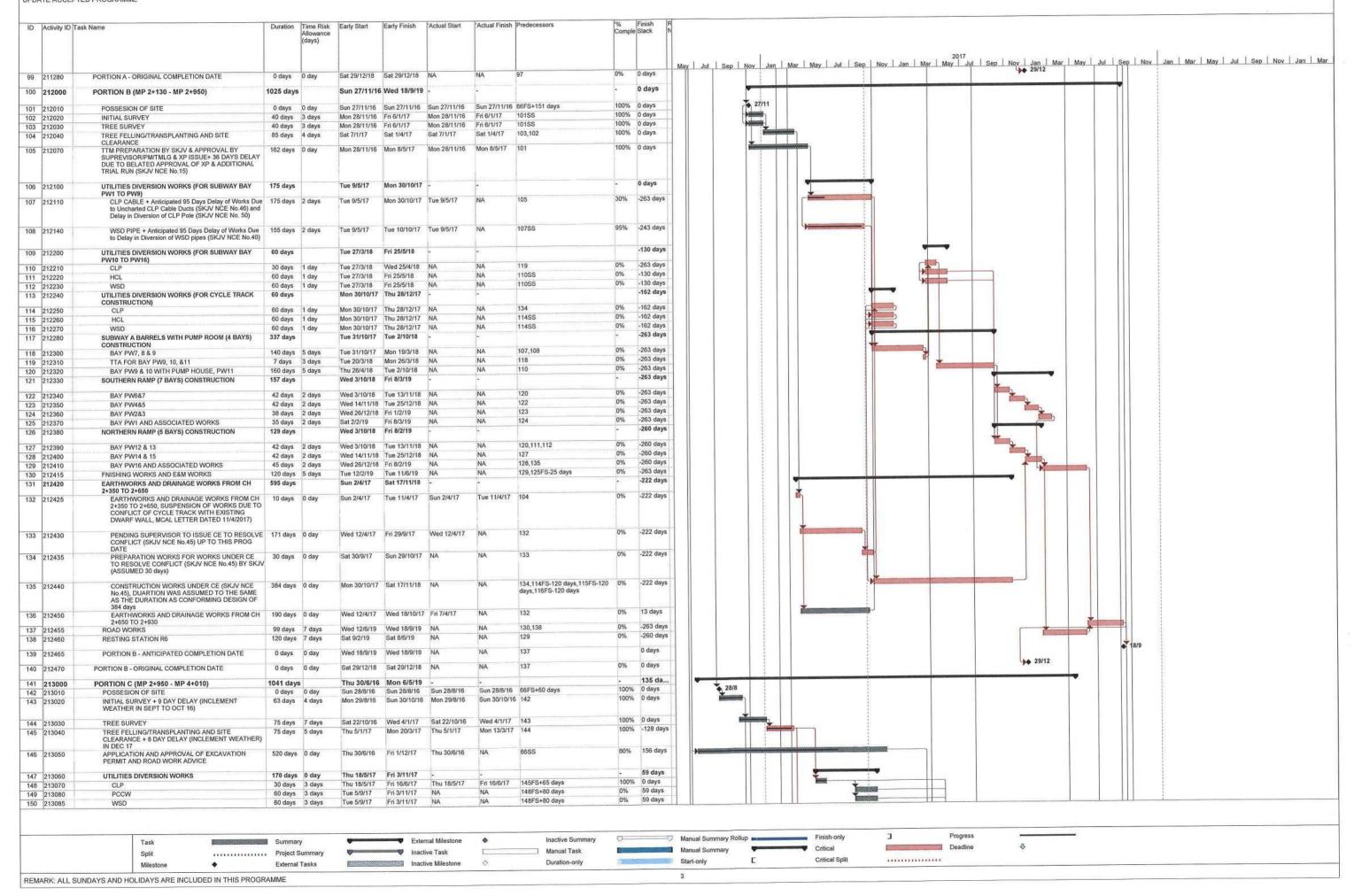


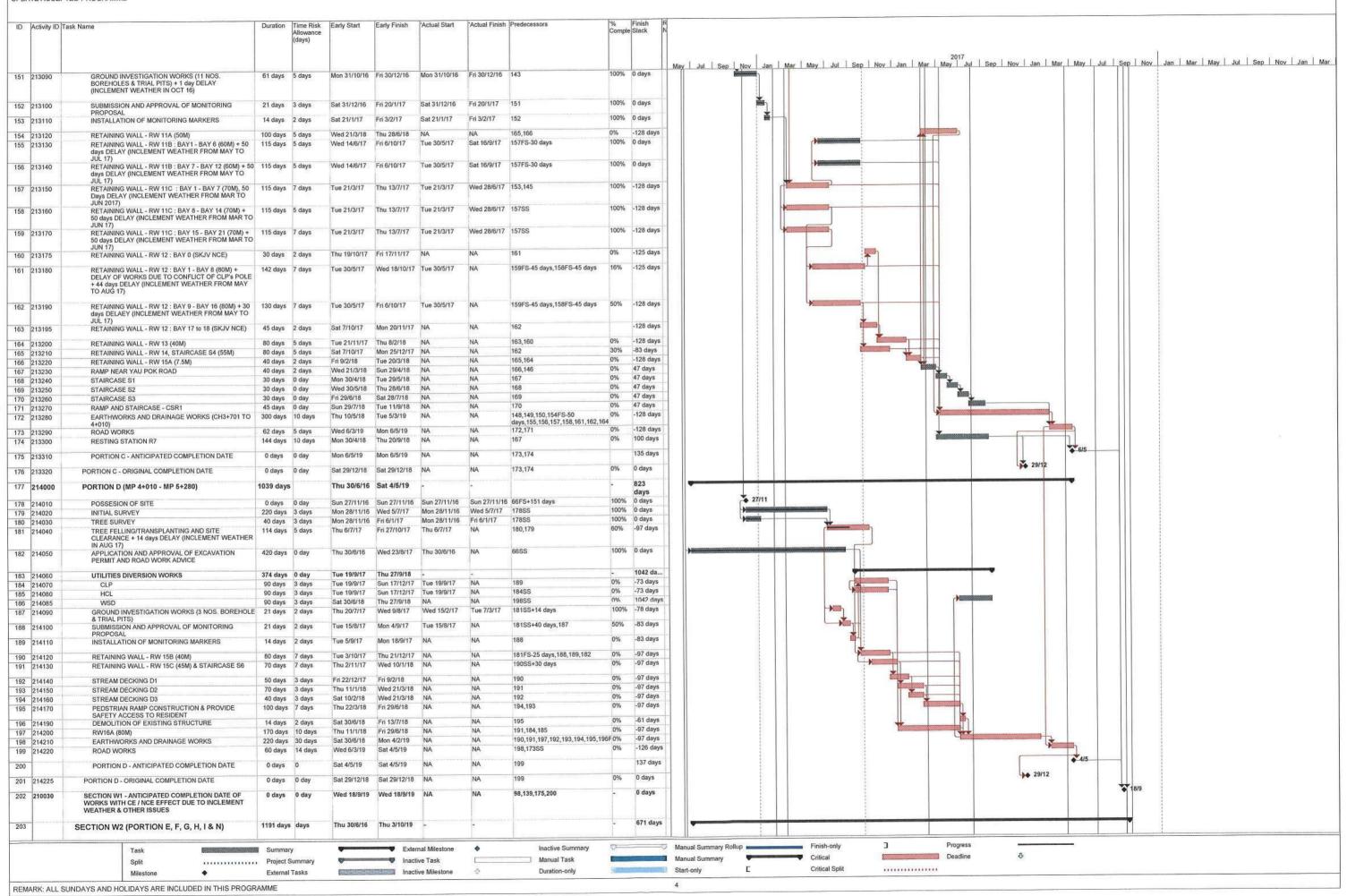


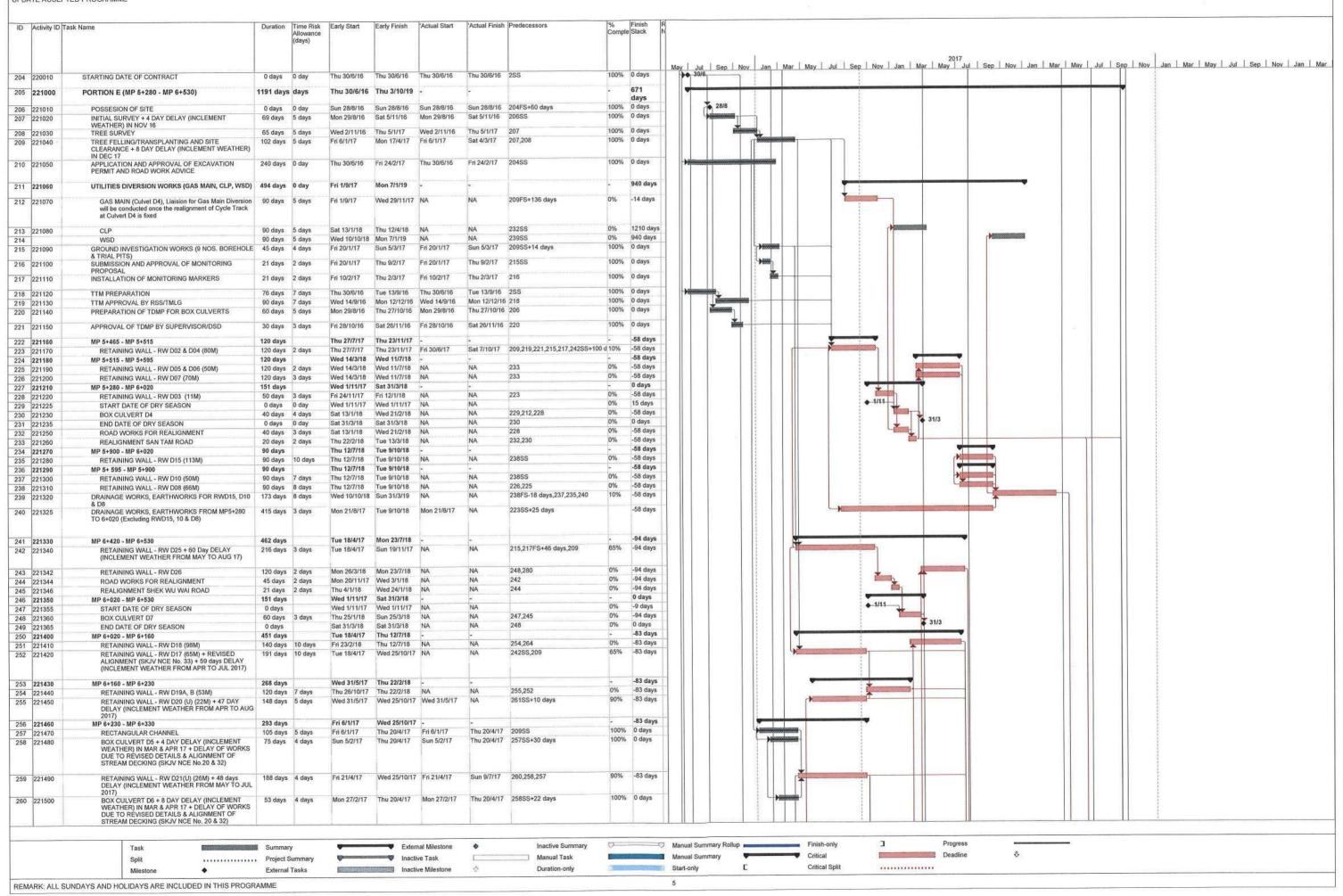
# APPENDIX A CONSTRUCTION PROGRAMME

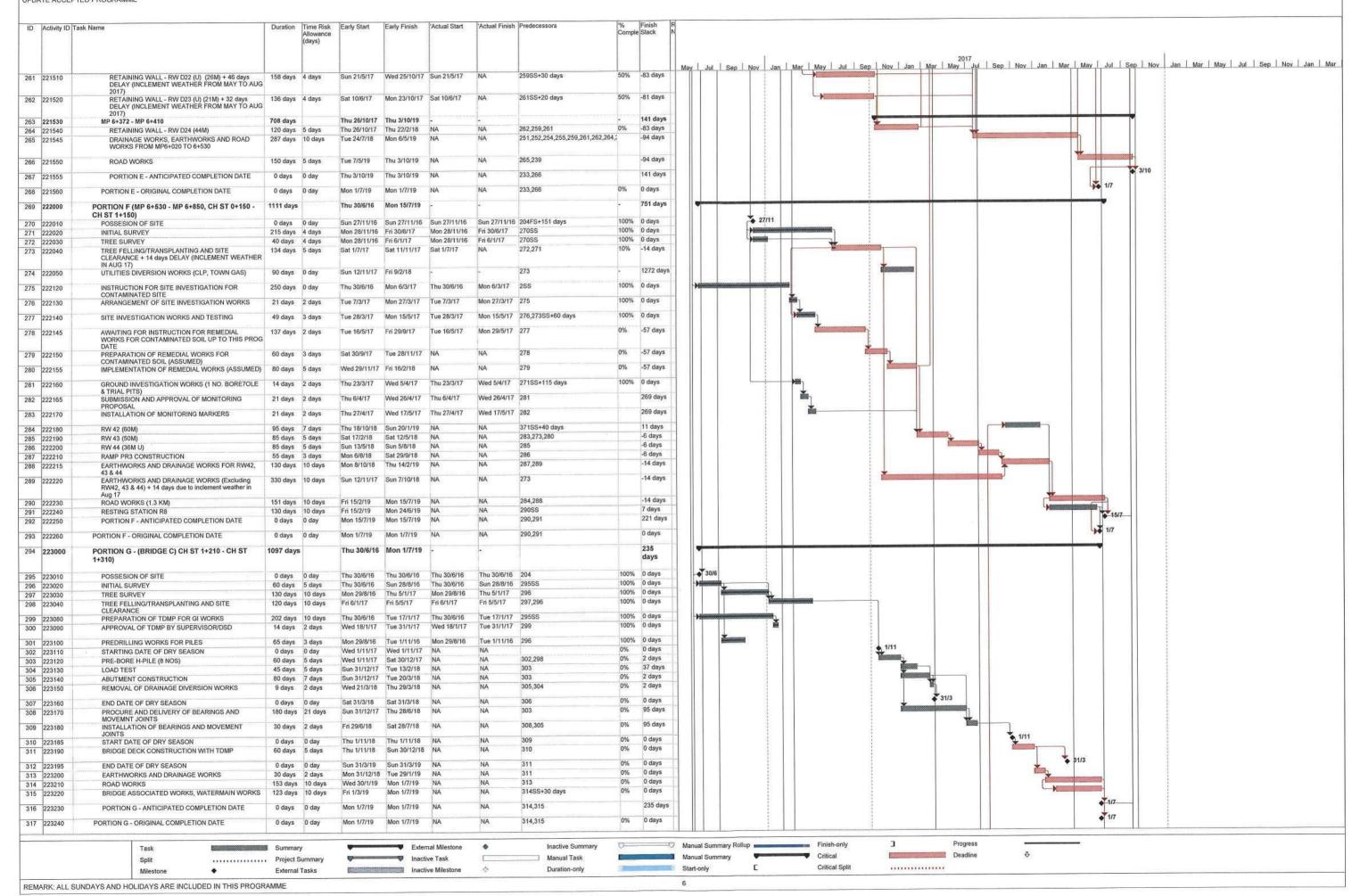


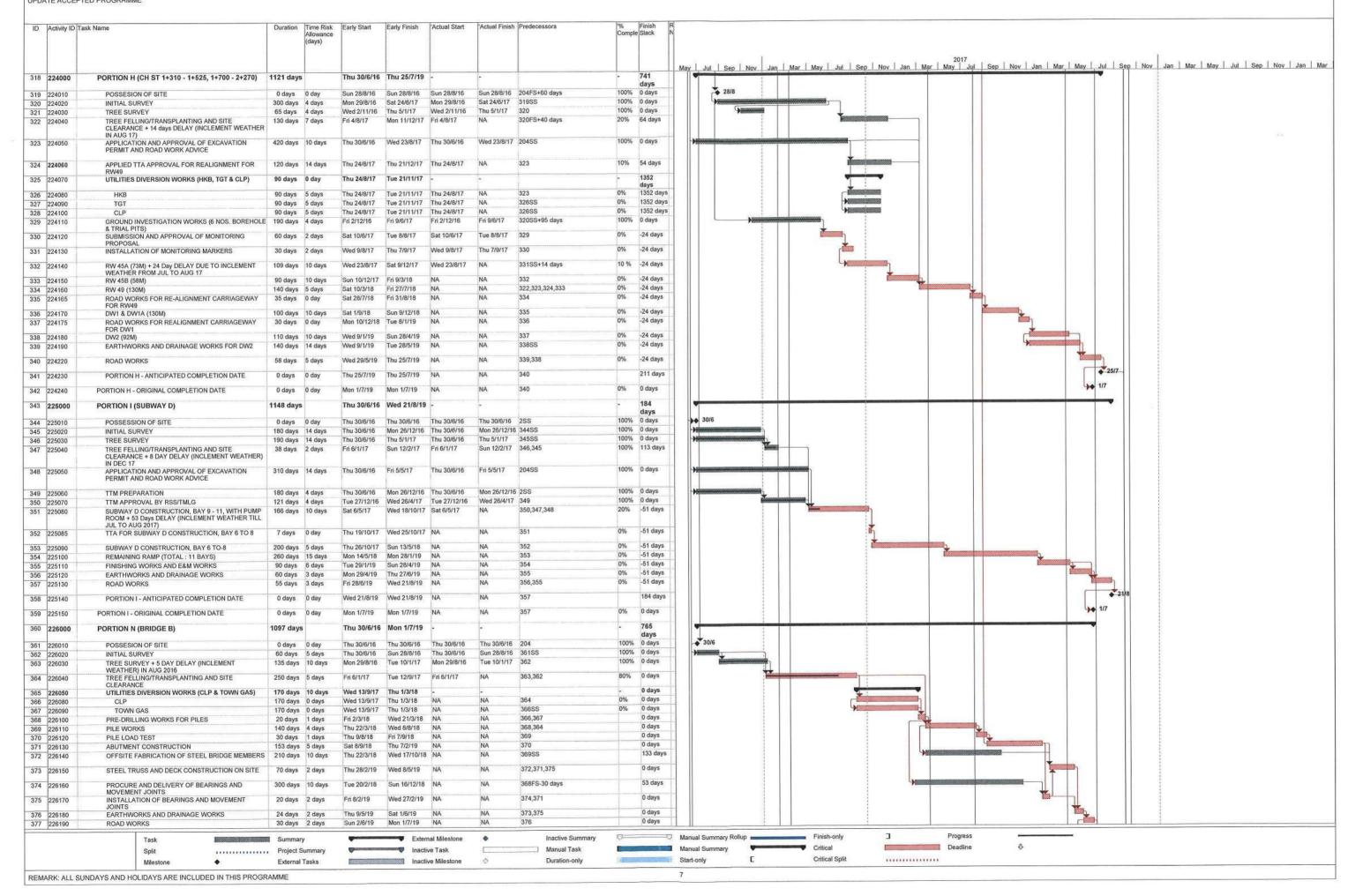


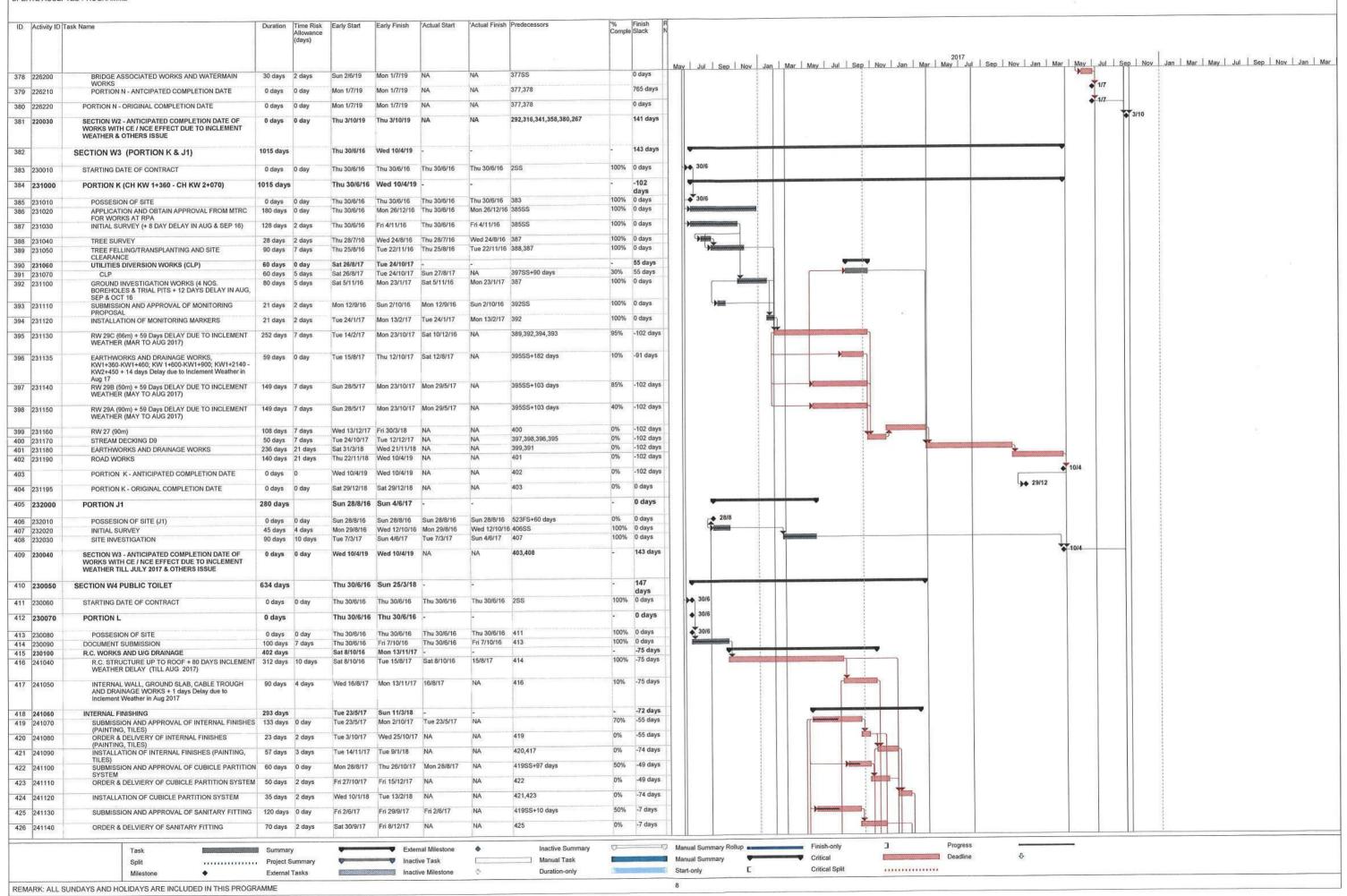


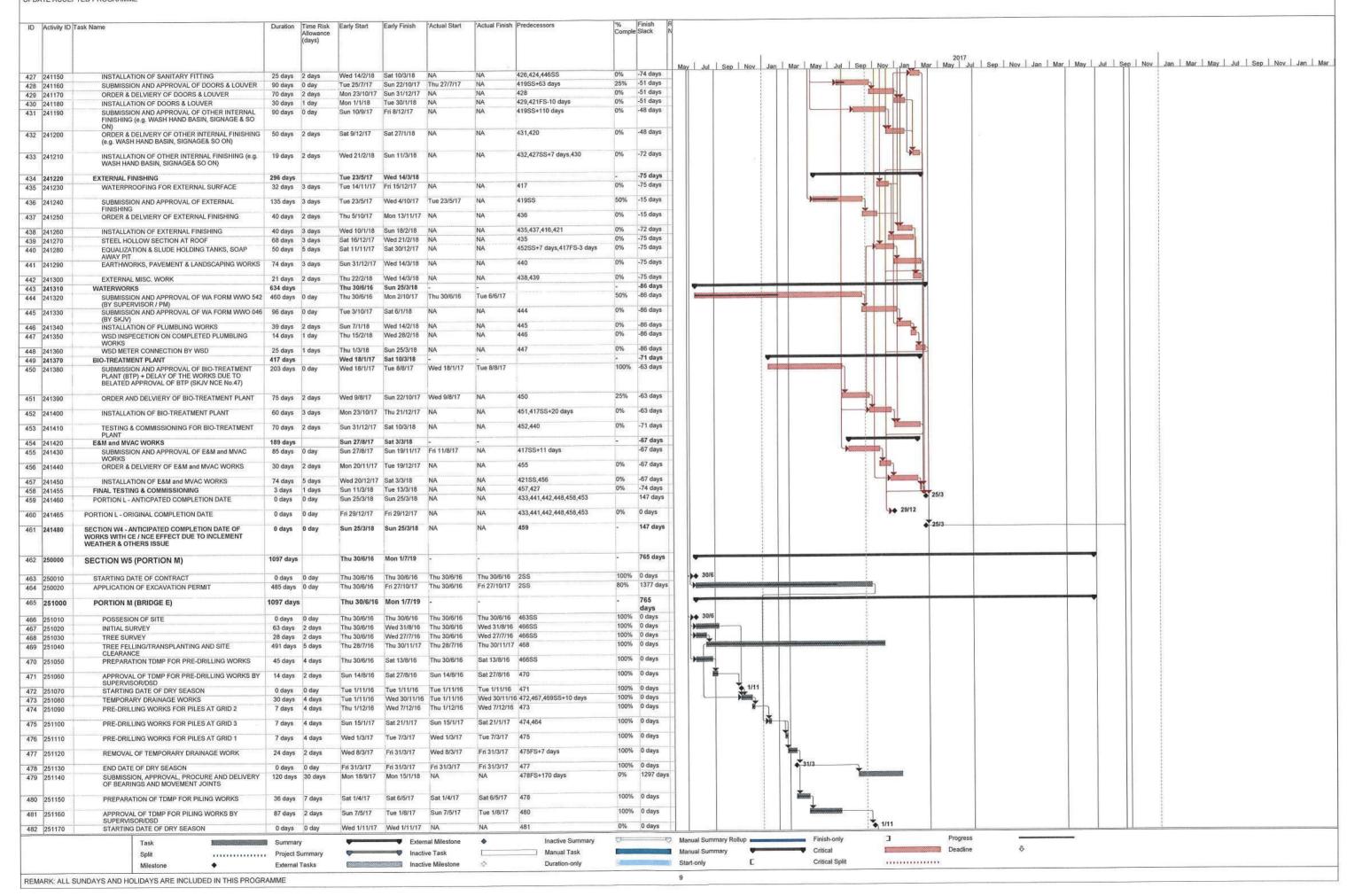


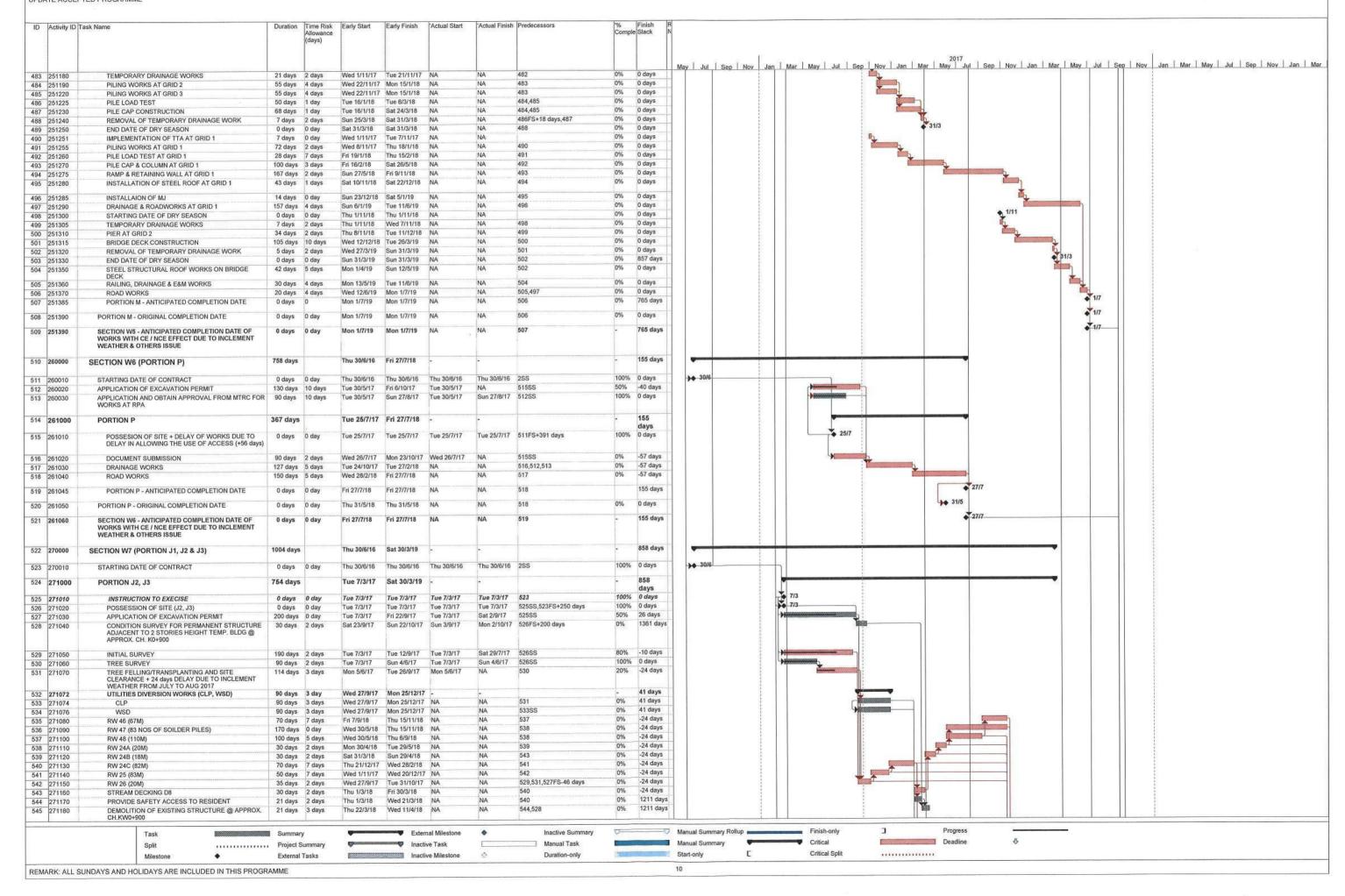












CEDD CONTRACT NO. YL/2015/01 CYCLE TRACKS FROM TUEN MUN TO SHEUNG SHUI - REMAINING WORKS UPDATE ACCEPTED PROGRAMME

Activity ID Task Name		Duration	Time Risk Allowance (days)	Early Start	Early Finish	'Actual Start	'Actual Finish	Predecessors	'% Compl	Finish I le Slack I
3 271190 EART	HWORKS AND DRAINAGE WORKS	135 days	10 days	Fri 16/11/18	Sat 30/3/19	NA.	NA NA	535,536,537,538,539,540,541,54	12 5%	-24 days
- P. C.	WORKS	395 days		Thu 1/3/18	Sat 30/3/19	NA	NA	540,533,534	0%	-24 days
271205 PORT	ON J2/J3 - ANTICIPATED COMPLETION DATE	0 days	0	Sat 30/3/19	Sat 30/3/19	NA	NA	547	-	-24 days
			O de:				NA NA	546,548		
271210 PORTON	J2/J3 - ORIGINAL COMPLETION DATE	0 days	о дау	Wed 6/3/19	Wed 6/3/19	NA				0 days
	W7 - ANTICIPATED COMPLETION DATE WITH EFFECT DUE TO INCLEMENT WEATHER &	0 days	0 day	Sat 30/3/19	Sat 30/3/19	NA	NA	548		858 days
200010 SECTION W WORKS WI	1 TO W7 - ANTICIPATED COMPLETION DATE OF TH CE / NCE EFFECT DUE TO INCLEMENT OTHERS ISSUE	0 days	0 day	Thu 3/10/19	Thu 3/10/19	NA	NA	521,461,409,381,202,509,550		671 days
	SOFTWORKS AND ESTABLISHMENT WORK	1862 days		Thu 30/6/16	Wed 4/8/21	NA	NA			0 days
300010 ACCESS DA	TES AND COMPLETION DATES FOR	1332 days		Tue 7/3/17	Wed 28/10/20	NA	NA	·		0 days
CONTRACT	3						NA	<u> </u>		-172 days
300020 SECTION 300030 ACCE	SS DATE	172 days 0 days	-	Sat 30/3/19 Wed 18/9/19	Wed 18/9/19 Wed 18/9/19	- Transcription   111111	NA NA	4		-172 days
	LETION DATE	0 days	-	Sat 30/3/19	Sat 30/3/19		NA	555FS+90 days		0 days
300050 SECTION		26 days	-	Thu 3/10/19	Tue 29/10/19	1.00	NA		11000	0 days
	SS DATE	0 days	Cuaringen	Thu 3/10/19	Thu 3/10/19		NA	13		-94 days
	LETION DATE	0 days		Tue 29/10/19	Tue 29/10/19		NA	558FS+120 days		0 days
300080 SECTION		71 days		Tue 29/1/19	Wed 10/4/19	A. A	NA NA	24	-	-71 days
The state of the s	SS DATE LETION DATE	0 days 0 days		Wed 10/4/19 Tue 29/1/19	Wed 10/4/19 Tue 29/1/19	NA NA	NA NA	561FS+30 days		0 days
300100 COMP 300110 SECTION		54 days	-	Tue 30/1/18	Sun 25/3/18		NA			-54 days
	SS DATE	0 days		Sun 25/3/18	Sun 25/3/18	NA	NA	33	-	-84 days
	LETION DATE	0 days		Tue 30/1/18	Tue 30/1/18		NA	564FS+30 days		0 days
300140 SECTION		30 days		Mon 1/7/19	Wed 31/7/19		NA	40		0 days
	SS DATE	0 days		Mon 1/7/19	Mon 1/7/19	NA NA	NA NA	40 567FS+30 days	-	0 days 0 days
	LETION DATE	0 days 27 days	1000	Wed 31/7/19 Sat 30/6/18	Wed 31/7/19 Fri 27/7/18	NA NA	NA NA	JULY STOU days	-	-27 days
	W8F SS DATE	0 days	1777	Fri 27/7/18	Fri 27/7/18	NA	NA	47		-57 days
	LETION DATE	0 days	1	Sat 30/6/18	Sat 30/6/18	NA	NA	570FS+30 days		0 days
300200 SECTION	W8G	820 days		Tue 7/3/17	Tue 4/6/19	NA	NA		200	0 days
	SS DATE	0 days		Tue 7/3/17	Tue 7/3/17	NA	NA	55 57250+00 down		730 days
	LETION DATE	0 days		Tue 4/6/19 Wed 18/9/19	Tue 4/6/19 Sun 29/3/20	NA NA	NA NA	573FS+90 days		0 days
300230 SECTION 300240 ACCE	W9A SS DATE	193 days 0 days	1	Wed 18/9/19	Wed 18/9/19	100	NA NA	554	111	-172 days
	LETION DATE	0 days	100000000000000000000000000000000000000	Sun 29/3/20	Sun 29/3/20		NA	576FS+365 days		0 days
300260 SECTION		365 days		and the second second second second	Wed 28/10/20		NA			0 days
300270 ACCE	SS DATE	0 days	4-11-1-1	- The section of Value of	Tue 29/10/19	- Charles and the second	NA	557		0 days
	LETION DATE	0 days		- American company	Wed 28/10/20		NA NA	579FS+365 days	-	0 days
300290 SECTION		294 days		Wed 10/4/19 Wed 10/4/19	Wed 29/1/20 Wed 10/4/19		NA NA	560	-	-71 days
	SS DATE LETION DATE	0 days 0 days	-	Wed 29/1/20	Wed 29/1/20		NA	582FS+365 days	-	0 days
300320 SECTION		311 days	1	Sun 25/3/18	Wed 30/1/19		NA			0 days
300330 ACCE	SS DATE	0 days		Sun 25/3/18	Sun 25/3/18		NA	563		-54 days
	LETION DATE	0 days	10000000	Wed 30/1/19	Wed 30/1/19		NA NA	585FS+365 days		0 days
300350 SECTION		365 days 0 days			Thu 30/7/20 Wed 31/7/19	-3	NA NA	566	-	0 days
	SS DATE LETION DATE	0 days		Thu 30/7/20	Thu 30/7/20	NA	NA	588FS+365 days		0 days
300370 SECTION		338 days	-	Fri 27/7/18	Sun 30/6/19	NA	NA			0 days
300390 ACCE	SS DATE	0 days	1	Fri 27/7/18	Fri 27/7/18	NA	NA	569		-27 days
A DATE OF THE PARTY OF THE PART	LETION DATE	0 days		Sun 30/6/19	Sun 30/6/19	NA	NA NA	591FS+365 days		0 days
300410 SECTION		365 days		Tue 4/6/19 Tue 4/6/19	Wed 3/6/20 Tue 4/6/19	NA NA	NA NA	572	-	0 days
The state of the s	SS DATE LETION DATE	0 days		Wed 3/6/20	Wed 3/6/20	NA NA	NA NA	594FS+365 days	-	0 days
300430 COMP	LLIMIDALE		1	1	1					- Lawrence
400000 PLANNED V 400010 SECTION	VORK PROGRAMME	1862 days 1266 days	THE PERSON NAMED IN COLUMN	Thu 30/6/16 Thu 30/6/16	Wed 4/8/21 Tue 17/12/19	NA NA	NA NA			0 days 0 days
	TING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16		NA	2SS		1176 days
	SCAPING SOFTWORKS	90 days	7 days	Thu 19/9/19	Tue 17/12/19		NA NA	202,599		0 days
Procedure of the second	LETION OF SECTION W8A	0 days		Tue 17/12/19 Thu 30/6/16		NA NA	NA NA	600	-	0 days 141 days
400050 SECTION 400060 STAF	TING DATE OF CONTRACT	1311 days 0 days	-	Thu 30/6/16	Fri 31/1/20 Thu 30/6/16		NA NA	2SS		1332 days
	SCAPING SOFTWORKS		10 days	Fri 4/10/19	Fri 31/1/20	NA	NA	603,381		141 days
- COLOR COLO	PLETION OF SECTION W8B	0 days		Fri 31/1/20	Fri 31/1/20	NA	NA	604		141 days
400090 SECTION		1105 days		Thu 30/6/16	Tue 9/7/19	NA	NA			143 days
	TING DATE OF CONTRACT	0 days	7.3	Thu 30/6/16	Thu 30/6/16	NA	NA NA	2SS 409,607		1158 days 143 days
The state of the s	SCAPING SOFTWORKS	90 days 0 days	/ days	Thu 11/4/19 Tue 9/7/19	Tue 9/7/19 Tue 9/7/19	NA NA	NA NA	409,607	-	143 days
400120 COM 400130 SECTION	PLETION OF SECTION W8C	664 days		Thu 30/6/16	Tue 24/4/18		NA NA			147 days
	TING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS	TT I ZAVASI	781 days
DOSESTING THE RESERVE OF THE PROPERTY OF THE P	SCAPING SOFTWORKS	30 days	3 days	Mon 26/3/18	Tue 24/4/18		NA	461,611		147 days
400160 COM	PLETION OF SECTION W8D	0 days		Tue 24/4/18	Tue 24/4/18		NA	612		147 days
400170 SECTION		30 days		Thu 30/6/16	Fri 29/7/16	NA NA	NA NA	2SS		1314 da 1314 days
	TING DATE OF CONTRACT OSCAPING SOFTWORKS	0 days 30 days	3 days	Thu 30/6/16 Thu 30/6/16	Thu 30/6/16 Fri 29/7/16	NA NA	NA NA	615		1314 days
A CONTROL OF THE PARTY OF THE P	PLETION OF SECTION W8E	0 days	o days	Fri 29/7/16	Fri 29/7/16	NA NA	NA NA	616	1100	1314 days
8 400210 SECTION		788 days	1	Thu 30/6/16	Sun 26/8/18		NA			155 days
9 400220 STAR	TING DATE OF CONTRACT	0 days	1	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS		913 days
	SCAPING SOFTWORKS		3 days	Sat 28/7/18	Sun 26/8/18		NA	619,521		155 days
1 400240 COM	PLETION OF SECTION W8F	0 days		Sun 26/8/18	Sun 26/8/18	NA	NA	620		155 days
	Task	Summar	у	-	Exte	mal Milestone	•	Inactive Summary	0	
	Split			V-	Inact			Manual Task	100	
	Milestone •	External			Inacl		0	Duration-only	C de Common	

ID Activity I	D Task Name	Duration	Time Risk Allowance (days)	Early Start	Early Finish	'Actual Start	'Actual Finish	h Predecessors	'% Comple	Finish F Slack N												
											May   Jul   Sep   No	Jan   Mar	May Jul	Sep Nov Ja	2017 Mar   May	Jul   Sep   Nov	Jan   Mar	May Jul	Sep   Nov	Jan   Mar   M	May Jul Sep	Nov   Jan   Mar
622 400250	SECTION W8G	90 days		Tue 7/3/17		NA	NA			942 days			-						1			
623 400260	INSTRUCTION TO EXECISE	0 days		Tue 7/3/17	Tue 7/3/17	NA	NA	55SS		942 days		7/3	0.00000	1					1			
624 400270	LANDSCAPING SOFTWORKS	90 days	7 days	Tue 7/3/17	Sun 4/6/17	NA	NA	623		942 days		1 10000	7	į					4			
625 400280	COMPLETION OF SECTION W8G	0 days		Sun 4/6/17	Sun 4/6/17	NA	NA	624		942 days		1	4/6	1								
626 400290	SECTION W9A	1631 days		Thu 30/6/16	Wed 16/12/20	NA	NA			0 days												* .
627 400300	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	Alexander and the second	NA	288		1266 days	▶♦ 30/6	1		1					+			
628 400310	ESTABLISHMENT WORKS	365 days	30 days	Wed 18/12/19	Wed 16/12/20	+	NA	601,627		0 days		1		1					E SON			16/12
629 400320	COMPLETION OF SECTION W9A	0 days		Wed 16/12/20	Wed 16/12/20	NA	NA	628		0 days				1					1			-TOPIZ
630 400330	SECTION W9B	1862 days		Thu 30/6/16	Wed 4/8/21		NA			0 days									1			
631 400340	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS		1497 days	▶♦ 30/6	1		1	100				1		¥	
632 400350	ESTABLISHMENT WORKS	365 days	30 days	Wed 5/8/20	Wed 4/8/21	NA	NA	631,629FF+231 days,637FF+249 d		0 days				1					1		B	
633 400360	COMPLETION OF SECTION W9B	0 days		Wed 4/8/21	Wed 4/8/21	NA	NA	632		0 days				1								
634 400370	SECTION W9C	1470 days		Thu 30/6/16	Wed 8/7/20	NA	NA			143 days	•											
635 400380	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS		1248 days	▶♦ 30/6			1				+	1		ALCOHOLD COMPANY	
636 400390	ESTABLISHMENT WORKS	365 days	30 days	Wed 10/7/19	Wed 8/7/20	NA	NA	609,635		143 days		8		1				80000000	-		8/7	
637 400400	COMPLETION OF SECTION W9C	0 days		Wed 8/7/20	Wed 8/7/20	NA	NA	636		143 days				i					1		<b>Q</b> 011	
638 400410	SECTION W9D	1029 days		Thu 30/6/16	Wed 24/4/19	NA	NA			147 days	V								1			
639 400420	STARTING DATE OF CONTRACT	0 days	A STATE OF THE STA	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS		811 days	▶♦ 30/6	1		1	<b>+</b>				1			
640 400430	ESTABLISHMENT WORKS	365 days	30 days	Wed 25/4/18	Wed 24/4/19	NA	NA	613,639		147 days				à i				24/4	1			
641 400440	COMPLETION OF SECTION W9D	0 days	1	Wed 24/4/19	Wed 24/4/19	NA	NA	640		147 days				1			•	2414	1			
642 400450	SECTION W9E	395 days		Thu 30/6/16	Sat 29/7/17	NA	NA			1314 da	-		-						1			
643 400460	STARTING DATE OF CONTRACT	0 days	S. COMMITTEE	Thu 30/6/16	Thu 30/6/16	NA	NA	2SS		1344 days	30/6	i	NAME OF TAXABLE	1					1			
644 400470	ESTABLISHMENT WORKS	365 days	30 days	Sat 30/7/16	Sat 29/7/17	NA	NA	617,643		1314 days	**		T.						1			
645 400480	COMPLETION OF SECTION W9E	0 days	-	Sat 29/7/17	Sat 29/7/17	NA	NA	644		1314 days			*	9/7					1			
646 400490	SECTION W9F	1153 days		Thu 30/6/16	Mon 26/8/19	NA	NA			155 days	-	-	-	-	The same of the sa				1			
647 400500	STARTING DATE OF CONTRACT	0 days		Thu 30/6/16	Thu 30/6/16	NA	NA	2SS		943 days	30/6					<u> </u>						
648 400510	ESTABLISHMENT WORKS	365 days	30 days	Mon 27/8/18	Mon 26/8/19	NA	NA	621,647		155 days								-	2010			
649 400520	COMPLETION OF SECTION W9F	0 days	4	Mon 26/8/19	Mon 26/8/19	NA	NA	648		155 days								•	26/8			
650 400530	SECTION W9G	455 days		Tue 7/3/17	Mon 4/6/18	NA	NA			942 days			-	-	-				1			
651 400540	INSTRUCTION TO EXECISE	0 days		Tue 7/3/17	Tue 7/3/17	NA	NA	55SS		1032 da		7/3	3	1					1			
652 400550	ESTABLISHMENT WORKS	365 days	30 days	Mon 5/6/17	Mon 4/6/18	NA	NA	625,651		942 days			2		2							
653 400560		0 days	1	Mon 4/6/18	Mon 4/6/18	NA	NA	652		942 days		1		1	4/6	Time and the second			- 1			

# APPENDIX B MONITORING REQUIREMENTS

# $\label{lem:appendix B - Environmental Impact Monitoring Requirements} \ \ \,$

Remarks: # The impact monitoring at these locations will only be carried out until existence of the sensitive receiver at the building.

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Construction Noise	L <sub>eq</sub> , L <sub>90</sub> & L <sub>10</sub> at 30 minute intervals during (0700 to 1900 on normal weekdays)	Once per week	<ul> <li>N1 - HKMLC Wong Chan Sook Ying Memorial School</li> <li>N2 - Bethel High School</li> <li>N3 - No. 159 Mai Po San Tsuen</li> <li>N5 - Block 2, Dills Corner Garden</li> <li>N6 - Home of Loving Faithfulness</li> <li>N7 - Village House in Shek Wu Wai</li> </ul>	<ul> <li>N1 – Façade measurement at Rooftop (about 5/F) area</li> <li>N2 – Façade measurement at Rooftop (about 4/F) area</li> <li>N3 – Free field measurement at G/F area</li> <li>N5 – Free field measurement at G/F area</li> <li>N6 – Façade measurement at Rooftop (about 3/F) area</li> <li>N7 – Free field measurement at G/F area</li> </ul>

APPENDIX C ACTION AND LIMIT LEVELS FOR NOISE

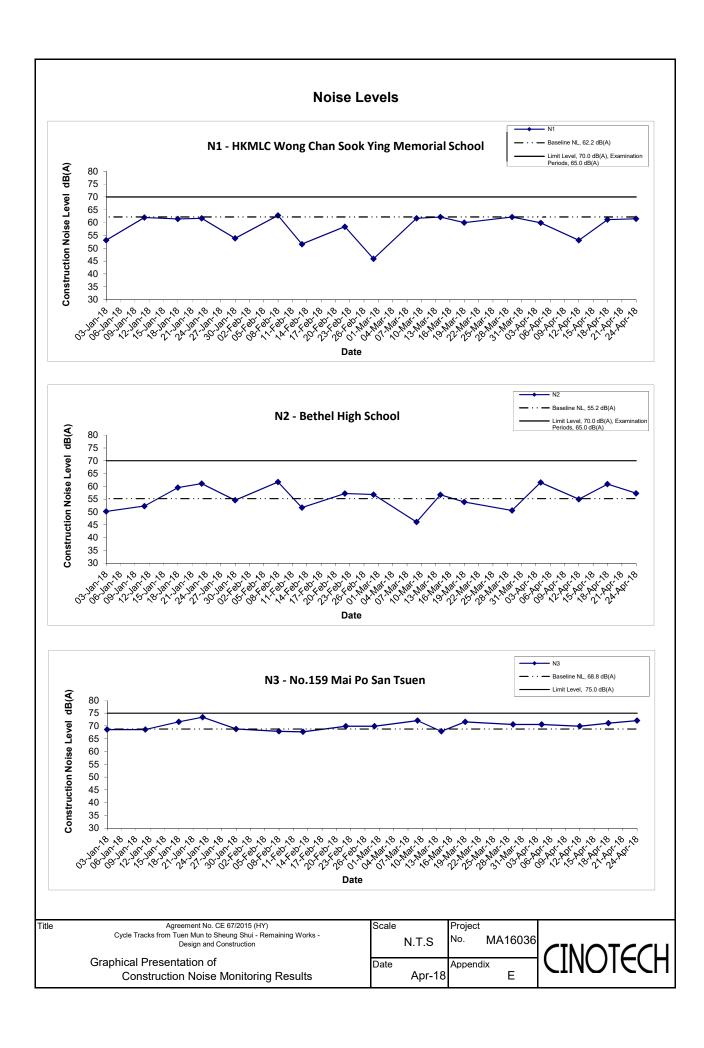
# **Appendix C - Action and Limit Levels**

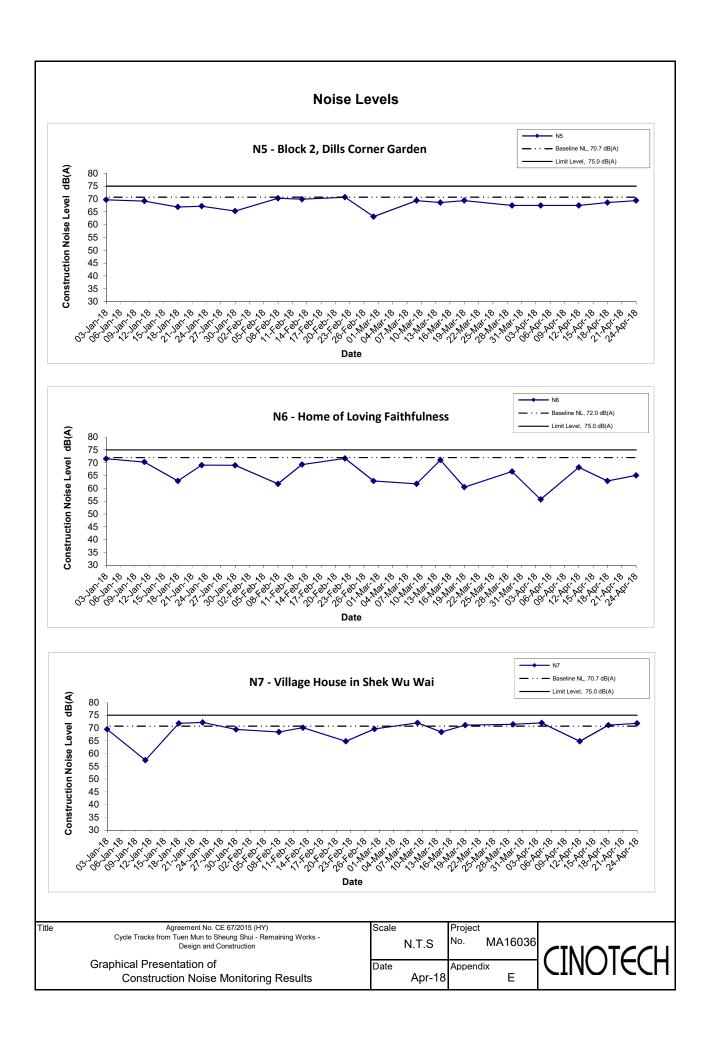
 Table B-1
 Action and Limit Levels for Construction Noise

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 D NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS





APPENDIX E ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix E - 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:	٨
S.3.6.2	S.3.2.3	• 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	٨
S.3.6.2	S.3.2.3	• Restricting heights from which materials are to be dropped, as far as practicable to minimize the fugitive dust arising from unloading/ loading	٨
S.3.6.2	S.3.2.3	• 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	• 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	۸
S.3.6.2	S.3.2.3	• Travelling speeds should be controlled to reduce traffic induced dust dispersion and re-suspension within the site from the operating haul trucks	٨
S.3.6.2	S.3.2.3	• Erection of hoarding of not less than 2.4 m high from ground level along the site boundary, where appropriate	۸
S.3.6.2	S.3.2.3	• 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> <li>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</li> </ul>	*
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):	^
		- 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	S.4.2.19	Noise barrier in the form of site hoarding shall be used for the following PMEs	^
Table 5-8		where practicable:	
		- 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
		- 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 PMEs where practicable:	N/A(1)
		- air compressor	
		- hand-held breaker	
S.5.6.2	S.4.2.19	The barrier / enclosure material's surface mass shall be in excess of 7 kg/m <sup>2</sup> .	٨
S.5.6.6	S.4.2.19	Use of alternative quieter plant such as road ripper, excavator mounted instead of	٨
		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	٨
		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	٨
		requirements and guidelines	
S.5.6.8	S.4.2.19	Before commencing any work, the Contractor shall submit to the project Engineer	٨
		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	٨
		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	٨
		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	٨
		parallel use of noisy equipment / machinery should be avoided	
S.5.6.8	S.4.2.19	Regular maintenance of all plant and equipment	٨
S.5.6.8	S.4.2.19	Material stockpiles and other structures should be effectively utilised as noise	N/A
		barriers, where practicable	

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	۸
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	٨
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	٨
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);	٨
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.	٨
		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	٨
		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,	٨
		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	٨
		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	N/A
		area near plant workshop/ maintenance areas	
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 Managem	ent	
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	٨

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	The reuse/ recycling of all materials on site shall be investigated and exhausted prior to treatment/ disposal off-site	۸
S.7.4.1	S.6.2.6	<ul> <li>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</li> </ul>	#
S.7.4.1	S.6.2.6	<ul> <li>All waste materials shall be sorted on-site into inert and non-inert C&amp;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)</li> </ul>	٨
S.7.4.1	S.6.2.6	• 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	٨
S.7.4.1	S.6.2.6	• 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".	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	Status	
S.7.4.1	S.6.2.6	• 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	• 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	• 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	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	• 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.	٨	
Land Contam	ination			
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.	٨	

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	
S.8.7.5	S.7.3.1	Remediation Action Plan (RAP) shall be prepared and submitted for EPD's approval.	
3.6.7.3	3.7.3.1	The following control measures should be implemented when handling identified contaminated materials:	N/A
		<ul> <li>General site safety shall be enforced to include basic practices such as the use of</li> </ul>	
		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;	
		<ul> <li>Measures shall be implemented to prevent non-workers from approaching the</li> </ul>	
		identified works areas in order to avoid exposure to contaminants.	
S.8.7.5	S.7.3.1	Management of Contaminated Soils	N/A
		<ul> <li>Where appropriate, the use of bulk handling equipment should be maximised to</li> </ul>	
		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;	
		<ul> <li>Any vehicles transporting the material shall be suitably covered to limit potential dust emissions;</li> </ul>	
		<ul> <li>Surface waters shall be diverted around any contaminated areas or stockpiles to</li> </ul>	
		minimize potential runoff into excavations, as runoff might increase the volume of	

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		contaminated water requiring disposal and suspended solids in the wastewater stream	
Ecological & 1	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)	In situ 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	
S.9.11.17 – S.9.11.19	S.8.2.4 (Stage 1) S.8.2.3 (Stage 2)	River including at R9 and Information Kiosk could be implemented as appropriate.  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	
S.9.11.23	S.8.2.4 (Stage 2 only)	Tsuen Road.  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 groove 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	۸

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)	ong Pok Wai South Road, once the final construction sequencing is known, liaison th local residents and aquaculturists should be implemented in order to minimise mporary road blockages and to identify the best timing for works along this area.	
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.	٨
-	S.8.2.10 (Stage 1 only)	The use of signage at the Resting Stations to indicate that wildlife may be present	
S.9.11.27	S.8.2.11 (Stage 1) S.8.2.9 (Stage 2)	The following good work practices are recommended:  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;	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	Status
		<ul> <li>Waste and refuse in appropriate receptacles;</li> <li>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;</li> <li>Regular ecological checks; and</li> </ul>	
		■ Silt/ Sediment/ Oil traps for drainage to prevent site run-off	
<b>Cultural Heri</b>	tage 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 an	d Visual		
Detailed Desig	gn Phase		
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	٨
S.12.9.3	· · ·		٨
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	
Construction I	Phase		
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.	٨
	CP1.2	Creation of precautionary area around trees to be retained equal to half of the trees canopy diameter. Precautionary area to be fenced.	٨
	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.	۸
	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.	۸
	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	٨

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	N/A
		government departments for approval under the lease conditions and in accordance	
		with ETWB TCW No. 2/2004 and WB Technical Circular No. 14/2002.	
	CP2.0	The tree preservation works should be implemented by approved Landscape	٨
		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	N/A
		restored following the completion of the construction phase.	
	CP3.2	Construction site controls should be enforced including the storage of materials, the	٨
		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	٨
hoarding along the site boundary facing adjacent VSRs			
	CP4.1	Replanting of disturbed vegetation should be undertaken at the earliest possible stage	٨
		of the construction phase	
	CP4.2	Use of native plant species predominantly in the planting design for the buffer areas.	٨
	CP4.3	The tree planting works should be implemented by approved Landscape Contractors	٨

EIA Ref.	EM&A Ref.	Mitigation Measures	
	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 Archi A tree protection / transplanting specification would be included within the condocuments.		۸
	CP5.2	The implementation program should reserve enough time for advance tree transplanting preparation.	٨

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. # Recommendation was made during site audit but not yet improved/rectified by the contractor.		

### APPENDIX F SITE AUDIT SUMMARY

# Appendix F Summary of Observation and Recommendation Made during Site Inspection

Summary of Observations and Recommendations Made during Site Inspections in February 2018

Parameters	Date	Observations and Recommendations	Follow-up
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017, 3, 10, 16, 23, 31 January, 7, 13, 21, 28 February 2018	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The Contractor is reminded to maintain the water quality by regular checking and cleaning.	Follow up actions will be reported in the next month.
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017, 3, 10, 16, 23, 31 January, 7, 13, 21 February 2018	The silt and sediment of the sedimentation tank at Portion A should be disposed regularly to maintain the quality of the system.	The condition was observed to be improved/rectified by the contractor during the audit session on 28 February 2018
Water	16, 23, 31 January 2018	The Contractor was reminded to avoid stagnant water at Portion M.	The condition was observed to be improved/rectified by the contractor during the audit session on 7 February 2018
Quality	23, 31 January, 7, 13, 21, 28 February 2018	Stagnant water was observed accumulating behind the retaining wall at Portion C. The Contractor was reminded to remove the stagnant water regularly to prevent mosquito breeding.	Follow up actions will be reported in the next month.
	23, 31 January, 7 February 2018	The wastewater treatment facility was not properly connected before discharging to the storm water drains. The Contractor should review the connection for the entire wastewater treatment facility at Portion I according to the Discharge License and in full compliance with the WPCO.	The condition was observed to be improved/rectified by the contractor during the audit session on 13 February 2018
	23, 31 January, 7 February 2018		The condition was observed to be improved/rectified by the contractor during the audit session on 13 February 2018
	7, 13, 21, 28 February 2018	The river water which bypass the work area was not treated before discharge. The Contractor was urged to review the wastewater treatment facility at Subway A according to the Discharge License and in full compliance with the WPCO.	Follow up actions will be reported in the next month.
	31 January,7 ,13, 21, 28 February 2018	Excavated dusty area should be covered by impervious material or maintained wet at Portion M.	Follow up actions will be reported in the next month.
Air Quality	13 February 2018	The public road near the U-Channel around Portion M was found dusty. The Contractor was reminded to keep clean.	The condition was observed to be improved/rectified by the contractor during the audit session on 21 February 2018
Noise	N/A	There was no observation in the reporting period.	N/A

Parameters	Date	Observations and Recommendations	Follow-up
	16, 23, 31 January, 7, 13, 21, 28 February 2018	General refuse and stagnant water were found in the drip tray at Portion C. The Contractor was reminded to keep the drip tray well-maintained.	Follow up actions will be reported in the next month.
	7, 13, 21 February 2018	General refuse was accumulating at Subway A. The Contractor was reminded to clean it up regularly and to provide adequate rubbish bin.	The condition was observed to be improved/rectified by the contractor during the audit session on 28 February 2018
Waste/ Chemical Management	7, 13 February 2018	Area of Portion D for Stream Decking D4 was generally messy and dirty. The Contractor was reminded to tidy up.	The condition was observed to be improved/rectified by the contractor during the audit session on 21 February 2018
	7 February 2018	General refuse was accumulating in the channel at Portion M. The Contractor was reminded to clean it up regularly.	The condition was observed to be improved/rectified by the contractor during the audit session on 13 February 2018
	21, 28 February 2018	Portion M was not clean and tidy generally. The Contractor was reminded to clean it up regularly and to provide adequate rubbish bin.	Follow up actions will be reported in the next month.
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Landscape and Visual	N/A	There was no observation in the reporting period	N/A
Permits/ Licenses	N/A	There was no observation in the reporting period.	N/A

Summary of Observation and Recommendation Made during Site Inspection in March 2018

Parameters Parameters	Date Date	nd Recommendation Made during Site Ins Observations and Recommendations	Follow-up
	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017, 3, 10, 16, 23, 31 January, 7, 13, 21, 28 February, 7 14, 20, 28 March 2018	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The Contractor is reminded to maintain the water quality by regular checking and cleaning.	Follow up actions will be reported in the next month.
Water Quality	23, 31 January, 7, 13, 21, 28 February, 7 14, 20, 28 March 2018	Stagnant water was observed accumulating behind the retaining wall at Portion C. The Contractor was reminded to remove the stagnant water regularly to prevent mosquito breeding.	Follow up actions will be reported in the next month.
	7, 13, 21, 28 February 2018	The river water which bypass the work area was not treated before discharge. The Contractor was urged to review the wastewater treatment facility at Subway A according to the Discharge License and in full compliance with the WPCO.	The condition was observed to be improved/rectified by the contractor during the audit session on 7 March 2018
	20 March 2018	The Contractor was reminded to remove stagnant water in Subway A through sedimentation tank to avoid untreated discharge.	The condition was observed to be improved/rectified by the contractor during the audit session on 28 March 2018
	31 January,7 ,13, 21, 28 February, 7, 14 March 2018	Excavated dusty area should be covered by impervious material or maintained wet at Portion M.	The condition was observed to be improved/rectified by the contractor during the audit session on 20 March 2018
Air Quality	14 March 2018	The Public road around the entrance of Subway A was not clean. Vehicles should be cleaned and free from mud/debris before leaving the site.	The condition was observed to be improved/rectified by the contractor during the audit session on 20 March 2018
	28 March 2018	To keep site entrances clean and free from dust at Portion C.	Follow up actions will be reported in the next month.
Noise	N/A	There was no observation in the reporting period.	N/A
	16, 23, 31 January, 7, 13, 21, 28 February, 7 March 2018	General refuse and stagnant water were found in the drip tray at Portion C. The Contractor was reminded to keep the drip tray well-maintained.	The condition was observed to be improved/rectified by the contractor during the audit session on 14 March 2018
Waste/ Chemical Management	21, 28 February, 7 March 2018	Portion M was not clean and tidy generally. The Contractor was reminded to clean it up regularly and to provide adequate rubbish bin.	The condition was observed to be improved/rectified by the contractor during the audit session on 14 March 2018
	7, 14, 20, 28 March 2018	The Contractor was reminded to dispose regularly and properly to avoid accumulating of general refuse/construction waste in Portion E.	Follow up actions will be reported in the next month.

Parameters	Date	Observations and Recommendations	Follow-up		
14 March 2018		Subway A was not clean and tidy generally. The contractor was reminded to maintain a clean and hygienic site.	The condition was observed to be improved/rectified by the contractor during the audit session on 20 March 2018		
	20, 28 March 2018	General refuse bins should be maintained more frequently and accumulation of waste in Portion M should be avoided.	Follow up actions will be reported in the next month.		
	20, 28 March 2018	Drip tray should be provided to chemical containers within the Site.	Follow up actions will be reported in the next month.		
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A		
Landscape and Visual	N/A	There was no observation in the reporting period	N/A		
Permits/ Licenses	N/A	There was no observation in the reporting period.	N/A		

Summary of Observation and Recommendation Made during Site Inspection in April 2018

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	6, 11, 17, 24 October, 2, 8, 15, 21, 29 November, 6, 12, 19, 27 December 2017, 3, 10, 16, 23, 31 January, 7, 13, 21, 28 February, 7 14, 20, 28 March 2018	Unsatisfactory water quality of Wheel Washing Bay at Portion A was found. The Contractor is reminded to maintain the water quality by regular checking and cleaning.	The condition was observed to be improved/rectified by the contractor during the audit session on 6 April 2018
	23, 31 January, 7, 13, 21, 28 February, 7 14, 20, 28 March, 6, 11, 17, 25 April 2018	Stagnant water was observed accumulating behind the retaining wall at Portion C. The Contractor was reminded to remove the stagnant water regularly to prevent mosquito breeding.	Follow up actions will be reported in the next month.
	17 April 2018	Stagnant water was observed at Portion I. The Contractor was reminded to properly provide wastewater treatment facilities, if necessary.	The condition was observed to be improved/rectified by the contractor during the audit session on 25 April 2018
Air Quality	28 March, 6, 11, 17, 25 April 2018	To keep site entrances clean and free from dust at Portion C.	Follow up actions will be reported in the next month.
2	25 April 2018	To keep site entrances clean and free from dust at Subway A.	Follow up actions will be reported in the next month.
Noise	N/A	There was no observation in the reporting period.	N/A
	7, 14, 20, 28 March, 6, 11, 17, 25 April 2018	The Contractor was reminded to dispose regularly and properly to avoid accumulating of general refuse/construction waste in Portion E.	Follow up actions will be reported in the next month.
Waste/	20, 28 March 2018	General refuse bins should be maintained more frequently and accumulation of waste in Portion M should be avoided.	The condition was observed to be improved/rectified by the contractor during the audit session on 6 April 2018
Chemical Management	20, 28 March, 6, 11 April 2018	Drip tray should be provided to chemical containers within the Site.	The condition was observed to be improved/rectified by the contractor during the audit session on 17 April 2018
	6, 11, 17, 25 April 2018	To clear the damaged traffic barrier and opened cement bags at Subway A.	Follow up actions will be reported in the next month.
	25 April 2018	Provide drip tray for the chemical containers at Subway A.	Follow up actions will be reported in the next month.
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A
Landscape and Visual	N/A	There was no observation in the reporting period	N/A
Permits/ Licenses	N/A	There was no observation in the reporting period.	N/A

APPENDIX G MONTHLY SUMMARY WASTE FLOW TABLE

### 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 <u>2016</u> (Year)

				y Sammai,	,	1011 1401	2 101 201	(101)				
	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actual Quantities of C&D Wastes Generated Monthly					
Month	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 <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	$(in '000m^3)$	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )	
Jan	-	-	-	-	-	-	-	-	-	-	-	
Feb	_	-	-	-	-	-	-	-	-	-	-	
Mar	-	-	-	-	-	-	-	-	-	-	-	
Apr	-	-	-	-	-	-	-	-	-	-	-	
May	-	-	-	1	-	-	-	-	1	-	-	
June	-	-	-	-	-	-	-	-	-	-	-	
July	-	-	-	1	-	-	0.01	0.01	0.01	-	0.01	
Aug	-	-	1	1	1	1	0.01	0.01	0.01	-	0.01	
Sept	0.005	-	1	1	0.005	1	0.01	0.01	0.01	-	0.06	
Oct	-	-	ı	1	ı	1	0.05	0.05	0.05	-	0.04	
Nov	0.35	-	-	-	0.35	-	0.05	0.05	0.05	-	0.05	
Dec	0.4	-	-	-	0.4	-	0.05	0.05	0.05	-	0.05	
Total	0.755	-	-	-	0.755	-	0.18	0.18	0.18	_	0.22	

<sup>\*</sup>Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Name of Department: CEDD Contract No.: YL/2015/01

### Monthly Summary Waste Flow Table for 2017 (Year)

				y Summar,	)		7101	(10a1)				
	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actual Quantities of C&D Wastes Generated Monthly					
Month	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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )	
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	0.79	-	1	-	0.79	1	0.05	0.05	0.05	1	0.01	
June	1.63	-	ı	1	1.63	1	0.05	0.05	0.05	1	0.02	
July	1.25	-	ı	1	1.25	1	0.05	0.05	0.05		0.01	
Aug	1.49				1.49	1	0.05	0.05	0.05	1	0.01	
Sep	1.15	-	ı	1	1.14	0.493	0.05	0.05	0.05	1	0.01	
Oct	1.19	-	ı	1	1.19	1	0.05	0.05	0.05	1	0.01	
Nov	0.79	-	1	-	0.76	-	0.05	0.05	0.05	-	0.03	
Dec	3.09	-	-	-	3.07	-	0.05	0.05	0.05	-	0.01	
Total	13.24				13.18	0.986	0.6	0.6	0.6		0.22	

<sup>\*</sup>Remark: Imported Fill not taken into account of Total Quantity Generated

#Revised Figure

Name of Department: CEDD Contract No.: YL/2015/01

# Monthly Summary Waste Flow Table for <u>2018</u> (Year)

	A	ctual Quantities	of Inert C&D	Materials Gene	erated Monthl	у	Actual Quantities of C&D Wastes Generated Monthly					
Month	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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )	
Jan	4.37	-	-	-	4.36	-	0.05	0.05	0.05	-	0.01	
Feb	1.66	-	-	-	1.64	-	0.05	0.05	0.05	-	0.01	
Mar	1.85	-	-	-	1.82	-	0.05	0.05	0.05	-	0.01	
Apr	3.35	-	-	-	3.31	-	0.05	0.05	0.05	-	0.01	
Sub-total	11.23	-	-	-	11.13	-	0.20	0.20	0.20	_	0.04	
May	_	-	-	-	-	-	-	-	-	-	-	
June	_	-	-	-	-	-	-	-	-	-	-	
July	_	-	-	-	-	-	-	-	-	-	-	
Aug	_	-	-	-	-	-	-	-	-	-	-	
Sept	_	-	-	-	-	-	-	-	-	-	-	
Oct	_	-	-	-	-	-	-	-	-	-	-	
Nov	_	-	-	-	-	-	-	-	-	_	-	
Dec	-	-	-	-	-	-	-	-	-	-	-	
•	•	•		•	•	•	•	•		•		
	•	•	•	•	•	•	•	•	•	•		
Total	25.225	-	-	-	25.065	0.986	0.98	0.98	0.98	-	0.49	

<sup>\*</sup>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 <sup>3</sup> )	$(in '000m^3)$	$(in '000m^3)$	(in '000m <sup>3</sup> )	$(in '000m^3)$	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )		
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
- 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].

### APPENDIX H SUMMARY OF EXCEEDANCES

Agreement No. CE 67/2015 (HY)

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

### Appendix H – 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 period)

ANNEX I COMPARISONS OF EM&A DATA AND EIA PREDICTIONS

# Annex I – Comparison of EM&A Data and EIA Predictions

### **Comparison of Noise Monitoring Data with EIA predictions**

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 (February 18), Leq (30min) dB(A)	Reporting Month (March 18), Leq (30min) dB(A)	Reporting  Month (April 18), Leq (30min) dB(A)	
N1 - HKMLC Wong		(1)	47.0			
Chan Sook Ying Memorial School	55-62	62 <sup>(1)</sup>	45.9 - 62.8	60.0 - 62.2	53.1 – 61.5	
N2 – Bethel High School	57-64	64 <sup>(1)</sup>	51.7 – 61.7	46.1 – 56.7	55.0 – 61.5	
N3 – No. 159 Mai Po San Tsuen	70-73	74 <sup>(2)</sup>	67.7 – 69.9	67.9 – 72.1	69.9 – 72.1	
N5 – Block 2, Dills Corner Garden	73-75	75 <sup>(2)</sup>	63.1 – 70.7	67.5 – 69.4	67.5 – 69.4	
N6 – Home of Loving Faithfulness	64-73	74 <sup>(1)</sup>	61.8 – 71.7	60.5 – 71.1	55.7 – 68.2	
N7 – Village House in Shek Wu Wai	N/A <sup>(3)</sup>	70 <sup>(2)</sup>	64.8 – 70.1	68.4 – 72.0	64.8 – 72.0	

#### 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)