

**JOB NO.: TCS00864/16** 

## **CEDD SERVICE CONTRACT NO. NTE/07/2016 ENVIRONMENTAL TEAM FOR DEVELOPMENT OF ANDERSON ROAD QUARRY SITE – SITE FORMATION AND ASSOCIATED INFRASTRUCTURE WORKS**

MONTHLY ENVIRONMENTAL MONITORING AND AUDIT REPORT (APRIL2020)

PREPARED FOR CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Prepared By Date **Reference No. Certified By** 18 May 2020 TCS00864/16/600/R0368v2

Nicola Hon (Environmental Consultant) Tam Tak Wing (Environmental Team Leader)

Date	Remarks
8 May 2020	First Submission
18 May 2020	Amended according to the IEC's comments on 12 May 2020
	8 May 2020



Civil Engineering and Development Department	Your reference:	
East Development Office		
8/F, South Tower, West Kowloon Government Offices	Our reference:	HKCEDD10/50/106537
11 Hoi Ting Road		
Yau Ma Tei	Date:	18 May 2020
Kowloon		

Attention: Mr Leung Siu Kau, Kelvin

**BY POST** 

Dear Sirs

Agreement No.: NTE 08/2016 Independent Environmental Checker for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works Monthly Environmental Monitoring and Audit Report (April 2020)

We refer to the emails of 8 and 18 May 2020 from Action-United Environmental Services and Consulting attaching a Monthly Environmental Monitoring and Audit Report (April 2020) for the captioned project.

We have no further comment and hereby verify the captioned report.

Should you have any queries, please do not hesitate to contact the undersigned or our Ms Hazel Chan on 2618 2831.

Yours faithfully ANEWR CONSULTING LIMITED

Adi Lee Independent Environmental Checker

LYMA/CYYH/csym

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## **EXECUTIVE SUMMARY**

- ES01 Action-United Environmental Services & Consulting (AUES) has been awarded the Civil Engineering and Development Department (CEDD) Service Contract No. NTE/07/2016 Environmental Team for Development of Anderson Road Quarry Site Site Formation and Associated Infrastructure Works (hereinafter called "the Service Contract") on 15 December 2016. The commencement date of the Service Contract is from December 2016 and the Contract Period is 70 months.
- ES02 The Services under the Service Contract is to provide environmental monitoring and audit (EM&A) services for the Works Contracts pursuant to the requirement of Environmental Team (ET) under the EM&A manual to ensure that the environmental performance of the Works Contracts comply with the requirement specified in the EM&A Manual and EIA Report of Development of Anderson Road Quarry and other relevant statutory requirements.
- ES03 To facilitate the project management and implementation, the Service Contract has been divided to three CEDD contracts including Contract NE/2016/01 (Contract 1), Contract NE/2016/05 (Contract 2) and Contract NE/2017/03 (Contract 3). As advised by the Resident Engineer (RE), the commencement date of Contract 1 was 21 December 2016 and the major construction works has been commenced on 12 April 2017. The commencement date of Contract 2 was 31 March 2017 and the major construction activities have been commenced on 2 May 2017. Furthermore, Contract 3 was commenced on 31 May 2018 and the major construction activities works was commenced in November 2018. The EM&A programme under the Project was commenced on 12 April 2017 pursuant to the requirement under the EM&A manual.
- ES04 This is the **37<sup>th</sup>** monthly EM&A report presenting the monitoring results and inspection findings for the period from **1 to 30 April 2020** (hereinafter 'the Reporting Period').

#### **ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES**

ES05 Environmental monitoring activities under the EM&A programme in the Reporting Period are summarized in the following table.

Environmental	Environmental Monitoring	<b>Reporting Period</b>		
Aspect	Parameters / Inspection	Number of Active Monitoring Locations	Total Occasions	
Air Quality	1-hour TSP	6	90	
	24-hour TSP	4	24	
Construction Noise	L <sub>eq(30min)</sub> Daytime for Contract NE/2016/01	7	33	
Construction Noise	$L_{eq(30min)}$ Daytime for Contract NE/2017/03	3	9	

## BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES06 No exceedance of air quality was recorded in the Reporting Period. For construction noise monitoring, no Limit Level exceedance was recorded but one noise complaint (which triggered Action Level) was received in the reporting period. The environmental exceedance, NOE issued and investigation of exceedance are summarized in the following table.

Environmontal	Monitoring Action		T imit	Event & Action			
Environmental Aspect	Monitoring Parameters		Level Level Issue		Investigation	Corrective Actions	
A in Quality	1-hour TSP	0	0	0	NA	NA	
Air Quality	24-hour TSP	0	0	0	NA	NA	



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					-

Environmental	Monitoring	Action	Limit	Event & Action			
Aspect	Parameters	0		NOE Issued	Investigation	Corrective Actions	
Construction Noise	L <sub>eq(30min)</sub> Daytime	1	0	0	Project-related	The Contractor had enhanced the noise mitigation measures.	

## **ENVIRONMENTAL COMPLAINT**

ES07 In the Reporting Period, there was one noise complaint received for Contract 2. Investigation had undertaken by ET upon receipt of the complaint. The environmental complaints received in the reporting period and the statuses are summarized in Section 8.

## NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES08 No environmental summons or successful prosecutions for the Project were recorded in the Reporting Period.

#### **REPORTING CHANGE**

ES09 No reporting change was made in the Reporting Period.

## SITE INSPECTION

- ES10 In this Reporting Period, joint site inspections to evaluate the site environmental performance for *Contract 1* were carried out by the RE, ET and Contractor on 9<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup> and 28<sup>th</sup> April 2020 in which IEC joined the site inspection with SSEMC on 9<sup>th</sup> April 2020. No non-compliance was noted during the site inspection.
- ES11 In this Reporting Period, joint site inspections to evaluate the site environmental performance for *Contract 2* were carried out by the RE, ET and Contractor on 1<sup>st</sup>, 8<sup>th</sup>, 15<sup>th</sup>, 22<sup>nd</sup> and 29<sup>th</sup> April 2020 in which IEC joined the site inspection with SSEMC on 22<sup>th</sup> April 2020. No non-compliance was noted during the site inspection.
- ES12 In this Reporting Period, joint site inspections to evaluate the site environmental performance for *Contract 3* were carried out by the RE, ET and Contractor on 6<sup>rd</sup>, 8<sup>th</sup>, 17<sup>th</sup>, 24<sup>th</sup> and 28<sup>th</sup> April 2020 in which IEC joined the site inspection with SSEMC on 17<sup>th</sup> April 2020. No non-compliance was noted during the site inspection.

#### FUTURE KEY ISSUES

- ES13 Since wet season is approaching, the Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should be properly maintained.
- ES14 Since construction site is highly visible to the resident at nearby estates, the Contractors should pay special attention on potential environmental impact generated by the site activities and adhere implement adequate air quality and noise mitigation measures as far as practicable to reduce the impact to the public.
- ES15 Construction noise is one of the key environmental issues during construction work of the Project. Noise mitigation measures such as using quiet plants and noise barriers shall be implemented where practicable according to the EM&A manual.
- ES16 In addition, the Contractors should ensure all effluent discharge shall be fulfilled the Technical Memorandum of Effluent Discharged into Drainage and Sewerage Systems, inland and Coastal Waters criteria or relevant discharge license requirement.



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## 1. INTRODUCTION

#### **1.1 PROJECT BACKGROUND**

- 1.1.1 Action-United Environmental Services & Consulting (hereinafter referred as "AUES") has been awarded the CEDD Service Contract No. NTE/07/2016 Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works (hereinafter called "the Service Contract") on 15 December 2016. The commencement date of the Service Contract was December 2016 and the Contract Period is 70 months.
- 1.1.2 The Services under the Service Contract is to provide environmental monitoring and audit (EM&A) services for the Works Contracts pursuant to the requirement of Environmental Team (ET) under the EM&A manual to ensure that the environmental performance of the Works Contracts comply with the requirement specified in the EM&A Manual and Environmental Impact Assessment (EIA) Report of Development of Anderson Road Quarry and other relevant statutory requirements.
- 1.1.3 Development of Anderson Road Quarry is to provide land and the associated infrastructures for the proposed land used at the existing Anderson Road Quarry Site at the North-eastern of East Kowloon according to the final Recommended Outline Development Plan (hereinafter named as the Project Works).
- 1.1.4 To facilitate the project management and implementation, the Service Contract has been divided to three CEDD contracts including Contract NE/2016/01 (Contract 1), Contract NE/2016/05 (Contract 2) and Contract NE/2017/03 (Contract 3). As advised by the Resident Engineer (RE), the commencement date of Contract 1 was 21 December 2016 and the major construction works has been commenced on 12 April 2017. The commencement date of Contract 2 was 31 March 2017 and the major construction activities have been commenced on 2 May 2017. Furthermore, Contract 3 was commenced on 31 May 2018 and the major construction activities works was commenced in November 2018. The EM&A programme under the Project was commenced on 12 April 2017 pursuant to the requirement under the EM&A manual.
- 1.1.5 According to the Approved EM&A Manual, air quality and noise monitoring are required to be monitored during the construction phase of the Project. As part of the EM&A program, baseline monitoring is required to determine the ambient environmental conditions. Baseline monitoring including air quality and noise conducted between *January* and *April 2019* at all designated monitoring locations were before construction work commencement. Furthermore, the Baseline Monitoring Report which verified by the Independent Environmental Checker (hereinafter referred as "the IEC") has been submitted to Environmental Protection Department (EPD) on *9 May 2017* for endorsement.
- 1.1.6 This is the 37<sup>th</sup> monthly EM&A report presenting the monitoring results and inspection findings for the period from 1 to 30 April 2020 (hereinafter referred as "Reporting Period").

#### **1.2 REPORT STRUCTURE**

- 1.2.1 The monthly EM&A Report is structured into the following sections:-
  - Section 1 Introduction Section 2 Project Organization and Construction Progress Section 3 Summary of Impact Monitoring Requirements Section 4 Air Quality Monitoring Section 5 Construction Noise Monitoring Section 6 Waste Management Section 7 Site Inspections Section 8 Environmental Complaints and Non-Compliance Section 9 Implementation Status of Mitigation Measures Conclusions and Recommendations Section 10



## 2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

#### 2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the Project was divided by 3 works contracts as described in following. The details of each contract are summarized below and the delineation of each contract is shown in *Appendix A*.

#### Contract 1 (Contract No. NE/2016/01)

- 2.1.2 Commencement date of Contract 1 was in late December 2016 and the major scope of work of Contract 1 is listed below:
  - Formation of about 40 hectares (ha) of land platforms at the ARQ site and the associated geotechnical works;
  - Road works including construction of approximately 3-kilometer long vehicular roads, footpaths, cycle tracks, an approximately 130-meter long underpass at the southern end an a public transport terminus at the northern end at the ARQ site;
  - Provision of and improvement to water supply, drainage and sewerage systems as well as landscaping works; and
  - Construction of proposed subway structures and lift tower structures of pedestrian connectivity facilities.

#### Contract 2 (Contract No. NE/2016/05)

- 2.1.3 Commencement date of Contract 2 was 31 March 2017 and the major Scope of Work of the Contract 2 is listed below:
  - (i) Construction of the following pedestrian connectivity facilities with covered elevated walkways, covered at grad walkways, escalators, life towers with associate staircase and lifts:-
    - (a) Linking Hiu Kwong street with Hiu Ming Street (E1)
    - (b) Linking the proposed "Footbridge Link at Sau Ming Road" with Hiu Ming Street (E2, C1 and E3)
    - (c) Linking the proposed bus-to-bus interchange at Tseung Kwan O Tunnel Toll Plaza with Lin Tak Road (E12)
  - (ii) Construction of bus-to-bus interchange (BBI) at Tseung Kwan O Tunnel Toll Plaza;
  - (iii) Associated landscape works;
  - (iv) Construction of green routes connecting to Jordan Valley Park and Choi Wing Road; and
  - (v) Slope improvement works in the vicinity of Po Lam Road South and other associated works.

#### Contract 3 (Contract No. NE/2017/03)

- 2.1.4 The commencement date of Contract 3 is on 31 May 2018 and the major Scope of Work of the Contract 3 is listed below:
  - (i) Site formation and road works in the following sections:-
    - (a) at junction of Clear Water Bay Road (CWBR) and On Sau Road constructed under the Development at Anderson Road (DAR) project including the provision of U-turn facility and noise mitigation measures (RIW1);
    - (b) at New Clear Water Bay Road (NCWBR) near Shun Lee Tsuen Road including the road widening works at NCWBR, modification of existing subway structure and provision of noise mitigation measures (RIW2); and
    - (c) at the junction of Lin Tak Road and Sau Mau Ping Road, construction of flyover above Tseung Kwan O Road, provision of loading and unloading bays along Lin Tak Road and noise mitigation measures (RIW3).
  - (ii) construction of the following pedestrian connectivity facilities with covered elevated walkways, escalators and lift towers with associated staircases and lifts:-



- (a) linking Anderson Road Quarry site with the DAR Site (except the works covered under Contract 1) (System A and System B);
- (b) linking Hiu Ming Street with Hiu Yuk Path (E8); and
- (c) linking the proposed bus-bus interchange at Tseung Kwan O Tunnel Toll Plaza with Sau Mau Ping Road (E11).
- (iii) Associated landscape works.

## 2.2 **PROJECT ORGANIZATION**

2.1.1 The project organization and contact details for Contracts 1, 2 and 3 are shown in *Appendix B*.

## 2.3 CONSTRUCTION PROGRESS

2.3.1 The 3-month rolling construction programme for Contracts 1, 2 and 3 are shown in *Appendix C*. The major construction activities conducted in the Reporting Period are summarized in below.

## Contract 1 (NE/2016/01)

Temporary Traffic Arrangement (TTA) at On Sau Road:

• Implementation of TTA at the junction between On Sau Road and Road L4 for road improvement works to continue

Pedestrian Connectivity System B:

• PC system B structure completed, backfill work to continue.orth tower structure completed, formwork & falsework to be remove. Subway backfill work to continue.

## Construction of Internal Road L1:

- Manhole construction & trench backfill to continue.
- Excavation and laying of watermain to continue.
- Gullies and upper drainage construction for road L1 west to continue.

Box Culvert BC1 at Internal Road L1:

- Dia.1500mm drainage pipes installation at BC1 bay1.
- Defect rectification work is in progress

## Construction of Internal Road L2

- Site formation works to continue.
- Drainage pipe & M/H R243a to R243 trench backfill to continue.
- S241 to S241a pipe laying and manhole construction to continue

## Retaining Wall RWA9 at Road L3

• RWA9 wall Bay 7-10 started.

Box Culvert BC2 at Internal Road L3:

- Bay 8 to 14 backfill trench to continue.
- Bay 13 chamber structure works is in progress.
- Defect rectification work is in progress.

## Construction of Internal Road L5:

• Concrete kerb construction and road base, base course laying to continue.

## West Portal, East Portal and Underpass Tunnel:

- Slope A1 slope and buttress wall work from East Portal to continue.
- Slope A3 slope and buttress wall work from West Portal to continue.
- Tunnel concrete lining works to continue.
- Box Culvert BC3 Bay 1 to Bay 13 excavation & culvert construction work to continue.



## Water Pumping Station including Retaining Wall RWA13 and RWA14:

- Backfill at retaining wall RWA13 & RWA14 (Bay 15) to continue.
- Rock breaking to formation level outside Water Pumping Station to continue.
- To continue with Metal Works (i.e.: steel door & window, etc).
- To commence the ABWF Works.

Water Reservoir

- To continue the remaining minor RC works for Fresh Water Reservoir.
- To continue the water tightness test for Fresh Water Reservoir.
- To continue rock breaking to formation level.
- To commence excavation works for drainage.

Artificial Flood Attenuation Lake

- Backfilling of retaining wall to continue.
- Laying granular bed at lake bottom to be commenced.
- To commence sub soil drain at bottom of Lake.
- To continue the drainage works.
- Construction of water retaining wall (Type C1/2) to continue.
- Construction of Treatment Plant wall to continue.

Underground Stormwater Retention Tank (USRT)

- Backfill around USRT in progress.
- Backfill around Ventilation Duct area to continue.

Internal Road L4, Pedestrian Connectivity System A, Noise Barrier, RWA12 and RWA 18:

- RWA12 Bay 17 to 20 wall stage 2 backfill work to continue.
- RWA12 S201A, CP17.1 and cascade structure work to continue.
- RWA12 Bay 7 to 14 wall backfill work to continue.
- RWA18 Storm & Sewer drain (S003A to S006, existing M/H to B229) to continue.
- System A south tower piling work to continue, north tower rock breaking to continue.

## PTT

- Rock breaking at Row A & B is in progress.
- E&M services installation at Row B is in progress.
- Drainage work at Row B & C is in progress.

#### Slope Stabilization at Portion B1:

- Continue to carry out stabilization works at Feature 11NE-D/C998, 11NE-D/C1004, 11NE-D/C1005, Slope A15b, 11NE-D/C947, 11NE-D/C949, 11NE-D/C976 and 11NE-D/C977.
- Continue to carry out slope cleaning works of outstanding features.

Slope Stabilization at Portion B5

- Continue to erect inspection scaffolds from 2th to 8th berm
- Continue to carry out stabilization works at 11NE-D/C949 and 11NE-D/C948

Establishment Works of the Planting Medium on the Existing Slope Berms in Portion B1 and B5:

• Establishment works on slopes in Portion B1 for 30-month establishment works for 1 and scape softworks under establishment schedule no.3 to continue

Road Improvement Works at Po Lam Road:

• Construction of permanent footpath and surface drainage system to continue

MEP Works:



- Submission of designs and materials related to MEP works to continue.
- E&M installation works at PTT to continue.
- E&M installation works at Pump Hall of Fresh Water Pumping Station to commence.
- E&M installation works at Pedestrian Connectivity System B to commence

Site Formation Work at Portion A1 (Land lot RS-1):

• Chain link fence installation in progress

Site Formation Work at Portion B7 & B15:

• Backfilling and proof rolling at Portion B7 & B15 in progress.

#### Contract 2 (NE/2016/05)

- 1. Portion 1:
  - Continue Piling works for Pile Cap E1 -PC4 and E1-PC5; and
  - Backfilling with no-fines concrete around pile cap E1-RS1, E1-PC1 and E1-PC2.
- 2. Portion 2: Rock breaking for E3-F1.
- 3. Portion 3: Relocation of existing pedestrian crossing
- 4. Portion 4: Rectification of defects
- 5. Portion 5:
  - Footing construction of the covered walkway footing BBI-NB-F2,F1a, F1b.
  - Footing construction for Northern and Southern High Mast footings
  - Drainage Works
- 6. Portion 6:

-Rock breaking for rock cut slope and BBI Footing.

-Fixing formwork, reinforcement and place concrete for RWE12.

#### Contract 3 (NE/2017/03)

Works in Road Improvement Works 1 (RIW1)

- Earth works (such as temporary soil nail, form working platform etc) at type 1, 1a, 4 to 8 in-progress; No fine concrete construction at RWC2 area is in progress;
- ELS works at KS27 subway extension is in progress;
- Excavate works and install lateral support at FE1 was completed;
- Construction of Slip Road 2 drainage works is in progress;

Works in Road Improvement Works 2 (RIW2)

- Site clearance for Portion 7 is in progress;
- Pre-drill at CT4 and SE2 in progress;

## Works in Road Improvement Works 3 (RIW3)

- Mini-pile construction at RWD1 along Sau Mau Ping Road is in progress.
- Water-main works for new Public Toilet at Sau Mau Ping Road is in progress;
- ELS works and construction pile cap for temporary platform were in-progress.
- Rock excavation works using drill and split method at Slope D3 along Lin Tak Road was in-progress;
- Retaining wall construction at slope crest of Slope D3 was in-progress;
- No-fines concrete construction at slope crest of Slope D3 is in progress;
- Inspection Pit for UU at Sau Mau Ping Road.
- Rock-fall fence for Lin Tak Road (Stage 2) was in-progress.

## Pedestrian Connectivity Facility E8 (PC-E8)

- Construction of RC Pier P3 (F4), P5 (F6) is in progress; construction of RC Footing F7 was completed; ELS installation at F8 is in progress;
- Construction of RC escalator pit for E1 / E2 is in progress.

## Pedestrian Connectivity Facility E11 (PC-E11)

Preparation for install sheet pile / ELS works at PC6 is in-progress;



Construction of RC pier P1, P3, P4 and P5 were in-progress.

Pedestrian Connectivity Facilities Systems A (PC-SYA)

- Construction of underground RC sum-pit near SyA-F1 in progress;
- Backfilling soft material to existing ground level is in progress;

Pedestrian Connectivity Facilities Systems B (PC-SYB)

- Construction of RC pile cap at SYB-A1 is in progress;
- Construction of socket H pile at PC7 and PC8 are in progress;
- Site clearance, UU Detection and Trial pit inspection at PC2 & PC1 in progress;
- Preparation works for PC3 above ground RC structure is in progress.

Tseung Kwan O Bus-Bus Interchange New Public Toilet (BBI-Toilet)

- Carry-out outstanding works.
- 2.3.2 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project of contracts 1 and 2 are presented in *Tables 2-1, 2-2 and 2-3*.

Table 2-1Status of Environmental Licenses and Permits of the Contract 1

		License/Permit Status				
Item	Description	Permit no./ account	Valid H	Period	Status	
		no./ Ref. no.	From	То	Status	
1	Form NA – Notification pursuant to Air pollution Control (Construction Dust) Regulation	EPD ref. no. 411762	NA	NA	valid	
	Form NB – Notification pursuant to Air pollution Control (Construction Dust) Regulation	EPD ref. no. 412730	NA	NA	valid	
2	Chemical Waste Producer Registration	Registration no. WPN 5213-292-C4115-01	15 Feb 17	End of project	valid	
3	Water Pollution Control Ordinance – Discharge License	WT00027252-2017	20 Mar 17	31 Mar 22	valid	
4	WasteDisposalRegulation–BillingAccount for Disposal ofConstruction Waste	Account no. 7026925	20 Jan 17	End of project	valid	
5	Construction Noise Permit	GW-RE0145-20	12 Mar 20	11 Sep 20	valid	

## Table 2-2 Status of Environmental Licenses and Permits of the Contract 2

		License/Permit Status				
Item	Description	Permit no./ account	Valid 1	Period	Status	
		no./ Ref. no.	From	То	Status	
1	Notification pursuant to	EPD ref. no. 312173	NA	NA	valid	
	Air pollution Control					
	(Construction Dust)					
	Regulation					
2	Chemical Waste	Registration no.	3 Jul 17	End of	Valid	
	Producer Registration	WPN 5213-294-K2890-08		Project		
3	Water Pollution Control	WT00028685-2017	02 Aug 17	31 Aug 22	Valid	



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	License/Permit Status					
Item	Description	Permit no./ account	Valid	Period	Status	
		no./ Ref. no.	From	То	Status	
	Ordinance – Discharge License	WT00028686-2017	02 Aug 17	31 Aug 22	Valid	
		WT00028687-2017	02 Aug 17	31 Aug 22	Valid	
4	WasteDisposalRegulation–BillingAccount for Disposal ofConstruction Waste	Account no.7027548	12 Apr 17	End of project	Valid	
5	Construction Noise Permit	GW-RE0268-20	21 Apr 20	17 Jul 20	Valid	

Table 2-3	<b>Status of Environmental Licenses and Permits of the Contract 3</b>

		License/Permit Status			
Item Description		Permit no./ account	Valid	Period	Status
		no./ Ref. no.	From	То	
1	Form NA – Notification pursuant to Air Pollution Control (Construction Dust) Regulation	Notification to EPD on 29	9 May 2018.		
2	Chemical Waste Producer Registration	For Area R1W3 (E11) Registration no. WPN : 5213-294-C4239-04	6-Aug-18	End of Project	Valid
		For Area System A Registration no. WPN: 5213-293-C4239-05	6-Aug-18	End of Project	Valid
		For Area System B Registration no. WPN 5213-294-C4239-03	6-Aug-18	End of Project	Valid
		For Area E8 Registration no. WPN 5213-292-C4239-06	6-Aug-18	End of Project	Valid
3	WaterPollutionControlOrdinance	For Area R1W3 (E11) WT00032742-2018	18-Jan-19	31-Jan-24	Valid
	– Discharge License	For Area System A WT00033223-2019	31-Jan-19	31-Jan-24	Valid
		<b>For Area System B</b> WT00033229-2019	24-Jun-19	30-Jun-24	Valid
		For Area E8 WT00033224-2019	21-Mar-19	31-Mar-24	Valid
4	WasteDisposalRegulation-Billing Account forDisposalofConstruction Waste	Account no.7031075	20 July 2018	End of project	Valid
5	CNP for Lifting Oscillators of Area RIW1 KS27	-	-	-	Refuse
	CNP for loading and unloading of Stone Monument at RIW2	-	-	-	Refuse



## 3. SUMMARY OF IMPACT MONITORING REQUIREMENTS

## 3.1 GENERAL

- 3.1.1 The Environmental Monitoring and Audit requirements are set out in the Approved EM&A manual. Environmental issues such as air quality, construction noise and water quality were identified as the key issues during the construction phase of the Project.
- 3.1.2 A summary of construction phase EM&A requirements are presented in the sub-sections below.

#### **3.2 MONITORING PARAMETERS**

- 3.2.1 The EM&A program of construction phase monitoring shall cover the following environmental issues:
  - Air quality; and
  - Construction noise
- 3.2.2 A summary of the monitoring parameters is presented in *Table 3-1*.

Table 5-1 Summary of Extrem Requirements				
<b>Environmental Issue</b>	Parameters			
Air Quality	• 1-hour TSP by Real-Time Portable Dust Meter; and			
Air Quality	• 24-hour TSP by High Volume Air Sampler			
Noise	<ul> <li>Leq(30min) in normal working days (Monday to Saturday) 07:00-19:00 except public holiday</li> </ul>			
Noise	• Supplementary information for data auditing, statistical results such as L <sub>10</sub> and L <sub>90</sub> shall also be obtained for reference.			

# Table 3-1 Summary of EM&A Requirements

#### 3.3 MONITORING LOCATIONS

3.3.1 According to the EM&A Manual Section 4.6, seven (7) most representative and affected air sensitive receivers (ASR) were selected as air monitoring stations (AQM). During site visit at the subject site before the baseline monitoring, it was noted that some planned ASRs identified in the EM&A Manual are still under construction/ has not yet constructed and there were no suitable location to set up the high volume sampler to carry out the baseline 24-hour TSP monitoring. Therefore, a proposed change for the baseline monitoring programme was submitted and agreed by EPD before the baseline monitoring. The impact air quality monitoring locations are listed in *Table 3-2* and illustrated in *Appendix D*.

Table 3-2	Impact Monitoring Stations – Air Quality
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ID	ASR ID		Identified Location during	Status
12	in EIA	EM&A Manual	Site Visit	
AMS-1	ACYC-01	Chi Yum Ching	Ground of Chi Yum Ching	Replaced by
		She	facing the project site	AMS-1a
AMS-1a (*)	ACYC-01	Tan Shan	Ground of Tan Shan Village	Active
		Village No. 5 - 6	No. 5 - 6 facing the project site	
AMS-2 (#)	DARB-13	Block 8, Site B	Ground of Fung Tai House of	Active
			On Tai Estate	
AMS-3 (:)	DARC-16	Planned Clinic	Ground of Planned Clinic and	Active
		and Community	Community Centre facing	
		Centre, Site C2	Anderson Road (Ancillary	
			Facilities Building)	
AMS-4	DARC-26	Planned School,	Ground of Planned School	Not yet
		Site C2 Note 1	facing Anderson Road	commenced
AMS-5	DARE-06	Block 5, DAR	Main roof of Oi Tat House of	Active
		Site E	On Tat Estate facing the	
			project site	
AMS-6	DARE-17	Block 9, Site E	Main roof of Hau Tat House of	Active
			On Tat Estate facing the	



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ID	ASR ID in EIA	Location in the EM&A Manual	Identified Location during Site Visit	Status
			project site	
AMS-7	AMYT-04	Ma Yau Tong	Balcony at 2 <sup>nd</sup> floor of Village	Active
		Village	House Anderson Road No. 1	
		_	facing the project site	

Note 1: The ASR is under construction.

(#) AMS-2 was activated on 26 November 2018 since Fung Tai House became an air sensitive receiver. 1-hour TSP monitoring was commenced on 26 November 2018 while installation of HVS for 24-hour TSP was pending approval from Housing Authority.

(\*) 24-hour TSP monitoring at AMS1 was abandoned since May 2019 due to lack of power supply and the landlord was unreachable. The alternation location of AMS1a was activated on 15 June 2019 for 1-hour and 24-hour TSP monitoring. The proposal was agreed by EPD on 9 Aug 2019. (:) AMS-3 was effective on 3 December 2019.

## **Construction Noise**

3.3.2 According to the EM&A Manual Section 5.5, three (3) most representative and affected noise sensitive receivers (NSR) were selected as monitoring stations. As recommended by the RE and agreed by IEC, one (1) additional noise monitoring location is proposed to add in Oi Tat House of On Tat Estate (hereafter "NMS-4") to oversee the possible noise impact pose to the resident in On Tat Estate, which is an existing NSR close to the major works activities. Moreover, review of impact monitoring location was proposed to IEC in view of the current site condition and it was agreed by all parties. The details of noise monitoring location are listed in Table 3-3 and illustrated in Appendix D.

Table 3-3	<b>Impact Monitoring Stations – Construction Noise</b>
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ID	NSR ID in EIA	Location	Status	
NMS-1	Site C2 –	Ground of planned school at DAR facing the	Not yet	
	School 05 Note 1	project site	commenced	
NMS-2	Site E – School	Rooftop of S.K.H. St. John's Tsang Shiu Tim	Active	
(@)		Primary School, where 1m from the exterior		
		of the building facing the project site		
NMS-3(:)	Site C2 – R102–	Ground of Ancillary Facilities Building	Active	
		facing the project site		
NMS-4*	Oi Tat House	1m from the exterior of ground floor façade	Suspended	
		of Oi Tat House of On Tat Estate facing the	_	
		project site		
NMS-4a#	Oi Tat House	Rooftop of Oi Tat House where 1m from the Active		
		exterior of Oi Tat House facing the project		
		site		
NMS-5#	Hau Tat House	22/F, refuge floor of Hau Tat House where	Active	
		1m from the exterior of Hau Tat House		
		facing the project site.		
NMS-6~	Yung Tai House	se Rooftop of Yung Tai House where 1m from Active		
	of On Tai Estate	the exterior of the building facing the project		
		site)		
NMS-7~	Chi Tai House	1		
	of On Tai Estate			
NMS-8^	No. 3-4 Ma Yau	03		
	Tong Village	and facing the construction site		

Note 1: Construction of the NSR is not yet commenced.

(\*) Additional noise monitoring location was recommended by RE and agreed by IEC. It was temporary suspended and the monitoring location is relocated to NMS4a with effective on 15 Nov 2017.

(@) NMS-2 was effective on 15 November 2019.



- (:) NMS-3 was effective on 3 December 2019
- (#) Review of noise monitoring locations was proposed by ET and NMS-5 was effective on 15 November 2017.
- (~) Review of noise monitoring locations was proposed by ET and NMS-6 and NMS-7 were effective on 28 Feb 2018.
- () Review of noise monitoring locations was proposed by ET and NMS-8 was effective on 18 April 2018. Noise monitoring at NMS-8 was started on 3 May 2018 upon commencement of construction at relevant section.

#### Addition Construction Noise Monitoring Location

3.3.3 A Work Instruction was issued from AECOM to AUES in November 2018 for installing three additional noise monitoring stations under Contract 3. According to the Work Instruction, one noise monitoring station was proposed to install at System A Area and two station monitoring points were proposed to install at E8 Area. The noise monitoring locations are shown in *Table 3-4* below and illustrated in *Appendix D*.

ID	Location	Description
CN1	Holm Glad College	Ground floor of Holm Glad College, where 1m from the exterior of the building facing E8
CN2	Leung Shek Chee College	Ground floor of Leung Shek Chee College, where 1m from the exterior of the building facing E8
CN3	Oi Tat House of On Tat Estate	Ground floor of Oi Tat House of On Tat Estate, where 1m from the exterior of the building facing System A

 Table 3-4
 Additional Impact Monitoring Stations – Construction Noise

#### 3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 The requirements of impact monitoring in the approved *EM&A Manual* and presented as follows.

#### Air Quality Monitoring

- 3.4.2 Frequency of impact air quality monitoring is as follows:
  - 1-hour TSP 3 times every six days during course of works throughout the construction period
  - 24-hour TSP Once every 6 days during course of works throughout the construction period

#### Noise Monitoring

- 3.4.3 Noise monitoring will be to conduct at the all available designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:
  - one set of Leq<sub>(30min)</sub> measurements between 07:00 and 19:00 hours on normal weekdays

#### 3.5 MONITORING EQUIPMENT

#### Air Quality Monitoring

- 3.5.1 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50),* Appendix *B*. If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to the IEC to prove that the instrument is capable of achieving a comparable results to the HVS. The instrument should be calibrated regularly, and the 1-hour sampling shall be determined on yearly basis by the HVS to check the validity and accuracy of the results measured by direct reading method. The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory.
- 3.5.2 All equipment to be used for air quality monitoring is listed in *Table 3-5*.



## Table 3-5

Tuble e e Thi Quanty Montoring Equipment				
Equipment		Model		
24-hour TSP	High Volume Air Sampler	TISCH High Volume Air Sampler, HVS Model TE-5170		
	Calibration Kit	TISCH Model TE-5025A		
1- hour TSP	Portable Dust Meter	Sibata LD-3B Laser Dust Monitor		

# **Air Ouality Monitoring Equipment**

## Noise Monitoring

- 3.5.3 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms<sup>-1</sup>.
- 3.5.4 Noise equipment as perform for construction phase monitoring is listed in *Table 3-6*.

#### Table 3-6 **Construction Noise Monitoring Equipment**

Equipment	Model
Integrating Sound Level Meter	B&K-2238
Calibrator	Rion NC-74
Portable Wind Speed Indicator	Anemometer AZ Instrument 8908

#### 3.6 MONITORING METHODOLOGY

#### <u>1-hour TSP</u>

- The 1-hour TSP monitor was a brand named "Sibata LD-3 Laser Dust monitor Particle Mass Profiler 3.6.1 & Counter" which is a portable, battery-operated laser photometer. The 1-hour TSP meter provides a real time 1-hour TSP measurement based on 90° light scattering. The 1-hour TSP monitor consists of the following:
  - A pump to draw sample aerosol through the optic chamber where TSP is measured; (a.)
  - A sheath air system to isolate the aerosol in the chamber to keep the optics clean for (b.) maximum reliability; and
  - (c.) A built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.
- The 1-hour TSP meter to be used will be within the valid period, calibrated by the manufacturer 3.6.2 prior to purchasing. Zero response of the instrument will be checked before and after each monitoring event.

## 24-hour TSP

- 3.6.3 The equipment used for 24-hour TSP measurement is Thermo Andersen Model GS2310 TSP high volume air sampling system, which complied with EPA Code of Federal Regulation, Appendix B to Part 50. The High Volume Air Sampler (HVS) consists of the following:
  - (a.) An anodized aluminum shelter:
  - A 8"x10" stainless steel filter holder: (b.)
  - A blower motor assembly; (c.)
  - A continuous flow/pressure recorder; (d.)
  - A motor speed-voltage control/elapsed time indicator; (e.)
  - (f.) A 7-day mechanical timer, and
  - A power supply of 220v/50 Hz (g.)
- 3.6.4 For HVS for 24-hour TSP monitoring, the HVS is mounted in a metallic cage with a top for protection and also it is sat on the existing ground or the roof of building. The flow rate of the



HVS between  $0.6m^3/min$  and  $1.7m^3/min$  will be properly set in accordance with the manufacturer's instruction to within the range recommended in *EPA Code of Federal Regulation, Appendix B to Part 50*. Glass Fiber Filter 8" x 10" of TE-653 will be used for 24-Hour TSP monitoring and would be supplied by laboratory. The general procedures of sampling are described as below:-

- A horizontal platform with appropriate support to secure the samples against gusty wind should be provided;
- No two samplers should be placed less than 2 meters apart;
- The distance between the sampler and an obstacle, such as building, must be at least twice the height that the obstacle protrudes above the sample;
- A minimum of 2 meters of separation from any supporting structure, measured horizontally is required;
- Before placing any filter media at the HVS, the power supply will be checked to ensure the sampler work properly;
- The filter paper will be set to align on the screen of HVS to ensure that the gasket formed an air tight seal on the outer edges of the filter. Then filter holder frame will be tightened to the filter hold with swing bolts. The holding pressure should be sufficient to avoid air leakage at the edge;
- The mechanical timer will be set for a sampling period of 24 hours (00:00 mid-night to 00:00 mid-night next day). Information will be recorded on the field data sheet, which would be included the sampling data, starting time, the weather condition at current and the filter paper ID with the initial weight;
- After sampling, the filter paper will be collected and transfer from the filter holder of the HVS to a sealed envelope and sent to a local HOKLAS accredited laboratory for quantifying.
- 3.6.5 All the sampled 24-hour TSP filters will be kept in normal air conditioned room conditions, i.e. 70% HR (Relative Humidity) and 25°C, for six months prior to disposal.
- 3.6.6 The HVS used for 24-hour TSP monitoring will be calibrated before the commencement for sampling, and after in two months interval for 1 point checking of maintenance and six months interval for five points calibrate in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A) to establish a relationship between the follow recorder meter reading in cfm (cubic feet per minute) and the standard flow rate, Qstd, in  $m^3/min$ . Motor brushes of HVS will be regularly replaced of about five hundred hours per time. The calibration certificates of all monitoring equipment used for the impact monitoring program in the Reporting Period and the HOKLAS accredited certificate of laboratory are attached in *Appendix E*.

## Noise Monitoring

- 3.6.7 As referred to in the Technical Memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804:1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be 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.
- 3.6.8 All noise measurements will be performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq). Leq<sub>(30 min)</sub> in six consecutive Leq<sub>(5 min)</sub> measurements will be used as the monitoring parameter for the time period between 07:00-19:00 hours on weekdays throughout the construction period.
- 3.6.9 The sound level meter will be mounted on a tripod at a height of 1.2 m and placed at the assessment point and oriented such that the microphone is pointed to the site with the



microphone facing perpendicular to the line of sight. The windshield will be fitted for all measurements. Where a measurement is to be carried out at a building, the assessment point would normally be at a position 1 m from the exterior of the building façade. Where a measurement is to be made for noise being received at a place other than a building, the assessment point would be at a position 1.2 m above the ground in a free-field situation, i.e. at least 3.5 m away from reflective surfaces such as adjacent buildings or walls.

- 3.6.10 Immediately prior to and following each noise measurement the accuracy of the sound level meter will be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements will be accepted as valid only if the calibration level from before and after the noise measurement agrees to within 1.0 dB.
- 3.6.11 Noise measurements will not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed will be checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 3.6.12 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis. The calibration certificates of all monitoring equipment used for the impact monitoring program in the Reporting Period is attached in *Appendix E*.

## Meteorological Information

3.6.13 The meteorological information including wind direction, wind speed, humidity, rainfall, air pressure and temperature etc. during baseline monitoring is extracted from the closest Hong Kong Observatory Station. To obtain the most appropriate meteorological information where available, the data of temperature is extracted from the Kwun Tong Observatory Station; the data of wind speed and wind direction are extracted from Kai Tak Observatory Station and the data of humidity is extracted from King's Park Station.

## 3.7 DERIVATION OF ACTION/LIMIT (A/L) LEVELS

3.7.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. According to the approved Environmental Monitoring and Audit Manual, the air quality, construction noise were set up, namely Action and Limit levels are listed in *Tables 3-7 and 3-8*.

Monitoring Station	Action Level (µg /m <sup>3</sup> )		Limit Level (µg/m <sup>3</sup> )	
Monitoring Station	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP
AMS-1	313	154	500	260
AMS-1a(*)	313	154	500	260
AMS-2	319	165	500	260
AMS-3	319	165	500	260
AMS-4	315	165	500	260
AMS-5	299	166	500	260
AMS-6	303	168	500	260
AMS-7	307	156	500	260

Table 3-7Action and Limit Levels for Air Quality Monitoring

(\*) 24-hour TSP monitoring at AMS1 was abandoned since May 2019 due to lack of power supply and the landlord was unreachable. The alternation location of AMS1a was activated on 15 June 2019 for 1-hour and 24-hour TSP monitoring. The proposal was agreed by EPD on 9 Aug 2019.

## Table 3-8 Action and Limit Levels for Construction Noise

Monitoring Logotion	Action Level	Limit Level in dB(A)
Monitoring Location	Time Period: 0700-1900 hours on normal weekdays	
NMS-1	When one or more documented	<b>70</b> dB(A) <sup>Note 1</sup> / <b>65</b> dB(A) <sup>Note 1</sup>



N.T. 1. T	Action Level	Limit Level in dB(A)				
Monitoring Location	Time Period: 0700-1900 hours on normal weekdays					
NMS-2(@)	complaints are received					
NMS-3(:)	-	75 dB(A)				
NMS-4*		75 dB(A)				
NMS-4a#		75 dB(A)				
NMS-5#		75 dB(A)				
NMS-6~		<b>75</b> dB(A)				
NMS-7~		75 dB(A)				
NMS-8^		<b>75</b> dB(A)				
CN1+		<b>70</b> dB(A) <sup>Note 1</sup> / <b>65</b> dB(A) <sup>Note</sup>				
CN2+		<b>70</b> dB(A) <sup>Note 1</sup> / <b>65</b> dB(A) <sup>Note</sup>				
CN3+		75 dB(A)				

Note 1: Noise Limit Levels for school is 70dB(A) and should be reduced to 65dB(A) during examination period.

Note: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

Remark: (\*) Additional noise monitoring location was recommended by RE and agreed by IEC. It was temporary suspended and the monitoring location is relocated to NMS4a with effective on 15 Nov 2017.

(@) NMS-2 was effective on 15 November 2019.

(:) NMS-3 was effective on 3December 2019

(#) Review of noise monitoring locations was proposed by ET and NMS-5 was effective on 15 Nov 2017.

(~) Review of noise monitoring locations was proposed by ET and NMS-6 and NMS-7 were effective on 28 Feb 2018.

(^) Review of noise monitoring locations was proposed by ET and NMS-8 was effective on 18 April 2018. Noise monitoring at NMS-8 was started on 3 May 2018 upon commencement of construction at relevant section.

(+) Additional noise monitoring locations as instructed by AECOM which effective in Dec 18.

3.7.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan which presented in *Appendix F*.

## 3.8 DATA MANAGEMENT AND DATA QA/QC CONTROL

- 3.8.1 All monitoring data will be handled by the ET's in-house data recording and management system. The monitoring data recorded in the equipment will be downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data will input into a computerized database properly maintained by the ET. The laboratory results will be input directly into the computerized database and checked by personnel other than those who input the data.
- 3.8.2 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.



## 4. AIR QUALITY MONITORING

#### 4.1 GENERAL

- 4.1.1 In the Reporting Period, air quality monitoring was performed at the active designated monitoring locations AMS-1a, AMS-2, AMS-3, AMS-5, AMS-6 and AMS-7. Since installation of HVS for 24-hour TSP at AMS-2 and AMS-3 were pending approval from relevant departments, only 1-hour TSP monitoring was conducted at AMS-2 and AMS-3. No monitoring was conducted at AMS-4 since they are planned ASR which are still under construction/ not yet constructed.
- 4.1.2 The air quality monitoring schedule is presented in *Appendix G* and the monitoring results are summarized in the following sub-sections.

#### 4.2 **RESULTS OF AIR QUALITY MONITORING**

4.2.1 In the Reporting Period, a total of 90 events of 1-hour TSP monitoring and 24 events of 24-hours TSP were carried out and the monitoring results are summarized in *Tables 4-1 to 4-5*. The detailed 24-hour TSP monitoring data are presented in *Appendix H* and the relevant graphical plots are shown in *Appendix I*.

1-hour TSP ( $\mu g/m^3$ ) 24-hour TSP 2<sup>nd</sup> 3<sup>rd</sup> Date  $1^{st}$ Start Date  $(\mu g/m^3)$ Time reading reading reading 2-Apr-20 15 3-Apr-20 9:06 70 75 81 8-Apr-20 18 9-Apr-20 13:30 54 57 53 14-Apr-20 36 15-Apr-20 59 13:41 56 55 20-Apr-20 24 21-Apr-20 9:15 32 37 39 25-Apr-20 13 27-Apr-20 9:04 94 97 90 29-Apr-20 19 -----21 63 Average Average (Range) (13 - 36)(Range) (32 - 97)

 Table 4-1
 Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-1a)

## Table 4-2Summary of 1-hour TSP Monitoring Results (AMS-2)

1-hour TSP (μg/m <sup>3</sup> )							
Date	Start Time	1 <sup>st</sup> reading	2 <sup>nd</sup> reading	3 <sup>rd</sup> reading			
3-Apr-20	9:31	77	83	87			
9-Apr-20	9:08	76	78	75			
15-Apr-20	9:12	78	82	80			
21-Apr-20	9:41	56	62	59			
27-Apr-20	9:29	109	113	104			
Ave	erage	81					
(Ra	ange)		(56 - 113)				

#### Table 4-3Summary of 1-hour TSP Monitoring Results (AMS-3)

	1-hour TSP ( $\mu g/m^3$ )							
Date	Start Time	1 <sup>st</sup> reading	2 <sup>nd</sup> reading	3 <sup>rd</sup> reading				
3-Apr-20	9:41	80	85	78				
9-Apr-20	12:48	97	94	92				
15-Apr-20	12:38	91	105	98				
21-Apr-20	9:49	59	62	66				
27-Apr-20	9:37	109	117	106				
	erage	89						
(Ra	ange)		(59 - 117)					



Table 4-4         Summary of 24-hour and 1-hour TSP Monitoring Results (AM)
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	24-hour					
Date	TSP (µg/m <sup>3</sup> )	Date	Start Time	1 <sup>st</sup> reading	2 <sup>nd</sup> reading	3 <sup>rd</sup> reading
2-Apr-20	40	3-Apr-20	14:22	90	92	99
8-Apr-20	25	9-Apr-20	9:21	83	86	81
14-Apr-20	69	15-Apr-20	9:28	93	91	92
20-Apr-20	31	21-Apr-20	13:29	51	47	57
25-Apr-20	24	27-Apr-20	14:21	116	118	123
29-Apr-20	49	-	-	-	-	-
Average (Range)	40 (24 - 69)	Average (Range)			88 (47 - 123)	

Table 4-5	Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-6)
-----------	--

	24-hour		1	g/m <sup>3</sup> )		
Date	TSP (μg/m <sup>3</sup> )	Date	Start Time	1 <sup>st</sup> reading	2 <sup>nd</sup> reading	3 <sup>rd</sup> reading
2-Apr-20	18	3-Apr-20	14:09	88	91	95
8-Apr-20	15	9-Apr-20	9:53	81	80	78
14-Apr-20	49	15-Apr-20	9:58	80	87	83
20-Apr-20	16	21-Apr-20	13:42	49	53	58
25-Apr-20	23	27-Apr-20	14:07	110	120	117
29-Apr-20	44	-	-	-	-	-
Average	27	Averag	Average		85	
(Range)	(15 – 49)	(Range	(Range)		(49 – 120)	

## Table 4-6 Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-7)

	2∕I₋hour	24-hour TSP				
Date	TSP (μg/m <sup>3</sup> )	Date	Start Time	1 <sup>st</sup> reading	2 <sup>nd</sup> reading	3 <sup>rd</sup> reading
2-Apr-20	20	3-Apr-20	13:47	79	86	91
8-Apr-20	14	9-Apr-20	14:03	76	79	77
14-Apr-20	49	15-Apr-20	13:13	70	68	72
20-Apr-20	43	21-Apr-20	14:04	40	47	50
25-Apr-20	31	27-Apr-20	13:46	104	109	112
29-Apr-20	42	-	-	_	-	-
Average (Range)	33 (14 - 49)	Average (Range)			77 (40 - 112)	

- 4.2.2 As shown in *Tables 4-1 to 4-6*, all the 1-hour TSP and 24-hour TSP monitoring results in the Reporting Period were below the Action and Limit Levels. No Notification of Exceedance (NOE) was issued in this Reporting Period.
- 4.2.3 The meteorological data during the impact monitoring days are summarized in *Appendix J*.



#### 5. CONSTRUCTION NOISE MONITORING

## 5.1 GENERAL

- 5.1.1 In the Reporting Period, noise monitoring was performed at designated monitoring locations NMS2 and NMS3 and the additional monitoring locations NMS4a, NMS5, NMS6, NMS7 and NMS8. No monitoring was conducted at the designated monitoring locations NMS1 since they are the planned NSR and still under the construction.
- 5.1.2 In addition, a Work Instruction was issued from AECOM to AUES in November 2018 for installing three additional noise monitoring stations, i.e., CN1, CN2 and CN3 for Contract 3. Impact noise monitoring was performed at the three additional noise monitoring locations since December 2018.
- 5.1.3 The noise monitoring schedule is presented in *Appendix G* and the monitoring results are summarized in the following sub-sections.

#### 5.2 NOISE MONITORING RESULTS IN REPORTING MONTH

5.2.1 In the Reporting Period, a total of **33** events noise measurements were carried out at the designated locations under Contract 1. The noise monitoring results at the designated locations are summarized in *Tables 5-1*. The detailed noise monitoring data are presented in *Appendix H* and the relevant graphical plots are shown in *Appendix I*.

 Table 5-1
 Summary of Construction Noise Monitoring Results for Contract 1

	Construction Noise Level (L <sub>eq30min</sub> ), dB(A)						
Date	NMS2	NMS3	NMS6	NMS7	Date	NMS4	NMS5
3-Apr-20	58	72	75	63	3-Apr-20	73	63
9-Apr-20	67	73	70	62	9-Apr-20	70	67
15-Apr-20	61	71	71	61	15-Apr-20	70	69
23-Apr-20	57	72	74	67	21-Apr-20	68	64
27-Apr-20	64	68	68	66	27-Apr-20	70	71
Limit Level	$70 \text{ dB(A)} / 65 \text{ dB(A)}^{\text{Note 1}}$			7	75 dB(A)		

*Note 1: Noise Limit Levels for school is 70dB(A) and should be reduced to 65dB(A) during examination period;* 

Table 5-1a	Summary of	Construction 1	Noise Monitoring	<b>Results for</b>	Contract 1

Construction Noise Level (L <sub>eq30min</sub> ), dB(A)					
Date	NMS8				
6-Apr-20	62				
17-Apr-20	61				
23-Apr-20	58				
Limit Level	75 dB(A)				

5.2.2 For the additional noise monitoring under Contract 3, a total of **9** events noise measurements were performed for the Contract. The noise monitoring results are summarized in *Tables 5-2*. The detailed noise monitoring data are presented in *Appendix H* and the relevant graphical plots are shown in *Appendix I*.

 Table 5-2
 Summary of Construction Noise Monitoring Results for Contract 3

	Construction Noi	se Level (L <sub>eq30min</sub> ), dB(A)	
Date	CN1	CN2	CN3
6-Apr-20	62	61	67
17-Apr-20	65	61	64
21-Apr-20	63	57	64
Limit Level	<b>70</b> dB(A) / <b>65</b> dB(A) <sup>Note 1</sup>	<b>70</b> dB(A) <sup>Note 1</sup> / <b>65</b>	75 dB(A)



 dB(A)<sup>Note 1</sup>

 Note 1: Noise Limit Levels for school is 70dB(A) and should be reduced to 65dB(A) during examination period.

5.2.3 As shown in *Tables 5-1 and 5-2*, no Limit Level exceedance was recorded in this Reporting Period. Moreover, 1 noise complaint (which triggered Action level exceedance) was received under the Project. The investigation for the noise complaint is included in Section 8 of the report.



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## 6. WASTE MANAGEMENT

#### 6.1 GENERAL WASTE MANAGEMENT

6.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

#### 6.2 **RECORDS OF WASTE QUANTITIES**

- 6.2.1 All types of waste arising from the construction work are classified into the following:
  - Construction & Demolition (C&D) Material;
  - Chemical Waste;
  - General Refuse; and
  - Excavated Soil.
- 6.2.2 The quantities of waste for disposal in this Reporting Period are summarized in *Tables 6-1* and *6-2* and the Monthly Summary Waste Flow Table is shown in *Appendix K*. Whenever possible, materials were reused on-site as far as practicable.

	Cont	ract 1	Contract 2		Contract 3	
Type of Waste	Quantity	Disposal Location	Quantity	Disposal Location	Quantity	Disposal Location
Total generated Inert C&D Materials ('000m <sup>3</sup> ) (#)	47.464	-	0.608	-	1.828	-
Hard Rock and Large Broken Concrete ('000m <sup>3</sup> )	1.609	-	0	-	0	-
Reused in this Contract (Inert) ('000m <sup>3</sup> )	35.093	-	0	-	0	-
Reused in other Projects (Inert) ('000m <sup>3</sup> )	11.12	*	0	-	0.968	*
Disposal as Public Fill (Inert)	1.251	TKO 137	0.528	TKO 137	1.828	TKO

 Table 6-1
 Summary of Quantities of Inert C&D Materials

*Remark (#): The total generated inert C&D materials will not take account for the hard rock and large broken concrete.* 

(\*) Approved alternative disposal ground.

 $(`000m^3)$ 

Table 6-2Summary of Quantities of C&D Wastes

	Contr	ract 1	Contract 2		Contract 3	
Type of Waste	Quantity	Disposal Location	Quantity	Disposal Location	Quantity	Disposal Location
Recycled Metal ('000kg)	0.004	Licensed collector	0	-	0	-
Recycled Paper / Cardboard Packing ('000kg)	0.575	Licensed collector	0	-	0	-
Recycled Plastic ('000kg)	0.003	Licensed collector	0	-	0	-
Chemical Wastes ('000kg)	0	-	0	-	0	-
General Refuses ('000m <sup>3</sup> )	0.12	SENT	0.08	SENT	0.031	SENT



## 7. SITE INSPECTION

## 7.1 **REQUIREMENTS**

7.1.1 According to the approved EM&A Manual, the environmental site inspection shall be formulation by ET Leader. Weekly environmental site inspections should be carried out to confirm the environmental performance.

#### 7.2 FINDINGS / DEFICIENCIES DURING THE REPORTING MONTH

#### Contract 1

7.2.1 In the Reporting Period, joint site inspections for Contract 1 to evaluate site environmental performance were carried out by the RE, ET and the Contractor on 9<sup>th</sup>, 14<sup>th</sup>, 21<sup>st</sup> and 28<sup>th</sup> April 2020 in which IEC joined the site inspection with SSEMC on 9<sup>th</sup> April 2020. No non-compliance was noted. The findings / deficiencies of *Contract 1* that observed during the weekly site inspection are listed in *Table 7-1*.

Date	Findings / Deficiencies	Follow-Up Status
9 April 2020	<ul> <li>Proper dust mitigation measure should be provided for breaking works to reduce dust impact. (Cavern safe guard works)</li> <li>Engine cover should be closed properly during the plant is operating. (Road L4)</li> <li>Drip tray should be provided for chemical storage on-site. (Road L4)</li> <li>Water spraying frequency for the haul road should be increased during dry weather to reduce dust impact. (General)</li> </ul>	<ul> <li>Water spraying was provided for breaking works.</li> <li>Engine cover was closed.</li> <li>Free standing chemical container was removed.</li> <li>Reminder only.</li> </ul>
14 April 2020	<ul> <li>Improper color of NRMM label of excavator was observed at PTT. The Contractor was advised to replace the NRMM label.</li> <li>Accumulation of sludge was observed at U-channel at Q6. The Contractor was advised to remove the sludge as soon as possible.</li> </ul>	<ul> <li>Proper NRMM label was provided for the excavator</li> <li>Sludge at U-channel was removed.</li> </ul>
21 April 2020	• Accumulation of wastes was observed at the Water Reservoir. The Contractor was advised to dispose of wastes regularly.	• Wastes were removed.
28 April 2020	<ul> <li>Free standing chemical container was observed at Artificial Lake. The Contractor was reminded to provide proper mitigation measure to prevent land contamination.</li> <li>Water spraying should be provided for the breaking works at Cavern Safe Guarding Works.</li> </ul>	<ul> <li>Free standing chemical container was removed</li> <li>Water spraying was provided for the breaking works</li> </ul>

#### Table 7-1Site Observations of Contract 1

## Contract 2

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7.2.2 In the Reporting Period, joint site inspections for Contract 2 to evaluate site environmental performance were carried out by the RE, ET and the Contractor on 1<sup>st</sup>, 8<sup>th</sup>, 15<sup>th</sup>, 22<sup>nd</sup> and 29<sup>th</sup> April 2020 in which IEC joined the site inspection with SSEMC on 22<sup>nd</sup> April 2020. No non-compliance was noted. The findings / deficiencies of *Contract 2* that observed during the weekly site inspection are listed in *Table 7-2*.

Table 7-2	Site Observations of Contract 2	
Date	Findings / Deficiencies	Follow-Up Status



Monthly Environmental Monitoring & Audit Report (April 2020)

Date	Findings / Deficiencies	Follow-Up Status
1 April 2020	• The Contractor was advised to clean stagnant water within site area after raining.	• Reminder only.
8 April 2020	<ul> <li>Sludge was observed inside u-channel at portion 1. The Contractor was advised to maintain the u-channel regularly</li> <li>The Contractor was reminded to replace the acoustic mat for breaker at portion 2</li> </ul>	<ul><li>Sludge in the u channel was clean</li><li>Reminder only.</li></ul>
15 April 2020	<ul> <li>Free standing chemical container was observed at portion 1. The Contractor should provide drip tray underneath the container to prevent land contamination</li> <li>The Contractor was reminded to replace the acoustic mat for breaker at portion 3 and 6</li> </ul>	<ul> <li>Oil drum was enveloped with tarpaulin sheet.</li> <li>Reminder only.</li> </ul>
22 April 2020	<ul> <li>Oil drum was observed on the ground at portion <ol> <li>The Contractor was advised to place oil drum inside drip tray to avoid oil leakage.</li> </ol> </li> <li>Chemical containers were observed on the ground at portion 2. The Contractor was advised to place chemical containers inside drip tray to avoid oil leakage.</li> <li>The Contractor was reminded to replace the acoustic mat for breaker at portion 2.</li> <li>The Contractor was reminded to clean stagnant water within site area after raining.</li> <li>The Contractor was reminded to review the wastewater treatment system at portion 1.</li> </ul>	<ul> <li>Chemical container was enveloped with tarpaulin sheet</li> <li>Chemical containers was removed from portion 2</li> <li>Reminder only.</li> <li>Reminder only.</li> <li>Reminder only.</li> </ul>
29 April 2020	<ul> <li>Accumulation of construction waste was observed at portion 1. The Contractor was advised to dispose it regularly</li> <li>The Contractor was reminded to maintain the tree protection zone regularly</li> </ul>	<ul> <li>Accumulation of waste was disposed.</li> <li>Reminder only.</li> </ul>

## Contract 3

In the Reporting Period, joint site inspections for Contract 3 to evaluate site environmental performance were carried out by the RE, ET and the Contractor on  $3^{rd}$ ,  $8^{th}$ ,  $17^{th}$ ,  $24^{th}$  and  $28^{th}$ 7.2.3 April 2020 in which IEC joined the site inspection with SSEMC on 17<sup>th</sup> April 2020. No non-compliance was noted. The findings / deficiencies of *Contract 3* that observed during the weekly site inspection are listed in Table 7-3

Table 7-3	Site Observations of	Contract 3
Table 7-3	Site Observations of	Contract 3

Date	Findings / Deficiencies	Follow-Up Status
3 April 2020	• The Contractor was reminded to remove stagnant water at System A.	• Reminder only.
8 April 2020	• No adverse environmental issue was observed.	• NA.
17 April 2020	• Improper color of NRMM label of generator was observed at E11. The Contractor was advised to provide proper NRMM label for the generator	Proper NRMM label was provided for the generator at



Date	Findings / Deficiencies	Follow-Up Status
	• The Contractor was reminded to provide water spraying on site	<ul><li>E11.</li><li>Reminder only.</li></ul>
24 April 2020	• The Contractor was reminded to remove the stagnant water at System A.	• Reminder only.
28 April 2020	<ul> <li>The Contractor was reminded to remove stagnant water at E8.</li> <li>The Contractor was reminded to dispose wastes regularly at E8.</li> </ul>	<ul><li> Reminder only.</li><li> Reminder only.</li></ul>



## 8. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

#### 8.1 Environmental Complaint, Summons and Prosecution

8.1.1 In the Reporting Period, one environmental complaint was received for Contract 2 in relation to the construction noise.

Complaint received for Contract 2

(a) A public complaint was received by 1823 on 1 April 2020 and subsequently transmitted to Environmental Team (ET) on 20 April 2020, regarding the noise nuisance generated from the construction site in Hui Ming Street. The complainant concerned about the slow progress and implementation of noise mitigation measures to alleviate the noise impact arising from the construction work. In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. It is concluded that the complaint was valid to the contract. However, as the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance.

Complaint received for Contract 3 (Last Reporting Period)

- (a) A public complaint was received by hotline on 17 March 2020 regarding the construction noise generated from the Anderson Road Quarry Site. The complainant mentioned that the construction noise generated from the Anderson Road Quarry Site had been continued for two years. In our investigation, CW-CMGCJV has implemented noise mitigation measures to reduce the noise impact and nuisance to the public. However, to eliminate the inconvenience caused to the nearby residents, CW-CMGCJV was advised to further adopt good practices on mitigating construction noise to reduce the noise impact to the nearby residents. Since the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Nevertheless, as the construction site is close to the residential area, CW-CMGCJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.
- 8.1.2 Besides, no summons and prosecution under the EM&A Programme was lodged for the project. Investigation for the complaint was undertaken by the ET and presented in following sections.
- 8.1.3 The complaint log and Investigation Reports issued in the Reporting Period are shown in *Appendix M*.
- 8.1.4 The statistical summary table of environmental complaint, summons and prosecution is presented in *Tables 8-1, 8-2* and *8-3*.

Depenting Devied	Contract	Environmental Complaint Statistics		
Reporting Period	no.	Frequency	Cumulative	<b>Complaint Nature</b>
1 Apr 2017 – 31 Mar 2020	1	0	43	Dust, Noise and light nuisance
21 Mar 2017 – 31 Mar 2020	2	0	8	Noise
31 May 2018 –31 Mar 2020	3	0	4	Waste Management, Noise, Water Quality
	1	0	43	NA
1 – 30 April 2020	2	1	9	Noise
	3	0	4	NA

 Table 8-1
 Statistical Summary of Environmental Complaints

#### Table 8-2 Statistical Summary of Environmental Summons

# CEDD Contract No. NTE/07/2016 Environmental Team for Development of Anderson Road Quarry Site - Site Formation and Associated Infrastructure Works



Monthly Environmental Monitoring & Audit Report (April 2020)

Departing Devied	Contract	Enviro	<b>Environmental Summons Statistics</b>			
Reporting Period	no.	Frequency	Cumulative	Summons Nature		
1 Apr 2017 – 31 Mar 2020	1	0	0	NA		
21 Mar 2017 – 31 Mar 2020	2	0	0	NA		
31 May 2018 – 31 Mar 2020	3	0	0	NA		
	1	0	0	NA		
1 – 30 April 2020	2	0	0	NA		
	3	0	0	NA		

Table 8-3         Statistical Summary of Environmental Prosecution
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Reporting Period	Contract	Environmental Prosecution Statistics		
	no.	Frequency	Cumulative	<b>Prosecution Nature</b>
1 Apr 2017 – 31 Mar 2020	1	0	0	NA
21 Mar 2017 – 31 Mar 2020	2	0	0	NA
31 May 2018 – 31 Mar 2020	3	0	0	NA
1 – 30 April 2020	1	0	0	NA
	2	0	0	NA
	3	0	0	NA



## 9. IMPLEMENTATION STATUS OF MITIGATION MEASURES

# 9.1 GENERAL REQUIREMENTS

- 9.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in *Appendix L*.
- 9.1.2 All contracts under the Project shall be implementing the required environmental mitigation measures according to the approved EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented in this Reporting Period are summarized in *Table 9-1*.

	Environmental witigation measures
Issues	Environmental Mitigation Measures
Water Quality	<ul> <li>Wastewater to be treated by filtration system; such as, silt curtain or sedimentation tank before discharge.</li> <li>Replace silt curtain materials if necessary</li> </ul>
Air Quality	<ul> <li>Maintain damp / wet surface on access road</li> <li>Keep slow speed in the sites</li> <li>All vehicles must use wheel washing facility before off site</li> <li>All vehicles must use wheel washing facility before off site</li> <li>Sprayed water during breaking works</li> </ul>
Noise	<ul> <li>Restrain operation time of plants from 07:00 to 19:00 on any working day except for Public Holiday and Sunday.</li> <li>Keep good maintenance of plants</li> <li>Place noisy plants away from residence or school</li> <li>Provide noise barriers or hoarding to enclose the noisy plants or works</li> <li>Shut down the plants when not in used.</li> </ul>
Waste and Chemical Management	<ul> <li>On-site sorting prior to disposal</li> <li>Follow requirements and procedures of the "Trip-ticket System"</li> <li>Predict required quantity of</li> <li>concrete accurately</li> <li>Collect the unused fresh concrete at designated locations in the sites for subsequent disposal</li> </ul>
General	The site was generally kept tidy and clean.

 Table 9-1
 Environmental Mitigation Measures

## 9.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

9.2.1 Construction activities for Contract 1 in the coming month are listed below:

Temporary Traffic Arrangement (TTA) at On Sau Road:

• Implementation of TTA at the junction between On Sau Road and Road L4 for road improvement works to continue

Pedestrian Connectivity System B:

• PC system B substructure backfill work to continue.

Construction of Internal Road L1:

- Manhole construction & trench backfill to continue.
- Excavation and laying of watermain to continue.
- Gullies and upper drainage construction for road L1 west to continue.

Box Culvert BC1 at Internal Road L1:

- Dia.1500mm drainage pipes installation at BC1 bay1 in progress.
- Defect rectification work is in progress

Construction of Internal Road L2



- Site formation works to continue.
- Drainage pipe & M/H R243a to R243 trench backfill to continue.
- S241 to S241a pipe laying and manhole construction to continue

Retaining Wall RWA9 at Road L3

• Wall construction of RWA9 wall Bay 7-10 started.

Retaining Wall RWA10 at Road L3

- RWA10 Bay 12-7 base slab work commenced
- RWA10 Bay 13-16 excavation & blinding layer work to continue.

Box Culvert BC2 at Internal Road L3:

- Bay 8 to 14 backfill trench to continue.
- Bay 13 chamber structure works is in progress.
- Defect rectification work is in progress.

#### Construction of Internal Road L5:

• Concrete kerb construction and road base, base course laying to continue.

#### Water Pumping Station including Retaining Wall RWA13 and RWA14:

- Backfill at retaining wall RWA13 & RWA14 (Bay 15) to continue.
- To commence the watermain works outside Water Pumping Station.
- To continue with Metal Works (i.e.: steel door & window, etc).
- To commence ABWF Works.

#### Water Reservoir

- To continue the water tightness test for Fresh Water Reservoir.
- To continue rock breaking to formation level.
- To commence excavation works for drainage.

## Artificial Flood Attenuation Lake

- Backfilling of retaining wall to continue.
- Laying granular bed at lake bottom to commence.
- To continue sub soil drain laying work at bottom of Lake.
- To continue the drainage laying works.
- Construction of water retaining wall (Type C1/2) to continue.
- Construction of Treatment Plant wall to continue.

## Underground Stormwater Retention Tank (USRT)

- Backfill around USRT in progress.
- Backfill around Ventilation Duct area to continue.

#### Internal Road L4, Pedestrian Connectivity System A, Noise Barrier, RWA12 and RWA18:

- RWA12 Bay 9, Bay 11, Bay 17 to Bay 22 wall stage 3 & 4 work to continue, bay 24 to 26 base slab work to continue.
- RWA12 S201A, CP17.1 and cascade structure work to continue.
- RWA18 Storm & Sewer drain (B226 to B227) to continue.
- System A south & north tower piling work to continue.

PTT

- Rock breaking at Row A & B is in progress.
- E&M services installation at Row B is in progress.
- Drainage work at Row B & C is in progress.

Slope Stabilization at Portion B1:



- Continue to carry out stabilization works at Feature 11NE-D/C998, 11NE-D/C1004, 11NE-D/C1005, Slope A15b, 11NE-D/C988, 11NE-D/C947, 11NE-D/C949, 11NE-D/C976 and 11NE-D/C977.
- Continue to carry out slope cleaning works of outstanding features.

Slope Stabilization at Portion B5

- Continue to erect inspection scaffolds from 2th to 8th berm
- Continue to carry out stabilization works at 11NE-D/C949 and 11NE-D/C948

Establishment Works of the Planting Medium on the Existing Slope Berms in Portion B1 and B5:

• Establishment works on slopes in Portion B1 for 30-month establishment works for landscape softworks under establishment schedule no.3 to continue

Road Improvement Works at Po Lam Road:

Construction of permanent footpath and surface drainage system to continue

MEP Works:

- Submission of designs and materials related to MEP works to continue.
- E&M installation works at PTT to continue.
- E&M installation works at Pump Hall of Fresh Water Pumping Station to commence.
- E&M installation works at Pedestrian Connectivity System B to commence

## Site Formation Work at Portion A1 (Land lot RS-1):

Chain link fence installation in progress

Site Formation Work at Portion B7 & B15:

Backfilling and proof rolling at Portion B7 & B15 in progress.

## Site Formation Work at Portion B3:

• Excavation at Portion B7 & B15 in progress

Site Formation Work at Portion B14:

• Backfilling and proof rolling at Portion B14 in progress.

Site Formation Work at Portion E2:

• UC construction at E2 in progress.

Site Formation Work at Portion A1 (land parcel R2-8):

Backfilling and proof rolling at Portion A1 (R2-8) in progress

## Site Formation Work at Portion A-1 (land parcel G-1):

- Backfilling and proof rolling at Portion A1 (G-1) in progress
- UC at Portion A1 (G-1) in progress
- 9.2.2 Construction activities for Contract 2 in the coming month are listed below:
  - Portion 1: Continue grouting works for piles at Pile Cap E1 –PC3. Construction for pile cap E1 –PC3 & E1 –PC5. Construction of Pier E1-P1.
    - Backfilling with no-fines concrete around pile cap E1-PC6.
  - Portion 2: Continue rock Excavation for E3-F1. Existing lighting removal. Installation of rock dowel and shotcreting.
  - Portion 3: Rock Excavation for E2-F3 and E2-F4. Tree branch pruning of Tree No. P-T00967.
  - Portion 5:
    - Drainage Works
    - Road pavement erection



- Portion 6:
  - Rock breaking for rock cut slope and BBI Footing.
  - Fixing formwork, reinforcement and place concrete for RWE12 & BBI footing
- 9.2.3 Construction activities for Contract 3 in the coming month are listed below:

Road Improvement Works 1 (RIW1)

- Site formation and temporary soil nail installation at RWC2 Type 1 & 1a and 2;
- Site formation and temporary soil nail installation for RIW2 Type 4, 6,7 & 8;
- Removal of Platform 2;
- Trenchless construction for gasmain redirection at Slip Road 2;
- RC base slab construction at KS27.

#### Road Improvement Works 2 (RIW2)

- Soil nail installation at Slope C1 at Zone 7;
- Footing construction at Zone 5;
- Removal of Lamp posts and erect temporary lamp posts at Central Median;
- Piling platform construction at CT4;
- Predrilling works at SE2.

#### Road Improvement Works 3 (RIW3)

- Mini-pile installation works at RWD1;
- ELS construction for Noise Barrier Footing SE1;
- Mini-pile and ELS construction at Slope D2;
- Stage 1 rock excavation at Slope D3; and
- Retaining wall construction at Slope D3;
- No-fines concrete construction at Slope D3;
- Rock-fall Fence (Stage 2) along Lin Tak Road.
- Watermain works at Sau Mau Ping Road.

Pedestrian Connectivity Facility E8 (PC-E8)

- Construction of Pier at P3, P4, P6 and P7;
- Slope works at E8-1 and E8-2;
- Construction of RC structure at E1/E2.

#### Pedestrian Connectivity Facility E11 (PC-E11)

- Construction of ELS for PC1
- ELS works at PC6;
- Construction of pile cap and pier RC works.

#### Pedestrian Connectivity Facility System A (PC-SYA)

• Construction of underground RC structure.

#### Pedestrian Connectivity Facility System A (PC-SYB)

- Construction of socketed H-piles at pile cap PC7 & PC8;
- Gasmain diversion works at PC2 (On Sau Road).

#### Tseung Kwan O Bus-Bus Interchange New Public Toilet (BBI-Toilet)

- E&M works;
- ABWF;
- Drainage and sewage installation works;
- Laying of lighting cable; and
- Watermain laying works

## 9.3 KEY ISSUES FOR THE COMING MONTH

9.3.1 Key issues to be considered in the coming month include:



- Implementation of dust suppression measures at all times;
- Potential wastewater quality impact due to surface runoff;
- Potential fugitive dust quality impact due from the dry/loose/exposure soil surface/dusty material;
- Disposal of empty engine oil containers within site area;
- Ensure dust suppression measures are implemented properly;
- Sediment catch-pits and silt removal facilities should be regularly maintained;
- Management of chemical wastes;
- Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
- Follow-up of improvement on general waste management issues; and
- Implementation of construction noise preventative control measures
- 9.3.2 Since wet season is approaching, the Contractors should pay special attention on water quality mitigation measures and fully implement according to the ISEMM of the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should be properly maintained. The implementation of water quality mitigation measures conducted by the Contractor is shown in *Appendix N*.



#### 10. CONCLUSIONS AND RECOMMENDATIONS

#### **10.1 CONCLUSIONS**

- 10.1.1 This is **37<sup>th</sup>** monthly EM&A report presenting the monitoring results and inspection findings for the Reporting Period from **1** to **30 April 2020**.
- 10.1.2 No 24-hour or 1-hour TSP monitoring results that triggered the Action or Limit Levels were recorded. No NOEs or the associated corrective actions were therefore issued.
- 10.1.3 For construction noise, no Limit Level exceedance was recorded and no Notification of Exceedance was issued during this Reporting Period. However, one noise complaint (which triggered Action Level exceedance) was received under the project. Investigation for the complaint was undertaken by the ET (refer to \$10.1.4).
- 10.1.4 In the Reporting Period, there was one noise complaint received for Contract 2. Investigation had undertaken by ET upon receipt of the complaint. In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. It is concluded that the complaint was valid to the contract. However, as the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance.
- 10.1.5 No notification of summons or successful prosecution was received under the Project.
- 10.1.6 During the Reporting Period, weekly joint site inspection by the RE, ET with the relevant Main-contractor was carried out for Contracts 1, 2 and 3 in accordance with the EM&A Manual stipulation whereas IEC performed monthly site inspection for both contracts. No non-compliance observed during the site inspection.

#### **10.2 RECOMMENDATIONS**

- 10.2.1 Since wet season is approaching, the Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should be properly maintained
- 10.2.2 Since construction site is highly visible to the resident at nearby estates, the Contractors should pay special attention on potential environmental impact generated by the site activities and adhere implement adequate air quality and noise mitigation measures as far as practicable to reduce the impact to the public.
- 10.2.3 Construction noise is one of the key environmental issues during construction work of the Project. Noise mitigation measures such as using quiet plants and noise barriers shall be implemented where practicable according to the EM&A manual.
- 10.2.4 In addition, the Contractors should ensure all effluent discharge shall be fulfilled the Technical Memorandum of Effluent Discharged into Drainage and Sewerage Systems, inland and Coastal Waters criteria or relevant discharge license requirement.
- 10.2.5 Mosquito control measures should be continued to prevent mosquito breeding on site.

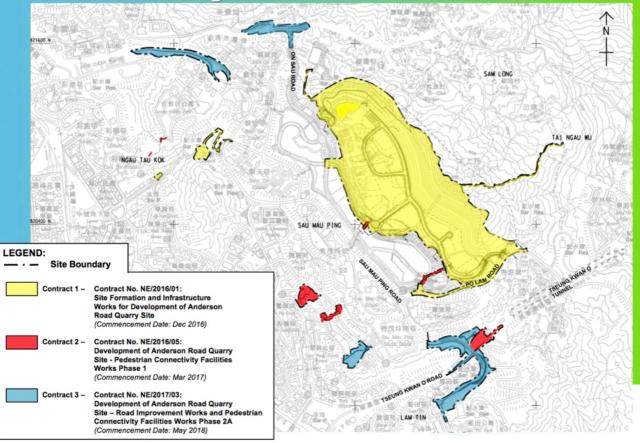


#### Appendix A

#### Layout plan of the Project

 $Z: \label{eq:loss} 2016 \ CEDD \ 600 \ EM\&A\ Report\ Submission \ Monthly\ EM\&A\ Report\ 2020 \ R0368 \ v2.docx$ 

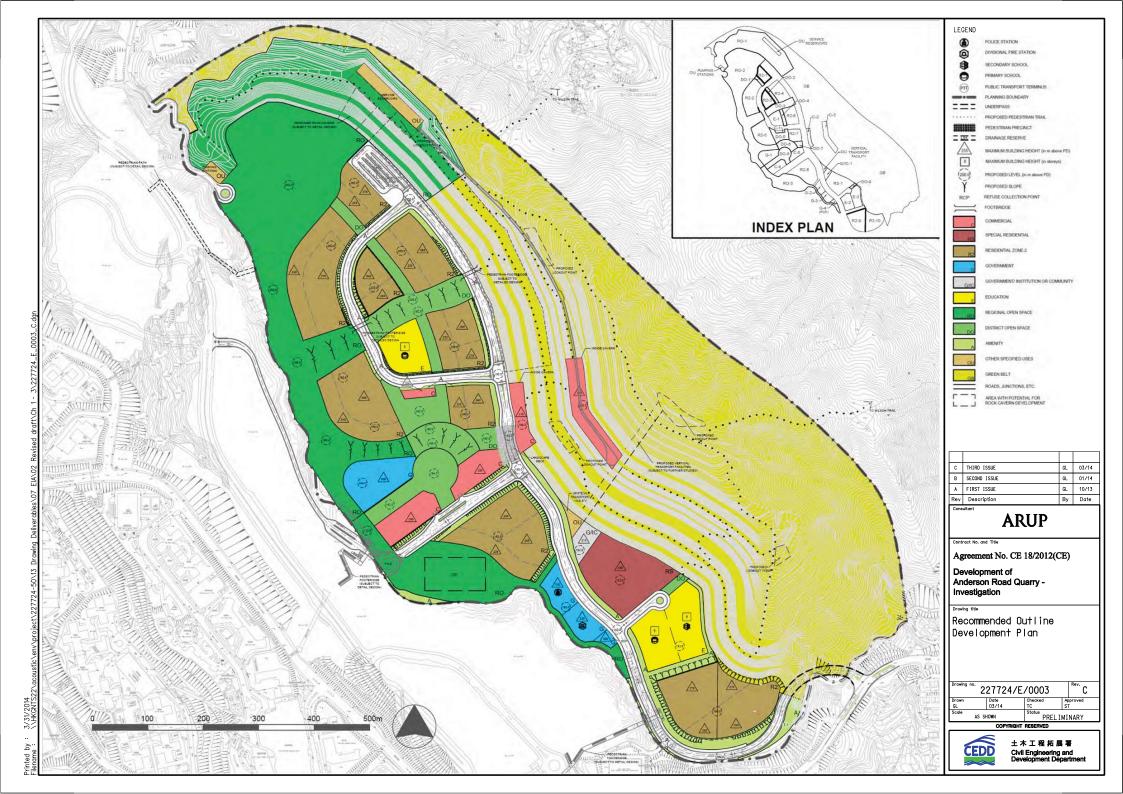
#### **Contract Packages**





#### Layout plan of Contract 1 (NE/2016/01)

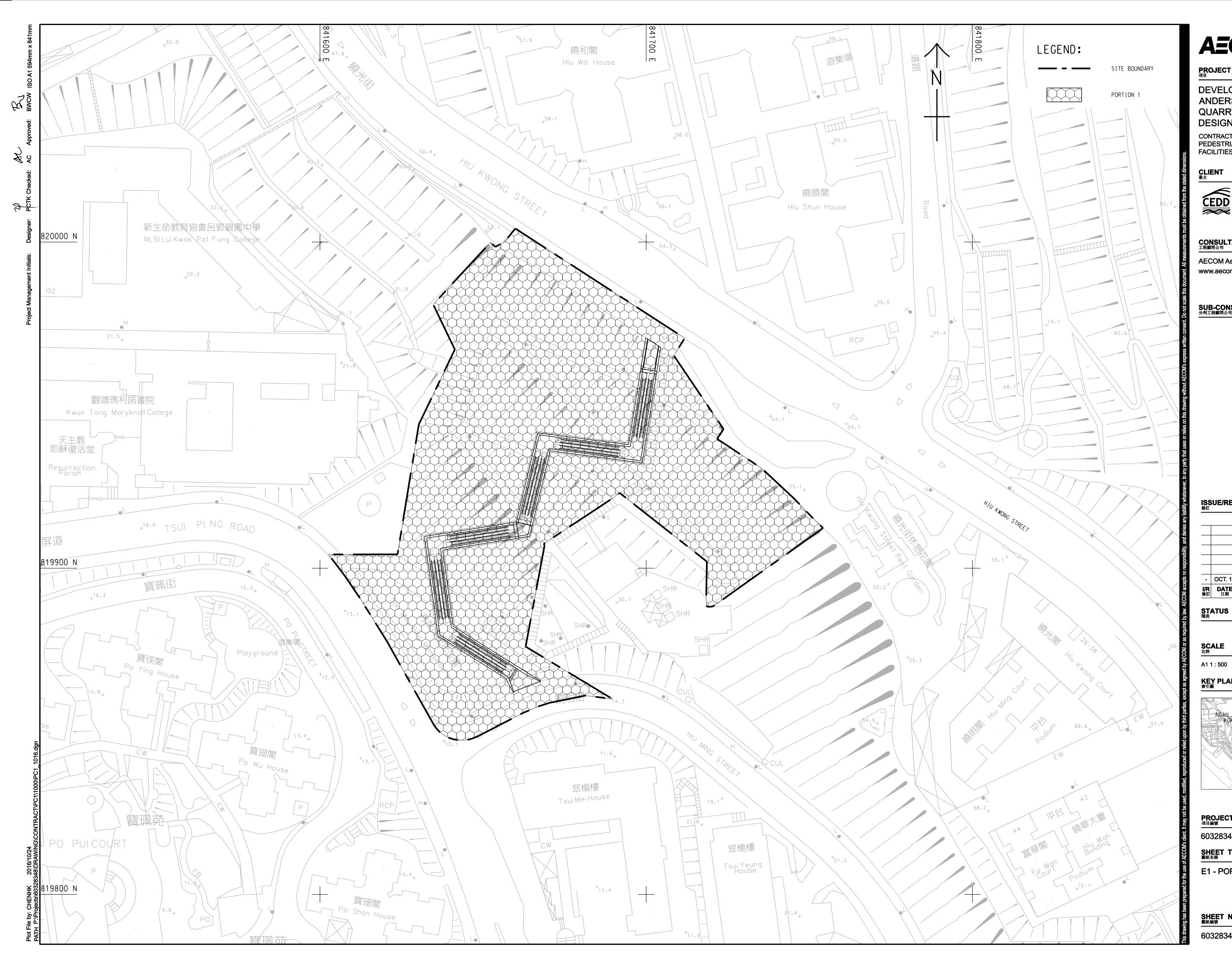
 $Z: \label{eq:loss} 2016 \ CEDD \ 600 \ EM\& A \ Report \ Submission \ Monthly \ EM\& A \ Report \ 2020 \ R0368 \ v2. \ docx \ R0368 \ v2. \ docx \ R0368 \ v2. \ R0368 \ r$ 





#### Layout plan of Contract 2 (NE/2016/05)

 $Z: \label{eq:loss} 2016 \ CEDD \ 600 \ EM\& A \ Report \ Submission \ Monthly \ EM\& A \ Report \ 2020 \ R0368 \ v2. \ docx \ R0368 \ v2. \ docx \ R0368 \ v2. \ R0368 \ r$ 





### **PROJECT** <sup>項目</sup>

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

CONTRACT TITLE PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 1

### CLIENT 業主



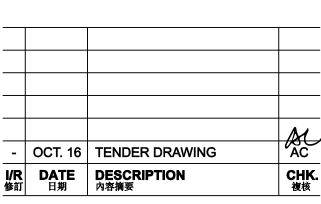
た木工程拓展署
 Civil Engineering and
 Development Department

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AECOM Asia Company Ltd. www.aecom.com

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-	OCT. 16	TENDER DRAWING	AC
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# DIMENSION UNIT <sup>尺寸單位</sup>

## SCALE <sup>比例</sup>

METRES

**KEY PLAN** A1 1 : 60000 *索*引圖

NGAU TAU KOK TSUI LAM

## **PROJECT NO.** <sub>項目編</sub>號

## CONTRACT NO. <sup>合約編號</sup>

60328348

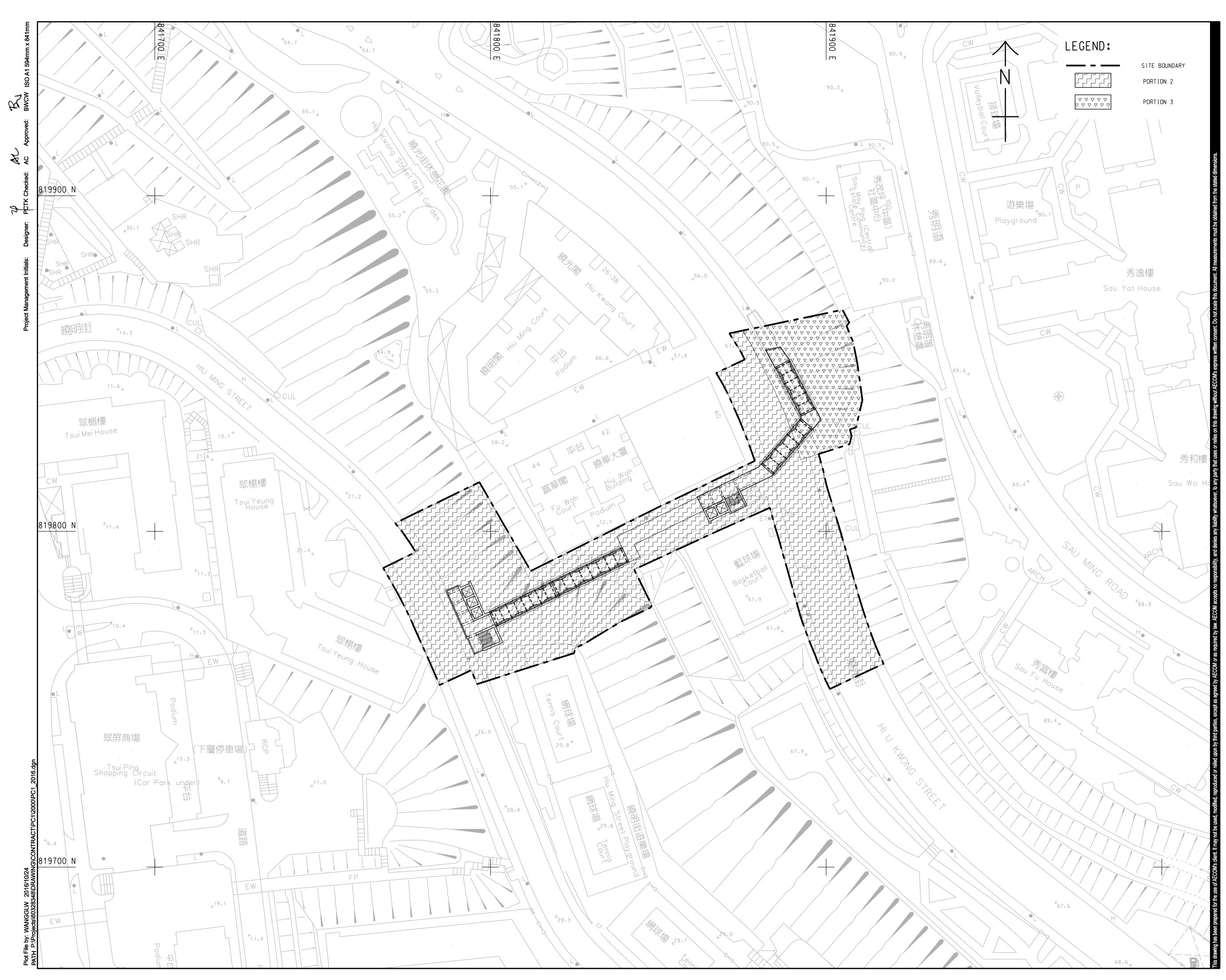
SHEET TITLE 圖紙名稱

E1 - PORTION OF SITE

## SHEET NUMBER 圖紙編號

60328348/PC1/1016

NE/2016/05





## PROJECT <sub>項目</sub>

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

CONTRACT TITLE PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 1

### CLIENT 業主



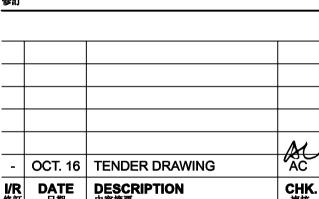
上木工程拓展署
 Civil Engineering and
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SCALE 比例

A1 1 : 500

**KEY PLAN** A1 1 : 60000 索引圖

NGAU TAU KOK

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## STATUS 階段

60328348/PC1/2016



TSUI LAM

60328348

PROJECT NO. <sub>項目編</sub>號

CONTRACT NO. <sup>合約編號</sup>

NE/2016/05

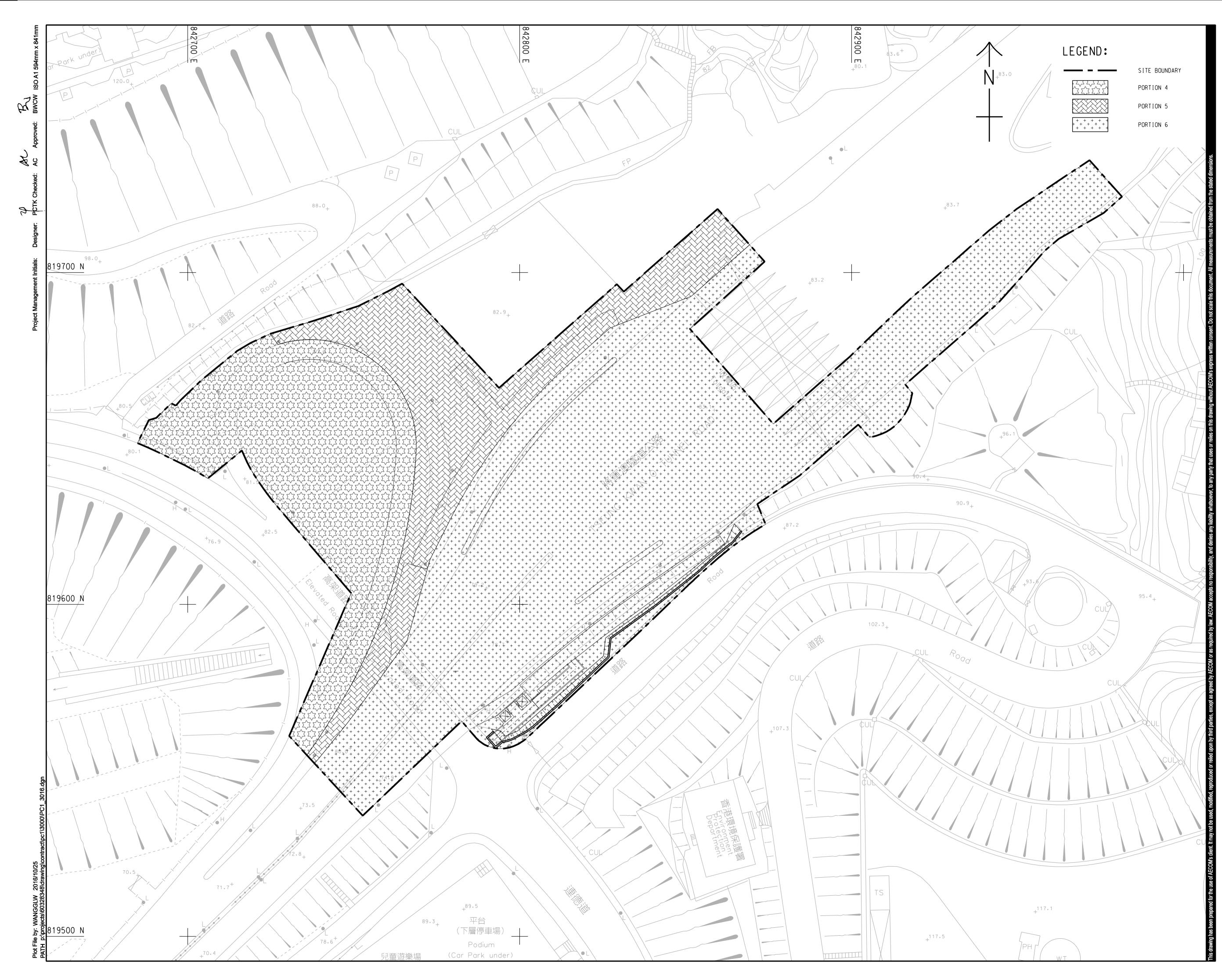
DIMENSION UNIT <sup>尺寸單位</sup>

METRES

SHEET TITLE 圖紙名稱

E2-C1-E3 - PORTION OF SITE

## SHEET NUMBER 岡紙編號





## **PROJECT** <sub>項目</sub>

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

CONTRACT TITLE PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 1

### CLIENT 業主

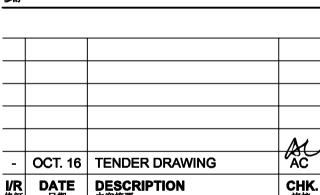


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SCALE <sub>比例</sub>

A1 1 : 500

NGAU TAU KOK

KWUN TONG

**KEY PLAN** A1 1 : 60000 索引圖

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DIMENSION UNIT 尺寸單位

METRES

60328348

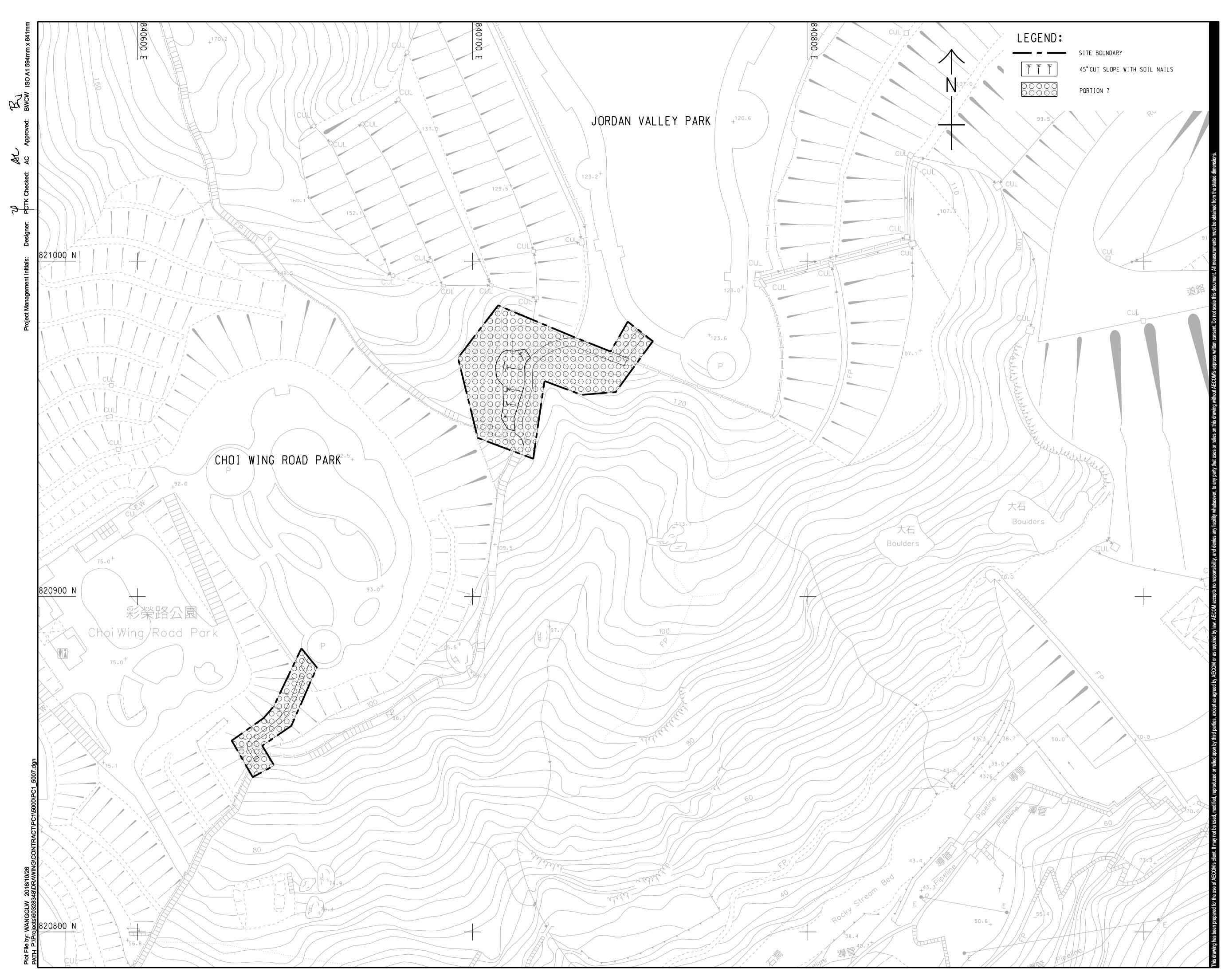
**PROJECT NO.** 項目編號

NE/2016/05 SHEET TITLE <sup>圖紙名稱</sup>

E12 AND BBI - PORTION OF SITE

## SHEET NUMBER 圖紙編號

60328348/PC1/3016





## **PROJECT** <sup>項目</sup>

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

CONTRACT TITLE PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 1

### CLIENT 業主



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A1 1 : 500

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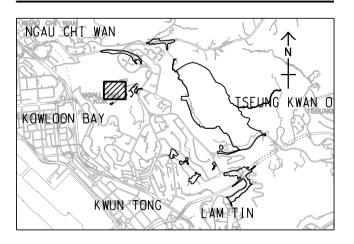
# STATUS 階段

# SCALE 比例

## DIMENSION UNIT 尺寸單位

METRES

**KEY PLAN** A1 1 : 60000 家引圖



## PROJECT NO. <sup>項目編</sup>號

60328348

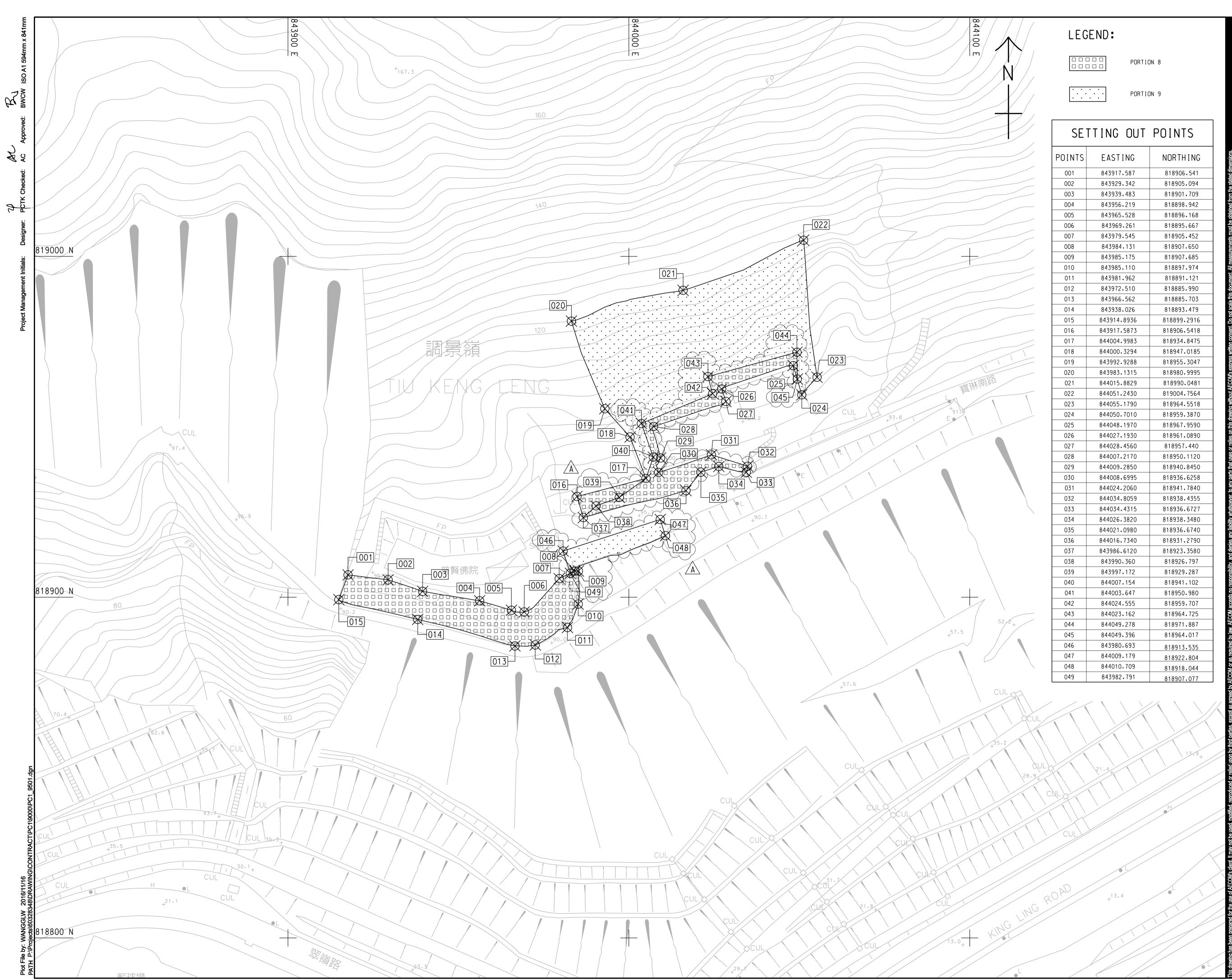
CONTRACT NO. <sup>合約編號</sup>

NE/2016/05 SHEET TITLE 圖紙名稱

**GREEN ROUTE - PORTION OF SITE** 

## SHEET NUMBER 圖紙編號

60328348/PC1/5007





SE	ITING UUT	PUINIS
OINTS	EASTING	NORTHING
001	843917.587	818906.541
002	843929.342	818905.094
003	843939.483	818901.709
004	843956.219	818898.942
005	843965.528	818896.168
006	843969.261	818895.667
007	843979.545	818905.452
008	843984.131	818907.650
009	843985.175	818907.685
010	843985.110	818897.974
011	843981.962	818891.121
012	843972.510	818885.990
013	843966.562	818885.703
014	843938.026	818893.479
015	843914.8936	818899.2916
015		
	843917.5873	818906.5418
017	844004.9983	818934.8475
018	844000.3294	818947.0185
019	843992.9288	818955.3047
020	843983.1315	818980.9995
021	844015.8829	818990.0481
022	844051.2430	819004.7564
023	844055.1790	818964.5518
024	844050.7010	818959.3870
025	844048.1970	818967.9590
026	844027.1930	818961.0890
027	844028.4560	818957.440
028	844007.2170	818950.1120
029	844009.2850	818940.8450
030	844008.6995	818936.6258
031	844024.2060	818941.7840
032	844034.8059	818938.4355
033	844034.4315	818936.6727
034	844026.3820	818938.3480
035	844021.0980	818936.6740
036	844016.7340	818931.2790
037	843986.6120	818923.3580
038	843990.360	818926.797
039	843997.172	818929.287
040	844007.154	818941.102
041	844003.647	818950.980
042	844024.555	818959.707
043	844023.162	818964.725
044	844049.278	818971.887
045	844049.396	818964.017
046	843980.693	818913.535
047	844009.179	
048	844010.709	818922.804
049	843982.791	818918.044



## **PROJECT** <sup>項目</sup>

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

CONTRACT TITLE PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 1

### CLIENT <sub>業主</sub>



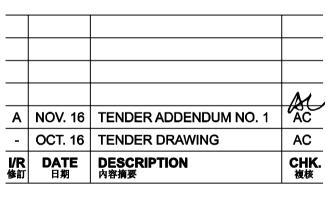
た木工程拓展署
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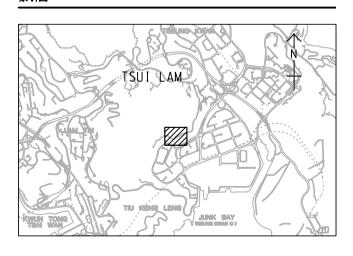
### STATUS 階段

A1 1 : 500

SCALE 比例

DIMENSION UNIT <sup>尺寸單位</sup> METRES

**KEY PLAN** A1 1 : 60000 家引國



## PROJECT NO. <sub>項目編</sub>號

CONTRACT NO. <sup>合約編號</sup>

60328348

NE/2016/05

SHEET TITLE 圖紙名稱

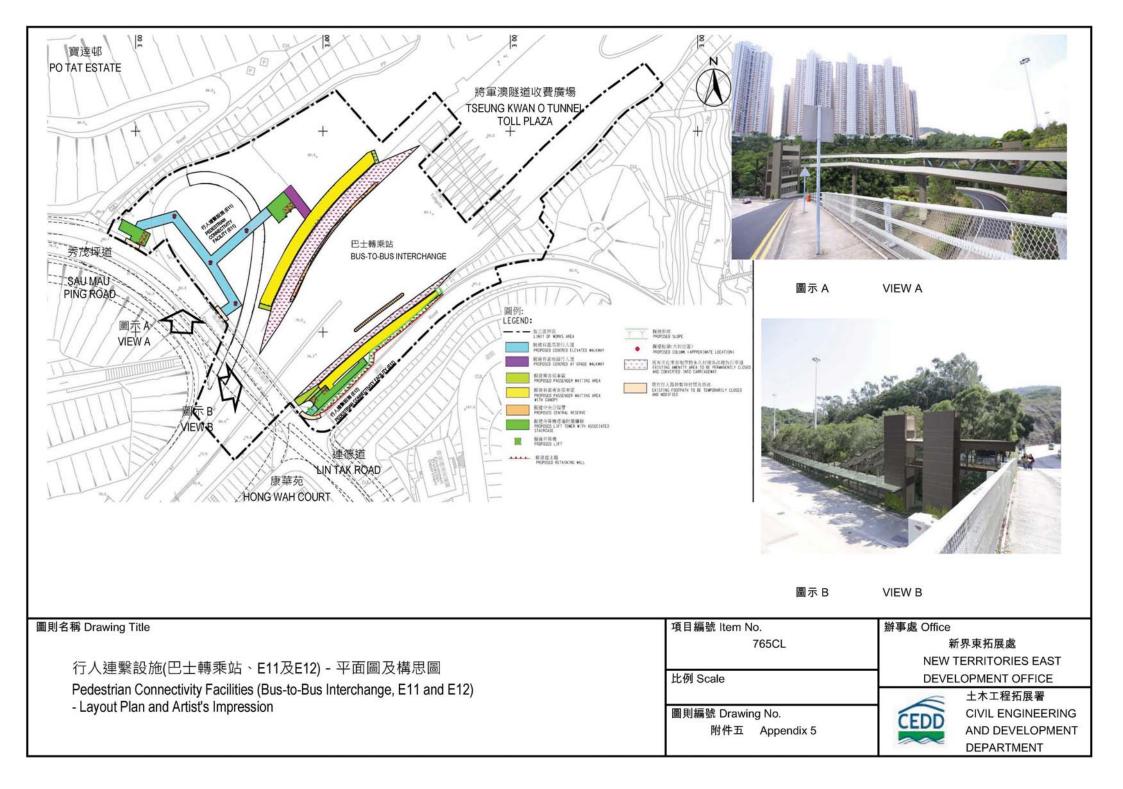
INFRASTRUCTURAL WORKS AT PO LAM ROAD SOUTH TIU KENG LENG – PORTION OF SITE

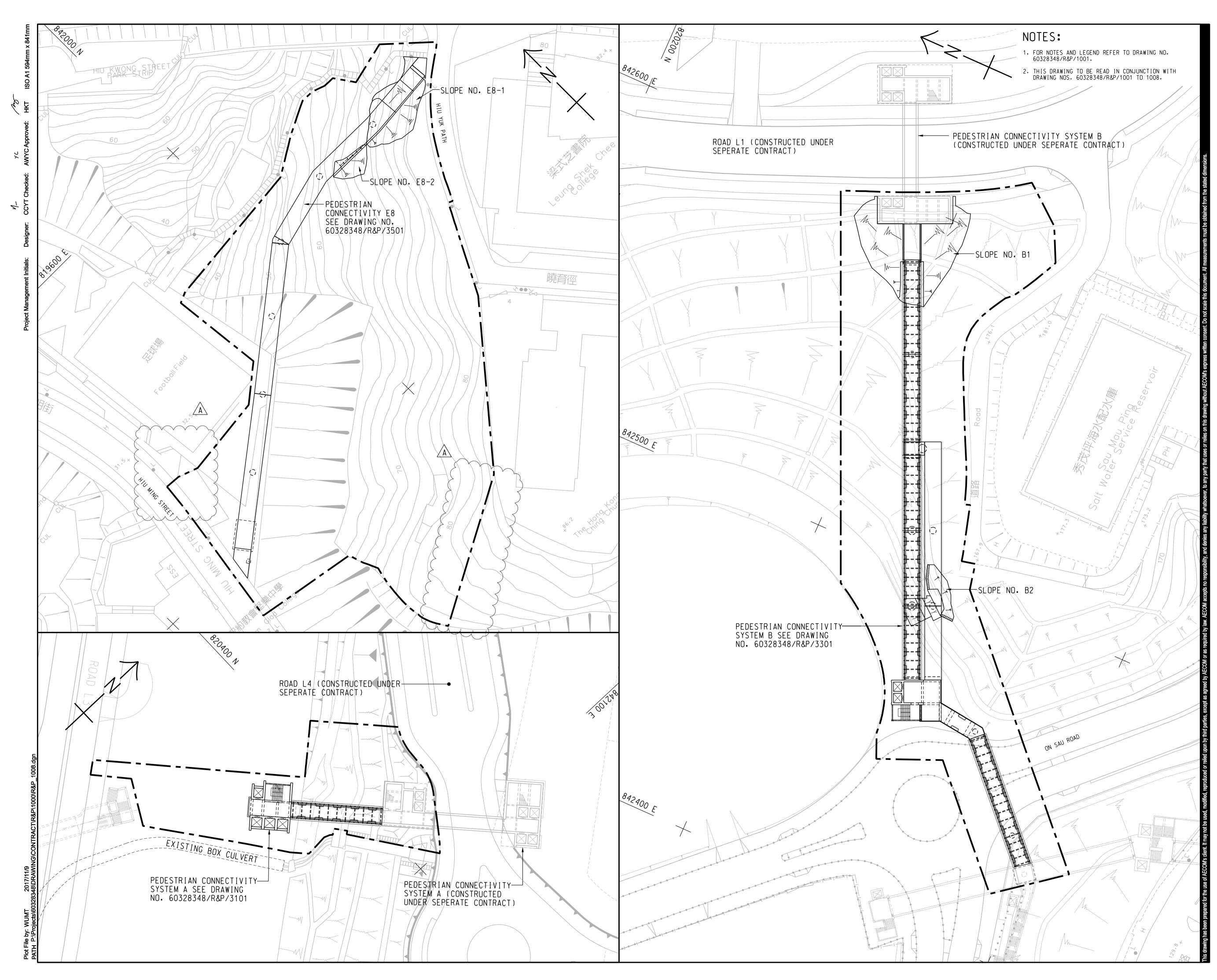
## SHEET NUMBER 圖紙編號

60328348/PC1/9501A



Layout plan of Contract 3 (NE/2017/03) (Non-Designated Area)







## PROJECT <sup>項目</sup>

DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - INVESTIGATION, DESIGN AND CONSTRUCTION

# CONTRACT TITLE DEVELOPMENT OF ANDERSON ROAD QUARRY SITE - ROAD IMPROVEMENT WORKS AND PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 2A CLIENT <sub>業主</sub>



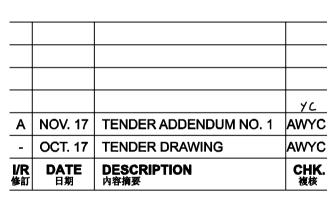
全林工程拓展署 Civil Engineering and Development Department

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#### STATUS <sup>階段</sup>

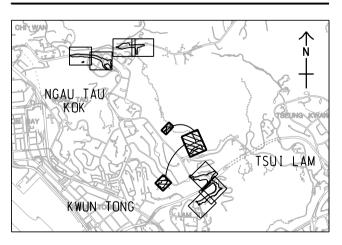
SCALE 比例

A1 1 : 500

### DIMENSION UNIT <sub>尺寸單位</sub>

METRES

**KEY PLAN** A1 1 : 60000 家引國



### PROJECT NO. <sub>項目編</sub>號

60328348

NE/2017/03

SHEET TITLE 圖紙名稱

GENERAL LAYOUT

## SHEET NUMBER 圖紙編號

60328348/R&P/1008A

CONTRACT NO. <sup>合約編</sup>號

SHEET 8 OF 8

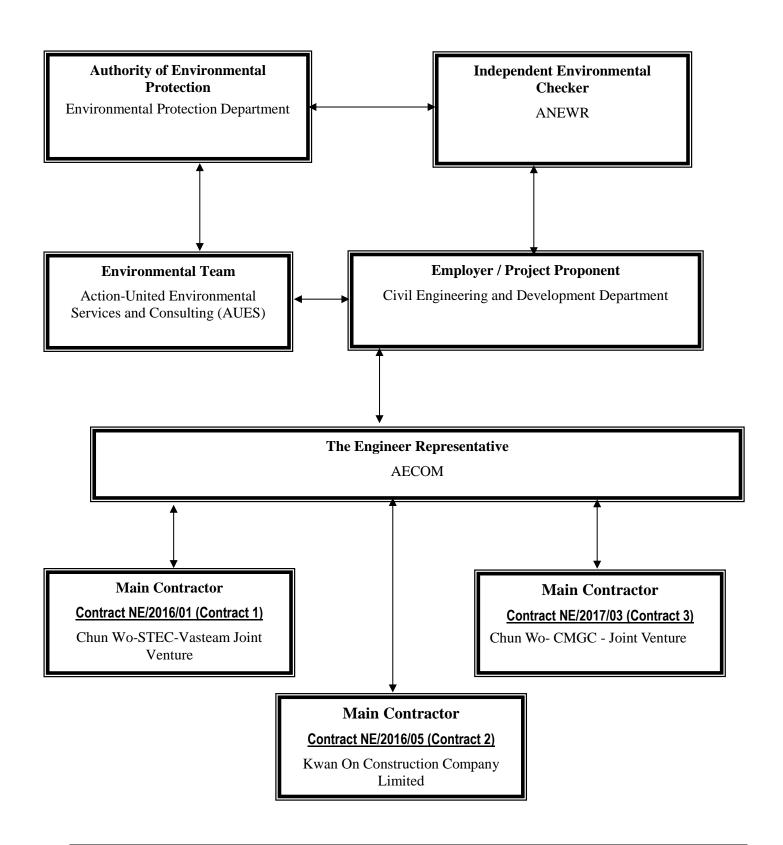


Appendix B

**Project Organization Structure** 



#### **Project Organization Structure**





Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Engineer	Leung Siu Kau, Kelvin	2301 1383	2739 0076
AECOM	Chief Resident Engineer	Lee, Yu Ching Paul	5723 6880	2473 3221
AECOM	Senior Resident Engineer	Li, Ling Tommy	9389 8792	2473 3221
ANEWR	Independent Environmental Checker	Adi Lee	2618 2836	3007 8648
CSVJV	Project Manager	William Leung	2638 7181	2744 6937
CSVJV	Site Agent	TY Leung	2638 7181	2744 6937
CSVJV	Project Environmental Manager	Shelton Chan	2638 7181	2744 6937
CSVJV	Environmental Officer	Ken Chu	2638 7181	2744 6937
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

#### Contact Details of Key Personnel for Contract 1 – NE/2016/01

Legend:

CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

CSVJV (Main Contractor) – Chun Wo-STEC-Vasteam Joint Venture

ANEWR (IEC) – ANewR Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Engineer	Leung Siu Kau, Kelvin	2301 1383	2739 0076
AECOM	Chief Resident Engineer	Lee, Yu Ching Paul	5723 6880	2473 3221
AECOM	Senior Resident Engineer	Vincent Yuen	5599 1466	2473 3221
ANEWR	Independent Environmental Checker	Adi Lee	2618 2836	3007 8648
KOCCL	KOCCL Project Director		2889 2675	2558 6900
KOCCL	Site Agent	Yung, Shui Heng	6012 4284	2558 6900
KOCCL	Safety and Environmental Manager	Joly C K Kwong	6111 5711	2558 6900
KOCCL	Environmental Officer	Leung Ka Kui	6671 0383	2558 6900
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

#### Contact Details of Key Personnel for Contract 2 – NE/2016/05

Legend:

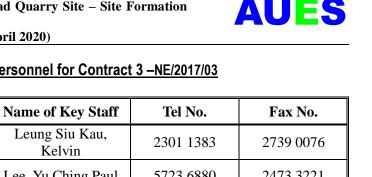
CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

KOCCL (Main Contractor) -Kwan On Construction Company Limited

ANEWR (IEC) – ANewR Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



#### Contact Details of Key Personnel for Contract 3 -NE/2017/03

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Engineer	Leung Siu Kau, Kelvin	2301 1383	2739 0076
AECOM	Chief Resident Engineer	Lee, Yu Ching Paul	5723 6880	2473 3221
AECOM	Senior Resident Engineer	Brad Chan	5506 0068	2473 3221
ANEWR	Independent Environmental Checker	Adi Lee	2618 2836	3007 8648
CW – CMGC - JV	Construction Manager	William Leung	9464 1392	3965 9900
CW – CMGC - JV	Site Agent	Chris Lam	9801 9974	3965 9900
CW – CMGC - JV	Environmental Officer	King Lam	9570 6187	3965 9900
CW – CMGC - JV	Environmental Supervisor	Belle Mak	6094 1580	3965 9900
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

CW – CMGC - JV (Main Contractor) – Chun Wo- CMGC - Joint Venture

ANEWR (IEC) - ANewR Consulting Limited

AUES (ET) – Action-United Environmental Services & Consulting



#### Appendix C

#### **Construction Programme**

- (a) Contract 1 (NE/2016/01)
- (b) Contract 2 (NE/2016/05)
- (c) Contract 3 (NE/2017/03)



#### Contract 1 (NE/2016/01)



#### CONTRACT NO. NE/2016/01 DEVELOPMENT OF ANDERSON ROAD QUARRY SITE INVESTIGATION, DESIGN AND CONSTRUCTION 3 - MONTH ROLLING PROGRAMME

	夜 和 - 上 隧 - 活 隆 聠 営 CHUN WO - STEC - VASTEAN JOINT VENTURE					3 - N	IONTH R	ROLLIN	NG PRO	DGRAN	IME				
vity ID	Activity Name	BL1 BL1 Start Duration	BL1 Finish	Duration	Start	Finish y	1 2020 15 2	22	29 0		2020	26	03	May 2020 10 17	24
derson Rd S	ub-programme (Apr 20)														
ox Culvert BC2	2						1								
lay 17															
BC2-1620	Backfilling	14d 10-Jan-20	29-Jan-20	33d 0	19-Mar-20 2 A	20-Apr-20 6									
BC2-1630	Working platform erection	3d 30-Jan-20	01-Feb-20	4d 0	01-Apr-20 0		1								
BC2-1640	Chamber wall formwork	3d 03-Feb-20	05-Feb-20	4d 0	A )9-Apr-20 1	A 6-Apr-20 6	1				0				
BC2-1650	Rebar fixing	3d 06-Feb-20	08-Feb-20	3d 1	A 17-Apr-20 2	20-Apr-20 6	1								
BC2-1660	External Wall formwork erection + cleaning	3d 10-Feb-20	12-Feb-20	3d 2	21-Apr-20 2	23-Apr-20 6	1								
BC2-1670	Concreting	1d 13-Feb-20	13-Feb-20	1d 2	24-Apr-20 2	24-Apr-20 6	1				۵				
Fresh Water Pun	nping Station						1								
Stage 5 - ABWF	, Finishing & E&M						1								
FWP-1300	Pumping Station ABWF	0d		154d 3	1-Dec-19 1	10-Jul-20 6									
FWP-1320	Pumping Station E&M works	Od		207d 1	A 16-Jun-20 2	4-Feb-21 6	1								
Salt Water Rese							1								
ABWF, Finishing							1								
SWR-1410	Saltwater Reservior ABWF & Finishing	0d		81d 1	8-Feb-20 2	8 May 20 6									
SWR-1410	Saltwater Reservior E&M works	0d			A 9-May-20 2										r
	at & External Works	Uu		2000 2	9-1v1 ay-20 2	0-Jan-21 0	1								
				1541			1								
FWP-1400	Formation & Slope RWA13 works	Od			16-Apr-20 1		1								
FWP-1410	Watermain (DN600 & DN450) & Irrigation System along WSA access road	0d			16-Apr-20 1		1								
FWP-1420	Drainage (sewerage & surface) along WSA access road	0d		109d (	)3-Jul-20 1	0-Nov-20 6	1								
	ection System A & B														
PC system B							1								
PCB-1070	System B - Backfill subway	53d 21-Sep-19	23-Nov-19	122d 2	0-Nov-19 2 A	21-Apr-20 6									
PCB-1090	System B - Backfill south tower	81d 27-Sep-19	04-Jan-20	72d 1	6-Feb-20 1 A	6-May-20 %									
PCB-1100	System B - Backfill north tower	81d 27-Sep-19	04-Jan-20	72d 1	6-Feb-20 1 A	6-May-20 6									
PCB-1110	System B - ABWF	81d 12-Sep-19	18-Dec-19	81d 1	6-Apr-20 2	23-Jul-20 6									
PCB-1120	System B - E&M	22d 02-Nov-19	27-Nov-19	22d (	)5-Jun-20 (	)2-Jul-20 6									
PCB-1130	System B - E&M T&C	24d 28-Nov-19	27-Dec-19	24d (	03-Jul-20 3	30-Jul-20 6									
PCB-1140	System B - Lift installation	75d 28-Nov-19	29-Feb-20	75d (	)3-Jul-20 2	8-Sep-20 6									
			<u> </u>												
PC system A															
	B5 - Excavation for Pedestrian Connectivity System A (North) to Level (+164mPD)	0d		38d 1	0-Feb-20 2 A	5-Mar-20 6 A		I							

	Primary Baseline Forecast Work	2 Month Dolling Drogrommo	Date	R
	Actual Work	3 Month Rolling Programme		
		Anderson Rd Sub-programme (Apr 20)		
$\diamond$	Baseline Milestone	17-Apr-20		
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Page 1 of 5 Cut-Off Data Date: 16-Apr-20							
June 2 31 07	2020 14 21		28	July 2020 05	12		
Revision		Che	cked	Appro	oved		



後和-上隧-浩隆聯營 CHUN WO - STEC - VASTEAM JOINT VENTURE	CONTRACT NO. NE/2016/01 DEVELOPMENT OF A INVESTIGATION, DESIGN AND C 3 - MONTH ROLLING PRO	CONSTRUCTION DGRAMME	ARRY SITE	F	Page 2 of 5 Cut-Off Data Da	
Activity ID Activity Name	BL1 BL1 Start BL1 Finish Duration Start Finish y 2020 Duration 15 22 29 08	April 2020 5 12 19 26	May 2020 03 10 17	June 202           24         31         07         1	20 4 21 28	July 2020 05 12
Retaining wall Part 7 Bay 1-2 Wall A)						
ART-1450 Art retain wall - Part 7 bay 1	16d 15-Nov-19 03-Dec-19 20d 06-Mar-20 30-Mar-20 6 A A A					
ART-1460 Art retain wall - Part 7 bay 2	16d 25-Nov-19 12-Dec-19 15d 01-Apr-20 22-Apr-20 6 A					
Retaining wall Part 11 Bay 47-49)						
ART-1470 Art retain wall - Part 11 excavation	14d 07-Jan-20 22-Jan-20 14d 05-May-20 20-May-20 6					
ART-1480 Art retain wall - Part 11 bay 46	12d 23-Jan-20 08-Feb-20 12d 21-May-20 03-Jun-20 6					
ART-1490 Art retain wall - Part 11 bay 47	12d 23-Jan-20 08-Feb-20 12d 21-May-20 03-Jun-20 6					
ART-1500 Art retain wall - Part 11 bay 48	12d 03-Feb-20 15-Feb-20 12d 28-May-20 10-Jun-20 6					
ART-1510 Art retain wall - Part 11 bay 49	12d 23-Jan-20 08-Feb-20 12d 21-May-20 03-Jun-20 6					
Retaining wall Part 12 Bay 50-52)						
ART-1520 Art retain wall - Part 12 backfill by course material, excavation, 300mm rock fill	14d 17-Feb-20 03-Mar-20 14d 11-Jun-20 27-Jun-20 6					
ART-1530 Art retain wall - Part 12 bay 50	12d 04-Mar-20 17-Mar-20 12d 29-Jun-20 13-Jul-20 6					
ART-1540 Art retain wall - Part 12 bay 51	12d 11-Mar-20 24-Mar-20 12d 07-Jul-20 20-Jul-20 6					
ART-1550 Art retain wall - Part 12 bay 52	12d 04-Mar-20 17-Mar-20 12d 29-Jun-20 13-Jul-20 6					
Water testing (stem wall)						
ART-1850 Art retain wall - Bay 32-38	15d 10-Dec-19 28-Dec-19 19d 09-Mar-20 31-Mar-20 6					
ART-1860 Art retain wall - Bay 29-31	A A A 100 30-Dec-19 10-Jan-20 14d 01-Apr-20 21-Apr-20 6					
ART-1870 Art retain wall - Bay 47-52	A A A A A A A A A A A A A A A A A A A					
Backfill at back of retaining wall						
ART-1890 Art retain wall - Bay 10-19	45d 05-Nov-19 28-Dec-19 67d 06-Jan-20 27-Mar-20 6					
, ,	A A					
	45d 22-Nov-19 16-Jan-20 51d 24-Feb-20 27-Apr-20 6					
ART-1910 Art retain wall - Bay 39-46	30d 10-Dec-19 16-Jan-20 50d 02-Mar-20 05-May-20 6					
ART-1920 Art retain wall - Bay 32-38	30d 30-Dec-19 06-Feb-20 29d 01-Apr-20 11-May-20 6 A					
ART-1930 Art retain wall - Bay 29-31	30d         11-Jan-20         18-Feb-20         30d         22-Apr-20         28-May-20         6					
ART-1940 Art retain wall - Bay 47-52	30d         01-Feb-20         06-Mar-20         30d         12-May-20         15-Jun-20         6					
Construction of lake bottom						
ART-1960 Art Lake - Construction north part	36d         15-Jan-20         28-Feb-20         36d         16-Apr-20         29-May-20         6					
ART-1970 Art Lake - Excavation south part	30d 15-Jan-20 21-Feb-20 43d 10-Mar-20 6					
ART-1980 Art Lake - Construction south part	36d         22-Feb-20         03-Apr-20         36d         06-May-20         16-Jun-20         6					
ART-1990 Art Lake - water testing for bottom of lake	45d 06-Apr-20 02-Jun-20 45d 17-Jun-20 10-Aug-20 6					
Construction of Floating Bridge						
ART-2050 Art Lake Floating Brdige - backfill	30d 07-Dec-19 14-Jan-20 30d 16-Apr-20 22-May-20 6					
ART-2060 Art Lake Floating Brdige - footing construction	30d         15-Jan-20         21-Feb-20         30d         23-May-20         27-Jun-20         6					
ART-2070 Art Lake Floating Brdige - installation bridge	30d         22-Feb-20         27-Mar-20         30d         29-Jun-20         03-Aug-20         6					
		I			i	
<ul> <li>Primary Baseline</li> <li>Actual Work</li> <li>Baseline Milestone</li> </ul>	<b>3 Month Rolling Progr</b> Anderson Rd Sub-programme (Apr 20) 17-Apr-20	amme	Date	Revision	Checked	Approved
♦ ♦ Milestone					1	ı

	Primary Baseline Forecast Work	2 Month Dolling Drogramma	Date	R
	Actual Work	3 Month Rolling Programme		
		Anderson Rd Sub-programme (Apr 20)		
$\diamond$	Baseline Milestone	17-Apr-20		
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#### CHUN WO - STEC - VASTEAM JOINT VENTURE

#### CONTRACT NO. NE/2016/01 DEVELOPMENT OF ANDERSON ROAD QUARRY S INVESTIGATION, DESIGN AND CONSTRUCTION 3 - MONTH ROLLING PROGRAMME

rity ID	Activity Name		Finish Duration Start	Finish y	/ 1 2020	April			May 2020	
Slot Chamber		Duration			15 22 29	05 12	19	26 03	10 17	24
ART-2080	Art Lake - Slot chamber no. 1 & stop log chamber	18d 17-Jan-20 10-F	eb-20 18d 06-May-20	26-May-20	j j					
ART-2090	Art Lake - Slot chamber no. 2 & stop log chamber	26d 07-Mar-20 07-A	.pr-20 26d 16-Jun-20	17-Jul-20 6	j	1				
ART-2100	Art Lake - Slot chamber no. 3	33d 07-Mar-20 18-A	.pr-20 33d 16-Jun-20	25-Jul-20 6						
Drainage										
ART-2110	Art Lake - Outside bay 38-45	63d 10-Dec-19 27-F	eb-20 68d 02-Mar-20	26.May 20 (						
	·		A							
ART-2120	Art Lake - Outside bay 3-8	28d 17-Jan-20 21-F	· · ·		_					
ART-2130	Art Lake - Outside bay 9-28	56d 30-Dec-19 07-N	Á							
ART-2140	Art Lake - Outside bay 50-52	14d 07-Mar-20 23-N	1ar-20 14d 16-Jun-20	03-Jul-20 6						
Treatment Plant										
ART-1580	Treatment plant - Construct the wall(W4,5,8,9,15,16,17,10)	24d 26-Nov-19 23-E	9ec-19 38d 04-Mar-20 A	21-Apr-20 6						
ART-1590	Treatment plant - Construct the Roof (S4)	14d 24-Dec-19 11-J		09-May-20 6	5					
ART-1600	Treatment plant - Rockfilling/backfilling(by course material), 5.5m Depth	9d 24-Dec-19 06-J	an-20 9d 22-Apr-20	04-May-20 6	5					
ART-1610	Treatment plant - Construct the base(S1,2)	7d 07-Jan-20 14-J	an-20 7d 05-May-20	12-May-20 6						
ART-1620	Treatment plant - Construct the wall(W1,2,3,6,7,8,9,11,12,13,14)	14d 15-Jan-20 03-F	eb-20 14d 13-May-20	28-May-20 6						
ART-1630	Treatment plant - Backfilling (by course material) to 197.1mPD, 8.2m Depth	30d 04-Feb-20 09-N	1ar-20 30d 29-May-20	04-Jul-20 6	5					٦
Bioretention Syst	tem									
ART-2150	Art Lake - Part 1,2,4	72d 09-Mar-20 06-J	un-20 72d 11-Jun-20	04-Sep-20 (						
ART-2160	Art Lake - Part 3	32d 22-Feb-20 30-N								
ART-2170	Art Lake - Part 6,7,12	16d 24-Mar-20 15-A	.pr-20 16d 04-Jul-20	22-Jul-20 6						
Inderpass Tunn										
Tunnel Permane	nt Lining									
TUN-3010	Tunnel Lining Bay 1 CH2389 to CH2395	0d	104d 16-Dec-19 A	25-Apr-20 6						
TUN-3230	Tunnel Lining Bay 25 CH2515 to CH2520	0d	36d 10-Mar-20 A							
Box Culvert BC3										
TUN-3310	BC3 - CH2389 to CH2422 (32.5m)	Od	113d 27-Nov-19	17-Apr-20						
TUN-3320	BC3 - CH2422 to CH2433 (11m)	Od	A 38d 16-Mar-20	05-May-20 6	- -					
TUN-3330	BC3 - CH2433 to CH2460 (27m)	0d	A 73d 03-Mar-20	02-Jun-20 6						
TUN-3340	BC3 - CH2520 to CH2511 (9m)	Od	A 107d 09-Dec-19	22-Apr-20						
TUN-3350	BC3 - CH2511 to CH2506 (5m)	Od	A 19d 23-Apr-20		5					
TUN-3360	BC3 - CH2506 to CH2484 (22m)	Od	70d 18-May-20							
TUN-3370	BC3 - CH2484 to CH2460 (24m) 8, Noise Barrier, RWA12, Utilities & Road Works)	Od	49d 01-Apr-20 A	03-JUN-20 6						
	Notes Destas DMA40 HERes 9 Deed Meshe)									

Primary Baseline	Forecast Work
Actual Work	

<b>♦ ♦</b>	Baseline Milestone
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#### Anderson Rd 17-Apr-20

3 Month Rolling Programme	
Sub-programme (Apr 20)	

Y SITE					Page 3 of 5 Cut-Off Data Date: 16-Apr-20						
May 2020	) 17	24	31	June 07	2020	21	28	July 2020 05 12 ∮			
			_								
Date			Revision	<u>ו</u>		Che	ecked	Approved			



		CO		OPMENT OF ANDERS DESIGN AND CONSTRU COLLING PROGRAMM	UCTION	QUARRY SITE		Page 4 of 5 Cut-Off I	Data Date: 16-Apr-2
ivity ID	Activity Name	BL1 BL1 Start Duration	BL1 Finish Duration Start Finish y 2020	April 202 22 29 05 12	20 19 26	May 2020	7 24 31	June 2020 07 14 21	July 2020 28 05 12
L4-3440	L4 (RWA12) - Bay 17-20 construct wall & backfill upto +165	Od	153d 15-Oct-19 21-Apr-20 6						
L4-3670	L4 (RWA12) - Bay 9-16 construct wall & backfil	Od	220d 05-Aug-19 04-May-20 6						
L4-3690	L4 (RWA12) - Bay 23-29 excavate in soil & rock	Od	36d 12-Mar-20 27-Apr-20 6						
L4-3700	L4 (RWA12) - Bay 23-29 construct wall & backfill	Od	103d 02-Apr-20 08-Aug-20 6						
Road Works - Dra	ainage								
L4-4210	L4 (Drainage) - Backfill noise barrier & RWA12	0d	88d 17-Dec-19 05-Apr-20 6						
L4-4220	L4 (Drainage) - Excavate & lay drain CH0 to CH50	Od	A         A           56d         04-Feb-20         11-Apr-20         6						
L4-4230	L4 (Drainage) - Excavate & lay drain CH50 to CH100	Od	A A A 65d 01-Mar-20 22-May-20 6				<b>—</b>		
L4-4240	L4 (Drainage) - Excavate & lay drain CH100 to CH150	Od	A 83d 16-Mar-20 27-Jun-20 6						
L4-4250	L4 (Drainage) - Excavate & lay drain CH150 to CH200	Od	A 80d 18-May-20 20-Aug-20 6						
L4-4270	L4 (Drainage) - Excavate & lay drain CH200 to CH250	Od	80d 29-May-20 01-Sep-20 6						
L4-4290	L4 (Drainage) - Excavate & lay drain CH300 to CH350	0d	80d 29-May-20 01-Sep-20 6						
Retaining Wall R									
RWA9 Bay 7 to B	Bay 12								
RWA9-1090	RWA9 - Excav & formation work for Bay 7 to 12 & lay blinding layer	Od	27d 25-Feb-20 27-Mar-20 6						
RWA9-1100	RWA9 - F/W & rebat fixing to Bay 7, 9 & 11 Base Slab	Od	A A A 12d 01-Apr-20 18-Apr-20 6						
RWA9-1110	RWA9 - Concrete laying for Bay 7, 9 & 11 Base Slab	Od	3d 20-Apr-20 22-Apr-20 6						
RWA9-1120	RWA9 - F/W & rebat fixing to Bay 8, 10 & 12 Base Slab	Od	10d 23-Apr-20 06-May-20 6						
	RWA9 - Concrete laying for Bay 8, 10 & 12 Base Slab	Od							
RWA9-1130			3d 07-May-20 09-May-20 6						
RWA9-1140	RWA9 - F/W & rebat fixing to Bay 7, 9 & 11 Wall	0d	10d 11-May-20 21-May-20 6						
RWA9-1150	RWA9 - Concrete laying for Bay 7, 9 & 11 Wall	Od	3d 22-May-20 25-May-20 6					_	
RWA9-1160	RWA9 - F/W & rebat fixing to Bay 8, 10 & 12 Wall	Od	14d 26-May-20 10-Jun-20 6						
RWA9-1170	RWA9 - Concrete laying for Bay 8, 10 & 12 Wall	Od	3d 11-Jun-20 13-Jun-20 6						
RWA9 Bay 13 to									
RWA9-1180	RWA9 - Excav & formation work for Bay 16, 15, 14,13	0d	45d 15-Jun-20 07-Aug-20 6						
RWA9 Bay 17 to									
RWA9-1280	RWA9 - Excav & formation work for Bay 17 to 20 & lay blinding layer	0d	21d 23-Jun-20 18-Jul-20 6						
Road Works L5,L	.1 east (between Junction L3 & L5)								
Road L5									
RL5-1040	Road L5 - ducting for Street Lighting	0d	111d 02-Dec-19 20-Apr-20 6 A						
RL5-1050	Road L5 - Road Pavement	Od	119d 04-Dec-19 04-May-20 6						
RL5-1060	Road L5 - Landscape funiture	Od	37d 18-Apr-20 02-Jun-20 6						
Road L1 east par	rt 1 (L5 toward L3 Junction)								
RL1a-1030	Road L1 east 1 - UU installation	0d	117d 28-Nov-19 23-Apr-20 6						
				;		; 			;
	nary Baseline Forecast Work		3 Month Ro	olling Programme		Date	Revisio	n Ch	ecked Approved
	ual Work seline Milestone		Anderson Rd Sub-programme (Apr 20)						
	estone		17-Apr-20			l			

	Primary Baseline Forecast Work	2 Month Dolling Drogramme	Date	Re
	Actual Work	3 Month Rolling Programme		
		Anderson Rd Sub-programme (Apr 20)		
$\diamond$	Baseline Milestone	17-Apr-20		
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#### CHUN WO - STEC - VASTEAM JOINT VENTURE

#### CONTRACT NO. NE/2016/01 DEVELOPMENT OF ANDERSON ROAD QUARRY SITE INVESTIGATION, DESIGN AND CONSTRUCTION 3 - MONTH ROLLING PROGRAMME

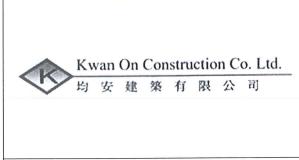
tivity ID	Activity Name	BL1 BL <u>1 Start</u>	BL1 Finish Duration Start	Finish y	y 1 2020		April 2020			May	2020		
		Duration		·	15 22	29 05	12	19 26	03	10	17	24	31
RL1a-1040	Road L1 east 1 - ducting for Street Lighting	Od	68d 10-Feb-2	20 05-May-20 6	6								
RL1a-1050	Road L1 east 1 - Road Pavement	Od	116d 09-Dec-1	9 05-May-20 6	6								
RL1a-1060	Road L1 east 1 - Landscape funiture	Od	,,	20 27-Jun-20 6	6								_
Road L1 east par	rt 2 (L5 toward PC system B)												
RL1b-1040	Road L1 east 2 - ducting for Street Lighting	Od	99d 19-Dec-1	19 23-Apr-20 6	6								
RL1b-1050	Road L1 east 2 - Road Pavement	Od	28d 17-Apr-2	21-May-20 6	6								
RL1b-1060	Road L1 east 2 - Landscape funiture	Od	45d 22-May-2	20 15-Jul-20 6	6								_
Road L1 east par	rt 3 (Junction L3 toward L5)												
RL1c-1020	Road L1 east 3 - Watermain installation	Od	62d 11-Feb-2	20 27-Apr-20 6	6								
RL1c-1023	Road L1 east 3 - Fibe optic installation	Od	60d 16-Apr-2	0 27-Jun-20 6	6								
RL1c-1030	Road L1 east 3 - UU installation	0d	96d 06-Jan-2	0 06-May-20 6	6								
RL1c-1040	Road L1 east 3 - ducting for Street Lighting	Od	A 35d 16-Apr-2	28-May-20 6	6								
RL1c-1050	Road L1 east 3 - Road Pavement	0d	30d 16-Apr-2	22-May-20 6	6								
RL1c-1060	Road L1 east 2 - Landscape funiture	Od	35d 23-May-2	20 04-Jul-20 6	6						1		
Road Works PTT	, L1 west (between Junction L3 & PTT)												
Road L1 west par	rt 1 (Box culvert BC1)												
RL1c-1070	Road L1 west 1 - Drain Works (except gully near slope)	Od	170d 11-Nov-1 A	19 09-Jun-20 6	6								_
RL1c-1090	Road L1 west 1 - Watermain installation	Od	45d 28-May-2	20 21-Jul-20 6	6								_
RL1c-1100	Road L1 west 1 - Fibe optic installation	0d	60d 28-May-2	20 07-Aug-20 6	6								
RL1c-1110	Road L1 west 1 - UU installation	0d	45d 20-Jun-2	13-Aug-20 6	6								
RL1c-1120	Road L1 west 1 - ducting for Street Lighting	Od	40d 02-Jul-2	0 17-Aug-20 6	6								
RL1c-1130	Road L1 west 1 - Road Pavement	0d	40d 02-Jul-2	0 17-Aug-20 6	6								

Primary Baseline Forecast Work	2 Month Dolling Brogramma	Date	Re
Actual Work	3 Month Rolling Programme		
Actual Work     Actual Work     Actual Work	Anderson Rd Sub-programme (Apr 20)		
	17-Apr-20		
<ul> <li>♦ Milestone</li> </ul>			

Page	e 5 of Cut	5 t-Off E	)ata I	Date	16-A	pr-20
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#### Contract 2 (NE/2016/05)



Contract No. NE/2016/05

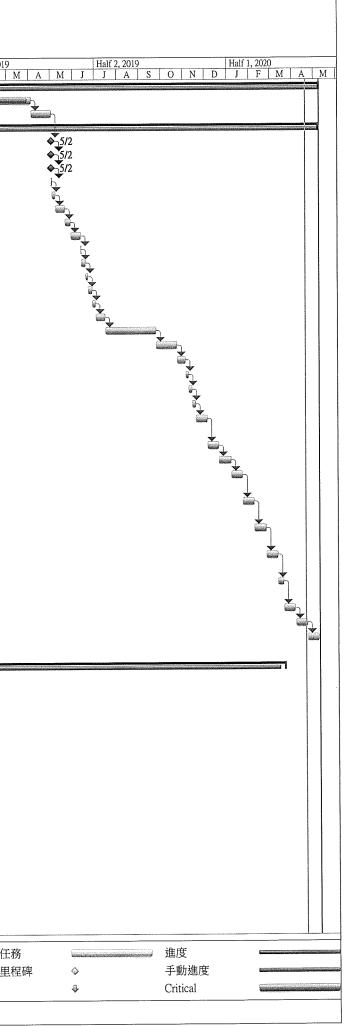
Development of Anderson Road Quarry Site Pedestrian Connectivity Facilities Works Phase 1

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#### CONTRACTOR SUBMISSION FORM

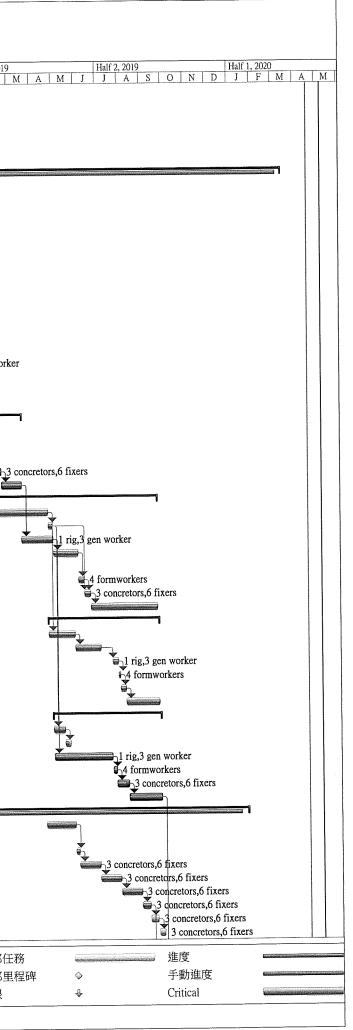
Your Ref. No	0. :											
Submission	Ref. No. :	NE/2016/05	5 - 4004									
Date of Sub	mission :	20 April 202	20									
Title of Sub	mission :	Updated Ac	cepted Programme for Section	C –Portion 5 (April 2020)								
Specification	n Reference :	PS1.08										
Description	of Content:											
I enclosed here	with Updated Ac	cepted Program	me for Section C –Portion 5 (April 2	020) for your acceptance.								
1. Delay	mitigation in acco	rdance with AC	C Clause 32.1 occurred during conci	reting and paving block works								
<ol> <li>High Mast lighting was carried out by Kum Shing under PMI-176</li> </ol>												
<ol> <li>During has been clarified</li> </ol>												
<ol> <li>Lead time for procurement of paving block was affected by Covid-19</li> </ol>												
5. In add	ition, PMI issued s	shall include EC	νT.									
Purpose of Submission :												
✓ For Acceptance □ For Information □ For Record Purpose												
From: Kwar	n On Constructi	on Co., Ltd.	Signature:									
Name: YUN	G Shui Heng		SIV									
Title: Site	Agent											
<b>Response:</b>			0									
cc. The Super	rvisor –Ivan Tsan	g, AECOM		Additional Sheet 🗆								
Status;	□ Accepted		Not Accepted	□ Acceptance not Required								
[ [	Accepted su	bject to cond	lition(s) as stated / further re	quired information as stated.								
1	□ Others:											
	(plea	ase specify)										
The Supervi	isor's Delegate			Date:								

D 任	務名稱	Duration	Start	Finish	Predecess7	Half 2, 2017	Half 1, 2018	Half 2, 20	018	Half 1, 2019
		973 days	Fri 3/31/17			A M J J A	SONDJF	M A M J J A	ASON	DJJF
1 <b>K</b>	evised Contract Period for Section C Original Contract Period	630 days	Fri 3/31/17							
	Public Holidays	24 days	Fri 4/5/19	(2) A second se second second sec	a mandan di ka					
	EOT Granted	972 days	Fri 3/31/17	7 Thu 5/7/	/20					
	CE 016 Inclement weather Aug 2017	0 days			3					
	CE 031 Inclement weather Oct 2017	0 days			5					
	CE 039 Inclement weather Nov 2017	0 days			6 7					
	CE 058 - 1 days inclement weather March 2018	1 day 4 days			8					
	CE 078 - 4days inclement weather May 2018 CE102 - 11days inclement weather June 2018	11 days			9					
	CE102 - Trudy's inclement weather July 2018	7 days			10					
	CE132 - 12 days inclement weather Aug 2018	12 days			11					
	CE146 - 0.5 days inclement weather Nov 2018	0.5 days			12					
	5day inclement weather April 2019	5 days			13					
5	3day inclement weather May 2019	3 days			14					
5	5day inclement weather June 2019	5 days			15					
	4 day inclement weather July 2019	4 days			16					
	11day inclement weather August 2019	11 days			17					
9	COVID-19 effect Jan 23 to Mar 18 2020	60 days			18					
)	COVID-19 effect Mar 19 to April 18 2020	25 days			19 20					
	Lane Swapping Lanes 11, 12 at Tollgate postpone to April 30	10 days			20 21					
2	PMI 59 CCTV of Uncharted Concrete Pipe	4 days								
3	PMI 68 Inspection Pit for Box Culvert	4 days			22					
4	PMI 107 Vertification inspection pits	4 days			23 24					
5	PMI 99 Revised R.C. details for BBI northbound foundation BBI-NB-F4	14 days			24					
		14 days			25					
5	PMI 114 Waterproofing details for footing BBI-NB-F5	14 days			26					
	PMI 124 Revised layout for footing BBI-NB-F4 PMI 135 Revised R.C. details for BBI northbound foundation	14 days			20					
	BBI-NB-F3	14 days			21					
	PMI 154 Revised R.C. details for BBI Northbound foundation	14 days			28					
	BBI-NB-F1a, F1b & F2	1. 4490								
	PMI 139 Revised northbound BBI footing (BBI-NB-F1a, F1b and F2)	14 days			29					
	and column base									
	PMI 183 Revised Drainage System and Additional Sewerage System	14 days			30					
	PMI 200 Modification of Existing TCS Drawpits and Cable Ducts	7 days			31					
	within Carriageway	14 dour			32					
3	PMI 176 High Mast Relocation Works	14 days			33					
4	PMI 145 Temporary lighting in portions 5 and 6	14 days			33					
5	PMI 115 Revised foundation of high mast lighting in portion 5	14 days			54					
6 7 <b>S</b>	the Contract of Collection DDI Connered Wellinger	932 days	Fri 3/31/1	7 Sun 3/22	/20					
8	ection C - Construction of Northern BBI Covered Walkway Planning and Survey	119 days	Fri 3/31/1							
9	Planning and Survey Planning	56 days	Fri 3/31/1							
0	Initial site survey	30 days	Mon 6/5/1							
1	Material Submissions	42 days	Mon 6/5/1							
2	Preparation of Works	435 days	Mon 7/17/1		/18					1
3	Tree Felling	120 days	Thu 8/17/1							
4	Transplant Trees	180 days	Thu 8/17/1					<b>2</b>		
5	UU detection and survey	60 days	Mon 7/17/1			Guerrantes				
6	Excavation of inspection pits to locate utilities	30 days	Mon 10/30/1							
7	Arrangement with UU companies for diversion	120 days	Thu 7/19/1	8 Wed 12/5	5/18					3
8	Application of TTA for access, loading and unloading area	7 days	Sun 4/1/1	8 Mon 4/9	/18					
	(TKOR/011A)				· · · · · · · · · · · · · · · · · · ·					
)	Implementation of TTA (TKOR/011A)	30 days	Wed 5/16/1		communitions and a second second					
0	Road Works Advice (TKOR/011A)	30 days	Thu 7/26/1	8 Wed 8/29	9/18					
1	Site investigation and survey work	498 days	Fri 3/31/1	and a second	and a sub-sector sector and a sector se					
2	Trial Pit and inspection pit at F5	30 days	Fri 3/31/1							
3	Fell and Dispose Tree to SENT Landfill	99 days	Thu 3/22/1							
4	Excavate Inspection Pits and Trench for 400kV cable - PMI no.32	21 days	Tue 12/5/1	7 Thu 12/28	5/17		Generation			
	Critical Split	里程碑	۵	키누산	F用中的任務	手動	力任務	手動摘要		┓ 外部
: Acce	atad Department Dortion 5 f		¥					·····································	- F	外部
	4/20/20 任務	摘要			F用中的里程碑		四含工期	·····································		21°部9 期限
1; Mon	#/20/20 分割	專案摘要報告			F用中的摘要					

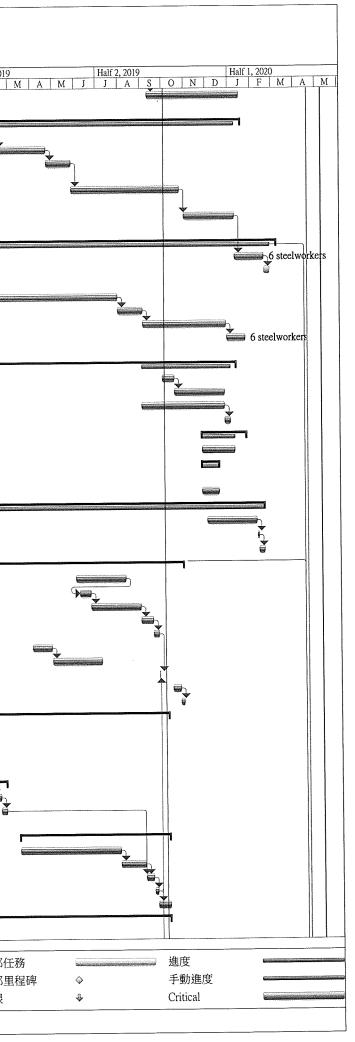


Contract No. NE/2016/05 Development of Anderson Road Quarry Site Connection of Pedestrian Facilities Works Phase 1 - Monthly updated programme for section C Portion 5 Apr 2020

	分割	專案摘要報告		■ 列目中的個女	第2頁			
專案: Acc 日期: Mc	epted Programme Portion 5 f 任務	1 摘要 事实按照起生		·····································	<ul><li>僅包含工期</li><li>手動上顯型摘要</li></ul>	僅定義開始日期 僅包含完成時間	L ]	21 <sup>31</sup> 副星4 期限
<b>甫</b> 安. 4	Critical Split		\$	非作用中的任務	手動任務	手動摘要 僅定義開始日期	Ē	外部任 外部里和
115	Columns above footing F2	7 days	Mon 9/23/19			 工 新校 西	( <u></u>	友人立77.4元
114	Columns above footing F1b	10 days						
112	Columns above footing F1a	10 days	Fri 8/30/19	Tue 9/10/19 112				
111 112	Columns above footing F4 Columns above footing F3	25 days 25 days	and the second second second	la se a company a com				
110	Columns above footing F5	25 days						
109	Approval of of the HD Bolt submission	4 days	Thu 5/30/19					
108	Submission of cast-in item included holding down bolt and base plate	55 days	111 4/17/17					
107	Columns base of BBI	884 days 35 days	Fri 3/31/17 Fri 4/19/19	Sun 1/26/20 Wed 5/29/19				
106	Backfilling (included SRT) F1b	40 days	Tue 8/13/19					
105	Fixing Rebar and Place Concrete for Footing F1b	14 days	Sat 7/27/19	Mon 8/12/19 104				
103	Formwork for footing F1b - PMI no.139	5 days	Mon 7/22/19	Fri 7/26/19 103				
102 103	BBS approval for Footing F1b - PMI no.154 ELS for Footing F1b (combine with HM A's ELS)	7 days 70 days	Wed 5/1/19	and a second decision of the second				
101	Submission of BBS	14 days	Tue 4/30/19 Thu 5/16/19	Wed 5/15/19 87 Thu 5/23/19 101				
100	Bay F1b	130 days	Tue 4/30/19	Fri 9/27/19				
99	Backfilling (included SRT) F2	40 days	Sat 8/10/19	Wed 9/25/1998				
98	Fixing Rebar and Place Concrete for Footing F2	7 days	Fri 8/2/19	Fri 8/9/19 97				
96 97	ELS for Footing F2 Formwork for footing F2 - PMI no.139	3 days	Tue 7/30/19	Thu 8/1/19 96				
95	BBS approval for Footing F2 - PMI no. 154	31 days 7 days	Fri 5/31/19 Mon 7/22/19	Mon 7/29/19 95				
94	Submission for BBS	32 days	Wed 4/24/19	Thu 5/30/19 86 Fri 7/5/19 94				
93	Bay 2	133 days	Wed 4/24/19	Wed 9/25/19				
91 92	Fixing Rebar and Place Concrete for Footing Fia Backfilling (included SRT) Fla	80 days	Sat 6/22/19	Mon 9/23/19 91				
90 91	Formwork for footing F1a - PMI no.139 Fixing Rebar and Place Concrete for Footing F1a	7 days 8 days	Wed 6/5/19 Thu 6/13/19	Fri 6/21/19 90,87				
	no.172	7 dave	Wed 6/5/19	Wed 6/12/19 89				
89	Revising the layout of F1a footing due to E&M manhole - PMI	30 days	Wed 5/1/19	Tue 6/4/19 88				
88	ELS for Footing Fla	38 days	Mon 3/18/19	Tue 4/30/19 84				
87	BBS approval for Footing F1b - PMI no.154	5 days	Wed 4/24/19	Mon 4/29/19 86				
85 86	Bay F1a Submission of BBS - PMI no.154	62 days	Mon 2/11/19	Tue 4/23/19				
84	Backfilling (included SRT) F3	24 days 193 days	Tue 2/19/19 Mon 2/11/19	Mon 3/18/19 83 Mon 9/23/19				r
83	Fixing Rebar and Place Concrete for Footing F3	21 days	Fri 1/25/19	Mon 2/18/19 82 Mon 3/18/19 83				
82	Formwork for footing F3 - PMI no. 134	6 days	Fri 1/18/19	Thu 1/24/19/81				<b>*</b> 30
81	ELS for Footing F3	44 days	Wed 11/28/18	Thu 1/17/19 75				
80	Bay F3 Pending BBS approval for footing F3 - PMI no.135	20 days	Tue 12/11/18	Wed 1/2/19			Ļ	Ì
78 79	Backfilling (included SRT) F4	42 days 95 days	Wed 12/19/18 Wed 11/28/18	Mon 3/18/19			r <del> </del>	
77	Fixing Rebar and Place Concrete for Footing F4	7 days	Tue 12/11/18	Tue 12/18/18 76 Tue 2/5/19 77,72				×
76	Formwork for footing F4 - PMI no.124	11 days	Wed 11/28/18	Mon 12/10/18 75				
75	ELS for Footing F4	31 days	Tue 10/23/18	Tue 11/27/1869			l rig,	B gen worke
74	Pending BBS approval for footing F4 - PMI no.99	30 days	Fri 9/28/18	Thu 11/1/18				
72 73	Backfilling (included SRT) F5 Bay F4	46 days 112 days	Fri 9/28/18	Tue 2/5/19				
71	Waterproofing F5 - PMI no. 114	3 days 46 days	Wed 10/24/18 Sat 10/27/18	Fri 10/26/18 70 Sat 12/29/18 71				)
70	Placing Concrete for Footing F5	1 day	Tue 10/23/18	Tue 10/23/18 69 Fri 10/26/18 70			۲. ۲	
69	Fixing Rebar and Place Concrete for Footing F5	42 days	Tue 9/4/18	Mon 10/22/18 68,66				
68	Pending BBS approval for footing F5	23 days	Wed 8/8/18	Mon 9/3/18 67				
67	Submission of BBS	30 days	Wed 7/4/18	Tue 8/7/18				
65 66	ELS for Footing F5 Formwork for footing F5	26 days 15 days	Wed 7/18/18 Fri 8/17/18	Mon 9/3/18 65		Ě	5	
64	Approval of ELS	14 days	Mon 7/2/18	Tue 7/17/18.63 Thu 8/16/18.53,64				
63	Submission for ELS for BBI Footing	157 days	Mon 1/1/18	Mon 7/2/18				
62	Bay F5	313 days	Mon 1/1/18	Mon 12/31/18				
60 61	Northern BBI Footings	926 days	Fri 3/31/17	Sun 3/15/20				
59	Excavation for Trial Pit for UU TCS	7 days	Wed 10/24/18	wed 10/31/1838				
58	Remove dead tree on top of inspection pit	7 days	Tue 10/16/18	Tue 10/23/18 57 Wed 10/31/18 58			Ĩ	
57	Excavate Inspection Pits for 400kV cable - PMI no.107	21 days	Fri 9/21/18	Mon 10/15/18				
56	Excavate Inspection Pit for Box Culvert - PMI no.68	14 days	Mon 5/28/18	Tue 6/12/18				
55	CCTV Inspection of Uncharted Concrete Pipe - PMI no.59	5 days	Thu 5/10/18	Tue 5/15/18				
1					A M J J A S O N			

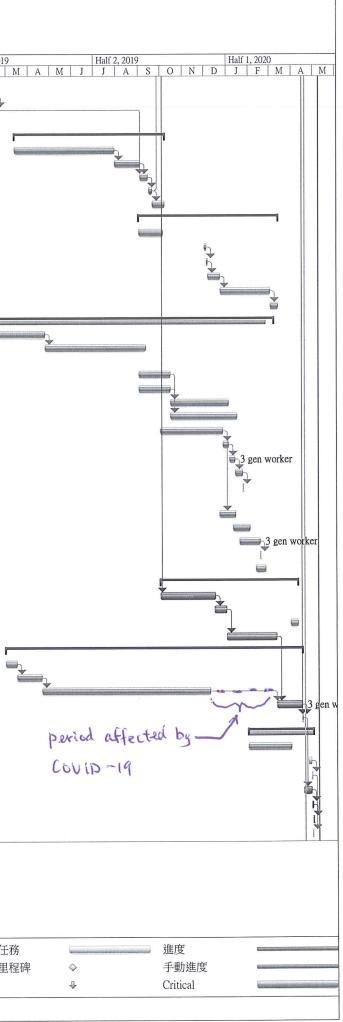


				Develop	ment of Anderso	on Road Quarry Site Conne	ction of Pedestrian Portion 5	NE/2016/05 Facilities Works   Apr 2020	Phase 1 - Monthly u	odated programme	for section C	:
ID 伯	E務名稱			Duration	Start	Finish Predecess?	Half 2,	2017	Half 1, 2018	Half 2, 2018	S O N	Half 1, 2019 D J F
		1		110 days	Wed 9/11/19	Thu 1/16/20 113	A M J J	ASON	D J F M A		<u>3 0 N</u>	
116 117	Backfilling			110 augs	med si in is							
118	Steelworks for BBI			878 days	Fri 3/31/17	Sun 1/19/20						
119	Propose structural ste	el erectors		90 days	Tue 10/30/18	Mon 2/11/19						
120	Approve structural ste			60 days	Tue 2/12/19	Mon 4/22/19 119						<b>6</b> ,
121	covered walkway	fabrication of steel including sho			Tue 4/23/19	Mon 5/27/19 120						
122	Approve offsite fabric covered walkway	ation of steel including shop drav	wing for	130 days	Tue 5/28/19	Fri 10/25/19 121						
123 124	Fabrication and Deliv	ery of Fabricated Steelworks		60 days	Fri 11/1/19	Thu 1/9/20 122						
124	Steel structure of BBI			920 days	Fri 3/31/17	Sun 3/8/20						
126	Erection of Steel stru	cture for BBI		35 days	Fri 1/10/20	Wed 2/19/20 123						
127		e downpipe for the covered walk	way structure	e 7 days	Thu 2/20/20	Thu 2/27/20 126						
128	Submission for PMM	A cover Panels		260 days	Mon 10/1/18	Tue 7/30/19						
128	Approval of Submiss			30 days	Wed 7/31/19	Tue 9/3/19 128						
130	Fabrication and deliv			100 days	Wed 9/4/19	Sat 12/28/19 129						
131		A cover for covered walkway		23 days	Mon 12/30/19	Fri 1/24/20 130						
132				016	Mon 6/5/17	Sun 1/12/20						
133 E 134	Orainage works	inora warka		816 days 15 days	Mon 6/5/17 Tue 10/1/19	Thu 10/17/19	T					
134	Commence PMI-183 for dra Drainage work for 225UC a			60 days	Fri 10/18/19	Thu 12/26/19 134						
136	D416, D417, D418, D419	iid 5000C		100 days	Mon 9/2/19	Thu 12/26/19						
137	Connection of D419 to culv	ert		7 days	Fri 12/27/19	Fri 1/3/20 136						
	Construction of Sewerage Sy			54 days	Mon 11/25/19	Sun 1/26/20						
139	PMI-183			40 days	Mon 11/25/19	Thu 1/9/20						
140 0	Concrete surround of TCS a	nd E&M ducting of drawpit co	ver PMI 200	21 days	Mon 11/25/19	Wed 12/18/19						
141	PMI -200			21 days	Mon 11/25/19	Wed 12/18/19						
	Relocation of Fire Hydrant			433 days	Wed 10/3/18	Wed 2/19/20						
143	Procurement of Fire Hydra	nt		60 days	Mon 12/2/19	Sat 2/8/20						
144	Relocation of Fire Hydrant			2 days	Mon 2/10/20	Tue 2/11/20143	5					
145	T&C			7 days	Wed 2/12/20	Wed 2/19/20 144						
146	High Mast Relocation Wor	KS		336 days	Wed 10/3/18	Tue 10/29/19					1	
147		A for relocation of the works		60 days	Sat 6/1/19	Fri 8/9/19						
148	Laying of TCS Cables (			14 days	Thu 6/6/19	Fri 6/21/19 147						
149	Commence PMI-176 for			60 days	Sat 6/22/19 Sat 8/31/19	Fri 8/30/19 148 Mon 9/16/19 149						
150	Construct Drawpits for			14 days 7 days	Tue 9/17/19	Tue 9/24/19 150						
151 152	Laying of Cables (PMI Submission for Tempor			24 days	Mon 4/1/19	Sat 4/27/19						
152	Approval for Temporary	The second		60 days	Mon 4/29/19	Sat 7/6/19 152						
155		n mast cables (PMI 176)		l day	Wed 9/25/19	Wed 9/25/19151,168,						
155	Relocation of High Mas			10 days	Mon 10/14/19	Thu 10/24/19						
156	High Mast A Southern	· · · · · · · · · · · · · · · · · · · ·		4 days	Fri 10/25/19	Tue 10/29/19 155	4				·····	
157			<b></b>	317 days	Wed 10/3/18	Mon 10/7/19						
158	Submission for ELS	for Footing for High Mast A - PM	v11 no.115	60 days	Wed 10/3/18	Tue 12/11/18						
159	Approval of ELS			14 days	Wed 12/12/18	Thu 12/27/18 158						
160	Submission of revise	d ELS		30 days	Fri 12/28/18	Thu 1/31/19 159						
161	Lower Part of High			14 days	Thu 2/7/19	Fri 2/22/19						
162	Formwork for H	gh Mast A - PMI no.115		7 days		Thu 2/14/19 160						
163		Placing concrete for High Mast A	A - PMI	7 days	Fri 2/15/19	Fri 2/22/19 162						<b>2</b>
164	Upper Part of High	Mast		179 days	Wed 3/13/19	Mon 10/7/19						
165	Submission of H			120 days	Wed 3/13/19	Tue 7/30/19						
166	Approval of cast			30 days	Wed 7/31/19	Tue 9/3/19 165						
167	Formwork			10 days		Sat 9/14/19 166,163						
168	Fixing rebar and			5 days		Fri 9/20/19 167 Mon 10/7/19 168						
169		uded SRT) HM A - PMI no.115		14 days 228 days		Mon 10/7/19	1					I
170 171	High Mast B Northern ELS for Footing for	High Mast B - PMI no.115		14 days		Wed 1/30/19						<u></u>
				001 101 7 fr		ᆂᄹᄪᆂᄮᇧ		手動任務		 手動摘要		┓ 外部任
	epted Programme Portion 5 f			里程碑	\$	非作用中的任務	· · · · · · · · · · · · · · · · · · ·	于動住務 僅包含工期		<u>于动间安</u> 僅定義開始日期	C	外部里
宙安 /				+322 7117		非作用中的里程碑		1里[12] 二 4月	and the second se	그 문 전 가장(카) 있다 더 웃어	-	71 PP====,
專案: Acc 日期: Moi		任務 · · · · · · · · · · · · · · · · · · ·		摘要 專案摘要報告	8	■ 非作用中的摘要		手動上顯型摘要		僅包含完成時間	3	期限



D	任務名稱	Duration	Start	Finish	Predecess	57		Half 2, 20	17	Hal	f 1, 2018	, , ,	Half 2, 2018		Half 1
			Thu 1/31/19	Sat 2/16/19		M	A M J	J J A	S O N	1   D   1	FM	AM	JJA	S O N	
72	Lower Part of High Mast	15 days 14 days	Thu 1/31/19	Fri 2/15/19											ľ,
73 74	Formwork for High Mast B - PMI no.115 Fixing rebar and Place concrete for High Mast B - PMI no.115	14 days 1 day	Sat 2/16/19	Sat 2/16/19											
/ 4	Fixing robal and Frace concrete for fright Mast B - First no. 115	1 duy	Sut 2, TO, TY	00000000											
15	Upper Part of High Mast	179 days	Wed 3/13/19	Mon 10/7/19	)										
16	Submission of Cast in items	120 days	Wed 3/13/19	Tue 7/30/19	)										
7	Approval of cast in items	30 days	Wed 7/31/19	Tue 9/3/19											
78	Formwork	10 days	Wed 9/4/19	Sat 9/14/19											
79	Fixing rebar and placing concrete	5 days	Mon 9/16/19	Fri 9/20/19											
30	Backfilling (included SRT) for High mast B	14 days	Sat 9/21/19	Mon 10/7/19											
31	CCTV Relocation	167 days	Mon 9/2/19	Fri 3/13/20											
2	Footing construction	30 days	Mon 9/2/19	Sat 10/5/19											
3	HD bolt installation	3 days	Mon 12/2/19	Wed 12/4/19											
4	CCTV Column	2 days	Thu 12/5/19	Fri 12/6/19											
5	Ducting construction	14 days	Sat 12/7/19	Mon 12/23/19											
36	Cabling Laying	60 days	Tue 12/24/19	Mon 3/2/20											
7	Relocation of CCTV	10 days	Tue 3/3/20	Fri 3/13/20											
8	E&M Cover Walkway Lighting	423 days	Thu 11/1/18	Sun 3/8/20										(and a	
9	Liaison with UU companies for diversion	150 days	Thu 11/1/18	Wed 4/24/19 Wed 9/11/19										WHEN	
0	Application of Power supply and Liason with CLP for pillar box and ductings	120 days	Thu 4/25/19												
1	Design, drawing submission and approval	38 days	Mon 9/2/19	Tue 10/15/19											
2	Material submission and approval	38 days	Mon 9/2/19	Tue 10/15/19		_									
3	Procurement and delivery of lighting	-	Wed 10/16/19	Sat 1/4/20		1									
94	Procurement and delivery of E&M materials		Wed 10/16/19	Thu 1/16/20											
95	Construction of Pillar Box	75 days	Wed 10/2/19	Fri 12/27/19											
96	Inspection of Pillar box with CLP	7 days	Sat 12/28/19	Sat 1/4/20											
7	Cable laying and Installation of CLP cutout by CLP	7 days	Mon 1/6/20	Mon 1/13/20		_									
8	E&M works inside pillar box	10 days	Tue 1/14/20	Fri 1/24/20											
9	Handover of covered walkway and underground duct for E&M installation	1 day	Sat 1/25/20	Sat 1/25/20	5 198										
00	Conduit and cable containment		Mon 12/23/19	Tue 1/14/20											
)1	Cable and wiring	20 days	Sat 1/11/20	Mon 2/3/20											
)2	Installation of Lighting for covered walkway	25 days	Mon 1/20/20	Mon 2/17/20		-									
)3	Power supply connection	1 day	Tue 2/18/20	Tue 2/18/20											
4	T&C of Electrical works	12 days	Wed 2/12/20	Tue 2/25/20											
5	Construction of central divider	165 days	Wed 10/2/19 Wed 10/2/19	Fri 4/10/20 Mon 12/16/19											
)6 )7	Breaking the existing road surface	65 days 15 days	Mon 12/16/19	Wed 1/1/20											
)7 )8	Laying of K1 kerb Erection of corrugated beam barrier	10 days	Tue 3/31/20	Fri 4/10/20											
)9	Erection of surface U-channel	60 days	Thu 1/2/20	Wed 3/11/2											
10	Finishing work and tidy up	355 days	Thu 2/28/19	Thu 4/16/20											
1	No paving block supply from CSD	14 days	Thu 2/28/19	Fri 3/15/19											
12	Submission for the paying block	> 30 days	Sat 3/16/19	Fri 4/19/19											
13	Procurement of Paving Block from CSD (affected by COULO	(9) 200 days	Sat 4/20/19	Mon 12/9/19	9 212										
14	Construction of paving blocks for covered walkway	30 days	Thu 3/12/20	Wed 4/15/20		1									
15	General Tidy Up	1 day	Thu 4/16/20	Thu 4/16/20		,									
16	Lane Swapping Lanes 11, 12 at Tollgate	78 days	Sat 2/1/20	Fri 5/1/2											
17	Preparation and arrangement with Parties	51 days	Sat 2/1/20	Wed 4/1/2											
18	Autotoll cardreader swapping	4 days	Fri 4/24/20	Tue 4/28/20											
19	Manualtoll card reader swapping	1 day	Wed 4/29/20	Wed 4/29/2											
20	Road Marking	9 days	Sat 4/18/20	Tue 4/28/2											
21	Lane Swapping Lanes 11, 12 at Tollgate	2 days	Wed 4/29/20	Thu 4/30/2											
22	Handover Portion 5	1 day	Fri 5/1/20	Fri 5/1/2											
23	Bus Trial	1 day?	Thu 4/30/20	Thu 4/30/2	0 219										

	Critical Split	 里程碑	\$	非作用中的任務	手動任務		手動摘要	1	外部任務
專案: Accepted Programme Portion 5 f	任務	摘要	·i	非作用中的里程碑 🌣	僅包含工期	(2) (2) (2) (2) (2) (2) (2) (2) (2) (2)	僅定義開始日期	С	外部里程码
日期: Mon 4/20/20	分割	 專案摘要報告	1	非作用中的摘要 『	手動上顯型摘要	(	僅包含完成時間	2	期限





Contract No. NE/2016/05

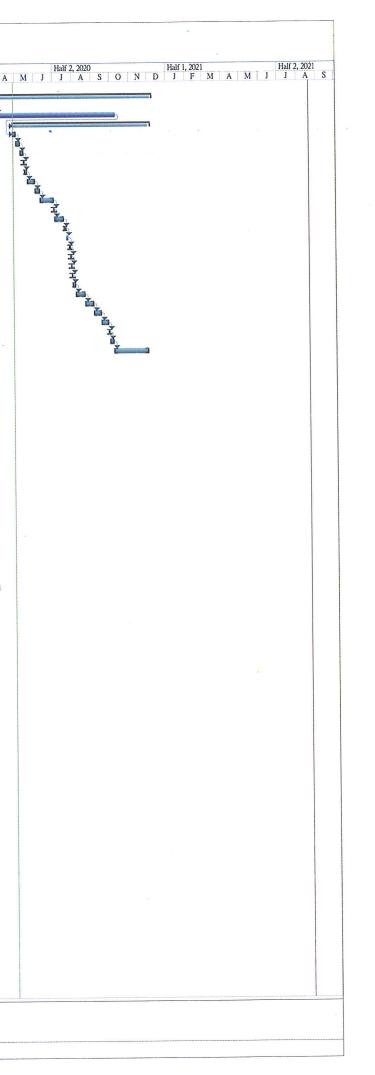
Development of Anderson Road Quarry Site Pedestrian Connectivity Facilities Works Phase 1

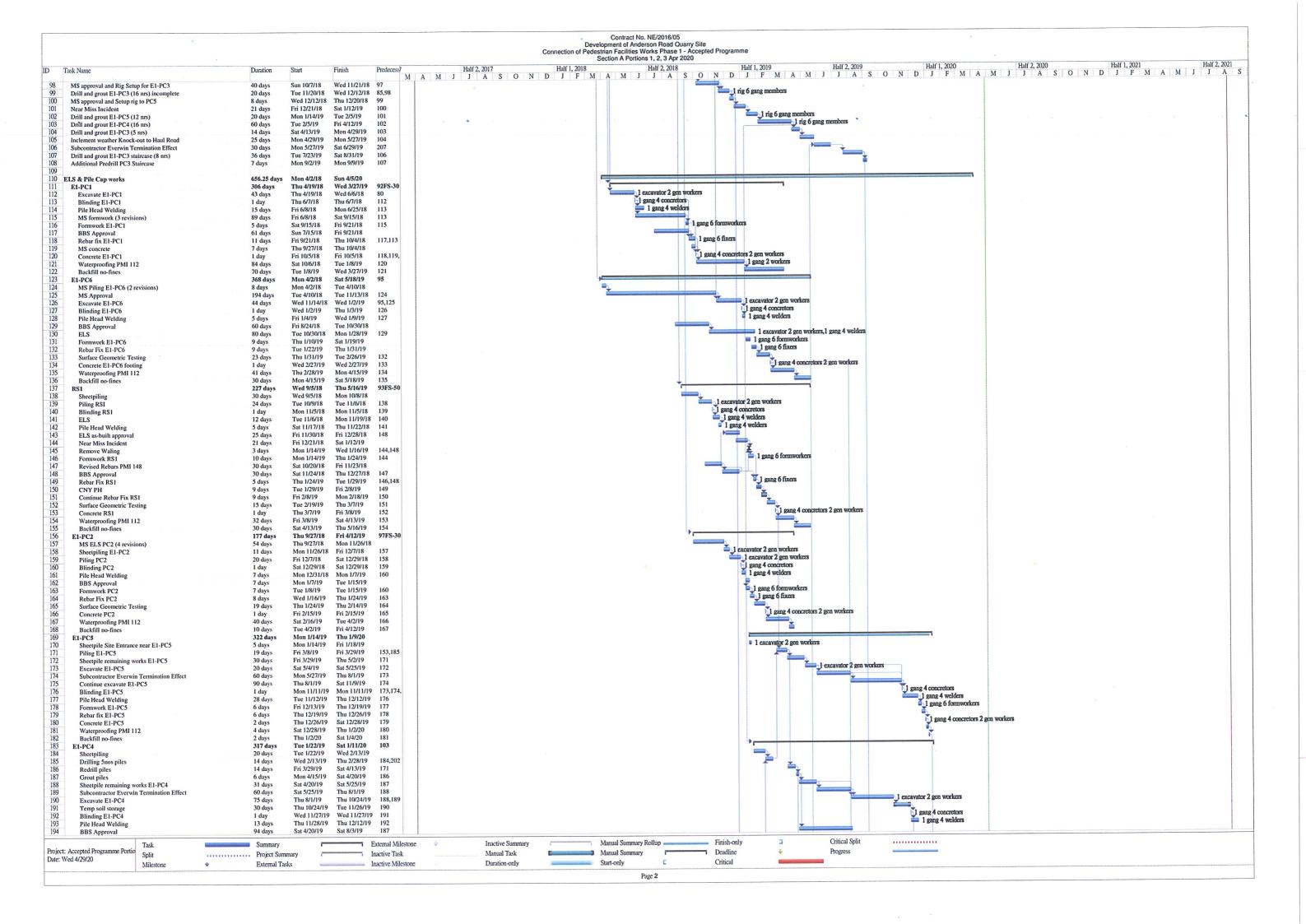
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#### CONTRACTOR SUBMISSION FORM

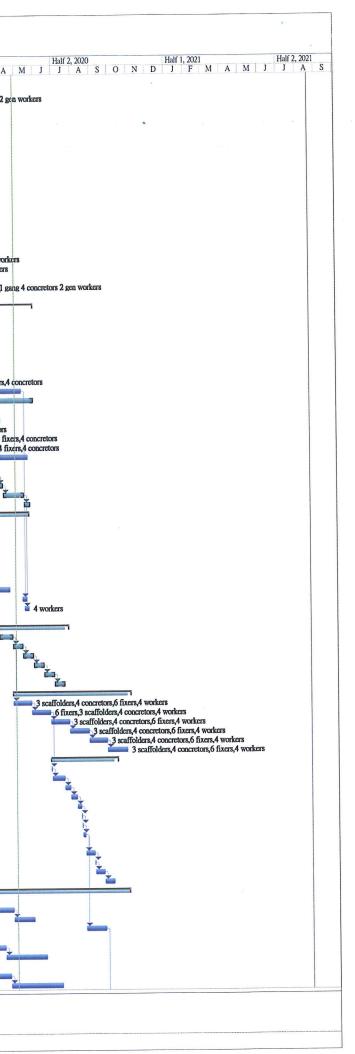
<b>a</b>				
Submissio	n Ref. No. :	NE/2016/05 – 4046		
Date of Su	ibmission :	29 April 2020		
Title of Su	lbmission :	Updated accepted pro	gramme for Section	A – Portions 1, 2 & 3 (Apr 2020)
Specificati	ion Reference :			
Descriptio	on of Content:			
I enclosed	herewith a Updat	ed accepted programm	e for Section A – P	ortions 1, 2 & 3 (Apr 2020) for your
acceptance				
Purpose o	f Submission :			
☑ Fo	or Acceptance	🗆 For Infe	ormation	□ For Record Purpose
From: Kw	van On Constructi	on Co., Ltd. Signatur	e:	
Name: Yur	ng Shui Heng		That	
Title: Sit	e Agent		$\mathcal{O}^{\prime}$	
<b>Response:</b>				
cc. The Sup	pervisor – Ivan Tsan	g, AECOM		Additional Sheet 🗆
Status;	□ Accepted	□ Not Accept	ted	□ Acceptance not Required
	□ Accepted sub	ject to condition(s) as	s stated / further re	quired information as stated.
	□ Others:			
	(plea	se specify)		
The Super	rvisor's Delegate			Date:

						Development of A Connection of Pedestrian Faciliti	ct No. NE/2016/05 Anderson Road Quarry ies Works Phase 1 - Ac ortions 1, 2, 3 Apr 2020	ccepted Programme			
ask Name	Duration	Start	Finish	Predecess/ M	Half 2, 2017 A M J J A S O	Half 1, 2018 N D J F M A M	11.162.2018	Half 1 2	019 M A M J	Half 2, 2019 J A S C	Half 1, 2020 O N D J F
ection A Portions 1, 2, 3 Revised Contract Period	1203 days	Sat 4/1/17	Tue 12/8/20								
Contract Commencement Period (Addendum No.2)	978 days	Sat 4/1/17	Tue 3/31/20								
Public Holidays since 1 April 2017 Granted EOT from CE	173 days 199 days	Tue 3/31/20	Sat 10/10/20	3							
CE124 - 5days exam	5 days			4		e e e e e e e e e e e e e e e e e e e					
CE 051 - 7days exam	6 days			6							
CE113 - 5days exam	5 days			7							
CE 058 - 1days inclement weather March 2018	1 day			8							
CE 078 - 4days inclement weather May 2018 CE102 - 11days inclement weather June 2018	4 days 11 days			10							
CE102 - 7 days inclement weather July 2018	7 days			11							
CE149 & CE151 20days exam Jan & Feb 2019	20 days			12							
PMI-159 - 1day exam	1 day			13							
CE171 10 days exam Mar & April 2019 CE174 3 days inclement weather Feb 2019	14 days 3 days			14 15							
3.5days inclement weather Mar 2019	3.5 days			16							
CE193 2.5 day inclement weather April 2019	2.5 days			17							
1 day school graduation May 2019	1 day			18							
1 day inclement weather May 2019	1 day 1 day			19 20							
1 day inclement weather June 2019 4 day inclement weather July 2019	4 days			20							
14 days TownGas at Portion 3	14 days			22							
12 days exam June 2019	12 days			23							
11 days exam Jan 2020	11 days			24							
10 days exam Feb 2020	10 days			25 26							
2 days exam Mar 2020 6 days exam April 2020	2 days 6 days			20 27							
COVID-19 Event Jan 31 to Mar 18, 2020	50.13 days			28							
			1								
ubmissions	788 days	Thu 5/4/17	Thu 10/3/19		1						
MS socket H pile for RS1 and PC1 (3 revisions)	189 days	Thu 5/4/17 Tue 5/9/17	Fri 12/1/17 Wed 10/11/17								
Submissions MS for Weld test	139 days 30 days	Tue 5/9/17 Tue 5/9/17	Wed 10/11/17 Sat 6/10/17								
MS for Weld test MS Tree felling	30 days	Wed 5/31/17									
MS Tree protection	30 days	Thu 6/15/17	Tue 7/18/17								
MS site entrance	30 days	Fri 7/7/17	Wed 8/9/17								
MS hoarding	30 days	Fri 8/11/17	Wed 9/13/17		Concession of the local division of the loca						
MS GI	30 days 161 days	Thu 9/7/17 Tue 10/10/17	Tue 10/10/17 Mon 4/9/18	33							
Approval of MS Pile cap submissions	211 days	Mon 4/9/18	Fri 11/30/18	40							
MS pilecap	30 days	Mon 4/9/18	Fri 5/11/18								
MS pile load test PC1 (3 revisions)	23 days	Sat 4/21/18	Wed 5/16/18								
Approval of Load Test	23 days	Thu 5/17/18	Mon 6/11/18	43 44		-					
MS dismantle load test MS ELS (2 revisions)	30 days 182 days	Tue 6/12/18 Fri 4/27/18	Sat 7/14/18 Fri 11/16/18	44							
MS Piling PC3 to PC5 (3 revisions)	189 days	Thu 5/3/18	Fri 11/30/18			Constant of Consta					
Approval of MS	90 days	Fri 11/30/18	Mon 3/11/19	41							
Superstructure submissions	256 days	Wed 8/15/18						A	- 1		
MS Pier formwork (4 revisions)	141 days	Wed 8/15/18	Sat 1/19/19 Mon 3/11/19	50			Second and second second	¥			
MS Deck Approval of MS	45 days 70 days	Sat 1/19/19 Mon 3/11/19		50 51					*		
Approval of MS Civil works liaison with CLP, PCCW, HKT	120 days	Wed 5/22/19							(		
Section A, Portion 1 - Escalator (E1)	979 days	Fri 3/31/17	Tue 3/31/20			Para la construcción de la constru					
Setting out of site boundary	4 days	Wed 4/5/17	Sat 4/8/17								
Setting out of predrill coordinates / Site clearance	14 days	Mon 4/10/17									
Inspection pits UU Detection	3 days 3 days	Sat 4/22/17 Fri 4/14/17	Wed 4/26/17 Mon 4/17/17	56 57							
Contractor's office	2 days	Tue 4/25/17	Wed 4/26/17	57	· · ·						
Predrilling Works	95 days	Sat 4/29/17	Sun 8/13/17		1						
Predrilling PD/E1/01	0 days	Sat 4/29/17	Fri 5/5/17	56	\$ 5/5						
Predrill PD/E1/03	4 days	Fri 5/5/17	Wed 5/10/17	61	1 rig 3 gang members						
Predrill PD/E1/04	4 days	Wed 5/10/17 Mon 5/15/17	Mon 5/15/17 Fri 5/19/17	62 63	1 rig 3 gang members						
Predrill PD/E1/10 Predrill PD/E1/09	4 days 4 days	Sat 5/20/17	Wed 5/24/17	64	1 rig 3 gang members						
Predrill PD/E1/09	4 days	Thu 5/25/17	Mon 5/29/17	65	1 rig 3 gang members						
Predrill PD/E1/08	5 days	Mon 5/29/17	Fri 6/2/17	66	1 rig 3 gang members						
Predrill PD/E1/06	6 days	Sat 6/3/17	Fri 6/9/17	67	1 rig 3 gang members						
Predrill PD/E1/05	4 days	Fri 6/9/17 Wed 6/14/17	Wed 6/14/17 Tue 6/20/17	68 69	1 rig 3 gang members 1 rig 3 gang members						
Predrill PD/E1/02 Additional Predrilling at PD/E1/06	5 days 12 days	Wed 6/14/17 Tue 6/20/17	Mon 7/3/17	70	1 rig 3 gang members	4					
Additional Predrilling for PMI003	7 days	Tue 7/4/17	Tue 7/11/17	71	1 rig 3 gang membe						
PreConstruction Works	309 days	Thu 5/4/17	Sat 4/14/18		r	1					
Hoarding	60 days	Thu 5/4/17	Mon 7/10/17	74							
Temp Site Entrance	7 days	Fri 8/4/17	Fri 8/11/17	74							
Trees	218 days 20 days	Fri 8/4/17 Mon 8/21/17	Thu 4/5/18 Tue 9/12/17								
Demolish manhole PMI 015 Drawf wall	9 days	Mon 8/21/17 Mon 9/18/17									
Sheetpile Site Entrance near E1-PC5	15 days	Fri 9/29/17	Mon 10/16/17	0							
Sheetpiling E1-PC1	5 days	Mon 10/16/1	7 Sat 10/21/17		9	1					_
Haul Road	457 days	Mon 10/1/18									
MS Haul Road (6 revisions)	67 days	Mon 10/8/18		82			1				
Haul Road approval	29 days 10 days	Mon 10/1/18 Fri 11/2/18	Fri 11/2/18 Wed 11/14/18					<u> </u>			
Haul Road to PC1 & PC2 Haul Road to PC3	3 days	Wed 11/14/1		84				<b>6</b>			
Approval for Haul Road to PC5	30 days	Sat 11/17/18	Thu 12/20/18	85							
Haul Road to PC5	4 days	Fri 12/21/18	Tue 12/25/18	86							
Haul Road to PC4	15 days	Fri 12/21/18		86							
Haul Road to PC1	10 days	Fri 2/14/20	Tue 2/25/20	72	*					i	
Drilling Works	613 days	Sat 10/28/17 Sat 10/28/17				•					
Boring Machine deployment and set up(2nrs) Drill and grout H-Piles E1-PC1 (12nrs)	14 days 67 days	Sat 10/28/17 Tue 11/14/17		72 91		1 rig 6 gang members					
Drill and grout H-Piles E1-PC1 (12nrs) Drill and grout H-Piles RS1 (22nrs)	114 days	Fri 11/17/17		92		1 rig 6 gang					
MS Approval and Setup for E1-PC6	40 days	Tue 2/27/18	Thu 4/12/18	93							
Drill and grout E1-PC6 with revision PMI 057	92 days	Thu 4/12/18	Tue 7/24/18	93,94			1 rig 6 gan	g members			
MS approval and Setup for E1-PC2	26 days	Wed 7/25/18		95,83			P	1 rig 6 gang members			
Drill and grout E1-PC2 (12 nrs) with revision PMI 056	40 days	Thu 8/23/18		96	L				_	C.:	
	Summary	-		External Milestone	Inactive Summ		mary Rollup	Finish-only	3	Critical Split	11111111111111
Task	Continue J							the second se		D	
Accented Programme Portio	Project Su	mmary		Inactive Task Inactive Milestone	Manual Task Duration-only	Manual Sum Start-only	nmary i	Deadline Critical	÷	Progress	

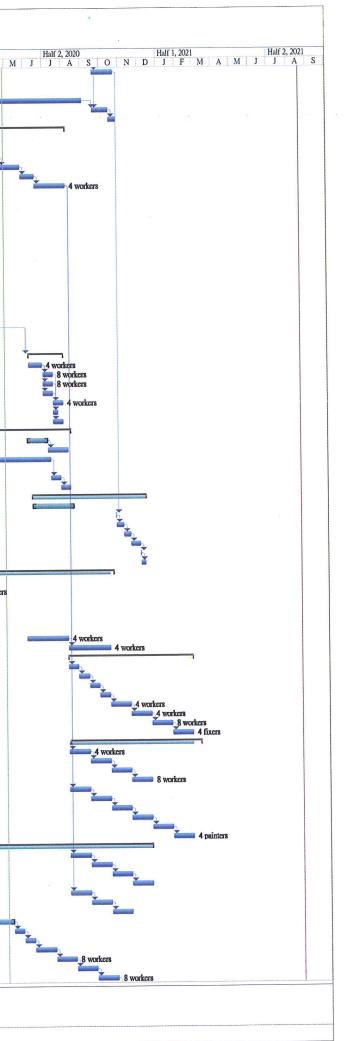


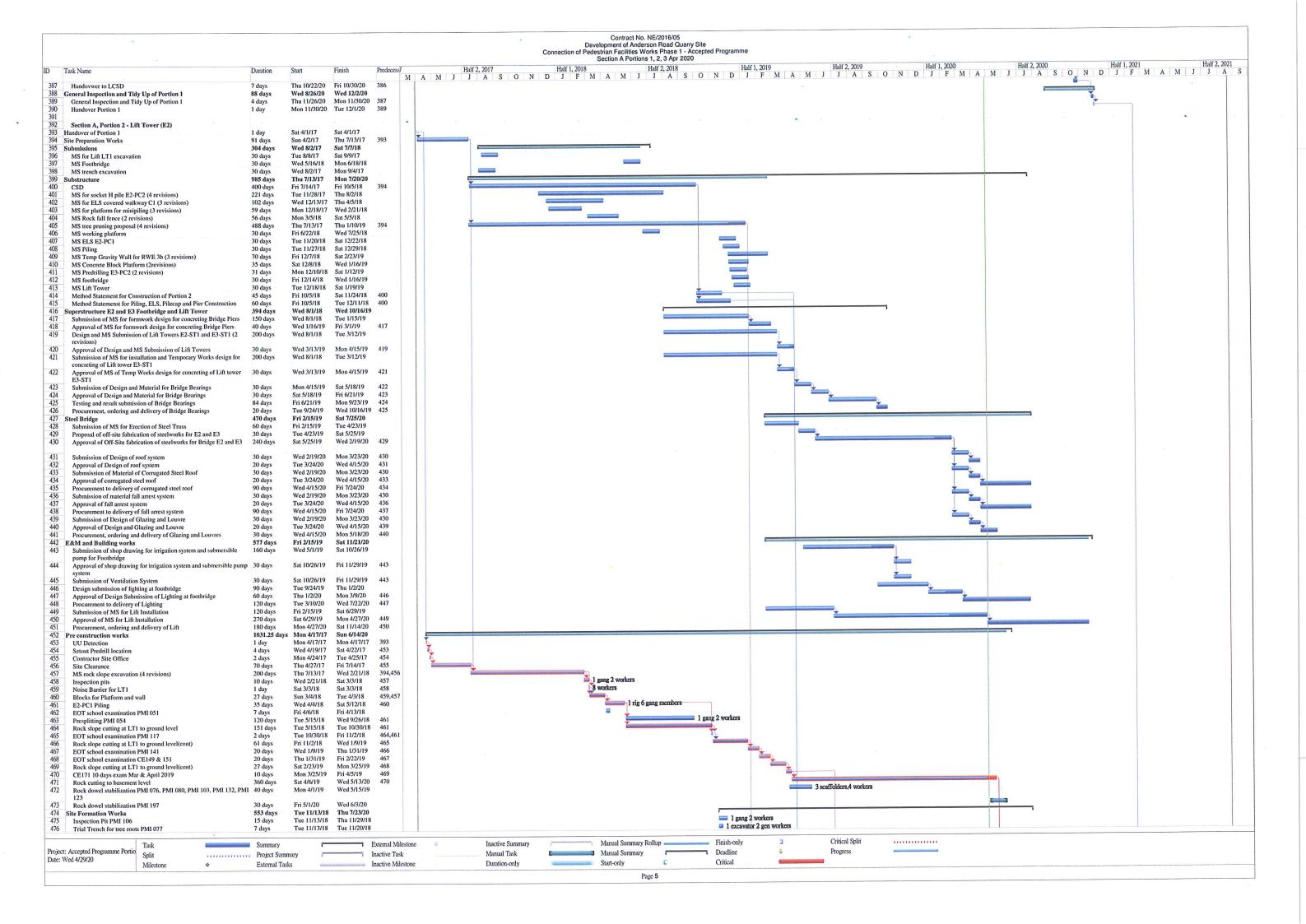


									on of Pedestria	in Facilities W	orks Phase 1 - / s 1, 2, 3 Apr 202	Accepted Prog						
sk Name	Duration St	tart	Finish	Predecess	4 4 4	Half 2, 20	17	Half	1, 2018	A M I	Half 2, 2018	O N	Half 1, 201 D J F	9 M A M	Half 2, 20 JJA	019 A S O	Half N D J	1, 2020 F M
Formwork E1-PC4			Tue 12/17/19	192	A M	JJA	3 0	H D J	1 101 7	J								6 formwork g 6 fixers
Rebar Fix E1-PC4	8 days Ti	ue 12/17/19	Wed 12/25/19	195 196														ng 4 concret
Concrete E1-PC4 Waterproofing PMI 112			Thu 12/26/19 Tue 12/31/19	196														
Backfill no-fines	10 days T	ue 12/31/19	Sat 1/11/20	198									+					
E1-PC3 & RC staircase MS ELS (2 revisions)		ri 12/28/18 ri 12/28/18	Wed 4/1/20 Wed 1/16/19	99									-					
MS ELS (2 revisions) Drilling 5nos piles		ue 1/15/19	Wed 2/6/19										ل			_		
BBS Approval	30 days M	1on 3/11/19	Fri 4/12/19	107										-				
Continue drilling 11 nos piles Demobilize Everwin drilling rig		Aon 4/15/19 at 5/18/19	Fri 5/17/19 Sat 5/25/19	186 204														
Subcontractor Everwin Termination Effect		at 5/25/19	Sat 6/29/19	205														
Mobilize Ping On drilling rig to PC3 staircase	43 days Sa	at 6/29/19	Fri 8/16/19	205,206														
Sheetpile PC3 & RC Staircase Excavate PC3 & Staircase		'ue 9/3/19 Fri 9/13/19	Fri 9/13/19 Wed 9/25/19	107,207 204,208												🛎 1 exca	vator 2 gen works	<b>3</b> 5
Removal of backfill material	45 days W	Ved 9/25/19	Thu 11/14/19	209												and so the second s		
ELS	a second a second second second second		Fri 12/20/19	210														g 4 concre
Blinding PC3 & staircase Pile Head Welding		Fri 12/20/19 Fri 12/21/19	Sat 12/21/19 Fri 1/3/20	211 212													-1 g	ang 4 wel
Formwork PC3 & Staircase pilecaps	12 days F	Fri 1/3/20	Fri 1/17/20	213														1 gang 6 f
Rebar Fix PC3 & staircase pilecaps		ri 1/17/20	Sat 2/1/20	214 215														A. Pung
COVID-19 Event Jan 31 to Mar 18, 2020 Concrete PC3 & Staircase pilecaps		Sat 2/1/20 Sat 3/28/20	Sat 3/28/20 Mon 3/30/20	215														
Backfill no-fines	2 days M	4on 3/30/20	Wed 4/1/20	217								-			_			
perstructure		Sat 12/1/18	Thu 5/28/20															
Submission of Temp Work design and MS for Piers Approval of Temp Work design and MS for Piers		Sat 12/1/18 Mon 12/17/18	Mon 12/17/18 Sat 1/19/19	220									<b>Č</b>					
Submission of Temp Work design and MS for Piers(Rev 2,3)	40 days S	Sat 1/19/19	Tue 3/5/19	221									and the second se					
Approval of Temp Work design and MS for Piers (Rev 3)		Tue 3/5/19	Mon 4/8/19	222 223														
ubmission of Temp Work design and MS for Piers (Rev 4) Approval of Temp Work design and MS for Piers (Rev 4)		Aon 4/8/19 Fue 4/30/19	Tue 4/30/19 Sat 6/8/19	223										Ě				
Subcontractor Everwin Termination Effect	60 days S	Sat 6/8/19	Wed 8/14/19	225												+	30	affolders,4
Construction of Abutment (E1-PC6) with drill and grout	120 days W	Ned 8/14/19	Thu 12/26/19	226														
Construction of E1-PC6 RC walls PC6 Backfill & remove waling		Fri 12/27/19 Sun 3/1/20	Sat 5/9/20 Thu 5/28/20	227 227											4			Ě
Construction of Ramp (E1-RS1)	141 days T	Thu 8/1/19	Mon 1/6/20	134												¥ .2	scaffolders 4 five	ers.4 conc
construction of Pier P1		Wed 8/14/19	Fri 10/18/19	226 231												Ľ	scaffolders,4 fixe 3 scaffolders,4 f	ixers,4 co
Construction of Pier P2 Construction of Pier P5		Fri 10/18/19 Sat 1/4/20	Mon 10/28/19 Sat 1/18/20	182													<u>iii</u>	3 scaffold
Construction of Pier P4	9 days S	Sat 1/11/20	Tue 1/21/20	199														3 scaffol
Construction of Pier/P3 Staircase	40 days S	Sat 4/4/20	Tue 5/19/20															
Construction of Pier Head P1 Construction of Pier Head P2		Fri 3/13/20 Sat 3/21/20	Sat 3/21/20 Tue 3/31/20	236														
Construction of Pier Head P2		Fue 3/31/20	Wed 4/8/20	237														
Construction of Pier Head P3	30 days T	Thu 4/9/20	Tue 5/12/20	238														
Construction of Pier Head P4 nstruction of Bearings and Movement Joints		Wed 5/13/20 Sat 10/6/18	Fri 5/22/20 Wed 5/20/20	239														
Proposal of Bridge Bearing Specialist		Sat 10/6/18	Thu 11/8/18									······	-					
Approval of Bridge Bearing Specialist	30 days T	Thu 11/8/18	Wed 12/12/18									Concernant of Concernation of Concernatio of Concernation of Concernatio of Concernation of Concer	+	h				
Design submission of Bridge Bearing Approval of Design submission of Bridge Bearing		Thu 12/13/18 Mon 2/18/19	Mon 2/18/19 Sat 3/23/19	243 244										<b>*</b>				
Approval of Design submission of Bridge Bearing Material Submission for Bridge Bearing		Mon 3/25/19	Thu 5/30/19	245											-			
Approval of Material Submission for Bridge Bearing	60 days T	Thu 5/30/19	Tue 8/6/19 Thu 11/14/19	246 247												*	1	
Testing and result submission of Bridge Bearings Procurement to delivery of Bridge Bearing		Tue 8/6/19 Thu 11/14/19		247													<u> </u>	
Installation of Bridge Bearings for PC6	7 days S	Sat 5/9/20	Sat 5/16/20	228														
Installation of Bridge Bearings for PC3		Tue 5/12/20 Mon 1/20/20	Wed 5/20/20 Thu 1/30/20	239														
ITA for Detouring Pedestrians aat Memorial Park e formation for scaffolding		Mon 1/20/20 Wed 4/1/20	Wed 7/22/20															
RS1-PC1	20 days V	Wed 4/1/20	Thu 4/23/20															
P5 to P6	15 days T	Thu 4/23/20	Sat 5/9/20	254 255														
24 to P5 23 to P4		Sat 5/9/20 Wed 5/27/20	Tue 5/26/20 Fri 6/12/20	255														
22 to P3	15 days F	Fri 6/12/20	Mon 6/29/20	257														
P1 to P2	15 days N	Mon 6/29/20	Thu 7/16/20	258														
nstruction of esclator trough with cast-in items Deck RS1 to P1		Thu 4/23/20 Thu 4/23/20	Sat 10/31/20 Sat 5/23/20	254														
Jeck RST to P1 Deck P5 to P6		Sat 5/23/20	Mon 6/22/20	261														
Deck P4 to P5	28 days T	Tue 6/23/20	Thu 7/23/20	262														
Deck P3 to P4 Deck P2 to P3		Fri 7/24/20 Mon 8/24/20	Mon 8/24/20 Wed 9/23/20	263 264														
Deck P2 to P3 Deck P1 to P2		Wed 9/23/20	Mon 10/26/20															
calators Installation	98 days	Tue 6/23/20	Sat 10/10/20	lane and														
Plumbing & measuring of escalator pit		Tue 6/23/20 Thu 6/25/20	Wed 6/24/20 Wed 7/15/20	262 268														
Delivery, hoisting and positioning of escalator truss Drive/ step chain, step and guiderail tracks installation		Wed 7/15/20	Fri 7/24/20	269														
Balustrade, handrail, skirting and deflector device works	9 days S	Sat 7/25/20	Tue 8/4/20	270														
Electrical works and escalator pits installation		Tue 8/4/20 Tue 8/11/20	Tue 8/11/20 Wed 8/12/20	271 272														
Permenant power energization for escalator nspection(low) speed running testing of escalator operation		Wed 8/12/20	Thu 8/13/20	272														
Final tuning and adjusting of escalator equipment / devices (drive		Thu 8/13/20	Mon 8/17/20	274														
hain, controller, machine, brake, safety devices and etc)	13 dave	Tue 8/18/20	Tue 9/1/20	275														
Normal (fast) speed running and safety testing of escalator operation Submission of Form LE5 to EMSD		Tue 8/18/20 Tue 9/1/20	Wed 9/2/20	275														
Anticipate EMSD inspection	14 days	Wed 9/2/20	Thu 9/17/20	277														
Anticipate Use Permit issue date		Fri 9/18/20	Sat 10/3/20	278								Test of the local division of the local divi						
rapet and Roofing Proposal of off-site fabrication of steelworks		Tue 11/13/18 Tue 11/13/18	Wed 10/28/20 Sat 6/1/19									G					+	
Approval of off site fabrication of steelworks	100 days	Wed 1/1/20	Tue 4/21/20	281													Tunn	
Fabrication of steelworks off-site		Wed 4/22/20	Mon 5/25/20	282														
Erection of steelworks Material submission of fall arrest system		Tue 8/18/20 Sat 2/1/20	Sat 9/19/20 Thu 3/5/20	275														
Approval of material for fall arrest system	30 days	Thu 3/5/20	Wed 4/8/20	285														
Procurement of fall arrest system	60 days	Wed 4/8/20	Sat 6/13/20	286														
Material submission of corrugated steel roof Approval of material for corrugated steel roof		Fri 11/1/19 Tue 1/7/20	Tue 1/7/20 Thu 4/16/20	288													è	
Approval of material for corrugated steel roof Procurement of corrugated steel roof		Fri 4/17/20	Thu 4/16/20 Thu 7/9/20	288														
Task	Summary	2000		External Milest	one 🔶	I	nactive Summar	y i	M	anual Summary	Rollup	Fini	sh-only	E	Critical Sp	plit		1
cepted Programme Portio Split		ry		nactive Task			Manual Task			anual Summary			dline	÷	Progress	)		ň.,
4/29/20	External Tasks	ALC: NO		nactive Milesto	one	I	Duration-only		St	art-only	E	Criti	ical	Constant and the second				
Milestone	L'Attende Lasks																	

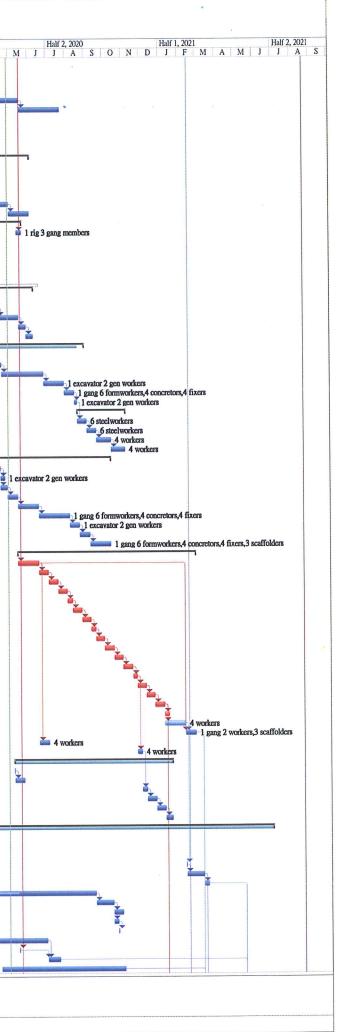


		•							Connection of	Development of A Pedestrian Facilitie	No. NE/2016/05 nderson Road Qua s Works Phase 1 - rtions 1, 2, 3 Apr 20	Accepted Programme 20				****
Task Name		Duration	Start	Finish	Predecess	MAM	Half 2, 201 J J A	S O N	Half 1, 20 1 D J F	18 M A M	Half 2, 2018 J J A S	Half 1, 2 ONDJH	019 M A M	Half 2, 2019 J J A S	Half 1, 2 O N D J F	020 F M A
Erection of roof system, gutter		30 days	Sat 9/19/20	Fri 10/23/20	284					1						•
2 Material submission of Plexigla 3 Approval of material Plexiglas		140 days 180 days	Tue 11/13/18 Thu 4/18/19	Thu 4/18/19 Wed 11/6/19	292							-	×			
Procurement to delivery of Ples	iglass	270 days	Wed 11/6/19	Thu 9/3/20	293 284,294											
5 Construction of Plexiglass para 5 Decking construction connectin		23 days 10 days	Sat 9/19/20 Fri 10/16/20	Thu 10/15/20 Tue 10/27/20	284,294								-	-		
7 Drainage Works Construction		565 days	Tue 11/13/18													
8 Application of XP for carriage 9 TTA Application for drainage		90 days 80 days	Tue 11/13/18 Thu 2/21/19	Wed 5/22/19	298								•	•		and the second
0 Road Works Advice		300 days	Wed 5/22/19 Wed 4/22/20	Wed 4/22/20 Mon 5/25/20	299 300											i
Implementation of TTA     Procurement to delivery of mat	erial for Drainage	30 days 20 days	Tue 5/26/20	Wed 6/17/20	301											
Construction of Drainage PMI E & M Lighting Works	016	45 days 430 days	Wed 6/17/20 Tue 11/13/18	Thu 8/6/20 Sat 3/7/20	302											
4 E & M Lighting Works 5 Proposal of Specialist for E&N	Works	24 days	Tue 11/13/18													
6 Approval of Specialist for E&M Material Submission of cable to		24 days 30 days	Mon 12/10/18 Sat 1/5/19	Sat 1/5/19 Thu 2/7/19	305 306											
8 Approval of material cable tray		30 days	Fri 2/8/19	Wed 3/13/19	307								*			
<ul> <li>9 Material submission of cables,</li> <li>0 Approval of material for cables</li> </ul>		24 days 24 days	Wed 3/13/19 Tue 4/9/19	Tue 4/9/19 Mon 5/6/19	308 309											
1 Material submission of lighting		30 days	Mon 5/6/19	Sat 6/8/19	310								-	·		
2 Approval of material submissio 3 Material submission of Pillar B		30 days	Sat 6/8/19 Fri 7/12/19	Fri 7/12/19 Sat 8/10/19	311 312											
Approval of material submission		26 days 27 days	Fri 7/12/19	Sat 8/10/19	312							-				
5 Material submission of MCB d		30 days	Fri 2/8/19	Wed 3/13/19 Tue 4/16/19	307 315											
6 Approval of MCB distribution 7 Material submission of commu		30 days 30 days	Wed 3/13/19 Tue 4/16/19	Mon 5/20/19	315									-		
8 Approval of communication ca		30 days	Mon 5/20/19	Sat 6/22/19	317									ž		-
9 Application of Power supply 0 Application of telemetry		60 days 100 days	Sat 6/22/19 Fri 11/15/19	Wed 8/28/19 Thu 3/5/20	318										C	<b>E</b>
1 Construction and Installation w		50 days	Sat 6/6/20	Fri 7/31/20	318											
2 Positioning and construction of 3 Trenching works and laying of		20 days 15 days	Sat 6/6/20 Mon 6/29/20	Sat 6/27/20 Wed 7/15/20	322											
4 Trenching works and laying of	telecommunication cables	15 days	Mon 6/29/20	Wed 7/15/20	322											
5 Installation of E&M Compone 6 Instalation and Connection of		15 days 15 days	Mon 6/29/20 Wed 7/15/20	Wed 7/15/20 Fri 7/31/20	322 324											
7 Installation of Electricity Mete		7 days	Wed 7/15/20	Thu 7/23/20	323											
8 T&C of E&M works inside pil		15 days 118 days	Wed 7/15/20 Thu 4/2/20	Fri 7/31/20 Wed 8/12/20	325											-
0 Construction of Sump pit		30 days	Wed 6/3/20	Mon 7/6/20												
Trenches and ductings for sum		30 days	Mon 7/6/20	Sat 8/8/20 Sat 7/11/20	330											Long Long
2 Procurement to delivery of Sur Equipment	np Pump, Piping and Associated	90 days	Thu 4/2/20	Sat //11/20												
3 Installation of Sump Pump (by	Wing Luen)	14 days	Sat 7/11/20 Mon 7/27/20	Mon 7/27/20 Wed 8/12/20	332 333											
4 T&C of Sump Pump System 5 Installation of Lighting		14 days 164 days	Thu 6/11/20	Fri 12/11/20	333											
6 Procurement & Delivery of Li		60 days	Thu 6/11/20	Mon 8/17/20	291											
<ul><li>Handover of escalator cover w</li><li>Installation Conduit and cable</li></ul>		1 day 10 days	Fri 10/23/20 Sat 10/24/20	Sat 10/24/20 Thu 11/5/20	337	-										
9 Cable and wiring		10 days	Thu 11/5/20	Mon 11/16/20												
0 Installation of Light fitting 1 Power connection to Lighting		14 days 1 day	Mon 11/16/20 Wed 12/2/20		339 340											
2 T&C of Lighting		7 days	Thu 12/3/20	Thu 12/10/20												
Landscape Works     Remove felled trees PMI 018		667 days 3 days	Wed 10/3/18 Wed 10/3/18		D							4 workers				¥ 4 work
5 Tree Pruning PMI 042		3 days	Tue 3/3/20	Thu 3/5/20	344											A 4 WOR
6 Individual TRA Form 2 7 Submission of proposal of Lan	decane Specialist	150 days 30 days	Wed 10/3/18 Wed 10/3/18													
8 Nursery Inspection	uscape operation	10 days	Mon 11/5/18	Fri 11/16/18	347											
Approval of proposal of Lands		180 days	Fri 11/16/18 Mon 6/1/20	Thu 6/6/19 Thu 8/6/20	348							Construction of the second sec				
0 Construction of hard and soft 1 1 Rectification of Defects	andscape works	60 days 60 days	Thu 8/6/20	Tue 10/13/20	350											
2 Road and Pavings / Traffic Sig		180 days	Thu 8/6/20 Thu 8/6/20	Wed 2/24/21 Sat 8/22/20	303											
<ol> <li>Material submission of Road F</li> <li>Approval of material submissi</li> </ol>		15 days 15 days	Sat 8/22/20	Wed 9/9/20	353											
5 Procurement to delivery of Ro	ad Pavers	15 days	Wed 9/9/20	Fri 9/25/20	354 ) 355											
6 Ordering to delivery of concre 7 Construction of kerbs	e kerbs from CSD	15 days 30 days	Fri 9/25/20 Tue 10/13/20	Mon 10/12/20 Sat 11/14/20	5 (SSR)											
8 Construction of footpath		30 days	Sat 11/14/20	Fri 12/18/20	357											
9 Construction of Paved Area 0 Installation of Traffic / Directi	onal Signs	30 days 30 days	Fri 12/18/20 Thu 1/21/21	Thu 1/21/21 Wed 2/24/21	358 359											
1 External Finishes		190 days	Sun 8/9/20	Tue 3/9/21												
2 Material submission of tiles 3 Approval of material of tiles		30 days 30 days	Thu 8/6/20 Wed 9/9/20	Wed 9/9/20 Mon 10/12/20	303 0 362											
4 Procurement to delivery of tile	s	30 days	Tue 10/13/20	Sat 11/14/20	363											
5 Tiling works 5 Material submission of Paint		30 days 30 days	Sat 11/14/20 Thu 8/6/20	Fri 12/18/20 Wed 9/9/20	364 303											
7 Comment of material submissi	on of paint	30 days	Wed 9/9/20	Mon 10/12/20	366											
2nd submission of paints		30 days 30 days	Tue 10/13/20 Sat 11/14/20		367 368											
) Procurement to delivery of pai		30 days	Fri 12/18/20	Thu 1/21/21	369											
1 Texture spray, fungus resistan	paint	30 days	Thu 1/21/21 Sun 3/1/20	Wed 2/24/21 Fri 12/18/20	370											<u></u>
2 Construction of Sau Mau Ping 3 Slope improvement work (11)		262 days 30 days	Thu 8/6/20	Wed 9/9/20	303											
4 Material submission of Pavilli	n	30 days	Wed 9/9/20	Mon 10/12/20												
Approval of material submissi Procurement to delivery of Pa		30 days 30 days	Tue 10/13/20 Sat 11/14/20		374 375											
Material submissin of Bench		30 days	Thu 8/6/20	Wed 9/9/20	303											
<ul> <li>Approval to material submissi</li> <li>Procurement to delivery of Be</li> </ul>		30 days 30 days	Wed 9/9/20 Tue 10/13/20	Mon 10/12/20 Sat 11/14/20												
0 Design submission of Pole Lig	ht to LCSD	60 days	Mon 3/2/20	Thu 5/7/20												La contraction
<ul> <li>Material of material submission</li> <li>Approval of material submission</li> </ul>		15 days 15 days	Thu 5/7/20 Mon 5/25/20	Sat 5/23/20 Wed 6/10/20	380 381											
3 Procurement to delivery of Po	e Light	30 days	Wed 6/10/20	Tue 7/14/20	382											
4 Construction of Pavillion, ben	ch, pole light with ducting	30 days	Tue 7/14/20 Mon 8/17/20	Sat 8/15/20 Fri 9/18/20	383 384											
6 Construction of Irrigation syst 6 Construction of Pavers		30 days 30 days	Mon 8/17/20 Sat 9/19/20	Thu 10/22/20											· · · · · · · · · · · · · · · · · · ·	
Ta	sk 🖸	Summary	-		External Miles	stone 🗼	J	nactive Summary	i i i i i i i i i i i i i i i i i i i	Manual Sum	nary Rollup	Finish-only	Ξ	Critical Split		
ject: Accepted Programme Portio			mmary .		Inactive Task			Manual Task		Manual Sumi		Deadline	÷	Progress		
te: Wed 4/29/20 M	lestone 🔶	External Ta	asks 🛁		Inactive Miles	tone	Г	Duration-only		Start-only	C	Critical				
											Page 4					

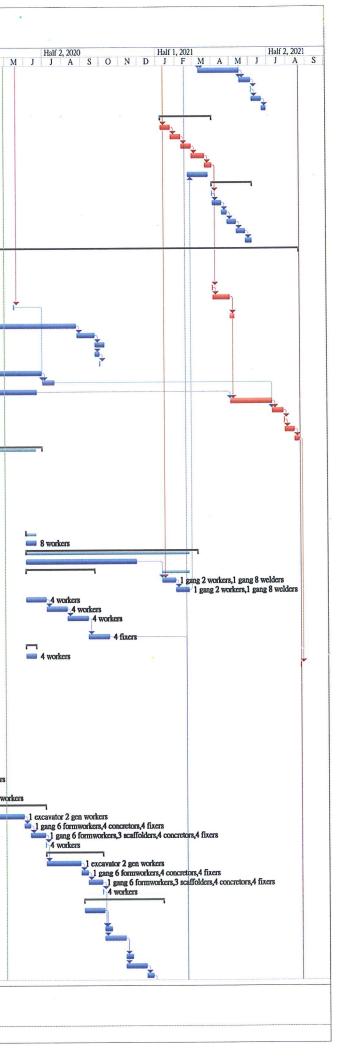




				a		Contract No. NE/2016/05 Development of Anderson Road Quarry Site Connection of Pedestrian Facilities Works Phase 1 - Accepted Programme Section A Portions 1, 2, 3 Apr 2020	
Tas	sk Name	Duration	Start	Finish	Predecess	Half 2, 2017         Half 1, 2018         Half 2, 2018         Half 1, 2019         Half 2, 2019           A         M         J         A         S         O         N         D         J         F         M         M         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A         S         O         N         D         J         A	Half 1, 2020 O N D J F
	Approval of tree pruning proposal	85 days	Thu 1/10/19	Mon 4/15/19	405		
	Prune / Fell trees for access of plants Relocation of RCP	10 days 14 days	Tue 4/16/19 Sat 6/1/19	Fri 4/26/19 Mon 6/17/19	414,415,	4 painters	workers, 1 gang 2 workers
	SWAP TTA	120 days	Mon 6/17/19	Tue 10/29/19	479		4 workers
	Pending WSD comments Water diversion for Hiu Wah Building	180 days 60 days	Tue 10/29/19 Mon 5/18/20	Mon 5/18/20 Thu 7/23/20	480		
	Deploy Excavator and trim ground and slope from Retaining Wall 3b	81 days	Mon 2/25/19	Sat 5/25/19	401	l excavator 2 gen work	215
	Everwin termination effect	31 days	Sat 5/25/19	Sat 6/29/19	483		
	Retaining Wall RWE3b Works Remove soil nails during triming	90 days 10 days	Sat 6/29/19 Wed 10/9/19	Tue 10/8/19 Sat 10/19/19	470 485		1 excavator 2 gen workers
E2	2-PC1 (28 nos piles)	655 days	Fri 6/1/18	Wed 6/3/20			
	Deploy GI rig for predrilling Sheetpiling	10 days 15 days	Fri 6/1/18 Tue 6/12/18	Tue 6/12/18 Thu 6/28/18	488		
	Drill Pre-Bore H-Piles at E2-PC1 (28nos)	120 days	Fri 6/29/18	Sat 11/10/18	489	*	
	Stop for TTA use	60 days	Sat 11/10/18 Wed 1/16/19	Wed 1/16/19 Thu 4/30/20	490 491		
	Shoring works RC Pilecap Works	420 days 30 days	Fri 5/1/20	Wed 6/3/20	491		
	3-PC2 (4nos piles)	270 days	Wed 7/24/19	Thu 5/21/20			
	Deploy GI rig for predrilling Drill Pre-Bore H-Piles at E2-PC2 (2nos)	7 days 8 days	Wed 5/13/20 Wed 7/24/19	Thu 5/21/20 Thu 8/1/19	471 501	ا به الماني ا	ng members
	Swap TTA	28 days	Fri 8/2/19	Mon 9/2/19	496		rig 6 gang members
	Drill Pre-Bore H-Piles at E2-PC2 (2nos) Shoring works	8 days 40 days	Mon 9/2/19 Fri 11/1/19	Wed 9/11/19 Mon 12/16/19	497	-	ng o gang memoers
	RC Pilecap Works with couplers	70 days	Mon 12/16/19	Tue 3/3/20	499		
	B-ABT (6nos piles)	278 days	Fri 8/2/19	Mon 6/8/20			
	Drill Pre-Bore H-Piles (6 nos) Site formation works	28 days 200 days	Fri 8/2/19 Mon 9/2/19	Mon 9/2/19 Mon 4/13/20	502		
	Shoring works	30 days	Mon 4/13/20	Sat 5/16/20	503		
	RC Pilecap Works RC Abutment Works	10 days	Sat 5/16/20 Thu 5/28/20	Thu 5/28/20 Mon 6/8/20	504 505		
	I Footing	10 days 586.5 days	Tue 11/13/18	Sun 8/30/20	505		
	Excavation 1.2m and remove C&D	60 days	Wed 8/1/18	Sat 10/6/18	500	1 excavator 2 gen workers	
	Stop for TTA use Excavation 2.2m and remove C&D	500 days 60 days	Sat 10/6/18 Sat 4/18/20	Sat 4/18/20 Thu 6/25/20	508 509		
	Shoring works	30 days	Thu 6/25/20	Tue 7/28/20	510		
	RC concrete footing works	15 days	Wed 7/29/20	Fri 8/14/20	511		
	backfill overed Walkway	4 days 70 days	Fri 8/14/20 Wed 8/19/20	Wed 8/19/20 Thu 11/5/20	512		
	Steelwork erection for covered walkway	14 days	Wed 8/19/20	Thu 9/3/20	513		
	Installation of steel sheet roof for covered walkway	14 days	Thu 9/3/20 Sat 9/19/20	Sat 9/19/20 Tue 10/13/20	515 516		
	Installation of Lighting to covered walkway Installation of Irrigation Pipe	21 days 21 days	Sat 9/19/20 Tue 10/13/20	Thu 11/5/20	517		
E2	2-PC2 Pile cap (9 nos)	320 days	Sat 10/19/19	Mon 10/12/20	)		¥
	Tower crane construction at Tennis Court Slope trimming works	160 days 7 days	Sat 10/19/19 Thu 4/16/20	Thu 4/16/20 Thu 4/23/20	486 520		
	GI Predrilling works	10 days	Thu 4/16/20	Mon 4/27/20	520		
	Tree felling works	15 days	Mon 4/27/20	Thu 5/14/20	522 523		
	Steel Frame Platform / Buttress construction Piling works using Tower Crane	30 days 45 days	Thu 5/14/20 Wed 6/17/20	Tue 6/16/20 Thu 8/6/20	523 524		
	Shoring works	15 days	Thu 8/6/20	Sat 8/22/20	525		
	RC Pilecap works	15 days	Sat 8/22/20 Wed 9/9/20	Tue 9/8/20 Mon 10/12/20	526 527		
	RC Pier ft Tower E3-ST1	30 days 258 days	Wed 5/13/20	Fri 2/26/21	521		
	Basement construction	30 days	Wed 5/13/20	Tue 6/16/20	471		
	Level to G/F +25mPD Level +25mPD to +29mPD	14 days 14 days	Tue 6/16/20 Thu 7/2/20	Wed 7/1/20 Fri 7/17/20	530 531		
	Level +29mPD to +33mPD	14 days	Fri 7/17/20	Sat 8/1/20	532		
	Level +33mPD to +34mPD	7 days	Sat 8/1/20	Mon 8/10/20	533		
	Level +34mPD to +37.4mPD Level +37.4mPD to +41.4mPD	14 days 13 days	Mon 8/10/20 Wed 8/26/20	Tue 8/25/20 Wed 9/9/20	534 535		
	Level +41.4mPD to +43.6mPD	7 days	Wed 9/9/20	Thu 9/17/20	536		
	Level +43.6mPD to +47mPD	13 days	Thu 9/17/20	Thu 10/1/20 Sat 10/17/20	537 538		
	Level +47mPD to +50.8mPD Level +50.8mPD to +54.2mPD	14 days 13 days	Thu 10/1/20 Sat 10/17/20	Sat 10/1//20 Sat 10/31/20	538 539		
	Level +54.2mPD to +58.2mPD	14 days	Sat 10/31/20	Mon 11/16/20	540		
	Level +58.2mPD to +59.7mPD Level +59.7mPD to +63mPD	6 days 13 days	Tue 11/17/20 Mon 11/23/20		) 541 542		
	Level +59./mPD to +63mPD Level +63mPD to +66.5mPD	13 days 13 days	Tue 12/8/20	Tue 12/22/20	543		
	Construction of Roof +66.5mPD to +70.45mPD	14 days	Tue 12/22/20		544	,	
	Remove tower crane Erection of glazing and louvres	7 days 30 days	Thu 1/7/21 Thu 1/7/21	Thu 1/14/21 Tue 2/9/21	545 545		
	Dismantling of external and internal scaffolding	15 days	Wed 2/10/21	Fri 2/26/21	530,547		
	Infill No Fine Concrete between Rock Slope and Wall of E3-ST1	15 days	Tue 6/16/20 Mon 11/23/20	Thu 7/2/20	530 542		
	Installation of bridge bearings 3 Lift Tower Lighting	7 days 230 days	Mon 11/23/20 Thu 5/7/20	Tue 12/1/20 Tue 1/19/21	542		
	Handover EMSD Pillar Box and associated ducting to E&M	1 day	Thu 5/7/20	Thu 5/7/20			
	Electrical works inside Pillar Box EMSD and Lighting Compartment		Fri 5/8/20 Tue 12/1/20	Sat 5/23/20 Wed 12/9/20	552 550		
	Conduit and cable containment Cable and wiring	7 days 14 days	Wed 12/1/20	Thu 12/24/20			
	Installation of Light fitting	13 days	Thu 12/24/20	Fri 1/8/21	555		
	T&C 3 Lift Installation	10 days 559 days	Fri 1/8/21 Mon 10/14/19	Tue 1/19/21 Wed 6/30/21	556		
	MS for E3 Lift Erection in Tower	90 days	Thu 10/31/19	Sat 2/8/20			
	Approval of submission	30 days	Sat 2/8/20 Mon 10/14/19	Fri 3/13/20 Thu 12/19/19	559		Concession of the local division of the loca
	Statuary Submission of Lift Design and Materials Handover lift shaft and associated ducting to E&M	60 days 1 day	Mon 10/14/19 Wed 2/10/21	Wed 2/10/21	547		
	E&M works inside Lift Shaft	25 days	Thu 2/11/21	Wed 3/10/21	562		
	Handover of Lift structure to E&M Lift subcontractor	7 days 150 days	Thu 3/11/21 Wed 4/1/20	Thu 3/18/21 Tue 9/15/20	563		
	Confirmation of telemetry service routing with CHUBB / HKT Chubb/HKT cable laying for telemetry cable system	26 days	Wed 9/16/20	Wed 10/14/20			
	Installation and connection of telemetry components in Pillar Box	14 days	Thu 10/15/20	Fri 10/30/20	566		
	CLP Lift Meter Installation CLP Lift Meter Power Connection	7 days 1 day	Thu 10/15/20 Thu 10/22/20		566 568		
	Procurement to delivery of Sump Pump and Panel	96 days	Fri 3/13/20	Sat 6/27/20			
	Handover Sump Pit and associated ducting to E&M	1 day	Wed 5/13/20	Thu 5/14/20	471 571,570		
	Installation of Sump Pump (by Wing Luen) Delivery of Lift components to site	18 days 180 days	Mon 6/29/20 Wed 4/15/20	Sat 7/18/20 Mon 11/2/20			
	Task	Summary	-		External Mileston	Inactive Summary Manual Summary Rollup Finish-only I Critical Split	
A	Accepted Programme Portio		nmary		Inactive Task	Manual Task Manual Summary Deadline 🕹 Progress	
	d 4/29/20				Inactive Mileston	Duration-only Start-only Critical	



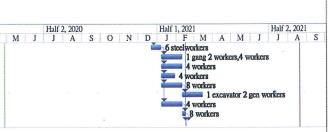
										Conne	ction of P	edestrian	Facilities W	rson Road C lorks Phase is 1, 2, 3 Apr	1 - Accept	ed Programm	ne						
Task Nar	ne	Duration	Start	Finish	Predecess7	· · · · · · ·	Half 2	2, 2017		H	df 1, 2018			Half 2 2018		NP	Half 1, 2019	9 M   A	M	Half 2, 2019	S O	ND	Half 1, 2020
		60 days	Thu 3/11/21	Mon 5/17/21	548,573,	A M	JJ	A S		N D	J F	MA	M J	JA	3 0	N D	JF	M A	IVI J	JA	5 0		JF
	g & commissioning	17 days 1 day	Mon 5/17/21 Sat 6/5/21	Fri 6/4/21 Sat 6/5/21	564,572, 575																		
		14 days	Sat 6/5/21	Tue 6/22/21	576																		
Use P		7 days	Tue 6/22/21	Tue 6/29/21	577																		
	Lift Shaft Construction letion of RC structure 1/F	75 days 15 days	Thu 1/7/21 Thu 1/7/21	Thu 4/1/21 Sat 1/23/21	545																		
Comp	letion of RC structure 2/F	15 days	Sat 1/23/21	Tue 2/9/21	580																		
	letion of RC structure R/F on of glazing and louvres	15 days 20 days	Wed 2/10/21 Fri 2/26/21	Fri 2/26/21 Sat 3/20/21	581 582																		
Dism	antling of external and internal scaffolding	10 days	Sat 3/20/21	Thu 4/1/21	583																		
		30 days 59 days	Sat 2/20/21 Thu 4/1/21	Fri 3/26/21 Sat 6/5/21	628																		
		1 day	Thu 4/1/21 Thu 4/1/21	Fri 4/2/21	584																		
Elect	ical works inside Pillar Box EMSD and Lighting Compartment	14 days	Fri 4/2/21	Sat 4/17/21	587																		
		7 days 14 days	Sat 4/17/21 Mon 4/26/21	Mon 4/26/21 Tue 5/11/21	588 589																		
Instal	lation of Light fitting	13 days	Tue 5/11/21	Wed 5/26/21	590																		
T&C	Lift Tower Installation	10 days 749.25 days	Wed 5/26/21 Fri 5/3/19	Sat 6/5/21 Thu 8/19/21	591																		
		90 days	Fri 5/3/19	Mon 8/12/19																+			
		30 days	Mon 8/12/19	Sat 9/14/19	594																		
	ry Submission of Lift Design and Materials over lift shaft and associated ducting to E&M	60 days 1 day	Mon 10/14/19 Thu 4/1/21	Thu 12/19/19 Fri 4/2/21	584																		
E&M	works inside Lift Shaft	25 days	Fri 4/2/21	Fri 4/30/21	597																		
		1 day 7 days	Wed 5/13/20 Fri 4/30/21	Thu 5/14/20 Fri 5/7/21	471 598																		
		150 days	Mon 3/9/20	Sat 8/22/20	570																		
Chub	b/HKT cable laying for telemetry cable system	26 days	Mon 8/24/20	Mon 9/21/20	601																		
		14 days 7 days	Tue 9/22/20 Tue 9/22/20	Wed 10/7/20 Tue 9/29/20	602 602																		
CLP	Lift Meter Power Connection	l day	Tue 9/29/20	Wed 9/30/20	604																		
	rement to delivery of Sump Pump and Panel	96 days	Fri 3/13/20	Sat 6/27/20	500 607																		
	lation of Sump Pump (by Wing Luen) ery of Lift components to site	18 days 180 days	Mon 6/29/20 Mon 12/2/19	Sat 7/18/20 Fri 6/19/20	599,606																		
Lift in	stallation and Lift Shaft Ventilation installation	60 days	Fri 4/30/21	Tue 7/6/21	608,598																		
	ng & commissioning	17 days	Tue 7/6/21 Mon 7/26/21	Sat 7/24/21 Mon 7/26/21	607,609 610																		
	D Form LE5 submission D Inspection	1 day 14 days	Mon //26/21 Tue 7/27/21	Wed 8/11/21	611																		
Use F	ermit	7 days	Wed 8/11/21	Thu 8/19/21	612																		
	e and Landscape works at Hiu Ming Street ration and Finishings Works at Hiu Ming Street	433.5 days 190 days	Fri 3/1/19 Fri 3/1/19	Sun 6/28/20 Mon 9/30/19																	8	workers	
	ration and Finishings Works at Hiu Ming Street cation of XP for Drainage Works at Hiu Ming Street	90 days	Fri 3/1/19 Fri 3/1/19	Mon 9/30/19 Mon 6/10/19														COMPANY OF T	1				
Appr	oval of TTA for construction of Drainage Works at Hiu Ming	60 days	Mon 6/10/19	Thu 8/15/19	616																		
Stree	Works Advice	14 days	Fri 8/16/19	Sat 8/31/19	617	1														1	1		
Imple	mentation of TTA	1 day	Sat 8/31/19	Mon 9/2/19	618																£		
Drain	age works at Hiu Ming Street	30 days	Mon 9/2/19	Sat 10/5/19	619																	workers	
	ral Tidy Up 1age Hiu Kwong Street PMI 045	l day 1 day	Sat 10/5/19 Mon 6/1/20	Sat 10/5/19 Mon 6/1/20	620																1 0	TURNE	
Dr	ainage works	15 days	Mon 6/1/20	Wed 6/17/20																			
	idge between E3-ST1 and E3-P1	250 days 160 days	Mon 6/1/20 Mon 6/1/20	Sun 3/7/21 Thu 11/26/20																			
	cation and Delivery of Fabricated Steelworks ite Steelworks fabrication	100 days	Mon 6/1/20 Mon 6/1/20	Sun 9/20/20																			
Co	nstruction of Steel Bridge Deck between E3-ST1 and E3-P1 Pier	20 days	Thu 1/7/21	Fri 1/29/21	625,545																		
	nstruction of steel Roof E3-ST1 to E3-P1 Pier ruction of Screeding and paving blocks	20 days 30 days	Fri 1/29/21 Mon 6/1/20	Sat 2/20/21 Fri 7/3/20	627																		
Instal	lation of parapets and planters	30 days	Sat 7/4/20	Thu 8/6/20	629																		
Instal	lation of lightings to steel truss between E3 tower and E3	30 days	Thu 8/6/20	Wed 9/9/20	630																		
abutn	nent lation of irrigation Pipe and water point	30 days	Wed 9/9/20	Tue 10/13/20	631																		
Land	scape Works	15 days	Mon 6/1/20	Wed 6/17/20																			
	ee Pruning PMI 044	15 days	Mon 6/1/20	Wed 6/17/20 Fri 8/20/21	613																		
augov	ar Portion 2	1 day	Thu 8/19/21	FII 8/20/21	013																		
	between E2-P1 and E2-P3 (Section A E3 Portion 3)	427.25 days		Sun 4/12/20																			
	al Handover of Portion 3 cation of XP	1 day 30 days	Fri 12/21/18 Sat 12/22/18	Fri 12/21/18 Thu 1/24/19	638											1							
	cation of XP Possession of Partial Handover	50 days 63 days	Sat 12/22/18 Sat 12/22/18	Sat 3/2/19	638											2							
Waiti	ng for Full Handover of Portion 3	71 days	Sat 3/2/19	Tue 5/21/19	640													-		irveyors			
	l site survey ion of Hoarding at South bound footpath of Hiu Kwong Street	1 day 7 days	Tue 5/21/19 Wed 5/22/19	Wed 5/22/19 Thu 5/30/19	641 642															gang 2 workers	s,4 workers	1	
RA a	pproval from District Council	60 days	Thu 5/30/19	Mon 8/5/19	643														2				
Town	Gas Diversion Works	100 days	Mon 8/5/19	Mon 11/25/19																Concession of the local division of the loca	and the second second	4	workers
	ation of Crossing and shadow island Pit at E2-PC3 for UU	10 days 7 days	Mon 11/25/19 Fri 12/6/19	Fri 12/6/19 Sat 12/14/19	645 646																		excavator 2
Town	Gas Handover Portion 3	90 days	Sat 12/14/19	Tue 3/24/20	647																	è	
	sion of CLP lamp post	7 days	Tue 3/24/20	Wed 4/1/20 Wed 7/1/20	648																		
	ion of E2-F3 excavation with shoring for E2-F3	82 days 50 days	Wed 4/1/20 Wed 4/1/20	Wed 7/1/20 Wed 5/27/20	649																		
Cons	ruction of pad footing E2-F3	10 days	Wed 5/27/20	Sat 6/6/20	651																		
	ruction of column for E2-F4	21 days	Sat 6/6/20 Wed 7/1/20	Tue 6/30/20 Wed 7/1/20	652 653																		
	lation of bearing at E2-P2 and E2-P1 ion of E2-F4	1 day 82 days	Thm 7/2/20	Thu 10/1/20	033	-																	
Rock	Excavation with shoring for construction of E2-PC4	50 days	Thu 7/2/20	Wed 8/26/20	654																		
	ruction of pad footing of E2-PC4 ruction of columns for E2-P3 and Bridge Deck	10 days 21 days	Thu 8/27/20 Mon 9/7/20	Mon 9/7/20 Wed 9/30/20	656 657																		
Insta	lation of bearing	1 day	Wed 9/30/20	Thu 10/1/20	658																		
Steel foo	bridge works	115 days	Tue 9/1/20	Thu 1/7/21																			
	te Fabrication of Steel deck truss between E2-LT1 to E2-P1, to E2-P2	30 days	Tue 9/1/20	Sat 10/3/20																			
	ration works and Lifting of steel truss between E2-LT1 to E2-P1	10 days	Sat 10/3/20	Thu 10/15/20	661,659																		
Off s	te Fabrication of Steel deck truss between E2-P2 to E2-P3, E2-P3		Sat 10/3/20	Fri 11/6/20	661																		
	dge by others aration works and lifting of truss for E2-P3 to connect to bridge	10 days	Fri 11/6/20	Wed 11/18/20	663																		
Off s	te Fabrication of Steel deck truss between E2-P1 to E2-P2	30 days	Fri 11/6/20	Thu 12/10/20	663																		
D	aration works and Lifting of steel truss between E2-P1 to E2-P2	10 days	Thu 12/10/20	Mon 12/21/20	665																		
Prepa									0		_	2.2				Finish-only		E		Q 10 P.			
	Task	Summary	-	1	External Milesto	ie 🧇			e Summary	1			d Summary	Rollup		57				Critical Split			
	d Programme Portio			i ]	External Milesto Inactive Task Inactive Milesto			Inactive Manual Duratic	l Task	E			d Summary	Kollup	i	Deadline Critical		\$		Progress			

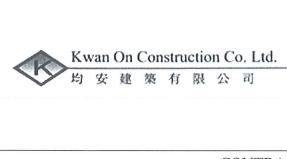


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ID	Task Name	Duration	Start	Finish	Predecess	7			Half 2.	2017			Hal	1,2018				Half	2, 2018	-			Hal	f 1, 2019	)			Half 2	2019				Half 1, 2	2020	
							A	M J	J	A S	0	NI	J	FI	MA	M	J	J	A	S	0	N I	) J	F	M	A	M J	J	A	SI	O N	D	J	F M	A
667	Roof installation of bridge from E2-LT1 to E2-P3	15 days	Tue 12/22/20	Thu 1/7/21	666		[																												
668	Screeding and paving blocks for the bridge from E2-LT1 to E2-P3	30 days	Thu 1/7/21	Wed 2/10/21	667																														
669	Electrical installation and lighting works for bridge from E2-LT1 to E2-F	3 30 days	Thu 1/7/21	Wed 2/10/21	667																														
670	Tubular handrail and planter on bridge from E2-LT1 to E2-P3	20 days	Thu 1/7/21	Fri 1/29/21	667																														
671	150mm dia storm drain pipe across Hiu Kwong Street	30 days	Thu 1/7/21	Wed 2/10/21	667																														
672	Trenching works for connection of existing water connection point	30 days	Wed 2/10/21	Mon 3/15/21	671		•																				•								1
673	Water meter box and water point connection	30 days	Thu 1/7/21	Wed 2/10/21	667																														
674	General Tidy Up for Portion 3	5 days	Wed 2/10/21	Mon 2/15/21	673																														
675	Handover Portion 3	1 day	Tue 2/16/21	Tue 2/16/21	390,632,																														

	Task	and the second se	Summary		External Milestone	4	Inactive Summary	1 i	Manual Summary Rollup	)	Finish-only	E	Critical Split	
Project: Accepted Programme Portio Date: Wed 4/29/20	Split		Project Summary	i	Inactive Task		Manual Task	C3	Manual Summary	i	Deadline	÷	Progress	Contract of the local distance of the local
Date: Wed 4/29/20	Split Milestone	¢	External Tasks	and the second second	Inactive Milestone		Duration-only	In the second second second	Start-only	E	Critical	the second second second		
I									Page 8					





Contract No. NE/2016/05

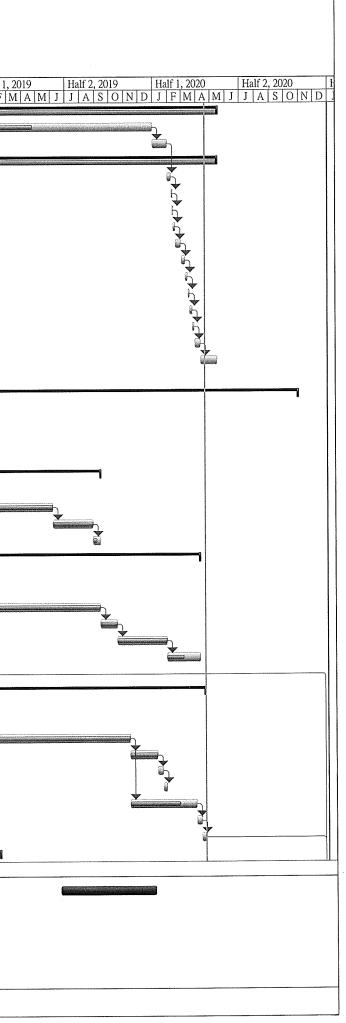
Development of Anderson Road Quarry Site Pedestrian Connectivity Facilities Works Phase 1

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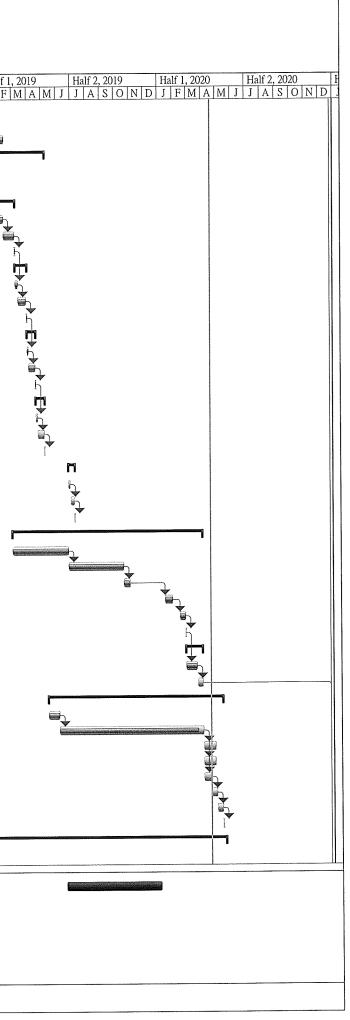
# CONTRACTOR SUBMISSION FORM

Your Ref. No. :	
Submission Ref. No. : NE/2016/05 – 4005	
Date of Submission : 20 April 2020	
Title of Submission       :       Updated Accepted Programme for Section D –Portion 6 (April 2020)	)
Specification Reference : PS1.08	
Description of Content:	
I enclosed herewith Updated Accepted Programme for Section C –Portion 5 (April 2020) for your acceptance.	
1. Delay mitigation in accordance with ACC Clause 32.1 occurred during concreting and increase in plants a	nd labour for
rock breaking works	
2. Critical path is clarified in red (please refer to email dated 20-04-2020)	
3. Items 3, 4, 5 clarified	
4. Slewing included in ID101 & 102	
5. CCTV/road reviewed	
6. Items 8, 9, 10 clarified	
Purpose of Submission :	
☑ For Acceptance □ For Information □ For Record Purple	oose
From: Kwan On Construction Co., Ltd. Signature:	
Name: YUNG Shui Heng	
Title: Site Agent	
Response:	
cc. The Supervisor –Ivan Tsang, AECOM Additiona	Sheet 🗆
Status; Accepted Not Accepted Acceptance not Requi	red
□ Accepted subject to condition(s) as stated / further required information as sta	ted.
□ Others:	
(please specify)	
The Supervisor's DelegateDate:	

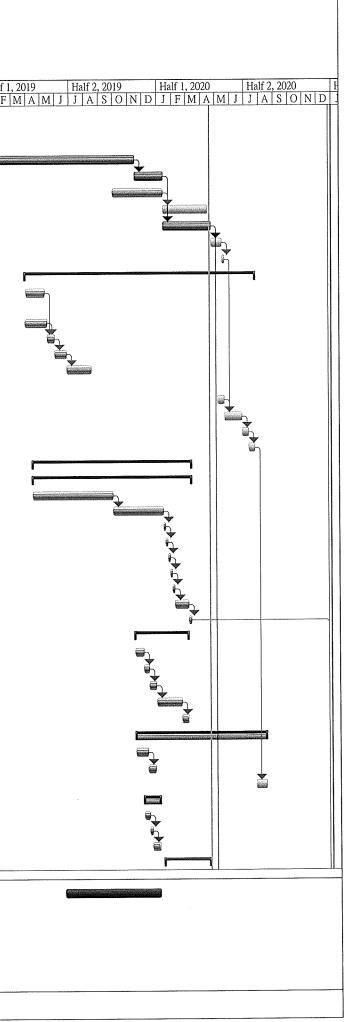
ID 任務名稱			Duration	Start	Finish Prede	ecessors , 2017 M A M J	Half 2, 2017 H	alf 1, 2018         Half 2, 20           F         M         A         M         J         J         A         S	18 Ha O N D J
Revised Contract Period of	Section D		980 days	Fri 3/31/17	Sun 5/17/20				
Original Contract Period			862 days	Fri 3/31/17	Tue 12/31/19				
Public Holidays			27 days	Wed 1/1/20	Fri 1/31/202				
CE Granted			979 days	Fri 3/31/17	Fri 5/15/20				
CE 016 Inclement wear	her Aug 2017		7 days		3				
5 CE 031 Inclement wea	her Oct 2017		2 days		5				
CE 039 Inclement wea	her Nov 2017		1 day		6				
8 CE 078 Inclement wear	her May 2018		4 days		7				
CE 102 Inclement wea	her June 2018		11 days		8				
0 CE 109 Inclement wea	-		7 days		9				
1 5days inclement weath	the second se		5 days		10				
2 3days inclement weath	a fill a subscription of the second sec		3 days		11				
3 5days inclement weath			5 days		12				
4 4days inclement weath	er July 2019		4 days		13				
5 11 days inclement wea			11 days		14				
6 COVID-19 Event Jan 2	23- Feb 29 2020		30 days		15				
8 Southern BBI Covered Wal	kway, E12 Lift Tower and	Covered Staircase	and 1123 days?	Fri 3/31/17	Fri 10/30/20			and the second spectrum properties and a final data and spectrum properties and a first data data	
9 RWE12 Retaining wall 9 Establishment Works			513 days	Fri 3/31/17	Mon 11/19/18				1
Site Clearance			163 days	Fri 3/31/17	Fri 10/6/17		h		
			350 days	Sat 10/7/17	Mon 11/19/18 20				
21   Tree Felling     22   UU Diversion			768 days	Fri 3/31/17	Thu 9/12/19			······	
3 Excavation for trial pit	for III inspection		30 days	Fri 3/31/17	Thu 5/4/17				
-	rtakers Regular Meeting		652 days	Fri 5/5/17	Tue 6/4/19 23	<b>V</b>			
5 Submission	Itakers Regular Wreeting		72 days	Wed 6/5/19	Tue 8/27/19 24				
6 Approval of submission	'n		14 days	Wed 8/28/19	Thu 9/12/19 25				
	RC lane (Autotoll Sign Gar	ntry) (PMI 62 and (		Fri 3/31/17	Wed 4/8/20				
	(according to the existing or		40 days	Sun 4/1/18	Thu 5/17/18				
9 Erection of Mock up s			14 days	Thu 5/17/18	Fri 6/1/18 28			, and the second s	
-	design of the sign gantry		400 days	Sat 6/2/18	Wed 9/11/1929			¥	
Fabrication of Perman			30 days	Thu 9/12/19	Wed 10/16/1930				
Delivery of Sign Gant			90 days	Thu 10/17/19	Wed 1/29/2031				
Benvery of Sign Gand Erection of Permanent			60 days	Thu 1/30/20	Wed 4/8/2032				
Notification to HKSAI	and the second sec		14 days	Fri 3/31/17	Sat 4/15/17				
35 Drainage near Northbou	-		746 days	Fri 12/1/17	Sat 4/18/20		1		
	oncrete 450 pipe & U-chann	el	29 days	Fri 12/1/17	Wed 1/3/18				
Approval of submission			300 days	Thu 1/4/18	Wed 12/19/1836			<b>7</b>	
Commence PMI202 fc			280 days	Thu 12/20/18	Mon 11/11/1937				é
	ainage for Partial BBI Open	ing	50 days	Tue 11/12/19	Wed 1/8/2038				
	for Partial BBI Opening		10 days	Thu 1/9/20	Mon 1/20/20 39				
1 Drainage T&C for Par			7 days	Tue 1/21/20	Tue 1/28/20 40				
	ainage for Phase 2 BBI Ope	ning	120 days	Tue 11/12/19	Mon 3/30/20 38				
	for Phase 2 BBI Opening		10 days	Tue 3/31/20	Fri 4/10/20 42				
44 Drainage T&C	· · · · · · · · · · · · · · · · · · ·		7 days	Sat 4/11/20	Sat 4/18/20 43				
45 Rock Stabilization Worl	(S		376 days	Fri 12/1/17	Tue 2/12/19		i.		
	Critical Split		專案摘要報告 『		僅包含工期		外部任務		Critica
	_		非作用中的任務		手動上顯型摘要	Emerand	▶ 外部里程碑		
案: Accepted Programme Portion 6 f	任務							Ť	
樂: Accepted Flogramme Fortion 0-1 期: Mon 4/20/20	│ 分割 …		非作用中的里程碑。		手動摘要		1 期限	*	
7941 MADE (120020	里程碑 ◆		非作用中的摘要		僅定義開始日期		進度		3
	摘要	1	手動任務		僅包含完成時間		手動進度		a 



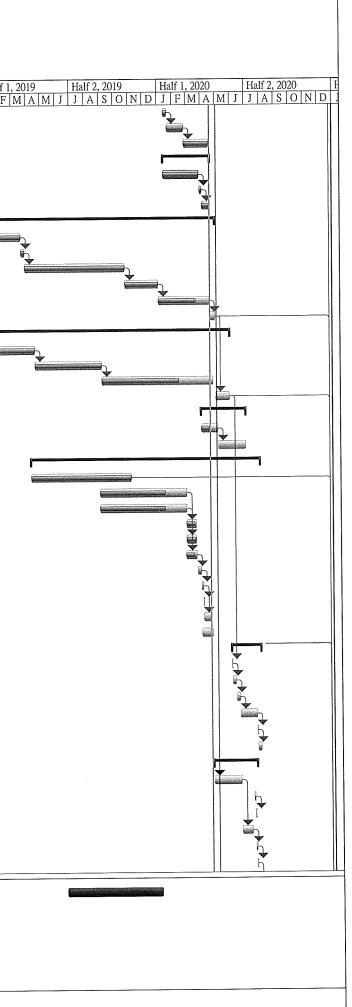
46         Submission of Method Statement for Rock Dowel Drilling         16 days         Fri 12/1/17         Tue 12/19/17           47         Rock Dowel drilling         323 days         Wed 12/20/17         Mon 12/31/18 46           48         Presplitting from bay 3 to 9 due to CE (PMI 131 and 123)         37 days         Tue 1/1/19         Tue 2/12/19 47           49         Construction of RWE12 Retaining wall         162 days         Thu 11/1/18         Wed 5/8/19           50         Submission for BBS (PMI 113)         57 days         Thu 11/1/18         Wed 5/8/19           51         Approval of BBS         Sat 1/32/19         Thu 37/19         Fri 1/1/19 50           52         RWE12 Bay 3-6         47 days         Sat 1/12/19         Thu 37/19           53         Rebar Fixing         20 days         Sat 1/12/19         Thu 37/19           54         Formwork         20 days         Sat 1/12/19         Mon 4/1/19 50           55         concreting         1 day         Thu 37/19         Thu 37/19           56         RWE12 Bay 7-10         21 days         Fri 3/8/19         Mon 4/1/19           57         Rebar Fixing         1 day         Mon 4/1/19         Sat 3/30/19 57           58         Formwork         1 day	6 7 0 1 3 4 5 7 8 9 9 1 2 3 5			
47         Rock Dowel drilling         323 days         Wed 12/20/17         Mon 12/31/18 46           48         Presplitting from bay 3 to 9 due to CE (PMI 131 and 123)         37 days         Tue 1/1/19         Tue 2/12/19 47           49         Construction of RWE12 Retaining wall         162 days         Thu 11/1/18         Wed 5/8/19           50         Submission for BBS (PMI 113)         57 days         Thu 11/1/18         Sat 1/5/19           51         Approval of BBS         5 days         Mon 1/7/19         Fri 1/11/19 50           52         RWE12 Bay 3-6         47 days         Sat 1/2/19         Thu 3/7/19           53         Rebar Fixing         26 days         Sat 1/2/19         Wed 3/6/19 53           54         Pornwork         20 days         Tue 2/12/19         Wed 3/13/19 55           55         concreting         11 day         Thu 3/7/19         Thu 3/7/19           57         Rebar Fixing         5 days         Fri 3/8/19         Wed 3/13/19 55           58         Formwork         15 days         Thu 3/1/19         Sat 3/3/19 57           59         concreting         1 day         Mon 4/1/19         Sat 3/3/19 57           60         RWE12 Bay 2         1 day         Sat 4/2/19         Fri 4/19	7 0 1 3 4 5 7 8 9 1 2 3 5			
48         Presplitting from bay 3 to 9 due to CE (PMI 131 and 123)         37 days         Tue 1/1/19         Tue 2/12/19 47           49         Construction of RWE12 Retaining wall         162 days         Thu 11/1/18         Wed 5/8/19           50         Submission for BBS (PMI 113)         57 days         Thu 11/1/18         Wed 5/8/19           51         Approval of BBS         Sat 1/5/19         Stat 1/5/19         Thu 37/19         Fri 1/1/19 50           52         RWE12 Bay 3-6         47 days         Sat 1/12/19         Mon 2/11/19 51         Mon 2/11/19 51           53         Rebar Fixing         26 days         Sat 1/12/19         Wed 3/6/19 53         Mon 2/11/19 51           54         Formwork         20 days         Tue 2/12/19         Wed 3/6/19 53         Mon 2/11/19 51           54         Formwork         20 days         Tue 2/12/19         Wed 3/6/19 53           55         concreting         1 day         Thu 3/7/19         Thu 3/7/19         Mon 4/1/19           57         Rebar Fixing         5 days         Fri 3/8/19         Mon 4/1/19         Sat 3/30/19 55           58         Formwork         15 days         Thu 3/1/19         Sat 3/30/19 55           60         RWE12 Bay 2         16 days         Tue 4/2/19	0 1 3 4 5 7 8 9 1 2 3 5			
49         Construction of RWE12 Retaining wall         162 days         Thu 11/1/18         Wed 5/8/19           50         Submission for BBS (PMI 113)         57 days         Thu 11/1/18         Sat 1/5/19           51         Approval of BBS         5 days         Mon 1/7/19         Fri 1/1/1950           52         RWE12 Bay 3-6         47 days         Sat 1/12/19         Thu 3/7/19           53         Robar Fixing         26 days         Sat 1/12/19         Mon 2/11/19 51           54         Formwork         20 days         Tue 2/12/19         Wed 3/6/19 53           55         concreting         1 day         Thu 3/7/19         Thu 3/7/19           56         RWE12 Bay 7-10         21 days         Fri 3/8/19         Mon 4/1/19           57         Rebar Fixing         5 days         Thu 3/14/19         Sat 3/30/19 57           58         Formwork         15 days         Thu 3/14/19         Sat 3/30/19 57           58         concreting         1 day         Mon 4/1/19         Mon 4/1/19           50         RWE12 Bay 2         16 days         Tue 4/2/19         Fri 4/19/19           60         RWE12 Bay 11 & 12         3 days         Tue 4/2/19         Thu 4/4/19 59           61	1 3 4 5 7 8 9 1 2 3 5			
Solutions of DDS (M1115)         5 days         Mon 1/7/19         Fri 1/11/19 50           51         Approval of BBS         47 days         Sat 1/12/19         Thu 3/7/19           52         RWE12 Bay 3-6         47 days         Sat 1/12/19         Thu 3/7/19           53         Rebar Fixing         26 days         Sat 1/12/19         Mon 2/11/19 51           54         Formwork         20 days         Tue 2/12/19         Wed 3/6/19 53           55         concreting         1 day         Thu 3/7/19         Thu 3/7/19 54           56         RWE12 Bay 7-10         21 days         Fri 3/8/19         Mon 4/1/19           57         Rebar Fixing         5 days         Thi 3/19 55         Sdays         Thi 3/19 55           58         Formwork         15 days         Thu 3/1/19         Sat 3/30/19 57           59         concreting         1 day         Mon 4/1/19         Mon 4/1/19 54           60         RWE12 Bay 2         16 days         Tue 4/2/19         Fri 4/19/19           61         Rebar Fixing         3 days         Tue 4/2/19         Thu 4/18/19 61           62         Formwork         12 days         Fri 4/19/19         Fri 4/19/19 62           63         concreting	1 3 4 5 7 8 9 1 2 3 5			
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63         concreting         1 day         Fri 4/19/19         Fri 4/19/19 62           64         RWE12 Bay 11 & 12         16 days         Sat 4/20/19         Wed 5/8/19           65         Rebar Fixing         3 days         Sat 4/20/19         Tue 4/23/19 63           66         Formwork         12 days         Wed 4/24/19         Tue 5/7/19 65           67         concreting         1 day         Wed 5/8/19         Wed 5/8/19           68         RWE12 Bay 1         12 days         Wed 6/26/19         Tue 7/9/19           69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19	3 5			
64         RWE12 Bay 11 & 12         16 days         Sat 4/20/19         Wed 5/8/19           65         Rebar Fixing         3 days         Sat 4/20/19         Tue 4/23/19 63           66         Formwork         12 days         Wed 4/24/19         Tue 5/7/19 65           67         concreting         1 day         Wed 5/8/19         Wed 5/8/19 66           68         RWE12 Bay 1         12 days         Wed 6/26/19         Tue 7/9/19           69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19	5			
65         Rebar Fixing         3 days         Sat 4/20/19         Tue 4/23/19 63           66         Formwork         12 days         Wed 4/24/19         Tue 5/7/19 65           67         concreting         1 day         Wed 5/8/19         Wed 5/8/19 66           68         RWE12 Bay 1         12 days         Wed 6/26/19         Tue 7/9/19           69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19	5			
66         Formwork         12 days         Wed 4/24/19         Tue 5/7/19 65           67         concreting         1 day         Wed 5/8/19         Wed 5/8/19           68         RWE12 Bay 1         12 days         Wed 6/26/19         Tue 7/9/19           69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19	a an a sha an			
67         concreting         1 day         Wed 5/8/19         Wed 5/8/19         66           68         RWE12 Bay 1         12 days         Wed 6/26/19         Tue 7/9/19         Tue 7/9/19           69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19         Sat 6/29/19	6			
68         RWE12 Bay 1         12 days         Wed 6/26/19         Tue 7/9/19           69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19				
69         Rebar Fixing         4 days         Wed 6/26/19         Sat 6/29/19				
	9			
70         Follower           71         concreting           1 day         Tue 7/9/19	0			
71         contenting           72         RWE12 Bay 1A 2A         342 days         Fri 3/1/19         Thu 4/2/20				F
72         RWEIZ Bay IA ZA         Commence PMI184 for Bay 1A 2A         Tue 6/25/19           73         Commence PMI184 for Bay 1A 2A         100 days         Fri 3/1/19         Tue 6/25/19				
75         Commence Finite for Bay 1721           74         Excavation           100 days         Wed 6/26/19           Sat 10/19/19 73	3			
74Excavation75Rock dowel drilling Bay 1A and 2A (PMI)12 daysSun 10/20/19Sat 11/2/19 74				
75         Rebar Fixing         14 days         Wed 1/15/20         Thu 1/30/20 75				
70         Rebail Hang           77         Formwork           10 days         Sat 2/15/20           Wed 2/26/2076				
77         Formwork           78         concreting           1 day         Thu 2/27/20				
78Concreting79Backfilling behind RWE1230 daysFri 2/28/20Thu 4/2/20				
79Backfilling behind the RWE1280Backfilling behind the RWE1220 daysFri 2/28/20Sat 3/21/20 78	'8			
82         RWE12 Bay 13-14         315 days         Tue 5/14/19         Thu 5/14/20           83         Liason with EPD temporary roaddiversion         20 days         Tue 5/14/19         Wed 6/5/19				
85Liason with EPD temporary roaddiversion20 daysFit 4/3/20 8384Excavation260 daysThu 6/6/19Fri 4/3/20 83	33			
85Temporary diversion of the pedestrian road next to EPD21 daysSat 4/4/20Tue 4/28/20 8/4				
85Drainage diversion21 daysSat 4/4/20Tue 4/28/20 8/4				
87         Rock Dowel Drilling Bay 13 - 14         14 days         Sat 4/4/20         Mon 4/20/20 84				
88         Rebar Fixing         10 days         Tue 4/21/20         Fri 5/1/20 8'	37			
89         Formwork         10 days         Sat 5/2/20         Wed 5/13/20 88				
90 concreting 1 day Thu 5/14/20 Thu 5/14/20 89	39			
91 Excavation of Rock for RWE12, Footings, CLP cables 591 days Mon 7/2/18 Wed 5/20/20				
92Submission in accordance to CEDD standard drawing81 daysMon 7/2/18Wed 10/3/18				<u></u>
Critical Split ————————————————————————————————————		外部任務		Critical
	<u>بن</u>		 ا	
任務 手動上顯型摘	明安	外部里程碑		
│ 專案: Accepted Programme Portion 6 f 分割                              手動摘要		期限	\$	
日期: Mon 4/20/20	I期 C	進度		
		手動進度	-	
摘要	1181 <b>- 1</b>	丁虭延反		
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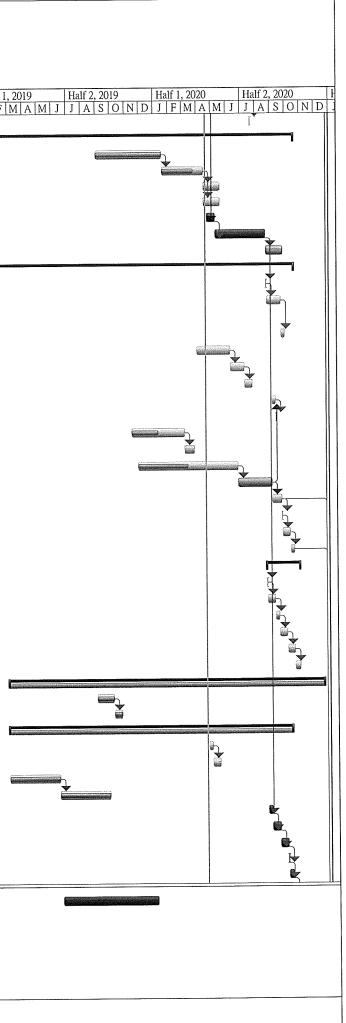
ID	任務名稱		Duration	Start	Finish Predece	ssors , 2017 M A M J	Half 2, 2017 Ha	If 1, 2018         Half 2, 2018           F M A M J J A S O	NDJF
93	Re-Submission to AEC	OM's standard drawing	15 days	Wed 10/3/18	Fri 10/19/18 92				
94	Approval of submission		29 days	Sat 10/20/18	Thu 11/22/1893			1	
95	Erection of the rock fal		37 days	Fri 11/23/18	Fri 1/4/19 94,21				
96	Rock excavation to Foo	oting F4 for 1st Phase BBI	270 days	Sat 1/5/19	Fri 11/15/1995				
97	Rock excavation to Foo	otings F3 1st Phase BBI	50 days	Sat 11/16/19	Mon 1/13/20 96				
98	Rock excavation to Foo	otings F2 1st Phase BBI	90 days	Tue 10/1/19	Mon 1/13/20				
99	Rock excavation to Foo	-	80 days	Tue 1/14/20	Wed 4/15/2098				
100	Rock excavation to Foo	oting E12 Lift Shaft and Staircase	86 days	Tue 1/14/20	Wed 4/22/2097				
101		LP 132kv cable slewing	20 days	Thu 4/23/20	Fri 5/15/20 100				
102		KT/PCCW cable slewing	4 days	Sat 5/16/20	Wed 5/20/20101				
103		m B001 to B003 (PMI 128)	413 days	Sat 3/30/19	Thu 7/23/20				
104	Submission of method sewerage system	statement for temporary and permanent diversion	of 35 days	Mon 4/1/19	Fri 5/10/19				
105	Submission for PE sew	erage nines	40 days	Sat 3/30/19	Wed 5/15/19				
105	Approval of submission		14 days	Thu 5/16/19	Fri 5/31/19 105,10	4			
107		ole and connection pipe in bay 1A	21 days	Sat 6/1/19	Tue 6/25/19 106				
108		f the sewerage pipe (from B001 to existing sewer	age pipe) 45 days	Wed 6/26/19	Fri 8/16/19 107				
			10.1	The 5/7/20	Wed 5/20/20				
109	Waiting for 132kv Cab		12 days	Thu 5/7/20		0			
110	Construct B002 Manah		12 days 12 days	Thu 5/21/20 Sat 6/27/20	Fri 6/26/20 102,10 Fri 7/10/20 110	<b>9</b>			
111	Construct B003 Manah		12 days 11 days	Sat 7/11/20	Thu 7/23/20 111				
112 113	Permanent diversion of		285 days	Mon 4/15/19	Wed 3/11/20				
113	Construction of High Ma High Mast D	ist footing (PWH 145)	285 days	Mon 4/15/19	Wed 3/11/20				
114		ng MS, ELS and BBS	145 days	Mon 4/15/19	Mon 9/30/19				
115	Rock excavation		90 days	Tue 10/1/19	Mon 1/13/20 115				
110	Formwork for lower	r layer	4 days	Tue 1/14/20	Fri 1/17/20 116				
118	Rebar and concrete	2	4 days	Sat 1/18/20	Wed 1/22/20 117				
119	Formwork for uppe	r layer	4 days	Thu 1/23/20	Mon 1/27/20 118				
120	Rebar and concrete		4 days	Tue 1/28/20	Fri 1/31/20 119				
121	Install HD Bolts		4 days	Sat 2/1/20	Wed 2/5/20 120				
122	Backfilling		25 days	Thu 2/6/20	Thu 3/5/20 121				
123	-	ng High Mast Lighting D	5 days	Fri 3/6/20	Wed 3/11/20122 Wed 3/4/20				
124	CCTV Post Relocatio	n	95 days	<b>Fri 11/15/19</b> Fri 11/15/19	Mon 12/2/19				
125	Break foundation		15 days 10 days	Tue 12/3/19	Fri 12/13/19 125				
126	Dowel bars		13 days	Sat 12/14/19	Sat 12/28/19 126				
127 128	Footing constructio		45 days	Mon 12/30/19	Wed 2/19/20 127				
128	Relocation	ΓV relocation, cable construction	12 days	Thu 2/20/20	Wed 3/4/20 128				
129			235 days	Sat 11/16/19	Sun 8/16/20				
130	BBI-SB-F3 (BBI Phase I	uding Rebar Fixing, formwork and Concreting)	255 days 21 days	Sat 11/16/19	Tue 12/10/19				
131	Column base	lucing Rebai Fixing, formwork and concerning)	14 days	Wed 12/11/19	Thu 12/26/19 131				
132	Backfilling		20 days	Fri 7/24/20	Sat 8/15/20 112				
133	BBI-SB-F4 (BBI Phase	D	20 days 29 days	Tue 12/3/19	Sat 1/4/20				
134		luding Rebar Fixing, formwork and Concreting)	10 days	Tue 12/3/19	Fri 12/13/19				
136	Column base		5 days	Sat 12/14/19	Thu 12/19/19 135				
137	Backfilling		14 days	Fri 12/20/19	Sat 1/4/20 136				
138	BBI-SB-F2 (BBI Phase	1)	82 days	Tue 1/14/20	Fri 4/17/20				
		Critical Split	專案摘要報告 『		僅包含工期	ý	外部任務		Critical
		任務	非作用中的任務	•	手動上顯型摘要		外部里程碑	\$	
- 專案: Ac	ccepted Programme Portion 6 f				手動指要		期限		
1	on 4/20/20	分割	非作用中的里程碑			1 I			
		里程碑    ◆	非作用中的摘要 『		僅定義開始日期	Ē	進度		
		摘要	手動任務		僅包含完成時間	3	手動進度		
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	打政权秘		Duration	Start	Finish Predece	essors ,	2017	Half 2, 2017 Half	1, 2018 Half 2, 201	3 Half 1, 2
ID	任務名稱						MAMJ	JASONDJ	FMAMJJASO	DNDJFN
139	Construct footing (Inclu	Iding Rebar Fixing, formwork and Concreting)	7 days	Tue 1/14/20	Tue 1/21/20					
140	Column base		30 days	Wed 1/22/20	Tue 2/25/20 139					
141	Backfilling		45 days	Wed 2/26/20	Fri 4/17/20 140 Mon 4/20/20					
142	BBI-SB-F1 (BBI Phase 2		84 days	Tue 1/14/20 Tue 1/14/20	Sat 3/28/20					
143		uding Rebar Fixing, formwork and Concreting)	65 days 5 days	Mon 3/30/20	Fri 4/3/20 143					
144	Column base		14 days	Sat 4/4/20	Mon 4/20/20 144					
145 146	Backfilling		469 days	Thu 11/1/18	Thu 4/30/20					l
140	Steelwork Submission of Steelwor	de Frantar	120 days	Thu 11/1/18	Wed 3/20/19					
147	Approval of submission		7 days	Thu 3/21/19	Thu 3/28/19 147					
149	Submission of Shop Dr		180 days	Fri 3/29/19	Thu 10/24/19 148					
150	Approval of submission		60 days	Fri 10/25/19	Thu 1/2/20 149					
151	Off-site steel fabrication		92 days	Fri 1/3/20	Sat 4/18/20 150					
151	1	way steelwork for BBI Phase 1	10 days	Mon 4/20/20	Thu 4/30/20 151					
153	PMMA for BBI covered	•	510 days	Mon 10/15/18	Sat 5/30/20					
154		and Shop Drawing for Cover Panel		Mon 10/15/18	Thu 4/18/19					
155	Approval of submission		120 days	Fri 4/19/19	Thu 9/5/19 154					
156	Procurement		200 days	Fri 9/6/19	Sat 4/25/20 155					
157	PMMA Erection for BI	BI Phase 1	26 days	Fri 5/1/20	Sat 5/30/20 152					
158	Temp Pedestrian Access		80 days	Wed 4/1/20	Thu 7/2/20					
159	Design temp access		30 days	Wed 4/1/20	Tue 5/5/20					
160	Erect temp access		50 days	Wed 5/6/20	Thu 7/2/20 159					
161	E&M for covered walkw	ay (Phase 1)	411 days	Wed 4/10/19	Fri 7/31/20					
162	Application of electrica	al power supply	180 days	Wed 4/10/19	Tue 11/5/19					
163	Design, drawing submi	ssion and approval	156 days	Sun 9/1/19	Sat 2/29/20					
164	Material submission an		156 days	Sun 9/1/19	Sat 2/29/20	~				
165	Procurement to deliver	The second se second second s second second se	18 days	Sat 2/29/20	Fri 3/20/20 164,16	and the second second second				
166	Procurement to deliver	-	18 days	Sat 2/29/20 Fri 2/28/20	Fri 3/20/20 164,16 Sat 3/21/20 164,16					
167	Constuction of Pillar B		20 days 7 days	Mon 3/23/20	Mon 3/30/20 167					
168	E&M works inside CL		4 days	Tue 3/31/20	Fri 4/3/20 168					
169 170	Inspection of Pillar box Handover of Pillar Box		1 day	Sat 4/4/20	Sat 4/4/20 169					
170		lation of CLP cutout from CLP	13 days	Sat 4/4/20	Sat 4/18/20 169					
171	Construction of Tempo	prary Pillar Box for Lighting at Phase 1	20 days	Tue 3/31/20	Wed 4/22/20					
172		hase 1 Partial BBI Opening	53 days	Mon 6/1/20	Fri 7/31/20					
174		over walkway and underground duct to E&M	1 day	Mon 6/1/20	Mon 6/1/20 157					
175	Conduit and cable c	containment	7 days	Tue 6/2/20	Tue 6/9/20 174					
176	Cable and wiring		7 days	Wed 6/10/20	Wed 6/17/20175					
177	Installation of Light	t fitting	30 days	Thu 6/18/20	Wed 7/22/20 176					
178		er connection to temporary power	1 day	Thu 7/23/20	Thu 7/23/20 177					
179	T&C		7 days	Fri 7/24/20	Fri 7/31/20 178					
180		2 at Tollgate for Phase 1	78 days?	Thu 4/23/20	Wed 7/22/20					
181	Preparation and arrang		50 days	Thu 4/23/20	Fri 6/19/20 100					
182	Autotoll cardreader sw		3 days	Wed 7/15/20	Fri 7/17/20					
183	Manualtoll cardreadew		1 day?	Sat 7/18/20	Sat 7/18/20 182					
184	Road Marking		19 days	Sat 6/20/20	Sat 7/11/20 181					
185	Lane Swapping Lanes	1, 2 at Tollgate	2 days	Sat 7/18/20	Mon 7/20/20 184					
186	Handover Portion 6 Ph		1 day	Tue 7/21/20	Tue 7/21/20 185					
		Critical Split	專案摘要報告 『	1	僅包含工期	240		外部任務		Critical
					手動上顯型摘要			外部里程碑	$\Diamond$	
■	ccepted Programme Portion 6 f	任務	非作用中的任務						↓ ₽	
1	on 4/20/20	分割	非作用中的里程碑。		手動摘要	1		期限	W	
1793. 14IC		里程碑    ◆	非作用中的摘要		僅定義開始日期	Ľ		進度		
		摘要	手動任務		僅包含完成時間	3		手動進度		
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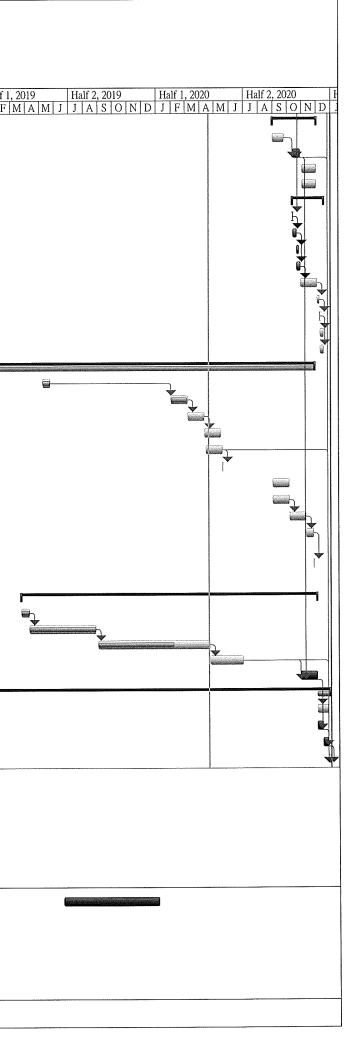


ID 1	王務名稱			Durati	on	Start	Finish	Predecess	sors	, 2017	Half 2, 2017 Ha	If 1, 2018         Half 2, 20           F M A M J J A S	018 Half
187	Bus Trial			1	day?	Wed 7/22/20	Wed 7/22/20	) 186			JAJONDJ		101112111
188			946-14-5 (A.S. 1996)		days	Fri 3/31/17	Mon 10/19/20	)					
189	PMI 184 revised E12				days	Mon 9/2/19	Sat 1/18/20	)					
190	MS for E12 Lift Tower	Erection			days	Mon 1/20/20	Wed 4/15/20	) 189					
191	Approval of submission				days	Thu 4/16/20	Wed 5/20/20	) 190					
192	Statuary Submission of		rials	30	days	Thu 4/16/20	Wed 5/20/20						
193	RC Footing and Sump I	Pit			days	Thu 4/23/20	Sat 5/9/20						
194	Supersturture				days	Mon 5/11/20	Sat 8/22/20						
195	Louvre and Glazing inst	allation		30	days	Mon 8/24/20	Sat 9/26/20						
196	E12 Lift Shaft E&M P	hase 2		1113	days	Fri 3/31/17	Mon 10/19/20						
197	Handover lift shaft a	nd associated ducting	to E&M		1 day	Mon 8/24/20	Mon 8/24/20						
98	E&M works inside I	.ift Shaft			days	Tue 8/25/20	Tue 9/22/20						
.99	Handover Sump Pit	and associated ducting	g to E&M		1 day	Fri 3/31/17	Fri 3/31/17						
200	Handover of Lift stru	cture to E&M Lift su	bcontractor		' days	Wed 9/23/20	Wed 9/30/20						
201		metry service routing			) days	Wed 4/1/20	Tue 6/9/20						
202		ying for telemetry cab			days	Wed 6/10/20	Thu 7/9/20						
03	Installation and conr	ection of telemetry co	omponents in Pillar Box		days	Fri 7/10/20	Sat 7/25/20						
04	Lift Meter Power Co	nnection			days	Fri 9/4/20	Fri 9/11/20						
05	CLP Lift Meter Insta				1 day	Sat 9/12/20	Sat 9/12/20						
)6	Procurement to delive	ery of Sump Pump an	nd Panel		6 days	Fri 11/15/19	Thu 3/5/20						
07	Installation of Sump	Pump (by Wing Luer	1)		3 days	Fri 3/6/20	Thu 3/26/20						
)8	Delivery of Lift com	ponents to site			) days	Fri 11/29/19	Thu 6/25/20						
09		Lift Shaft Ventilation	installation		) days	Fri 6/26/20	Thu 9/3/20						
10	Testing & commission	oning			7 days	Fri 9/4/20	Wed 9/23/20						
11	EMSD Form LE5 su	bmission			1 day	Thu 9/24/20	Thu 9/24/20						
12	EMSD Inspection				l days	Fri 9/25/20	Sat 10/10/20						
13	Use Permit				7 days	Mon 10/12/20	Mon 10/19/20						
14	E12 Lift Tower Lighting				) days	Mon 8/24/20	Fri 10/30/20						
15	Handover EMSD Pillar				1 day	Mon 8/24/20	Mon 8/24/20						
.16			l Lighting Compartment		l days	Tue 8/25/20	Wed 9/9/2						
.17	Conduit and cable cont	ainment			7 days	Thu 9/10/20	Thu 9/17/20						
.18	Cable and wiring				1 days	Fri 9/18/20	Sat 10/3/20						
219	Installation of Light fitt	ing			3 days	Mon 10/5/20	Mon 10/19/2						
220	T&C				) days	Tue 10/20/20	Fri 10/30/2						
221					6 days	Fri 3/1/19	Sat 12/19/2						
22	MS for concrete staircase				) days 4 days	Sun 9/1/19 Mon 10/7/19	Sat 10/5/19 Tue 10/22/1						
223 224	Approval of submission	····ation			days days	Fri 3/1/19	Tue 10/22/1 Tue 10/13/2						
24	Concrete Staircase Const	a uction			7 days	Thu 4/23/20	Thu 4/30/2						
	Shoring				4 days	Fri 5/1/20	Sat 5/16/2						
226 227	Scaffolding Submission of Bearing				) days	Fri 3/1/19	Thu 6/13/1						
.27	Approval of Bearing Su	hmission			0 days	Fri 6/14/19	Thu 9/26/1						
.28 29	Install Bearing	101111331011			7 days	Mon 8/24/20	Mon 8/31/2						
30	Formwork				4 days	Tue 9/1/20	Wed 9/16/2						
231	Rebar fixing				4 days	Thu 9/17/20	Fri 10/2/2						
232	concreting			-	1 day	Sat 10/3/20	Sat 10/3/2						
233	Remove scaffold and for	ormwork			7 days	Mon 10/5/20	Mon 10/12/2	0 232					
				<b>甫安按西却</b> 生	Cana		僅包含工期	1			外部任務		Critical
		Critical Split		專案摘要報告						201			
		任務		非作用中的任務	Z J		手動上顯型	摘要			外部里程碑	<u>م</u>	
	cepted Programme Portion 6 f	分割	******	非作用中的里程	碑		手動摘要				期限	₽	
AH. MAA	n 4/20/20	里程碑	۵	非作用中的摘要			僅定義開始	日期	٢		進度		
舟: 1010			<b>*</b>	- 71 H H J I H J IH S	<b>`</b>	1					-		
舟: MO		摘要	(management of the second s	手動任務	1.33	0	僅包含完成	油問			手動進度		



任務名稱	Duration	Start	Finish Predecessors ,2	2017         Half 2, 2017         Half 1, 2018         Half 2, 2018         Half 1, 2           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         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         S         O         N         D         J         F         M         A         S         O         N         D         J         F         M         A         S         O         N         D         J         F         M         A         S </th
Staircase roof erection	79 days	Tue 9/1/20	Tue 12/1/20	
Off-site steel fabrication	21 days		Thu 9/24/20	
Erection of Covered staircase steelwork				
	-		1	
PMMA Erection Staircase Roof Phase 2				
Installation of E&M Phase 2 (covered walkway and staircase)	-			
Handover of BBI cover walkway and underground duct to E&M			and the second	
Conduit and cable containment				
Cable and wiring	4 days			
Installation of Light fitting	7 days		the second se	
Construction of Permananet Lighting Pillar Box	30 days	Fri 10/30/20		
Instalation of Lighting Pillar Box components	4 days	Fri 12/4/20	Tue 12/8/20 244	
Lighting meter power connection to permanent power supply	1 day	Wed 12/9/20	Wed 12/9/20245	
T&C	7 days	Thu 12/10/20	Thu 12/17/20 246	
Removal of Temporary Pillar Box after changeover	7 days	Thu 12/10/20	Thu 12/17/20 246	
	1148 days	Fri 3/31/17	Sun 11/29/20	
	14 days	Wed 5/8/19	Thu 5/23/19	
	30 days	Sat 2/1/20	Fri 3/6/20 250	
	•	Sat 3/7/20	Fri 4/10/20 251	
			Fri 5/15/20 252	
		and the second	Mon 5/18/20	
	•			
- Construction of The Construction of The State St State State			a and a second a second s	
	-			
Opening			•	
Road Making at Bus Stop for Ph 2 BBI Opening	1 day	Thu 11/26/20	Thu 11/26/20 259	
Paving for covered walkway	532 days	Sat 3/23/19	Wed 12/2/20	
<b>O</b>		Sat 3/23/19	Mon 4/8/19	
	•	Tue 4/9/19	Mon 8/26/19 263	
	•	Sun 9/1/19	Tue 4/21/20 264	
A CONTRACTOR OF		Wed 4/22/20	Tue 6/30/20 265	
	30 days	Thu 10/29/20	Wed 12/2/20 266,236	
		Fri 3/31/17	Tue 12/29/20	
	•		Fri 12/25/20 267	
	-		Mon 12/14/20 267	
Overall T&C	5 days	Sat 12/26/20	Thu 12/31/20 162,34,44,81,15	
	Staircase roof erection         Off-site steel fabrication         Erection of Covered staircase steelwork         PMMA Erection for BBI Phase 2         PMMA Erection Staircase Roof Phase 2         Installation of E&M Phase 2 (covered walkway and staircase)         Handover of BBI cover walkway and underground duct to E&M         Conduit and cable containment         Cable and wiring         Installation of Light fitting         Construction of Permananet Lighting Pillar Box         Installation of Lighting Pillar Box components         Lighting meter power connection to permanent power supply         T&C         Removal of Temporary Pillar Box after changeover         Carriageway Works         Appication of the TTA         Implement the TTA and and apply for the RA for Phase 1 BBI Opening         Excavation for drainage manholes and pipes for Phase 1 BBI Opening         Construction of Concrete Pavement /. Traffic Island for Phase 1 BBI Opening         Road Making at Bus Stop for Partial BBI Opening (Phase 1)         Excavation for drainage manholes and pipes for Ph 2 BBI Opening         Installation of 450 stormpipes and backfilling for Ph 2 BBI Opening         Installation of dot reainage manholes and pipes for Ph 2 BBI Opening         Installation of 450 stormpipes and backfilling for Ph 2 BBI Opening         Installation of 450 stormpipes	Staircase roof erection       79 days         Off-site steel fabrication       21 days         Erection of Covered staircase steelwork       14 days         PMMA Erection for BBI Phase 2       26 days         Installation of E&M Phase 2 (covered walkway and staircase)       57 days         Installation of Light Phase 2 (covered walkway and staircase)       1 day         Conduit and cable containment       7 days         Cable and wiring       7 days         Installation of Light fitting       7 days         Construction of Permananet Lighting Pillar Box       30 days         Installation of Lighting Pillar Box components       4 days         Lighting meter power connection to permanent power supply       1 day         Ta&C       7 days         Removal of Temporary Pillar Box after changeover       7 days         Carriageway Works       1148 days         Installation of 450 stormpipes and backfilling for Phase 1 BBI Opening       30 days         Installation of of coveret Pavement /. Traffic Island for Phase 1 BBI Opening       30 days         Installation of of sto stormpipes and backfilling for Phase 1 BBI Opening       30 days         Installation of Jost stormpipes and backfilling for Phase 1 BBI Opening       30 days         Installation of Jost stormpipes and backfilling for Pha 2 BBI Opening       30 days	Staircase rof79 daysTue 9/1/20Staircase rof erection21 daysTue 9/1/20Erection of Covered staircase steelwork14 daysTue 10/13/20PMMA Erection for BBI Phase 226 daysMon 11/2/20PMMA Erection staircase steelwork14 daysTue 10/13/20PMMA Erection staircase Roof Phase 226 daysMon 11/2/20PMMA Erection staircase Roof Phase 226 daysMon 11/2/20Conduit and cable containment7 daysTue 10/13/20Cable and wiring1 daysTue 10/13/20Construction of Permanent Lighting Pillar Box30 daysFri 10/30/20Construction of Permanent Lighting Pillar Box30 daysFri 10/20/20Construction of Permanent Lighting Pillar Box components4 daysFri 12/4/20Lighting meter power connection to permanent power supply1 daysWed 10/14/20T&C7 daysThu 12/10/20Thu 12/10/20Carriageway Works1148 daysFri 3/3/117Application of the TTA14 daysSat 2/1/20Implement the TTA and and apply for the RA for Phase 1 BBI Opening30 daysSat 3/7/20Installation of 450 stormpipes and backfilling for Phase 1 BBI Opening30 daysSat 3/7/20Installation of 450 stormpipes and backfilling for Phase 1 BBI Opening30 daysTue 9/1/20Road Making at Bus Stop for Ph attail BBI Opening30 daysTue 9/1/20Installation of untensioned corrugated beam barrier and directional sign for Ph2 BBI14 daysTue 9/1/20Installation of untensioned corrugated be	Survess roof erection79 daysTue 9/1/20Tue 12/1/20Off-site steel fabrication21 daysTue 9/1/20Thu 9/24/20Erection of Covered statrase steelwork14 daysTue 10/13/20Tue 12/1/20PMMA Erection Staircase Roof Phase 226 daysMon 11/2/20Tue 12/1/20Installation of E&M Phase 226 daysMon 11/2/20Tue 12/1/20Installation of E&M Phase 226 daysMon 11/2/20Tue 10/13/20Installation of E&M Phase 226 daysMon 11/2/20Tue 10/13/20Conduit and cable containment7 daysWed 10/14/20Wed 10/21/20 24/0Cable and wiring4 daysThu 10/22/20Thu 10/22/20 4/0Construction of Permananet Lighting Pillar Box30 daysFri 10/30/20Thu 10/22/20 4/1Construction of Permananet Lighting Pillar Box30 daysFri 10/2/20Thu 12/1/20Tue 12/R20 244Lighting meter power connection to permanent power supply1 dayWed 12/9/20Wed 12/9/20 4/4Lighting meter power connection to permanent power supply1 dayWed 12/9/20Thu 12/1/20 24/6Carriageway Works1148 daysKri 12/10/20Thu 12/1/20 24/6Thu 12/1/20 24/6Carriageway Works1148 daysKri 11/20/20Thu 12/1/20 24/6Thu 12/1/20 24/6Carriage manboles and pipes for Phase 1 BBI Opening30 daysSat 2/1/20Fri 3/6/20 250Excavation of do concret Pavement /. Traffic Island for Phase 1 BBI Opening30 daysSat 2/1/20Fri 3/6/20 251Installation of 450 stormpipes and backfill

	Critical Split		專案摘要報告		僅包含工期	ý <b>j</b>	外部任務		Critical
	任務		非作用中的任務		手動上顯型摘要		外部里程碑	$\diamond$	
專案: Accepted Programme Portion 6 f 日期: Mon 4/20/20	分割		非作用中的里程碑	<i>2</i>	手動摘要		期限	₽ ♥	
口功: Mon 4/20/20	里程碑	<b>\$</b>	非作用中的摘要	]	僅定義開始日期	C	進度		
	摘要	i T	手動任務		僅包含完成時間		手動進度		
	1				第6]	Ę			





Contract 3 (NE/2017/03)

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Activity ID	Activity Name	Duration	Start	Finish			2020
					Apr 28		29 May
NE2017/03 - ARQ PHAS	SE 2A - Monthly Programme Update (202004)-0 _200421	786	25-Mar-19 A	18-May-21			
Road Improvement W	Vorks Location 1 (RIW1)	592	15-Apr-19 A	18-May-21			
<b>Construction Works</b>		592	15-Apr-19 A	18-May-21			
CON12310	(CE140) Site clearance, uu diversion & ELS works (KS27 west side)	210	15-Apr-19 A	27-Mar-20 A			
CON11430	Site formation works & form haul road (FE1 "b" side)	60	09-Sep-19 A	22-Apr-20			
CON10610	(CE140) ELS to RW pile cap (RWC2 type 1a, 1,2)	120	16-Oct-19A	06-May-20			
CON10230	(CE140) ELS works to footing (RWC2 type 4, 6, 7, 8)	60	21-Nov-19 A	03-Apr-20 A	_		
CON11130	(CE140) ELS for shaft and tunnel excavation (12wk)	72 36	24-Feb-20 A	08-Jun-20			
CON10250 CON12311	Construct bored pile (1no, 36d/no, 1 team) Treatment onto the formation	30	16-Mar-20 A 28-Mar-20 A	09-Apr-20 A 08-May-20			
CON1231	Existing watermain diversion (by WSD)	24	06-Apr-20 A	08-May-20			
CON10251	Remove temporary working platform	20	14-Apr-20 A	08-May-20			
CON11330	Construct socket H-pile works (CT5-PC1 ~ CT5-PC3) (12nos, 6d/no, 1 team)	72	27-Apr-20	23-Jul-20	-		
CON10730	Moblishion works for socket H-pile works (RWC2 type 3)	12	27-Apr-20	12-May-20			
CON10630	Construct RW footing (RWC2 type 1 a, 1, 2)	120	07-May-20	25-Sep-20			
CON12330	Construct subway footing (KS27 west side)	90	09-May-20	24-Aug-20			
CON10270	ELS to bore pile pile cap (RWC2 type 5)	59	09-May-20	18-Jul-20			
CON10310	Construct RW footing (RWC2 type 4, 6, 7, 8)	72	09-May-20	03-Aug-20	_		
CON10750	Pre-drill & construct socket H-pile works (RWC2 type 3; 400nos, 3d/no, 4 tearr	300	15-May-20	18-May-21	_		
CON11470	Existing towngas main diversion	48 48	09-Jun-20	05-Aug-20	_		
CON11150 CON10330	Gasmain laying (by Towngas, 8wk requested by Towngas)	48 90	09-Jun-20 26-Jun-20	05-Aug-20 12-Oct-20	_		
CON10330	upgrading works at Feature No. 11NEA/F60 (by pip-by-pit method) - Stage 2 Construct subway wall and soffit (KS27 west side)	90	07-Jul-20	21-Oct-20	_		
CON12350 CON10390	Construct subway waii and soliit (N327 west side) Construct pile cap (RWC2 type 5)	90	20-Jul-20	04-Nov-20	-		
	Vorks Location 2 (RIW2)	480	19-Oct-19A	03-Oct-20			
	n Slope C3 (Portion B)	351	19-Oct-19A	03-Oct-20			
CON20570	(CE140) Drill & install soil nails (Zone 5 & Zone 6, 92nos 10m dp, 3d/no, 3 tean	96	19-Oct-19A	06-May-20			
CON20590	(CE140) Drill & install tie back (@RW bay 3 to bay 8 (Zone 4 & Zone 5, 84nos 7	90	05-Nov-19 A	21-Mar-20 A			—
CON20750	(CE140) Cut slope & formation works @RW bay 3 to bay 8	90	10-Dec-19A	27-Apr-20			
CON20830	(CE140) Construct RW bay 3 to bay 8 base (L=34m)	72	31-Jan-20 A	07-May-20			
CON20850	Construct RW bay 3 to bay 8 wall (L=34m)	72	13-Mar-20 A	11-Jun-20			
CON20170	Fabrication of NB steel post - along slope side	90	03-May-20	31-Jul-20			
CON20650	Install sheet pile to RW bay 9 to bay 13	18	07-May-20	27-May-20			
CON20710	Install sheet pile RW bay 1 to bay 2	24	08-May-20	04-Jun-20			
CON20670	ELS to RW bay 9 to bay 13 formation	41	28-May-20	16-Jul-20			
CON20730	ELS works to RW bay 1 to bay 2	90	05-Jun-20	19-Sep-20	_		
CON20790	Construct RW bay 9 to bay 13 base (L=30m)	66 391	17-Jul-20 21-Oct-19 A	03-Oct-20 16-Sep-20			
CONSTRUCTION NOISE Se CON21631	emi-Enclosure SE2 (Portion C) (CE140) (NCE030) Trial pit excavation for expose existing utilities and Pre-drill	391	21-Oct-19A	30-Mar-20 A			
CON21631	Duration of CT4 & SE2 utilities	181	21-Oct-19A	01-Jun-20			
CON21034	Modification works at On Sau Road / Clean Water Bay Road	18	31-Mar-20 A	27-Apr-20			
CON21632	Protect to existing underground utilities	24	31-Mar-20 A	04-May-20			
CON22130	Remove existing central median for phase 4 (SE2 PC5 to PC6)	36	28-Apr-20	10-Jun-20			
CON21633	Erect working platform for CT5 piling foundation	24	05-May-20	01-Jun-20			[
CON21650	Construct piling fdn (CT4, SE2 Bay4 to Bay12)	90	02-Jun-20	16-Sep-20			
Road Improvement W	Vorks Location 3 (RIW3)	431	25-Apr-19 A	17-Dec-20			
Construction Works		431	25-Apr-19 A	17-Dec-20			
CON30051	Coordination with EPD for access at lower portion at Slope D1	136	25-Apr-19 A	21-Apr-20		0	
CON31050	(CE140) Cut slope works (CH0 to CH115) (L=115m, 10857m3, 30m3/d)	365	23-May-19 A	17-Dec-20			
CON31070	(CE140) Construct RWD3 (CH0 to CH60)	150	18-Dec-19 A	24-Jul-20			
CON30111	(CE140) Slope works at slope D1 (stage 1a, 10% completed)	66	08-Jan-20 A	11-Jun-20		1	
CON30230	(CE140) (NCE040A) Construct mini pile at RWD1 (bay 1 to bay 7) (105nos, 1.	79	15-Jan-20 A	23-Jun-20			
CON30649	(CE140) WSD alignment reviewing of 600mm watermain	54	22-Jan-20 A	27-Apr-20			
CON30791	(CE140) ELS works for RWD2 (L=75m)	26	20-Mar-20 A	06-May-20			-
CON30810	Construct retaining wall RWD2 footing	90 42	14-Apr-20 A	11-Aug-20	-	1	
CON30070 CON30830	Form haul road B Construct retaining wall RWD2 wall	42 90	22-Apr-20 25-May-20	11-Jun-20 08-Sep-20	-		
CON30830 CON30130	Slope works at slope D1 (stage 2, 20% completed)	90 72	25-May-20 12-Jun-20	08-Sep-20 05-Sep-20	-		
CON30650	Watermain works on Sau Man Ping Road toward Lam Tim (Section 1)	90	12-Jun-20	30-Sep-20	-		
CON30250	Construct mini pile at RWD1 (bay 8 to bay 14) (121nos, 1.4d/no, 2 teams)	81	17-Jun-20	21-Sep-20	-		
CON30290	Construct RWD1 (bay 1 to bay 7) pile cap (2 teams)	60	24-Jun-20	03-Sep-20			
CON30430	Construct RWD1-Type 4 pile cap (CH144~CH160, 16m)	60	24-Jun-20	03-Sep-20			
Pedestrian Connectivi		418	25-Mar-19 A	21-Aug-20			
Construction Works		418	25-Mar-19 A	21-Aug-20			
CON41930	Application for power supply & energization (PC-E8)	156	25-Mar-19 A	04-May-20			
CON40570	(CE140) ELS to E8-F7 (approx 1378m3, @25m3/d)	55	27-Nov-19A	26-Mar-20 A			
CON40612	(CE140) Temporary support & stabilisation works at F7 (concurrent with of NCI	34	03-Feb-20 A	20-Apr-20 A		4	
CON41030	(CE140) Construct escalator pit F1>P1	60	21-Feb-20 A	27-May-20			
CON40810	Construct footing E8-F4 (65m3) & backfilling	24	05-Mar-20 A	09-Apr-20 A			
CON40930	Construct pier E8-P4 (2 pour)	42	05-Mar-20 A	06-May-20			
							· · ·
Actual Work	k	NF	E/2017/03 Dev	velopment of	Anderson Road Quarry Site - Inve	<u>stigati</u> on Desian	& Construction
Remaining	Work Developm				Road - Improvement Works & Ped		
0				a adding one			
<ul> <li>♦ ♦ Milestone</li> </ul>				a guarry one	3-Month Rolling Programme		ivity i achitica vvoirta filda



ID	Activity Name	Duration	Start	Finish		Apr	Мау	2020
CON140830	Construct facting EQ E7 (29m2) 8 heat/filling	20	14 Mer 20 A	00 4~= 20 4		28	29	
CON40830	Construct footing E8-F7 (38m3) & backfilling	22	14-Mar-20 A	09-Apr-20 A			 	_
CON40990	Construct pier E8-P5 (2 pour)	46	27-Mar-20 A	20-May-20				
CON40490	Soil nailing & slope cut at slope E8-1 and E8-2	60	21-Apr-20	03-Jul-20	_			
CON40950	Construct pier E8-P3 (2 pour)	42	21-Apr-20	10-Jun-20				
CON40970	Construct pier E8-P6 (2 pour)	42	21-Apr-20	10-Jun-20				
CON41110	Construct escalator pit P4>P5	60	21-May-20	31-Jul-20				
CON41170	Erect steel roof F9 & F1>P1	48	28-May-20	24-Jul-20				
CON41310	ABWF works (F9 & F1 to P1)	72	28-May-20	21-Aug-20				
CON40770	Construct footing E8-F3 (65m3) & backfilling	24	04-Jun-20	03-Jul-20				
		60	04-Jun-20					
CON41470	Erect cladding works (F9 & F1 to P1)			14-Aug-20				
CON41090	Construct escalator pit P3>P4	60	11-Jun-20	21-Aug-20				
CON41130	Construct escalator pit P5>P6	60	11-Jun-20	21-Aug-20				
CON40910	Construct pier E8-P2 (2 pour)	42	04-Jul-20	21-Aug-20				
CON40590	ELS to E8-F8 (approx 1377m3, @57m3/d)	18	04-Jul-20	24-Jul-20				
edestrian Connectivity F	Facility (PC-E11)	432	23-Sep-19 A	11-Dec-20				
-		422	22 Son 10 A	11 Dec 20				
onstruction Works		432	23-Sep-19A	11-Dec-20				
ON42190	(CE140) ELS & construct sub-structure for E11-PC3	54	23-Sep-19 A	15-Apr-20 A				
ON42272	(CE140) Design reviewing on E11-PC1 (for obstruction existing retaining wall)	42	16-Jan-20 A	21-Apr-20				
CON43010	Maintenance temporary access form lin tak road to new bus-bus interchange	288	28-Feb-20 A	11-Dec-20				
CON42991	Remaining works for the temporary access	30	28-Feb-20 A	31-Mar-20 A				
CON42152	Remaining for C2 contractor access	45	02-Mar-20 A	25-Apr-20				
CON42310	(CE140) Construct pier E11-P3	48	06-Mar-20 A	03-Jun-20				
CON42310	Construct pier E11-P4	48	23-Mar-20 A					
	· · ·			25-May-20				
CON42330	Construct pier E11-P2	48	30-Mar-20 A	04-Jun-20	-  -			
CON42290	ELS for E11-PC1	15	06-Apr-20 A	04-Jun-20	_		 	
CON42370	Construct pier E11-P1	48	21-Apr-20	17-Jun-20				
CON42273	Design reviewing on E11-PC1 (for DN900 drainage diversion)	21	22-Apr-20	18-May-20				
CON42250	ELS & construct sub-structure for E11-PC6 (2 teams)	30	27-Apr-20	02-Jun-20				
CON42350	Construct lift tower 2 (2 teams) & blackfill	60	03-Jun-20	13-Aug-20				
CON42291	Existing DN900 drainage pipe diversion (subject to design)	60	05-Jun-20	15-Aug-20				
		222	16-Jan-20 A	15-Oct-20				
edestrian Connectivity F	Facility System A (STA)							
onstruction Works		222	16-Jan-20 A	15-Oct-20				
CON50230	(CE140) Construct footing SYA-F1 (+134 ~ +144mPD)	66	16-Jan-20 A	21-May-20				
CON50231	Construct sum-pit	30	15-Apr-20 A	21-May-20				
CON50250	Construct superstructure of lift tower to roof level (3m/pour, +144 to +165.7mPl	122	22-May-20	15-Oct-20				
edestrian Connectivity F		219	05-Dec-19 A	01-Sep-20				
		219	05-Dec-19A					
Construction Works				01-Sep-20				
CON51030	(CE140) Pre-drill & construct socket H-pile works at SYB-PC8 (20nos, 6d/no, 1	120	05-Dec-19 A	10-Jun-20			1	
CON51110	(CE140) Pre-drill & construct socket H-pile works at SYB-PC7 (20nos, 6d/no, 1	120	11-Jan-20 A	27-May-20				
CON51650	(CE140) Construct pile cap SYB-ABT (100m3)	90	21-Feb-20 A	11-Jun-20			1	
CON51610	(CE140) Construct pile cap SYB-PC3 (340m3)	36	28-Feb-20 A	23-Mar-20 A				
CON50854	(CE140) Gasmain diversion (Sys B) - Apply 1st stage TTA & trial pit for Townga	16	04-Mar-20 A	20-Apr-20 A				
CON51630	Construct below ground sub-structure SYB-LT1 & SYB-ST1	48	24-Mar-20 A	05-Jun-20				
CON50859		48		17-Jun-20	_			
	Further review onto gasmain alignment (by Towngas)		21-Apr-20		-			
CON51290	Install sheet pile at SYB-PC6	12	08-May-20	21-May-20	_			
CON51310	Excavate & install support at SYB-PC6	30	22-May-20	26-Jun-20				
ON51750	Construct pile cap SYB-PC7 (94m3)	24	28-May-20	24-Jun-20				
ON51670	Construct pile cap SYB-PC8 (94m3)	24	11-Jun-20	10-Jul-20				
CON52190	Construct above ground structure SYB-ABT	42	12-Jun-20	01-Aug-20				
ON50855	Gasmain diversion (Sys B) - Apply 2nd stage TTA & civil works for gasmain dive	12	18-Jun-20	03-Jul-20	1			
CON51970	Construct pier SYB-P7 (2 pour)	42	26-Jun-20	14-Aug-20	-			
CON51050	Moblisation piling rig plant to SYS-PC6	6	27-Jun-20	•	-			
	1 0 01			04-Jul-20	-			
CON51370	Install sheet pile at SYB-PC4	12	27-Jun-20	11-Jul-20	_			
CON50856	Gasmain diversion (Sys B) - gasmain diversion works (by Towngas)	36	04-Jul-20	14-Aug-20				
ON51070	Pre-drill & construct piling fdn at SYB-PC6	50	06-Jul-20	01-Sep-20				
ON51910	Construct pier SYB-P8 (2 pour)	42	11-Jul-20	28-Aug-20				
CON51390	Excavate & install support at SYB-PC4	30	13-Jul-20	15-Aug-20				
us-Bus Interchange Pub		426	15-Jan-20 A	31-Mar-21				
Construction Works		124	15-Jan-20 A	02-Jul-20				
CON43410	(CE140) NCI issue & Determine water connection point at SMP Rd & install wa	63	15-Jan-20 A	31-Mar-20 A				
CON43350	T&C and Statutory Inspection _BBI toilet	30	26-Feb-20 A	31-Mar-20 A				
CON43430	Outstandarding works_BBI toilet	72	01-Apr-20 A	02-Jul-20				
		365	01-Apr-20 A	31-Mar-21				
A Section 1	10A - Establishment Works for Landscape Softworks in Section 10							
CON43370	Establishment Works for Landscape Softworks in Section 10 (Portion FI)	365	01-Apr-20 A	31-Mar-21				

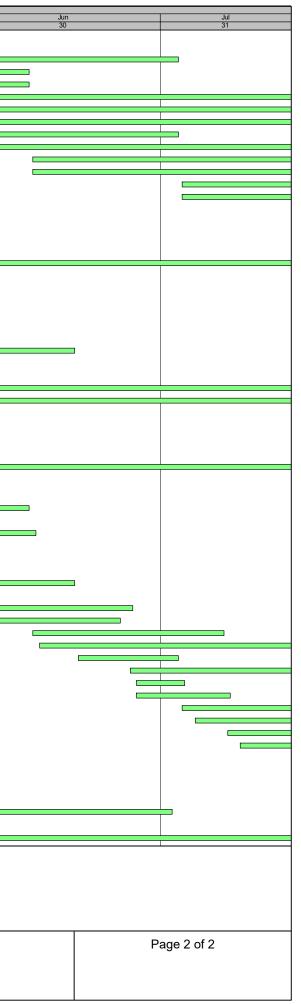
Actual Work

Remaining Work

NE/2017/03 Development of Anderson Road Quarry Site - Investigation Design & Construction Development of Anderson Road Quarry Site Road - Improvement Works & Pedestrian Connectivity Facilities Works Phase 2A

♦ ♦ Milestone

3-Month Rolling Programme





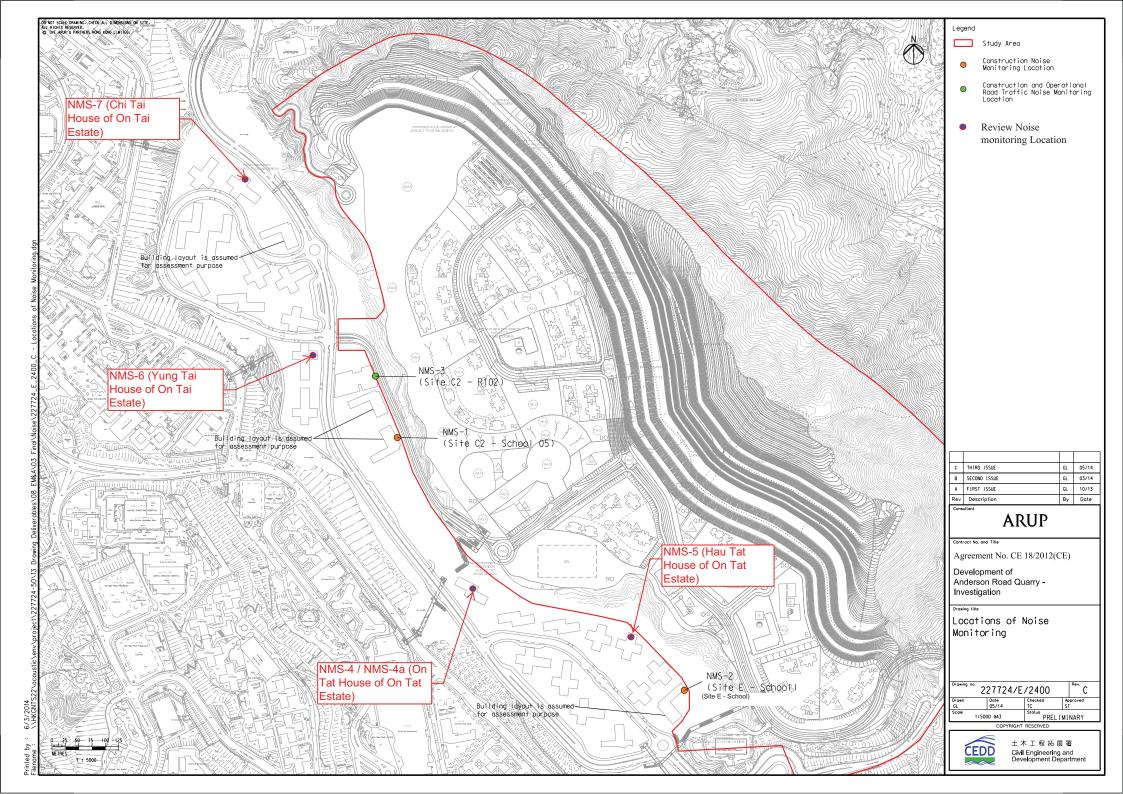
**Appendix D** 

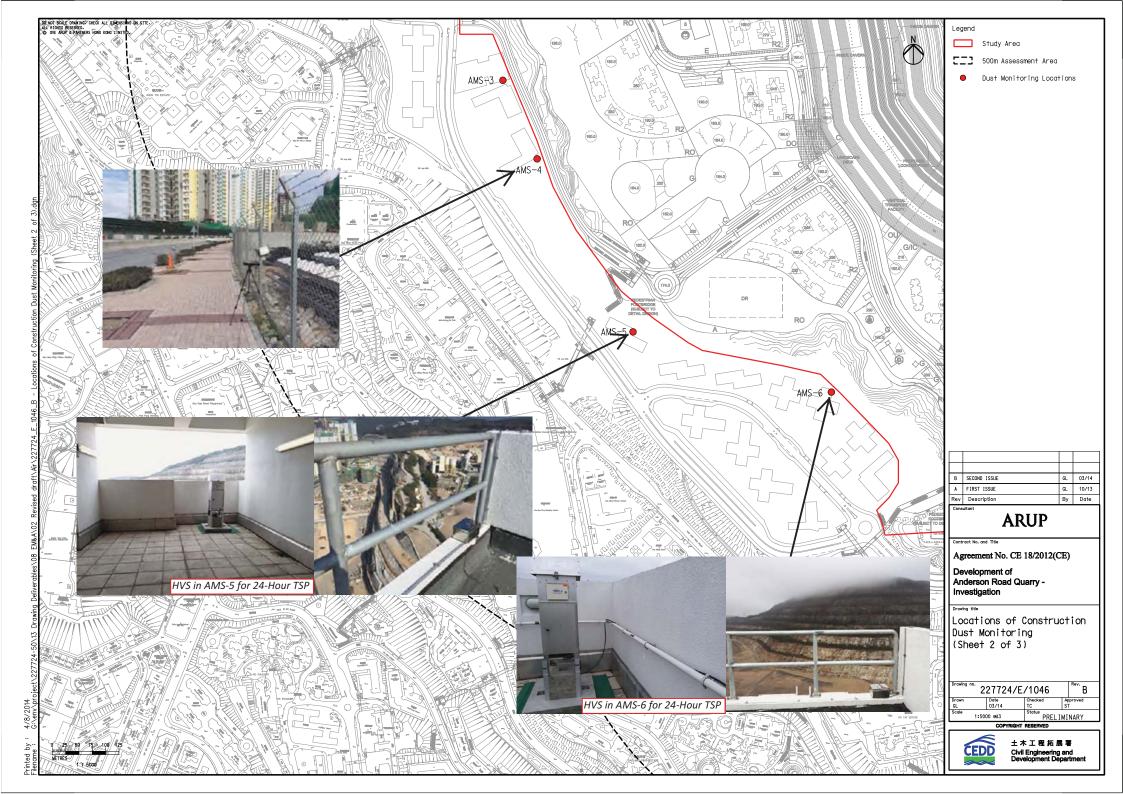
Monitoring Locations for Impact Monitoring

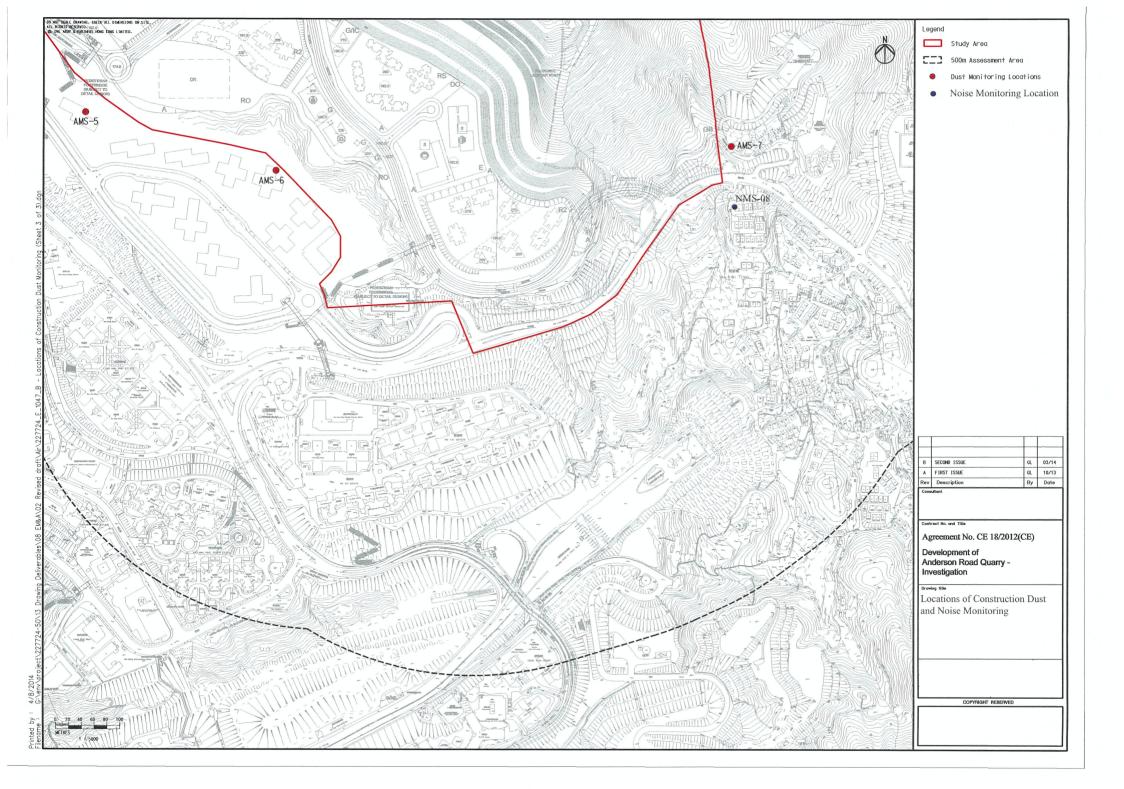


Monitoring Locations for Contract 1 (NE/2016/01)



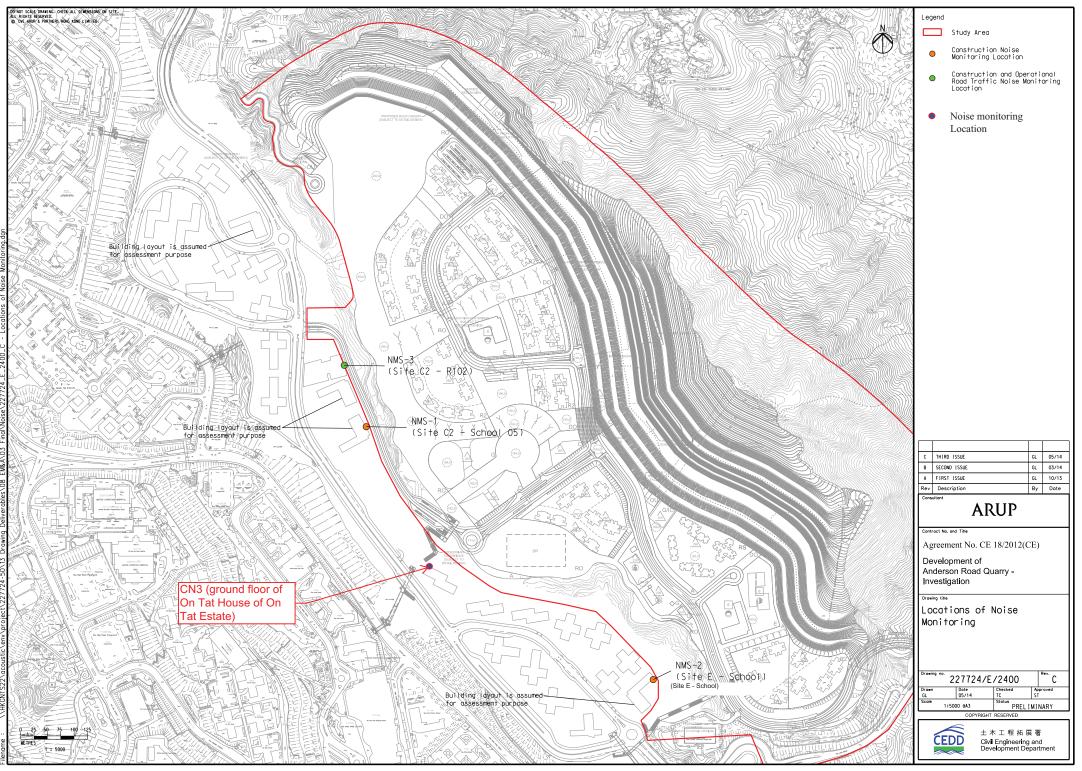






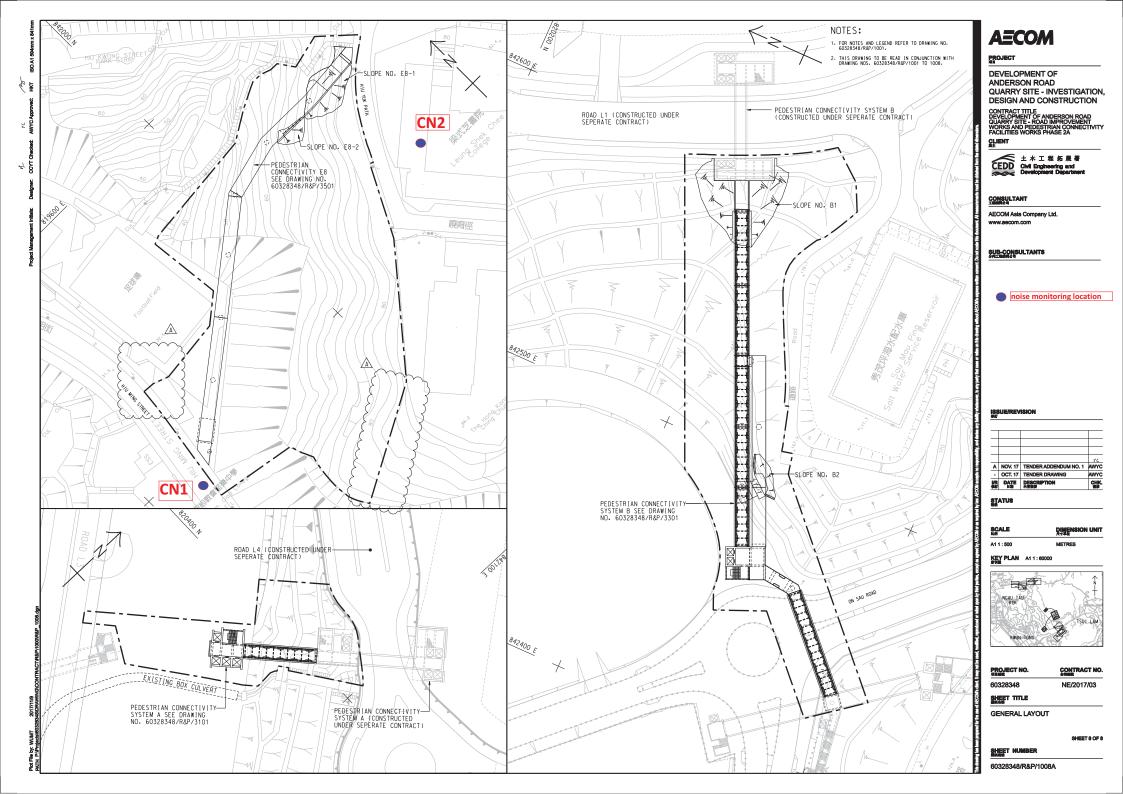


Monitoring Locations for Contract 3 (NE/2017/03)



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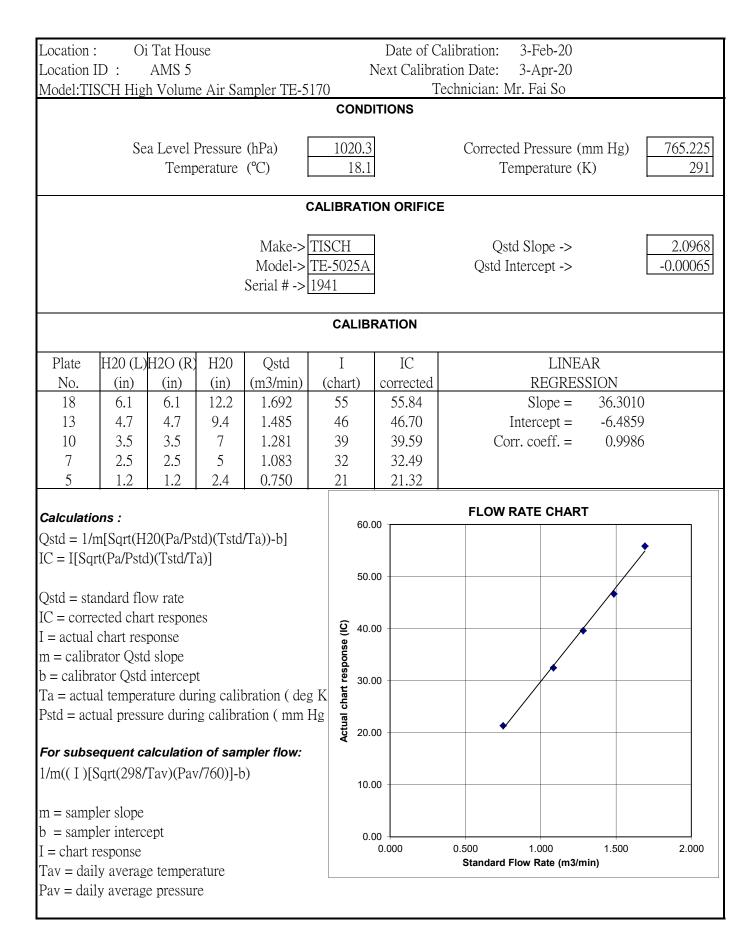
2012

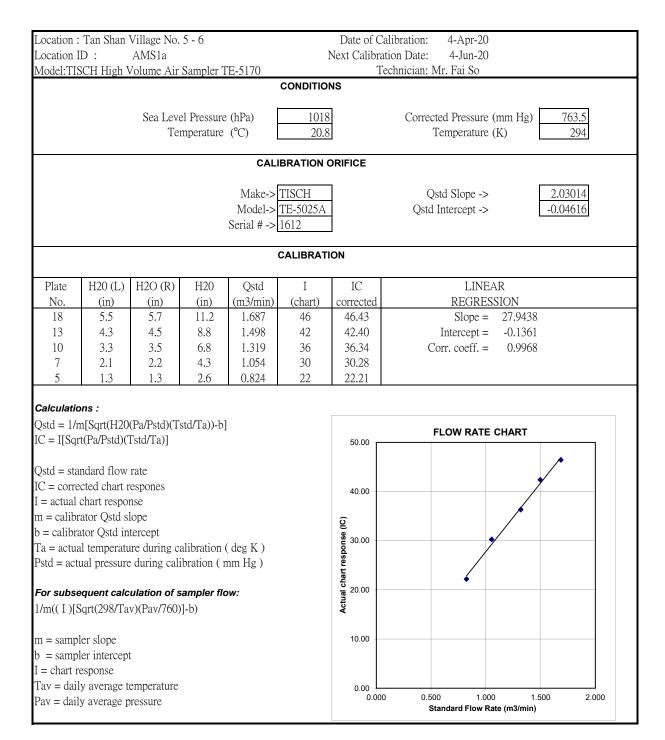




# Appendix E

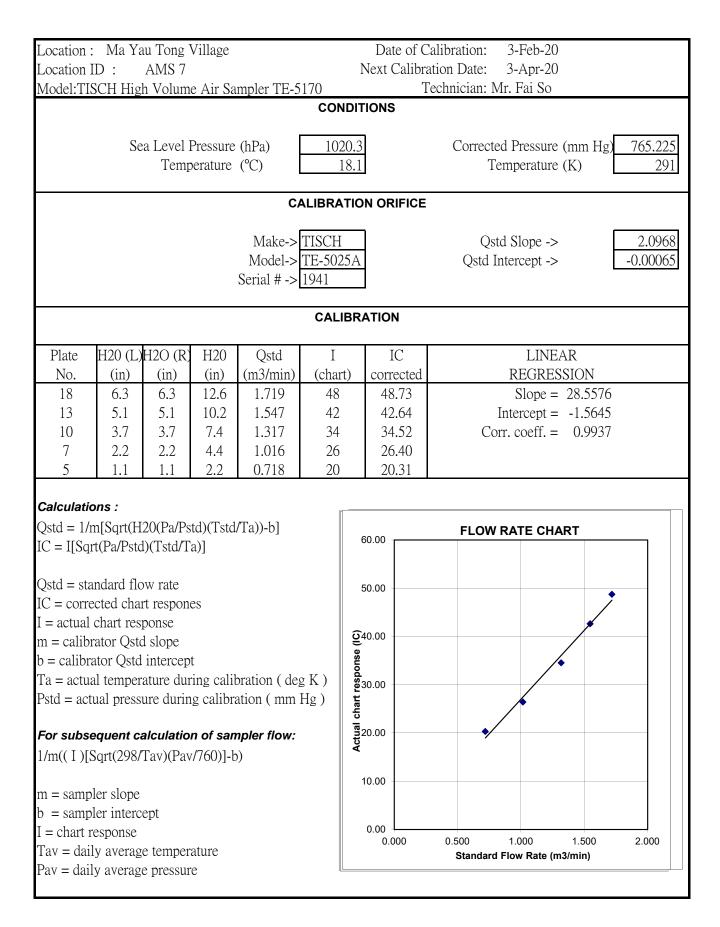
# Calibration Certificate of Monitoring Equipment and HOKLAS-accreditation Certificate of the Testing Laboratory





		Village No.	5 - 6				Calibration: 3-Feb-20
Location I		AMS1a	0 1 7	TE 6170	]	Next Calibr	-
Model:115	CH High V	Volume Air	Sampler I		CONDITIO		Fechnician: Mr. Fai So
					CONDITIO	13	
			el Pressure mperature		1020.3 18.1		Corrected Pressure (mm Hg)765.225Temperature (K)291
				CALI	BRATION C	DRIFICE	
				Make-> Model-> Serial # ->	TE-5025A		Qstd Slope ->         2.0968           Qstd Intercept ->         -0.00065
					CALIBRATI	ON	
Plate	H20 (L)	H2O (R)	H20	Qstd	Ι	IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	4	4.2	8.2	1.387	63	63.96	Slope = 51.2312
13	3.1	3.1	6.2	1.206	56	56.85	Intercept = $-6.1313$
10	2.6	2.6	5.2	1.104	50	50.76	Corr. coeff. = 0.9981
7	1.8	1.8	3.6	0.919	40	40.61	
5	1.1	1.1	2.2	0.718	30	30.46	
Calculatio			(1/T) \\ 1				
	n[Sqrt(H20 t(Pa/Pstd)("	(Pa/Pstd)(Ta [std/Ta)]	std/1a))-b]			70.00	FLOW RATE CHART
-	ndard flow cted chart r	espones				60.00 -	<b>^</b>
m = calibr	ator Qstd sl tor Qstd in	ope				50.00 9	
Ta = actua	l temperatu	re during cali				- 00.08 (IC) - 00.08	
For subsequent calculation of sampler flow: 1/m(( I )[Sqrt(298/Tav)(Pav/760)]-b)						- 00.00	
-	er intercept					10.00	
I = chart returns I = chart	esponse y average t	mperatura				0.00	
	y average u y average p					0.00 <del> </del> 0.00	0 0.500 1.000 1.500 Standard Flow Rate (m3/min)

Lagation	Mo Vou	Toma	Villaga				Data a	f Colibrat	ion.	1 1 1000 20	1		
	Ma Yau	-	vmage			N		f Calibrat bration D		4-Apr-20 4-Jun-20			
Location I		AMS 7	C .		170	ľ	Next Cal			r. Fai So	J		
Model: 11	SCH HIGH	volum	e All Sa	mpler TE-5			TIONS	Technic	Iall. IVI.	1. Fai 30			
					CU	וטאו	HUNS						
	Saa	Lavall	Duaganua	$(hD_{0})$	1	010	l	C	amaataa	Duagan	) (mama T	I~)	762 5
	Sea		Pressure	, ,		018		C		l Pressure	,	1g)	763.5
		Temp	berature	$(\mathbf{C})$	4	20.8			Ter	mperature	e (K)		294
				C	ALIBR	ΑΤΙΟ		ICE					
				Make->	TISCH	-			Ostc	l Slope ->	>		2.03014
				Model->				(		tercept ->		-	0.04616
				Serial # ->					<b>C</b>				
					CAI		RATION						
Plate	H20 (L)H	[20 (R)	H20	Qstd	Ι		IC			LIN	IEAR		
No.	(in)	(in)	(in)	(m3/min)	(char	rt)	correcte	ed		REGRI	ESSION	1	
18	7.5	5.5	13	1.816	54		54.51		Slope = 36.8695				
13	5.9	4.2	10.1	1.603	45		45.42		Iı	ntercept =	-13.	2382	
10	4.7	3.1	7.8	1.411	37		37.35		Corr	r. coeff. =	= 0.9	9965	
7	3.5	1.6	5.1	1.146	30	30.28							
5	2.5	0.9	3.4	0.940	21		21.20						
Calculatio	ons :				ſ								
-	n[Sqrt(H20			/Ta))-b]			60.00		FLOW	RATE CH	HART		
IC = I[Sqn	rt(Pa/Pstd)(	(Tstd/T	a)]				80.00						
												•	
-	indard flow						50.00						
	ected chart	-	es									•	
	chart respo					6	40.00						
	rator Qstd s					e (C	40.00						
	ator Qstd in	-				suoc							
	-		-	bration ( de		resp	30.00			<b>*</b>	/		
Pstd = act	ual pressur	re durin	ig calibra	ation (mm	Hg)	hart							
						lalc	20.00			•			
	-			npler flow:		Actu	40.00 30.00 20.00						
1/m((1)[S	Sqrt(298/Ta	av)(Pav	/760)] <b>-</b> t	))									
							10.00						
m = samp													
	b = sampler intercept						0.00						
I = chart r	-						0.00	0.50	00	1.000	1.50	00	2.000
	ly average	-						s	standard	Flow Rate	(m3/min)		
Pav = dall	y average	pressur	e		l								لـــــل



Location :	. Uo	u Tat Ho	1100				Data of (	Calibration:	1 1 mm 20		
		AMS 6	use			N	Vext Calibra		1		
Location I				malan TE 6	70	Γ					
Model: 11	SCH Higi	n volum	e Air Sa	mpler TE-5				echnician:	Mr. Fal So		
						ONDIT	IUNS				
	Ç.		<u>)</u>	$(l_{\mathbf{p}}\mathbf{D}_{\mathbf{p}})$		1010	1	Corrected Pressure (mm Hg) 76			
	26	a Level I		` ´		1018				<u> </u>	
		Temp	erature	$(\mathbf{C})$		20.8	]		Temperature (K)	294	
				С	ALIBF	λΑΤΙΟ					
				F			1			·	
				Make->				-	std Slope ->	2.03014	
				Model->		25A		Qstd	Intercept ->	-0.04616	
				Serial # ->	1612		J				
					CA	LIBR/	ATION				
Plate	H20 (L)	H2O (R)	H20	Qstd	I		IC		LINEAR		
No.	(in)	(in)	(in)	(m3/min)	(cha	art)	corrected		REGRESSIC	N	
18	7	5	12	1.745	5	2	52.49		Slope = 40	).3700	
13	6.1	4.4	10.5	1.634	4	8	48.45	Intercept = $-18.2974$			
10	4.9	3.3	8.2	1.447	3	8	38.36	С	orr. coeff. = (	).9968	
7	3.8	1.8	5.6	1.199	3	0	30.28				
5	2.7	1.1	3.8	0.992	2	2	22.21				
Calculatio	ons :							FLOW	RATE CHART		
Qstd = 1/r	n[Sqrt(H	20(Pa/Ps	td)(Tstd	/Ta))-b]		60.00	)				
IC = I[Sqn	rt(Pa/Pstd	l)(Tstd/T	a)]								
						50.00				<b>*</b>	
Qstd = sta	ndard flo	w rate				00.00	, 			<b>•</b>	
IC = corrections	ected char	rt respon	es								
I = actual	chart resp	ponse			0	40.00	)			4	
m = calibr	ator Qst	l slope			esu	1					
b = calibra	ator Qstd	intercep	t		ous	, L					
Ta = actua	al temper	ature dur	ing cali	bration ( deg	K t	30.00	)		- /		
Pstd = act	ual press	ure durin	g calibr	ation ( mm H	Ig 5	;					
					Actual chart response	20.00			•		
For subse	equent ca	alculatio	n of san	npler flow:	AC	20.00	,				
1/m((I)[S	Sqrt(298/	Tav)(Pav	r/760)] <b>-</b> t	))							
						10.00	)				
m = samp	ler slope										
b = samp	ler interc	ept									
I = chart r	esponse					0.00	)	0.500	1.000 1	.500 2.000	
Tav = dail	ly averag	e temper	ature			Ľ	0.000		Flow Rate (m3/min)	.000 2.000	
Pav = dail	ly average	e pressur	e								
	_										

Location :	Ha	u Tat Ho	use				Date of C	Calibration	1: 3-Feb-2	20	
Location I	D :	AMS 6				]	Next Calibr	ation Date	: 3-Apr-2	20	
		h Volum	e Air Sa	mpler TE-5	170				: Mr. Fai So		
				<u> </u>		ONDIT					
	Se	a Level I	Pressure	(hPa)		1020.3	]	Corre	ected Pressur	re (mm H	(g) 765.225
			erature	. ,		18.1		0.0110	Temperatu		291
		remp	oracore			1011	1		remperatu		
				C	ALIB	RATIO					
				Make->	TISC	CH	]	(	Qstd Slope -	->	2.0968
				Model->	TE-5	5025A		Qst	d Intercept -	->	-0.00065
				Serial # ->	1941	_	]				
					C	ALIBR	ATION				
Plate		H2O (R)	H20	Qstd		Ι	IC			EAR	
No.	(in)	(in)	(in)	(m3/min)	· ·	hart)	corrected			ESSION	
18	6.2	6.2	12.4	1.705		57	57.87		_	= 36.532	
13	4.3	4.3	8.6	1.420		47	47.72 Intercept = $-4.7362$				
10	3.4	3.4	6.8	1.263		40	40.61		Corr. coeff.	= 0.998	33
7	2.2	2.2	4.4	1.016		31	31.47				
5	1.1	1.1	2.2	0.718		22	22.34				
Calculatio	ons :									DT	
Qstd = 1/n		20(Pa/Pa	td)(Tstd	/Ta))_b]		70.00	)	FLOW	RATE CHA		
IC = I[Sqr				/1 <i>u))</i> =0]							
IC – 1[541		i)(13tu/1	a)]			60.00					
Qstd = sta	ndard flo	w rate				00.00					>
IC = correction			20								
I = actual		-	00			50.00	)			•	
m = calibr		_				e E					
b = calibra	_	-	t			<b>6</b> 40.00	)			<b></b>	
	_			oration ( deg	r K	res					
	-		_	ation ( mm ]	-	30.00	<b>,</b>		<b>/</b>		
1 stu – acti	uai piess	uic duim	g canon		IIg	Actual chart response (IC) 00.06					
For subse	equent ca	alculatio	n of san	npler flow:		Actu		•			
1/m(( I )[S	-			-		20.00	)				
	5q11(290/	1 av /(1 av	//00/]-[	))							
m = sampl	ler clone					10.00	) <del> </del>				
b = sample	-	ent									
I = chart r		cpi				0.00	) <b> </b>				
T = chart T Tav = dail	-	e temner	ature				0.000	0.500	1.000	1.500	2.000
Pav = dail		-						Standard	I Flow Rate (m	ə/min)	
1 av – uall	y average	e pressui	C								

Location :	Oi	i Tat Hou	ise				Date of C	alibration:	4-Apr-20				
Location I		AMS 5				l	Next Calibra		-				
Model:TIS	SCH Higl	h Volum	e <u>Air Sa</u>	mpler TE-5	170		Т	echnician:	Mr. Fai So				
						COND	ITIONS						
	Sa	- Loval I		(h-D_2)		1010	1	Como	-t-d Draganna (		\	762	5
	36	a Level I Temr	Pressure perature			1018 20.8			cted Pressure (1 Temperature (1	-	)	763. 29	
		I CIIIÌ	Perature		20.8 Temperature (K)							14	
				(	CAL	IBRATI	ON ORIFICE						
				Make->	TIS	СН	]	C	)std Slope ->		2.	.0301	4
				Model->	TE-	5025A		Qsto	l Intercept ->			.0461	-
				Serial # ->	1612	2	J						
						CALIBI	RATION						
Plate	H20 (L)	H2O (R)	H20	Qstd		Ι	IC		LINE	AR			
No.	(in)	(in)	(in)	(m3/min)	(c	chart)	corrected		REGRES				
18	6.5	5.8	12.3	1.767		50	50.47		Slope =	29.5	731		
13	5.5	4.1	9.6	1.563		46	46.43		Intercept =	-			
10	4.5	3	7.5	1.384		38	38.36	(	Corr. coeff. =	0.98	896		
7	3.2	1.3	4.5	1.078		32	32.30						
5	1.8	1.8	3.6	0.966		26	26.25						
Calculatio	ns :					60.0	no	FLOV	V RATE CHAR	Г			
Qstd = 1/n	n[Sqrt(H2	20(Pa/Ps	td)(Tstd	/Ta))-b]		00.0							
IC = I[Sqr	t(Pa/Pstd	i)(Tstd/Ta	a)]										
						50.0	00						
Qstd = state											*		
IC = corre I = actual		-	es			<b>일</b> 40.0	00						
m = calibr						onse							
b = calibra	-	-	t			respo			•/				
				bration ( deg	g K	30.0 100							
				ation ( mm H		<b>Actual chart response (IC)</b> 30.05 50.05 50.05			•				
For subse	quant as	louistion	of com	plor flow:		<b>P</b> 20.0	00						
1/m(( I )[S	-		-										
1/111((1)[0	qrt(2707)	1 av /(1 av	//00/] 0	)		10.0	00					_	
m = sampl	ler slope												
b = sampl	ler interce	ept				0.0	00						
I = chart respectively.	-						0.000	0.500 Standar	1.000 d Flow Rate (m3/n	1.500 nin)	0	2.000	0
Tav = dail		-						otanda		,			
Pav = dail	y average	e pressur	e										



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193752 證書編號

ITEM TESTED / 送檢功	頁目	(Job No. / 序引編號: IC19-1098)	Date of Receipt / 收件日期: 9 July 2019
Description / 儀器名稱	:	Sound Calibrator (EQ086)	
Manufacturer / 製造商	:	Rion	
Model No. / 型號	:	NC-74	
Serial No. / 編號	:	34657230	
Supplied By / 委託者	:	Action-United Environmental Services and Con	nsulting
		Unit A, 20/F., Gold King Industrial Building,	
		35-41 Tai Lin Pai Road, Kwai Chung, N.T.	

### TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (50 ± 25)%

#### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 16 July 2019

### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies

:

- Fluke Everett Service Center, USA

Tested By 測試

K P Cheuk

K C Lee Engineer

Assistant Engineer

Certified By 核證 Date of Issue 簽發日期 :

22 July 2019

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 — 校正及檢測實驗所 c/o 香港新界屯門興安里一號四樓 Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com Page 1 of 2



# Certificate of Calibration 校正證書

Certificate No. : C193752 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- 2. The results presented are the mean of 3 measurements at each calibration point.
- 3. Test equipment :

Equipment ID CL130 CL281 TST150A

<u>Description</u> Universal Counter Multifunction Acoustic Calibrator Measuring Amplifier Certificate No. C183775 CDK1806821 C181288

- 4. Test procedure : MA100N.
- 5. Results :
- 5.1 Sound Level Accuracy

UUT	Measured Value	Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.1	± 0.3	$\pm 0.2$

#### 5.2 Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	1.002	1 kHz ± 1 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.



Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193751 證書編號

Description / 儀器名稱	:	Sound Calibrator (EQ083)	Date of Receipt / 收件日期: 5 July 2019
Manufacturer / 製造商	:	Rion	
Model No. / 型號	:	NC-74	
Serial No. / 編號	:	34246492	
Supplied By / 委託者	:	Action-United Environmental Services and	Consulting
		Unit A, 20/F., Gold King Industrial Building	g,
		35-41 Tai Lin Pai Road, Kwai Chung, N.T.	
TEST CONDITIONS /	्यत्रभ्य		

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (50 ± 25)%

#### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 16 July 2019

#### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies

:

- Fluke Everett Service Center, USA

Tested By 測試

K P Cheuk Assistant Engineer

> K C Lee Engineer

Certified By 核證 Date of Issue 簽發日期

:

22 July 2019

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193751 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- 2. The results presented are the mean of 3 measurements at each calibration point.
- 3. Test equipment :

Equipment ID CL130 CL281 TST150A

<u>Description</u> Universal Counter Multifunction Acoustic Calibrator Measuring Amplifier <u>Certificate No.</u> C183775 CDK1806821 C181288

- 4. Test procedure : MA100N.
- 5. Results :
- 5.1 Sound Level Accuracy

UUT	Measured Value	Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.0	± 0.3	$\pm 0.2$

5.2 Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value	
(kHz)	(kHz)	Spec.	(Hz)	
1	1.002	1 kHz ± 1 %	± 1	

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。



**Sun Creation Engineering Limited** 

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193784 證書編號

ITEM TESTED / 送檢項目	(Job No./序引編號:IC19-1098)	Date of Receipt / 收件日期:5 July 2019
Description / 儀器名稱 :	Integrating Sound Level Meter (EQ008)	
Manufacturer / 製造商 :	Brüel & Kjær	
Model No. / 型號 :	2238	
Serial No. / 編號 :	2285690	
Supplied By / 委託者 :	Action-United Environmental Services and Co	onsulting
	Unit A, 20/F., Gold King Industrial Building,	
	35-41 Tai Lin Pai Road, Kwai Chung, N.T.	

#### TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (50 ± 25)%

#### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 17 July 2019

#### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies

:

- Fluke Everett Service Center, USA

Tested By 測試

	1		Í
			-
		ner	C

K P Cheuk Assistant Engineer

> K C Lee Engineer

Certified By 核證 Date of Issue 簽發日期

:

22 July 2019

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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**Sun Creation Engineering Limited** 

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193784 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration using laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.4.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C190176
CL281	Multifunction Acoustic Calibrator	CDK1806821

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level
- 6.1.1.1 Before Self-calibration

	UUT S	Setting	Applied	Value	UUT	
Range	Range Parameter Frequency Time				Freq.	Reading
(dB)	(dB) Weighting Weighting				(kHz)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.2

#### 6.1.1.2 After Self-calibration

	UUT	Setting		Applied	d Value	UUT	IEC 60651
Range	Time	Level	Freq.	Reading	Type 1 Spec.		
(dB) Weighting Weighting				(dB)	(kHz)	(dB)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.0	± 0.7

#### 6.1.2 Linearity

	UU	Г Setting	Applied	d Value	UUT	
Range	Parameter	neter Frequency Time			Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		113.9

IEC 60651 Type 1 Spec. :  $\pm$  0.4 dB per 10 dB step and  $\pm$  0.7 dB for overall different.

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**Sun Creation Engineering Limited** 

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193784 證書編號

#### 6.2 Time Weighting

#### 6.2.1 Continuous Signal

	UUT Setting					UUT	IEC 60651			
Range	Range Parameter Frequency Time				Freq.	Reading	Type 1 Spec.			
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)			
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.0	Ref.			
	L <sub>ASP</sub>		S			94.0	$\pm 0.1$			
	L <sub>AIP</sub>		I			94.0	± 0.1			

#### 6.2.2 Tone Burst Signal (2 kHz)

	UUT	Setting		Applied Value		UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Level Burst		Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	Duration	(dB)	(dB)
30 - 110	L <sub>AFP</sub>	А	F	106.0	Continuous	106.0	Ref.
	L <sub>AFMax</sub>				200 ms	105.0	$-1.0 \pm 1.0$
	L <sub>ASP</sub>		S		Continuous		Ref.
	L <sub>ASMax</sub>				500 ms		$-4.1 \pm 1.0$

#### 6.3 Frequency Weighting

#### 6.3.1 A-Weighting

		Setting		Appli	ed Value	UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	_	(dB)	(dB)
50 - 130	L <sub>AFP</sub>	A	F	94.00	31.5 Hz	54.7	$-39.4 \pm 1.5$
					63 Hz	67.8	$-26.2 \pm 1.5$
					125 Hz	77.8	$-16.1 \pm 1.0$
					250 Hz	85.3	$-8.6 \pm 1.0$
					500 Hz	90.7	$-3.2 \pm 1.0$
					1 kHz	94.0	Ref.
					2 kHz	95.2	$+1.2 \pm 1.0$
					4 kHz	95.0	$+1.0 \pm 1.0$
					8 kHz	92.9	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.8	-4.3 (+3.0 ; -6.0)

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### Certificate of Calibration 校正證書

Certificate No. : C193784 證書編號

#### 6.3.2 C-Weighting

C weighting							
	UUT	Setting		Applied Value		UUT	IEC 60651
Range (dB)	Parameter	Frequency Weighting	Time Weighting	Level (dB)	Freq.	Reading (dB)	Type 1 Spec. (dB)
50 - 130	L <sub>CFP</sub>	C	F	94.00	31.5 Hz	91.1	$-3.0 \pm 1.5$
					63 Hz	93.2	$-0.8 \pm 1.5$
					125 Hz	93.8	$-0.2 \pm 1.0$
					250 Hz	94.0	$0.0 \pm 1.0$
					500 Hz	94.0	$0.0 \pm 1.0$
					1 kHz	94.0	Ref.
					2 kHz	93.8	$-0.2 \pm 1.0$
					4 kHz	93.2	$-0.8 \pm 1.0$
					8 kHz	91.0	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.8	-6.2 (+3.0; -6.0)

#### 6.4

Time Ave	Time Averaging													
	UUT Setting				A	UUT	IEC 60804							
Range	Parameter	Frequency	Integrating	Frequency	Burst	Burst	Burst	Equivalent	Reading	Type 1				
(dB)		Weighting	Time	(kHz)	Duration	Duty	Level	Level	(dB)	Spec.				
					(ms)	Factor	(dB)	(dB)		(dB)				
30 - 110	L <sub>Aeq</sub>	А	10 sec.	4	1	1/10	110.0	100	99.9	± 0.5				
						$1/10^{2}$		90	90.1	± 0.5				
			60 sec.			$1/10^{3}$		80	79.8	± 1.0				
			5 min.			1/10 <sup>4</sup>		70	69.7	± 1.0				

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2812705

- Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :	250 Hz - 500 Hz 1 kHz	: $\pm 0.30 \text{ dB}$ : $\pm 0.20 \text{ dB}$ : $\pm 0.35 \text{ dB}$ : $\pm 0.45 \text{ dB}$ : $\pm 0.70 \text{ dB}$ : $\pm 0.10 \text{ dB}$ (Ref. 94 dB) : $\pm 0.10 \text{ dB}$ (Ref. 94 dB) : $\pm 0.2 \text{ dB}$ (Ref. 110 dB
	Burst equivalent level	$\pm 0.2 \text{ dB}$ (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

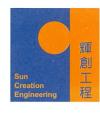
Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

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**Sun Creation Engineering Limited** 

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193753 證書編號

ITEM TESTED / 送檢項目	(Job No. / 序引編號:IC19-1098)	Date of Receipt / 收件日期: 5 July 2019
Description / 儀器名稱 :	Integrating Sound Level Meter (EQ006)	
Manufacturer / 製造商 :	Brüel & Kjær	
Model No. / 型號 :	2238	
Serial No. / 編號 :	2285762	
Supplied By / 委託者 :	Action-United Environmental Services and C	onsulting
	Unit A, 20/F., Gold King Industrial Building,	
	35-41 Tai Lin Pai Road, Kwai Chung, N.T.	

#### TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (50±25)%

#### TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 16 July 2019

#### TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. The results do not exceed manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試

K P Cheuk Assistant Engineer

K C Lee Engineer

Certified By 核證

Date of Issue 簽發日期

:

22 July 2019

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate No. : C193753 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration using laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.4.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C190176
CL281	Multifunction Acoustic Calibrator	CDK1806821

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level
- 6.1.1.1 Before Self-calibration

	UUT S	Setting		Applied	Value	UUT
Range	e Parameter Frequency		Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.4

#### 6.1.1.2 After Self-calibration

	UUT	Setting		Applied	d Value	UUT	IEC 60651
Range	Range Parameter Frequency Time		Level	Freq.	Reading	Type 1 Spec.	
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.1	$\pm 0.7$

#### 6.1.2 Linearity

	UUT	Γ Setting		Applie	d Value	UUT
Range	Parameter	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
50 - 130	L <sub>AFP</sub> A		F	94.00	1	94.1 (Ref.)
				104.00		104.1
				114.00		114.0

IEC 60651 Type 1 Spec. :  $\pm$  0.4 dB per 10 dB step and  $\pm$  0.7 dB for overall different.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

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Sun Creation Engineering Limited

Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193753 證書編號

#### 6.2 Time Weighting

#### 6.2.1 Continuous Signal

	UUT	Setting		Applie	d Value	UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	1	94.1	Ref.
	L <sub>ASP</sub>		S			94.1	± 0.1
	L <sub>AIP</sub>		Ι			94.2	± 0.1

#### 6.2.2 Tone Burst Signal (2 kHz)

	UUT	Setting		Applied Value		UUT	IEC 60651
Range	Parameter	Frequency	Time	Level Burst		Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	Duration	(dB)	(dB)
30 - 110	L <sub>AFP</sub>	А	F	106.0 Continuous		106.0	Ref.
	L <sub>AFMax</sub>				200 ms		$-1.0 \pm 1.0$
	L <sub>ASP</sub>		S		Continuous	106.0	Ref.
	L <sub>ASMax</sub>				500 ms	102.0	$-4.1 \pm 1.0$

#### 6.3 Frequency Weighting

#### 6.3.1 A-Weighting

	UUT	Setting		Appl	ied Value	UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
50 - 130	L <sub>AFP</sub>	А	F	94.00	31.5 Hz	55.2	$-39.4 \pm 1.5$
					63 Hz	68.1	$-26.2 \pm 1.5$
					125 Hz	78.0	$-16.1 \pm 1.0$
					250 Hz	85.4	$-8.6 \pm 1.0$
					500 Hz	90.8	$-3.2 \pm 1.0$
					1 kHz	94.1	Ref.
					2 kHz	95.3	$+1.2 \pm 1.0$
					4 kHz	95.1	$+1.0 \pm 1.0$
					8 kHz	93.0	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.9	-4.3 (+3.0 ; -6.0)

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Calibration & Testing Laboratory

# Certificate of Calibration 校正證書

Certificate No. : C193753 證書編號

#### 6.3.2 C-Weighting

	UUT	Setting		Appl	ied Value	UUT	IEC 60651				
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.				
(dB)		Weighting	Weighting	(dB)	-	(dB)	(dB)				
50 - 130	L <sub>CFP</sub>	С	F	94.00	31.5 Hz	91.5	$-3.0 \pm 1.5$				
					63 Hz	93.4	$-0.8 \pm 1.5$				
					125 Hz	93.9	$-0.2 \pm 1.0$				
					250 Hz	94.1	$0.0 \pm 1.0$				
					500 Hz	94.1	$0.0 \pm 1.0$				
					1 kHz	94.1	Ref.				
					2 kHz	93.9	$-0.2 \pm 1.0$				
					4 kHz	93.3	$-0.8 \pm 1.0$				
					8 kHz	91.1	-3.0 (+1.5 ; -3.0)				
					12.5 kHz	88.0	-6.2 (+3.0 ; -6.0)				

#### 6.4

Time Averaging

1 mile 1 iv	inter Avoidging										
	UUI	Setting			Ap	oplied Value	<b>;</b>		UUT	IEC 60804	
Range	Parameter	Frequency	Integrating	Frequency	Burst	Burst	Burst	Equivalent	Reading	Type 1	
(dB)		Weighting	Time	(kHz)	Duration	Duty	Level	Level	(dB)	Spec.	
					(ms)	Factor	(dB)	(dB)		(dB)	
30 - 110	L <sub>Aeq</sub>	A	10 sec.	4	1	1/10	110.0	100	100.0	± 0.5	
						$1/10^{2}$		90	90.0	± 0.5	
			60 sec.			1/10 <sup>3</sup>		80	79.2	± 1.0	
			5 min.			1/104		70	69.2	± 1.0	

Remarks : - UUT Microphone Model No. : 4188 & S/N : 2658547

- Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :	94 dB : 31.5 Hz - 125 Hz 250 Hz - 500 Hz 1 kHz 2 kHz - 4 kHz 8 kHz 12.5 kHz 104 dB : 1 kHz 114 dB : 1 kHz Burst equivalent level	: $\pm 0.30 \text{ dB}$ : $\pm 0.20 \text{ dB}$ : $\pm 0.35 \text{ dB}$ : $\pm 0.45 \text{ dB}$ : $\pm 0.70 \text{ dB}$ : $\pm 0.10 \text{ dB}$ (Ref. 94 dB) : $\pm 0.10 \text{ dB}$ (Ref. 94 dB) : $\pm 0.2 \text{ dB}$ (Ref. 110 dB
		continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

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### ALS Technichem (HK) Pty Ltd

#### **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2001293					
CLIENT	ACTION UNITED ENVIRONMENT						
	SERVICES AND CONSULTING						
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1					
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-JAN-2020					
	KONG	DATE OF ISSUE : 10-JAN-2020					
PROJECT	:	NO. OF SAMPLES : 1					
		CLIENT ORDER +					

#### **General Comments**

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

#### Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position
Richard Jong.	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

ALS Technichem (HK) Pty Ltd Part of the ALS Laboratory Group

11/F. Chung Shun Knitting Centre 1 - 3 Wing Yip Street Kwai Chung N.T. Hong Kong Tel. +852 2610 1044 Fax. +852 2610 2021 www.alsglobal.com WORK ORDER SUB-BATCH

CLIENT

PROJECT

: HK2001293

<sup>1</sup> ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : .....



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2001293-001	S/N: 3Y6503	AIR	06-Jan-2020	S/N: 3Y6503

### **Equipment Verification Report (TSP)**

#### **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	3Y6503
Equipment Ref:	EQ112
Job Order	HK2001293

#### **Standard Equipment:**

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	3 December 2019

#### **Equipment Verification Results:**

Testing Date:

27&31 December 2019

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m <sup>3</sup> (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr	09:08 ~ 11:10	18.0	1020.3	0.040	2371	19.8
2hr	11:15 ~ 13:16	19.2	1024.9	0.048	2479	20.7
2hr15min	13:22 ~ 15:23	19.2	1024.9	0.034	1899	14.1

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



Slope (K-factor):	0.0022			
Correlation Coefficient	0.9889			
Date of Issue	6 January 2020			

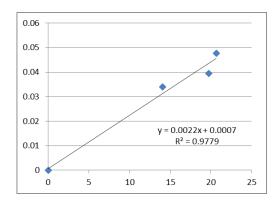
#### Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

\*If R<0.5, repair or re-verification is required for the equipment





Operator :	Fai So	Signature :	Sal	Date :	6 January 2020
QC Reviewer :	Ben Tam	Signature :	46	Date :	6 January 2020

#### TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Location ID :	Gold Ki Calibrat	-		of Calibration: 3-I libration Date: 3-N					
					COND	ITIONS			
	Sea Level ] Temp	Pressure perature	. ,	1	1023.1 16.4		Corrected Pressi Temperati		767.325 289
				CALI	BRATI	ON ORIFICE			
Make-> TIS Model-> 502 Calibration Date-> 5-Fe							Qstd Slope Qstd Intercept Expiry Date	->(	2.0968 0.00065 -Feb-20
					CALIB	RATION			
Plate H20 No. (ir	(L)H2O (R) 1) (in)	H20 (in)	Qstd (m3/min)		I art)	IC corrected		INEAR RESSION	
18       6.         13       5.         10       4.         8       2.         5       1.	2 5.2 1 4.1 6 2.6	13.0 10.4 8.2 5.2 3.2	1.754 1.569 1.393 1.109 0.870	4	Content         Contented           53         54.04           48         48.94           41         41.80           30         30.59           22         22.43		Slope Intercep Corr. coeff	t = -9.6198	
<b>Calculations :</b> Qstd = 1/m[Squ IC = I[Sqrt(Pa/ Qstd = standard IC = corrected I = actual chart m = calibrator (C Ta = actual ten Pstd = actual p <b>For subsequen</b> 1/m((I)[Sqrt(2 m = sampler she	Pstd)(Tstd/T I flow rate chart response Qstd slope Qstd intercep nperature du ressure durin t calculation (98/Tav)(Pay	ra)] es t ring cali ng calibr <b>n of san</b>	bration ( de ation ( mm apler flow:		00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00	FLOW RATE C	CHART	
<ul> <li>b = sampler intercept</li> <li>I = chart response</li> <li>Tav = daily average temperature</li> <li>Pav = daily average pressure</li> </ul>					0	0.000	0.500 1.000 Standard Flow Rate	1.500 e (m3/min)	2.000



Key

ΔH: calibrator manometer reading (in H2O) ΔP: rootsmeter manometer reading (mm Hg)

Ta: actual absolute temperature (°K)

Pa: actual barometric pressure (mm Hg)

RECALIBRATION DUE DATE:

February 5, 2020

	0e	rtifa	cate	of	Oal	iori	tion	
Calibration Certification Information								
Cal. Date:	February 5	, 2019	Roots	meter S/N:	438320	Ta:	293	°К
Operator:	Jim Tisch	<b>Pa:</b> 753.1						
Calibration I	Model #:	TE-5025A	Cali	brator S/N:	1941			-
	Vol. Init	Vol. Final	ΔTime	ΔΡ	ΔΗ	]		
4	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4830	3.2	2.00	
	2	3	4	1	1.0430	6.4	4.00	1
	3	5	6	1	0.9300	7.9	5.00	]
	4	7	8	1	0.8870	8.7	5.50	]
	5	9	10	1	0.7320	12.7	8.00	
				Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstc}\right)}$	)( <u>Tstd</u> )		Qa	$\sqrt{\Delta H(Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax	(is)	Va	(x-axis)	(y-axis)	
	1.0036	0.6767	1.41	97	0.9958	0.6714	0.8821	1
	0.9993	0.9581	2.00	78	0.9915	0.9506	1.2475	1
	0.9973	1.0723	2.24	48	0.9895	1.0640	1.3947	]
	0.9962	1.1231	2.35	44	0.9884	1.1144	1.4628	]
	0.9908	1.3536	2.83		0.9831	1.3431	1.7642	
		m=	2.096			m=	1.31298	
,	QSTD	b=	-0.00		QA	b=	-0.00040	1
		r=	0.999	999		<u>r=</u>	0.99999	]
				Calculatio	ns	216/100418/04/1004-044118/04/04/04/04/04/04/04/04/04/04/04/04/04/		]
	Vstd=	ΔVol((Pa-ΔP)	/Pstd)(Tstd/T	a)	Va=	ΔVol((Pa-Δ	P)/Pa)	1
	Qstd=	Vstd/∆Time	******		Qa=	Va/∆Time		1
			For subsequ	ent flow ra	te calculatio	ns:		1
	Qstd=	1/m ((	Pa Pstd Tstd	-))-b)	Qa=	$1/m \left( \sqrt{\Delta H} \right)$	l(Ta/Pa))-b)	
	Standard	Conditions						
Tstd:	298.15		de diving to the second se			RECA	LIBRATION	
Pstd:	760	mm Hg					nnual racalibrati	100

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc. 145 South Miami Avenue

Village of Cleves, OH 45002

b: intercept m: slope

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### ALS Technichem (HK) Pty Ltd

#### **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2001300						
CLIENT	ACTION UNITED ENVIRONMENT							
	SERVICES AND CONSULTING							
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1						
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-JAN-2020						
	KONG	DATE OF ISSUE : 10-JAN-2020						
PROJECT	:	NO. OF SAMPLES : 1						
		CLIENT ORDER						

#### **General Comments**

- Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in ambient condition. The result(s) related only to the item(s) tested.
- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

#### Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position
Richard Jong.	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

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CLIENT

PROJECT

: HK2001300

<sup>1</sup> ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : .....



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2001300-001	S/N: 366410	AIR	06-Jan-2020	S/N: 366410

### **Equipment Verification Report (TSP)**

#### **Equipment Calibrated:**

Туре:	Laser Dust monitor			
Manufacturer:	Sibata LD-3B			
Serial No.	366410			
Equipment Ref:	EQ110			
Job Order	HK2001300			

#### **Standard Equipment:**

Standard Equipment:	Higher Volume Sampler		
Location & Location ID:	AUES office (calibration room)		
Equipment Ref:	HVS 018		
Last Calibration Date:	3 December 2019		

#### **Equipment Verification Results:**

Testing Date:

27&31 December 2019

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m <sup>3</sup> (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr	09:08 ~ 11:10	18.0	1020.3	0.040	2298	19.2
2hr	11:15 ~ 13:16	19.2	1024.9	0.048	2477	20.6
2hr15min	13:22 ~ 15:23	19.2	1024.9	0.034	1941	14.4

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



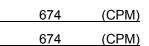
Slope (K-factor):	0.0022
Correlation Coefficient	0.9937
Date of Issue	6 January 2020

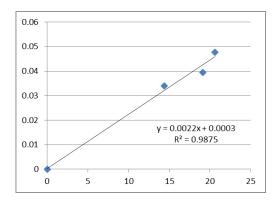
#### Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

\*If R<0.5, repair or re-verification is required for the equipment





Operator :	Fai So	Signature : _	far	Date :	6 January 2020
QC Reviewer :	Ben Tam	Signature :	K	Date :	6 January 2020

#### TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Gold King Industrial Building, Kwai Chung Location ID : Calibration Room								of Calibration: 3-I libration Date: 3-N	
					COND	ITIONS			
Sea Level Pressure (hPa) 10 Temperature (°C)					1023.1 16.4		Corrected Pressu Temperatu		767.325 289
				CALI	BRATI	ON ORIFICE			
		Calibrat	Make-> Model-> ion Date->		SCH 25A 26-19		Qstd Slope Qstd Intercept Expiry Date	->(	2.0968 0.00065 -Feb-20
					CALIB	RATION			
Plate H20 No. (ir	(L)H2O (R) 1) (in)	H20 (in)	Qstd (m3/min)		I art)	IC corrected		INEAR RESSION	
18       6.         13       5.         10       4.         8       2.         5       1.	2 5.2 1 4.1 6 2.6	13.0 10.4 8.2 5.2 3.2	1.754 1.569 1.393 1.109 0.870	4	53 18 11 50 22	54.04 48.94 41.80 30.59 22.43	Slope Intercep Corr. coeff	t = -9.6198	
<b>Calculations :</b> Qstd = 1/m[Squ IC = I[Sqrt(Pa/ Qstd = standard IC = corrected I = actual chart m = calibrator (C Ta = actual ten Pstd = actual p <b>For subsequen</b> 1/m((I)[Sqrt(2 m = sampler she	Pstd)(Tstd/T I flow rate chart response Qstd slope Qstd intercep nperature du ressure durin t calculation (98/Tav)(Pay	ra)] es t ring cali ng calibr <b>n of san</b>	bration ( de ation ( mm apler flow:		00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00	FLOW RATE C	CHART	
<ul> <li>b = sampler intercept</li> <li>I = chart response</li> <li>Tav = daily average temperature</li> <li>Pav = daily average pressure</li> </ul>				0	0.000	0.500 1.000 Standard Flow Rate	1.500 e (m3/min)	2.000	



Key

ΔH: calibrator manometer reading (in H2O) ΔP: rootsmeter manometer reading (mm Hg)

Ta: actual absolute temperature (°K)

Pa: actual barometric pressure (mm Hg)

RECALIBRATION DUE DATE:

February 5, 2020

	0e	rtifa	cate	of	Oal	iori	tion	
			Calibration	Certificati	on Informat	ion		
Cal. Date:	February 5	, 2019	Roots	meter S/N:	438320	Ta:	293	°K
Operator:	Jim Tisch					Pa:	753.1	mm Hg
Calibration I	Calibration Model #: TE-5025A Calibrator S				1941			-
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
4	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4830	3.2	2.00	
	2	3	4	1	1.0430	6.4	4.00	1
	3	5	6	1	0.9300	7.9	5.00	]
	4	7	8	1	0.8870	8.7	5.50	]
	5	9	10	1	0.7320	12.7	8.00	
				Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstc}\right)}$	)( <u>Tstd</u> )		Qa	$\sqrt{\Delta H(Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax	(is)	Va	(x-axis)	(y-axis)	
	1.0036	0.6767	1.41	97	0.9958	0.6714	0.8821	1
	0.9993	0.9581	2.00	78	0.9915	0.9506	1.2475	1
	0.9973	1.0723	2.24	48	0.9895	1.0640	1.3947	]
	0.9962	1.1231	2.35	44	0.9884	1.1144	1.4628	]
	0.9908	1.3536	2.83		0.9831	1.3431	1.7642	
		m=	2.096			m=	1.31298	
,	QSTD	b=	-0.00		QA	b=	-0.00040	1
		r=	0.999	999		<u>r=</u>	0.99999	
				Calculatio	ns	216/100418/04/1004-044118/04/04/04/04/04/04/04/04/04/04/04/04/04/		]
	Vstd=	ΔVol((Pa-ΔP)	/Pstd)(Tstd/T	a)	Va=	ΔVol((Pa-Δ	P)/Pa)	1
	Qstd=	Vstd/∆Time	******		Qa=	Va/∆Time		1
			For subsequ	ent flow ra	te calculatio	ns:		1
	Qstd=	1/m ((	Pa Pstd Tstd	-))-b)	Qa=	$1/m \left( \sqrt{\Delta H} \right)$	l(Ta/Pa))-b)	
	Standard	Conditions			_			
Tstd:	298.15		de diving to the second se			RECA	LIBRATION	
Pstd:	760	mm Hg					nnual racalibrati	100

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

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Village of Cleves, OH 45002

b: intercept m: slope

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### ALS Technichem (HK) Pty Ltd

#### **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2001298				
CLIENT	ACTION UNITED ENVIRONMENT					
	SERVICES AND CONSULTING					
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1				
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-JAN-2020				
	KONG	DATE OF ISSUE : 10-JAN-2020				
PROJECT	:	NO. OF SAMPLES : 1				
		CLIENT ORDER +				

#### **General Comments**

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- Calibration was subcontracted to and analysed by Action United Enviro Services.

#### Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position
Richard Jong.	
Richard Fung	Managing Director

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Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

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CLIENT

PROJECT

: HK2001298

<sup>1</sup> ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : .....



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2001298-001	S/N: 2X6145	AIR	06-Jan-2020	S/N: 2X6145

#### **Equipment Verification Report (TSP)**

#### **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	2X6145
Equipment Ref:	EQ105
Job Order	HK2001298

#### **Standard Equipment:**

Standard Equipment:	Higher Volume Sampler
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018
Last Calibration Date:	3 December 2019

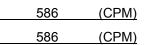
#### **Equipment Verification Results:**

Testing Date:

27&31 December 2019

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m <sup>3</sup> (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
2hr	09:08 ~ 11:10	18.0	1020.3	0.040	2254	18.8
2hr	11:15 ~ 13:16	19.2	1024.9	0.048	2561	21.3
2hr15min	13:22 ~ 15:23	19.2	1024.9	0.034	1841	13.6

Sensitivity Adjustment Scale Setting (Before Calibration) Sensitivity Adjustment Scale Setting (After Calibration)



#### Linear Regression of Y or X

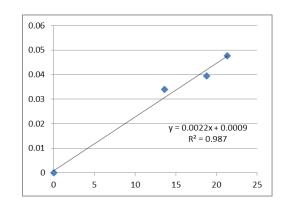
Slope (K-factor):	0.0022
Correlation Coefficient	0.9935
Date of Issue	6 January 2020

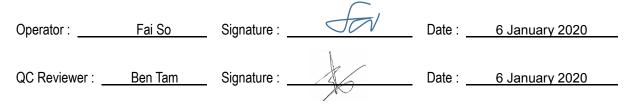
#### Remarks:

1. **Strong** Correlation (R>0.8)

2. Factor 0.0022 should be apply for TSP monitoring

\*If R<0.5, repair or re-verification is required for the equipment





#### TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :Gold King Industrial Building, Kwai ChungLocation ID :Calibration Room							of Calibration: 3-I libration Date: 3-N		
					COND	ITIONS			
	Sea Level ] Temp	Pressure perature	. ,	1	.023.1 16.4		Corrected Pressu Temperatu		767.325 289
				CALI	BRATI	ON ORIFICE			
		Calibrat	Make-> Model-> ion Date->		SCH 25A 26-19		Qstd Slope Qstd Intercept Expiry Date	->(	2.0968 0.00065 -Feb-20
					CALIB	RATION			
Plate H20 No. (ir	(L)H2O (R) 1) (in)	H20 (in)	Qstd (m3/min)		I art)	IC corrected		INEAR RESSION	
18       6.         13       5.         10       4.         8       2.         5       1.	2 5.2 1 4.1 6 2.6	13.0 10.4 8.2 5.2 3.2	1.754 1.569 1.393 1.109 0.870	4	53 18 11 50 22	54.04 48.94 41.80 30.59 22.43	Slope Intercep Corr. coeff	t = -9.6198	
<b>Calculations :</b> Qstd = 1/m[Squ IC = I[Sqrt(Pa/ Qstd = standard IC = corrected I = actual chart m = calibrator (C Ta = actual ten Pstd = actual p <b>For subsequen</b> 1/m((I)[Sqrt(2 m = sampler she	Pstd)(Tstd/T I flow rate chart response Qstd slope Qstd intercep nperature du ressure durin t calculation (98/Tav)(Pay	ra)] es t ring cali ng calibr <b>n of san</b>	bration ( de ation ( mm apler flow:		00 90 90 90 90 90 90 90 90 90 90 90 90 9	.00	FLOW RATE C	CHART	
<ul> <li>b = sampler intercept</li> <li>I = chart response</li> <li>Tav = daily average temperature</li> <li>Pav = daily average pressure</li> </ul>					0	0.000	0.500 1.000 Standard Flow Rate	1.500 e (m3/min)	2.000



Key

ΔH: calibrator manometer reading (in H2O) ΔP: rootsmeter manometer reading (mm Hg)

Ta: actual absolute temperature (°K)

Pa: actual barometric pressure (mm Hg)

RECALIBRATION DUE DATE:

February 5, 2020

	0e	rtifa	cate	of	Oal	iori	tion	
			Calibration	Certificati	on Informat	ion		
Cal. Date:	February 5	, 2019	Roots	meter S/N:	438320	Ta:	293	°K
Operator:	Jim Tisch					Pa:	753.1	mm Hg
Calibration Model #: TE-5025A Calibrator S/N: 1941								-
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
4	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4830	3.2	2.00	
	2	3	4	1	1.0430	6.4	4.00	1
	3	5	6	1	0.9300	7.9	5.00	]
	4	7	8	1	0.8870	8.7	5.50	]
	5	9	10	1	0.7320	12.7	8.00	
				Data Tabula	tion			]
	Vstd Qstd		$\sqrt{\Delta H \left( \frac{Pa}{Pstd} \right) \left( \frac{Tstd}{Ta} \right)}$			Qa	$\sqrt{\Delta H(Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax	(is)	Va	(x-axis)	(y-axis)	
	1.0036	0.6767	1.41	97	0.9958	0.6714	0.8821	1
	0.9993	0.9581	2.00	78	0.9915	0.9506	1.2475	1
	0.9973	1.0723	2.24	48	0.9895	1.0640	1.3947	]
	0.9962	1.1231	2.35	44	0.9884	1.1144	1.4628	]
	0.9908	1.3536	2.83		0.9831	1.3431	1.7642	
		m=		2.09680		m=	1.31298	
,	QSTD	b=	-0.00		QA	b=	-0.00040	1
		r=	0.999	999		<u>r=</u>	0.99999	]
				Calculatio	ns	216/100418/04/1004-044118/04/04/04/04/04/04/04/04/04/04/04/04/04/		]
	Vstd=	ΔVol((Pa-ΔP)	/Pstd)(Tstd/T	a)	Va=	ΔVol((Pa-Δ	P)/Pa)	1
	Qstd=	Vstd/∆Time	******		Qa=	Va/∆Time		1
			For subsequ	ent flow ra	te calculatio	ns:		1
	$\mathbf{Qstd} = 1/m\left(\!\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\!\left(\frac{Tstd}{Ta}\right)}\right) \cdot b\right) \qquad \mathbf{Qa} = 1/m\left(\!\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right) \cdot b\right)$							
	Standard	Conditions			_			
Tstd:	298.15		de diving to the second se			RECA	LIBRATION	
Pstd:	760	mm Hg					nnual racalibrati	100

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

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### ALS Technichem (HK) Pty Ltd

#### **ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES





CONTACT	: MR BEN TAM	WORK ORDER HK2001299
CLIENT	ACTION UNITED ENVIRONMENT	
	SERVICES AND CONSULTING	
ADDRESS	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41	SUB-BATCH : 1
	TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG	DATE RECEIVED : 6-JAN-2020
	KONG	DATE OF ISSUE : 10-JAN-2020
PROJECT	:	NO. OF SAMPLES : 1
		CLIENT ORDER ÷

#### **General Comments**

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- Sample information (Project name, Sample ID, Sampling date/time, etc., if any) is provided by client.
- Calibration was subcontracted to and analysed by Action United Enviro Services.

#### Signatories

This document has been signed by those names that appear on this report and are the authorised signatories

Signatories	Position
Kichard Jong.	
Richard Fung	Managing Director

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

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CLIENT

PROJECT

: HK2001299

<sup>1</sup> ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING : .....



ALS Lab ID	Client's Sample ID	Sample Type	Sample Date	External Lab Report No.
HK2001299-001	S/N: 11008017	AIR	06-Jan-2020	S/N: 11008017

#### **Equipment Verification Report (TSP)**

#### **Equipment Calibrated:**

Туре:	Laser Dust monitor
Manufacturer:	TSI AM510
Serial No.	11008017
Equipment Ref:	EQ102
Work Order:	HK2001299

#### **Standard Equipment:**

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES Office (Calibration Room)
Equipment Ref:	HVS 018
Last Calibration Date:	3 December 2019

#### **Equipment Verification Results:**

Verification Date:

27 & 31 December 2019

0.5354

0.9984

6 January 2020

Hour	Time	Mean Temp °C	Mean Pressure (hPa)	Concentration in mg/m <sup>3</sup> (Standard Equipment)	Concentration in mg/m <sup>3</sup> (Calibrated Equipment)	Tolerance (mg/m <sup>3</sup> )
2hr	09:08 ~ 11:10	18.0	1020.3	0.040	0.076	+0.036
2hr	11:15 ~ 13:16	19.2	1024.9	0.048	0.087	+0.039
2hr15min	13:22 ~ 15:23	19.2	1024.9	0.034	0.066	+0.032

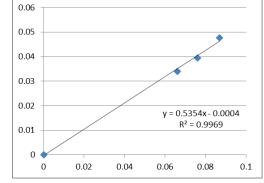
#### Linear Regression of Y or X

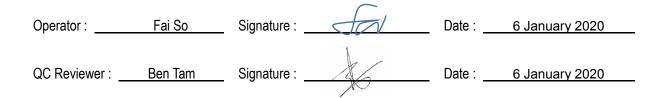
Slope (factor):	
Correlation Coefficient (R)	
Date of Issue	

Remarks:

- 1. **Strong** Correlation (R>0.8)
- 2. Factor 0.5354 should be apply for TSP monitoring

\*If R<0.5, repair or re-verification is required for the equipment





#### TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :Gold King Industrial Building, Kwai ChungLocation ID :Calibration Room					Date of Calibration: 3-Dec-19 Next Calibration Date: 3-Mar-20			
						COND	ITIONS	
Sea Level Pressure (hPa) 10 Temperature (°C)					1	<u>1023.1</u> 16.4		Corrected Pressure (mm Hg) 767.325 Temperature (K) 289
					CALI	BRATI	ON ORIFIC	ICE
Make-> TIS Model-> 502 Calibration Date-> 5-Fe					502	25A		Qstd Slope ->2.0968Qstd Intercept ->-0.00065Expiry Date->5-Feb-20
						CALIB	RATION	
Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)		I art)	IC corrected	LINEAR REGRESSION
18 13 10 8 5	6.5 5.2 4.1 2.6 1.6	6.5 5.2 4.1 2.6 1.6	13.0 10.4 8.2 5.2 3.2	1.754 1.569 1.393 1.109 0.870	4 4 3	53 18 11 50 22	54.04 48.94 41.80 30.59 22.43	Slope = 36.7338 Intercept = -9.6198 Corr. coeff. = 0.9986
	n[Sqrt(H t(Pa/Pstc ndard flc cted cha chart res ator Qstd ttor Qstd l temper	d)(Tstd/T ow rate rt respon- ponse d slope intercep rature dur	ra)] es t ring cali	/Ta))-b] bration ( de ation ( mm			.00	FLOW RATE CHART
For subsequent calculation of sampler flow: 1/m((I)[Sqrt(298/Tav)(Pav/760)]-b) m = sampler slope						.00		
<ul> <li>b = sampler intercept</li> <li>I = chart response</li> <li>Tav = daily average temperature</li> <li>Pav = daily average pressure</li> </ul>					0	0.000	0.500 1.000 1.500 2.000 Standard Flow Rate (m3/min)	



Key

ΔH: calibrator manometer reading (in H2O) ΔP: rootsmeter manometer reading (mm Hg)

Ta: actual absolute temperature (°K)

Pa: actual barometric pressure (mm Hg)

RECALIBRATION DUE DATE:

February 5, 2020

	0e	rtifa	cate	of	Oal	iori	tion	
			Calibration	Certificati	on Informat	ion		
Cal. Date:	e: February 5, 2019 <b>Rootsmeter S/N:</b> 438320 <b>Ta:</b> 293 °K						°K	
Operator:	Operator: Jim Tisch Pa: 753.1					753.1	mm Hg	
Calibration	Model #:	TE-5025A	Cali	brator S/N:	1941			-
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	]
4	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4830	3.2	2.00	
	2	3	4	1	1.0430	6.4	4.00	1
	3	5	6	1	0.9300	7.9	5.00	]
	4	7	8	1	0.8870	8.7	5.50	]
	5	9	10	1	0.7320	12.7	8.00	
			I	Data Tabula	tion			]
	Vstd	Qstd	$\sqrt{\Delta H \left(\frac{Pa}{Pstc}\right)}$	)( <u>Tstd</u> )		Qa	$\sqrt{\Delta H(Ta/Pa)}$	
	(m3)	(x-axis)	(y-ax	(is)	Va	(x-axis)	(y-axis)	
	1.0036	0.6767	1.41	97	0.9958	0.6714	0.8821	1
	0.9993	0.9581	2.00	78	0.9915	0.9506	1.2475	]
	0.9973	1.0723	2.24	48	0.9895	1.0640	1.3947	]
	0.9962	1.1231	2.35		0.9884	1.1144	1.4628	
	0.9908	1.3536	2.83		0.9831	1.3431	1.7642	
		m=	2.096			m=	1.31298	
,	QSTD	b=	-0.00		QA	b=	-0.00040	1
		r=	0.999	999		<u>r=</u>	0.99999	]
				Calculatio	ns			]
			)/Pstd)(Tstd/T	a)	Va=	∆Vol((Pa-∆	P)/Pa)	1
	<b>Qstd=</b> Vstd/ΔTime Qa= Va/ΔTime					]		
			For subsequ	ent flow ra	te calculatio	ns:		
	$\mathbf{Qstd=1/m}\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right) \qquad \mathbf{Qa=1/m}\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$							
	Standard	Conditions						
Tstd:	298.15					RECA	LIBRATION	
Pstd: 760 mm Hg						mmondoo		on nor 100

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc. 145 South Miami Avenue

Village of Cleves, OH 45002

b: intercept m: slope

> <u>www.tisch-env.com</u> TOLL FREE: (877)263-7610 FAX: (513)467-9009



Hong Kong Accreditation Service 香港認可處

#### **Certificate of Accreditation**

認可證書

This is to certify that 特此證明

#### ALS TECHNICHEM (HK) PTY LIMITED

11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong 香港新界葵涌永業街1-3號忠信針織中心11樓

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a 為香港認可處執行機關根據認可諮詢委員會建議而接受的

#### **HOKLAS Accredited Laboratory**

「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO / IEC 17025 : 2005 – General requirements for the competence 此實驗所符合ISO / IEC 17025 : 2005 –《測試及校正實驗所能力的通用規定》所訂的要求, of testing and calibration laboratories and it has been accredited for performing specific tests or calibrations as 獲認可進行載於香港實驗所認可計劃《認可實驗所名冊》內下述測試類別中的指定 listed in the HOKLAS Directory of Accredited Laboratories within the test category of 測試或校正工作

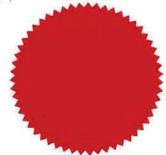
#### Environmental Testing 環境測試

This laboratory is accredited in accordance with the recognised International Standard ISO / IEC 17025 : 2005. 本實驗所乃根據公認的國際標準 ISO / IEC 17025 : 2005 獲得認可。 This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory 這項認可資格演示在指定範疇所需的技術能力及實驗所質量管理體系的運作 quality management system (see joint IAF-ILAC-ISO Communiqué). (見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of the Hong Kong Accreditation Service is affixed hereto by the authority of the HKAS Executive 香港認可處根據認可處執行機關的權限在此蓋上通用印章

CHAN Sing Sing, Terence, Executive Administrator 執行幹事 陳成城 Issue Date : 5 May 2009 簽發日期:二零零九年五月五日

Registration Number : HOKLAS 066 註冊號碼 :



Date of First Registration : 15 September 1995 首次註冊日期:一九九五年九月十五日

### ∟ 000552



Appendix F

### **Event and Action Plan**

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Event / Action Plan	for construction dust
---------------------	-----------------------

Encert				
Event	ET	IEC	ER	Contractor
Action Level exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC, ER and Contractor;</li> <li>Repeat measurement to confirm finding; and</li> <li>Increase monitoring frequency to daily.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method; and</li> <li>Review and advise the ET and ER on the effectiveness of the proposed remedial measures.</li> </ol>	1. Notify Contractor.	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Rectify any unacceptable practice and implement remedial measures; and</li> <li>Amend working methods agreed with ER if appropriate.</li> </ol>
Action Level exceedance for two or more consecutive samples	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform IEC, ER and Contractor;</li> <li>Advise the ER and Contractor on the effectiveness of the proposed remedial measures;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Discuss with IEC, ER and Contractor on remedial actions required;</li> <li>If exceedance continues, arrange meeting with IEC and ER; and</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ET and ER on the effectiveness of the proposed remedial measures; and</li> <li>Supervise Implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor; and</li> <li>Supervise and ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</li> <li>Implement the agreed proposals; and</li> <li>Amend proposal if appropriate.</li> </ol>
Limit Level exceedance for one sample	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Inform ER, Contractor, IEC and EPD;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily; and</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET, ER and Contractor on possible remedial measures;</li> <li>Advise the ER and ET on the effectiveness of the proposed remedial measures; and</li> <li>Supervise implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor; and</li> <li>Supervise and ensure remedial measures properly implemented.</li> </ol>	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</li> <li>Implement the agreed proposals; and</li> <li>Amend proposal if appropriate.</li> </ol>
Limit Level exceedance for two or more consecutive samples	<ol> <li>Notify IEC, ER, Contractor and EPD;</li> <li>Identify source;</li> <li>Repeat measurement to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>Supervise and ensure remedial measures properly implemented; and</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol> <li>Identify source, investigate the causes of exceedance and propose remedial measures;</li> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control; and</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>



#### Event and Action Plan for Construction Noise

E	Action			
Event	ET	IEC	ER	Contractor
Action Level Exceedance	<ol> <li>Notify IEC, ER and Contractor;</li> <li>Carry out investigation;</li> </ol>	1. Review the analysed results submitted by the ET;	1. Confirm receipt of notification of failure in writing;	1. Submit noise mitigation proposals to IEC and ER; and
	<ol> <li>Report the results of investigation to the IEC, ER and Contractor;</li> <li>Discuss with the Contractor and formulate remedial measures; and</li> <li>Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol> <li>Review the proposed remedial measures by the Contractor and advise the ER accordingly; and</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Notify Contractor;</li> <li>Require Contractor to propose remedial measures for the analysed noise problem; and</li> <li>Ensure remedial measures are properly implemented.</li> </ol>	2. Implement noise mitigation proposals.
Limit Level Exceedance	<ol> <li>Identify source;</li> <li>Inform IEC, ER, EPD and Contractor;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Inform IEC, ER and EPD the causes and actions taken for the exceedances;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	<ol> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Require Contractor to propose remedial measures for the analysed noise problem;</li> <li>Ensure remedial measures properly implemented; and</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control; and</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>



Appendix G

**Impact Monitoring Schedule** 

#### **Impact Monitoring Schedule for the Reporting Period**

Date		11. NOISE	13. AIR QUALITY MONITORING		
		MONITORING 12. (0700 – 1900)	14. 1-HOUR TSP	15. 24-HOUR TSP	
Wed	1-Apr-20				
Thu	2-Apr-20			$\checkmark$	
Fri	3-Apr-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓		
Sat	4-Apr-20				
Sun	5-Apr-20				
Mon	6-Apr-20	CN1, CN2, CN3 and NMS8			
Tue	7-Apr-20				
Wed	8-Apr-20			✓	
Thu	9-Apr-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	~		
Fri	10-Apr-20				
Sat	11-Apr-20				
Sun	12-Apr-20				
Mon	13-Apr-20				
Tue	14-Apr-20			√	
Wed	15-Apr-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓		
Thu	16-Apr-20				
Fri	17-Apr-20	CN1, CN2, CN3 and NMS8			
Sat	18-Apr-20				
Sun	19-Apr-20				
Mon	20-Apr-20			$\checkmark$	
Tue	21-Apr-20	CN1, CN2, CN3, NMS-4a and NMS5	✓		
Wed	22-Apr-20				
Thu	23-Apr-20	NMS2, NMS3, NMS6, NMS7 and NMS8			
Fri	24-Apr-20				
Sat	25-Apr-20			✓	
Sun	26-Apr-20				
Mon	27-Apr-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓		
Tue	28-Apr-20				
Wed	29-Apr-20			√	
Thu	30-Apr-20				

$\checkmark$	Monitoring Day
	Sunday or Public Holiday



#### **Impact Monitoring Schedule for next Reporting Period**

Date		16. NOISE	18. AIR QUALITY MONITORING		
		MONITORING 17. (0700 – 1900)	19. 1-HOUR TSP	20. 24-HOUR TSP	
Fri	1-May-20				
Sat	2-May-20	CN1, CN2, CN3 and NMS8	✓		
Sun	3-May-20				
Mon	4-May-20				
Tue	5-May-20			√	
Wed	6-May-20	CN1, CN2, CN3 and NMS8			
Thu	7-May-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	√		
Fri	8-May-20				
Sat	9-May-20				
Sun	10-May-20				
Mon	11-May-20			√	
Tue	12-May-20	CN1, CN2, CN3 and NMS8			
Wed	13-May-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	√		
Thu	14-May-20				
Fri	15-May-20				
Sat	16-May-20			✓	
Sun	17-May-20				
Mon	18-May-20	CN1, CN2, CN3 and NMS8			
Tue	19-May-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	$\checkmark$		
Wed	20-May-20				
Thu	21-May-20				
Fri	22-May-20			✓	
Sat	23-May-20				
Sun	24-May-20				
Mon	25-May-20	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓		
Tue	26-May-20				
Wed	27-May-20				
Thu	28-May-20			√	
Fri	29-May-20	CN1, CN2, CN3 and NMS8			
Sat	30-May-20		✓		
Sun	31-May-20				

✓	Monitoring Day
	Sunday or Public Holiday



# Appendix H

# **Database of Monitoring Result**



#### 24-HOUR TSP MONITORING RESULT DATABASE

24-hour TSP	TATOTHTOLIUR	- Data 10f /													
۱ I		, Duta Ior	AIVISIA		1			11/0			4.15	1		DUCTIVITY	
DATE	SAMPLE NUMBER		APSED TIN			RT REA	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WI		DUST WEIGHT COLLECTED	24-hr TSP
		INITIAL	FINAL	(min)		MAX	AVG	(°C)	(hPa)	(m <sup>3</sup> /min)	(std m <sup>3</sup> )	INITIAL	FINAL	(g)	$(\mu g/m^3)$
2-Apr-20	25573	22291.6	22315.6	1440.00	26	28	27	20.7	1014.3	0.98	1409	2.8393	2.8611	0.0218	15
8-Apr-20	25564	22315.6	22339.6	1440.00	26	26	26	20.6	1016.5	0.94	1359	2.8525	2.8767	0.0242	18
14-Apr-20	25548	22339.6	22363.6	1440.00	26	26	26	21.9	1013.6	0.94	1354	2.8929	2.9423	0.0494	36
20-Apr-20	25549	22363.6	22387.6	1440.00	26	26	26	23.7	1011.5	0.94	1349	2.8496	2.882	0.0324	24
25-Apr-20	25681	22387.6	22411.6	1440.00	26	26	26	23.8	1012.6	0.94	1349	2.811	2.8285	0.0175	13
29-Apr-20	25690	22411.6	22435.6	1440.00	26	28	27	24.4	1011.7	0.97	1399	2.7753	2.8019	0.0266	19
24-hour TSP	• Monitoring	g Data for A	AMS-5						·			-			
DATE	SAMPLE NUMBER		APSED TIN	ME		RT REA		AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WI	EIGHT (g)	DUST WEIGHT COLLECTED	24-hr TSP
		INITIAL	FINAL	(min)		MAX	AVG	(°C)	(hPa)	(m <sup>3</sup> /min)	(std m <sup>3</sup> )	INITIAL	FINAL	(g)	$(\mu g/m^3)$
2-Apr-20	25572	8903.90	8927.90		30	32	31.0	20.7	1014.3	1.10	1580	2.8720	2.9349	0.0629	40
8-Apr-20	25567	8927.90	8951.90	1440.00	32	32	32.0	20.6	1016.5	1.13	1631	2.8429	2.8843	0.0414	25
14-Apr-20	25429	8951.90	8975.90	1440.00	30	32	31.0	21.9	1013.6	1.09	1576	2.7777	2.8862	0.1085	69
20-Apr-20	25554	8975.90	9000.05	1449.00	32	34	33.0	23.7	1011.5	1.16	1678	2.8579	2.9095	0.0516	31
25-Apr-20	25684	9000.05	9024.06	1440.60	30	32	31.0	23.8	1012.6	1.09	1571	2.7829	2.8213	0.0384	24
29-Apr-20	25650	9024.06	9048.06	1440.00	30	32	31.0	24.4	1011.7	1.09	1569	2.8037	2.8807	0.0770	49
24-hour TSP	Monitoring	<b>Data for</b>	AMS-6			-			·		•				
DATE	SAMPLE	-	APSED TIN	ME	CHAF	RT REA	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WI	EIGHT (g)	DUST WEIGHT COLLECTED	24-hr TSP
	NUMBER	INITIAL	FINAL	(min)	MIN	MAX	AVG	(°C)	(hPa)	(m <sup>3</sup> /min)	(std m <sup>3</sup> )	INITIAL	FINAL	(g)	$(\mu g/m^3)$
2-Apr-20	25566	14107.84	14131.84	1440.00	26	28	27.0	20.7	1014.3	1.13	1623	2.8753	2.9041	0.0288	18
8-Apr-20	25565	14131.84	14155.84	1440.00	26	28	27.0	20.6	1016.5	1.13	1624	2.8495	2.8740	0.0245	15
14-Apr-20	25430	14155.84	14179.84	1440.00	28	30	29.0	21.9	1013.6	1.18	1693	2.7821	2.8644	0.0823	49
20-Apr-20	25555	14179.84	14204.00	1449.60	26	28	27.0	23.7	1011.5	1.12	1628	2.8559	2.8814	0.0255	16
25-Apr-20	25605	14204.00	14228.01	1440.60	30	32	31.0	23.8	1012.6	1.22	1761	2.7682	2.8093	0.0411	23
29-Apr-20	25683	14228.01	14252.01	1440.00	30	32	31.0	24.4	1011.7	1.22	1759	2.7688	2.8469	0.0781	44
24-hour TSP	Monitoring	<b>Data for</b>	AMS-7	·			- <u> </u>		·	-	•	·	·	•	·
DATE	SAMPLE	ELA	APSED TIN	ME	CHAF	RT REA	DING	AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WI	EIGHT (g)	DUST WEIGHT COLLECTED	24-hr TSP
	NUMBER	INITIAL	FINAL	(min)		MAX		(°C)	(hPa)	(m <sup>3</sup> /min)	(std m <sup>3</sup> )	INITIAL	FINAL	(g)	$(\mu g/m^3)$
2-Apr-20	25571	9468.13	9492.13	1440.00	24	26	25.0	20.7	1014.3	1.04	1501	2.8636	2.8929	0.0293	20
8-Apr-20	25566	9492.13	9516.13	1440.00	24	26	25.0	20.6	1016.5	1.04	1502	2.8955	2.9162	0.0207	14
14-Apr-20	25547	9516.13	9540.13	1440.00	24	26	25.0	21.9	1013.6	1.04	1499	2.8537	2.9268	0.0731	49
20-Apr-20	25550	9540.13	9564.13	1440.00	26	28	27.0	23.7	1011.5	1.09	1573	2.8338	2.9011	0.0673	43
25-Apr-20	25682	9564.13	9588.13	1440.00	26	28	27.0	23.8	1012.6	1.09	1573	2.7809	2.8300	0.0491	31

CEDD Contract No. NTE/07/2016
Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works
Monthly Environmental Monitoring & Audit Report (April 2020)



	29-Ap	pr-20	25685	9588.13	9612.13	1440.00	28	30	29.0	24.4	1011.7	1.15	1650	2.7660	2.8349	0.0689	42
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### NOISE MONITORING RESULT DATABASE FOR CONTRACT 1

Noise Measu	uremen	t Resul	ts (dB)	of NMS	52																
	Start	1st	Leq (5n	nin)	2nd	Leq (5)	min)	3rd	Leq (5)	min)	4th	Leq (51	nin)	5th	Leq (51	nin)	6th	Leq (51	nin)	Lag20min	Limit
Date	Start Time	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq30min, dB(A)	Level
	Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	uD(A)	dB(A)
3-Apr-20	15:57	59.8	62.2	57.2	59.9	62	57.6	56.8	59.1	55	55.9	57.4	53.1	56.6	59.3	55.1	58	61	57.1	58	70
9-Apr-20	11:05	68.6	72.4	57.2	67	70.4	57.3	68.1	72.4	55.9	64.3	68.1	54.9	68.1	71.9	57.2	65.3	68.7	52.7	67	70
15-Apr-20	10:58	60.9	62.1	59.3	60.9	61.7	60.1	61.8	63	60.6	61.1	62.6	59.6	61.4	62.5	60	60.6	61.4	59.2	61	70
23-Apr-20	13:35	57.8	59.4	52.5	54.6	56.3	52.8	57.6	60	54.5	56.7	57.4	53.5	57.5	58	54.6	57.1	57	54.5	57	70
27-Apr-20	16:14	63.8	66.9	58.1	64.2	67.5	58.5	64.4	67.4	58.9	63.6	66.9	58.1	63.6	66.4	58.6	64	67.9	58.4	64	70

Noise Measu	uremei	nt Resu	lts (dB)	of NMS	S3																
	Stant	1st	Leq (5n	nin)	2nd	Leq (5	min)	3rd	Leq (51	min)	4th	Leq (5r	nin)	5th	Leq (5r	nin)	6th	Leq (51	min)	Log20min	Limit
Lioto	Start Time	Leq, dB(A)		L90, dB(A)	Leq, dB(A)	/	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq30min, dB(A)	Level dB(A)									
3-Apr-20	9:43	70.8	72.6	68.2	72.5	74.0	70.7	70.8	70.9	68.2	71.8	71.0	69.2	71.9	72.0	68.5	71.5	73.5	69.8	72	75
9-Apr-20	14:07	74.1	76.1	71.2	72.7	75.7	66.1	68.5	71.9	64.7	71.8	73.7	65.9	73.2	75.3	67.3	75.4	76.6	69.1	73	75
15-Apr-20	14:08	70.0	73.4	63.9	72.3	75.3	66.2	72.8	75.6	66.2	71.5	74.4	65.9	70.4	73.0	63.9	70.8	74.0	65.3	71	75
23-Apr-20	11:11	73.0	75.2	70.3	74.0	76.2	70.7	69.5	71.6	62.9	70.5	72.2	67.0	72.7	74.7	70.0	68.7	70.8	62.4	72	75
27-Apr-20	9:39	68.5	71.8	60.0	66.8	70.8	59.7	66.3	69.9	60.6	67.8	71.8	61.9	68.5	71.6	61.1	66.7	70.2	60.7	68	75

Noise Meas	sureme	ent Resu	ilts (dB)	) of NM	[S4a																
	Stant	1st	Leq (5n	nin)	2nd	Leq (51	nin)	3rd	Leq (5)	min)	4th	Leq (5r	nin)	5th	Leq (5r	nin)	6th	Leq (51	nin)	Lag20min	Limit
Data	Start Time	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq30min, dB(A)	Level dB(A)												
3-Apr-20	14:24	73.4	75.3	71.2	71.8	73.9	69	71.9	73.9	69.1	72.4	74.2	69.9	73.6	74.9	69.1	72.6	73.9	69.7	73	75
9-Apr-20	9:26	69.9	71.7	67	70.9	83.6	67	69.6	71.3	67.2	70.5	72.1	68.5	70.5	71.7	69	68.6	70.7	65.9	70	75
15-Apr-20	9:30	70	71.5	68	70.8	71.7	68.3	70	71.6	68.1	69.2	70.7	67.1	69.3	70.6	67.7	70	71.7	68.1	70	75
21-Apr-20	10:37	67.4	68.6	66.2	66.4	67.3	65.4	67.2	69.5	65.2	69.5	70.7	68.1	70.5	71.3	69.1	68.5	69.9	68	68	75
27-Apr-20	14:19	71.9	73.7	69.8	69.7	71.3	66.9	69.4	71.5	66.8	70.3	72.4	67.2	69.5	71.1	66.9	70	72.9	67	70	75

Noise Meas	urement	Results (dB) of NMS5						
Date	Start	1st Leq (5min)	2nd Leq (5min)	3rd Leq (5min)	4th Leq (5min)	5th Leq (5min)	6th Leq (5min)	Leq30min, Limit



1	Time	- 1)	L10,	L90,	Leq,		L90,	<b>_</b> /	L10,	L90,	Leq,	L10,	L90,	<b>_</b> /	/	L90,	Leq,		L90,	dB(A)	Level
		$\mathbf{d}\mathbf{B}(\mathbf{A})$	dB(A)	dB(A)	$\mathbf{a}\mathbf{B}(\mathbf{A})$	dB(A)	$\mathbf{a}\mathbf{B}(\mathbf{A})$	$\mathbf{a}\mathbf{B}(\mathbf{A})$	$\mathbf{a}\mathbf{B}(\mathbf{A})$	$\mathbf{a}\mathbf{B}(\mathbf{A})$	<b>ab</b> (A)	$\mathbf{a}\mathbf{B}(\mathbf{A})$	$\mathbf{a}\mathbf{B}(\mathbf{A})$	dB(A)	$\mathbf{a}\mathbf{B}(\mathbf{A})$	aB(A)	$\mathbf{d}\mathbf{B}(\mathbf{A})$	$\mathbf{a}\mathbf{B}(\mathbf{A})$	dB(A)		dB(A)
3-Apr-20	15:06	63.6	66	60.5	63.9	66.5	59.4	61.9	64.6	57.5	60.4	62.7	57.5	61.8	64.9	57	63.8	66.7	59.4	63	75
9-Apr-20	10:17	66.9	68.9	64.5	66.3	67.9	64.5	65.8	67.6	64.1	66.9	69.5	64.1	66.8	68.3	64.8	68	70.3	64.6	67	75
15-Apr-20	10:20	70.9	74.5	64.6	67.5	69.3	61.9	68.6	71.4	64.7	71.5	74.9	65.2	68.4	71.7	62.3	66.7	69.9	61.9	69	75
21-Apr-20	11:20	63.7	65.3	61.5	64.2	66.3	61.7	63.6	65.4	61.4	63.3	65	61.5	64.6	66.7	61.9	63.8	65	61.4	64	75
27-Apr-20	15:34	68.5	71.3	62.8	69.1	73.6	62.6	73	77.3	64.6	72.6	76.6	65.5	70.8	74	64.9	69.1	73.5	63.8	71	75

Noise Measu	ıremen	t Resul	ts (dB)	of NMS	56																
	Stant	1st	Leq (5n	nin)	2nd	Leq (5	min)	3rd	Leq (51	nin)	4th	Leq (51	nin)	5th	Leq (51	nin)	6th	Leq (5r	nin)	Lag20min	Limit
Date	Start Time	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq30min, dB(A)	Level
	Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	ub(A)	dB(A)
3-Apr-20	10:25	74.5	76.4	71.9	75.1	76.5	73.2	75.2	76.6	73.5	74.5	76.1	72.6	74.3	76.9	73.2	73.5	76.4	72.8	75	75
9-Apr-20	14:45	68.6	71.5	61.4	69.8	73	64.4	69.6	72.8	64.6	71.1	74.2	65.1	68.2	71	62.2	69.2	71.5	64.7	70	75
15-Apr-20	14:41	69.7	72.7	64.8	70.6	74	64.2	69.6	73.4	61.5	70.6	73.6	64.4	70.3	73.8	62.1	72.6	76.9	63.1	71	75
23-Apr-20	10:34	68.5	71.8	64.8	73	76	65.8	76.1	78.2	72.4	77.8	81.2	71	68.1	71.1	64	69.8	72.1	66.4	74	75
27-Apr-20	10:18	68.4	71.9	64.6	67.6	70	65.1	68.4	71.7	65.5	68.7	71.6	65.7	69.6	72	65.9	67.1	70.4	64.5	68	75

Noise Measu	uremer	nt Resul	ts (dB)	of NMS	57																
	Start	1st	Leq (5n	nin)	2nd	Leq (51	nin)	3rd	Leq (5)	min)	4th	Leq (51	nin)	5th	Leq (5r	nin)	6th	Leq (5r	nin)	Log20min	Limit
Date	Start Time	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq30min, dB(A)	Level
	Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	uD(A)	dB(A)
3-Apr-20	11:08	63.7	65.9	60.3	63.8	65.7	61.2	62.5	64.9	59.4	63.5	65.6	60.4	63.2	65.8	60.4	62.4	64.1	59.7	63	75
9-Apr-20	15:29	61.9	63.6	59.4	62.7	64.1	60.6	62.9	64.4	60.6	62.3	64.5	59.3	62.5	64.6	59.4	61.6	63.4	59.6	62	75
15-Apr-20	15:27	60.8	62.2	58.8	61.3	63	59.6	61.7	63.7	59.6	61.7	63.4	59.8	61.1	62.5	59.6	61	62.2	59.6	61	75
23-Apr-20	9:51	67.1	69.7	62.58	64.6	66.4	61.6	67	70	61.9	68.9	71.6	63.6	65.2	68.9	61.4	67.3	70.4	62.3	67	75
27-Apr-20	10:58	64.2	66.2	61.5	65.9	68.4	61.6	66.2	68.6	62.4	67.5	69.9	62.9	65.3	66.7	61.7	67.3	70.8	62.9	66	75

Noise Measu	uremen	t Resul	ts (dB)	of NMS	58																
	Start	1st	Leq (5n	nin)	2nd	Leq (5	min)	3rd	Leq (5)	min)	4th	Leq (51	nin)	5th	Leq (51	nin)	6th	Leq (5)	min)	Lag20min	Limit
Date	Start Time		L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq30min, dB(A)	Level
	Time	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	uD(A)	dB(A)
6-Apr-20	10:22	62.9	64.3	61.2	61	62.1	59.9	62.3	63.5	60.8	61.8	62.5	61	62.5	63.9	61.2	63.5	64.8	62.3	62	75
17-Apr-20	10:58	58.6	59.8	54	59.3	61.7	54.4	60	62.5	56.1	63.5	66.1	58.2	61.9	64.7	57.8	58	60.3	52.2	61	75
23-Apr-20	14:27	57.4	59.6	52.5	57.7	60.1	52.9	57.7	60.7	52.3	58.5	61.2	53.7	58.3	60.3	53.7	57.2	59.3	52.6	58	75

### NOISE MONITORING RESULT DATABASE FOR CONTRACT 3

	Stant	1st	Leq (5n	nin)	2nd	Leq (5)	min)	3rd	Leq (51	min)	4th	Leq (5r	nin)	5th	Leq (5r	nin)	6th	Leq (51	nin)	T	Limi
Date	Start Time		L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq30min, dB(A)	Leve dB(A
6-Apr-20	14:58	63.5	65.2	61.9	62.1	63.3	60.5	61.7	62.8	60.3	60.3	61.5	58.6	61.9	62.8	60.8	61	62.2	59.7	62	70
17-Apr-20	15:07	65	66.6	63.6	65.1	66.5	65.6	64.4	65	63.6	64.5	65.5	63.4	65.1	67.2	63.8	65.4	67.1	64	65	70
21 4 20	4 4 8 4	(0, 0)	(2.4)	50.0	64	610	50.0	611	65 1	60.3	60.8	61.9	59.8	63.9	64.5	60.8	64.1	65.1	60.0	62	70
21-Apr-20 Noise Meas	14:56 uremer		62.4 ts (dB)	59.9 of CN2	-	64.2	59.9	64.4	65.4	00.3	00.8	01.9	39.0	03.9	04.3	00.8	04.1	03.1	60.8	63	
1	uremer	nt Resul		of CN2		04.2 Leq (51	1		03.4 Leq (51			01.9 Leq (5r			104.3 Leq (5r			Leq (51			
1	uremer Start	nt Resul	ts (dB)	of CN2			1													Leq30min,	Limi
loise Meas	uremer Start Time	nt Resul	ts (dB) Leq (5n L10,	of CN2 nin) L90,	2nd Leq,	Leq (51 L10,	min)	3rd Leq,	Leq (51 L10,	min)	4th Leq,	Leq (5r L10,	nin) L90,	5th Leq,	Leq (5r L10,	nin) L90,	6th Leq,	Leq (51 L10,	nin) L90,		Limi
Noise Meast Date	uremer Start Time	nt Resul 1st ] Leq, dB(A)	ts (dB) Leq (5n L10,	of CN2 nin) L90,	2nd Leq,	Leq (51 L10,	min) L90,	3rd Leq,	Leq (51 L10,	min) L90,	4th Leq,	Leq (5r L10,	nin) L90,	5th Leq,	Leq (5r L10,	nin) L90,	6th Leq,	Leq (51 L10,	nin) L90,	Leq30min,	Limi Leve dB(A
loise Meas	uremer Start Time	nt Resul 1st 2 Leq, dB(A) 61.4	ts (dB) Leq (5n L10, dB(A)	of CN2 nin) L90, dB(A)	2nd Leq, dB(A)	Leq (5) L10, dB(A)	min) L90, dB(A)	3rd Leq, dB(A)	Leq (51 L10, dB(A)	min) L90, dB(A)	4th Leq, dB(A)	Leq (5r L10, dB(A)	nin) L90, dB(A)	5th Leq, dB(A)	Leq (5r L10, dB(A)	nin) L90, dB(A)	6th Leq, dB(A)	Leq (51 L10, dB(A)	nin) L90, dB(A)	Leq30min, dB(A)	Limi

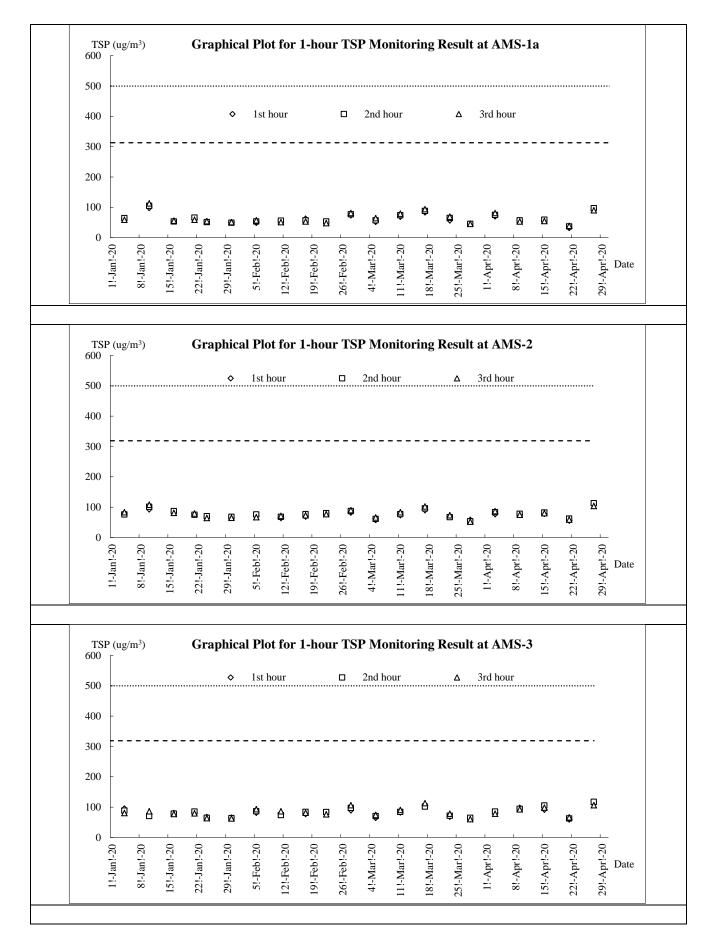
Noise Measu	uremen	t Resul	lts (dB)	of CN3																	
	Stant	1st	Leq (5r	nin)	2nd	Leq (5)	min)	3rd	Leq (5)	nin)	4th	Leq (5r	nin)	5th	Leq (5r	nin)	6th	Leq (5r	nin)	L	Limit
Date	Start Time	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq,	L10,	L90,	Leq30min, dB(A)	Level
	Time	dB(A)	dB(A)	dB(A)	dB(A)	<b>dB</b> (A)	dB(A)	dB(A)	dB(A)	dB(A)	uD(II)	dB(A)									
6-Apr-20	13:13	67.2	68.4	65.3	68.5	70.1	66.5	67.1	67.9	65	67.5	69.7	64.7	66.2	67.7	64.4	66.6	69.7	63.5	67	75
17-Apr-20	9:56	62.9	66.3	58.8	62.6	64.5	58.8	65.5	68	59.9	62.9	65.5	58.4	63.1	66.5	58.2	63.8	67	59.4	64	75
21-Apr-20	9:58	65.5	68.6	56.5	65.8	68.9	57.7	63.7	67.9	57.9	62.5	66.5	56.8	62.6	65.9	55.9	63	66.9	56.9	64	75

# Appendix I

# **Graphical Plots for Monitoring Result**



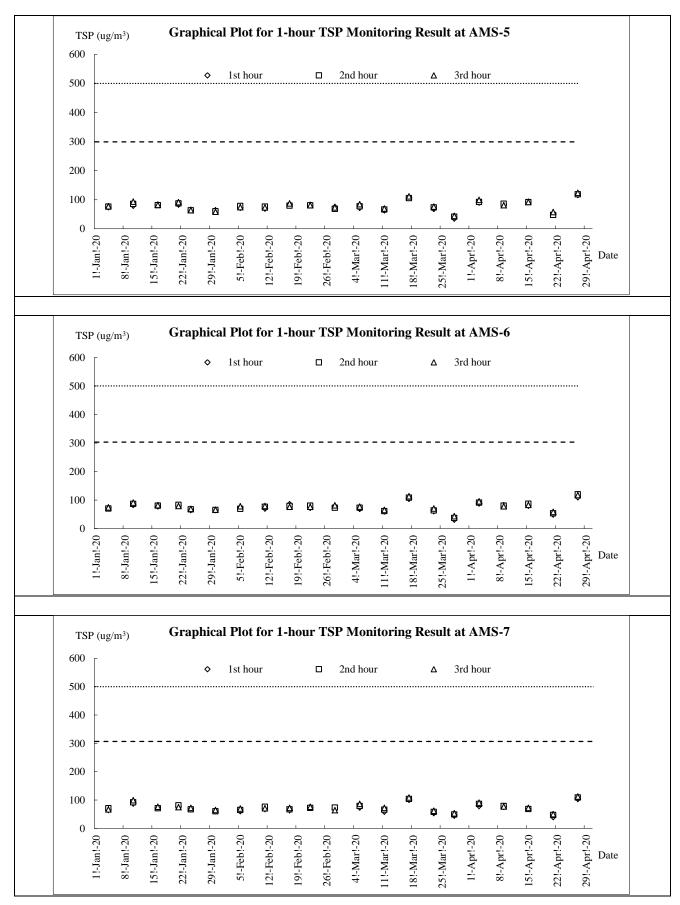
### Air Quality – 1-hour TSP



### CEDD Contract No. NTE/07/2016 Environmental Team for Development of Anderson Road Quarry Site - Site Formation and Associated Infrastructure Works

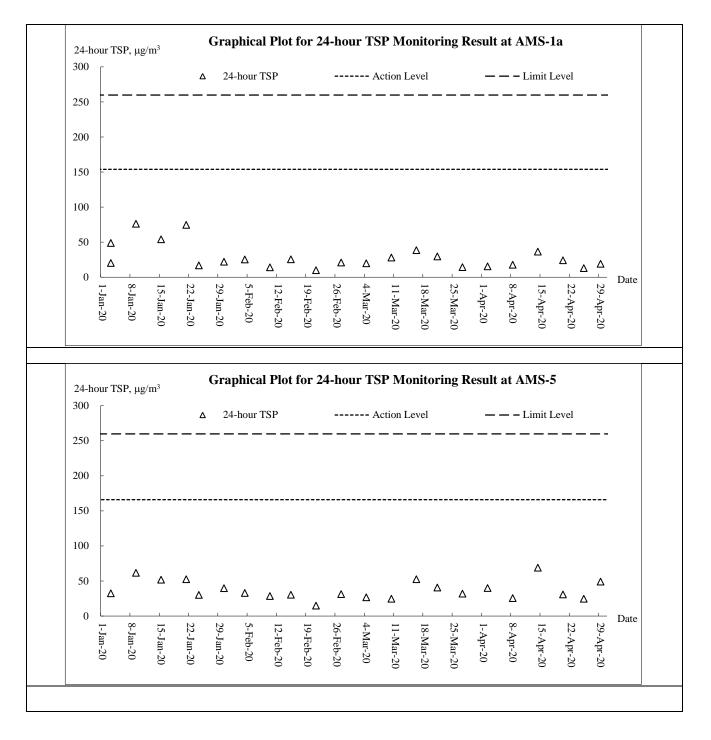


Monthly Environmental Monitoring & Audit Report (April 2020)





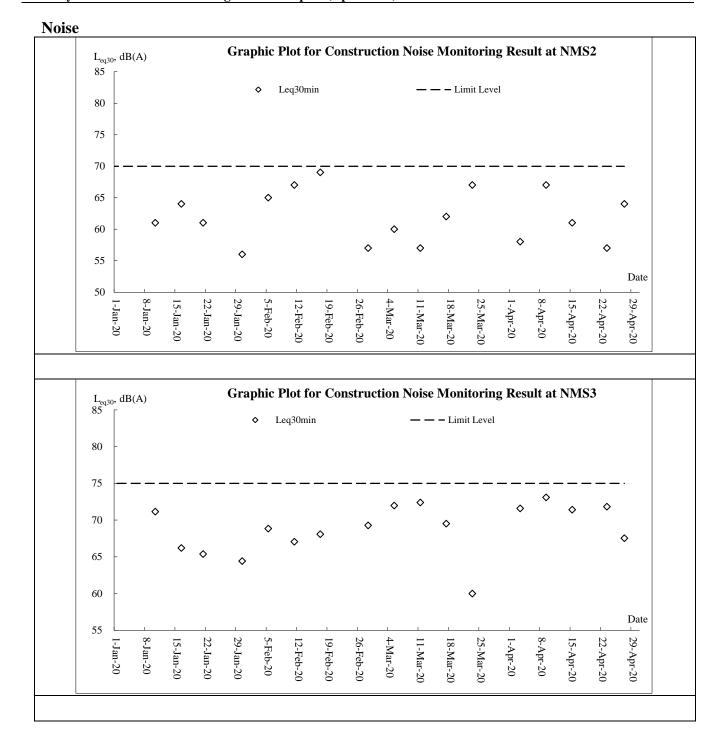
### Air Quality – 24-hour TSP





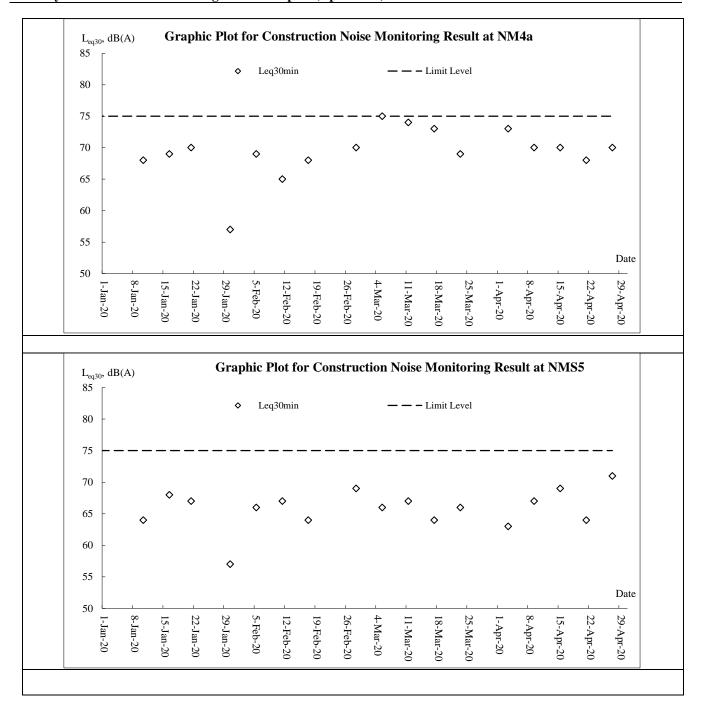
Graphical Plot for 24-hour TSP Monitoring Result at AMS-6 24-hour TSP,  $\mu g/m^3$  300  $\Gamma$ 24-hour TSP Δ ----- Action Level – – – Limit Level 250 200 -----150 100 Δ 50 Δ Δ Δ Δ Δ  $\Delta \Delta$ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ 0 1-Apr-20 Date 29-Jan-20 5-Feb-20 4-Mar-20 11-Mar-20 8-Apr-20 29-Apr-20 22-Jan-20 12-Feb-20 19-Feb-20 26-Feb-20 25-Mar-20 22-Apr-20 8-Jan-20 15-Jan-20 15-Apr-20 1-Jan-20 18-Mar-20 Graphical Plot for 24-hour TSP Monitoring Result at AMS-7 24-hour TSP, µg/m3 300 Δ 24-hour TSP ----- Action Level — — – Limit Level 250 200 150 100 Δ Δ 50 Δ 0 Date 1-Apr-20 25-Mar-20 4-Mar-20 11-Mar-20 8-Apr-20 29-Apr-20 29-Jan-20 5-Feb-20 26-Feb-20 18-Mar-20 15-Apr-20 22-Apr-20 8-Jan-20 22-Jan-20 12-Feb-20 19-Feb-20 15-Jan-20 Jan-20

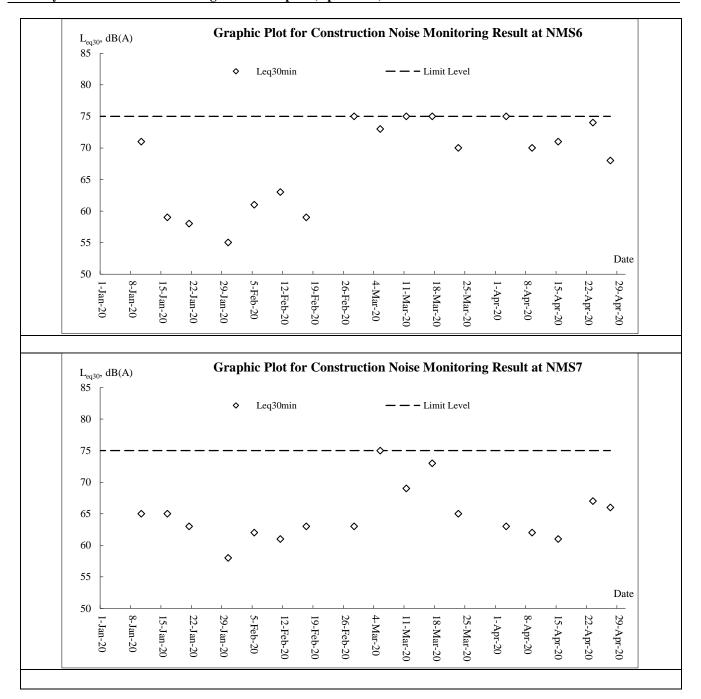




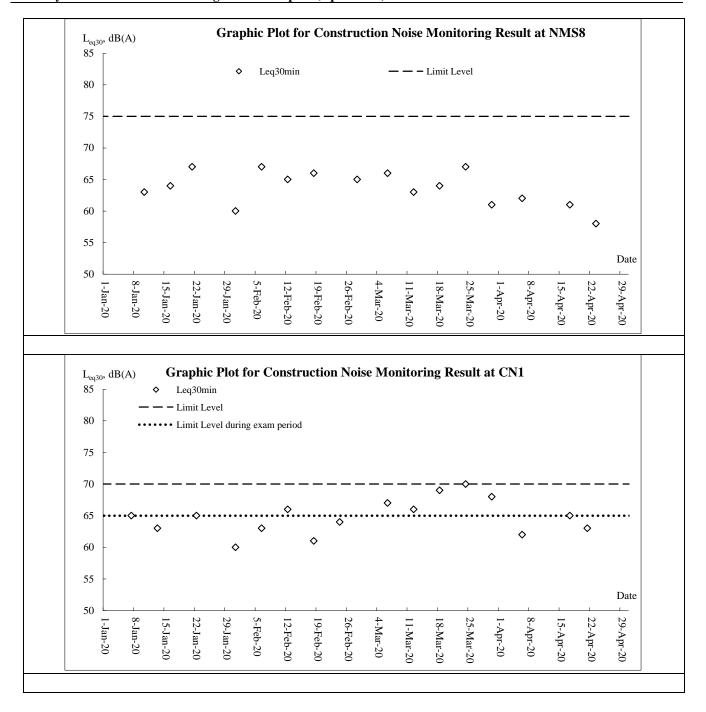
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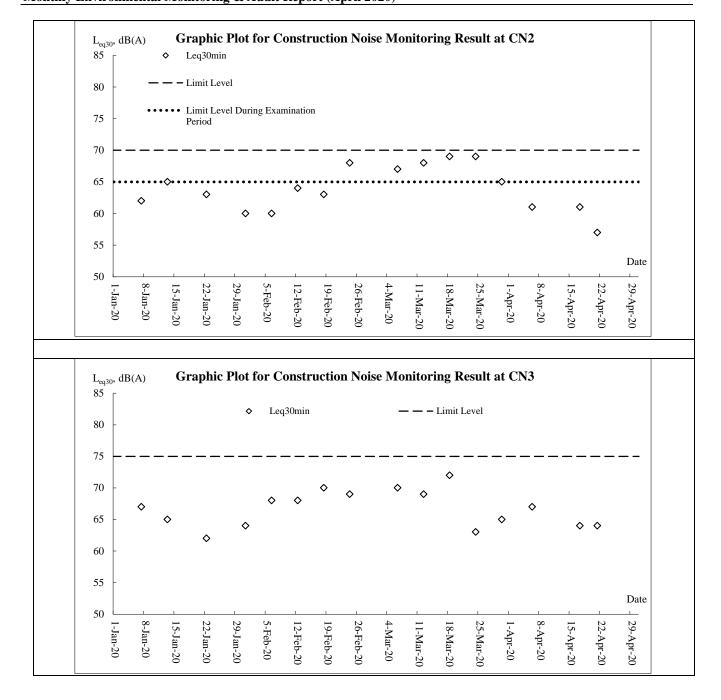






AUES







Appendix J

**Meteorological Data** 



			Total	Kwun Tong Station	Kai Tal	k Station	King's Park Station
Date		Weather	Rainfall (mm)	Mean Air Temp. (°C)	Wind Speed (km/h)	Wind Direction	Mean Relative Humidity (%)
1-Apr-20	Wed	Cloudy. Light rain at night.	0.2	19.3	7.5	E/SE	88.5
2-Apr-20	Thu	Moderate to fresh easterly winds, occasionally strong offshore.	0.4	19.3	21	E/SE	82.5
3-Apr-20	Fri	Moderate southeasterly winds.	0.6	19.8	16.2	E/SE	85.2
4-Apr-20	Sat	Moderate to fresh east to northeasterly winds.	1.1	20.8	15.7	E/SE	85
5-Apr-20	Sun	Cloudy and cool with occasional heavy showers.	4.6	17.7	17.5	E/SE	87.5
6-Apr-20	Mon	Hot with sunny periods in the afternoon.	21.5	16.5	11.2	E/SE	86.7
7-Apr-20	Tue	Cloudy with a few rain patches.	Trace	18.7	8.7	E/SE	80.5
8-Apr-20	Wed	Visibility relatively low at first.	0	20.6	13.7	E/SE	60
9-Apr-20	Thu	Fresh easterly winds, occasionally strong offshore.	0	21.7	13.2	SE	60.5
10-Apr-20	Fri	Cloudy. Light rain at night.	0	21.2	10.7	E/SE	65
11-Apr-20	Sat	Moderate to fresh easterly winds, occasionally strong offshore.	20.5	22.4	11.2	SE	62.7
12-Apr-20	Sun	Moderate southeasterly winds.	0.4	20.9	10.5	SE	55.7
13-Apr-20	Mon	Moderate to fresh east to northeasterly winds.	0	19.6	11.7	SE	53.7
14-Apr-20	Tue	Cloudy and cool with occasional heavy showers.	0	21	8.7	E/SE	56.5
15-Apr-20	Wed	Cloudy. Light rain at night.	0	22.4	7	SE	61.5
16-Apr-20	Thu	Cloudy. Light rain at night.	0	23.3	11.2	SE	71.5
17-Apr-20	Fri	Moderate southerly winds.	0	24.2	10.5	SE	71.5
18-Apr-20	Sat	Moderate southerly winds.	Trace	24.3	10	SE	79
19-Apr-20	Sun	Cloudy periods tonight.	0	26.3	8.5	W/SW	78
20-Apr-20	Mon	Mainly fine and hot in the afternoon	0	27	8	W/NW	79.5
21-Apr-20	Tue	Mainly fine and hot. Moderate southwesterly winds.	0	26.2	11	SE	78
22-Apr-20	Wed	Moderate to fresh east to northeasterly winds.	25.8	21.9	16.2	E/SE	92.5
23-Apr-20	Thu	Mainly fine and hot in the afternoon	1.3	19.8	13.7	E/SE	87.5
24-Apr-20	Fri	Cloudy periods tonight.	0.6	19.6	8.5	N/NE	78.5
25-Apr-20	Sat	Cloudy. Light rain at night.	0.1	19.8	7	E/SE	69.2
26-Apr-20	Sun	Moderate southerly winds.	0.7	23.1	5	E/SE	74
27-Apr-20	Mon	Cloudy with a few rain patches.	0	24	8.7	E/SE	58
28-Apr-20	Tue	Moderate southeasterly winds.	0	23.5	15	E/SE	53
29-Apr-20	Wed	Cloudy. Light rain at night.	0	23.6	13.7	E/SE	70.7
30-Apr-20	Thu	Hot with sunny periods in the afternoon.	0	25.2	10.5	E/SE	65

Appendix K

Waste Flow Table

### Contract No.: NE/2016/01

Site Formation and Infrastructure Works for Development of Anderson Road Quarry Site

		Actual Quar	ntities of Inert C&I	D Materials Genera	ted Monthly			Actual Quantities	of C&D Wastes C	Generated Monthly	
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract (see Note 6)	Reused in other Projects (see Note 8)	Disposed as Public Fill	Imported Fill	Metals (see Note 9)	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste (see Note 5)	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	129.197	22.841	126.974	0.924	1.299	0.000	0.005	0.025	0.007	0.000	0.141
Feb	110.670	2.524	109.300	1.240	0.130	0.000	0.000	0.000	0.000	0.000	0.205
Mar	161.220	2.884	153.483	7.567	0.170	0.000	0.007	0.000	0.008	0.000	0.169
Apr	47.464	1.609	35.093	11.120	1.251	1.103	0.004	0.575	0.003	0.000	0.120
May	0.000										
Jun	0.000										
Sub-total	448.551	29.858	424.850	20.851	2.850	1.103	0.016	0.600	0.018	0.000	0.635
Jul	0.000										
Aug	0.000										
Sep	0.000										
Oct	0.000										
Nov	0.000										
Dec	0.000										
Total	448.551	29.858	424.850	20.851	2.850	1.103	0.016	0.600	0.018	0.000	0.635

### Monthly Summary Waste Flow Table for <u>2020 (year)</u>

Notes:

(1) The performance targets are given in PS Clause 1.119 (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 and waste will be collected by recycler for recycling.

(4) Use the conversion factor, density of general refuse  $(1 \text{ t/m}^3)$  and inert C&D materials  $(2 \text{ t/m}^3)$ .

(5) Use the conversion factor for chemical waste (0.88kg/L).

(6) Assume a dump truck delivers  $7.5 \text{ m}^3$  material in 1 trip.

(7) The cut-off date of this summary is  $20^{h}$  of each month.

(8) The Inert C&D materials of reused in other Projects including glass materials.

(9) The C&D waste generation of metal including rechargable battery recycling.

### Contract No.: NE/2016/01

Site Formation and Infrastructure Works for Development of Anderson Road Quarry Site

			Forecast of To	otal Quantities of C	C&D Materials to	be Generated from	the Contract*			
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract (see Note 6)	Reused in other Projects (see Note 8)	Disposed as Public Fill	Imported Fill	Metals (see Note 9)	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste (see Note 5)	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> )
875.389	350.330	510.059	0.000	15.000	6.000	1300.000	2.000	4.830	10.000	3.500

Notes:

(1) The performance targets are given in PS Clause 1.119 (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 and waste will be collected by recycler for recycling.

(4) Use the conversion factor, density of general refuse  $(1 \text{ t/m}^3)$  and inert C&D materials  $(2 \text{ t/m}^3)$ .

(5) Use the conversion factor for chemical waste (0.88 kg/L).

(6) Assume a dump truck delivers  $7.5 \text{ m}^3$  material in 1 trip.

(7) The cut-off date of this summary is  $20^{th}$  of each month.

(8) The Inert C&D materials of reused in other Projects including glass materials.

(9) The C&D waste generation of metal including rechargable battery recycling.

### Appendix II

Name of Department : <u>CEDD</u>

Contract No. : NE/2016/05

# Monthly Summary Waste Flow Table for 2020 (year)

					[PS C	lause 1.129]					
		Actual Quanti	ties of Inert C&	&D Materials G	enerated Mont	hly	Act	ual Quantities o	f C&D Wastes	Generated Mo	onthly
Month	Total Quantity Generated	Hard Rock & 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)	Chemicals Waste	Others, e.g. general refuse
	$(in '000 m^3)$	(in '000 m <sup>3</sup> )	$(in '000 m^3)$	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m <sup>3</sup> )
Jan	0.397	0	0.113	0	0.150	0	0	0	0	0	0.134
Feb	0.237	0	0.071	0	0.118	0	0	0	0	0	0.048
Mar	0.615	0	0	0	0.405	0	0	0	0	0	0.21
Apr	0.608	0	0	0	0.528	0	0	0	0	0	0.08
May		0		0		0	0	0	0	0	
June		0		0		0	0	0	0	0	
Sub-total		0		0		0	0	0	0	0	
July		0		0		0	0	0	0	0	
Aug		0		0		0	0	0	0	0	
Sept		0		0		0	0	0	0	0	
Oct		0		0		0	0	0	0	0	
Nov		0		0		0	0	0	0	0	
Dec		0		0		0	0	0	0	0	
Total	1.857	0	0.184	0	1.201	0	0	0	0	0	0.472

Notes: (1) The performance targets are given in 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  $\text{m}^3$ .

# Contract No.: NE/2017/03

Development of Anderson Road Quarry Site - Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A

		Actual Quant	ities of Inert C&I	D Materials Genera	ated Monthly			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	1.284	0.000	0.083	1.058	1.202	0.000	0.002	0.069	0.000	0.000	0.029
Feb	4.744	0.000	0.023	1.590	4.721	0.000	0.000	0.000	0.620	0.000	0.027
Mar	6.140	0.000	0.083	0.503	6.057	0.000	0.002	0.054	0.565	0.000	0.025
Apr	1.828	0.000	0.000	0.968	1.828	0.000	0.000	0.000	0.000	0.000	0.031
May											
Jun											
Sub-total	13.996	0.000	0.188	4.118	13.808	0.000	0.004	0.123	1.185	0.000	0.112
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	13.996	0.000	0.188	4.118	13.808	0.000	0.004	0.123	1.185	0.000	0.112

# Monthly Summary Waste Flow Table for <u>2020(year)</u>

## Contract No.: NE/2017/03

Development of Anderson Road Quarry Site - Road Improvement Works and Pedestrian Connectivity Facilities Works Phase 2A

			Forecast of T	otal Quantities of (	C&D Materials to b	e 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 <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> )
15.000	0.000	0.000	0.000	15.000	0.000	0.100	2.000	0.300	1.000	3.500

Notes: (1) The performance targets are given in 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 and waste will be collected by recycler for recycling
- (4) Use the conversion factor, density of general refuse  $(1 \text{ t/m}^3)$  and inert C&D materials  $(2 \text{ t/m}^3)$ .
- (5) Use the conversion factor for chemical waste (0.88 kg/L)

# Appendix L

Implementation Schedule for Environmental Mitigation Measures



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Iı	nplementation Sta	tus
		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3
Dust Impa	ct (Contraction Phase)						
S4.7.2 to S4.7.5	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul road is proposed to achieve dust removal efficiency of 91.7%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.75 L/m <sup>2</sup> to achieve the respective dust removal efficiencies.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	V	V	V
S4.7.6	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction ion Dust ) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	V	V	V
S4.7.6	<ul> <li>Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase:</li> <li>Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;</li> <li>Any dusty materials remaining after a stockpile is removed should be wet ted with water and cleared from the surface of roads;</li> <li>A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones;</li> <li>The load of dusty materials on a vehicle leaving a construction ion site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;</li> <li>Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road sect ion between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;</li> <li>When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction ion site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;</li> <li>Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;</li> <li>Any area that involves demolition activities should be sprayed with water or a dust suppression chemical continuously;</li> </ul>	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Ø	V	@



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	In Contract 1	mplementation Sta	tus Contract 3
	<ul> <li>after the activities so as to maintain the entire surface wet ;</li> <li>Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;</li> <li>Any skip hoist for material transport should be totally enclosed by impervious sheeting;</li> <li>Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;</li> <li>Cement or dry PFA delivered in bulk should be stored in a closed silo fit ted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; and</li> <li>Exposed earth should be properly treated by compact ion, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.</li> </ul>						contracto
\$4.7.7	Implement regular dust monitoring under EM&A programme during the Construction phase.	Control construction airborne noise	Selected Representati ve dust monitoring station	All construction sites where practicable	V	N/A	N/A
Noise Impa	act (Contraction Phase)						
S5.6.9	<ul> <li>Implement the following good site management practices:</li> <li>only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction ion programme;</li> <li>machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;</li> <li>plant known to emit noise strongly in one direct ion, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>silencers or mufflers on construction ion equipment should be properly fit ted and maintained during the construction ion works;</li> <li>mobile plant should be sited as far away from NSRs as possible and practicable; and</li> <li>material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> <li>Use of "Quiet " Plant and Working Methods.</li> </ul>	Control construction ion airborne noise Reduce the noise	Contractor	All construction sites where practicable	@ V	@ N/A	V N/A



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the measure	Iı	nplementation Sta	itus
		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3
\$5.6.13		levels of plant items		construction sites where practicable			
\$5.6.14	Install temporary site hoarding (approx 2.5m high) located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction ion noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites where practicable	V	V	V
S5.6.15 to S5.6.18	Install movable noise barriers, full enclosure and acoustic mat, screen the noisy plants including air compressor and generator.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction ion sites where practicable	V	V	N/A
\$5.6.19	Sequencing operation of construction plants equipment.	Operate sequentially within the same work site to reduce the construction airborne noise	Contractor	All construction ion sites where practicable	V	V	N/A
S5.6.34	Implement temporary noise barrier along Road L4.	Further reduce the construction ion airborne noise	Contractor	Road L4 of ARQ	N/A	N/A	N/A
\$5.6.35	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected Representati ve Noise monitoring stations	V	N/A	N/A
Water Qua	ality Impact (Contraction Phase)		•				•
\$6.6.3	<ul> <li><u>Construction Runoff</u></li> <li>In accordance with the Practice Note for Professional Persons on</li> <li>Construction ion Site Drainage, Environmental Protect ion Department , 1994</li> <li>(ProPECC PN 1/94), best management practices should be implemented as far as practicable as below:</li> <li>At the start of site establishment , perimeter cut -off drains to direct off-site water around the site should be constructed with internal drainage works. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities.</li> <li>Diversion of natural stormwater should be provided as far as possible. The design of temporary on-site drainage should prevent runoff going through site surface, construction machinery and equipment in order to avoid or</li> </ul>	Control construction runoff	Contractor	All construction sites	@	@	V



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure		mplementation Sta	
	<ul> <li>minimize polluted runoff. Sediment at ion tanks with sufficient capacity, constructed from preformed individual cells of approximately 6 to 8 m<sup>3</sup> capacities, are recommended as a general mitigation measure which can be used for set t ling surface runoff prior to disposal. The system capacity shall be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped.</li> <li>The dikes or embankments for flood protect ion should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt /sediment t rap. The silt /sediment t raps should be incorporated in the permanent drainage channels to enhance deposit ion rates.</li> <li>The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of construction ion.</li> <li>Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means.</li> <li>All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rainstorms. Deposited silt and grit should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, it should be dug and backfilled in short sect ions wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via</li></ul>	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3
	<ul> <li>All open stockpiles of construction ion materials (for example, aggregates, sand and fill material) of should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction ion materials, soil, silt or debris into any drainage system.</li> <li>Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction ion</li> </ul>						



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the measure		nplementation Sta	Γ
	<ul> <li>be taken during or after rainstorms are summarized in Appendix A2 of <i>ProPECC PN 1/94</i>. Particular attention should be paid to the control of silty surface runoff during storm events.</li> <li>All vehicles and plant should be cleaned before leaving a construction ion site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction ion site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The sect ion of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient back all toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and rains.</li> <li>Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be provided for the oil interceptors to prevent flushing during heavy rain.</li> <li>Construction ion solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.</li> <li>All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bun ds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby.</li> <li>Regular environmental audit on the construction site should be construction in order to prevent any malpractices. Not ices should be posted at conspicuous</li> </ul>	Concern to Address	measures?		Contract 1	Contract 2	Contract 3
S6.6.6	locations to remind the workers not to discharge any sewage or wastewater into the rivers. Sewage from Workforce	Handling of site	Contractor	All	V	V	V
so.o.o and 6.6.7	<ul> <li>Portable chemical toilets should be provided for handling the construction sewage generated by the workforce. Assume that the capacity of the chemical toilets would be 0.4m3 and suck up twice a day under normal practices, around 45 chemical toilets would be required for the whole site at peak hour. And it should be noted that under normal construction periods, less chemical toilets would be subject to later detailed design, the capacity of the chemical toilets, and contractor's site practices. Nevertheless, a licensed contractor should be employed to provide appropriate and adequate portable toilets to cater around 37.5 m3/day sewage and be responsible for appropriate disposal and maintenance. Since portable chemical toilets will be provided, no adverse water quality impact from the workforce sewage is anticipated.</li> </ul>	sewage		An construction sites	v	v	v



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the measure	Implementation Status			
		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	
	• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction ion phase of the Project . Regular environmental audit on the construction ion site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measure							
S6.6.8 and 6.6.9	Accidental Spillage To prevent accidental spillage of chemicals, proper storage and handling facilities should be provided. All the tanks, containers and storage area should be bunded and the locations should be locked as far as possible from the sensitive watercourse and storm drains. The Contractor is required to register as a chemical waste producer if chemical wastes would be generated from the construction ion activities. Storage of chemical waste arising from the construction ion activities should be well managed with suitable labels an d warnings while disposal of those chemical wastes should be comply with the requirement states in Waste Disposal Ordinance (Cap 354) as well as Waste Disposal (Chemical Waste) (General) Regulations.	Prevention of accidental spillage	Contractor	All construction sites	œ	œ	V	
S6.6.11- S6.6.14	Groundwater from Contaminated Area The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater discharge. Prior to the excavation works within these potentially contaminated areas, the groundwater quality should be reviewed during the process of discharge license application. The compliancy to the TM-DSS and the existence of prohibited substance should be confirmed after further SI. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, the contaminated groundwater should be either properly treated in compliance with TMDSS or properly recharged into the ground. If wastewater treatment is deployed, the wastewater treatment unit shall deploy suitable treatment process (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (e.g. Petroleum Carbon Ranges (PCRs)). All treated effluent from wastewater treatment plant shall meet the requirements as stated in TM-DSS and should be discharged into the foul sewers. If groundwater recharging wells are deployed, recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality	Minimize contaminated groundwater impacts	Contractor	All construction sites	NA	NA	NA	



EM&A Ref.	Recommended Mitigation Measures	Objectives Recomme Measures &	nded Main	Who to implement the	Location of the measure	Implementation Status		
		Concern to A	ddress	measures?		Contract 1	Contract 2	Contract 3
	will not be affected by the recharge operation as indicated in the Sect ion 2.3 of TM-DSS. The baseline groundwater quality shall be determined prior to the select ion of the recharge wells, and submit a working plan (including the laboratory analytical results showing the quality of groundwater at the proposed recharge location(s) as well as the pollutant levels of groundwater to be recharged) to EPD for agreement. Pollution levels of groundwater at the recharge well. Prior to recharge, any prohibited substances such as PCRs should be removed as necessary by installing the petrol interceptor.							
Waste Mai	nagement (Contraction Phase)			L	L			
\$8.5.2	<ul> <li><u>Good Site Practice</u>         The following good site practices are recommended throughout the construction ion activities:         <ul> <li>nomination of an approved personnel, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collect ion and effective disposal to an appropriate facility, of all wastes generated at the site;</li> <li>training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;</li> <li>provision of sufficient waste disposal points and regular collect ion for disposal;</li> <li>appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;</li> <li>regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;</li> </ul> </li> </ul>	Minimize generation construction	waste during	Contractor	All construction sites	V	V	V
S8.5.2 (6)	The contractor should submit a Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) in accordance with the <i>ETWB TC(W) No. 19/2005</i> for construction ion phase. The EMP should be submit ted to the Engineer for approval. Mitigation measures proposed in the EIA Report and the EM&A Manual should be adopted.	Minimize generation construction	waste during	Contractor	All construction sites	V	V	V
\$8.5.3	<ul> <li>Waste Reduction Measures</li> <li>Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve reduction:</li> <li>segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling o materials and their proper disposal;</li> <li>proper storage and site practices to minimize the potential for damage and contamination of construction ion materials;</li> <li>plan and stock construction ion materials carefully to minimize amount of</li> </ul>	Reduce generation	waste	Contractor	All construction sites where practicable	V	V	V



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Implementation Status		
		<b>Concern to Address</b>	measures?	measure	Contract 1	Contract 2	Contract 3
	<ul> <li>waste generated and avoid unnecessary generation of waste;</li> <li>sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable port ions (i.e. soil, broken concrete, metal etc.);</li> <li>provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.</li> </ul>						
\$8.5.5	<ul> <li><u>Storage of Waste</u> The following recommendation should be implemented to minimize the impacts: <ul> <li>waste such as soil should be handled and stored well to ensure secure containment;</li> <li>stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; <ul> <li>different locations should be designated to stockpile each material to enhance reuse;</li> </ul></li></ul></li></ul>	Minimize waste impacts from storage	Contractor Contractor	All construction sites	V	V	V
S8.5.6	Collection and Transportation of Waste         The following recommendation should be implemented to minimize the impacts:         • remove waste in timely manner;         • employ the trucks with cover or enclosed containers for waste         • transportation;         • obtain relevant waste disposal permits from the appropriate authorities; and         • disposal of waste should be done at licensed waste disposal facilities.	Minimize waste impacts from storage	Contractor	All construction sites	V	V	V
S8.5.8	<ul> <li><u>Excavated and C&amp;D Material</u> Wherever practicable, C&amp;D materials should be segregated from other wastes to avoid contamination and ensure acceptability at public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the excavated and C&amp;D materials:</li> <li>maintain temporary stockpiles and reuse excavated fill material for backfilling;</li> <li>carry out on-site sorting;</li> <li>make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;</li> <li>implement a recording system for the amount of waste generated, recycled and disposed of for checking;</li> </ul>	Minimize waste impacts from excavated and C&D materials	Contractor	All construction sites	V	V	V
	<ul> <li>The recommended C&amp;D materials handling should include:</li> <li>On-site sorting of C&amp;D materials</li> <li>Reuse of C&amp;D materials</li> <li>Use of Standard Formwork and Planning of Construction Materials purchasing</li> <li>Provision of wheel wash facilities</li> </ul>						
S8.5.15	<u>Contaminated Soil</u> As a precaution, it is recommended that standard good site practice should be	Remediate contaminated soil	Contractor	All construction	V	V	N/A



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the measure	Implementation Status			
		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	
	implemented during the construction phase to minimize any potential exposure to contaminated soils or groundwater. The details of mitigation measures to minimize the potential environmental implications arising from the handling of contaminated materials refer to Land Contamination Section.			sites where applicable				
S8.5.17	<ul> <li><u>Chemical Waste</u></li> <li>If chemical wastes are produced at the construction ion site, the Contractors should register with EPD as chemical waste producer. Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste Contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Cent re, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.</li> </ul>	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	V	V	V	
S8.5.18	<ul> <li><u>General Waste</u></li> <li><u>General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling.</u></li> <li>Preferably enclosed and covered areas should be provided for general refuse collect ion and routine cleaning for these areas should also be implemented to keep areas clean.</li> <li>A reputable waste collector should be employed to remove general refuse on a daily basis.</li> </ul>	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	@	V	@	
S8.5.19	<ul> <li>Sewage         <ul> <li>The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities.</li> <li>Regularly collect ion by licensed collectors should be arranged to minimize potential environmental impacts.</li> </ul> </li> </ul>	Minimize production of sewage impacts	Contractor	All construction sites	V	V	V	
Ecology (C	Contraction Phase)							
S. 10.7.2 to 10.7.6	Re-provision of Wooded Area for ecological function at the future Quarry Park.	Compensate for the loss of three woodland patches of a total area of about 1.13ha.	Contractor/ Detailed Design Consultant (qualified botanist / horticulturis t / Certified Arborist to supervise the	Northern part of the proposed Quarry Park.	N/A	N/A	N/A	



M&A Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the measure	Implementation Status			
С	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	
	<b>.</b> ,	planting).	A 11	<b>X</b> 7	<b>NT / A</b>	<b>X</b> 7	
<ul> <li>hydrological condition and water quality of hillside watercourses include:</li> <li>Temporary sewerage and drainage will be designed and installed to collect wastewater and prevent it from entering nearby watercourses;</li> </ul>	Ainimize impacts on Iydrological ondition and water uality of hillside vatercourses.	Contractor	All construction sites	V	N/A	V	



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Iı	Implementation Status		
		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	
	<ul> <li>plan will include, but not be limited to, the following:</li> <li>Potential emergency situations;</li> <li>Chemicals or hazardous materials used on-site (and their location);</li> <li>Emergency response team;</li> <li>Emergency response procedures;</li> <li>List of emergency telephone hot lines;</li> <li>Locations and types of emergency response equipment , and</li> <li>Training plan and testing for effectiveness.</li> </ul>	Hydrological condition and water quality of hillside watercourses.		construction sites				
Landscape	and visual (Contraction Phase)							
S11.14.23 , Table 11.9, CM1 [4]	All existing trees to be retained shall be carefully protected during construction.	Avoid disturbance and protection of the existing trees	Detailed Design Consultant /	The whole project area where applicable	V	V	V	
S11.14.23 , Table 11.9, CM2 [3]	Tree Transplantation - Should removal of trees be unavoidable due to construction impacts, trees will be transplanted or felled. Detailed transplanting proposal will be submit ted to relevant government departments for approval in accordance with <b>LAO GN No. 7/2007</b> , <i>ETWB TCW No. 29/2004</i> and <i>10/2013</i> . Final locations of transplanted trees shall be agreed prior to commencement of the work.	Minimize landscape impact and retention of landscape resources	Detailed Design Consultant /	Onsite where possible. Otherwise consider offsite locations	*	N/A	V	
S11.14.23 , Table 11.9, CM3 [4]	Control of operation night -time glare with well-planned lighting operation system to minimize potential glare impact to adjacent VSRs	Minimize glare impact to adjacent VSRs	Contractor/ CEDD	The whole project area where applicable	V	V	V	
S11.14.23 , Table 11.9, CM [4]	Erection of decorative screen hoarding.	Minimize visual impact	Contractor/ CEDD	The whole project area where applicable	N/A	N/A	N/A	
S11.14.23 , Table 11.9, CM5 [2]	Minimise disturbance and limitation of run-off – temporary structures and construction works should be planned with care to minimize disturbance to adjacent landscape, vegetation, natural stream habitats.	Minimize visual impact	Contractor/ CEDD	The whole project area where applicable	V	V	V	

Legend: V = implemented; x = not implemented; @ = partially implemented; \* = pending to be implemented; N/A = not applicable

Appendix M

**Complaint Log** 

## Appendix M1 Cumulative Complaint and Summons/ prosecution

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/ Prosecution in Reporting Month
March 2017	1	0
April 2017	0	0
May 2017	0	0
June 2017	2	0
July 2017	3	0
August 2017	3	0
September 2017	4	0
October 2017	2	0
November 2017	3	0
December 2017	3	0
January 2018	1	0
February 2018	4	0
March 2018	0	0
April 2018	1	0
May 2018	1	0
June 2018	1	0
July 2018	0	0
August 2018	1	0
September 2018	1	0
October 2018	1	0
November 2018	3	0
December 2018	2	0
January 2019	2	0
February 2019	3	0
<b>March 2019</b>	1	0
April 2019	0	0
May 2019	0	0
June 2019	1	0
July 2019	1	0
August 2019	1	0
September 2019	0	0
October 2019	1	0
November 2019	4	0
December 2019	0	0
January 2020	0	0
February 2020	0	0
March 2020	4	0
April 2020	1	0
Overall Total	56	0



A	ppendix	M2	Com	olaint Log							
Lo rei	g Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
1	23-Mar-17	NA	Anderson Road Quarry site	Resident of On Tat Estate	Construction noise	SPRO hotline	NA	A resident living in On Tat House reported that some night works with noise and flashing caused nuisance to nearby resident after 11:00 pm on 23 March 2017.		no comment by IEC on 11 Oct 2017	TCS00864/16/3 00/F0087
2	28-Jul-17	28-Jul-17	Anderson Road Quarry site	Resident of On Tat Estate	Construction noise	SPRO hotline		Mr. Hsu received a complaint from a resident living in the flat on 38/F of Yin Tat House (賢達樓), On Tat Estate. The resident complained about the noise level of our works during daytime.	Noise monitoring by Contractor was conducted in Yin Tat House, On Tat Estate, at around 2 pm on 28-Jul-2017. Another noise monitoring was carried out by ET and representatives of AECOM and JV in the presence of the complainant in her flat at 10 am on 1-Aug-2017 and was witnessed by Mr. Hsu. No exceedance of noise was recorded. The complainant was satisfied about the monitoring results.	no comment by IEC on 9 Aug 2017	TCS00864/16/3 00/F0060
3	29-Aug-17	29-Aug-17	Anderson Road Quarry site	Resident of On Tat Estate	Construction noise	SPRO hotline		Mr. Hsu Yau Wai reported that he received complaint from a resident (Ms Cheng) living at Shing Tat House 24/F Room 22 about the noise generated from our site this week. The noise heard was mainly rock breaking noise from our site.	Noise monitoring was carried out by ET and representatives of AECOM and JV in the presence of the complainant in her flat at 3pm on 30-Aug-2017. No exceedance of noise was recorded. The complainant was satisfied about the monitoring results.	no comment by IEC on 8 Sep 2017	TCS00864/16/3 00/F0081
4	21-Jun-17	29-Aug-17	Anderson Road Quarry site	Resident of Po Tat Estate	Construction noise	EPD		day time construction noise of breakers (8am to 6pm)		no comment	TCS00864/16/3 00/F0093
5	22-Jun-17	29-Aug-17	Anderson Road Quarry site	Resident of Po Tat Estate	Dust & Construction noise	EPD	N08/RE/0	Day time construction noise of breakers (8AM to 6PM). Requested to delay the operating hour of breakers to 10AM or 11AM	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident and the working hour 08:00 to 18:00 did not breach any legal requirement. To eliminate the inconvenience caused to the nearby resident CWSTVJV was advised to further enhance the noise mitigation measures as appropriately.	by IEC on 3 Nov 2017	TCS00864/16/3 00/F0093
6	15-Jul-17	29-Aug-17	Anderson Road Quarry site	Resident of Po Tat Estate	Construction noise	EPD	EPD (ref.N08/ RE/00022 479-17)	Construction noise	08:00 to 18:00 did not breach any legal requirement. 10	no comment by IEC on 3 Nov 2017	TCS00864/16/3 00/F0094
7	28-Jul-17	29-Aug-17	Anderson Road Quarry site	unknown	Dust	EPD		Poor control on dust emission at Anderson Road Construction Site	CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident and status of the implementation of dust mitigation measures was considered effective based on the site observation.	no comment by IEC on 15 Nov 2017	TCS00864/16/3 00/F0097



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
8	2-Aug-17	29-Aug-17	Anderson Road Quarry site	Resident of On Tat Estate	Construction noise	EPD	EPD (ref.N08/ RE/00024 557-17)		further enhance the noise mitigation measures as appropriately. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	Nov 2017	TCS00864/16/3 00/F0098
9	19-Sep-17	19-Sep-17	Anderson Road Quarry site	Resident of Sau Mau Ping Estate	Construction noise	SPRO hotline	NA	The complainant is living at Sau Mau Ping Estate Sau Nga House 38/F. He complained about the noise nuisance recently from August to September especially during night time after 12:00 am, even in Saturdays and Sundays. The noise nuisance caused a great disturbance to him. He made a request to conduct investigation about the source of the noise during night time.	ET has conducted an ad-hoc noise measurement for Leq (30min) on the rooftop of 秀雅樓 and 秀義樓 in the afternoon of 22 September 2017. During the course of noise measurement, construction activities such as excavation and breaking were conducted in the Quarry Site. The measurement results taken at	no comment by IEC on 18 Oct 2017	TCS00864/16/3 00/F0088
10	21-Sep-17	13-Oct-17	Anderson Road Quarry site	Resident of Sau Mau Ping Estate	Construction noise	EPD	EPD (ref.N08/ RE/00031 074-17)	On 21 September 2017, the same complaint further reported that the noise can be heard at both Sau Yee House and Sau Nga House even in daytime and he strongly requested the Contractor to follow up the case immediately.	both 秀雅樓 and 秀義樓 were 63dB(A) which below the Limit Level under the EM&A Programme.		TCS00864/16/3 00/F0088
11	27-Sep-17	13-Oct-17	Anderson Road Quarry site	Resident of On Tat Estate	Construction noise	EPD	EPD (ref.N08/ RE/00029 489-17)	The complainant questioned why there were 6 to 7 breakers operating in the morning but only 1 operating in the afternoon. He requested to shift the operation of the breakers to afternoon.	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in September and October 2017,		TCS00864/16/3 00/F0106
12	3-Oct-17	13-Oct-17	Anderson Road Quarry site	Resident of On Tat Estate	Construction noise	EPD	EPD (ref. N08/RE/0 0032407- 17)	Day time construction noise, the complainant requested using less breaker at one time, erecting taller noise barrier to cover the equipment. In addition, the complainant would like to know the construction schedule whether there will be more breaking activities in near future	CWSTVJV should properly maintain the noise mitigation measures as appropriate. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 30 Nov 2017	TCS00864/16/3 00/F0106
13	25-Oct-17	26-Oct-17	Anderson Road Quarry site	Resident of Po Tat Estate	Dust	EPD	NA	投訴安達臣道地盤的泥車落泥,令 他達貴樓的住所受到大塵影響,要 求跟進及回覆	Investigation revealed that CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident. Nevertheless, based on the observation during site inspection on 31 October 2017, CWSTVJV was advised to enhance the dust mitigation measures particularly during dry season.	no comment by IEC on 15 Nov 2017	TCS00864/16/3 00/F0100



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
14	6-Nov-17	7-Nov-17	Anderson Road Quarry site	Resident of On Tat Estate	Noise	EPD	NA	安達邨俊達樓居民投訴石礦場地盤 又再於早上 07:45 開始傳出機器不 停 揼 石 的 噪 音 (幾 乎 每 日 在 08:00-19:00 進行工程),已持續一 年,他全家人受到滋援。	Ad-hoc noise measurement was conducted by ET at rooftop of Chun Tat House in the morning of 20 November 2017 and measurement result was below the Limit Level under the EM&A Programme. CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 30 Nov 2017	TCS00864/16/3 00/F0109
15	13-Nov-17	14-Nov-17	Anderson Road Quarry site	Mr. Lam Wai	light pollution and noise	SPRO hotline	NA	<ol> <li>智泰樓面向安達臣地盤方向,有 照射燈深夜時分仍然常開,影響居 民正常睡眠質素,照成一定的精神 壓力。</li> <li>隔音布未固定,大風吹過發出極 大的聲浪</li> </ol>	lights to the orientation pointing the ground and that to minimise the nuisance. For the maintenance of noise barrier, CWSTVJV has immediately fixed the noise barrier nearest to On Tai Estate and prolonged the cover area of the noise barrier to reduce the noise impact to the public.	no comment by IEC on 24 Nov 2017	TCS00864/16/3 00/F0104
16	1-Nov-17	14-Nov-17	Anderson Road Quarry site	Resident of Po Tat Estate	Noise	EPD	NA	居住於安達邨誠達樓高層的投訴人 投訴由早上八時半至下午六時聽到 揼鐵噪音。	CWSTVJV had already deployed the acoustic mat as noise barrier at the site boundary near Shing Tat House. To enhance the noise mitigation measures, CWSTVJV deployed an acoustic mat as noise barrier for the breaking work in order to reduce construction noise affecting the upper floor of On Tat Estate.	by hec on 15	TCS00864/16/3 00/F0110
17	25-Aug-17	26-Oct-17	Anderson Road Quarry site	Resident of Sau Mau Ping Estate	Construction Noise	EPD		Night time construction noise of hammering (around 12AM)	It is confirmed by CWSTVJV and checked against the site diary that no construction activities were carried out after 19:00 at the subject site. Therefore, the complaint about noise nuisance during night time should not be related to the Project.	no comment by IEC on 14 Dec 2017	TCS00864/16/3 00/F0114
18	12-Sep-17	26-Oct-17	Anderson Road Quarry site	Resident of On Tat Estate	Construction Noise	EPD		Day time construction noise of breakers (8AM to 5PM)	Noise mitigation measures were implemented to reduce the noise impact to the nearby resident. According to the impact noise monitoring result in September 2017, there were no breaches of EM&A requirement. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 10 Jan 2018	TCS00864/16/3 00/F0117
19	15-Dec-17	21-Dec-17	Anderson Road Quarry site	Resident of Sau Mau Ping Estate	Construction Noise	EPD	NA	complained suspected construction noise from Anderson Construction Site at restricted hour (7pm to 7am).	It is confirmed by CWSTVJV and checked against the site diary that no construction activities were carried out after 19:00 at the subject site. Therefore, the complaint about noise nuisance during night time should not be related to the Project.	Jan 2018	
20	20-Dec-17	21-Dec-17	Anderson Road Quarry site	Resident of On Tat Estate	Dust	EPD	NA	大鹿。 恐斯人住於安達越,恐斯	CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident. It is considered that the complaint was an isolated case due to malfunction of water tanker and CWSTVJV has promptly rectified the deficiency. As advised by CWSTVJV, another water tanker will be deployed in mid-January 2018 to enhance the dust suppression measures throughout the construction site.	no comment by IEC on 25 Jan 2018	TCS00864/16/3 00/F0121
21	28-Dec-17	10-Jan-18	Anderson Road Quarry site	Resident of Sau Mau Ping Estate	Construction Noise	CE's office	NA	日間及凌晨均聽到轟隆聲的噪音及 震動,懷疑是由附近工程引起	ET has conducted an ad-hoc noise measurement for Leq (30min) in the complainant's flat in the monitoring of 17 January 2018.It was noted that the complainant's flat is not in direct line of sight to the Anderson Road Quarry Site. The measurement noise		TCS00864/16/3 00/F0129



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
									result was below the Limit Level under the EM&A Programme. Moreover, it is confirmed by CWSTVJV and checked against the site diary that no construction activities were carried out during restricted hour at the subject site. Therefore, the complaint about noise nuisance during restricted hour should not be related to the Project.		
22	15-Jan-18	15-Jan-18	Anderson Road Quarry site	Resident of Chun Tat House of On Tat Estate, 40/F	Construction Noise	SPRO mobile	NA	noise of breaking rock for a long time and strongly requested to know exactly when will be the completion date of the breaking rock part of works opposite to Chun Tat House. She said we should do more on the	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in January 2018, there were no breaches of EM&A requirement. However, to eliminate the inconvenience caused to the nearby resident, CWSTVJV should properly maintain the noise mitigation measures as appropriate. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 8 Feb 2018	TCS00864/16/3 00/F0130
23	1-Feb-18	2-Feb-18	Anderson Road Quarry site	Resident of On Tai Estate (referred by Mr. Lam Wai)	Construction Noise	SPRO hotline	NA	"智泰對出,白天噪音過大,可否加 裝隔音板?高層受影響"	The Environmental Team has conducted an ad-hoc noise measurement for Leq(30min) at the corridor of 22/F of Chi Tai House on 2 February 2018 facing the construction site. The measurement noise result was 65dB(A) which below the Limit Level under the EM&A Programme. In our investigation, CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. According to the impact noise monitoring result obtained in January 2018, there were no breaches of EM&A requirement.	no comment by IEC on 22	TCS00864/16/30 0/F0137
24	1-Feb-18	2-Feb-18	Anderson Road Quarry site	Resident of Shing Tat House (referred by Mr. Hsu Yau Wai)	Construction Noise	SPRO hotline	NA	Mr. Hsu reported that some disturbing noise was heard after 6:00 pm from the site near Shing Tat House of On Tat Estate.	AECOM has liaised with Mr. Hsu on 2 February 2018 for the complaint matter and he reported to AECOM that the noise was generated until 7:00 pm on 1 February 2018. 3. As advised by Contractor of Contract 1, breaking works at USRT area which opposite to Shing Tat House was only carried out from 8:00 to 18:00. However, rock breaking at System A was extended to 19:00 on 1 February 2018. As noise mitigation measures, noise barriers were erected for the works area. Further to the complaint case, CWSTVJV would seek for other quiet work method such as using drilling machine to reduce noise level and speed up the rock breaking process, so that to reduce the noise intensity level and the duration of exposure.	no comment by IEC on 28 Feb 2018	TCS00864/16/30 0/F0140
25	28-Feb-18	28-Feb-18	Anderson Road Quarry site	Resident of Shing Tat House	Construction Noise	EPD	NA	安達邨誠達樓居民,投訴人是返夜 班,一年半以來長期受對出地盤日 間揼石仔噪音滋擾,由於單位與地 盤太近,堅持環保署跟進及回覆如 何處理及減低噪音,他亦要求知道	Breaking works at Underground Stormwater Retention Tank area which opposite to Shing Tat House was carried out from 8:00 to 18:00. The Contractor has implemented noise mitigation measures to reduce the noise impact to the nearby resident. It was advised that the rock breaking works shall tentatively be completed by end of April and it is believe that the noise impact should be minimized. Since the works were carried out within the non-restricted hours and noise monitoring noise were within acceptable level, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 19 Mar 2018	TCS00864/16/30 0/F0143



		Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
26	11-Apr-18	12-Apr-18	Anderson Road Quarry site	Resident of HimTat House	Construction Noise	SPRO Hotline	NA	severe recently and asked about the completion date of the works close to Him Tat House. The resident	In our investigation, since construction noise was generating from other construction site next to Him Tat House, it is considered that the complaint is due to cumulative noise generated by both construction sites. However, CWSTVJV should properly provide the noise mitigation measures at works area in System B to minimize the noise impact to the resident nearby. As advised by CWSTVJV on 20 April 2018, noise barrier was being erected at works area in System B as noise mitigation measures. According to the site photo, it is considered that the coverage of noise barrier is not sufficient and CWSTVJV should enhance the measure as far as practicable. The implementation of noise mitigation measures will be kept in view in subsequent site inspection.	no comment by IEC on 7 May 2018	TCS00864/16/3 00/F0160b
27	25-Apr-18	-	Junction of Hiu Kwong Street and Hiu Ming Street	SCHOOL HOL	Construction Noise	EPD	NA	This case is considered as an enquiry			NA
28	18-May-18		Anderson Road Quarry Site	Undisclosed	Construction Noise	EPD	NA	投訴人指安達臣道石礦場地盤 (NE/2016/01)在入夜 19:00 後仍見 到有長臂喉工程車在運作,及持續 產生大噪音及閃燈,非常擾民。	retracting process is not a general construction work using	no comment by IEC on 30 July 2018	TCS00864/16/3 00/F0174b
29	25-Jun-18				Waste Managemen t	CEDD	NA	A public complaint was referred from CEDD on 4 July 2018 regarding accumulation of dead leaves and branches found at slope (GLA-TNK 2458) near Hiu Yuk Path on 25 June 2018. The complainant requested the relevant department to clear the leaves and branch asap	CW-CMGC-JV has immediately clear the dead leaves and maintain the site cleanliness. Since the construction work has not yet commenced and the dead leaves and overgrown branches were not related project works, it is considered that the complaint is not	no comment by IEC on 24	TCS00864/16/3 00/F0189b
30	22-Aug-18	29-Aug-18	Hong Wah Court	Resident of Hong Wah Court	Construction Noise	1823 Hotline	NA	投訴人指馬游塘區堆填區往將軍澳 方向行車人口因配合項目需要而進 行移除山坡工程,但其鑽地鑿石的 噪音嚴重影響藍田康雅苑*居民,要 求有關部門跟進。 *註:投訴人於2018年8月27日更 正指受影響屋苑應為藍田康華苑。	to reduce the inconvenience caused to the nearby resident, Kwan On should properly maintain the noise mitigation measures as appropriate, such as maintain good site practice including intermittent use of machine and plant and Sequencing operation of construction plant equipment. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 7	TCS00864/16/3 00/F0196a



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
31	26-Feb-18	31-Jul-18	Anderson Road Quarry Site		Construction Noise	EPD	NA	安達邨誠達樓後面地盤,2月26日 晚,晚上7時後,還在落石屎,相 片拍攝時間大概晚上9時半,一直 至晚上十一時五十分還有工程車在 地盤行駛。影響居民休息。	According to the site diary which countersigned by RE, there was no concreting work carried out after 18:00 and the construction activities conducted during restricted hours with valid CNP were completed at 23:00. It is considered that the complaint was not valid to the Project. Nevertheless, CWSTVJV was reminded that in case of any work activities need to be carried out during restricted hours, CWSTVJV should strictly follow the requirements specified in the valid CNP.	no comment by IEC on 10 Oct 2018	TCS00864/16/3 00/F0197a
32	6-Sep-18	7-Sep-18	Tsui Yeung	Resident of Tsui Yeung House	Construction Noise	Verbal	NA	complained that the contractor has conducted the noisy works such as	Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. As advised by Kwan On, the rock breaking works shall tentatively be completed by end of December 2018 and the mitigation measures will implemented continuously during slope construction work and the slope construction will be carried out within the working hours at Portion 2. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 22 Oct 2018	TCS00864/16/3 00/F0201
33	24-Oct-18	25-Oct-18	E3			Whatsap p Message	NA		As advised by the Contractor, the acoustic material wrapped on the breaker was worn-out on 24 October 2018 and replacement of new acoustic materials has been installed on the breaker immediately on 25 October 2018. The rock breaking works shall tentatively be completed to the road level in the middle of November 2018 and the mitigation measures will implemented continuously during slope construction work and the slope construction will be carried out within the working hours at Portion 2. It is considered the complaint was an isolate case.	no comment by IEC on 23 Nov 2018	TCS00864/16/3 00/F0209a
34	12-Nov-18		Road	Resident of ChingTat House(referre dby Mr. Hui Yau Wai)	Construction Noise	SPRO Hotline	NA	Mr. Hui reported that he received complaint from a resident living in Ching Tat House about noise nuisance recently. Mr. Hui asked if project team can arrange some noise monitoring to check the noise level at the concerned flat or the same level at Ching Tat House.	expected date of completion of the tunnel will be earlier than 2020. Moreover, the noise mitigation measures had implemented to reduce the noise level effectively and the work progress will be closely updated to nearby stakeholders to enhance	no comment by IEC on 12 Dec 2018	TCS00864/16/3 00/F0222a
35	14-Nov-18		Anderson Road Quarry Site	Undisclosed	Light and Noise	EPD	NA	凌晨1時,地盤仍有大光燈正射民 居和機器移動聲音,影響附近居民 睡眠及違反環保條例。	CWSTVJV immediately adjusted the angle and brightness of the lighting to minimize the nuisance to the resident nearby. In response to the complaint, CWSTVJV immediate carried out remedial action to minimize the nuisance to the public. It was	no comment by IEC on 3 Jan 2019	TCS00864/16/3 00/F0223a



		Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
36	13-Nov-18	14-Nov-18	Anderson Road Quarry Site	Undisclosed	Noise and dust	1823	NA	the starting time of construction work at project site and also to solve the	In our investigation, acoustic barrier and site hoarding were in place along the works area. No noticeable noise and dust impact was observed during the site inspection. As advised by CWSTVJV, the normal working hour of the construction site is 8am to 6pm and there were no violation of the relevant regulations. The senior public relation officer contacted the complainant Ms. Ma on 26 November 2018 to explain the site situation and she was satisfied with the reply. Investigation Report has been completed by ET without comment from IEC.	no comment by IEC on 18 Feb 2019	TCS00864/16/3 00/F0224
37	9-Dec-18	12-Dec-18	Anderson Road Quarry Site	Undisclosed	Construction noise	1823	2-492790 7305	1823 has referred a case to CEDD on 10 December 2018, which the complainant complained that construction noise was generated from project site on Sunday and was affecting the resident at Hau Tat House, On Tat Estate. The complainant requested follow up action from related department as soon as possible.	In our investigation based on the information provided by CWSTVJV, there was no site activities undertaken at site access road as concerned by the complainant. The construction work carried out on Sunday was fully compliance with the CNP requirement. In response to the complaint, CWSTVJV was reminded to closely monitor the plant use and sequence of night work and do not to violate CNP conditions.	no comment by IEC on 10 Jan 2019	TCS00864/16/3 00/F0230a
38	19-Dec-18	27-Dec-18	Anderson Road Quarry Site	Undisclosed	Construction noise	1823	2-494807 4127	27 December 2018, which the complainant complained that noise barriers near the round-about at On Sau Road were not enough, and construction noise generated from the project site was affecting the resident at Ming Tai House, On Tai Estate. The complainant requested	Joint site inspection was carried out on 3 January 2019 the status of implemented mitigation measures provided by CWSTVJV was inspected. It was observed that noise mitigation measures including temporary noise barrier, acoustic mat and wrapped by acoustic materials are implemented on site. However, CWSTVJV was advised to extend the coverage of noise barrier as far as practicable and fully enclose the concerned works area which has been completed on 15 January 2019. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 31 Jan 2019	TCS00864/16/3 00/F0237a
39	24-Jan-19	29-Jan-19	Anderson Road Quarry Site	Undisclosed	wastewater	Referred from DSD	NA	DSD has referred a case to CEDD on 24 January 2019 regarding suspended illegal discharge of cementitious slurry from construction site of Development of ARQ Site to	In our investigation, the concerned catchpit and U-channel mainly received the runoff from Po Lam Road as well as the discharge from the Anderson Road Quarry Site. It is suspected that the mud and silt found on the downstream has been accumulated over time particularly by rainstorm as well as routine discharge from construction site. As remedial action, CWSTVJV immediately clean the affected area where accessible. Nevertheless, in order to protection the watercourse at downstream of the construction site, CWSTVJV has some enhancement measures.	no comment by IEC on 29 Mar 2019	TCS00864/16/3 00/F0248a
40	30-Jan-19	30-Jan-19	Anderson Road Quarry Site	Undisclosed	noise	SPRO hotline	NA	A public complaint was received by SPRO hotline on 30 January 2019 regarding the construction noise near Ma Yau Tong Village and requested to add noise barrier as soon as possible.	In our investigation, CWSTVJV had provided the noise mitigation measures to minimize the noise impact to the resident nearby. The impact monitoring result obtained at Ma Yau Tong Village revealed that the construction noise were within acceptable level. Since the works were conducted within approved normal hours with implementation of noise and dust mitigation measures, there were no breaches of legislative requirement.	no comment by IEC on 15 Mar 2019	TCS00864/16/3 00/F0249a



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41	15-Feb-19	25-Feb-19	Anderson Road Quarry Site	Undisclosed	noise	1823	2-494807 4127	1823 has referred a case to CEDD on 15 February 2019, which the complainant complained about the construction noise generated from the CEDD site near 法源寺 (Ma Yau Tong Village). The complainant requested for the details of works and the completion date, the complainant also requested CEDD to use other construction methods in order to re	In response to the complainant, CWSTVJV has proposed alterative quiet work method to alleviate the noise impact to the public. They will schedule the noisy activities to be carried out after 10am as far as practicable to minimize the impact to resident nearby, given that not affecting the site progress. Moreover, the coverage of acoustic barriers will be extended in view of the works programme	no comment by IEC on 29 Mar 2019	TCS00864/16/3 00/F0251a
42	21-Feb-19	25-Feb-19	Anderson Road Quarry Site	Undisclosed	noise	EPD	NA	The resident from Sau Hong House complained that the noise from the Anderson Road Quarry construction site has gotten worse. In addition, sometimes even after midnight there are noise coming from the site. With the echo produces from the environment, this is not helping at all. Really a big disturbance to the residence in the area. The complainant suspecting the sound proof measure has lessen as time goes. Follow action is requested.	In our investigation, CWS1VJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident.	no comment by IEC on 28 Mar 2019	TCS00864/16/3 00/F0250
43	21-Feb-19	26-Feb-19	Anderson Road Quarry Site	Undisclosed	noise	received by DEVB and referred to CEDD	NA	DEVB and referred to CEDD on 25 February 2019 regarding on the noise generated from the construction works of the Anderson Road Quarry Site affecting a local resident	Additional acoustic mat has been erected in front of the Squatter Area to minimize the noise impact. Noise mitigation measures such as acoustic barriers erected along the works area and breaker head wrapped with acoustic material were implemented continually. Alterative quiet work method was adopted such as drilling the hard rock before the breaking work to reduce the breaking duration. In our investigation, CWSTVJV had enhanced the noise mitigation measures to ease the complainant's concerns. CWSTVJV will continually implement the noise mitigation measures to reduce to noise impact to the public.	no comment by IEC on 29 Mar 2019	TCS00864/16/3 00/F0252a
44	1-Mar-19	26-Feb-19	E3 of Contract 2	Undisclosed	noise	CEDD	NA	which was received by KTDC member Mr CHENG Keung Fung from the residents of Tsui Yeung House(翠楊樓) about the noise nuisance generated and the working time up to 7:00 pm from the rock	The representative of the engineering team explained to Mr. Cheng about the project's details and concerned site was being constructed for the future pedestrian connection facilities. The related stone drilling process is expected to be completed in mid-April to end of April 2019. Mr. Cheng was satisfied with the rapid response from CEDD and the engineering team. In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Since the works were carried out within the non-restricted hours, it is considered that the works under the project did not breach the Noise Control Ordinance.	no comment by IEC on 6 May 2019	TCS00864/16/3 00/F0264



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45	16-Jun-19	18-Jun-19	Anderson Road Quarry Site	Undisclosed	noise	EPD	NA	EPD referred a case to CEDD on 17 June 2019 regarding the construction noise heard at On Tat Estate on Sunday.	The Contractor explained that general cleaning by water jet was carried out in the construction site on the concerned day. Since the work did not involve the use of Powered Mechanical Equipment (PME), it would not violate the noise control ordinance.	no comment by IEC on 21 August 2019	TCS00864/16/3 00/F0301a
46	12-Jul-19	15-Jul-19	Anderson Road Quarry Site	Undisclosed	dust	EPD	NA	On 12 July 2019, a complaint was received by EPD regarding the dust impact to the residents at Po Tat Estate and On Tat Estate due to the dust emission at Anderson Road Quarry site.	Was considered effective based on the site observation.	no comment by IEC on 12 August 2019	TCS00864/16/3 00/F0292b
47	6-Aug-19	C	Ming		Noise	1823	NA	A public complaint was received by 1823 on 6 August 2019 relating to the noise generated from construction work at the lift tower site (Slope E3) at Hui Ming Street from the residents of Tsui Yeung House. The complainant expressed that the construction works has been undertaken for 2 years and generated construction noise from 8am every day, which causing serious nuisance to the nearby residents.	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. It is concluded that the complaint was valid to the contract. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance.	no comment by IEC on 16 Sep 2019	TCS00864/16/3 00/F0310a
48	15-Oct-19	18-Oct-19	Work Area Portion 6 (Tseung Kwan O Tunnel Bus-Bus Interchang e Pedestrian Connectivi ty Facilities E12)		Noise	1823	NA	A public complaint was received by 1823 on 15 October 2019 relating to the noise generated from Construction work at Tseung Kwan O Tunnel Bus to Bus Interchange Pedestrian Connectivity Facilities E12. The complainant expressed that the construction noise was generated from breaking work at 8:20 am without noise mitigation measure, which causing nuisance to the nearby residents.	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 13 Nov 2019	TCS00864/16/3 00/F0326a



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
49	5-Nov-19		Work Area Portion 2&3 (lift tower constructio n work at Hiu Kwong Street)		Noise	EPD	NA	A public complaint was received by EPD relating to the noise generated from breaking work of lift tower construction work at Hiu Kwong Street (Portion 2&3).	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 27 Dec 2019	TCS00864/16/3 00/F0332a
50	7-Nov-19	11-Nov-19	Work Area Portion 6	Mr. Cheng	Noise	EPD	NA	寶達邨居民鄭先生,表示將軍澳隧 道出口工程,日間噪音嚴重, 8:30-17:00,幾部幾同時開動,而且 無防音欄,之前是有,現要求環保署 向對方反映改善	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. As the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.	no comment by IEC on 27 Dec 2019	TCS00864/16/3 00/F0333a
51	10-Nov-19	12-Nov-19		Resident of Ma Yau Tong Village	Noise	EPD	NA	On 10 November 2019 投訴人為馬游塘村居民,自本年初 寶林路開展掘隧道工程,每天嗓音 不斷,由8至6,由於欠缺遮擋,聲 音直向4至22號村屋,將來通車,相 信噪音不只8-6,現懇請環保署為本 村居民正式評估,並向政府提出村 民困擾,考慮盡快設置隔音屏。 On 11 November 2019 寶琳路近馬游塘村開掘隧道的工程 地盤每日 8am-6pm 發出嗓音,欠缺 遮擋,聲音影響馬游塘村 4-22 號村 屋。希望政府部門 1.調查地盤有否違規 2.實施減音措施以減低對附近居民 的滋擾	In our investigation, CWSTVJV had implemented the noise mitigation measures to reduce to noise impact to the public. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement. For the complainant's concern on the operation noise after commencement of the project, it is out of the scope of the EM&A programme and the relevant department will follow up the concern.	no comment by IEC on 30 Dec 2019	TCS00864/16/3 00/F0337a
52	11-Nov-19			Mr. Wong (resident of Yung Tai House of On Tai Estate)	Noise	1823	ref. 2-597630 3183	大樓附近掘路工程已持續數年還未 完成,並投訴其經常發出噪音滋 援,要求部門跟進。 On 22 November 2019, the project botine received a call from the same	implementation of noise mitigation measures, there were no	no comment by IEC on 27 Dec 2019	TCS00864/16/3 00/F0338a



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
								Yan Street. He suggested to speed up the noise making works by intensely concentrate the excavation works during day time. No intermittence is suggested in order to speed up the works and to avoid waste of manpower.			
53	5-Mar-20	6-Mar-20	Tunnel work of Anderson Road Quarry Site (the Underpass)	Resident of On Tat Estate	Noise	EPD	NA	知何時將嘈音減至最低 。1. A public complaint was received by EPD on 5 March 2020 regarding the construction noise generated from the tunnel work of the subject site. The complainant mentioned that the noise from construction was improved before but it became serious recently.	layer of acoustic mat at boundary of System A. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement.	no comment by IEC on 1 Apr 2020	TCS00864/16/3 00/F0357a
54	4-Mar-20	17-Mar-20	Near Hiu Ming Street Playgroun d (E8)	Undisclosed	Noise	1823	ref. 3-628323 7171	盤是在曉明街藍球場旁邊的位置 (投訴人未能告知確實街號),因此 要求部門盡快回覆及告知有關情 況。 A public complaint was received by 1823 on 4 March 2020 regarding the construction noise. The complainant mentioned that there were two construction sites near Hiu Ming Street Playground generated construction noise continuously during 9AM to 5PM on weekdays.	construction site located near Hu Ming Street Playground and not caused by the works under the Project. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement.	no comment by IEC on 15 Apr 2020	TCS00864/16/3 00/F0359a
55	23-Mar-20	23-Mar-20	Near Lin Tak Road (E11)	Undisclosed	Water Quality	Project hotline	NA	藍田居民梁先生反映在將軍澳道往 連德道天橋的大彎位,其中有一個 車輛出入口每日早上八時左右不時 有泥水從地盤流出路面,估計泥水 是清洗工程車輛所致,今涩失生的	inspection, no outflow of muddy water from the site was observed and the condition of concerned Lin Tak Road was satisfactory. It is considered that the complaint was unlikely due to the project.	no comment by IEC on 15 Apr 2020	TCS00864/16/3 00/F0360a



	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action	Status	Investigation Report Ref.
								overflow of muddy water from the construction site. The complainant mentioned that muddy water came out from site entrance, which spotted on his car, at 8am every morning.			
56	17-Mar-20	19-Mar-20	Anderson Road Quarry Site	Resident of Yan Tat House	Noise	Project hotline	NA	發展用地工程噪音持續兩年,要求 工程團隊下周派員到有關單位視 察,並採取可行的噪音緩解措施。	In our investigation, CW-CMGCJV has implemented noise mitigation measures to reduce the noise impact and nuisance to the public. However, to eliminate the inconvenience caused to the nearby residents, CW-CMGCJV was advised to further adopt good practices on mitigating construction noise to reduce the noise impact to the nearby residents. Since the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Nevertheless, as the construction site is close to the residential area, CW-CMGCJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A	no comment by IEC on 11 May 2020	TCS00864/16/3 00/F0361a
57	1-Apr-20	20-Apr-20	Work Area Portion 2	Undisclosed	Noise	1823	NA	因及有沒有措施解決地盤發出的噪音。 A public complaint was received by 1823 on 1 April 2020 and subsequently transmitted to Environmental Team (ET) on 20 April 2020, regarding the noise	In our investigation, Kwan On has implemented noise mitigation measures to reduce the noise impact to the nearby resident. Nevertheless, since the construction site is close to the residential area, adequate noise mitigation measures shall be provided to reduce to noise nuisance to the public. It is concluded that the complaint was valid to the contract. However, as the works were carried out within the non-restricted hours, it is considered that the works under the contract did not breach the Noise Control Ordinance. Kwan On was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.		TCS00864/16/3 00/F0366a



## Appendix N

**Implementation Status for** Water Quality Mitigation Measures

## Water Quality Mitigation Measure

