

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

QUARTERLY ENVIRONMENTAL MONITORING AND AUDIT (EM&A) SUMMARY REPORT

(JULY TO SEPTEMBER 2021)

PREPARED FOR
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
(CEDD)

Date Reference No. Prepared By Certified By

12 November 2021 TCS00864/16/600/R0503v1

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Version	Date	Remarks
1	12 November 2021	First Submission



EXECUTIVE SUMMARY

- ES.01 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.
- ES.02 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.
- ES.03 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), Contract NE/2017/03 (Contract 3) and ED/2019/02 (Contract 5). 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. In addition, variation order for extend service scope to E5, E6, E7 and C10 under Contract ED/2019/02 (Contract 5) was issued by AECOM. The commencement date of Contract 5 was on 30 March 2021. Moreover, variation order for extend service under Contract ED/2020/02 (Contract 4) was issued by AECOM. The commencement date of Contract 4 was on 27 September 2021.
- ES.04 This is the 18th Quarterly EM&A Summary Report for the Service Contract to summarized monitoring results and inspection findings during the period from 1 July to 30 September 2021 (hereinafter 'the Reporting Period').

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.05 Environmental monitoring activities under the EM&A programme in the Reporting Period are summarized in the following table.

Environmental Aspect	Environmental Monitoring Parameters / Inspection	Active Monitoring Locations	Total Occasions
Air Quality	1-hour TSP	AMS1, AMS2, AMS3, AMS5, AMS6 & AMS7	288
	24-hour TSP	AMS1a, AMS5, AMS6 & AMS7	64
Construction Noise	Leq _(30min) Daytime for Contract 1	NMS2, NMS3, NMS4a, NMS5, NMS6, NMS7 & NMS8	90
Noise	Leq(30min) Daytime for Contract 3	CN1, CN2 & CN3	36
	Environmental Site Inspection and Audit by ET	Contract 1	13
		Contract 2	13
Site Inspection		Contract 3	14
		Contract 4	1
		Contract 5	13



BREACH OF ACTION AND LIMIT LEVELS

ES.06 In the Reporting Period, no exceedance of air quality and Limit level exceedance of construction noise were recorded. However, there was one noise complaints (which triggered Action Level) received for Contract 1. The environmental exceedance, NOE issued and investigation of exceedance are summarized in the following table.

Environmental	Monitoring	Action	Limit Level	Event & Action		
Issues	Parameters	Level		NOE Issued	Investigation	Corrective Actions
Air Quality	1-hour TSP	0	0	0	-	-
All Quality	24-hour TSP	0	0	0	-	-
Construction Noise	L _{Aeq(30min)} Daytime	1	0	0	Not Project-related	NA

Note: NOE – Notification of Exceedance

ENVIRONMENTAL COMPLAINT

ES.07 In the Reporting Period, there were three environmental complaints received in relation to water quality and construction noise for Contract 1. The complaints received in the Reporting Period is summarized below.

Complaint Receive date	Aspect	Contract	Complaint Location	Investigation finding
23 July	Water	1	Po Lam Road and drainage facility near Tin Hau	Not Project
2021	quality		temple	-related
15	Water	1	Catchpit near Po Lam Road and catchpit near Po	Not Project
September	quality		Tat Tin Hau Temple Road	-related
23	Noise	1	Anderson Road Quarry Site (between On Tat	Not Project
September			Estate and On Tai Estate)	-related

ES.08 Upon received regarding complaints, investigation was undertaken by ET in accordance with EM&A manual. The investigation revealed that the Contractor has provided water quality mitigation measures in order to rectify the water quality impacts. In regards to the noise complaint, the investigation revealed that there were no construction works under the Project undertaken during the concerned period by the complainant, and since there were other concurrent contracts on site, the contribution of noise may be related to others. Nevertheless, as the construction site is close to the residential area, the Contractor was reminded to implement noise mitigation measures as far as practicable as recommended in the EM&A Programme.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.09 No environmental summons or successful prosecutions were recorded in this Reporting Period.

REPORTING CHANGE

ES.10 Variation order for extend service scope under Contract ED/2020/02 (Contract 4) was issued by AECOM. The commencement date of Contract 4 was on 27 September 2021 and the EM&A activities include site inspection and reporting.

FUTURE KEY ISSUES

- ES.11 During wet season, 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.
- ES.12 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

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implement adequate air quality and noise mitigation measures as far as practicable to reduce the impact to the public.

- ES.13 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.
- ES.14 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 is in 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 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. In addition, variation order for extend service scope to E5, E6, E7 and C10 under Contract ED/2019/02 (Contract 5) was issued by AECOM. The commencement date of Contract 5 was on 30 March 2021. Moreover, variation order for extend service under Contract ED/2020/02 (Contract 4) was issued by AECOM. The commencement date of Contract 4 was on 27 September 2021.
- 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 18th Quarterly EM&A Summary Report for the Service Contract to summarized monitoring results and inspection findings during the period from 1 July to 30 September 2021 (the Reporting Period).

1.2 REPORT STRUCTURE

1.2.1 The Quarterly EM&A Summary 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 INSPECTION SECTION 8 ENVIRONMENTAL COMPLAINTS AND NON-COMPLIANCE

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SECTION 9 IMPLEMENTATION STATUES OF MITIGATION MEASURES

SECTION 10 CONCLUSIONS AND RECOMMENDATIONS



2. Project Organization and Construction progress

2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the Service Contract would be divided by the 3 contracts as described in following. The details of each contracts are summarized below and the delineation of each contracts 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 works of Contract 1 are 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 works of the Contract 2 are 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 (BBJ) at Tseung Kwan O Tunnel Toll Plaza; and
 - (iii) Associated landscape works.
 - (iv) Construction of green routes connecting to Jordan Valley Park and Choi Wing Road
 - (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 was 31 May 2018 and the major scope of works of the Contract 3 are 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.



Contract 4 (Contract No. ED/2020/02)

- 2.1.5 The commencement date of Contract 5 was on 30 March 2019 and the major scope of works of the Contract 5 are listed below:
 - Construction of hard landscaping and other ancillary works (e.g. paver footpath, planter walls, benches, lighting etc.);
 - Construction of soft landscaping works;
 - Lighting, irrigation, electrical and mechanical engineering works within the landscaping area:
 - Construction of landscape deck; and
 - Electrical and mechanical works for underground water treatment facilities and pumping system for Regional Open Space and Artificial Flood Attenuation Lake.

Contract 5 (Contract No. ED/2019/02)

- 2.1.6 The commencement date of Contract 5 was on 30 March 2019 and the major scope of works of the Contract 5 are listed below:
 - Construction of two-way escalator link between Sau Mau Ping Road and the existing footbridge to Po Tat Estate;
 - Construction of two-way escalator link between Sau Mau Ping South Estate and the existing footbridge to Sau Mau Ping Road;
 - Construction of footbridge, 3m, clear width, with and about 20m high lift tower between Hiu Kwong Street and the podium of Sau Ming House, Sau Mau Ping Estate;
 - Construction of footbridge, 3m clear width, with an about 40m high lift tower between Sau Mau Ping Road and the podium of Po Tat Estate; and
 - Ancillary works including associated civil, geotechnical, structural, electrical and mechanical engineering and landscaping works.

2.2 PROJECT ORGANIZATION

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

2.3 CONSTRUCTION PROGRESS

2.3.1 In the Reporting Period, the major construction activity conducted under the Service Contract is located in Contract 1, 2, 3, 4 and 5 and they are summarized in below. Moreover, the construction program is enclosed in *Appendix C*.

Contract 1 (NE/2016/01)

Month	Construction Activities	
July	East Portal Area:	
2021	Soil Nailing works at slope A1	
	Construction of RWA1B retaining wall, rebar the base slab and Rock cu slope	
	A1.	
	<u>Underpass Tunnel:</u>	
	Erection and installation of the VE Panel sub-frame.	
	Po Lam Road:	
	• Excavation work in progress to install ducting pipes and draw pits and installation of k1 kerb.	
	Removal the existing concrete pavement in progress for installation of ducting	
	crossing pipes.	
	• Reinstated the concrete carriageway at Po Lam road and rebuilt the gully.	
	Install the beam barrier at Po Lam Road Layby.	
	<u>Underground Stormwater Retention Tank (USRT):</u>	
	Backfill work	
	ABWF and E&M Works at Water Pumping Station in progress	



Month	Construction Activities
141011111	Mass concrete fill works
	Water Reservoir:
	The excavation works of VC chambers (Watermain) and construction of valve
	chamber
	Rock trench excavation for watermain and utilities along WSD access road.
	Construction of downpipe from reservoir to PPT.
	Construction of downpipe from reservoir to 11 1.
	Artificial Flood Attenuation Lake:
	East side and west side of concrete lining at Lake bottom complete. Remaining
	work.
	 Laying granular bed at remaining parts (center) of Lake Bottom.
	To continue laying HDPE membrane and mesh wire at remaining part (center of
	Lake Bottom.
	Retaining wall base slab 51 out of 52 and stem wall 50 out of 52 complete, the
	construction of remaining base slab and stem wall.
	To continue with the drainage works.
	Construction wall of eastern landing.
	Collistraction wan of eastern failuring.
	Padastrian Connectivity System P (DC System P)
	Pedestrian Connectivity System B (PC System B): Internal ABWF works in System B
	Internal Abwr works in System b
	Construction of Internal Road L1:
	Road breaking for foud E1 west.
	Drainage works for road L1 east cycle track.Watermain construction
	Road L1 west lower level and middle level drainage construction Construction of Infiltration Planter
4	Constitution of infinitation Figure 1.
August	East Portal Area: Construction of DWA 1D Detaining Well completed
2021	Construction of RWA1B Retaining Wall completed. Installation of the gross dusting pines complete.
	• Installation of the cross-ducting pipes complete.
	 <u>Underpass Tunnel:</u> Erection and installation of the VE Panel sub-frame.
	Laying road base bituminous insider underpass Po Lorr Road:
	 Po Lam Road: Excavation work in progress to install ducting pipes and draw pits and installation
	of k1 kerb
	Removal the existing concrete pavement in progress for installation of ducting
	crossing pipes.Reinstated the concrete carriageway at Po Lam road and rebuilt the gully.
	Re-build the modification catch pit at Po Lam road and Slope A1.
	•
	 <u>Underground Stormwater Retention Tank (USRT):</u> Backfill work
	Zone A wall and top slab work
	Ventilation Building structure works
	Water Reservoir:
	Rock excavation for drainage pipe laying and backfilling work.
September	
1 -	RWA1C Bay 2 & 3 base slab completed and rebar fixing for stem wall in
2021	progress.
	Construction of RWA1B Retaining Wall completed
	Rock cut slope A1
	Re-bar fixing for Pillar Box in progress
	Underpass Tunnel:
	Tunnel Concrete Lining construction works (Total 25 Bays) included B1 with
	West portal structure and Bay 25 with East Portal structure, and progress up to
	Bay 24 (124m), Bay 25 and East Portal structure (excluding headwall) completed
	Day 27 (124m), Day 25 and East 1 ortal structure (excluding neadwarf) completed



I	Month	Construction Activities
	TATOIIIII	
		Election and installation of the VET aller sale frame in progress and 60%
		 complete. Installation of the profile barrier inside underpass (LHS and RHS) completed
		260m/260m.
		Executation works for mannote feet to 1023 completed and instantation of
		manholes R618 to R623 completed.
		Do Lam Dood
		 Po Lam Road Excavation work in progress to install ducting pipes and draw pits and installation
		of k1 kerb in progress.
		 Removal the existing concrete pavement completed for installation of ducting
		crossing pipes.
		 Reinstatement of the concrete carriageway at Po Lam road in progress.
		 Installation of the beam barrier at Po Lam Road Layby in progress.
		 Installation of the beam barrier at 10 Earn Road Eayby in progress. Installation of 3nos manholes and gully complete.
		histaliation of 51108 manifoles and gurly complete.
		Underground Stormwater Retention Tank (USRT):
		Zone A wall & top slab works completed, backfill work in progress.
		 Ventilation duct structure Bay 1 to 4 completed, backfill with general fill +172 -
		+182 mPD (32/32 completed).
		 Ventilation Building structure works completed.
		· · · · · · · · · · · · · · · · · · ·
		Water Reservoir:
		• The water tightness test for Saltwater Reservoir completed and Fresh Water
		Reservoir water tightness test completed and defect rectification works
		completed.
		Rock excavation work to formation level outside water reservoir completed and
		soil excavation work (to formation level) completed. Rock excavation for
		drainage works completed. Manhole construction and Drainage Pipe laying are
		completed, Backfilling works completed. The excavation works of VC chambers
		(Watermain) and additional dia.600mm drainage pipe with manhole in progress
		and construction of valve chamber in progress
		 Rock trench excavation for watermain and utilities along WSD access road was
		80% completed.
		• Construction of downpipe from reservoir to PPT in progress. Drillholes for dowel
		bars at proposed concrete plinth completed.
		Artificial Flood Attenuation Lake:
		• East side and west side of concrete lining at Lake bottom complete. Remaining
		part (near Bay 50-51) in progress.
		• Laying granular bed at remaining parts (center) of Lake bottom in progress.
		• To continue laying HDPE membrane and mesh wire at remaining part (center of
		Lake bottom.
		• Retaining wall base slab 51 out of 52 and stem wall 50 out of 52 complete, the
		construction of remaining base slab and stem wall in progress.
		De destrier Commentinity System D (DC System D)
		Pedestrian Connectivity System B (PC System B):
		PC System B structure complete, South Tower structure Rock fill completed. 1050 mm die pine from M/H S211 to S212 installation completed.
		• 1050mm dia. pipe from M/H S311 to S312 installation completed.
ļ		 Internal ABWF works in System B in progress
		Construction of Internal Pond I 1.
		 Construction of Internal Road L1: Road breaking and drainage works for road L1 west in progress.
		Road breaking and drainage works for road L1 west in progress. Drainage works for road L1 east cycle track in progress.



Contract 2 (NE/2016/05)

Month	Construction Activities	
July to	Temporary Traffic Arrangement (TTA)	
September	Soil Nail Construction	
2021	Mass Concrete construction	
	Formwork and Falsework installation and dismantling	
	Escalator Installation and lifting Tower Construction	
	Rebar fixing	

Contract 3 (NE/2017/03)

Contract 3	(NE/2017/03)
Month	Construction Activities
July and	Pedestrian Connectivity Facility E8 (PC-E8)
August	Testing to 14 nos. of escalators are in-progress.
2021	• E&M works and ABWF works are in-progress.
	• Erect roof's penal on top of steel frame are completed.
	Pedestrian Connectivity Facility E11 (PC-E11)
	ABWF works and E&M works at LT2 & ST2 and in-progress.
	RC construction works at LT1 & ST1 in-progress.
	RC construction works, ABWF work and E&M works inside the footbridge steel
	frame are in-progress.
	Pedestrian Connectivity Facilities Systems A (PC-SYA)
	RC works at SyA-LT1, LT2 & ST1 are in-progress.
	• Erect steel works inside RC structure is in-progress.
	Pedestrian Connectivity Facilities Systems B (PC-SYB)
	RC works at SyB-LT1 & ST1 is in-progress.
	• Mini pile works at PC4 & PC6 are in-progress.
	• RC works for pier SyB-P2 in-progress.
	Pre-bored H-pile works at PC1 is in-progress.
	Tseung Kwan O Bus-Bus Interchange New Public Toilet (BBI-Toilet)
	The completed toilet was handed over to Food and Environmental Hygiene
	Department on 30 September 2020; Additional works under an instruction is
	in-progress.
September	Works in Road Improvement Works 1 (RIW1)
2021	• Construct RC works & backfilling at Type 2 are in-progress.
	• Pre-drill & install pipe-pile wall at Type 3 for piling construction are in-progress.
	Backfilling works at Type 6 to 8 is in-progress.
	• Excavate trial pit works at CT5 is in-progress.
	• Drainage works at KS27 also is in-progress.
	Works in Road Improvement Works 2 (RIW2)
	• Install pipe-pile wall at SE2 is in-progress.
	• Excavate for expose utilities and utilities protection / diversion are in-progress.
	• TTA arrangement for the upcoming stage at SE2 in-progress.
	• Demolition of piling platform and preparation for CT4 ELS in-progress.
	Works in Road Improvement Works 3 (RIW3)
	• Concreting and backfilling works at RWD1 Bay 1 - 10.
	• ELS works at RWD1 Bay 11 - 14 is in-progress.
	Rock excavate at Slope D1 lower portion is in-progress.
	Road works and backfilling works at Slope D2 are in-progress.
	Pedestrian Connectivity Facility E8 (PC-E8)
	London Connectivity Lucinity Do (1 C Do)



Month	Construction Activities			
	Testing to 14 nos. of escalators are in-progress.			
	E&M works and ABWF works are in-progress.			
	Erect roof's penal on top of steel frame are completed.			
	Pedestrian Connectivity Facility E11 (PC-E11)			
	ABWF works and E&M works at LT2 & ST2 and in-progress.			
	RC construction works at LT1 & ST1 in-progress.			
	RC construction works, ABWF work and E&M works inside the footbridge steel			
	frame are in-progress.			
	Pedestrian Connectivity Facility A (PC-SYA)			
	RC works at SyA-LT1, LT2 & ST1 are in-progress.			
	Erect steel works inside RC structure is in-progress.			
	De destrier Compostivity Facility D (DC SVD)			
	Pedestrian Connectivity Facility B (PC-SYB)			
	RC works at SyB-LT1 & ST1 is in-progress.			
	Mini pile works at PC4 & PC6 are in-progress.			
	RC works for pier SyB-P2 in-progress.			
	Tseung Kwan O Bus-Bus Interchange New Public Toilet (BBI-Toilet)			
	The completed toilet was handed over to Food and Environmental Hygiene			
	Department on 30 September 2020; Additional works under an instruction is			
	in-progress.			

Contract 4 (ED/2020/02)

July to	•	Initial Survey
September	•	Tree Survey
2021		

Contract 5 (ED/2019/02)

July 2021	Portion 1 Demolish of existing upstand wall Hoarding erection PC1, 2&3 Erect trial pit at PC1 & install USM for gas main Erect temporary platform for pre-drilling work at PC1, 2&3 Pre-drilling Works (9nrs) Portion 2 Tree transplanting Works. Pre-drilling Work. Diversion of existing irrigation system ^ removal of lamp post Piling Works Portion 3 Hoarding Erection. Tree Felling Works Erect temporary platform for Pre-drilling works Pre-drilling Works Erect temporary platform for Pre-drilling works Form site entrance Site Clearance
	Install monitoring and instrumentation points
August	Portion 1



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2021	 Demolish of existing upstand wall at E5 Tree felling works Predrilling Works
	 Portion 2 Tree transplanting Works. Excavation to remove obstruction to pilling works
	 Portion 3 Tree Felling Works Erected Timber Platform for Pre-drilling works
	Portion 4 Pre-drilling works Excavation Trail Trench to expose 11kV cables
September 2021	Portion 1 Constructed Sand Trap (E5 - ST1) Constructed Sand Trap (E5 - ST2)
	Portion 2 Piling Works
	 Portion 3 Sample of Graphic Panel is completed Implemented TTA & a 55T Crawler Crane Installation of Standpipe at E7
	Portion 4 Implemented TTA at E10 Erected Chain-link Fence at E10 Wheel-washing base & sand traps

2.4 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

Summary of the relevant permits, licenses, and/or notifications on environmental protection for this Project in this Reporting Period is presented in *Tables 2-1*, *2-2 and 2-3*.

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

		License/Permit Status			
Item	Description	Permit no./ account	Valid Pe	eriod	Chahaa
		no./ Ref. no.	From	То	Status
1	Form NA – Notification	EPD ref. no. 411762	NA	NA	valid
	pursuant to Air pollution				
	Control (Construction				
	Dust) Regulation				
	Form NB – Notification	EPD ref. no. 412730	NA	NA	valid
	pursuant to Air pollution				
	Control (Construction				
	Dust) Regulation				
2	Chemical Waste	Registration no.	15 Feb 17	End of	valid
	Producer Registration	WPN		project	
	-	5213-292-C4115-01			
3	Water Pollution Control	WT00028050-2017		31	valid
	Ordinance – Discharge		29 May 17	May	
	License			22	
4	Waste Disposal	Account no. 7026925	20 Jan 17	End of	valid
	Regulation – Billing			project	



		License/Permit Status			
Item	Description	Permit no./ account	Valid Pe	riod	Status
		no./ Ref. no.	From	To	Status
	Account for Disposal of				
	Construction Waste				
5	Construction Noise Permit	GW-RE0554-21	9 Jun 21	8 Dec 21	valid
		GW-RE0690-21	26 July 2021	25 Oct 21	Expired on 25 Oct 2021

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

		Licen	se/Permit St	atus	
Item	Description	Permit no./ account	Valid Period		C4 - 4
		no./ Ref. no.	From	То	Status
1	Notification pursuant to Air pollution Control (Construction Dust) Regulation	EPD ref. no. 312173	NA	NA	valid
2	Chemical Waste Producer Registration	Registration no. WPN 5213-294-K2890-08	7 Jul 17	End of Project	Valid
3	Water Pollution Control Ordinance – Discharge	WT00028685-2017	02 Aug 17	31 Aug 22	Valid
	License	WT00028686-2017	02 Aug 17	31 Aug 22	Valid
		WT00028687-2017	02 Aug 17	31 Aug 22	Valid
4	Waste Disposal Regulation – Billing Account for Disposal of Construction Waste	Account no.7027548	12 Apr 17	End of project	Valid

Table 2-3 Status of Environmental Licenses and Permits of Contract 3

		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	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	Water Pollution	For Area R1W3 (E11)	18-Jan-19	31-Jan-24	Valid



License/Permit Status Item **Description** Permit no./ account Valid Period **Status** no./ Ref. no. From To Control WT00032742-2018 Ordinance For Area System A 31-Jan-19 31-Jan-24 Valid Discharge License WT00033223-2019 For Area System B 30-Jun-24 24-Jun-19 Valid WT00033229-2019 For Area E8 21-Mar-19 31-Mar-24 Valid WT00033224-2019 4 Waste Disposal Account no.7031075 20 July End of Valid Regulation 2018 project Billing Account for Disposal Construction Waste

Table 2-4 Status of Environmental Licenses and Permits of Contract 4

		Ligan	se/Permit Sta	t na	
Item	Description			Period	Status
		no./ Ref. no.	From	То	
1	Form NA – Notification pursuant to Air Pollution Control (Construction Dust) Regulation	EPD ref. no. 470496	19 August 2021	NA	Valid
2	Waste Disposal Regulation – Billing Account for Disposal of Construction Waste	Account no. 7041336	6 September 2021	NA	Valid
3	Chemical Waste Producer Registration	Registration no. WPN 5213-296-C1206-12	14 September 21	End of project	Valid
4	Water Pollution Control Ordinance – Discharge License	Working in Progress			·

Table 2-5 Status of Environmental Licenses and Permits of Contract 5

		License/Permit Status			License/Permit Status		
Item	Description	Permit no./ account	Valid	Period	Status		
		no./ Ref. no.	From	То			
1	Form NA -	EPD ref. no. 466364	NA	NA	Valid		
	Notification						
	pursuant to Air						
	Pollution Control						
	(Construction Dust)						
	Regulation						
2	Chemical Waste	Registration no.		End of			
	Producer	WPN 5298-293-W3611-01	12 May 21	project	Valid		
	Registration						
3	Water Pollution						
	Control	Working in Progress					
	Ordinance –	-					

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	License/Permit Status			tus	
Item	Description	Permit no./ account	Valid	Period	Status
		no./ Ref. no.	From	То	
	Discharge License				
4	Waste Disposal				
	Regulation –				
	Billing Account for	Working in Progress			
	Disposal of				
	Construction Waste				



3 Summary of Impact Monitoring Requirement

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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.

3.2 MONITORING PARAMETERS

- 3.2.1 The EM&A program of construction phase 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* below.

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Air Quality	 1-hour TSP by Real-Time Portable Dust Meter; and 24-hour TSP by High Volume Air Sampler
Construction Noise	 Leq(30min) in normal working days (Monday to Saturday) 07:00-19:00 except public holiday Supplementary information for data auditing, statistical results such as L₁₀ and L₉₀ shall also be obtained for reference.

3.3 AIR QUALITY 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. 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.

Table 3-2 Impact Monitoring Stations – Air Quality

ASR ID Location in the Identified Location during Site		Status	
in EIA	EM&A Manual	Visit	
ACYC-01	Chi Yum Ching	Ground of Chi Yum Ching facing	Replaced by
	She	the project site	AMS-1a
ACYC-01	Tan Shan Village	Ground of Tan Shan Village No. 5	Active
	No. 5 - 6	- 6 facing the project site	
DARB-13	Block 8, Site B	Ground of Fung Tai House of On	Active
		Tai Estate	
DARC-16	Planned Clinic	Ground of Planned Clinic and	Active
	and Community	Community Centre facing	
	Centre, Site C2	Anderson Road	
DARC-26	Planned School,	Ground of Planned School facing	Not yet
	Site C2 Note 1	Anderson Road	commenced
DARE-06	Block 5, DAR	Main roof of Oi Tat House of On	Active
	Site E	Tat Estate facing the project site	
DARE-17	Block 9, Site E	Main roof of Hau Tat House of On	Active
		Tat Estate facing the project site	
AMYT-04	Ma Yau Tong	Balcony at 2 nd floor of Village	Active
	Village	House Anderson Road No. 1	
		facing the project site	
	in EIA ACYC-01 ACYC-01 DARB-13 DARC-16 DARC-26 DARE-06 DARE-17	in EIA ACYC-01 Chi Yum Ching She ACYC-01 Tan Shan Village No. 5 - 6 DARB-13 Block 8, Site B DARC-16 Planned Clinic and Community Centre, Site C2 DARC-26 Planned School, Site C2 Note 1 DARE-06 Block 5, DAR Site E DARE-17 Block 9, Site E AMYT-04 Ma Yau Tong Village	in EIAEM&A ManualVisitACYC-01Chi Yum Ching SheGround of Chi Yum Ching facing the project siteACYC-01Tan Shan Village No. 5 - 6Ground of Tan Shan Village No. 5 - 6 facing the project siteDARB-13Block 8, Site B Block 8, Site B Ground of Fung Tai House of On Tai EstateDARC-16Planned Clinic and Community Centre facing Anderson RoadDARC-26Planned School, Site C2 Note 1 Site C2 Note 1 Site E Tat Estate facing the project siteDARE-06Block 5, DAR Site E Tat Estate facing the project siteDARE-17Block 9, Site E Main roof of Hau Tat House of On Tat Estate facing the project siteAMYT-04Ma Yau Tong Village House Anderson Road No. 1 facing the project site

• *Note 1: The ASR is under construction.*

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 - (#) 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 3December 2019.

3.4 CONSTRUCTION NOISE MONITORING LOCATIONS

3.4.1 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 Impact Monitoring Stations - Construction Noise

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

- Note 1: The NSR is under construction.
- (*) 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.
- 3.4.2 A Work Instruction was issued from AECOM to AUES in November 2018 for increase three



additional construction noise monitoring stations under Contract 3. According to the Work Instruction, one noise monitoring station was instructed to setting up at System A Area and two station monitoring points were at E8 Area. The detailed noise monitoring locations setting up are presented in *Table 3-4* below and illustrated in *Appendix D*.

Table 3-4 Additional Impact Monitoring Stations – Construction Noise

Additional Monitoring Station 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

3.5 MONITORING FREQUENCY AND PERIOD

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

Air Quality Monitoring

- 3.5.2 Monitoring frequency for air quality baseline 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

- 3.5.3 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_(30min) measurements between 07:00 and 19:00 hours on normal weekdays

3.6 MONITORING EQUIPMENT MONITORING EQUIPMENT

Air Quality Monitoring

- 3.6.1 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.
- 3.6.2 All equipment as used air quality monitoring is listed in *Table 3-5*.

Table 3-5 Air Quality Monitoring 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



Noise Monitoring

- 3.6.3 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⁻¹.
- 3.6.4 Noise equipment as perform for baseline monitoring is listed in *Table 3-6*.

Table 3-6 Construction Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	Rion NL-31, Rion NL-52
Calibrator	Rion NC-73, Rion NC-74
Portable Wind Speed Indicator	Anemometer AZ Instrument 8908

3.7 MONITORING METHODOLOGY

Air Quality Monitoring

1-hour TSP

- 3.7.1 The 1-hour TSP monitor was a brand named "Sibata LD-3 Laser Dust monitor Particle Mass Profiler & 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.) A pump to draw sample aerosol through the optic chamber where TSP is measured;
 - (b.) A sheath air system to isolate the aerosol in the chamber to keep the optics clean for maximum reliability; and
 - (c.) A built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.
- 3.7.2 The 1-hour TSP meter to be used will be within the valid period, calibrated by the manufacturer prior to purchasing. Zero response of the instrument will be checked before and after each monitoring event.

24-hour TSP

- 3.7.3 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;
 - (b.) A 8"x10" stainless steel filter holder;
 - (c.) A blower motor assembly;
 - (d.) A continuous flow/pressure recorder;
 - (e.) A motor speed-voltage control/elapsed time indicator;
 - (f.) A 7-day mechanical timer, and
 - (g.) A power supply of 220v/50 Hz
- 3.7.4 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 0.6m³/min and 1.7m³/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;

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- 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.
- 3.7.5 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.
- 3.7.6 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 m³/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 the relevant EM&A Report.

Noise Monitoring

- 3.7.7 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.
- 3.7.8 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_(30 min) in six consecutive Leq_(5 min) measurements will be used as the monitoring parameter for the time period between 07:00-19:00 hours on weekdays throughout the construction period.
- 3.7.9 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.
- 3.7.10 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.
- 3.7.11 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.

3.7.12 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 the relevant EM&A Report.

Meteorological Information

3.7.13 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.

3.8 DERIVATION OF ACTION/LIMIT (A/L) LEVELS

3.8.1 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*.

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

Monitoring Station	Action Lev	vel (μg/m³)	Limit Level (μg/m³)		
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	

Remarks:

(*) 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 3December 2019.

Table 3-8 Action and Limit Levels for Construction Noise

Manitarina I agatian	Action Level	Limit Level in dB(A)			
Monitoring Location	Time Period: 0700-1900 hours on normal weekdays				
NMS-1		70 dB(A) ^{Note 1} / 65 dB(A) ^{Note 1}			
NMS-2 (@)		70 db(A) *** / 03 db(A) ***			
NMS-3 (:)		75 dB(A)			
NMS-4*		75 dB(A)			
NMS-4a#		75 dB(A)			
NMS-5#	When one or more documented	75 dB(A)			
NMS-6~	complaints are received	75 dB(A)			
NMS-7~		75 dB(A)			
NMS-8^		75 dB(A)			
CN1+		70 $dB(A)^{Note 1} / 65 dB(A)^{Note 1}$			
CN2+		70 $dB(A)^{Note 1} / 65 dB(A)^{Note 1}$			
CN3+		75 dB(A)			

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

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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.

3.8.2 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 E*.

3.9 DATA MANAGEMENT AND DATA QA/QC CONTROL

- 3.9.1 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.
- 3.9.2 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. The monitoring schedule for the present and next reporting quarter is presented in *Appendix F*.

4.2 RESULTS OF AIR QUALITY MONITORING

4.2.1 In the Reporting Period, a total of **288** events of 1-hour TSP and **64** events of 24-hour TSP monitoring were performed. The air quality monitoring results at the designated locations are summarized in *Table 4-1*. The database of the monitoring result for the Reporting Period is presented in *Appendix G* and the relevant graphical plots are shown in *Appendix H*.

Table 4-1 Summary of Air Quality Monitoring Results

Monitoring	1-hour TSP (μg/m³)			24-h	our TSP (µg/	(\mathbf{m}^3)	
Location	Min	Max	Average	Min Max Ave		Average	
AMS-1a	42	93	67	6	106	24	
Record Date	26-Aug-21	14-Aug-21	48 events	16-Sep-21	26-Jul-21	16 events	
AMS-2	45	97	74				
Record Date	16-Jul-21	14-Aug-21	48 events				
AMS-3	46	114	74				
Record Date	26-Aug-21	14-Aug-21	48 events				
AMS-5	44	113	79	10	46	26	
Record Date	16-Jul-21	14-Aug-21	48 events	4-Sep-21	27-Sep-21	16 events	
AMS-6	52	113	80	12	49	31	
Record Date	26-Aug-21	14-Aug-21	48 events	20-Jul-21	26-Jul-21	16 events	
AMS-7	50	101	75	11	80	25	
Record Date	16-Jul-21	30-Sep-21	48 events	18-Aug-21		16 events	

4.2.2 Breaches of air quality A/L level and statistical analysis of compliance for the air quality monitoring results are summarized in *Table 4-2*.

Table 4-2 Summaries of Breaches of Air Quality A/L Levels

Location	Exceedance	1-hour TSP	24- hour TSP	Total
AMS-1a	Action Level	0	0	0
AMS-1a	Limit Level	0	0	0
AMS-2	Action Level	0	N/A	0
AMS-2	Limit Level	0	N/A	0
AMS-3	Action Level	0	N/A	0
Alvis-5	Limit Level	0	N/A	0
AMS-5	Action Level	0	0	0
Alvis-3	Limit Level	0	0	0
AMS-6	Action Level	0	0	0
AMS-6	Limit Level	0	0	0
AMS-7	Action Level	0	0	0
AIVIS-/	Limit Level	0	0	0

4.2.3 In the Reporting Period, the 24-hour and 1-hour TSP monitoring results were below the Action/Limit Level. No Notification of Exceedances (NOE) of air quality criteria or corrective action was therefore required.

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4.2.4 The monitoring results were generally in consistence with the project prediction in which with implementation of dust mitigation measures such as watering at site could control the fugitive dust impact to acceptable levels. The summary of meteorological information for the Reporting Period is shown in *Appendix I*.



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 issued from AECOM to AUES in November 2018 for three additional noise monitoring stations CN1, CN2 and CN3 for Contract 3 and construction noise monitoring was conducted at these 3 additional stations in the Reporting Period.
- 5.1.3 Monitoring schedule of the Reporting Period is presented in *Appendix F*.

5.2 RESULTS OF CONSTRUCTION NOISE MONITORING

5.2.1 In the Reporting Period, a total of **92** event noise measurements were carried out at the designated locations under Contract 1 and **42** event noise measurements were carried out at the stations under Contract 3. The construction noise monitoring results at the designated locations are summarized in *Table 5-1* and *Table 5-2*. The database of the monitoring result for the Reporting Period is presented in *Appendix G* and the relevant graphical plots are shown in *Appendix H*.

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

Monitoring	Leq, $30\min(dB((A))$			
Location	Min	Max		
NMS2	56	68		
Record Date	13-Sep-21	22-Jul-21		
NMS3	55	70		
Record Date	3-Aug-21	7-Sep-21		
NMS4a	62	74		
Record Date	3-Aug-21	16-Jul-21		
NMS5	55	71		
Record Date	3-Aug-21	5-Jul-21		
NMS6	57	70		
Record Date	3-Aug-21	22-Jul-21, 1-Sep-21, 30-Sep-21		
NMS7	63	71		
Record Date 5-Jul-21, 3-Aug-21		1-Sep-21		
NMS8	60	69		
Record Date	15-Sep-21	7-Jul-21, 5-Aug-21		

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

Monitoring	Leq, 30min (dB ((A))			
Location	Min	Max		
CN1	58	67		
Record Date	15-Sep-21	28-Sep-21		
CN2	60	66		
Record Date	9-Sep-21	11-Aug-21		
CN3	59	68		
Record Date	21-Sep-21	17-Aug-21		

5.2.2 In the Reporting Period, no Limit Level exceedance was recorded. No occasion of environmental complaints regarding construction noise were received in the Reporting Period.



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 Summary Waste Flow Table is shown in *Appendix J*. Whenever possible, materials were reused on-site as far as practicable.

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

Tring of Wests	Contract		Qua	antity		Disposal
Type of Waste	No	Jul 2021	Aug 2021	Sep 2021	Total	Location
	1	13.271	32.172	20.751		-
Total Generated C&D	2	0.27	0.06	0.01		-
Materials (Inert) (in '000m ³)	3	1.068	5.846	3.286	76.784	-
Waterials (mert) (m 600m²)	4	1	-	0		
	5	0.01	0.04	0		
	1	0	0	0		-
Hand Dools & Longo Duolson	2	0	0	0		-
Hard Rock & Large Broken Concrete (in '000m ³)	3	0	0	0	0	-
Concrete (iii ooonir)	4	1	-	0		
	5	0	0	0		
	1	1.957	9.886	6.493		-
Paysod in this Project (Inert)	2	0	0	0		-
Reused in this Project (Inert) (in '000m ³)	3	0	0	0	18.336	-
(III GOOIII)	4	1	-	0		
	5	0	0	0		
	1	8.863	20.257	12.679		*
Daysad in other Projects	2	0	0	0		
Reused in other Projects (Inert) (in '000m ³)	3	0	0	0	41.799	
(mert) (m ooom)	4	1	-	0		
	5	0	0	0		
	1	2.452	2.029	1.579		
Disposal as Public Fill	2	0.27	0.06	0.01		
Disposal as Public Fill (Inert) (in '000m ³)	3	1.068	5.846	3.286	16.65	TKO 137
(mert) (m 000m)	4	-	-	0		
	5	0.01	0.04	0		

Remarks (*) Approved alternative disposal ground.



Table 6-2 Summary of Quantities of C&D Wastes for the Project

Type of Weste	Contract	Quantity			Disposal	
Type of Waste	No	Jul 2021	Aug 2021	Sep 2021	Total	Location
	1	0	0	0.03		
	2	0	0	0		Licensed
Recycled Metal ('000kg)	3	0.01	0	0.01	0.05	collector
	4	-	-	0		Conector
	5	0	0	0		
	1	0	0	0.08		
Recycled Paper / Cardboard	2	0	0	0		Licensed
Packing ('000kg)	3	0.596	0	0	0.676	collector
1 acking (oookg)	4	-	-	0		conector
	5	0	0	0		
	1	0	0	0		
	2	0	0	0		Licensed
Recycled Plastic ('000kg)	3	0.239	0.308	0.008	1 11 222	collector
	4	-	-	0		conector
	5	0	0	0		
	1	0	0	0		
	2	0	0	0		Licensed
Chemical Wastes ('000kg)	3	0	0	0	()	collector
	4	-	-	0		conector
	5	0	0	0		
	1	0.103	0	0		
General Refuses ('000m³)	2	0.11	0.06	0.06		
	3	0.033	0.066	0.026	0.648	SENT
	4	-	-	0.02		
	5	0.02	0.10	0.05		

6.2.3 To control the site performance on waste management, the Contractor shall ensure that all solid and liquid waste management works are fully in compliance with the relevant license/permit requirements, such as the effluent discharge license and the chemical waste producer registration. The Contractor is also reminded to implement the recommended environmental mitigation measures according to the EM&A Manual.



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 carry out to confirm the environmental performance.
- 7.1.2 The Contractor had closed down the construction site for C1 (NE/2016/01) and C3 (NE/2017/03) from 2 August 2020 to 8 August 2020 due to the spread of the novel coronavirus

7.2 FINDINGS / DEFICIENCIES DURING THE REPORTING PERIOD

Contract 1

7.2.1 During the Reporting Period, *13* events of the joint site inspections were undertaken at Contract 1 to evaluate the site environmental performance. IEC joined the site inspection with SSEMC on 8th *July*, 5th *August* and 9th *September 2021*. The summaries of the findings during site inspection are presented in *Table 7-1* and the details of site inspection can be found in relevant EM&A monthly report.

Table 7-1 Summary of Reminders/Observations of Site Inspection – Contract 1

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
July 2021	8, 13, 20 and 27 July 2021	7	Completed
August 2021	5, 10, 17, 24 and 31 August 2021	9	Completed
September 2021	9, 14, 21 and 28 September 2021	8	Completed

7.2.2 In the Reporting Period, no non-compliance was recorded; however, **24** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 2

7.2.3 During the Reporting Period, 13 events of the joint site inspections were undertaken at Contract 2 to evaluate the site environmental performance. IEC joined the site inspection with SSEMC on 21th July, 19th August and 23rd September 2021. The summaries of the findings during site inspection are presented in Table 7-2 and the details of site inspection can be found in relevant EM&A monthly report

Table 7-2 Summary of Reminders/Observations of Site Inspection – Contract 2

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
July 2021	7, 14, 21 and 28 July 2021	6	Completed
August 2021	4, 11, 19 and 25 August 2021	6	Completed
September 2021	1, 8, 15, 23 and 29 September 2021	10	Completed

7.2.4 In the Reporting Period, no non-compliance was recorded; however, 22 observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 3

7.2.5 During the Reporting Period, 14 events of the joint site inspections were undertaken at Contract 3 to evaluate the site environmental performance. IEC joined the site inspection with SSEMC on 9th July, 6th August and 10st September 2021. The summaries of the findings during site inspection are presented in Table 7-3 and the details of site inspection can be found in relevant EM&A monthly report.



Table 7-3 Summary of Reminders/Observations of Site Inspection – Contract 3

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
July 2021	2, 9, 16, 23 and 30 July 2021	4	Completed
August 2021	6, 13, 20 and 27 August 2021	3	Completed
September 2021	3, 10, 17, 24 and 30 September 2021	6	Completed

7.2.6 In the Reporting Period, no non-compliance was recorded; however, *13* observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 4

7.2.7 During the Reporting Period, 1 event of the joint site inspections was undertaken at Contract 4 to evaluate the site environmental performance. IEC joined the site inspection with SSEMC on 29th September 2021. The summaries of the findings during site inspections are presented in Table 7-4 and the details of site inspection can be found in relevant EM&A monthly report

Table 7-4 Summary of Reminders/Observations of Site Inspection – Contract 5

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
July 2021	-	-	-
August 2021	-	-	-
September 2021	29 September 2021	0	Completed

7.2.8 In the Reporting Period, no non-compliance was recorded; however, *0* observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 5

7.2.9 During the Reporting Period, *13* events of the joint site inspections were undertaken at Contract 5 to evaluate the site environmental performance. IEC joined the site inspection with SSEMC on *27*th *July*, *24*th *August* and *28*th *September 2021*. The summaries of the findings during site inspection are presented in *Table 7-5* and the details of site inspection can be found in relevant EM&A monthly report

Table 7-5 Summary of Reminders/Observations of Site Inspection – Contract 5

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
July 2021	8, 15, 22 and 27 July 2021	6	Completed
August 2021	5, 12, 19 and 24 August 2021	5	Completed
September 2021	2, 9, 17, 23 and 28 September 2021	7	Completed

7.2.10 In the Reporting Period, no non-compliance was recorded; however, *18* observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.



8 Environmental Complaint and Non-Compliance

8.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.1.1 In the Reporting Period, two (2) environmental complaints were received for Contract 1 in relation to water quality and one (1) environmental complaint was received for Contract 1 in relation to noise nuisance. 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.

8.1.2 Complaint received under Contract 1 on 23 July 2021

i) A complaint was received by EPD on 20 and 21 July 2021 and complained about discharge of muddy water as found on Po Lam Road and at the drainage facility near Tin Hau temple. It was noted that Localized Heavy Rain Advisory for Sai Kung District was issued by HKO on 20 July 2021. Owing to the heavy rainfall which generated large amount of storm runoff and no muddy discharge was noticed from the Project on 20 July 2021, it is considered that the complaints of muddy water in the drainage facilities near Tin Hau Temple and Po Lam Road catchpit were unlikely due to the Project. In our investigation, CWSTVJV had implemented the water quality mitigation measures to minimise the impact arising from the construction site. In view of the site condition and inclement weather condition on the complaint days, it is considered that the complaints raised by DSD were unlikely due to the C1 Project. Nevertheless, CWSTVJV was advised to closely monitor the discharge quality to avoid non-compliance of water quality happened in the construction site

8.1.3 Complaint received under Contract 1 on 15 September 2021

ii) A complaint was received by EPD on 14 and 16 September 2021 concerning about discharge of muddy water as found at the catchpit SCH4003250 near Po Lam Road and catchpit SSH4001400 near Po Tat Tin Hau Temple. After investigation, silty seepage was found in a cleavage inside the 1950 dia. pipe on the right. The gap was sealed immediately and no silty seepage was noted in the afternoon. Follow up inspection was undertaken by CWSTVJV during the rain on 16 & 19 Sept 2021 and discharge at Q2 were visually clear. Moreover, greyish water was observed in both the 1050 dia. outlet and 450 dia. outlet at outfall Q3. After investigation, a gap was found in a temporary shutter board inside an upstream manhole causing slight seepage of silty water to Q3. Re-sealed the temporary shutter board with sealant immediately. No silty seepage was seen in the afternoon. Follow up inspection was undertaken by CWSTVJV during the rain on 16 Sep 2021 and discharge at Q3 were visually clear. Nevertheless, CWSTVJV was advised to closely monitor the discharge quality to avoid non-compliance of water quality happened in the construction site. Moreover, to cope with the adverse weather condition in wet season, CWSTVJV was reminded to regularly review the drainage plan as needed.

8.1.4 Complaint received under Contract 1 on 23 September 2021

iii) A complaint was received by 1823 regarding the construction works at Anderson Road Quarry. Site started before 7am, which generated construction noise and affecting the upper floor resident of On Tat Estate on 23 September 2021. As confirmed with the construction team of the Contractor of Contract 1, there were no works that have been carried out under Contract 1 before 7am in September 2021. However, there were other concurrent contracts on site and the contribution of noise may be related to others. The project team explained that in order to minimize the noise impact to the public, they generally arranged the noisy construction works under the Project to be carried out after 8am. In addition, the noise impact monitoring results carried out by the ET showed that there was no exceedance of construction noise in September 2021, which revealed that the construction noise was within acceptable level. Nevertheless, in order to eliminate the inconvenience caused to the nearby resident, CWSTVJV was advised to properly maintain the noise mitigation measures as far as practicable



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- 8.1.5 Based on all investigation revealed that the Contractors has implemented water quality mitigation measures to reduce the impact to the nearby resident. Nevertheless, since the construction sites are close to the residential area, apart from the current mitigation measures, all the contractors were advised to enhance the water quality mitigation measures to further reduce the water quality impact to the nearby residents.
- 8.1.6 The statistical summaries of complaints, summons and prosecutions as related environmental aspects are presented in *Tables 8-1*, 8-2 and 8-3 and the updated complaint log is shown in *Appendix L*.

 Table 8-1
 Statistical Summary of Environmental Complaints

Donouting Donied	Environmental Complaint Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
1 – 31 July 2021	1	68	Water quality	
1 – 31 August 2021	0	68	NA	
1 – 30 September 2021	2	70	Water quality, Noise	

Table 8-2 Statistical Summary of Environmental Summons

Donauting David	Environmental Summons Statistics		
Reporting Period	Frequency	Cumulative	Complaint Nature
1 – 31 July 2021	0	0	NA
1 – 31 August 2021	0	0	NA
1 – 30 September 2021	0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Domontino Dominal	Environmental Prosecution Statistics			
Reporting Period	Frequency	Cumulative	Complaint Nature	
1 – 31 July 2021	0	0	NA	
1 – 31 August 2021	0	0	NA	
1 – 30 September 2021	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 K*.
- 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*.

 Table 9-1
 Environmental Mitigation Measures

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

9.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING REPORTING PERIOD

9.2.1 Tentative construction activities of the Project in the coming Reporting Period are listed below.

Contract 1

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:

• Bamboo Scaffold Erection for external ABWF works

Road Improvement Works at Po Lam Road

- Excavation works to facilitate installation of the E&M/ACT/Earth pit and construction of permanent footpath and surface drainage system complete
- Construct concrete carriageway and footpath in progress
- Install beam barrier complete
- Construct Island in progress
- Construction of permanent footpath and surface drainage system complete

Construction of Internal Road L1:

- Excavation and laying of watermain to continue.
- Road work, footpath and cycle track at L1 east to continue.
- Gullies and upper drainage construction for road L1 west to continue.

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Water Reservoir:

- To continue excavation works for watermain works and construct valve chamber.
- To continue the construction works of WSD Access.
- To continue the laying and construct the additional dia.600 pipe and manhole.

Artificial Flood Attenuation Lake:

- To continue the drainage works (the remaining part: outside slot chamber).
- To continue the drainage works.
- To continue laying granular and HDPE membrane works.
- To continue retaining wall (bay 50) construction works.

Slope Stabilization at Portion B5:

- Continue to erect inspection scaffolds from 2nd to 5th berm.
- Continue to carry out stabilization works at Feature No. 11NE-D/C948 & 11NE-B/C9
- Perform rocking mapping and stabilization measure at 11NE-B/C900
- Perform scaffolding alternation to suit stabilization work required at 11NE-B/C1013 & 1014

Site Formation Work at Portion B13:

- Land Parcel R2-4 & R2-6 Excavation to formation level in progress.
- UC construction at Land Parcel R2-4 & R2-6 in progress.

Cavern (Portion B5):

- Rock fall fence installation complete.
- Rock breaking of existing slope at Ch200-248 on level +196 202mPD to continue.
- Rock dowel construction to continue.
- Drilling of Portal to continue.
- Planter wall construction to continue.
- UC construction at CH248 +198.5mPD berm in progress.
- Construction of Inspection scaffold on temporary triangle bracket in progress.

Underpass, East and West Portal:

- East Portal Rock slope A1 stabilization works in progress
- East Portal structure works for RWA1C retaining wall in progress
- East Portal install the crossing duct pipe complete and concrete carriageway
- West Portal Buttress wall construct work in progress
- West Portal Slope A3 construct u-channel and berm in progress
- Underpass installation of central divider transition, laying bituminous layer base course
- Underpass- installation of VE panel and cover of cable trough
- Underpass installation E&M lighting support
- Po Lam road installation of drawpit and ducting pipe and u channel

Contract 2

- Temporary Traffic Arrangement (TTA)
- Soil Nail Construction
- Mass Concrete construction
- Formwork and Falsework installation and dismantling
- Lifting Tower Construction
- Rebar fixing

Contract 3

Road Improvement Works 1 (RIW1)

- Site formation, ELS works & RC works at RWC2
- Backfilling works at KS27

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Road Improvement Works 2 (RIW2)

- ELS at Zone 6 & 7.
- Retaining wall construction for Bay 2 to 8.
- ELS for CT4 and SE2.
- Predrilling works at SE2.

Road Improvement Works 3 (RIW3)

- Construction of retaining wall RWD1 Bay 1 2 at Slope D1.
- Backfilling works of retaining wall RWD1 Bay 3 10 at Slope D1
- Stone facing installation works of retaining wall RWD1 Bay 3 10 at Slope D1
- No fine concreting works of Slope D1.
- Mini pile construction for RWD1 Bay 11 14 at Slope D1.
- Drainage works at Slope D2.
- Backfilling works at Slope D2.
- Stage 1 & 2 rock excavation at Slope D3.

Pedestrian Connectivity Facility E8 (PC-E8)

- Escalator installation / testing at 14nos escalators.
- Steel roof installation.

Pedestrian Connectivity Facility E11 (PC-E11)

- Construction of lift tower LT1 & ST1 at PC1.
- Construction of sum pit at PC1.
- Construction of lift tower LT2 & ST2 at PC6.
- Installation of steel frame of FB2, FB3 & FB4

Pedestrian Connectivity Facility System A (PC-SYA)

• Construction of RC structure at SyA-LT1, LT2 and ST1.

Pedestrian Connectivity Facility System B (PC-SYB)

- Construction of RC structure at PC8 and PC7.
- Pile construction at PC2.
- Site formation works for PC4, PC5 & PC6

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

Carry-out outstanding works and additional works under PM's instruction.

Contract 4

- Initial Survey, Tree Survey
- Construction of foundation and substructure of site office.
- Erection of Chain link Fence
- Removal of disused drains and sprinkle system at Portion 10
- Excavation work for Site Drainage at Portion 8 & 12
- GI work (CE)

Contract 5

Portion 1

- Form piling platform
- Piling Works

Portion 2

- Piling Works
- Mobilization of piling plant & equipment

Portion 3

- Diversion of Existing Staircase
- Form piling platform for Minipiles

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Portion 4

- Excavation of lift tower footing
- Pre-drill and install piezometer at E10-E12
- Excavation of Footing E10-F3

9.3 KEY ISSUES FOR THE COMING REPORTING PERIOD

- 9.3.1 Based on tentatively scheduling of construction activities of the Project in the coming Reporting Period, environmental key issues to be considered are listed below.
 - 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

CEDD Contract No. NTE/07/2016

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works

Quarterly EM&A Summary Report (July to September 2021)



10 Conclusions and Recommendations

10.1 CONCLUSIONS

- 10.1.1 This is the **18**th Quarterly Environmental Monitoring and Audit (EM&A) Summary Report for the Service Contract to summarized monitoring results and inspection findings during the period from *I*st

 **July* to 30th September 2021.
- 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 was received (which triggered Action Level) for Contract 1.
- 10.1.4 In the Reporting Period, there were two environmental complaints received in relation to water quality and one environmental complaint received in relation to noise nuisance for Contract 1. Investigations had undertaken by ET upon receipt of the complaints. For the complaints regarding water quality of Contract 1, in our investigation, CWSTVJV had implemented the water quality mitigation measures to reduce to water quality impact to the public. In response to the complaint, CWSTVJV had immediately sealed the gap that caused the discharge of muddy water. Nonetheless, CWSTVJV was advised to regularly review the drainage plan as needed. In regards to the noise complaint, our investigation revealed that there was no construction works under the Project undertaken during the concerned period by the complainant, and there were other concurrent contracts on Anderson Road Quarry Site and the contribution noise may be related to others. Therefore, it is considered that the noise complaint was unlikely to be related to the works under the Project. Nevertheless, CWSTVJV was reminded to properly maintain the noise mitigation measures as far as practicable considering the construction site is relatively close to residential area.
- 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, 3, 4 and 5 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

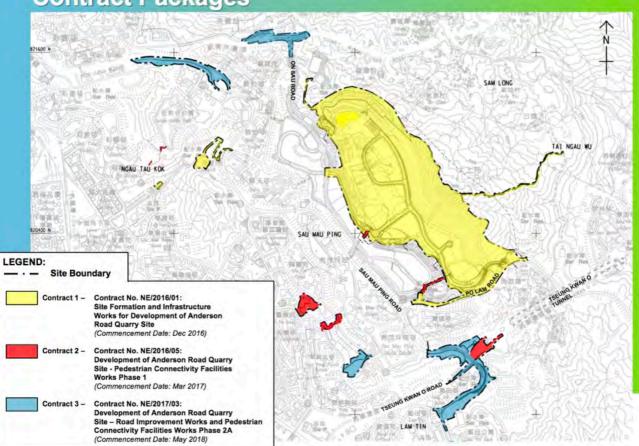
- 10.2.1 During wet season, the Contractors are reminded to pay special attention on water quality mitigation measures and should fully implement the measures as recommended in the EM&A Manual, in particular to prevent muddy water or other water pollutants from site surface overflow to public area should 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

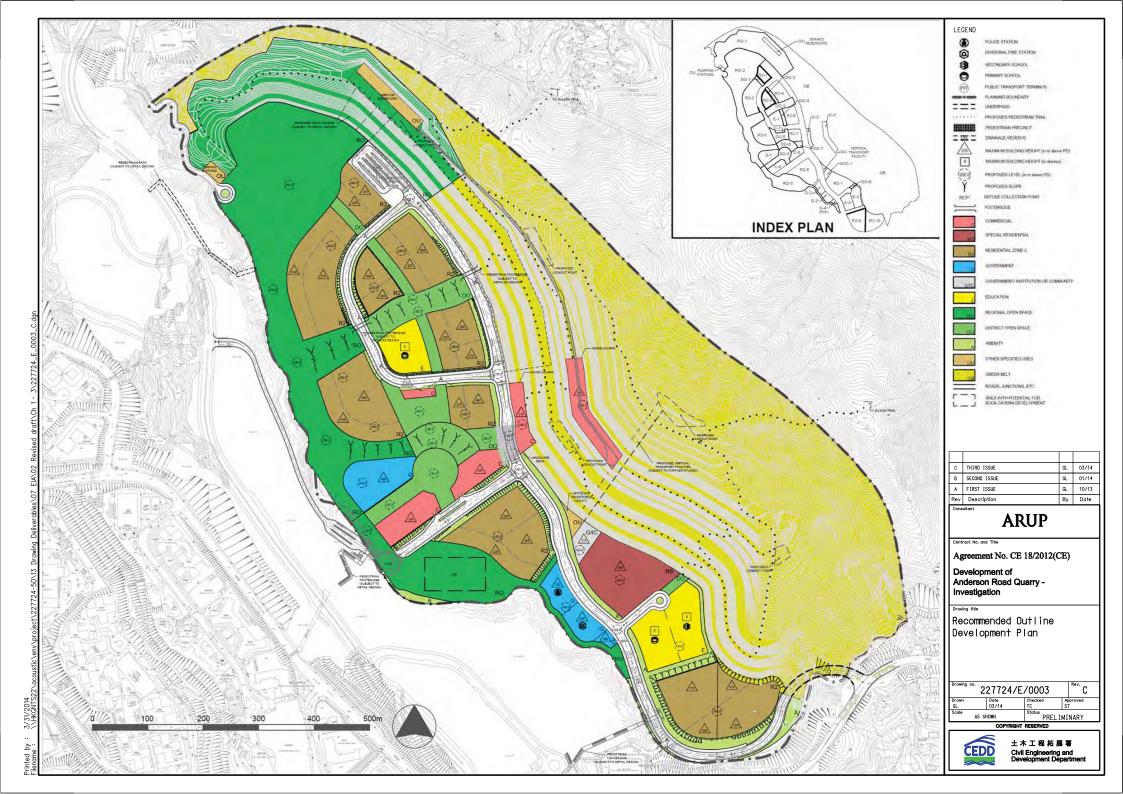
Layout plan of the Project

Contract Packages



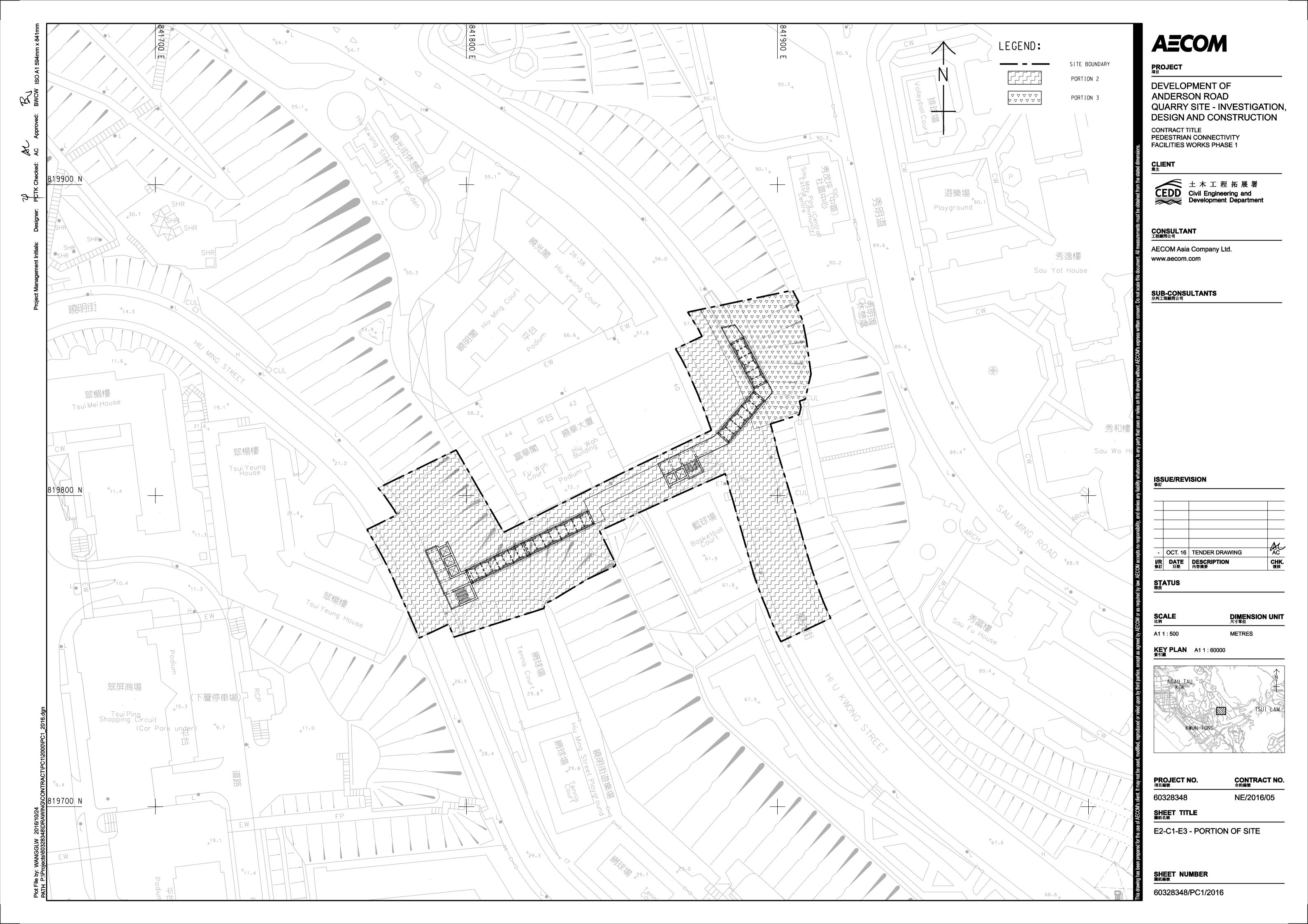


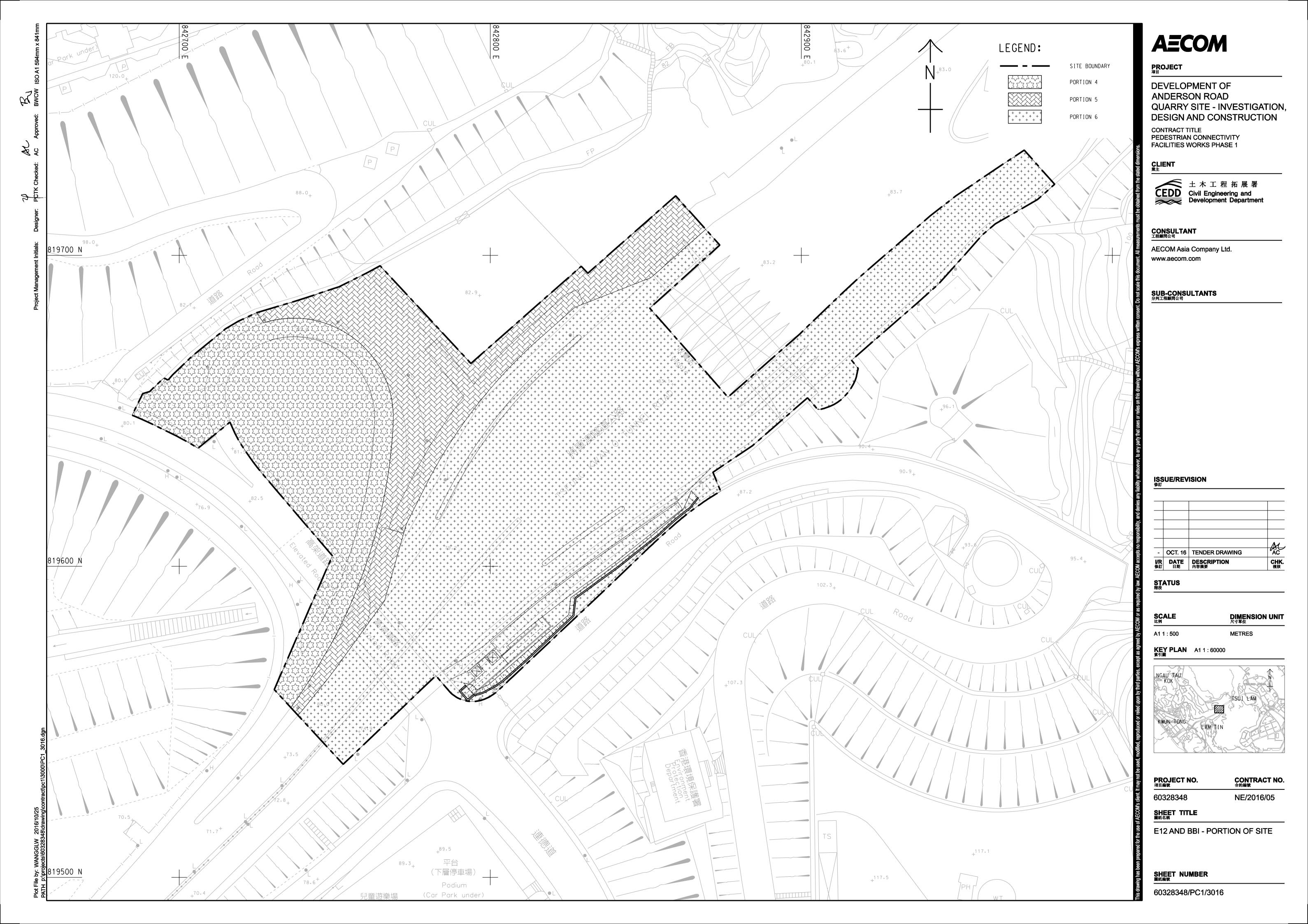
Layout plan of Contract 1 (NE/2016/01)

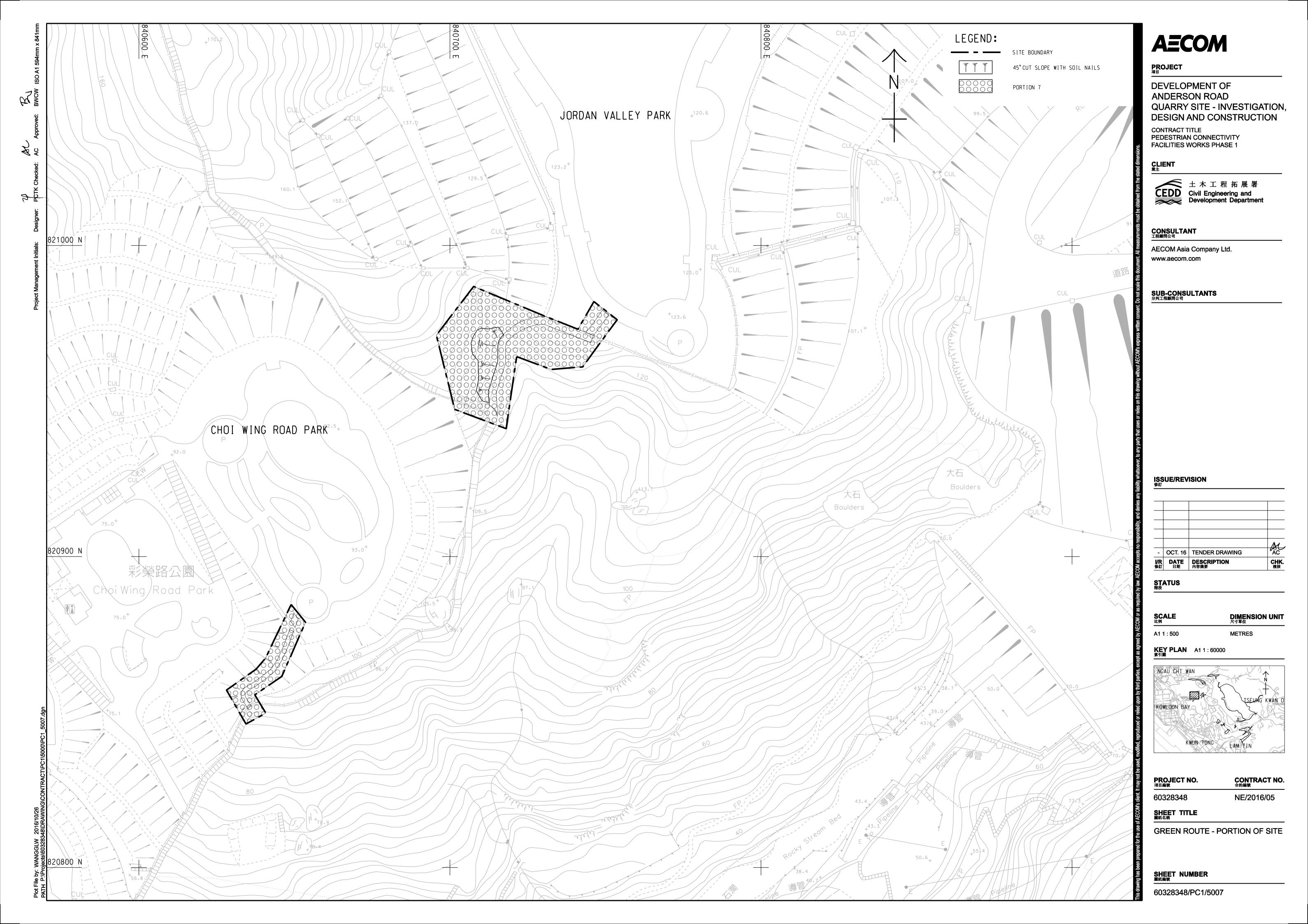


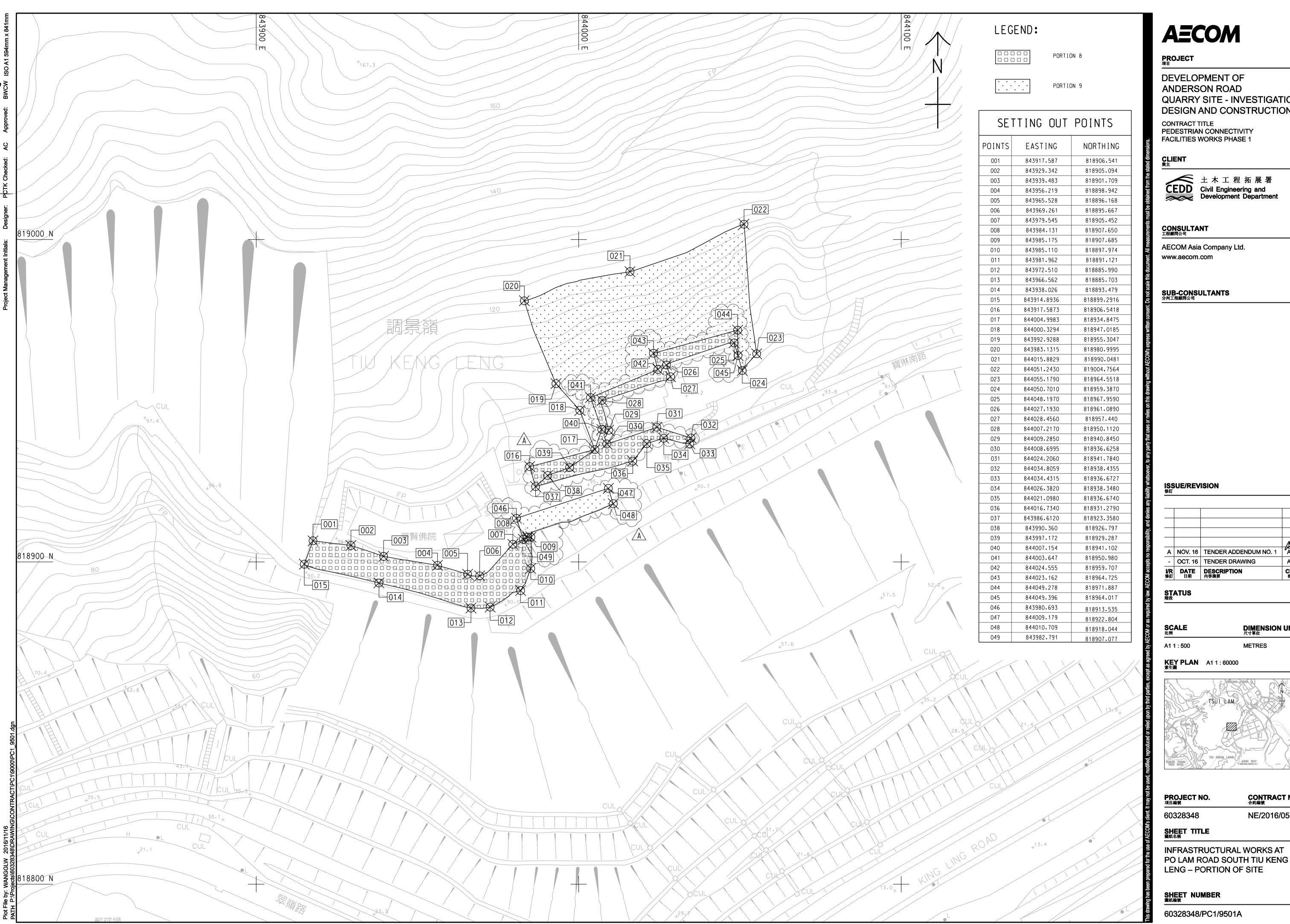


Layout plan of Contract 2 (NE/2016/05)









AECOM

PROJECT 項目

ANDERSON ROAD QUARRY SITE - INVESTIGATION, **DESIGN AND CONSTRUCTION**

CONTRACT TITLE PEDESTRIAN CONNECTIVITY FACILITIES WORKS PHASE 1

CLIENT _{業主}

CEDD Civil Engineering and Development Department

OCT. 16 TENDER DRAWING

KEY PLAN A1 1:60000 索引圖

PROJECT NO. 項目編號

CONTRACT NO. 合約編號 NE/2016/05

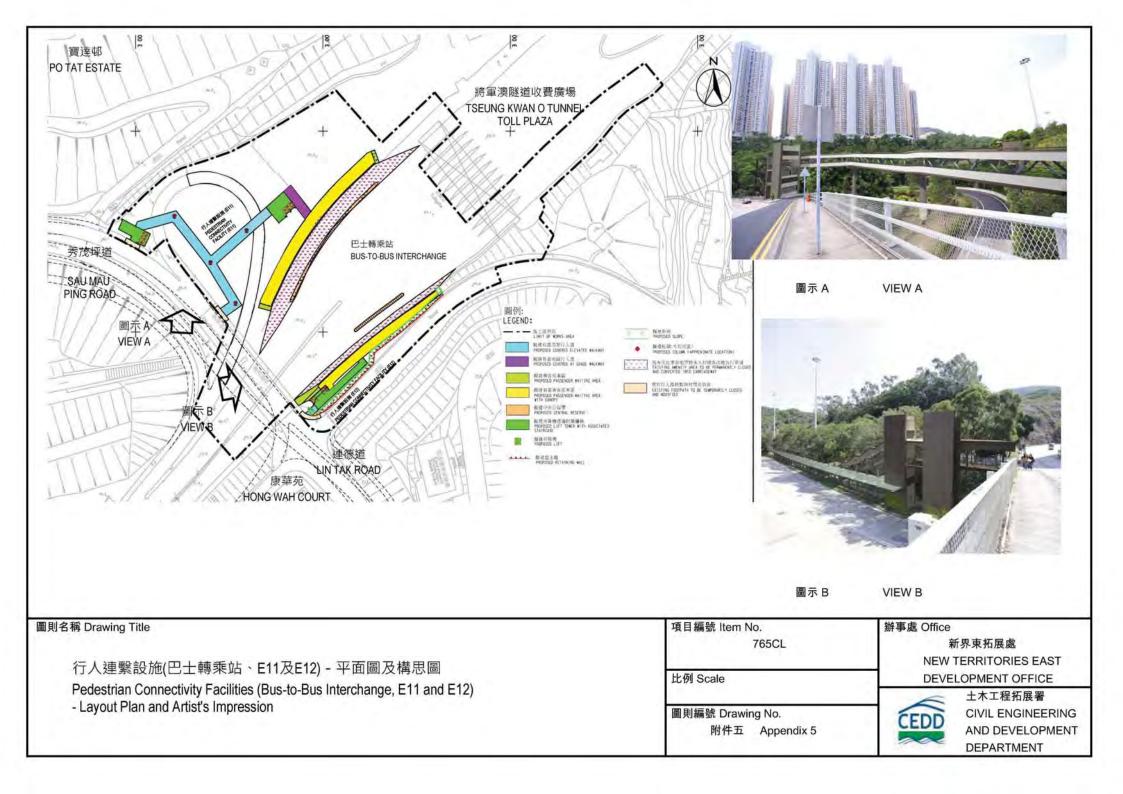
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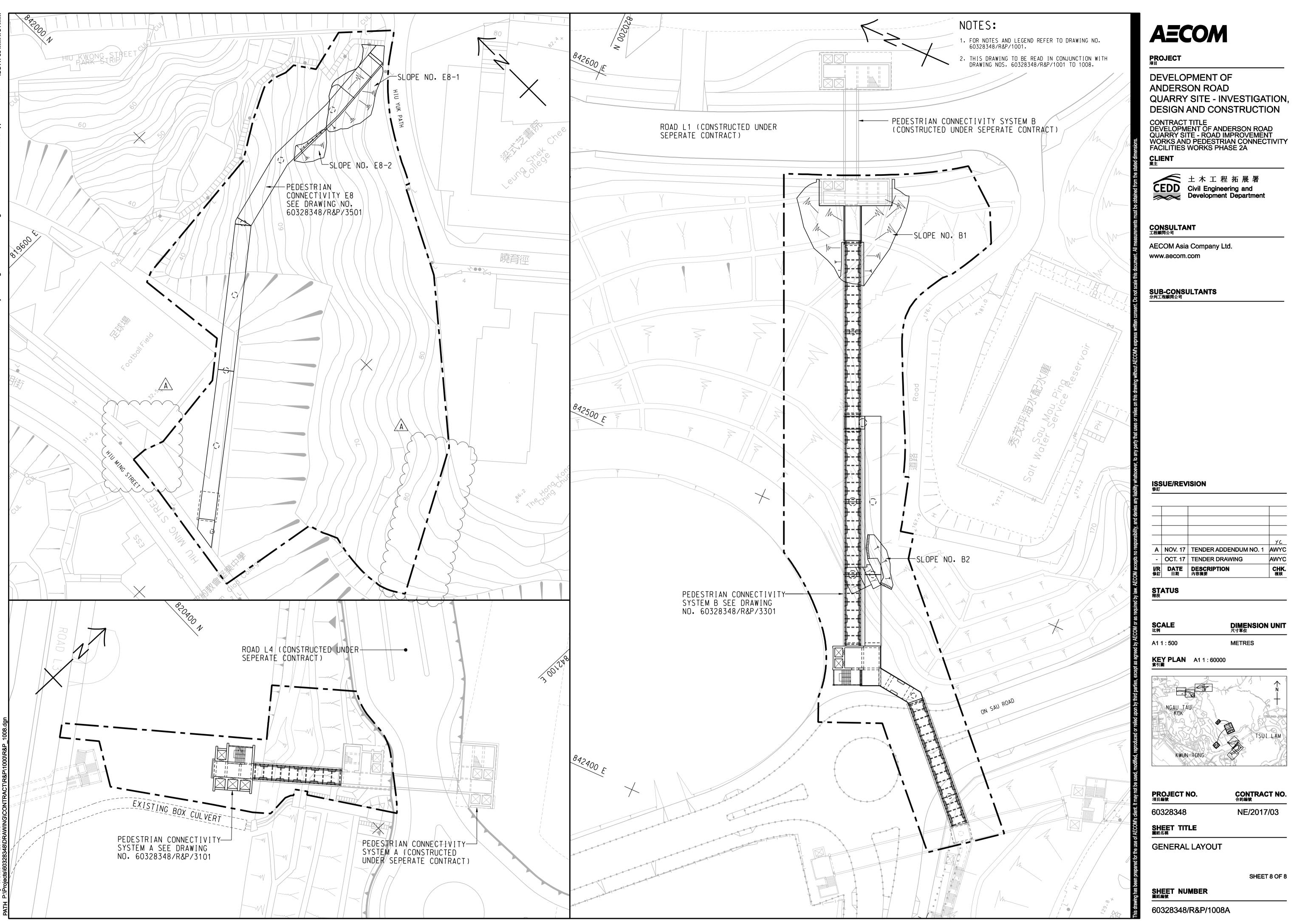
SHEET TITLE 圖紙名稱

SHEET NUMBER 圖紙編號 60328348/PC1/9501A



Layout plan of Contract 3 (NE/2017/03) (non-designated area)





AECOM

ANDERSON ROAD QUARRY SITE - INVESTIGATION, **DESIGN AND CONSTRUCTION**

CHK. 複核

DIMENSION UNIT 尺寸單位

CONTRACT NO. 合約編號

NE/2017/03

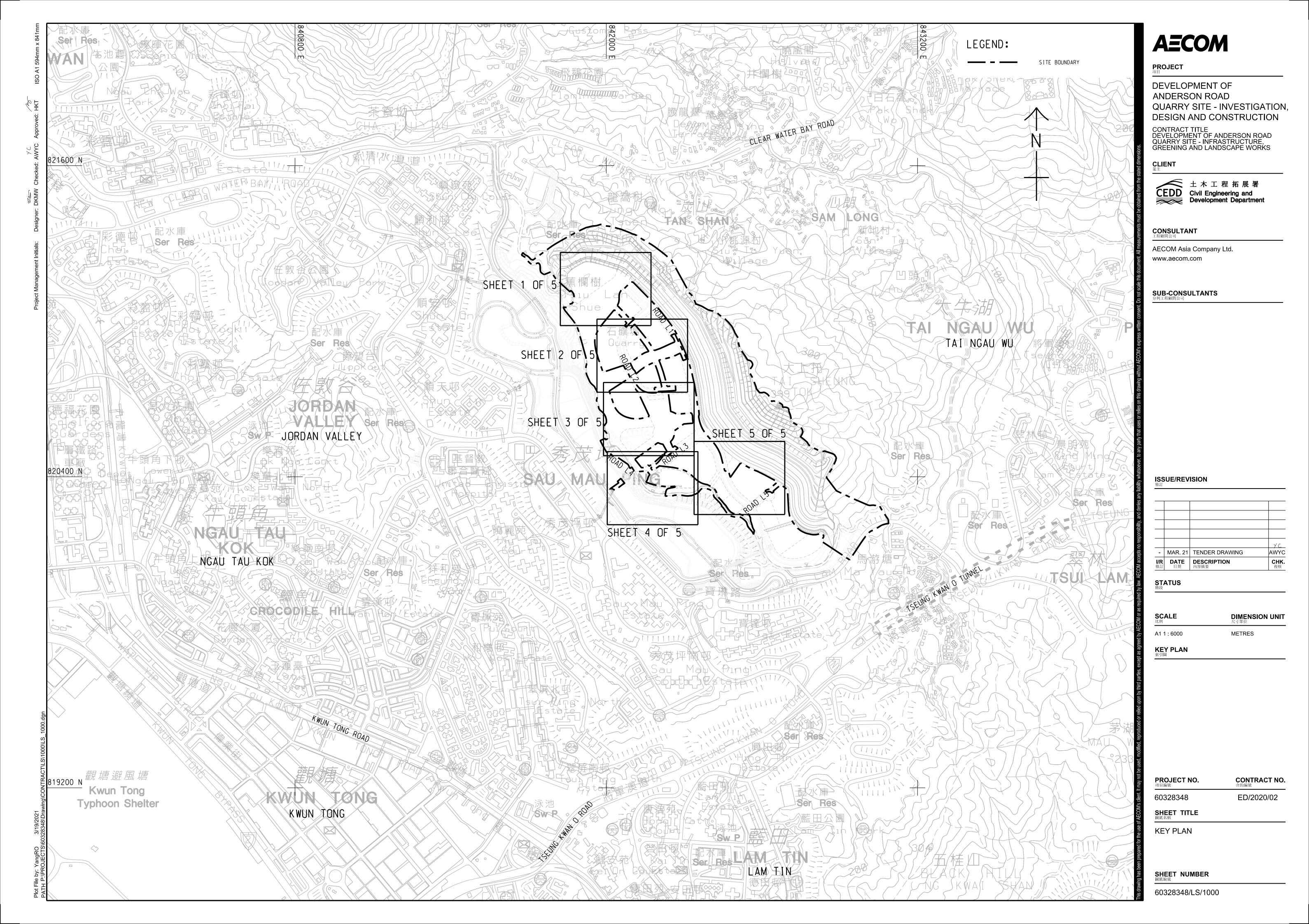
SHEET 8 OF 8

METRES

DEVELOPMENT OF

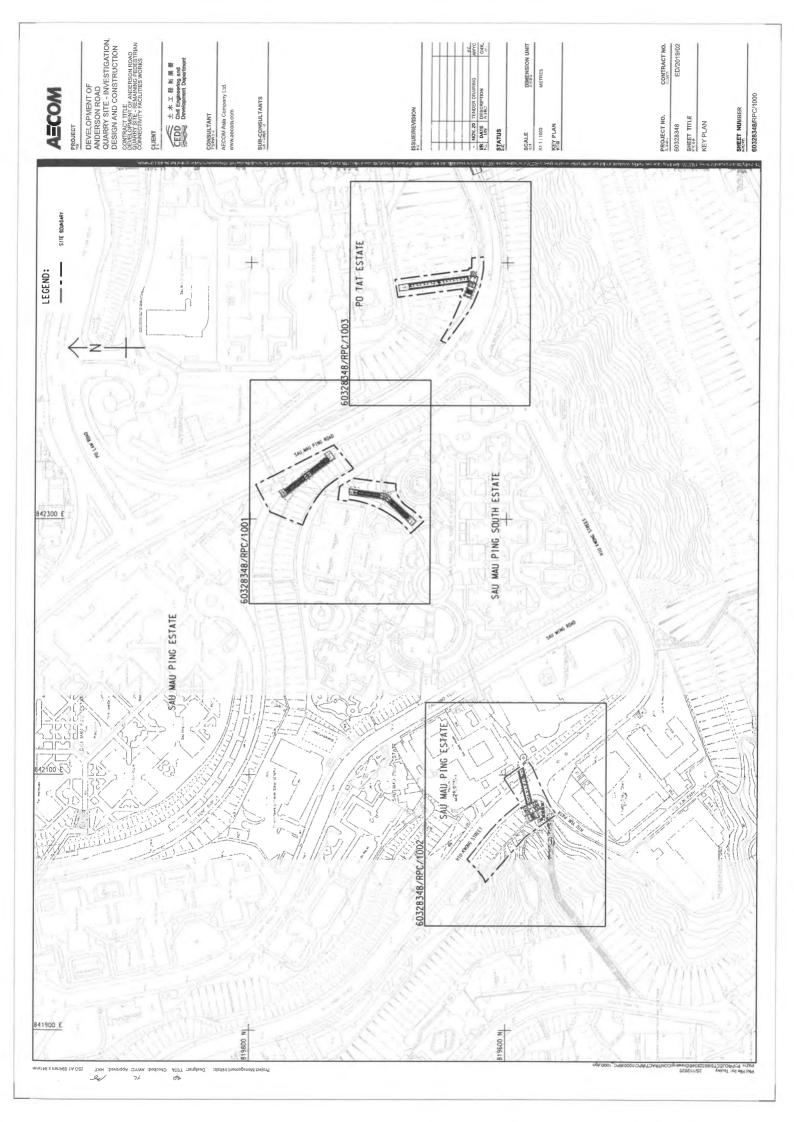


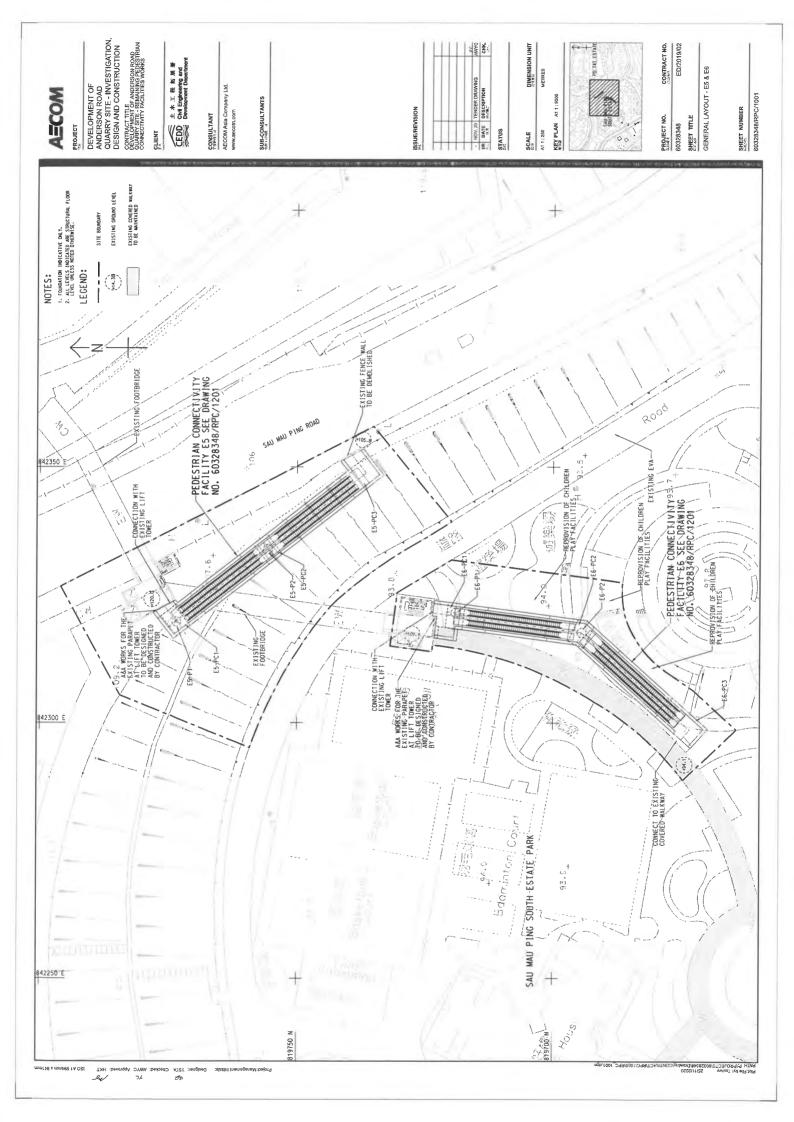
Layout plan of Contract 4 (ED/2020/02)

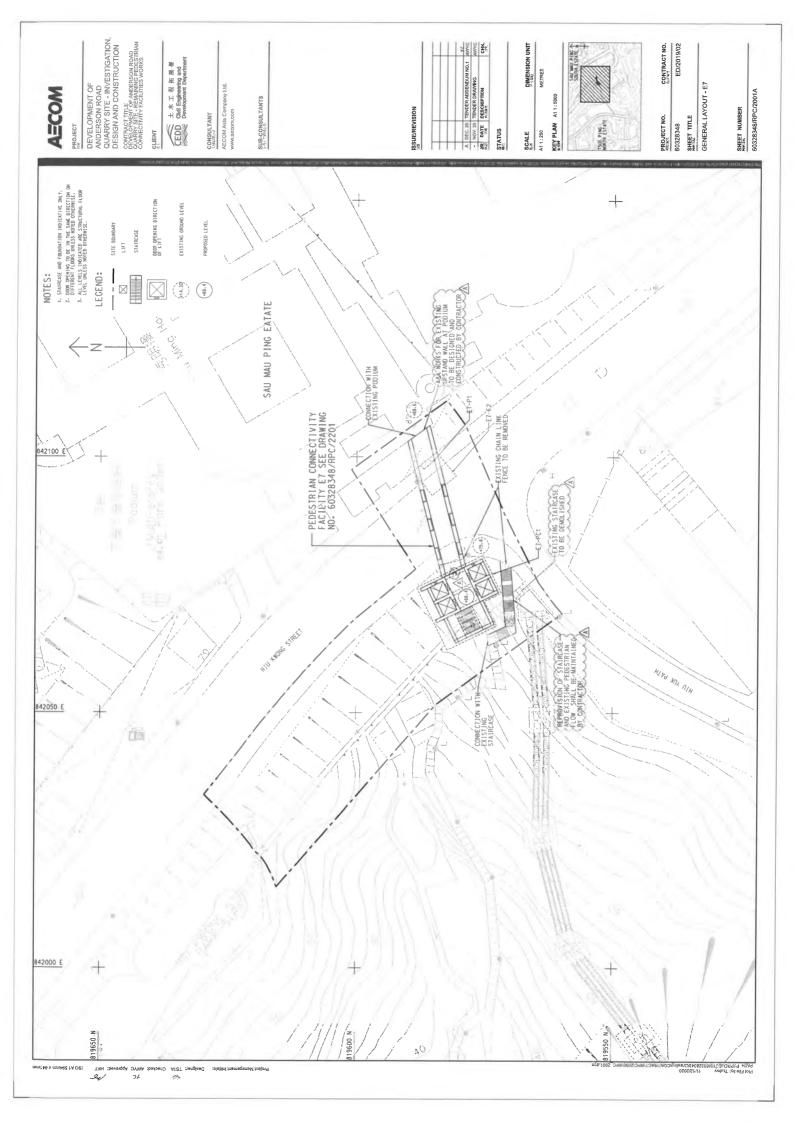


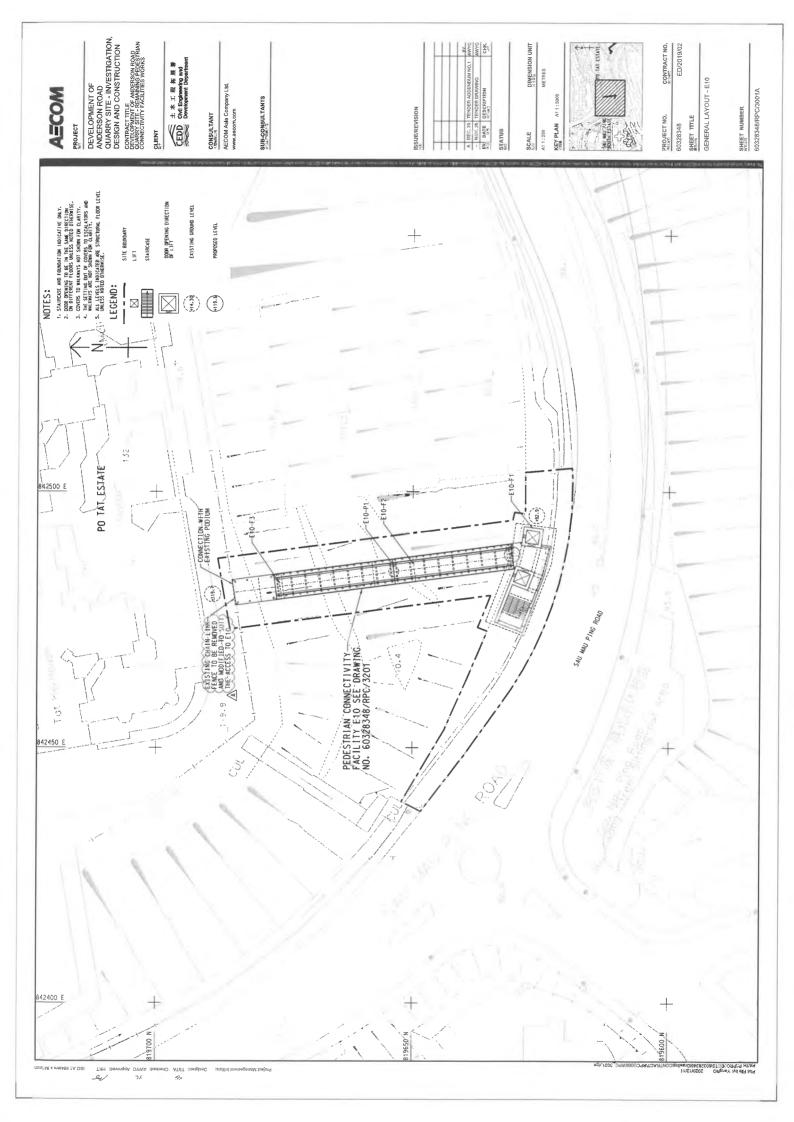


Layout plan of Contract 5 (ED/2019/02)









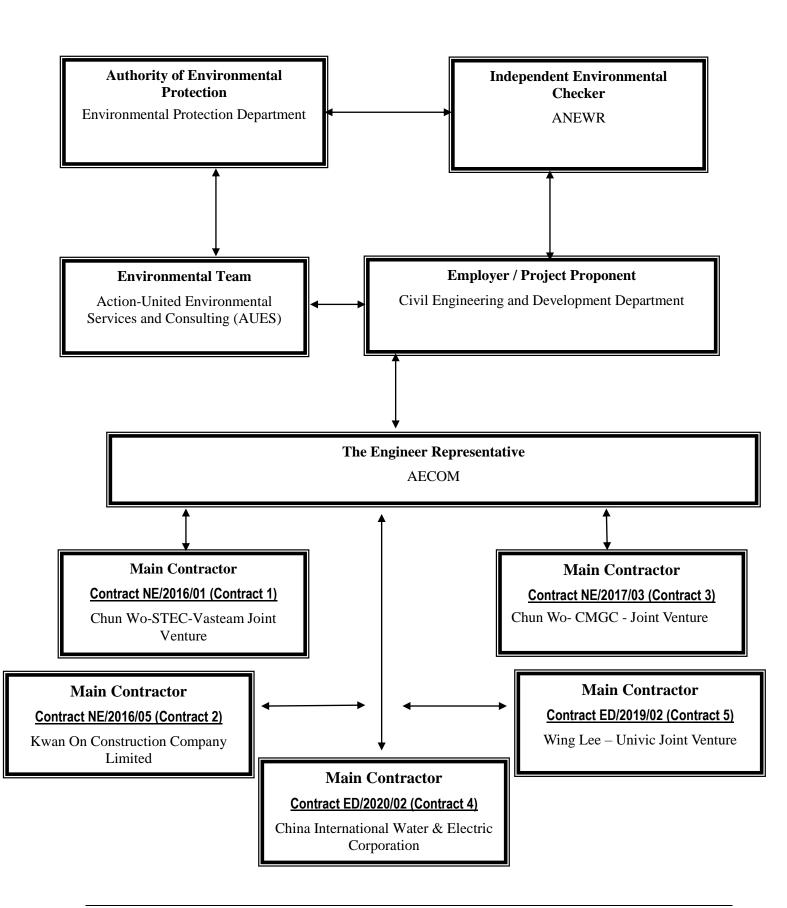


Appendix B

Organization Structure and Contact Details



Project Organization Structure





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

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	James Choi	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

Legend:

CEDD (Employer) - Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

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

SMEC (IEC) – SMEC Asia Limited

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



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

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	James Choi	2618 2836	3007 8648
KOCCL	Project Director	Ambrose Kwong	2889 2675	2558 6900
KOCCL	Site Agent	Mr. Albert PK Ng	9150 1523	2558 6900
KOCCL	Safety and Environmental Manager	Joly C K Kwong	6111 5711	2558 6900
KOCCL	Environmental Officer	To be Confirmed	-	-
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.

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	James Choi	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	To be Confirmed	-	-
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



Contact Details of Key Personnel for Contract 4 –ED/2020/02

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Engineer	S W Lam, Sam	3842 7087	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	James Choi	2618 2836	3007 8648
CIWEC	Project Director	Leung, Siu Ming Wilson	5135 6590	2508 0987
CIWEC	Site Agent	Tam. Wing San Wilson	9031 5600	2508 0987
CIWEC	Environmental Officer	Claudia Chiang	9851 7932	2508 0987
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.

 ${\it CIWEC (Main\ Contractor)-China\ International\ Water\ \&\ Electric\ Corporation}$

ANEWR (IEC) – ANewR Consulting Limited

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



Contact Details of Key Personnel for Contract 5 -ED/2019/02

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Engineer	S W Lam, Sam	3842 7087	2739 0076
AECOM	Chief Resident Engineer	Lee, Yu Ching Paul	9824 7016	2473 3221
AECOM	Senior Resident Engineer	Bill Hon	5599 1486	2473 3221
ANEWR	Independent Environmental Checker	James Choi	2618 2836	3007 8648
WL-UJV	Construction Manager	РН Но	9464 1392	2983 6640
WL-UJV	Site Agent	Lee Chi Wai	9255 7014	2983 6640
WL-UJV	Environmental Officer	Guo Liming	5723 9883	2983 6640
WL-UJV	Environmental Supervisor	Chan Chi Yuen	9289 5526	2983 6640
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. WL –UJV (Main Contractor) – Wing Lee – Univic Joint Venture ANEWR (IEC) –ANewR Consulting Limited



Appendix C

Construction Programme

- i) Contract 1 (NE/2016/01)
- ii) Contract 2 (NE/2016/05)
- iii) Contract 3 (NE/2017/03)
- iv) Contract 4 (ED/2020/02)
- v) Contract 5 (ED/2019/02)



Contract 1 (NE/2016/01)



CONTRACT NO.NE/2016/01 SITE FORMATION AND INFRASTRUCTURE WORKS FOR DEVELOPMENT OF ANDERSON ROAD QUARRY SITE

3-MONTH ROLLING PROGRAMME

Page 1 of 3

CHUN WO - STEC - VASTEAM JOINT VENTURE Anderson Rd Sub-programme (September 2021) _ccn _210914 Stage 5 - ABWF, Finishing & E&M Pumping Station E&M works FWP-1320 Pumping Station E&M works 29-Jun-20 A 08-Oct-21 SWR-1410 Saltwater Reservior ABWF & Finishing 18-Feb-20 A 20-Dec-21 29-May-20 A 04-Jan-22 SWR-1420 Saltwater Reservior E&M works FWR-2000 Freshwater Reservior E&M works 330 12-Oct-20 A 19-Nov-21 16-May-20 A Formation & Slone RWA13 works 453 19-Nov-21 Watermain (DN600 & DN450) & Irrigation Syste FWP-1410 Watermain (DN600 & DN450) & Irrigation System along WSA access road 453 16-May-20 A 19-Nov-21 FWP-1420 Drainage (sewerage & surface) along WSA access road 391 30-Jul-20 A 19-Nov-21 CLP power supply duct FWP-1430 CLP power supply duct 350 16-Sep-20 A 19-Nov-21 FWP-1440 Road Works & Fencing 120 20-Nov-21 20-Apr-22 FWP-1450 Grteen Roof & Paving Area 100 20-Nov-21 23-Mar-22 PC system E PCB-1090 System B - Backfill south tower 472 16-Feb-20 A 81 19-Aug-19 23-Nov-19 16-Sep-21 System B - Backfill south tow PCB-1100 System B - Backfill north tower 472 81 19-Aug-19 23-Nov-19 16-Feb-20 A 16-Sep-21 System B - Backfill north tower PCB-1120 System B - E&M 22 23-Sep-19 19-Oct-19 05-Jun-20 A 23-Sep-21 PCB-1130 System B - E&M T&C 24 21-Oct-19 16-Nov-19 175 02-Mar-21 A 30-Sep-21 System B - E&M T&C PCB-1140 System B - Lift installation 21-Oct-19 18-Jan-20 02-Mar-21 A 19-Oct-21 System B - Lift installation PCB-1150 System B - Lift T&C 22-Feb-20 27 20-Oct-21 19-Nov-21 20-Jan-20 System B - Lift T&C System B - Submission of form 5 & EMSD instaction PCB-1160 24-Feb-20 14-Mar-20 18 20-Nov-21 10-Dec-21 PCB-1170 11-Dec-21 17-Dec-21 System B - Issurance of Uer Permit 16-Mar-20 21-Mar-20 B5 - Back Fill Lift Tower (North) upwards Formation Level PCA-1050 B5 - Back Fill Lift Tower (North) upwards Formation Level 85 02-Jul-21 A 11-Oct-21 PCA-1060 02-Jul-21 A 17-Jan-22 C1a - Construction of Super Structure of Lift Tower (+175mPD to Roof Level) C1a - Construction of Super Structure of Lift Tower (+175mPD to Roof Level) 09-Jul-21 A 15-Oct-21 C1a - Back F PCA-1160 C1a - Back Fill Lift Tower (South) up wards Formation Level 07-Dec-21 45 16-Oct-21 PCA-1170 C1a - E&M and BS Works 90 30-Nov-21 21-Mar-22 ART-1990 Art Lake - water testing for bottom of lake 28-Feb-20 24-Apr-20 193 02-Mar-21 A 45 Art Lake - water testing for bottom of lake ART-2050 Art Lake Floating Brdige - backfill 28-Aug-21 A 30 01-Nov-19 05-Dec-19 385 16-May-20 A ART-2060 Art Lake Floating Brdige - footing construction 30 06-Dec-19 13-Jan-20 249 11-Jan-21 A 11-Nov-21 Art Lake Floating Brdige - footing construction ART-2070 Art Lake Floating Brdige - installation bridge 30 14-Jan-20 20-Feb-20 54 12-Nov-21 17-Jan-22 ART-2080 Art Lake - Slot chamber no. 1 & stop log chamber 09-Dec-19 31-Dec-19 406 16-May-20 A 23-Sep-21 Art Lake - Slot chamber no. 1 & stop log chamber ART-2090 23-Feb-21 A 08-Oct-21 Art Lake - Slot chamber no. 2 & stop log chamber 31-Jan-20 Art Lake - Slot chamber no. 2 & stop log chamber ART-2100 Art Lake - Slot chamber no. 3 33 08-Oct-21 Art Lake - Slot chamber no. 3 31-Jan-20 09-Mar-20 23-Feb-21 A Date Revision Checked Approved ■ Planned Bar (WP) ♦ 3-month Rolling Programme Planned Milestone (WP) C1-MPU202109 15-Sep-21 Actual Bar Milestone Anderson Rd Sub-programme Forecast Bar 15-Sep-21



CONTRACT NO.NE/2016/01 SITE FORMATION AND INFRASTRUCTURE WORKS FOR DEVELOPMENT OF ANDERSON ROAD QUARRY SITE

3-MONTH ROLLING PROGRAMME

Page 2 of 3 CHUN WO - STEC - VASTEAM JOINT VENTURE ART-2110 Art Lake - Outside bay 38-45 471 02-Mar-20 A 30-Sep-21 63 04-Nov-19 18-Jan-20 Art Lake - Outside bay 38-45 ART-2120 Art Lake - Outside bay 3-8 09-Dec-19 13-Jan-20 30-Sep-21 28 412 16-May-20 A Art Lake - Outside bay 3-8 ART-2130 Art Lake - Outside bay 9-28 56 21-Nov-19 31-Jan-20 441 07-Apr-20 A 30-Sep-21 Art Lake - Outside bay 9-28 ART-2140 Art Lake - Outside bay 50-52 31-Jan-20 15-Feb-20 299 28-Sep-20 A 30-Sep-21 Art Lake - Outside bay 50-52 ART-1620 Treatment plant - Construct the wall(W1,2,3,6,7,8,9,11,12,13,14) 27-Dec-19 384 11-Jun-20 A 23-Sep-21 10-Dec-19 Treatment plant - Construct the wall(W1,2,3,6,7,8,9,11,12,13,14) ART-1630 21-Oct-21 Treatment plant - Backfilling (by course material) to 197.1mPD, 8.2m Depth 28-Dec-19 05-Feb-20 231 11-Jan-21 A Treatment plant - Backfilling (by course material) to 197.1mPD, 8.2m Depth ART-2150 Art Lake - Part 1.2.4 72 01-Feb-20 29-Apr-20 400 13-Jun-20 A 16-Oct-21 Art Lake - Part 1.2.4 ART-2160 Art Lake - Part 3 32 14-Jan-20 22-Feb-20 356 06-Aug-20 A 16-Oct-21 Art Lake - Part 3 ART-2170 Art Lake - Part 6,7,12 17-Feb-20 05-Mar-20 354 08-Aug-20 A 16-Oct-21 Art Lake - Part 6,7,12 VE Panels, Road Works, E&M Tunnel - FS main, Socket & AFA equipment Tunnel - FS main, Socket & AFA equipment 19-Oct-20 A TUN-3540 277 23-Sep-21 Underpass L1 paving, funiture, marking, signage from East Portal TUN-3550 Underpass L1 paving, funiture, marking, signage from East Portal 277 23-Sep-21 19-Oct-20 A Tunnel - E&M 2nd Fix (Lighting & Equipment) TUN-3560 Tunnel - E&M 2nd Fix (Lighting & Equipment) 277 19-Oct-20 A 23-Sep-21 Underpass ABWF works TUN-3570 Underpass ABWF works 260 09-Nov-20 A 23-Sep-21 Tunnel - E&M Final Fix (Equipment connection & testing) TUN-3580 Tunnel - E&M Final Fix (Equipment connection & testing) 260 09-Nov-20 A 23-Sep-21 Tunnel - T&C & Statutory inspection 30-Jun-21 A 16-Oct-21 Tunnel - T&C & Statutory inspection TUN-3590 90 Road L4 (RWA18, Noise Barrier, RWA12, Utilities & Road Works) L4 (RWA12) - Bay 17-20 construct wall & backfill upto +175 14-3460 L4 (RWA12) - Bay 17-20 construct wall & backfill upto +175 105 23-Jun-21 A 27-Oct-21 L4-3530 L4 (RWA12) - Bay 22 construct wall & backfill upto +170 (after twin 1950 pipe) 16-Aug-21 A 25-Nov-21 L4 (RWA12) - Bay 22 construct wall & L4-3540 L4 (RWA12) - Bay 22 construct wall & backfill upto +175 26-Nov-21 L4 (RWA12) - Bay 21 construct wall & backfill upto +170 (after system A sub-way) L4-3630 L4 (RWA12) - Bay 21 construct wall & backfill upto +170 (after system A sub-way) 23-Jun-21 A 27-Oct-21 L4 (RWA12) - Bay 21 construct wall & backfill upto +175 10-Feb-22 L4-3640 85 28-Oct-21 L4 (Drainage) - Backfill for water main CH0 to CH200 L4-4260 L4 (Drainage) - Backfill for water main CH0 to CH200 169 02-Mar-21 A 23-Sep-21 L4 (Drainage) - Excavate & lay drain CH250 to CH300 L4-4280 L4 (Drainage) - Excavate & lay drain CH250 to CH300 02-Mar-21 A 08-Oct-21 L4-4300 L4 (Drainage) - Excavate & lay drain CH350 to CH400 02-Mar-21 A 08-Oct-21 L4 (Drainage) - Excavate & lay drain CH350 to CH400 L4-4310 L4 (Drainage) - Backfill for water main CH200 to CH400 09-Oct-21 13-Nov-21 L4 (Drainage) - Backfill for water main CH200 to CH400 L4-4320 L4 (Watermain & UU) - Constuct watermain & UU CH0 to CH200 90 15-Nov-21 05-Mar-22 L4-4330 L4 (Watermain & UU) - Constuct watermain & UU CH200 to CH400 15-Nov-21 05-Mar-22 RWA9 - F/W & rebat fixing to Bay 16 wall 30-Sep-21 RWA9 - F/W & rebat fixing to Bay 16 wall 23-Jun-21 A RWA9 - Concrete laying for Bay 16 wall RWA9 - Concrete laying for Bay 16 wall 02-Oct-21 02-Oct-21 RWA9-1250 RWA9 - F/W & rebat fixing to Bay 13, 14 & 15 wall RWA9 - F/W & rebat fixing to Bay 13, 14 & 15 wall 28-Oct-21 RWA9-1260 21 04-Oct-21 RWA9 - Concrete laying for Bay 13, 14 & 15 wall RWA9-1270 RWA9 - Concrete laying for Bay 13, 14 & 15 wall 29-Oct-21 02-Nov-21 RWA9 - F/W & rebat fixing to Bay 21 & 22 Wal RWA9-1400 RWA9 - F/W & rebat fixing to Bay 21 & 22 Wall 30-Jun-21 A 08-Oct-21 RWA9 - Concrete laying for Bay 21 & 22 Wall RWA9 - Concrete laying for Bay 21 & 22 Wall 12-Oct-21 Date Revision Checked Approved ■ Planned Bar (WP) ♦ Planned Milestone (WP) 3-month Rolling Programme 15-Sep-21 C1-MPU202109 Actual Bar Milestone Anderson Rd Sub-programme Forecast Bar 15-Sep-21

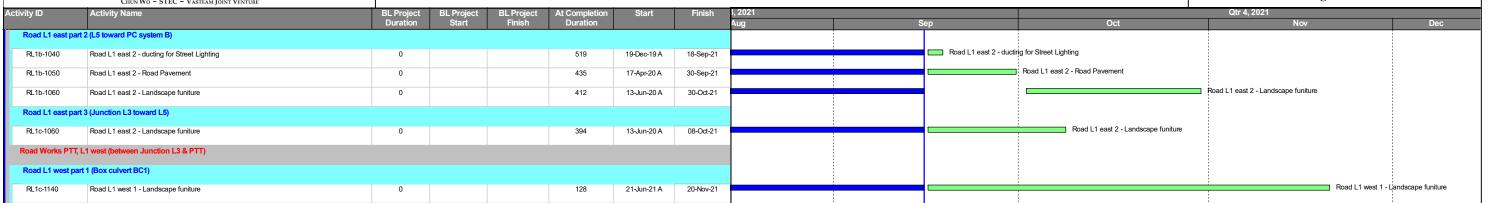


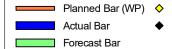
俊和-上隧-浩隆聯營 CHUN Wo - STEC - VASTEAM JOINT VENTURE

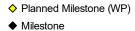
CONTRACT NO.NE/2016/01 SITE FORMATION AND INFRASTRUCTURE WORKS FOR DEVELOPMENT OF ANDERSON ROAD QUARRY SITE

3-MONTH ROLLING PROGRAMME

Page 3 of 3







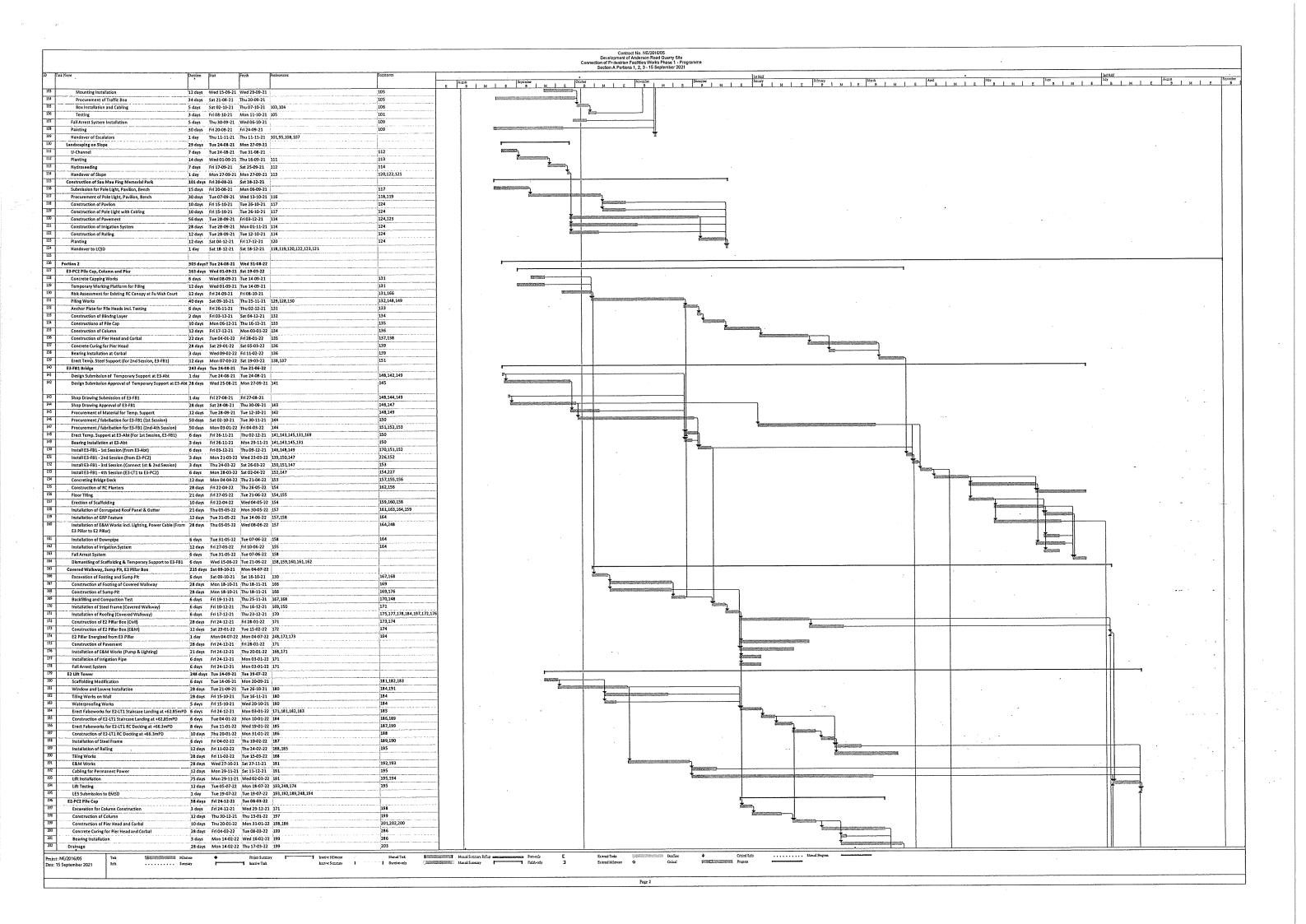
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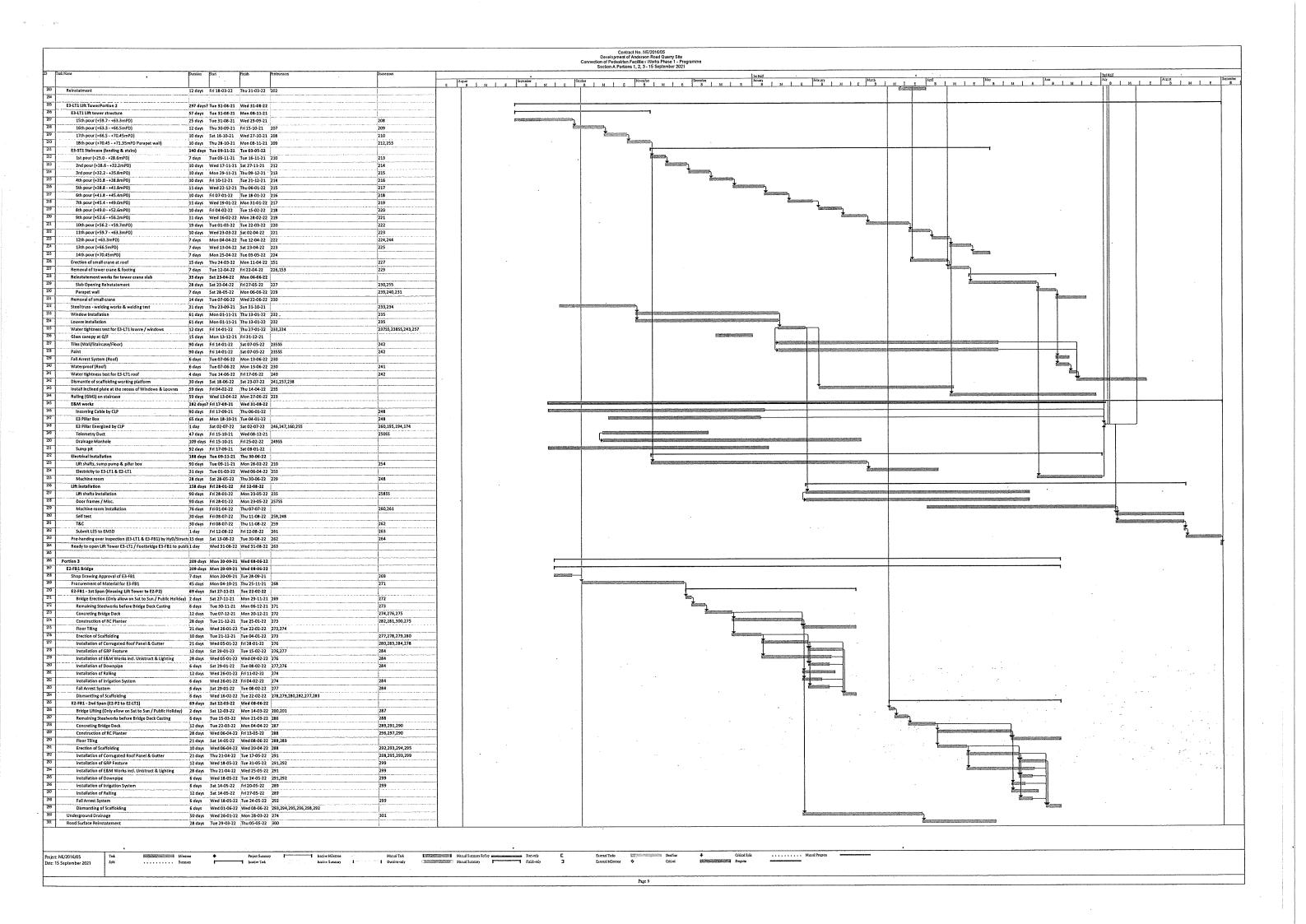
Date	Revision	Checked	Approved
15-Sep-21	C1-MPU202109		



Contract 2 (NE/2016/05)

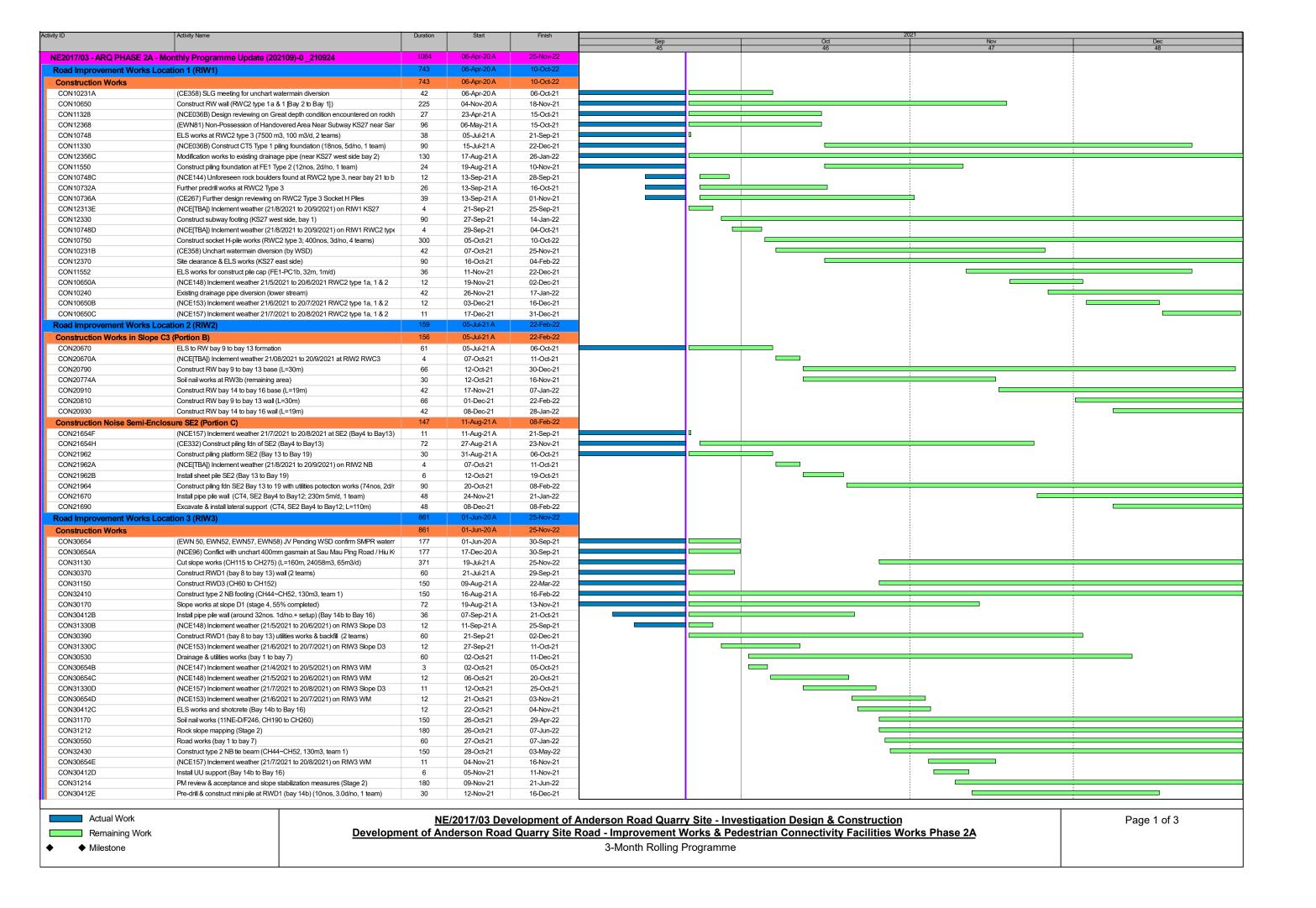
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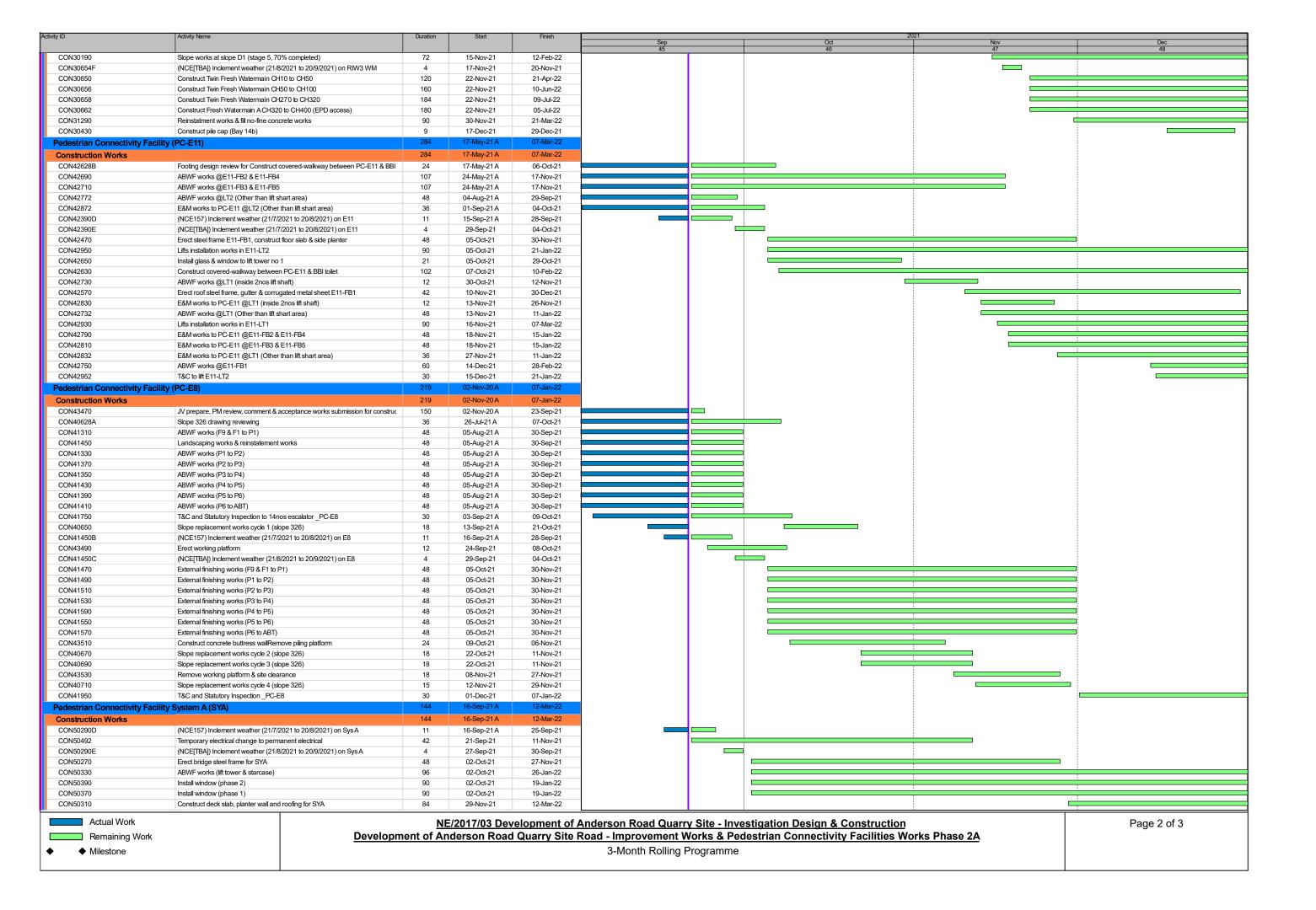






Contract 3 (NE/2017/03)





ivity ID	Activity Name	Duration	Start	Finish		2	021
					Sep	Oct	Nov
D 1 (1 0 (1 1 E 11)	O (B (O)(D)	160	04 lun 04 A	14 Fab 00	45	46	47
Pedestrian Connectivity Facility	System B (SYB)	168	21-Jun-21 A	11-Feb-22			
Construction Works		168	21-Jun-21 A	11-Feb-22			
CON52170	Construct superstructure SYB-LT1	168	21-Jun-21 A	11-Feb-22			
CON51450A	(NCE[TBA]) Unforseen gound condition affected install sheet pile	116	28-Jul-21 A	11-Dec-21			
CON51730	Construct pile cap SYB-PC4 (52m3)	39	21-Sep-21	08-Nov-21			
CON51790	TBA	42	21-Sep-21	11-Nov-21			
CON51690	Construct pile cap SYB-PC6 (120m3)	48	21-Sep-21	18-Nov-21			
CON51510	TBA	42	21-Sep-21	11-Nov-21			
CON52110	Construct pier SYB-P3 (2 pour) & temporary LT1 support	42	09-Nov-21	29-Dec-21			
CON52150	Construct pier SYB-P5 (3 pour)	72	09-Nov-21	07-Feb-22			
CON51450B	(NCE[TBA]) Inclement weather (21/8/2021 to 20/9/2021) on Sys B PC1	4	13-Dec-21	16-Dec-21			
CON51470	Excavate & install support at SYB-PC1 (108m3, 25m3/d, 1 team + 12d)	18	17-Dec-21	10-Jan-22			
Bus-Bus Interchange Public Toi	let (BBI Toilet)	365	30-Sep-20 A	29-Sep-21			
Works related to section 10A - E	stablishment Works for Landscape Softworks in Section 10	365	30-Sep-20 A	29-Sep-21			
CON43370	Establishment Works for Landscape Softworks in Section 10 (Portion FI)	365	30-Sep-20 A	29-Sep-21			

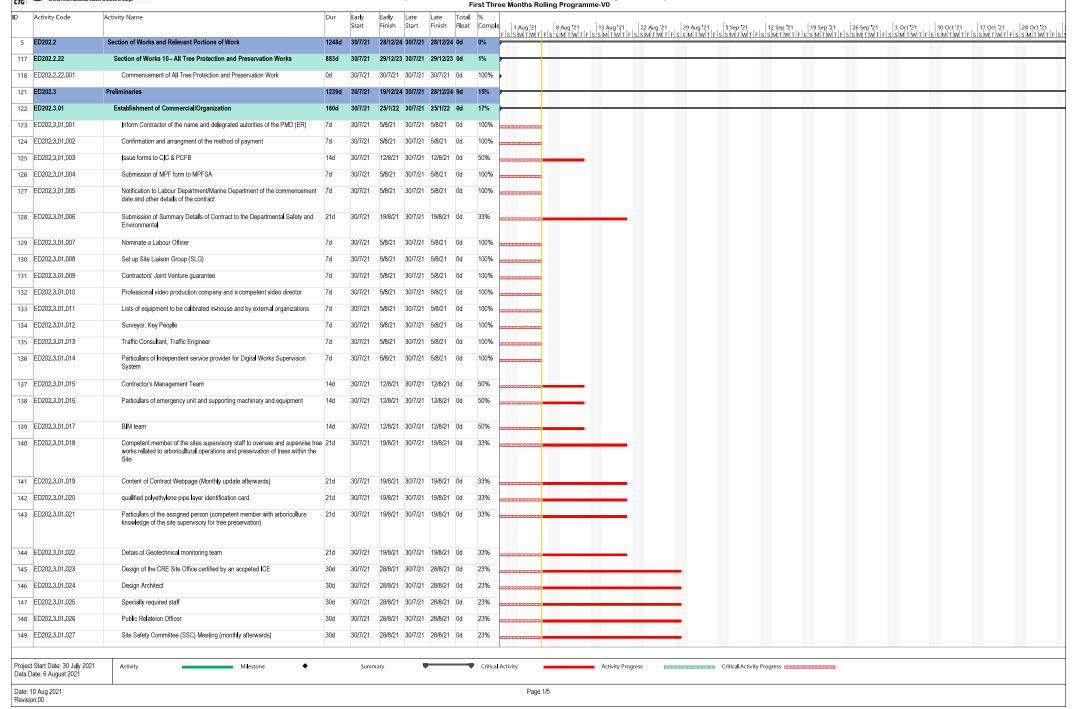


Contract 4 (ED/2020/02)

中国水利电力对外有限公司
China International Water & Electric Corp.

CEDD Contract No. ED/2020/02

Development of Anderson Road Quarry Site - Infrastructure, Greening and Landscape Works





CEDD Contract No. ED/2020/02

Development of Anderson Road Quarry Site – Infrastructure, Greening and Landscape Works First Three Months Rolling Programme-V0





Date: 10 Aug 2021

Revision:00

CEDD Contract No. ED/2020/02

Development of Anderson Road Quarry Site - Infrastructure, Greening and Landscape Works

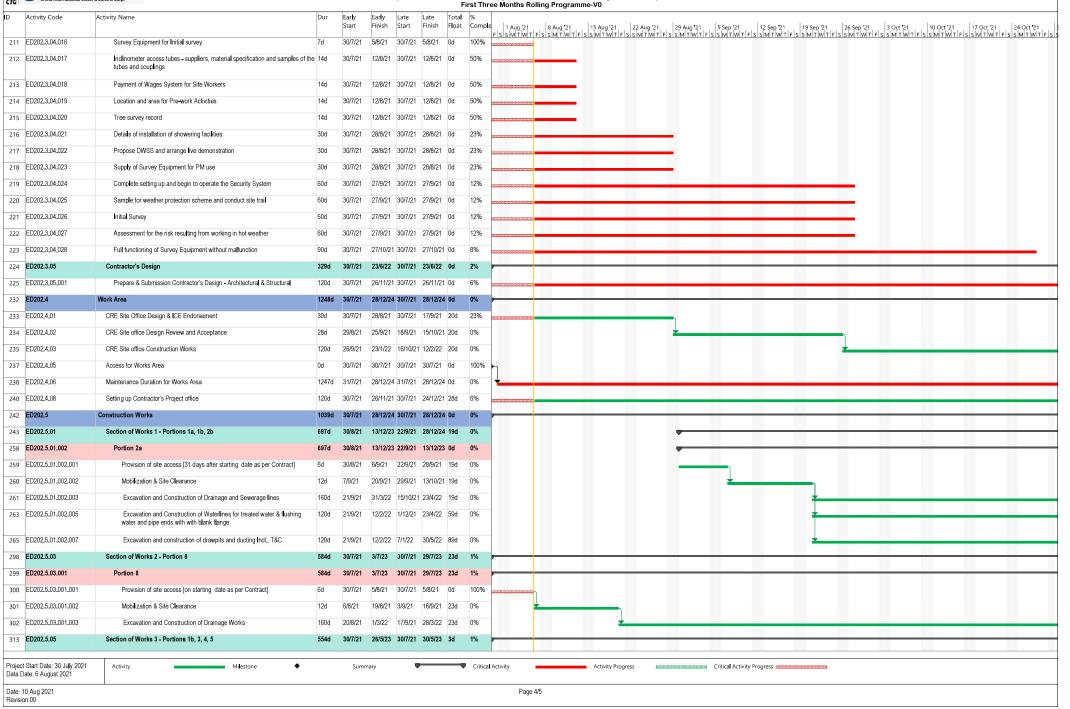
First Three Months Rolling Programme-V0 Activity Code Activity Name Early Early Late Late Total % Finish Start Finish Float Comple 179 ED202.3.02.015 Preperation and submission of Monitoring Proposal for Geotechnical works 30d 30/7/21 28/8/21 30/7/21 28/8/21 0d 23% 180 ED202.3.02.016 Proposal of COBie information requirements 30/7/21 28/8/21 30/7/21 28/8/21 0d 181 ED202.3.02.017 Preperation and submission of Final Environmental Management Plan (EMP) 3 30d 30/7/21 28/8/21 30/7/21 28/8/21 0d 23% 182 ED202.3.02.018 Preperation of Proposed Plans for submission of each Release of construction 30d 30/7/21 28/8/21 30/7/21 28/8/21 0d and Project Video Films 183 ED202.3.02.019 Preperation and submission of Site Traffic Safety Management Plan (STSMP), 60d 30/7/21 27/9/21 30/7/21 27/9/21 0d (monthly update) 184 ED202.3.02.020 Preperation and submission of Site Managemnt Plan for TTS 60d 30/7/21 27/9/21 30/7/21 27/9/21 0d 12% 185 ED202.3.02.021 Preperation and submission of BIM Execution Plan inaccoradance with the 60d 27/9/21 30/7/21 27/9/21 0d 12% 186 ED202.3.02.022 Public Relation (PR) Company, PR plan 60d 30/7/21 27/9/21 30/7/21 27/9/21 0d 12% 187 ED202.3.02.023 Preperation and submission of Temporary drainage management plan 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 188 ED202.3.03 1239d 19/12/24 30/7/21 28/12/24 9d 1% Programme 189 ED202.3.03.001 Preparation & Submission of First Works Program 4/8/21 30/7/21 4/8/21 0d 100% 6d 30/7/21 190 ED202.3.03.002 Preparation & Submssion of Three Months Rolling Program 14d 30/7/21 12/8/21 30/7/21 27/8/21 15d 50% 191 ED202.3.03.003 Program Review and Acceetance of First Program 14d 5/8/21 18/8/21 5/8/21 27/8/21 9d 192 ED202,3,03,004 17/10/21 28/8/21 26/10/21 9d Preparation and Submission of Detailed Works Program 60d 19/8/21 193 ED202,3,03,005 Program Review and Acceptance of Works Program 14d 18/10/21 31/10/21 27/10/21 9/11/21 9d 27/10/21 30/7/21 27/10/21 0d 195 **ED202.3.04** Permit and Licences 32% 196 ED202.3.04.001 Detailed construction sequences with associated traffic diversion schemes and 30d 28/8/21 30/7/21 28/8/21 0d obtain endorsement in principle from the relavent authorties and the Supervisor 197 ED202.3.04.002 Risk Assessment for slope works 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 198 ED202.3.04.003 Proposed methods of working and sound-reducing measures for all equipment 7d 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 199 ED202.3.04.004 Welfare facilities for workers in accordance with requirements in PS Clause 7d 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 200 ED202.3.04.005 UU detection equipment brand/model 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 201 ED202.3.04.006 Certified calibration certificates 7d 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 202 ED202.3.04.007 PM to advise Contractor the details of ET 7d 5/8/21 30/7/21 5/8/21 0d 100% 30/7/21 203 ED202.3.04.008 Calibration of measuring instruments for Geotechnical works and copies of 7d 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% certified calibration 204 ED202.3.04.009 Copies of Documents as per P.S.A. 1.12.4.I. 5/8/21 30/7/21 5/8/21 0d 100% 7d 30/7/21 205 ED202.3.04.010 Contract Computer Facilities, Electronic Document Management System, Site 6d 30/7/21 4/8/21 30/7/21 4/8/21 0d 100% Record Information System, Digital Works Supervision System and other 206 ED202.3.04.011 Name of the designated bank and all related arrangement details for payment 6d 4/8/21 30/7/21 4/8/21 0d of wages to all the Site Workers 207 ED202.3.04.012 Site Cleanliness and Tidiness 5/8/21 30/7/21 5/8/21 0d 100% 208 ED202.3.04.013 3 sets of coloured record photos in SR size (recording existing building/ street 7d 5/8/21 30/7/21 5/8/21 0d 30/7/21 100% funiture.....) 209 ED202.3.04.014 Contract Cars 7d 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% 210 ED202.3.04.015 Design of uniform for site workers 30/7/21 5/8/21 30/7/21 5/8/21 0d 100% Project Start Date: 30 July 2021 Activity Milestone Critical Activity Activity Progress Critical Activity Progress Data Date: 6 August 2021

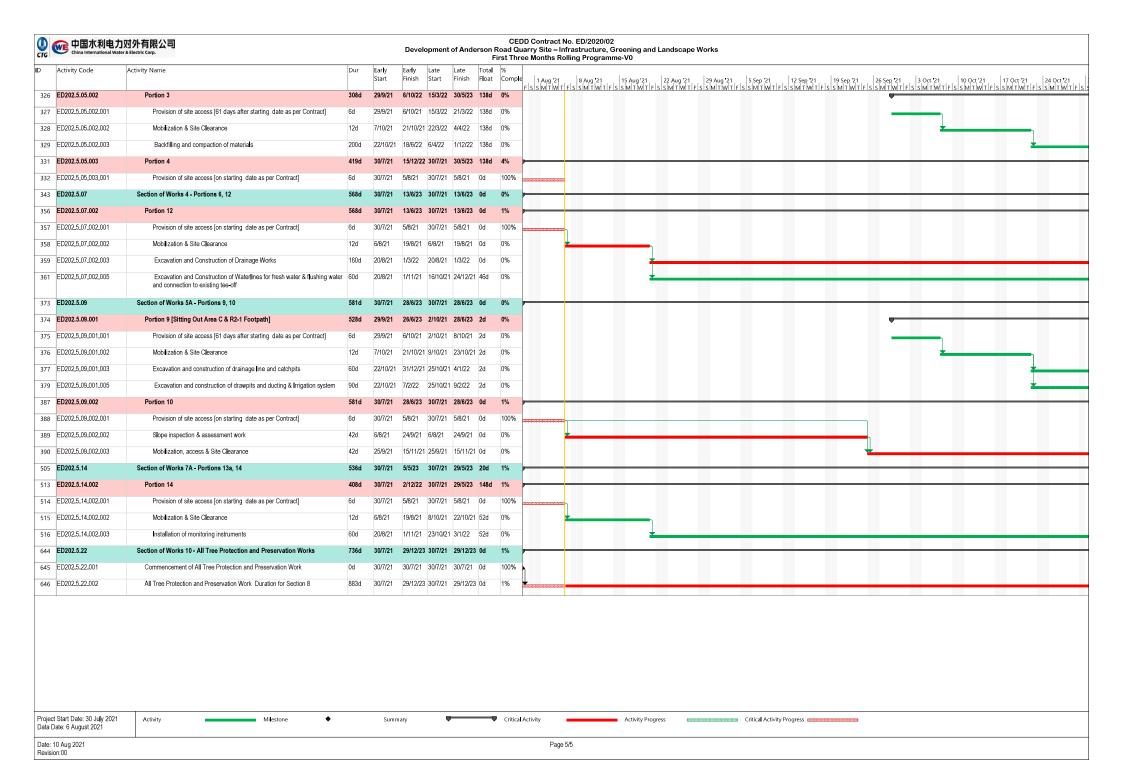
Page 3/5



CEDD Contract No. ED/2020/02

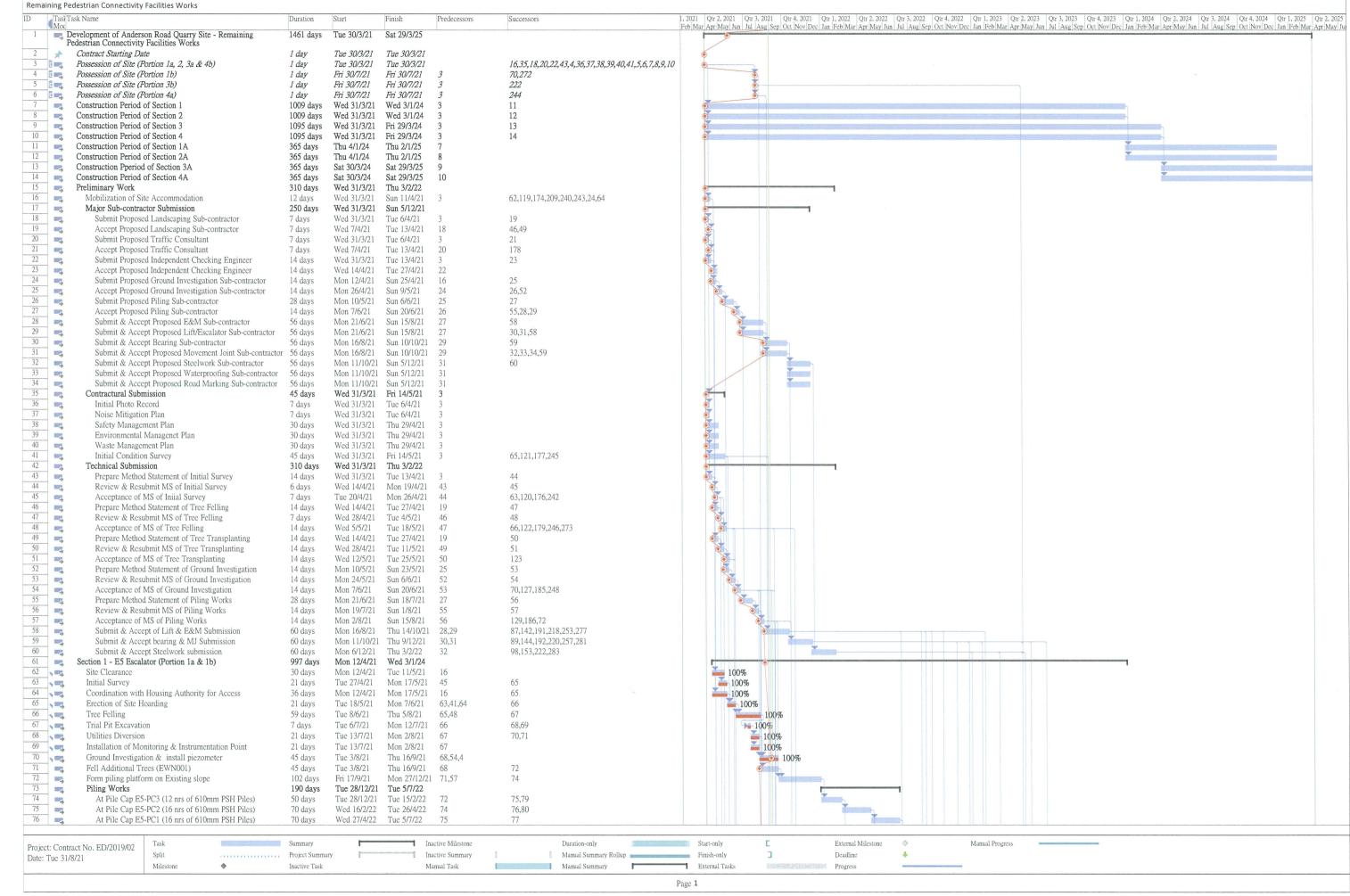
Development of Anderson Road Quarry Site – Infrastructure, Greening and Landscape Works



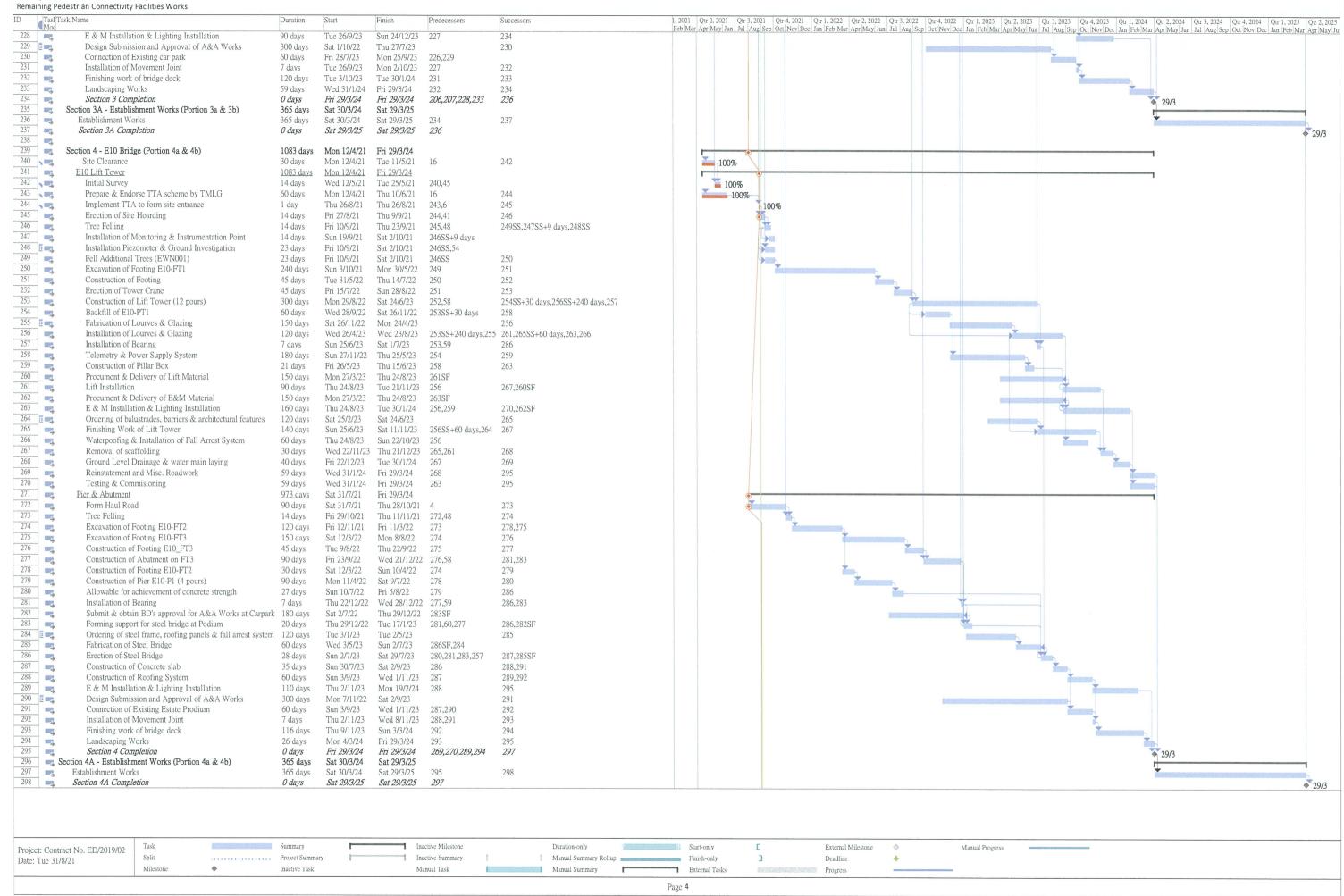


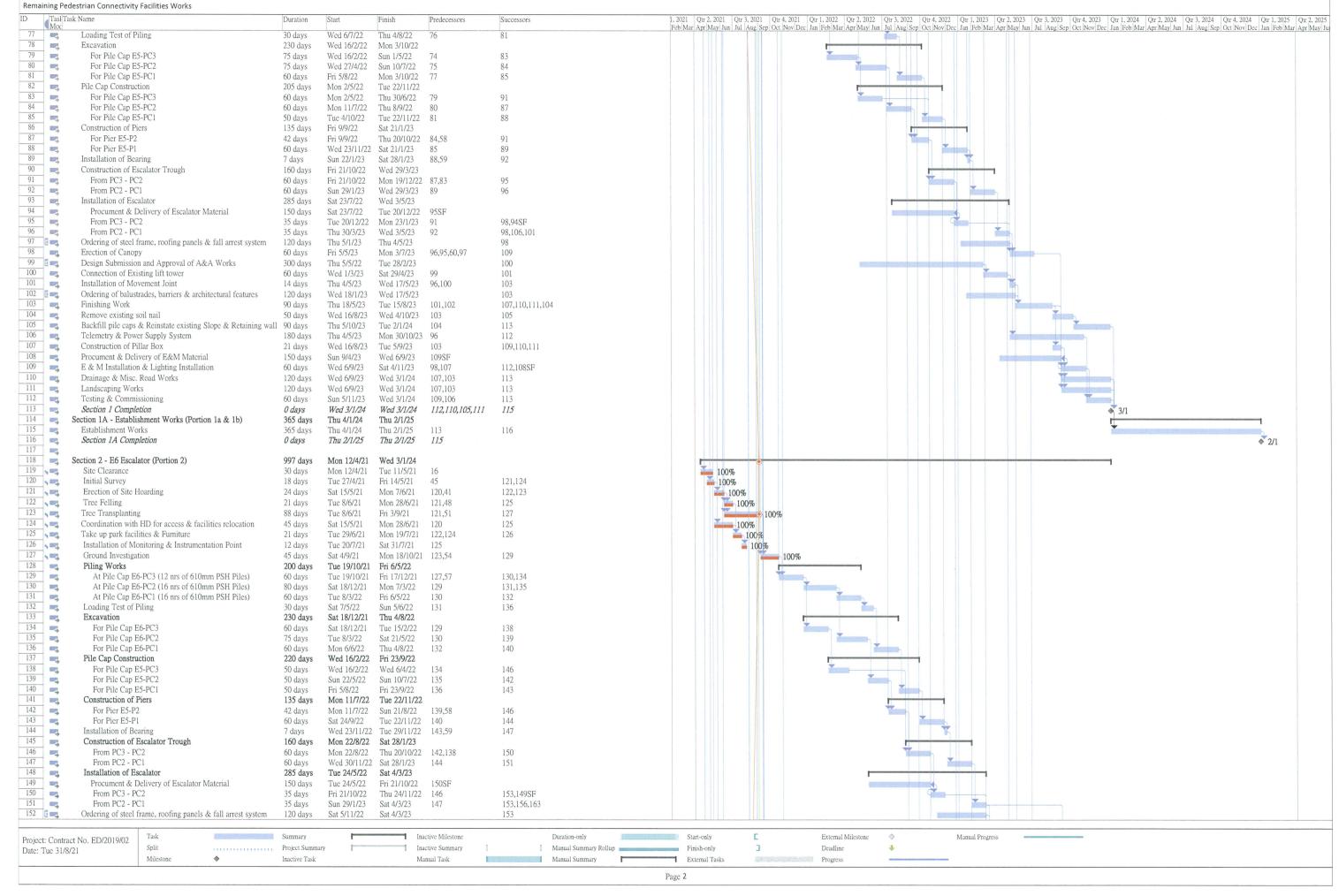


Contract 5 (NE/2019/02)

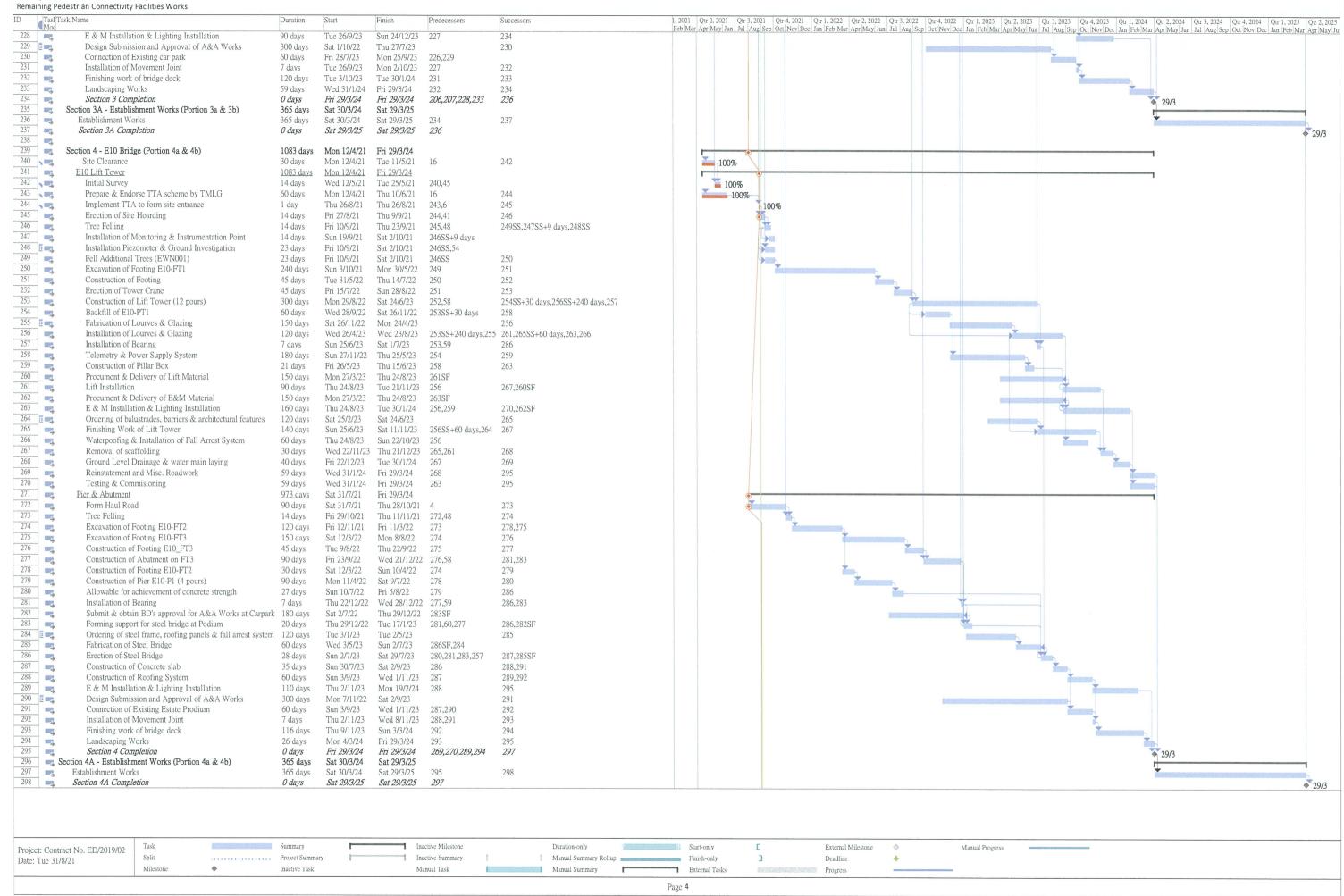


Tasl Task Nan Moc	ne	Duration	Start	Finish	Predecessors	Successors	1, 2021 Qtr 2, 2021 Qtr 3, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 4, 2021 Qtr 1, 2022 Qtr 3, 2022 Qtr 4, 2022 Qtr 4, 2023 Qtr 2, 2023 Qtr 3, 2023 Qtr 4, 2023 Qtr 4, 2023 Qtr 4, 2023 Qtr 1, 2024 Qtr 2, 2024 Qtr 3, 2024 Qtr 2, 2024 Qtr 3, 2024 Qtr 4, 2024 Qtr 2, 2024 Qtr 3, 2024 Qtr 4,
Ei	rection of Canopy	60 days	Sun 5/3/23	Wed 3/5/23	151,60,150,152	163	The state of the s
	esign Submission and Approval of A&A Works	300 days	Wed 20/10/21			155	
	onnection of Existing lift tower	60 days			154	156	
	nstallation of Movement Joint	14 days	Sun 5/3/23	Sat 18/3/23	151,155	158	
	rdering of balustrades, barriers & architectural features	120 days	Sat 19/11/22	Sat 18/3/23		158	
-2	inishing Work	90 days	Sun 19/3/23	Fri 16/6/23	156,157	159,160	
■ B	ackfill pile caps	60 days	Sat 17/6/23	Tue 15/8/23	158	161	
	elemetry & Power Supply System	180 days	Sat 17/6/23	Wed 13/12/23			
C C	Construction of Pillar Box	21 days	Wed 16/8/23	Tue 5/9/23	159	163,164	
	rocument & Delivery of E&M Material	150 days	Sun 9/4/23	Wed 6/9/23	163SF		
E E	& M Installation & Lighting Installation	60 days	Wed 6/9/23	Sat 4/11/23	151,161,153	167,162SF	The state of the s
	Orainage & Misc. Road Works	60 days	Wed 6/9/23	Sat 4/11/23	161	165,166	
	einstatement of park facilities	60 days	Sun 5/11/23	Wed 3/1/24	164	168	
-	andscaping Works	60 days	Sun 5/11/23	Wed 3/1/24	164	168	
*	esting & Commissioning	60 days	Sun 5/11/23	Wed 3/1/24	163	168	
7	Section 2 Completion	0 days	Wed 3/1/24	Wed 3/1/24	165,167,166	170	3/1
	on 2A - Establishment Work (Portion 2)	365 days	Thu 4/1/24	Thu 2/1/25	100,107,100	170	₩ J/I
-	stablishment Works	365 days	Thu 4/1/24	Thu 2/1/25	168	171	<u> </u>
-	ection 2A Completion	0 days	Thu 2/1/25	Thu 2/1/25	170	171	→ 2/1
300	21 Completion	o days	1114 2/1/23	1114 2/1/23	*/0		
Section Section	on 3 - E7 Bridge (Portion 3a & 3b)	1083 days	Mon 12/4/21	Fri 29/3/24			
	Site Clearance	15 days		Mon 26/4/21	16	176	<u></u> 100%
-	7 Lift Tower	1081 days				170	TAYON
	Initial Survey	18 days	Tue 27/4/21	Fri 14/5/21	174,45	177	100%
	Erection of Site Hoarding	21 days	Sat 15/5/21	Fri 4/6/21	174,43	177,180	100%
	TTA for Site Entrance & Bus Stop Relocation	52 days			21	179	100%
100	Triel Bit Evacuation	93 days	Sat 5/6/21	Sun 5/9/21	177,48,178	182FF	75%
	Trial Pit Excavation	18 days	Sat 5/6/21	Tue 22/6/21	177	181	100%
	Installation of Monitoring & Instrumentation Point	100 days	Wed 23/6/21	Thu 30/9/21	180	187	50%
	Fell Additional Trees (P-T00260; PMI No.8)	42 days	Mon 26/7/21	Sun 5/9/21	179FF	185FF+5 days,183FF+5 days,184FF+5 days	
-	Street Light Relocation	42 days	Sat 31/7/21	Fri 10/9/21	182FF+5 days	186	
,	Diversion of existing staircase	42 days	Sat 31/7/21	Fri 10/9/21	182FF+5 days		
*	Installation Piezometer & Ground Investigation	35 days	Sat 7/8/21	Fri 10/9/21	54,182FF+5 days	186	▼
	Form piling platform on Existing slope	60 days	Sat 11/9/21	Tue 9/11/21	57,183,185	187	
	Piling Work (68 nrs of 323mm Mini-piles)	180 days	Wed 10/11/21		186,181	188	
-	Loading Test	30 days	Mon 9/5/22	Tue 7/6/22	187	189	
	Excavation of pile cap	90 days	Wed 8/6/22	Mon 5/9/22	188	190	
	Pile Cap Construction	45 days	Tue 6/9/22	Thu 20/10/22	189	191	
	Construction of Lift Tower (9 Pours)	210 days	Fri 21/10/22	Thu 18/5/23		192,194SS+150 days,195	
	Installation of Bearing	7 days	Fri 19/5/23	Thu 25/5/23		225	
	Fabrication of Lourves & Glazing	150 days	Fri 21/10/22	Sun 19/3/23	5 - KACA	194	
	Installation of Lourves & Glazing	120 days			191SS+150 days.193	198,202SS+60 days,200,203	
-	Telemetry & Power Supply System	180 days	Fri 19/5/23	Tue 14/11/23		196	
	Construction of Pillar Box	21 days		Tue 5/12/23	195		
_ ~	Procument & Delivery of Lift Material	150 days	Sat 18/2/23		198SF		
	Lift Installation	150 days	Tue 18/7/23	Thu 14/12/23		207,197SF	
7						201,17/01	
	Procument & Delivery of E&M Material E & M Installation & Lighting Installation	150 days	Sat 18/2/23	Tue 18/7/23 Mon 20/1/24		207 100SE	
		196 days	Tue 18/7/23	Mon 29/1/24	194	207,199SF	
	Ordering of balustrades, barriers & architectural features	120 days		Thu 18/5/23	10400.00 1 001	202	
100 P	Finishing Work of Lift Tower	120 days	Fri 19/5/23		194SS+60 days,201	204	
	Waterpoofing & Installation of Fall Arrest System	60 days	Tue 18/7/23		194	205	
7	Removal of scaffolding	46 days	Sat 16/9/23	Tue 31/10/23		205	
3	Backfill and Reinstate existing slope	90 days		Mon 29/1/24		206	
	Underground drainage & water main works	60 days	Tue 30/1/24	Fri 29/3/24	205	234	
	Testing & Commissioning	60 days			200,198	234	
	7 Pier	1083 days		Fri 29/3/24			•
	Prepare & Endorse TTA scheme by TMLG	60 days	Mon 12/4/21	Thu 10/6/21	16	210	100%
EUG.	Application of Excavation Permit	180 days	Fri 11/6/21	Tue 7/12/21	209	211	930%
STEEL STEEL	Implementation of TTA at carriageway	14 days	Wed 8/12/21	Tue 21/12/21	210	212	
mg,	Installation of Monitoring & Instrumentation Point	7 days		Tue 28/12/21		213	
100 mg	Trial Pit Excavation	21 days		Tue 18/1/22		214,215	
100°	Relocation of street light post	21 days	Wed 19/1/22		213	216	
	Utilities Diversion	150 days			213	216	
=======================================	Excavation of footing	180 days	Sat 18/6/22	Wed 14/12/22		217	
	Construction of Footing E7-F2				215,214		<u> </u>
-		45 days				218	
	Construction of Pier E7-P1 (4 Poues)	90 days	Sun 29/1/23		217,58	220,222,219	
30 2	Allowable for achievement of concrete strength	27 days	Sat 29/4/23		218	225	
	Installation of Bearing	7 days	Sat 29/4/23	Fri 5/5/23	218,59	225	
m3,	Submit & obtain BD's approval for A&A Works at Carpark		Mon 31/10/22		222SF		
	Forming support for steel bridge at Carpark	7 days	Sat 29/4/23	Fri 5/5/23	218,60,5	225,221SF	
E many	Ordering of steel frame, roofing panels & fall arrest system	120 days	Sat 26/11/22			224	
===	Fabrication of Steel Bridge	60 days	Mon 27/3/23		225SF,223		
60%	Erection of Steel Bridge	28 days	Fri 26/5/23	Thu 22/6/23	220,222,219,192	226,224SF	
and .	Construction of Concrete slab	35 days	Fri 23/6/23	Thu 27/7/23		227,230	
	Construction of Roofing System	60 days	Fri 28/7/23	Mon 25/9/23		228,231	
7							
	. ED/2019/02 Task	Summary		Ina	ictive Milestone	Duration-only 3	Start-only External Milestone \diamondsuit Manual Progress
('ontract No	0.15	D 1 . C	Processor Processor	1 Inc	ictive Summary	Manual Summary Rollup	Finish-only Deadline
Contract No. ue 31/8/21	Split	Project Summa	ary u				Thisi-ony Deading
	Milestone •	Inactive Task	ary u		unual Task	Manual Summary	External Tasks Progress





Tasl Task Nan Moc	ne	Duration	Start	Finish	Predecessors	Successors	1, 2021 Qtr 2, 2021 Qtr 3, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 4, 2021 Qtr 1, 2022 Qtr 3, 2022 Qtr 4, 2022 Qtr 4, 2023 Qtr 2, 2023 Qtr 3, 2023 Qtr 4, 2023 Qtr 4, 2023 Qtr 4, 2023 Qtr 1, 2024 Qtr 2, 2024 Qtr 3, 2024 Qtr 2, 2024 Qtr 3, 2024 Qtr 4, 2024 Qtr 2, 2024 Qtr 3, 2024 Qtr 4,
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	on 2A - Establishment Work (Portion 2)	365 days	Thu 4/1/24	Thu 2/1/25	100,107,100	170	₩ J/I
-	stablishment Works	365 days	Thu 4/1/24	Thu 2/1/25	168	171	<u> </u>
-	ection 2A Completion	0 days	Thu 2/1/25	Thu 2/1/25	170	171	→ 2/1
300	21 Completion	o days	1114 2/1/23	1114 2/1/23	*/0		
Section Section	on 3 - E7 Bridge (Portion 3a & 3b)	1083 days	Mon 12/4/21	Fri 29/3/24			
	Site Clearance	15 days		Mon 26/4/21	16	176	<u></u> 100%
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('ontract No	0.15	D 1 . C	Processor Processor	1 Inc	ictive Summary	Manual Summary Rollup	Finish-only Deadline
Contract No. ue 31/8/21	Split	Project Summa	ary u				Thisi-ony Deading
	Milestone •	Inactive Task	ary u		unual Task	Manual Summary	External Tasks Progress





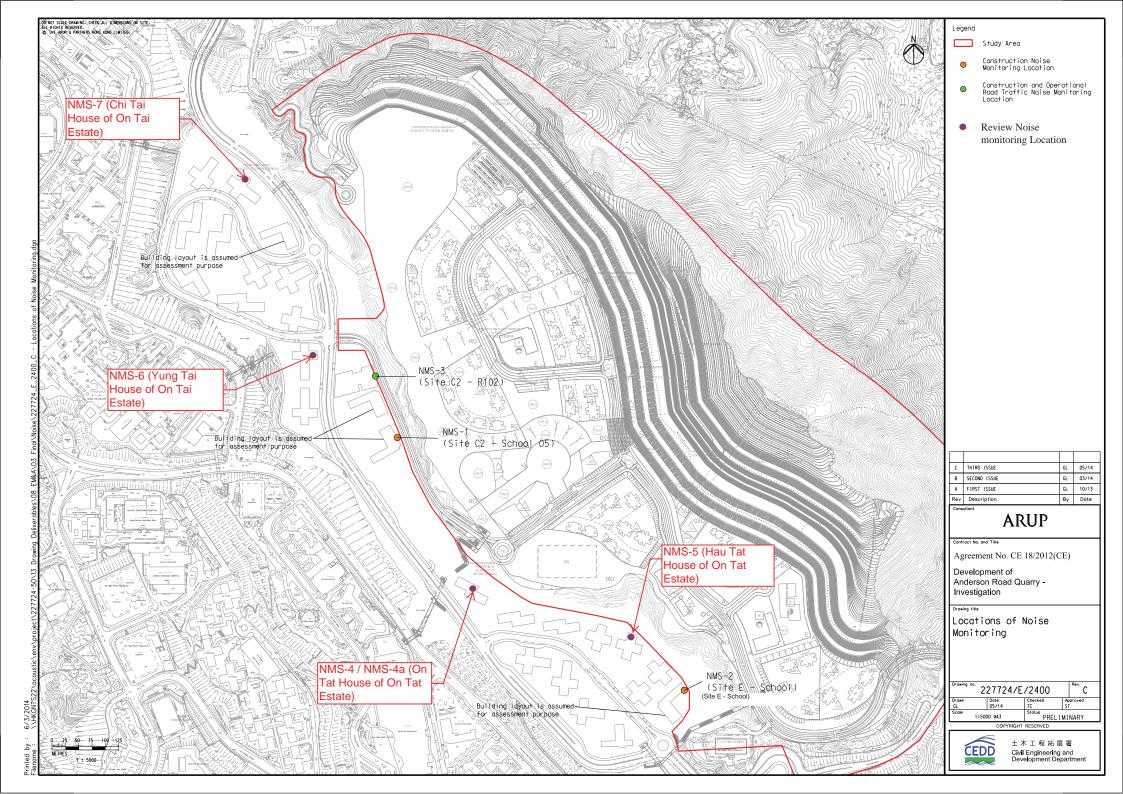
Appendix D

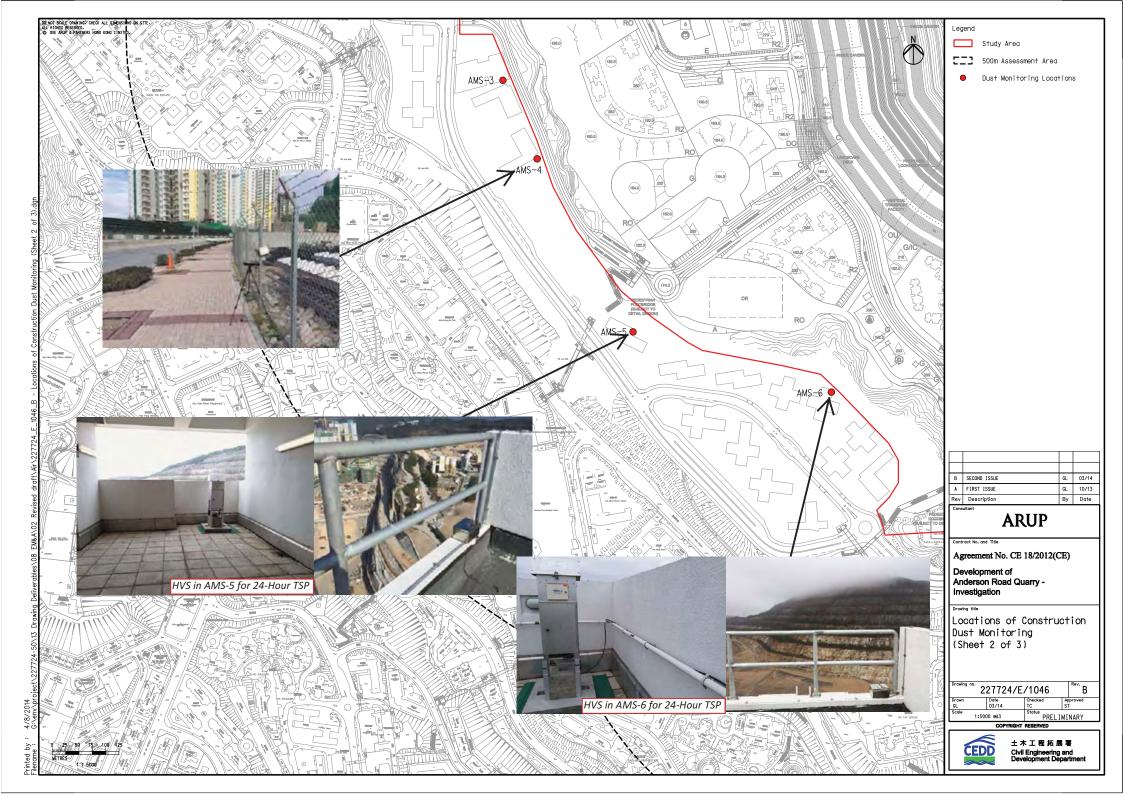
Monitoring Locations for Impact Monitoring

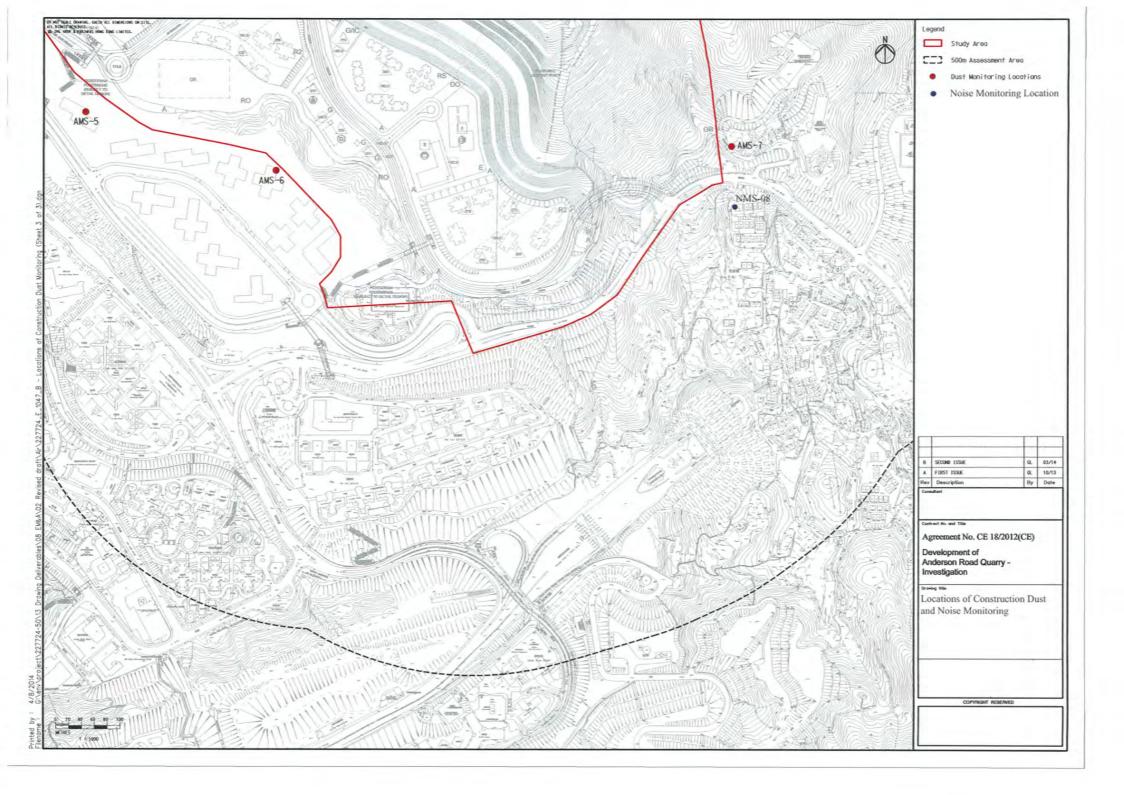


Monitoring Locations for Contract 1 (NE/2016/01)



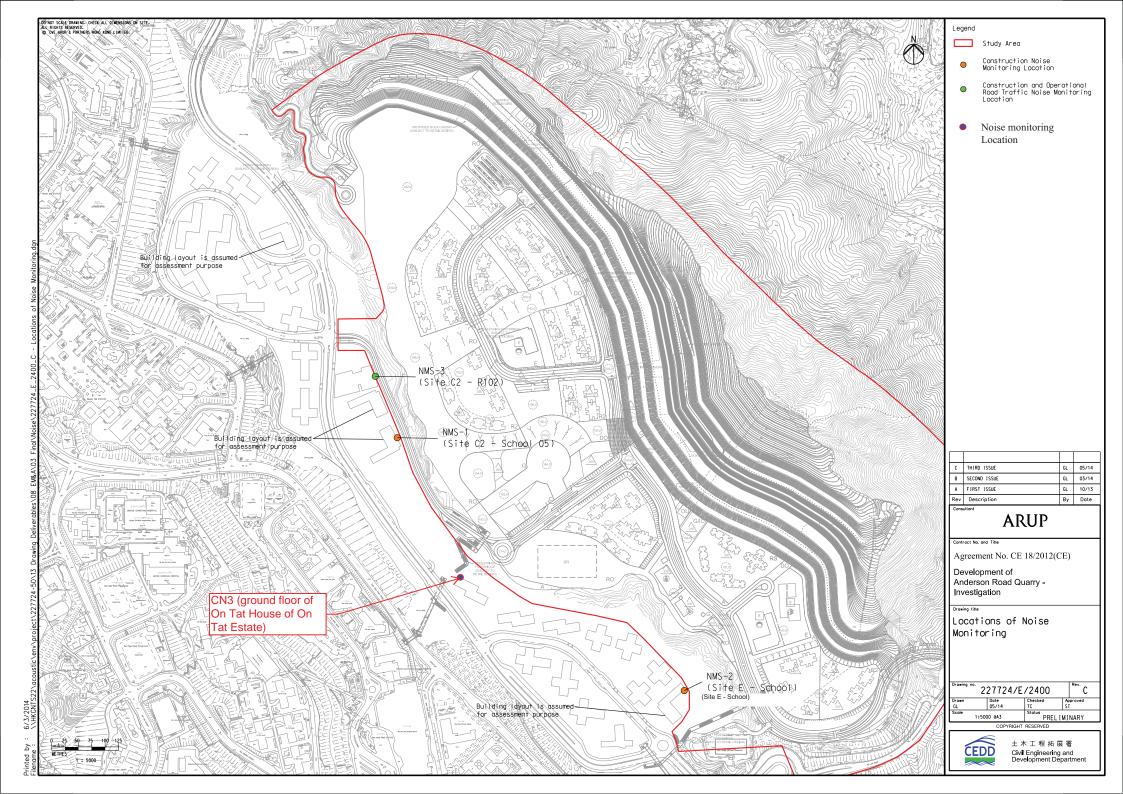


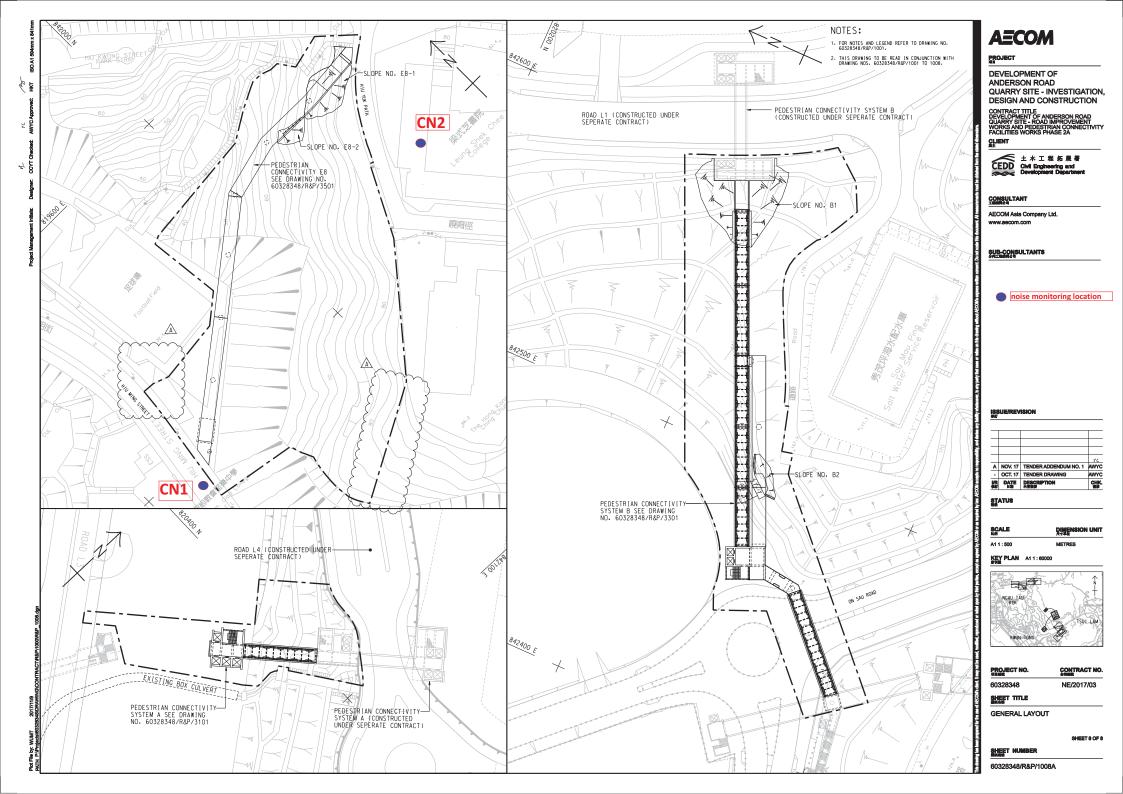






Monitoring Locations for Contract 3 (NE/2017/03)







Appendix E

Event Action Plan



Event / Action Plan for construction dust

Event	Action			
	ET	IEC	ER	Contractor
Action Level exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC, ER and Contractor; Repeat measurement to confirm finding; and Increase monitoring frequency to daily.	Check monitoring data submitted by ET; Check Contractor's working method; and Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	I. Identify source, investigate the causes of exceedance and propose remedial measures Rectify any unacceptable practice and implement remedial measures; and Amend working methods agreed with ER if appropriate.
Action Level exceedance for two or more consecutive samples	Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC, ER and Contractor; Advise the ER and Contractor on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC, ER and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; and If exceedance stops, cease additional monitoring.	Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET and ER on the effectiveness of the proposed remedial measures; and Supervise Implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; and Supervise and ensure remedial measures properly implemented.	I. Identify source, investigate the causes of exceedance and propose remedial measures Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; Implement the agreed proposals; and Amend proposal if appropriate.
Limit Level exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor, IEC and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET, ER and Contractor on possible remedial measures; Advise the ER and ET on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; and Supervise and ensure remedial measures properly implemented.	I. Identify source, investigate the causes of exceedance and propose remedial measures; Take immediate action to avoid further exceedance; Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; Implement the agreed proposals; and Amend proposal if appropriate.
Limit Level exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC, Contractor and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 5. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise and ensure remedial measures properly implemented; and 5. 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.	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial actions to ER with a copy to ET and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated



Event and Action Plan for Construction Noise

Event	Action							
	ET	IEC	ER	Contractor				
Action Level Exceedance	 Notify IEC, ER and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss with the Contractor and formulate remedial measures; Increase monitoring frequency to check mitigation effectiveness. 	Review the analysed results submitted by the ET; Review the proposed remedial measures by the Contractor and advise the ER accordingly; Supervise the implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures are properly implemented	Submit noise mitigation proposals to IEC and ER; Implement noise mitigation proposals.				
Limit Level Exceedance	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures properly implemented; 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.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.				



Appendix F

Impact Monitoring Schedule



Impact Monitoring Schedule for the Reporting Period (July 2021)

		Noise Monitoring	Air Quality	•
	Date	(0700 – 1900)	1-hour TSP	24-hour TSP
Thu	1-Jul-21			
Fri	2-Jul-21	CN1, CN2, CN3 and NMS8		✓
Sat	3-Jul-21			
Sun	4-Jul-21			
Mon	5-Jul-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Tue	6-Jul-21			
Wed	7-Jul-21	CN1, CN2, CN3 and NMS8		
Thu	8-Jul-21			✓
Fri	9-Jul-21			
Sat	10-Jul-21		✓	
Sun	11-Jul-21			
Mon	12-Jul-21			
Tue	13-Jul-21	CN1, CN2, CN3 and NMS8		
Wed	14-Jul-21			✓
Thu	15-Jul-21			
Fri	16-Jul-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Sat	17-Jul-21			
Sun	18-Jul-21			
Mon	19-Jul-21	CN1, CN2, CN3 and NMS8		
Tue	20-Jul-21			✓
Wed	21-Jul-21			
Thu	22-Jul-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Fri	23-Jul-21			
Sat	24-Jul-21			
Sun	25-Jul-21			
Mon	26-Jul-21			✓
Tue	27-Jul-21			
Wed	28-Jul-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Thu	29-Jul-21			
Fri	30-Jul-21	CN1, CN2, CN3 and NMS8		
Sat	31-Jul-21			✓

✓	Monitoring Day
	Sunday or Public Holiday



Impact Monitoring Schedule for the Reporting Period (August 2021)

		Noise Monitoring	Air Quality M	
	Date	(0700 – 1900)	1-hour TSP	24-hour TSP
Sun	1-Aug-21			
Mon	2-Aug-21			
Tue	3-Aug-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Wed	4-Aug-21			
Thu	5-Aug-21	CN1, CN2, CN3 and NMS8		
Fri	6-Aug-21			✓
Sat	7-Aug-21			
Sun	8-Aug-21			
Mon	9-Aug-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Tue	10-Aug-21			
Wed	11-Aug-21	CN1, CN2, CN3 and NMS8		
Thu	12-Aug-21			✓
Fri	13-Aug-21			
Sat	14-Aug-21		✓	
Sun	15-Aug-21			
Mon	16-Aug-21			
Tue	17-Aug-21	CN1, CN2, CN3 and NMS8		
Wed	18-Aug-21			✓
Thu	19-Aug-21			
Fri	20-Aug-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Sat	21-Aug-21			
Sun	22-Aug-21			
Mon	23-Aug-21	CN1, CN2, CN3 and NMS8		
Tue	24-Aug-21			✓
Wed	25-Aug-21			
Thu	26-Aug-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Fri	27-Aug-21			
Sat	28-Aug-21			
Sun	29-Aug-21			
Mon	30-Aug-21			✓
Tue	31-Aug-21			

✓	Monitoring Day
	Sunday or Public Holiday



Impact Monitoring Schedule for the Reporting Period (September 2021)

		Noise Monitoring	Air Quality	Monitoring
	Date	(0700 – 1900)	1-hour TSP	24-hour TSP
Wed	1-Sep-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Thu	2-Sep-21			
Fri	3-Sep-21	CN1, CN2, CN3 and NMS8		
Sat	4-Sep-21			✓
Sun	5-Sep-21			
Mon	6-Sep-21			
Tue	7-Sep-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Wed	8-Sep-21			
Thu	9-Sep-21	CN1, CN2, CN3 and NMS8		
Fri	10-Sep-21			✓
Sat	11-Sep-21			
Sun	12-Sep-21			
Mon	13-Sep-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Tue	14-Sep-21			
Wed	15-Sep-21	CN1, CN2, CN3 and NMS8		
Thu	16-Sep-21			✓
Fri	17-Sep-21			
Sat	18-Sep-21		✓	
Sun	19-Sep-21			
Mon	20-Sep-21			
Tue	21-Sep-21	CN1, CN2, CN3 and NMS8		✓
Wed	22-Sep-21			
Thu	23-Sep-21			
Fri	24-Sep-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	
Sat	25-Sep-21			
Sun	26-Sep-21			
Mon	27-Sep-21			✓
Tue	28-Sep-21	CN1, CN2, CN3 and NMS8		
Wed	29-Sep-21			
Thu	30-Sep-21	NMS2, NMS3, NMS-4a, NMS5, NMS6 and NMS7	✓	

✓	Monitoring Day
	Sunday or Public Holiday



Appendix G

Database of Monitoring Result



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

	24-hour		1-	-hour TSP (μg	y/m ³)	
Date	TSP (µg/m³)	Date	Start Time	1 st reading	2 nd reading	3 rd reading
2-Jul-21	16	5-Jul-21	9:13	68	73	80
8-Jul-21	11	10-Jul-21	9:18	57	61	65
14-Jul-21	11	16-Jul-21	13:12	64	68	71
20-Jul-21	17	22-Jul-21	13:20	55	59	63
26-Jul-21	106	28-Jul-21	9:01	51	54	58
31-Jul-21	35	3-Aug-21	9:11	83	77	89
6-Aug-21	21	9-Aug-21	14:30	62	59	57
12-Aug-21	15	14-Aug-21	13:26	77	88	93
18-Aug-21	16	20-Aug-21	13:07	79	83	81
24-Aug-21	12	26-Aug-21	8:49	42	46	43
30-Aug-21	14	1-Sep-21	9:11	77	64	88
4-Sep-21	13	7-Sep-21	13:17	65	43	78
10-Sep-21	15	13-Sep-21	8:57	65	66	62
16-Sep-21	6	18-Sep-21	10:30	55	58	60
21-Sep-21	21	24-Sep-21	14:30	59	62	57
27-Sep-21	59	30-Sep-21	8:48	81	84	79

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

		1-hour TSP (µg/n	n ³)	
Date	Start Time	1st reading	2 nd reading	3 rd reading
5-Jul-21	9:16	9:16	84	76
10-Jul-21	9:24	9:24	62	56
16-Jul-21	13:08	13:08	48	50
22-Jul-21	13:11	13:11	51	54
28-Jul-21	9:07	9:07	74	67
3-Aug-21	9:28	9:28	97	86
9-Aug-21	9:06	9:06	70	74
14-Aug-21	13:11	13:11	88	97
20-Aug-21	13:19	13:19	81	89
26-Aug-21	9:16	9:16	49	53
1-Sep-21	9:21	9:21	84	93
7-Sep-21	13:09	13:09	77	81
13-Sep-21	9:25	9:25	72	74
18-Sep-21	9:15	9:15	79	77
24-Sep-21	9:06	9:06	78	82
30-Sep-21	9:15	9:15	89	94

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

		1-hour TSP (µg/m	1 ³)	
Date	Start Time	1 st reading	2 nd reading	3 rd reading
5-Jul-21	9:28	76	87	63
10-Jul-21	9:33	55	60	58
16-Jul-21	13:02	47	53	49



		1-hour TSP (μg/n	n ³)	
Date	Start Time	1st reading	2 nd reading	3 rd reading
22-Jul-21	13:08	51	54	58
28-Jul-21	9:15	67	73	61
3-Aug-21	9:37	77	91	84
9-Aug-21	12:30	69	74	68
14-Aug-21	13:04	97	114	96
20-Aug-21	13:25	91	84	103
26-Aug-21	9:31	46	50	47
1-Sep-21	9:27	78	80	84
7-Sep-21	13:03	91	77	82
13-Sep-21	9:36	68	72	67
18-Sep-21	9:20	69	76	77
24-Sep-21	12:30	77	86	85
30-Sep-21	9:27	85	90	88

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

	24-hour		1-	hour TSP (µg	y/m³)	
Date	$TSP (\mu g/m^3)$	Date	Start Time	1 st reading	2 nd reading	3 rd reading
2-Jul-21	33	5-Jul-21	13:01	63	58	64
8-Jul-21	18	10-Jul-21	13:05	64	68	66
14-Jul-21	25	16-Jul-21	9:24	47	49	44
20-Jul-21	14	22-Jul-21	9:27	74	65	78
26-Jul-21	39	28-Jul-21	13:03	80	71	62
31-Jul-21	33	3-Aug-21	13:01	87	83	91
6-Aug-21	38	9-Aug-21	9:21	85	79	84
12-Aug-21	28	14-Aug-21	9:28	97	113	100
18-Aug-21	29	20-Aug-21	9:11	89	95	93
24-Aug-21	19	26-Aug-21	14:37	54	62	67
30-Aug-21	15	1-Sep-21	13:04	84	77	89
4-Sep-21	10	7-Sep-21	9:19	90	70	64
10-Sep-21	21	13-Sep-21	14:27	85	88	92
16-Sep-21	24	18-Sep-21	9:31	85	80	79
21-Sep-21	22	24-Sep-21	9:21	89	84	86
27-Sep-21	46	30-Sep-21	14:15	102	105	111

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

	24-hour		1-	hour TSP (µg	y/m ³)	
Date	$TSP (\mu g/m^3)$	Date	Start Time	1 st reading	2 nd reading	3 rd reading
2-Jul-21	47	5-Jul-21	13:04	56	59	53
8-Jul-21	29	10-Jul-21	13:10	66	74	71
14-Jul-21	36	16-Jul-21	9:11	66	65	64
20-Jul-21	12	22-Jul-21	9:15	73	70	70
26-Jul-21	49	28-Jul-21	13:09	73	71	76
31-Jul-21	29	3-Aug-21	13:08	79	84	88
6-Aug-21	47	9-Aug-21	9:51	77	75	79



	24-hour		1-	hour TSP (µg	y/m ³)	
Date	$TSP (\mu g/m^3)$	Date	Start Time	1 st reading	2 nd reading	3 rd reading
12-Aug-21	33	14-Aug-21	9:21	107	113	102
18-Aug-21	38	20-Aug-21	9:19	98	106	110
24-Aug-21	19	26-Aug-21	14:22	52	56	63
30-Aug-21	23	1-Sep-21	13:09	75	83	81
4-Sep-21	15	7-Sep-21	9:16	77	92	80
10-Sep-21	26	13-Sep-21	14:14	86	90	96
16-Sep-21	30	18-Sep-21	9:43	78	82	80
21-Sep-21	29	24-Sep-21	9:51	80	87	83
27-Sep-21	39	30-Sep-21	13:58	98	104	109

Summary of 24-hour and 1-hour TSP Monitoring Results (AMS-7)

	24-hour		1-	hour TSP (µg	y/m ³)	
Date	TSP $(\mu g/m^3)$	Date	Start Time	1 st reading	2 nd reading	3 rd reading
2-Jul-21	34	5-Jul-21	13:16	67	70	68
8-Jul-21	20	10-Jul-21	13:20	73	69	66
14-Jul-21	26	16-Jul-21	9:07	50	56	53
20-Jul-21	19	22-Jul-21	9:10	65	77	70
26-Jul-21	33	28-Jul-21	13:17	68	71	79
31-Jul-21	17	3-Aug-21	13:19	75	83	81
6-Aug-21	18	9-Aug-21	13:48	76	73	68
12-Aug-21	20	14-Aug-21	9:18	88	74	80
18-Aug-21	11	20-Aug-21	13:34	85	91	86
24-Aug-21	15	26-Aug-21	13:51	54	59	65
30-Aug-21	11	1-Sep-21	13:18	77	80	81
4-Sep-21	15	7-Sep-21	9:03	84	67	93
10-Sep-21	23	13-Sep-21	13:42	76	79	82
16-Sep-21	27	18-Sep-21	10:08	74	83	78
21-Sep-21	31	24-Sep-21	13:48	79	76	81
27-Sep-21	80	30-Sep-21	13:32	91	94	101



Noise Measu	ırement	Resul	ts (dB)	of NM	S2															
	Start	1st	Leq (51	min)	2nd	Leq (5)	min)	3rd	Leq (51	min)	4th	Leq (51	nin)	5th	Leq (51	nin)	6th	Leq (51	min)	T 40 1 17(1)
Date	Time	Leq, dB(A)	L10, dB(A)		Leq, dB(A)		L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq30min, dB(A)									
5-Jul-21	9:08	61.8	64.2	57	64.4	66	60.6	61.7	64	58.3	60.9	64	55.4	64	66.4	60	65.1	67.8	58.4	63
16-Jul-21	13:49	64	65.4	62.7	65.2	66.6	63.6	64.2	65	62.6	63.9	64.9	62.6	63.7	64.8	62.7	64.1	65.1	63	64
22-Jul-21	9:13	67.7	69.2	64	68.6	71.5	65.2	69.4	72.2	66.1	67.4	69.5	64.6	67	68.5	64.5	65.8	69	62.8	68
28-Jul-21	11:30	64.9	66.5	62.8	64.4	65.9	62.8	64.7	66.6	63	64.2	65.6	62.3	65.2	66.5	63.2	64.6	65.5	63.6	65
3-Aug-21	9:25	55.4	57	52.9	54.8	57.2	51.5	55.7	57.4	52.4	55.5	56.9	53.6	57	58.2	55.2	66.6	70.4	56.2	60
9-Aug-21	11:03	61.3	62.7	58.7	62.8	65	57.2	63.8	66.8	59.5	64	67.7	57.9	62.5	64.5	57.3	63.6	66.1	59.7	63
20-Aug-21	9:13	62.6	63.5	61.6	62.6	63.8	61.2	66.8	70.7	62.6	62.4	63.6	60.9	63.2	64.9	61.6	63.4	64.2	62.5	64
26-Aug-21	16:11	63.8	65.2	60.3	62.2	65.6	58.6	63.8	66.4	58.9	64.4	67.6	58.8	64	67	58	63.6	66.8	58	64
1-Sep-21	9:18	66.5	64.4	60.9	62.5	64.4	60.5	64.8	68.5	57.1	58.9	60.1	57.2	59.4	61	57.9	59	60.6	57.2	63
7-Sep-21	13:49	59.6	60.5	58.6	59.6	60.8	58.2	63.8	67.7	59.6	59.4	60.6	57.9	60.2	61.9	58.6	60.4	61.2	59.5	61
13-Sep-21	15:56	56.6	57.7	55	56.4	57.7	54.4	55.1	56.6	53.1	55.1	56.4	53.6	55.8	56.5	53.3	56.2	57.7	54.8	56
24-Sep-21	11:03	62.4	63.3	61	63.5	66.2	60.2	64.2	67.7	61.8	61.6	62.2	59.9	60.5	61.4	59.3	62.3	63.5	60.1	63
30-Sep-21	16:26	60.5	62.3	57.9	59.9	61.5	57.4	60.6	61.9	58.8	60.6	62	58.7	59.3	61.1	57.2	60.5	62	58.9	60



Noise Measu	irement	t Resul	ts (dB)	of NM	S3															
_	Start	1st	Leq (5r	nin)	2nd	Leq (51	min)	3rd	Leq (51	min)	4th	Leq (51	nin)	5th	Leq (51	nin)	6th	Leq (51	nin)	
Date	Time	Leq, dB(A)	L10, dB(A)	,	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)	L10, dB(A)		Leq, dB(A)		L90, dB(A)	Leq, dB(A)	L10, dB(A)	/	Leq30min, dB(A)
5-Jul-21	9:47	67.8	70.1	64.7	65.1	67.2	62.1	67.9	70.6	65.0	69.7	71.4	67.4	68.8	70.8	63.2	67.5	69.8	63.6	68
16-Jul-21	13:04	63.7	66.5	61.0	61.6	62.0	60.0	61.6	63.5	60.5	64.0	66.0	61.0	65.8	67.0	63.0	66.3	68.5	64.5	64
22-Jul-21	9:54	67.5	70.1	64.0	65.8	67.6	63.2	67.7	69.5	64.7	68.6	70.7	65.1	70.5	72.6	66.2	69.0	71.4	64.8	68
28-Jul-21	10:54	66.1	69.0	61.0	65.6	68.5	60.5	64.8	67.5	61.5	67.6	70.5	62.0	65.6	68.5	60.5	63.8	67.0	60.0	66
3-Aug-21	10:09	54.9	57.6	51.2	54.8	56.7	51.2	55.1	56.8	52.3	55.9	57.0	43.3	55.9	57.4	52.9	53.9	57.1	46.1	55
9-Aug-21	15:06	64.2	67.3	59.1	65.0	68.0	58.6	62.7	65.2	57.2	64.3	67.4	59.4	63.5	66.6	59.5	65.4	67.9	59.8	64
20-Aug-21	14:09	67.5	69.1	65.6	67.8	68.9	66.6	67.7	68.9	66.2	67.6	69.0	65.9	67.9	69.1	66.6	68.2	70.0	66.2	68
26-Aug-21	9:34	62.7	65.6	59.3	64.5	67.3	60.7	62.7	66.9	60.6	61.7	65.7	59.7	63.3	67.4	60.0	62.5	66.2	59.5	63
1-Sep-21	9:59	67.7	70.8	64.3	65.6	66.6	56.1	62.7	64.6	60.1	61.4	63.6	58.1	62.1	64.3	58.4	64.6	67.9	60.5	65
7-Sep-21	13:04	69.8	72.0	66.0	70.6	72.5	66.5	69.4	71.5	65.5	69.6	71.5	66.5	70.3	72.5	67.0	69.3	71.0	66.0	70
13-Sep-21	9:39	60.5	62.0	58.9	60.4	62.3	58.4	60.5	62.5	57.5	58.6	59.8	57.4	60.0	61.0	57.6	60.0	62.2	57.3	60
24-Sep-21	15:06	63.6	65.8	62.1	64.2	66.2	62.5	62.9	64.2	61.6	67.2	69.4	63.7	66.8	68.7	63.1	63.0	65.2	60.5	65
30-Sep-21	9:26	62.8	65.6	59.9	64.4	67.6	59.2	63.8	66.6	60.7	64.7	66.8	60.2	63.7	65.0	59.6	63.5	65.0	59.2	64



Noise Measu	irement	t Resul	ts (dB)	of NM	S4a															
_	Start	1st	Leq (51	nin)	2nd	Leq (5)	min)	3rd	Leq (5	min)	4th	Leq (51	nin)	5th	Leq (51	nin)	6th	Leq (51	min)	
Date	Time	Leq, dB(A)	- ,	,	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		,	Leq, dB(A)	L10, dB(A)		Leq, dB(A)		L90, dB(A)	Leq, dB(A)	L10, dB(A)	,	Leq30min, dB(A)
5-Jul-21	10:24	64.5	66.3	62.6	65.6	67	63.7	69.1	71.2	65.9	70.3	72.3	68.1	69.6	71.4	67.8	69.6	71.7	67	69
16-Jul-21	11:13	71.8	73.8	68.7	72.2	74.5	68.7	71.8	74.4	67.8	73.7	76.9	69.8	73.8	75.9	70.1	76.6	77.4	71	74
22-Jul-21	10:37	73.3	77.5	64.5	73.9	77.5	67	68.1	69.5	66.5	66.8	68	64.5	66.9	68	65	66.3	67.5	64.5	70
28-Jul-21	13:02	69.8	72.9	64.3	67.6	71.9	59.8	65.5	67.9	62	66.4	68.6	62.7	67.6	70	62.2	61.8	71.9	64.7	67
3-Aug-21	11:29	62.5	64.7	59.6	61.6	63.5	58.1	61.9	63.7	59.7	61.6	63.2	58.6	62.2	64.3	59	61.8	64.5	51.3	62
9-Aug-21	9:23	64.4	66.3	61.4	64.1	66.7	60.9	67.2	68.3	66	63.9	67.2	59	65	66	63.6	64.5	65.8	60.1	65
20-Aug-21	13:09	69.6	72.2	65.6	72.3	74.9	68.1	70.2	72.5	65.9	68.8	71.3	61.7	69.1	72.4	61.9	68.8	71.3	66.2	70
26-Aug-21	14:40	71.9	73.5	68.2	69.4	70.8	67.7	68.3	70.7	66	68.5	69.6	66.1	68.6	70.9	66	68.1	70.8	66	69
1-Sep-21	10:38	65.5	67.3	63.6	66.6	68	64.7	70.1	72.2	66.9	71.3	73.3	69.1	70.6	72.4	68.8	70.6	72.7	68	70
7-Sep-21	11:14	71.3	74.2	62.9	71.8	74.3	67.5	70.6	74.4	63.2	71.3	74.1	67.9	71.1	72.9	68.6	69.6	71.2	64.1	71
13-Sep-21	14:26	70	71.1	68.7	69	70	67.8	69.8	72.1	66.3	69.8	71.7	66.3	69	71.6	66.2	71.2	72.5	66	70
24-Sep-21	9:23	65	67.7	61.8	68.6	71.6	64.3	67.9	70.1	64.5	63.6	65.8	62.1	64.2	66.2	62.5	65.7	68.2	63.1	66
30-Sep-21	14:14	69.6	70.8	68.3	70.1	71.4	68.4	69.6	70.7	68.3	69.1	70.3	67.7	70.6	71.6	68.9	69.1	70.3	67.9	70



Noise Meas	uremer	nt Resu	lts (dB)	of NM	IS5															
	Start	1st	Leq (51	min)	2nd	Leq (51	min)	3rd	Leq (51	min)	4th	Leq (51	min)	5th	Leq (51	min)	6th	Leq (51	min)	
Date	Time	Leq, dB(A)		L90, dB(A)	Leq, dB(A)			Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)			Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq30min, dB(A)
5-Jul-21	10:57	70.6	72.6	68.5	71.4	73	69.6	70.1	71.4	68.7	71.5	75.1	67.8	70.8	72	69.5	70.1	71.6	68.5	71
16-Jul-21	10:32	69.6	71.6	67.5	70.4	72	68.6	69.1	70.4	67.7	70.5	74.1	66.8	69.8	71	68.5	69.1	70.6	67.5	70
22-Jul-21	11:24	62.2	64.1	59.8	61.2	63.3	58.8	61.8	63.5	59.1	61.1	63.2	57.9	58.8	60.8	56.3	60.8	62.6	58.2	61
28-Jul-21	10:19	67.8	69.7	65.5	68.3	70.2	66.1	68.1	70.4	65.4	67.5	70.4	63.7	66.2	68	64.1	66.7	68.8	64.5	67
3-Aug-21	13:19	54.8	56.7	50.2	55.9	57.3	53.8	55.8	57.3	53.4	55.2	56.9	52.4	56.2	57.9	53.5	54.3	56.7	44.9	55
9-Aug-21	10:17	66.7	67.9	60.3	64.1	66.4	59.9	65.1	68.1	60.4	65.7	68.8	59.5	65.2	68.2	61.2	64.7	67.1	60.5	65
20-Aug-21	11:24	70.6	73.7	62.4	71.7	74.2	63.1	70.4	73.9	63.6	65.4	68.1	60.4	67.4	70.4	59	68.8	70.6	60.1	70
26-Aug-21	15:25	66.4	67.3	63.6	65.5	67.3	63.2	66.7	67.5	64.7	65.2	67	63.2	65.4	66.8	63.5	66.1	67	64.5	66
1-Sep-21	13:04	68.2	70.2	65.4	66.9	68.2	64.4	66.8	68.5	64.7	67.6	69.3	65.8	66.6	68.8	64.3	66.9	68.6	64.6	67
7-Sep-21	10:29	68	69.9	64.8	67.7	70.4	62.5	69.1	71.6	65.2	70	72.8	64	66.8	69.1	62.6	67.6	70	64.2	68
13-Sep-21	15:12	67.3	68.9	65.7	68.4	70	66.7	69	70.9	66.8	69.8	72.1	66.8	68.5	70.6	65	69.7	72.9	66.5	69
24-Sep-21	10:17	66.4	69.2	63.6	65.9	68.1	62.8	67.2	70.4	65.5	68.3	71.1	66.2	65.5	67.3	62.3	64.8	66.6	61.8	67
30-Sep-21	15:38	65	66.4	63.5	64.6	65.7	63.3	63.5	64.4	62.5	64	65.3	62.2	65.9	66.7	63.9	65.4	66.9	63.1	65



Noise Meas	uremen	nt Resu	lts (dB)	of NM	IS6															
_	Start	1st	Leq (5r	nin)	2nd	Leq (51	min)	3rd	Leq (5	min)	4th	Leq (51	min)	5th	Leq (51	min)	6th	Leq (51	min)	
Date	Time	Leq, dB(A)	L10, dB(A)	,	Leq, dB(A)			Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)	L10, dB(A)		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq30min, dB(A)
5-Jul-21	13:04	64.7	66.5	62.5	66.4	70	62.5	65.4	67.5	63	66.3	68.5	61	64.8	67	61.5	67.2	68.5	62	66
16-Jul-21	9:52	60.8	63	51	61	63	54.5	63.2	67.5	56	64.6	67.5	58	65	67	61.5	69.4	67.5	58.5	65
22-Jul-21	13:01	71.4	74.1	66.5	70.7	73.6	65.8	68.3	71.2	64.2	67.6	70.5	63.1	68.4	70.2	65.6	71.1	73.3	67.2	70
28-Jul-21	9:43	66.4	68	64	67.5	69	65	67	68.5	65.5	68.5	70.5	65.5	67	69.7	64.5	67.5	68	64	67
3-Aug-21	10:51	60	64.5	54.6	55.6	57.6	51.5	54.6	57.6	38.4	56.3	58.5	50.3	57.3	59.8	51.3	57.6	60.1	52.3	57
9-Aug-21	15:41	67.9	71.2	62	67.4	70.1	63	65.9	68.8	60.8	65.1	69.4	58.6	65.5	68.1	60.3	66.3	68.3	58.6	66
20-Aug-21	10:38	69.8	72	64.5	67.2	69.5	63	68.2	71	64	70.3	72.5	64.5	69.2	71.5	63.5	68.3	71	63.5	69
26-Aug-21	11:07	66.1	69.2	62	65.6	67.3	62.2	66	69.1	63.6	65	67.4	62.6	64.2	66.5	62.6	64.5	66.5	62.5	65
1-Sep-21	13:43	69.8	72	65.8	70.2	72.5	67.3	69.2	71.9	65.5	69.6	71.7	66.6	70.3	72.6	66.3	68.4	70.6	65.8	70
7-Sep-21	9:53	67.8	70	63.8	68.2	70.5	65.3	67.2	69.9	63.5	67.6	69.7	64.6	68.3	70.6	64.3	66.4	68.6	63.8	68
13-Sep-21	10:21	65.2	67.3	62.8	66.7	68.6	63.7	65.2	68.9	63.9	65.3	67.7	62.5	64.3	66.2	62.3	64.5	66.5	62.5	65
24-Sep-21	16:03	61.6	65	59.9	65.6	69.2	60.2	64.8	67.1	60.7	63	66.3	60.2	68.7	71.1	61.2	66.4	70.3	59.7	66
30-Sep-21	10:55	69.8	72.3	65.9	71.1	74.6	67.5	71.5	74.9	67	71.3	73.6	67.3	69.5	72.5	65.3	68.5	71.1	64	70



Noise Meas	uremen	t Resu	lts (dB)	of NM	IS7															
-	Start	1st	Leq (5r	nin)	2nd	Leq (5	min)	3rd	Leq (5	min)	4th	Leq (51	min)	5th	Leq (51	min)	6th	Leq (51	min)	T 40 1 ID(1)
Date	Time	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	,	Leq, 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)		L90, dB(A)	Leq30min, dB(A)
5-Jul-21	13:48	61.8	63	60.5	62.4	63.9	60.7	62.1	63.5	60.1	62.5	63.6	61.2	63	64.1	61.6	63.3	64.8	61.4	63
16-Jul-21	9:13	66	68.5	62.5	63.9	65.5	62	65.9	67.5	64	65.9	66.5	64.5	66.1	67.5	64	65.5	68	63	66
22-Jul-21	14:03	68.1	69.5	62	70.1	72.5	61.5	68.3	71	60.5	66.7	68.5	61	68	69.5	66	68.8	67.5	63.5	68
28-Jul-21	9:02	65	67.5	61.5	62.9	64.5	61	64.9	66.5	63	64.9	65.5	63.5	65.1	66.5	63	64.5	67	62	65
3-Aug-21	14:13	63.4	66	58	63.1	64.8	58.6	61.6	63.6	59.5	62.3	63.9	60.3	62.5	64.4	60.1	61.9	63.9	58.2	63
9-Aug-21	16:27	65.9	68.3	61.5	67.3	69.5	64.7	66.1	69.3	60.4	66.8	68.3	64.6	67.2	69.4	63.7	65.3	66.9	62.6	66
20-Aug-21	9:59	69.7	71	66.7	71.3	72.9	67	70.6	72.5	68	69.8	72.3	66.9	70.2	72.8	66.9	69	71.9	65.9	70
26-Aug-21	10:21	69.9	71.8	66.6	68.2	70.9	66	69.6	71.4	66	68.5	70.5	65.5	69.8	71.7	66.3	69.7	71.3	66.1	69
1-Sep-21	14:24	71.8	73.7	69	74	75	68.6	69.4	71.1	67.6	69.3	71.1	67.2	70.9	72.9	67.5	70.7	73.2	67.9	71
7-Sep-21	9:11	69.7	73.5	63.6	67.9	70.6	64	68.8	71.3	65.1	67.9	71.1	63.5	67	69.5	62.8	69	72.2	63.5	68
13-Sep-21	11:08	67.7	69.6	62	64.5	66.2	61.3	67.7	70.5	61.1	68	71.6	63	63.3	65.5	60.5	63.4	65.1	61.3	66
24-Sep-21	16:27	67.6	70.5	64.8	66.9	69.3	62.6	68.4	71.2	65.1	65.7	67.8	63.5	64.8	66.9	62.8	64.5	66.1	61.9	67
30-Sep-21	10:55	69.8	72.3	65.9	71.1	74.6	67.5	71.5	74.9	67	71.3	73.6	67.3	69.5	72.5	65.3	68.5	71.1	64	70



Noise Meas	uremer	ıt Resu	lts (dB	of NM	IS8															
_	Start	1st	Leq (51	min)	2nd	Leq (5	min)	3rd	Leq (5	min)	4th	Leq (51	min)	5th	Leq (51	min)	6th	Leq (51	min)	
Date	Time	Leq, dB(A)			Leq, dB(A)			Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)	L10, dB(A)		Leq, dB(A)	L10, dB(A)		Leq30min, dB(A)
2-Jul-21	11:17	64.2	65.1	57.2	61.1	63	56.1	60.6	63.1	55.7	63.4	64.8	56.6	62.8	63.4	55.1	59.4	61.5	54.6	62
7-Jul-21	9:08	71.1	71.5	66.5	67.2	67.5	66.5	68.6	69.5	67.5	69.2	71	66.5	70.1	73	66	66.8	67.5	65.5	69
13-Jul-21	13:19	64.2	66.5	59.2	64.2	66.2	60.7	65.8	67.7	62.9	64.1	66.1	61	64.7	67.3	59.3	65.1	67.6	61	65
19-Jul-21	13:41	68.1	68.5	63.5	64.2	64.5	63.5	65.6	66.5	64.5	66.2	68	63.5	67.1	70	63	63.8	64.5	62.5	66
30-Jul-21	13:00	63.2	66	57.7	64	66.7	58.5	62.7	65.6	57.3	62.1	65.5	54.9	63.5	66.7	57.7	64.8	66.3	58.4	63
5-Aug-21	13:09	68.3	70.5	64	69.4	71.5	66	70.4	73	66	69.3	71.5	65	67.4	70	62.5	69.2	70.5	67	69
11-Aug-21	14:19	60.8	62	57.1	63.2	64.6	56.5	60.6	62.9	56.1	59.9	62.9	55.1	61.9	63.7	56.6	60.8	62.5	56	61
17-Aug-21	11:26	62.8	66	56.5	64.2	66.5	58	63.3	67	57.5	64.6	68.5	54.5	62.4	66	55	64.2	67	57.5	64
23-Aug-21	10:12	62.7	64.6	57	61.5	63.9	58	64.7	66.9	59.4	64.4	66.8	59.5	63.4	65.7	58.7	61	63.2	57.2	63
3-Sep-21	13:04	68	71.5	61.5	67.7	70.5	61.5	63.7	66	60	63.9	66	60.5	68.8	71.5	62.5	67.7	70.5	61.5	67
9-Sep-21	9:47	64.2	65.5	62.1	65.5	66.4	64.5	64.4	66.5	62.7	67.4	68.4	66.2	68.7	70.8	66.3	68	70.8	65.9	67
15-Sep-21	14:53	60.2	62.5	54.9	59.8	62.5	54.6	60.5	63.1	56.8	60.8	63.3	57.2	59.6	62.9	56.1	60	63.8	57	60
21-Sep-21	13:09	62.6	66	60.5	60.6	67.5	59	62.7	65.5	61.5	63.7	67	62	64.8	66	62.5	62.8	65.5	60.5	63
28-Sep-21	9:34	60.9	62.5	57.3	63.6	64	56.5	61.9	62	56	62.8	63.2	57	61.8	63	58.6	63.7	64.3	57.4	63



Noise Meas	uremen	t Resu	lts (dB)	of CN	1															
_	Start	1st	Leq (51	min)	2nd	Leq (5	min)	3rd	Leq (5	min)	4th	Leq (51	min)	5th	Leq (51	min)	6th	Leq (51	min)	
Date	Time	Leq, dB(A)			Leq, dB(A)			Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)			Leq, dB(A)	L10, dB(A)		Leq30min, dB(A)
2-Jul-21	9:15	61.7	60	52.9	59.9	65.6	56.3	62.5	64.5	57.7	59	60.7	54.9	61.6	66.1	56.5	57.3	59.3	53.2	61
7-Jul-21	10:19	63.3	67	58	57.8	59	55.5	58.2	59.5	56.5	59.6	62	56.5	63	68.5	56.5	65.9	69.5	57	62
13-Jul-21	10:05	60.1	63.4	52.2	62.1	65.1	54.3	63.6	65.6	55.6	64	67.1	54	66.9	68.8	57.8	66.1	68.8	56.5	64
19-Jul-21	14:30	58.9	61.9	53.1	68.9	73.5	56.1	70.9	75	58.4	58.2	60.8	51.5	57.7	61	49.4	57.6	59.3	49.5	66
30-Jul-21	14:14	61.9	65.5	50.9	64.9	68.9	50.7	63.3	67.3	50.9	63.9	68.4	52.1	60.5	64.7	49.4	62.8	67.1	50.3	63
5-Aug-21	9:34	64.7	65.2	60.9	61.1	61.7	59.1	61.5	62.8	59.3	63.6	63.8	59.6	67.2	69.6	58.8	64.8	66.9	57.2	64
11-Aug-21	16:01	60.8	61.6	59.5	60.2	60.6	59.9	63	67.4	59.7	65.3	68.8	58	61.4	62.8	58.5	63.1	63	58.6	63
17-Aug-21	13:59	59.3	61.5	56	59.6	60.5	57	60.2	62.5	55.5	59	60	55.5	58.9	61	57	59.1	62.5	57.5	59
23-Aug-21	17:18	63.5	67.5	59.4	65.6	68.3	58.8	61.8	62.6	58.5	62.7	63.7	58.7	59.7	60.3	57.8	59.2	60.5	58.7	63
3-Sep-21	9:43	57.7	59.0	52.1	61.5	62.0	51.5	56.2	58.5	51.4	58.0	59.7	51.6	54.6	56.5	49.9	60.2	60.3	51.0	59
9-Sep-21	14:33	62.0	63.5	59.2	61.4	62.3	60.3	61.0	62.4	59.6	60.2	61.2	58.5	59.6	61.0	57.9	61.0	61.7	60.0	61
15-Sep-21	16:24	56.0	58.1	51.3	61.5	61.5	50.6	55.0	57.1	50.1	57.2	56.2	49.0	52.4	53.6	49.8	58.5	56.5	48.0	58
21-Sep-21	9:17	62.9	63.9	61.9	63.3	64.2	62.4	63.7	65	61.8	63	63.7	62.2	63.2	64	62.4	63.1	64.1	62.2	63
28-Sep-21	11:04	69.8	72.2	61.6	68.7	71.3	60	63.2	65.2	57	69.5	64.1	56.6	61	59.5	56.5	58.6	58.2	56.6	67



Noise Meas	uremen	t Resu	lts (dB)	of CN	2															
	Start	1st l	Leq (51	nin)	2nd	Leq (5	min)	3rd	Leq (51	min)	4th	Leq (51	min)	5th	Leq (51	nin)	6th	Leq (51	nin)	
Date	Time	Leq, dB(A)				L10, dB(A)		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)			Leq, dB(A)	L10, dB(A)		Leq30min, dB(A)
2-Jul-21	9:55	62.3	65.2	58.9	61.7	64.8	59.1	60.6	63.9	58.6	63.1	65.9	60.3	64.1	67.4	60.8	61.6	63.9	59.1	62
7-Jul-21	10:59	60.9	66.3	56.7	59.8	64.4	57.9	60.3	63.7	59.1	60.9	66.8	58.1	60.4	65.6	58.2	61.3	65.2	60.2	61
13-Jul-21	10:55	62.8	64.9	59.3	61	63.9	59.3	61.7	65.3	59.8	63.2	66.1	60.4	63.6	65.1	59.8	63.1	64.4	58.8	63
19-Jul-21	15:09	62.3	64.7	57.2	59.8	63.6	55.7	61.1	63.7	55	62.2	65	56.4	63	66.9	57.7	61.9	64.5	56.6	62
30-Jul-21	15:08	62.6	64.5	57.4	62.4	65	56.9	64.8	68	57.6	62	64.8	58.4	62.3	66.1	57.7	63.7	66.2	58.8	63
5-Aug-21	10:20	62.1	63.2	59.2	66.9	66.6	58.9	66.5	66.6	59.1	61.5	63	58.8	63.5	64.2	59.5	64	65.4	59.9	65
11-Aug-21	15:23	64.5	65.3	61.1	68.8	68	60	68.7	68.5	61	63.6	65.5	60.5	65.2	66.2	61.1	64.2	65.2	60.1	66
17-Aug-21	13:09	61.2	62.5	54	64.1	62	51.5	60.4	63.5	54.5	60.1	62.5	54.5	59	61.5	54.5	59.8	62	55.5	61
23-Aug-21	11:01	64.8	65.3	61.1	62.4	64.5	62.4	64	67.6	63.5	63.6	64.9	62.6	65.5	66.5	63.8	65.1	65.3	62.9	64
3-Sep-21	10:40	63.1	66	58	60.6	62.5	57.5	66	68.5	57	60.7	64.5	57.5	64.8	66.5	57.5	62.6	65	58.5	63
9-Sep-21	13:48	60.2	61.5	53	63.1	61	50.5	59.4	62.5	53.5	59.1	61.5	53.5	58	60.5	53.5	58.8	61	54.5	60
15-Sep-21	15:48	65.6	65.4	61	63.3	64.7	62.5	65.4	67.2	63	65.6	66.1	63.5	65.2	65.2	62.6	62.2	64	61.6	65
21-Sep-21	10:04	59.5	60.5	57.5	60.8	62.5	58.0	60.5	61.5	58.0	61.3	63.5	57.5	61.6	65.0	57.5	60.6	63.0	56.5	61
28-Sep-21	10:28	60.6	64.1	55.4	59.5	59.1	57.7	63.7	63.7	58.4	61.2	62.5	57.4	59.5	61.3	56.7	62.2	64	57	61



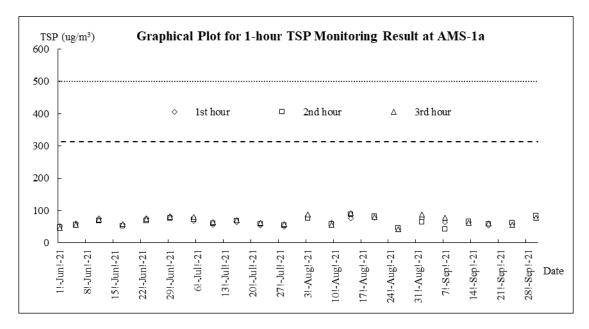
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Date	Time	Leq, dB(A)				L10, dB(A)		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)		L90, dB(A)	Leq, dB(A)			Leq, dB(A)	L10, dB(A)		Leq30min, dB(A)
2-Jul-21	10:34	64.3	65.8	62.6	65.5	67.6	62.5	66	67.8	63.4	64.6	66.1	62.5	66.5	68.8	63.6	67	69.1	63.4	66
7-Jul-21	9:45	61.9	63.2	56.6	61.6	63	56.4	58.9	60.6	54.9	64.4	64.8	56.4	61.6	63	55	60.3	62.4	55.8	62
13-Jul-21	9:24	65.4	68.9	58.5	65.2	67.1	57.9	66.3	67.9	58.9	66.7	69.4	59.6	64.6	67.6	60.6	63.6	65.4	59.6	65
19-Jul-21	13:02	63.9	65.5	55	59.3	62.5	54.5	58.1	60.5	55	59.7	64	56.5	62.3	66.5	56	59.7	63.5	56	61
30-Jul-21	13:36	63.2	64.2	57	63.1	64.1	58	59.5	61.5	57.4	66.7	67.5	58.1	61	62.6	57.2	60.2	61.8	58	63
5-Aug-21	11:07	62.8	65.4	58.3	67.2	70.1	58.7	65.5	68.5	59.5	65.6	67.2	58.2	67.2	71.6	59.1	65.2	67.6	59.7	66
11-Aug-21	14:48	65.6	69.3	61	64.2	66.5	60.8	66.3	69.8	60.6	64.9	68.4	60.6	65.9	68.3	61.5	66.1	69.3	60.4	66
17-Aug-21	10:33	68.6	71.1	65.1	68.8	70.9	65.6	68.6	70.7	66	67.6	69.6	65.5	68.3	70.2	66.3	65.5	66.5	64.4	68
23-Aug-21	9:18	61.3	63.3	58.3	61.3	64	57.5	62.6	66.2	57.3	62.5	65.4	57.3	64.5	69.4	57.4	63.7	64.4	57.7	63
3-Sep-21	11:28	65	67.1	61.2	65.5	68	60.9	67.2	68.1	60.7	65.5	67.5	60.1	66.7	68	60.7	65.2	67.2	60.5	66
9-Sep-21	13:07	64	66	60	61.1	63.5	59.5	60.9	62.5	60	61.2	63	59	61.3	64.5	60.5	61.1	63.5	60.5	62
15-Sep-21	13:30	63.8	66.1	60.8	64.6	67.2	61.7	65.9	68.2	62.8	65.8	67.9	61.6	64.4	66.3	60.8	65.2	66.9	61.3	65
21-Sep-21	11:09	59.2	64.5	52.5	56	58.5	53	61.7	64	54	61.1	64	55	57	59.5	53	57.7	60	53.5	59
28-Sep-21	14:52	60.5	64.5	57	61.5	62.9	55.5	61.7	63.5	56	65.5	67.9	56.6	61.2	63.8	55.4	60.2	62.7	56	62

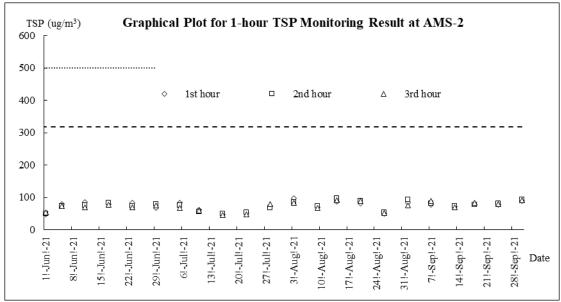


Appendix H Graphical Plots for Monitoring Result

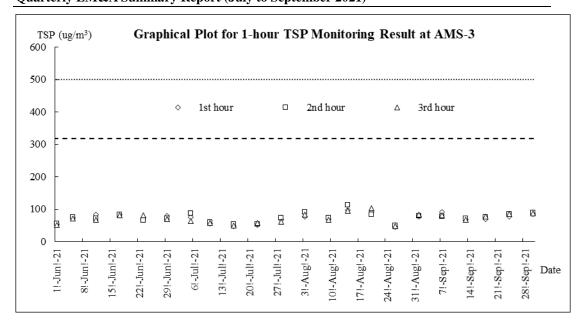


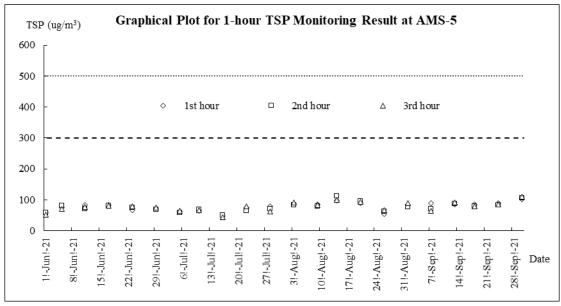
Air Quality – 1-hour TSP



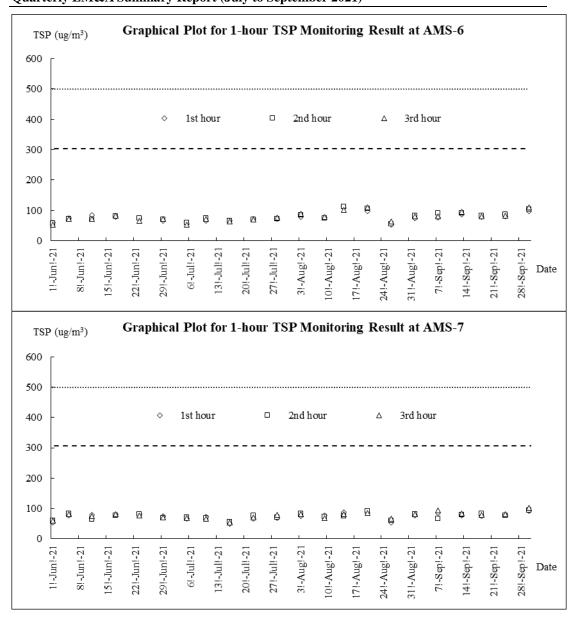






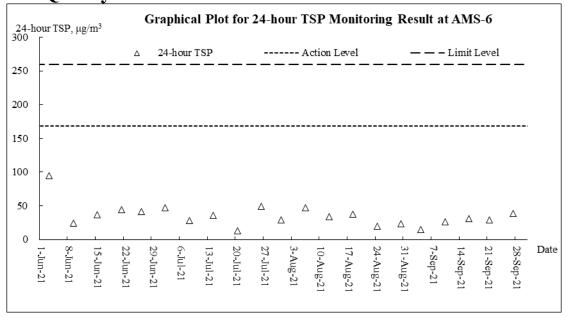


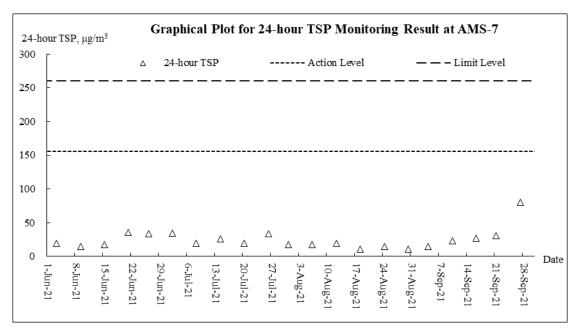




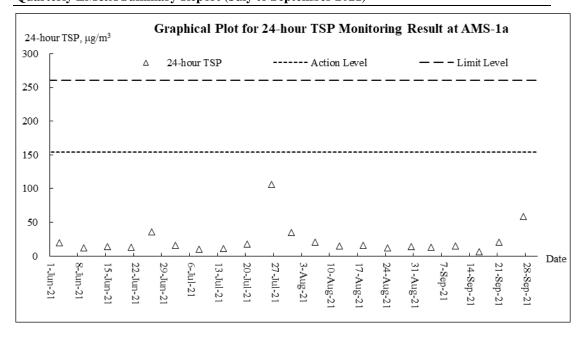


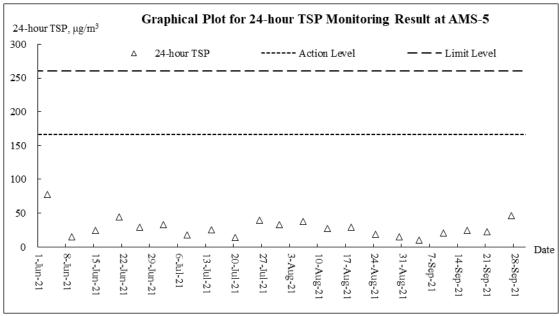
Air Quality - 24-hour TSP





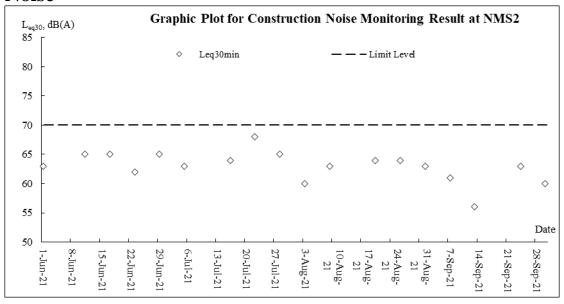


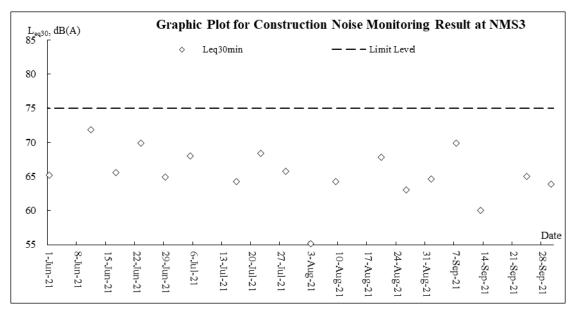




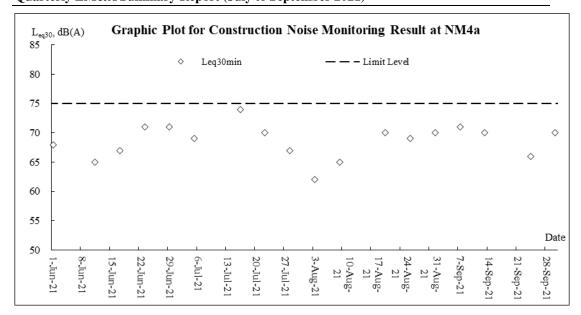


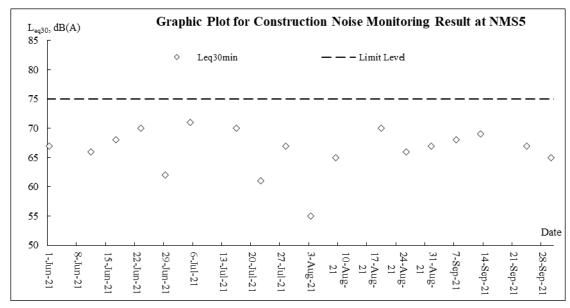
Noise

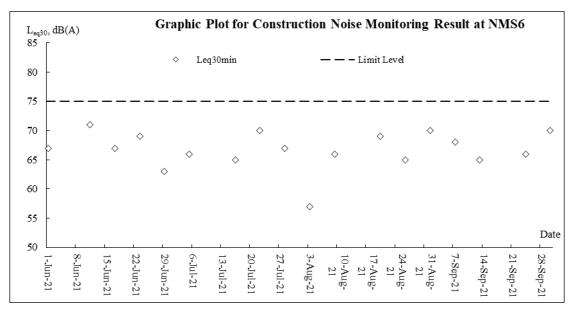




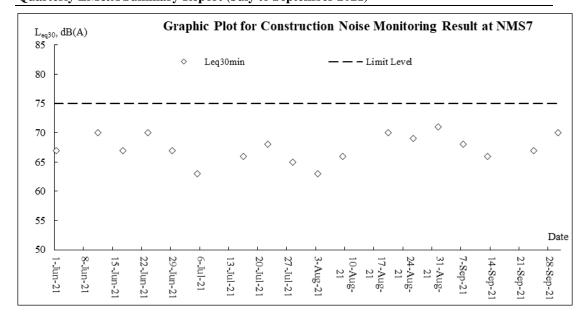


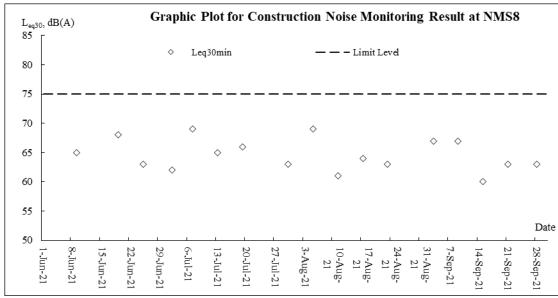


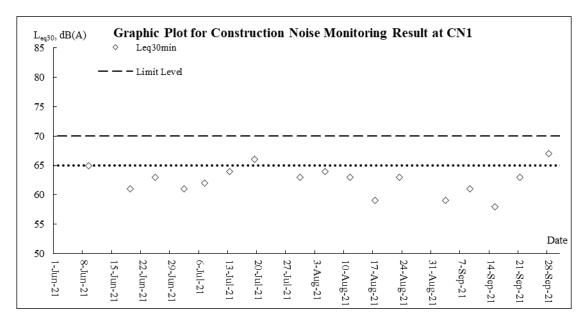




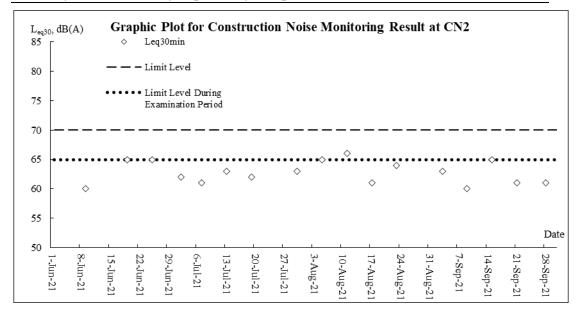


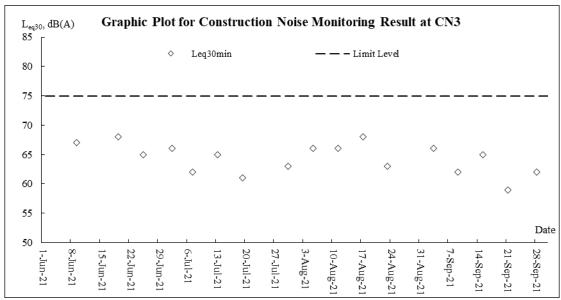














Appendix I

Meteorological Information



The weather of July 2021

Owing to the stronger than normal upper-air anticyclone over southern China, July 2021 was unusually hot in Hong Kong. The monthly mean minimum temperature of 27.7 degrees, monthly mean maximum temperature of 32.6 degrees and monthly mean temperature of 29.7 degrees were 0.8 degrees, 1.0 degree and 0.8 degrees above their corresponding normals (or 0.9 degrees, 1.2 degrees and 0.9 degrees above their corresponding 1981-2010 normals) and respectively the second, third and fourth highest on record for July. The monthly rainfall was 379.5 millimetres, slightly below the normal figure of 385.8 millimetres (or slightly above the 1981-2010 normal of 376.5 millimetres). The accumulated rainfall recorded in the first seven months of the year was 1170.6 millimetres, about 20 percent below the normal figure of 1468.2 millimetres (or 21 percent below the 1981-2010 normal of 1473.3 millimetres) for the same period.

The weather of August 2021

August 2021 was characterized by cloudier than usual weather with localized heavy rain over parts of the New Territories. The mean amount of cloud in the month was 77 percent, 7 percent above the normal of 70 percent. As for monthly rainfall, while over 600 millimetres of rainfall were recorded in parts of the North District of the New Territories, the monthly rainfall recorded at the Observatory was 350.5 millimetres, about 23 percent below the normal figure of 453.2 millimetres (or 19 percent below the 1981-2010 normal of 432.2 millimetres). The accumulated rainfall recorded in the first eight months of the year was 1521.1 millimetres, about 21 percent below the normal figure of 1921.5 millimetres (or 20 percent below the 1981-2010 normal of 1905.5 millimetres) for the same period. The monthly mean temperature of 28.8 degrees was near the normal figure of 28.7 degrees (or 0.2 degrees above the 1981-2010 normal). Mainly attributing to the exceptionally hot weather in July 2021, the summer of this year from June to August was much hotter than usual. The mean temperature of 29.1 degrees was the sixth highest on record for the same period.

The weather of September 2021

Mainly attributing to the stronger than usual subtropical ridge over southern China, September 2021 was the hottest September in Hong Kong on record. The monthly mean maximum temperature of 32.8 degrees, monthly mean temperature of 29.7 degrees and monthly mean minimum temperature of 27.8 degrees were 2.3 degrees, 1.8 degrees and 1.7 degrees above their corresponding normals (or 2.7 degrees, 2.0 degrees and 2.0 degrees above their corresponding 1981-2010 normals) and all of them were the highest on record for September. There were in total 15 very hot days and 11 hot nights in the month, both breaking the records for September. Moreover, from January to September, the numbers of very hot days and hot nights so far in 2021 already reached 53 days and 57 days respectively, both breaking the previous records set in 2020. September 2021 was also much drier than usual with a total rainfall of 129.6 millimetres, about 40 percent of the normal figure of 321.4 millimetres (or 40 percent of the 1981-2010 normal of 327.6 millimetres). The accumulated rainfall up to September this year was 1650.7 millimetres, a deficit of 26 percent compared with the normal of 2242.8 millimetres (or 26 percent below the 1981-2010 normal of 2233.1 millimetres) for the same period.



Appendix J

Summary of Waste Flow Table

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

Monthly Summary Waste Flow Table for <u>2021</u> (year)

		Actual Quan	tities of Inert C&l	D Materials Genera	ted Monthly			Actual Quantities	of C&D Wastes (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 ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	42.293	0.000	9.773	31.040	1.480	0.180	0.000	0.000	0.000	0.000	0.110
Feb	15.750	0.000	2.893	11.601	1.256	0.000	0.000	0.047	0.006	0.000	0.121
Mar	34.287	0.000	12.750	21.267	0.270	0.000	0.012	1.064	0.006	0.000	0.131
Apr	15.432	0.000	2.688	11.312	1.432	0.650	0.000	0.000	0.000	0.000	0.044
May	16.995	0.000	6.428	9.857	0.711	1.452	0.005	0.015	0.004	0.000	0.116
Jun	42.427	0.000	5.834	33.957	2.637	0.000	0.000	0.045	0.000	0.000	0.120
Sub-total	167.184	0.000	40.365	119.034	7.786	2.282	0.017	1.171	0.016	0.000	0.642
Jul	13.271	0.000	1.957	8.863	2.452	0.000	0.000	0.000	0.000	0.000	0.103
Aug	32.172	0.000	9.886	20.257	2.029	0.000	0.000	0.000	0.000	0.000	0.000
Sep	20.751	0.000	6.493	12.679	1.579	0.000	0.003	0.008	0.000	0.000	0.000
Total	233.378	0.000	58.701	160.832	13.845	2.282	0.020	1.179	0.016	0.000	0.745

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 t/m³) and inert C&D materials (2 t/m³).
- (5) Use the conversion factor for chemical waste (0.88kg/L).
- (6) Assume a dump truck delivers 7.5 m³ material in 1 trip.
- (7) The cut-off date of this summary is 20th 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.

Name of Department: <u>CEDD</u> Contract No.: <u>NE/2</u>	016/05
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Monthly Summary Waste Flow Table for 2021 (year)

[PS Clause 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 ³)	(in '000 m ³)	(in '000 m ³)	$(in '000 m^3)$	(in '000 m ³)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m ³)
Jan	0.04	0	0	0	0.04	0	0	0	0	0	0.08
Feb	0.01	0	0	0	0.01	0	0	0	0	0	0.05
Mar	0.02	0	0	0	0.02	0	0	0	0	0	0.15
Apr	0.05	0	0	0	0.05	0	0	0	0	0	0.29
May	0.12	0	0	0	0.12	0	0	0	0	0	0.09
June	0.15	0	0	0	0.15	0	0	0	0	0	0.05
Sub-total	0.39	0	0	0	0.39	0	0	0	0.00	0 0	0.71
July	0.27	0	0	0	0.27	0	0	0	0	0	0.11
Aug	0.06	0	0	0	0.06	0	0	0	0	0	0.06
Sept	0.01	0	0	0	0.01	0	0	0	0	0	0.06
Oct	-	-	-	-	-	<u>-</u>	-	-	_	_	_
Nov	-		-	-	-	-	-	-	_	-	_
Dec	440	-	-	-	a.a.	-	-	800	_	_	_
Total	0.73	0	0	0	0.73	0	0	0	0	0	0.94

Notes:

(1)

The performance targets are given in PS Clause 6.14

The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site. (2)

(3)

Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works. Together with a breakdown of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m³.

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

Monthly Summary Waste Flow Table for 2021 (year)

		Actual Quan	tities of Inert C&l	D Materials Genera	ted Monthly			Actual Quantities	of C&D Wastes (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 6)	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste (see Note 5)	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	1.858	0.000	0.000	0.349	1.509	0.000	0.000	0.057	0.006	0.000	0.159
Feb	2.713	0.000	0.023	0.253	2.438	0.000	0.000	0.000	3.472	0.000	0.057
Mar	3.793	0.000	0.143	0.746	2.905	0.000	0.000	0.000	0.210	0.000	0.102
Apr	0.869	0.000	0.000	0.000	0.869	0.000	0.000	0.000	0.238	0.000	0.032
May	1.173	0.000	0.000	0.126	1.047	0.000	0.000	0.055	0.776	0.000	0.027
Jun	1.134	0.000	0.000	0.000	1.134	0.000	0.000	0.000	0.980	0.000	0.034
Sub-total	11.542	0.000	0.165	1.474	9.903	0.000	0.000	0.112	5.682	0.000	0.411
Jul	1.068	0.000	0.000	0.000	1.068	0.000	0.001	0.596	0.239	0.000	0.033
Aug	5.846	0.000	0.000	0.000	5.846	0.000	0.000	0.000	0.308	0.000	0.066
Sep	3.286	0.000	0.000	0.000	3.286	0.000	0.001	0.000	0.008	0.000	0.026
Oct											
Nov											
Dec											
Total	21.742	0.000	0.165	1.474	20.103	0.000	0.002	0.708	6.237	0.000	0.536

Notes:

- (1) The performance targets are given in PS Clause 1.129 (4).
- (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 t/m^3) and inert C&D materials (2 t/m^3).
- (5) Use the conversion factor for chemical waste (0.88kg/L).
- (6) Assume a dump truck delivers 7.5 m³ material in 1 trip.

Contract No.: ED/2020/02

Monthly Summary Waste Flow Table

	Ac	ctual Quantitie	s of Inert C&I	Materials Ge	enerated Mont	hly	Actua	al Quantities o	f C&D Wastes	Generated M	onthly
Month	Total Quantity of Materials 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)	Chemical Waste	Others, e.g. general refuse
	(in '000 m ³)	(in '000 m ³)	(in '000 m ³)	(in '000 m ³)	(in '000 m ³)	(in '000 m ³)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m ³)*
Year 2021											
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sep	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dec	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2021 Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Accumulated Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020

^{*}Remarks: Conversion factor for general refuse, 1 tonne = 2m³

	Rev. No.	6
ED/2019/02 - Environmental Management Plan	Issue Data	30-Sep-2021
Appendices - Appendix 13	Issue Date	30-3eμ-2021

Name of Department : _CEDD ___ Contract No. : __ED/2019/02

Monthly Summary Waste Flow Table for 2021 (year)

,	Annual Quantities of Inert C&D Materials Generated Monthly							Annual Quantities of C&D Materials Generated Monthly							
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 2)	Chemicals Waste	Others, e.g. general refuse				
	(in '000 m ³)	$(in '000 m^3)$	(in '000 m ³)	(in '000 m ³)	(in '000 m ³)	(in '000 m ³)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 m ³)				
Jan															
Feb															
Mar	0	0	0	0	0	0	0	0	0	0	0				
Apr	0	0	0	0	0	0	0	0	0	0	0				
May	0	0	0	0	0	0	0	0	0	0	0.03				
June	0	0	0	0	0	0	0	0	0	0	0.01				
Sub-total	0	0	0	0	0	0	0	0	0	0	0.04				
July	0.01	0	0	0	0.01	0	0	0	0	0	0.02				
Aug	0.04	0	0	0	0.04	0	0	0	0	0	0.10				
Sept	0	0	0	0	0	0	0	0	0	0	0.05				
Oct															
Nov															
Dec															
Total	0.05	0	0	0	0.05	0	0	0	0	0	0.21				

Notes: (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.



Appendix K

Implementation Schedule for Environmental Mitigation Measures (ISEMM)

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



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the measures?	Location of the measure	Implementation Status					
Kei.	-	Concern to Address			Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	Dust Impact (Contracti	on Phase)								
\$4.7.2 to \$4.7.5	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 ² to achieve the respective dust removal efficiencies.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	V	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	V	V	
S4.7.6	Following dust suppression measures should also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • 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; • Any dusty materials remaining after a stockpile is removed should be wet ted with water and cleared from the surface of roads; • A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	@	@	@	@	@	

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



EM&A		Recommended Mitigation Measures	Objectives of the Recommended Who to Measures & Main implement to		Location of the	Implementation Status					
Ref.		Ü	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	•	leaving a construction ion site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; 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; 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 period.									
	•	The port ion of any road leading only to construction ion site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;									
	•	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;									
	•	Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately									

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



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Implementation Status					
Ref.	g .	Concern to measures? Address		measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	prior to, during and immediately after the activities so as to maintain the entire surface wet; • 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; • Any skip hoist for material transport should be totally enclosed by impervious sheeting; • 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; • 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 • 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	Address						7		
	the last construction activity on the construction site or part of the construction site where the exposed earth lies.									
S4.7.7	Implement regular dust monitoring under EM&A programme during the Construction phase.	Control construction airborne noise	Selected Representative	All construction sites where	V	N/A	N/A	N/A	N/A	

CEDD Contract No. NTE/07/2016

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the measures?	Location of the measure	Implementation Status					
	8	Concern to Address			Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
			dust monitoring station	practicable						
	Noise Impact (Contract	tion Phase)								
S5.6.9	 Implement the following good site management practices: only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction ion programme; 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; plant known to emit noise strongly in one direct ion, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction ion equipment should be properly fit ted and maintained during the construction ion works; mobile plant should be sited as far away from NSRs as possible and practicable; and material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction 	Control construction ion airborne noise	Contractor	All construction sites where practicable	@	V	V	V	@	
S5.6.11 to S5.6.13	activities. Use of "Quiet" Plant and Working Methods.	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	V	N/A	N/A	N/A	N/A	
S5.6.14	Install temporary site hoarding (approx 2.5m high) located on the site boundaries between	Reduce the construction ion	Contractor	All construction sites where	V	V	V	*	V	

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	plement the Location of the measure	Implementation Status					
Ref.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	noise levels at low-level zone of NSRs through partial screening.		practicable						
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	N/A	N/A	
S5.6.19	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	N/A	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	N/A	N/A	
S5.6.35	Implement a noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected Representative Noise monitoring stations	V	N/A	V	N/A	N/A	
	Water Quality Impact (Contraction Phase)								
S6.6.3	Construction Runoff In accordance with the Practice Note for Professional Persons on Construction ion Site Drainage, Environmental Protect ion Department , 1994 (ProPECC PN 1/94), best management practices should be implemented as far as practicable as below: • 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	Control construction runoff	Contractor	All construction sites	@	@	@	@	V	



EM&A Ref.	Recommended Mitigation Measures	Measures & Main implement the	Location of the measure	Implementation Status						
Kei.		Ü	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	•	pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. 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 minimize polluted runoff. Sediment at ion tanks with sufficient capacity, constructed from preformed individual cells of approximately 6 to 8 m³ 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. 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. 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								



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the measure	Implementation Status					
Rei.		Ü	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	•	commencement of construction ion. 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. 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 removed regularly and disposed of by spreading evenly over stable, vegetated								
	•	areas. Measures 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 silt removal facilities. All open stockpiles of construction ion materials (for example, aggregates, sand and fill material) of should be covered with tarpaulin or similar fabric during								



EM&A	Recommended Mitigation Measures	Measures & Main implement the		Location of the	Implementation Status						
Ref.	<u> </u>	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5		
	rainstorms. Measures should be taken to prevent the washing away of construction ion materials, soil, silt or debris into any drainage system. • Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction ion materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. • Precautions to be taken at any time of year when rainstorms are likely, act ions to be taken when a rainstorm is imminent or forecasted, and act ions to 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. • 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										



EM&A	Recommended Mitigation Measures	Measures & Main implement the		Location of the measure	Implementation Status						
Ref.	6	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5		
	tracking of soil and silty water to public roads and rains. Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. Construction ion solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. 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. Regular environmental audit on the construction site should be carried out in order to prevent any malpractices. Not ices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the rivers.										
S6.6.6 and 6.6.7	Sewage from Workforce 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	Handling of site sewage	Contractor	All construction sites	V	V	V	V	V		



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Implementation Status						
Kei.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5		
	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 needed. In addition, the total number of the 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. • 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										
S6.6.8 and	required measure <u>Accidental Spillage</u>	Prevention of	Contractor	All construction	@	V	V	*	V		



EM&A	Recommended Mitigation Measures	Measures & Main implement the	Location of the measure	Implementation Status						
Ref.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
6.6.9	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 and 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.	accidental spillage		sites						
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	Minimize contaminated groundwater impacts	Contractor	All construction sites	NA	NA	NA	NA	N/A	



EM&A Ref.	Recommended Mitigation Measures	Objectives of th Recommended Measures & Ma	Who to	Location of the						
Kei.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	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 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 to be recharged shall not be higher than pollutant levels of ambient 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 Management (Co									
S8.5.2	Good Site Practice The following good site practices are	Minimize wa generation dur	ste Contractor ing	All construction sites	V	V	V	V	V	



EM&A	Recommended Mitigation Measures	Measures & Main implement the		Location of the	Implementation Status					
Ref.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	recommended throughout the construction ion activities: 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; training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling; provision of sufficient waste disposal points and regular collect ion for disposal; appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;	construction								
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 waste generation during construction		All construction sites	V	V	V	*	V	
S8.5.3	Waste Reduction Measures Waste reduction is best achieved at the planning and design phase, as well as by ensuring the implementation of good site practices. The	Reduce waste generation	Contractor	All construction sites where practicable	V	V	V	V	V	

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	ementation S	Status			
Ref.	J. Company of the com	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
S8.5.5	following recommendations are proposed to achieve reduction: segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling o materials and their proper disposal; proper storage and site practices to minimize the potential for damage and contamination of construction ion materials; plan and stock construction ion materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable port ions (i.e. soil, broken concrete, metal etc.); provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling. Storage of Waste The following recommendation should be implemented to minimize the impacts: waste such as soil should be handled and	Minimize waste impacts from storage	Contractor Contractor	All construction sites	V	V	V	V	V
	 stored well to ensure secure containment; stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; different locations should be designated to stockpile each material to enhance reuse; 								
S8.5.6	Collection and Transportation of Waste	Minimize waste	Contractor	All construction	V	@	V	V	@

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	implement the	Location of the measure	Implementation Status						
Ref.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5		
	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.	impacts from storage		sites							
S8.5.8	Excavated and C&D Material Wherever practicable, C&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&D materials: • maintain temporary stockpiles and reuse excavated fill material for backfilling; • carry out on-site sorting; • make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • implement a recording system for the amount of waste generated, recycled and disposed of for checking; The recommended C&D materials handling should include: • On-site sorting of C&D materials • Reuse of C&D materials • Use of Standard Formwork and Planning of Construction Materials purchasing • Provision of wheel wash facilities	Minimize waste impacts from excavated and C&D materials	Contractor	All construction sites	V	V	V	V	V		



EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Measures & Main Measures & Main Measures & Main	Location of the measure	Implementation Status						
Ref.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
S8.5.15	Contaminated Soil As a precaution, it is recommended that standard good site practice should be 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.	Remediate contaminated soil	Contractor	All construction sites where applicable	V	V	N/A	N/A	N/A	
S8.5.17	Chemical Waste 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.	Control the chemical waste and ensure proper storage, handling and disposal.	Contractor	All construction sites	@	V	V	@	V	
S8.5.18	General Waste General refuse should be stored in enclosed bins separately from construction and chemical wastes. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collect ion and routine cleaning for these	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	All construction sites	V	V	V	V	V	

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Implementation Status					
Ref.		Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	 areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. 									
S8.5.19	 Sewage The WMP should document the locations and number of portable chemical toilets depending on the number of workers, land availability, site condition and activities. Regularly collect ion by licensed collectors should be arranged to minimize potential environmental impacts. Ecology (Contraction P	Minimize production of sewage impacts	Contractor	All construction sites	V	V	V	V	V	
G 10 7 2			G	NT 1 . C	27/4	37/4	27/4	37/4	37/4	
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 / horticulturist / Certified Arborist to supervise the planting).	Northern part of the proposed Quarry Park.	N/A	N/A	N/A	N/A	N/A	
.10.7.10	Construction phase in situ mitigation measures to minimize impacts on hydrological condition and water quality of hillside watercourses include: • Temporary sewerage and drainage will be designed and installed to collect wastewater and prevent it from entering nearby watercourses; • Proper locations well away from nearby watercourses will be used for temporary storage of materials (i.e. equipment, fill materials, chemicals and fuel) and	Minimize impacts on Hydrological condition and water quality of hillside watercourses.	Contractor	All construction sites	V	N/A	V	N/A	N/A	



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Implementation Status						
Ref.	ū	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5		
	temporary stockpile of construction debris and spoil, and these will be identified before commencement of works; To prevent muddy water entering nearby watercourses, work sites close to nearby watercourses will be isolated, using such items as sandbags or silt curtains with lead edge at bot tom and properly supported props. Other protective measures will also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the works site; Stockpiling of construction materials, if necessary, will be properly covered and located away from nearby watercourses; Erection of temporary geotextile silt fences will be carried out around earth-moving works to trap any sediments and prevent them from entering watercourses; Construction debris and spoil will be covered and/or properly disposed as soon as possible to avoid being washed into nearby watercourses; Exposed soil will be covered as quickly as possible following format ion works, followed, where appropriate, by covering with biodegradable geotextile blanket for erosion control purposes; Where appropriate, earth-bunding will be carried out of areas where soils have been disturbed or where vegetation has been	Address			1	2	3	4			
	cleared, to ensure that surface runoff will not move soils off-site; Construction ion effluent, site run-off and										

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the measures?	Location of the	Implementation Status					
Ref.	J. Company of the com	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5	
	sewage will be probably collected and/or treated. Wastewater from any construction ion site will be minimised via the following in descending order: reuse, recycling and treatment; Proper locations for discharge out lets of wastewater treatment facilities well away from sensitive receivers will be identified and used; Silt traps will be installed at points where drainage from the site enters local watercourses; Appropriate sanitary facilities for on-site workers will be provided; The site boundary will be clearly marked and any works beyond the boundary strictly prohibited, and Regular water monitoring and site audit will be carried out at suitable points. If the monitoring and audit results show that pollution occurs, adequate measures including temporary cessation of works will be considered.									
S.10.7.11	Implement an emergency contingency plan during the construction phase and the plan will include, but not be limited to, the following: • Potential emergency situations; • Chemicals or hazardous materials used on-site (and their location); • Emergency response team; • Emergency response procedures; • List of emergency telephone hot lines; • Locations and types of emergency response equipment, and	Minimize impacts on Hydrological condition and water quality of hillside watercourses.	Contractor	All construction sites	N/A	N/A	N/A	N/A	N/A	

Environmental Team for Development of Anderson Road Quarry Site – Site Formation and Associated Infrastructure Works



Quarterly EM&A Summary Report (July to September 2021)

EM&A	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main	Who to implement the	Location of the	Implementation Status				
Ref.	O Company of the comp	Concern to Address	measures?	measure	Contract 1	Contract 2	Contract 3	Contract 4	Contract 5
	Training plan and testing for effectiveness.								
	Landscape and visual (
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	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 LAO GN No. 7/2007, ETWB TCW No. 29/2004 and 10/2013. 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	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	N/A	N/A
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	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	N/A	N/A

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

Environmental Team for Development of Anderson Road Quarry Site – Site AUES
Formation and Associated Infrastructure Works



Quarterly EM&A Summary Report (July to September 2021)

Appendix L

Complaint Log

Environmental Team for Development of Anderson Road Quarry Site – Site AUES
Formation and Associated Infrastructure Works



Quarterly EM&A Summary Report (July to September 2021)

Appendix L1 **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	2	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
March 2019	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
May 2020	1	0
June 2020	1	0
July 2020	0	0
August 2020	0	0
September 2020	0	0
October 2020	0	0
November 2020	1	0
December 2020	2	0

Environmental Team for Development of Anderson Road Quarry Site – Site AUES
Formation and Associated Infrastructure Works



January 2021	1	0
February 2021	0	0
March 2021	2	0
April 2021	1	0
May 2021	0	0
June 2021	1	0
July 2021	1	0
August 2021	0	0
September 2021	2	0
Overall Total	70	0



Appendix L2 **Complaint Log** According the incident report conducted by the CWSTVJV, A resident living in On Tat demobilization of crawler crane Reside Cons House reported that some night was undertaken on 23 March 2017 nt of no comment by TCS00864 tructi SPRO works with noise and flashing 11pm and it is TD requirement to 23-Mar 8-Jun-On Tat NA IEC on 11 Oct /16/300/F0 On hotline carry out demobilization of heavy -17 17 Estate on caused nuisance to nearby 087 Tat 2017 noise resident after 11:00 pm on 23 machine at nighttime. It is Estate considered this complaint was a March 2017. single incident and would not be happened again in future. Noise monitoring by Contractor was conducted in Yin Tat House, On Tat Estate, at around 2 pm on 38/F of Mr. Hsu received a complaint 28-Jul-2017. Another noise Yin Tat | Reside | from a resident living in the flat monitoring was carried out by ET Cons House nt of (AUES) and representatives of no comment by TCS00864 on 38/F of Yin Tat House (賢達 28-Jul tructi SPRO 28-Julhotline NA (賢達 On AECOM and JV in the presence of IEC on 9 Aug/16/300/F0 17 -17 on 樓), On Tat Estate. The resident 樓), On Tat the complainant in her flat at 10 am 2017 060 noise Estate on 1-Aug-2017 and was witnessed complained about the noise level Tat by Mr. Hsu. No exceedance of of our works during daytime. Estate noise was recorded. The complainant was satisfied about the monitoring results. Mr. Hsu Yau Wai (Tel no.9519) Noise monitoring was carried out 5663) reported that he received by ET (AUES) and representatives Reside Cons complaint from a resident (Ms of AECOM and JV in the presence Shing no comment by TCS00864 nt of 29-Aug | 29-Au | Tat tructi SPRO Cheng) living at Shing Tat of the complainant in her flat at hotline NA On IEC on 8 Sep /16/300/F0 3pm on 30-Aug-2017. No House 24/F Room 22 about the -17 g-17 House on Tat 2017 081 noise noise generated from our site exceedance of noise was recorded. 24/F Estate this week. The noise heard was The complainant was satisfied mainly rock breaking noise from about the monitoring results.



								our site.		
4	2 1	g-17	Po Tat	Reside nt of Po Tat Estate	tructi on	EPD		day time construciton noise of breakers (8am to 6pm)	Since these two complaints were forwarded by CEDD to ET on 31 August 2017 which way after the complaint dates. Investigation would be conducted based on the site information by the Contractor	TCS00864 /16/300/F0 093
5	22	g-17	Po Tat	nt of Po Tat Estate	Cons tructi	EDD	(rei. N08/R	Day time construction noise of breakers (8AM to 6PM). Requested to delay the operating hour of breakers to 10AM or 11AM	of Contract 1 - NE/2016/01 (CWSTVJV) as well as the observation during weekly site inspection carried out ET during June 2017. In our investigation, 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.	TCS00864 /16/300/F0 093



66	5-Jul- 7	29-Au g-17	House, Po Tat	Reside nt of Po Tat Estate	tructi on	EPD	EPD (ref.N 08/RE /00022 479-1 7)	Construction noise	requirement. To eliminate the inconvenience caused to the nearby resident, CWSTVJV was advised to further enhance the noise mitigation measures as appropriately.		
7			Anderso n Road	unkno wn	Dust	EPD	1/1 1/1 1/1 1/2	Poor control on dust emission at Anderson Road Construction Site	nearby resident and status of the	no comment by IEC on 15 Nov 2017	
8	2-Aug- 7	29-Au g-17	Tat House, On Tat	Reside nt of On Tat Estate	Cons	EPD		Day time construction noise of breakers (8AM to 6PM)	However, to eliminate the	no comment by IEC on 15 Nov 2017	



									project did not breach the Noise Control Ordinance.		
9	19-Sep- 17	19-Se p-17	Mau Ping Estate Sau Nga	Sau Mau	Cons tructi	SPRO hotline		The complainant is living at Sau Mau Ping Estate Sau Nga House (秀雅樓) 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. (Photo 1 & 2) During the course of noise measurement, construction activities such as excavation and breaking were conducted in the Quarry Site. The measurement results taken at both 秀雅樓 and 秀義樓 were 63dB(A) which below the Limit Level under the EM&A Programme.	no comment by IEC on 18 Oct 2017	TCS00864 /16/300/F0 088
10	21-Sep- 17	13-Oct	Ping Estate Sau Nga	Sau Mau Ping	Cons tructi on noise	EPD	08/RE /00031 074-1	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	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. (Photo 1 & 2) During the course of noise measurement, construction activities such as excavation and breaking were		TCS00864 /16/300/F0 088



				House						conducted in the Quarry Site. The measurement results taken at both 秀雅樓 and 秀義樓 were 63dB(A) which below the Limit Level under the EM&A Programme.		
1		7-Sep- 7	13-Oct -17	House, On Tat	On Tat	terroti	EPD	08/RE /00029 489-1	why there were 6 to 7 breakers operating in the monring 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, there were no breaches of EM&A		TCS00864 /16/300/F0 106
1	2 3 7	-Oct-1	13-Oct -17	Tat House, On Tat	nt of On Tat	Cons	EPD	EPD (ref. N08/R E/000 32407 -17)	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 pear future.	nearby resident CWSTVIV should	IEC on 30 Nov	TCS00864 /16/300/F0 106
1	4	5-Oct- 2	26-Oct -17	House,	Reside nt 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		no comment by IEC on 15 Nov 2017	



									inspection on 31 October 2017, CWSTVJV was advised to enhance the dust mitigation measures particularly during dry season.		
14	6-Nov- 17	7-Nov -17	Tat House, On Tat	Reside nt of On Tat Estate	Nois e	EPD		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 到滋擾。	Programme. CWSTVJV has implemented noise mitigation	no comment by IEC on 30 Nov 2017	
15	13-Nov -17	v-17	House,	Mr. Lam Wai	light pollu tion and noise	SPRO hotline	NA	1. 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。 2. 隔音布未固定,大風吹過發出極大的聲浪		no comment by IEC on 24 Nov 2017	



10	1-Nov- 17		House		Nois	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。	Sning 1 at House. 10 ennance the	no comment by IEC on 13 Dec 2017	
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177	25-Aug -17	26-Oct -17	Sau Mau Ping	Sau	tructi			Night time construction noise of hammering (around 12AM)	significant noise. Moreover, 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	
18	12-Sep- 17	26-Oct -17	Tat House, On Tat	On	tructi on Nois	EDD		Day time construction noise of breakers (8AM to 5PM)	201/, there were no breaches of EM& A requirement. Since the	IEC on 10 Jan	TCS00864 /16/300/F0 117
19			Sau Yee	nt oi	Cons tructi on	EPD	NA	Resident of Sau Yee House complained suspected	It is confirmed by CWSTVJV and checked against the site diary that	IEC on 10 Jan	TCS00864 /16/300/F0 118



				Mau Ping Estate	Nois e			Anderson Construction Site at 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.		
20			On Tat Estate	Reside nt of On Tat Estate	Dust	EPD	NA	Resident of On Tat Estate complained that the traffic of construction vehicles generated dust problem and arouse air pollution to On Tat Estate. 投訴安達臣道信和地盤水車已經壞了十多天,一直無灑水,四周非常大塵。 投訴人住於安達邨,投訴安達臣道石礦場有大地盤,地盤大車工作時間不快出入揚起沙塵,吹到安達邨,影響空氣環境,要求部門到場視察。	no comment by IEC on 25 Jan 2018	TCS00864/ 16/300/F01 21
21	28-Dec -17	10-Jan -18		Reside nt of Sau Mau Ping Estate	tructi	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* Thomas 先生表示居於秀茂坪邨秀義樓,指附近的安達臣道一個由土木工程拓展署管轄的石礦場不時於非允許時段(即晚上七時後至翌日早上)發出疑似打地基的轟轟聲巨響,最近一次就是今早(28/12)凌晨五時多再次聽到石礦場傳來聲響,將 Thomas 先生吵醒,懷疑有人刻意在無人監管下施工,	no comment by IEC on 8 Feb 2018	TCS00864/ 16/300/F01 29



								更表示曾向環保署及土木工程 署作出投訴,但環保署表示巡查後無發現在非允許時段有工程進行,而土木工程署則表示晚上七時後不會再進行工程。 Thomas 指石礦場經常在晚上八至十二時,或凌晨時份發出巨響,對附近居民已造成很大的滋擾,要求相關部門儘快作出跟進及回覆。		
22	15-Jan- 18	15-Jan -18	Chun Tat House	Reside nt of Chun Tat House of On Tat Estate, 40/F	Cons	SPRO mobile	NA	CWSTVJV has implemented noise mitigation measures to reduce the noise impact to the nearby resident. She is irritated by the construction 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 mitigation measures because our site is very close to the residents nearby. CWSTVJV has implemented noise mitigation measures of 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/ 16/300/F01 30



23	1-Feb-1 8	2-Feb- 18	Chi Tai House of On	Tai Estate	Cons tructi on Nois e	SDDO	NA	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 Feb 2018	TCS00864/ 16/300/F01 37
24	1-Feb-1 8	2-Feb- 18	Simig	Reside nt of Shing Tat House (referr ed by Mr. Hsu Yau Wai)	Cons tructi on Nois e	SPRO hotline	NA	AECOM has liaised with Mr. Hsu on 2 February 2018 for the complaint matter and he reported AECOM that the noise was generated until 7:00 pm on 1 Mr. Hsu reported that some disturbing noise was heard after Contractor of Contract 1, breaking works at USRT area which opposite to Shing Tat House was only carried out from 8:00 to 18:0 However, rock breaking at System A was extended to 19:00 on 1 February 2018. As noise mitigation measures, noise barrier	no comment by IEC on 28 Feb 2018	TCS00864/ 16/300/F01 40



								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.		
2	5 28-Fe	o- 28-Fe b-18	Shing Tat House of On Tat Estate	Shing	tructi on Nois	EPD	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,他亦要求知道何日 完工.	recident it was advised that the	no comment by IEC on 19 Mar	TCS00864 /16/300/F0 143



266	11-Apr- 18	12-Ap r-18	of On Tat	Reside nt of Him Tat House	tructi on Nois	SPRO mobile	NA	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 Mr. Hui Yau Wai reported that provide the noise mitigation measures at works area in System B becoming more severe recently and asked about the completion date of the works close to Him Tat House. The resident suspected that the noise comes from piling works nearby. 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 /16/300/F0 160b
27	25-Apr- 18	-18	Kwong Street and Hiu Ming	but name	tructi on Nois e	EPD	IIV A	This case is considered as an enquiry and no investigation is Programme.	required under	the EM&A



Î			ed						
2	8 18-M -18	Iay 24-Ma y-18		Cons tructi on Nois e	EPD		見到有長臂喉工程車在運作, construction work using Powered	•	TCS00864 /16/300/F0 174b
2	9 25-Ju 18	ın- 19-Jul -18	Tong DC	agem	CEDD	NA	slope (GLA-TNK 2458) near commenced and the dead leaves	no comment by IEC on 24 Sep 2018	TCS00864 /16/300/F0 189b



30	22-Aug -18	29-Au σ-18	Hong Wah Court	Reside nt of Hong Wah Court	tructi	Hotlin	NA	to reduce the inconvenience caused to the nearby resident, Kwan On should properly maintain the noise 電 1823 熱線投訴,指馬游塘區 堆填區往將軍澳方向行車入口 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。 broke 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 Sep 2018	TCS00864 /16/300/F0 196a
31	28-Aug -18	31-Jul	Anderso n Road Quarry Site		Cons tructi on Nois e	EPD	NA	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 /16/300/F0 197a



32	6-Sep-1 8	7-Sep- 18	Tsui Yeung House	Reside nt of Tsui Yeung House	tructi on Nois	Verbal		mitinois As a brea com Mr. CHENG Keung-fung 201 complained that the contractor will has conducted the noisy works durisuch as rock excavation beyond the normal hours. carriage hou wer non con proj	uring slope construction work and e slope construction will be arried out within the working ours at Portion 2. Since the works ere carried out within the on-restricted hours, it is onsidered that the works under the roject did not breach the Noise ontrol Ordinance.	IEC on 22 Oct	TCS00864 /16/300/F0 201
33	24-Oct- 18	25-Oct -18	E3	Kwun Tong DC memb er Ms. So Lai-ch un	on Nois	Whats app Messa ge	NA	acorbrea Oct new inst KTDC member, Ms. Ann So, imn complaining the noise of the breaker at E3 tent leve 201 will duri the		IEC on 23 Nov	TCS00864 /16/300/F0 209a



						hours at Portion 2. It is considered the complaint was an isolate case.		
34	12-Nov -18	Anderso n Road Quarry Site		SPRO Hotlin	NA	The SPRO contacted Mr. Hiu and explained to him about the purpose and benefits of the tunnel to the residents nearby and the 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 communication. Mr. Hiu satisfied with the reply from SPRO and he agreed that the proposed noise monitoring in Ching Tat House was not needed. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no breaches of legislative requirement.	no comment by IEC on 12 Dec 2018	TCS00864 /16/300/F0 222a



35	14-Nov -18	Anderso n Road Quarry Site		Light and Nois e		NA	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 considered that complaint for noise generated by machine moving was an isolated case. 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 3 Jan 2019	TCS00864 /16/300/F0 223a
36	13-Nov -18	Anderso n Road Quarry Site	Undis closed	Nois e and dust	1823	NA	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 /16/300/F0 224



37	9-Dec- 18	Anderso n Road Quarry Site	Undis closed	Cons tructi on noise	1823	2-492 79073 05	project site on Sunday and was fully compliance with the CNP	no comment by IEC on 10 Jan 2019	TCS00864 /16/300/F0 230a
38	19-Dec -18	Anderso n Road Quarry Site	Undis closed	Cons tructi on noise			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 affecting the resident at Ming Tai House, On Tai Estate. The complainant requested follow up actions from related department as soon as possible. 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 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	no comment by IEC on 31 Jan 2019	TCS00864 /16/300/F0 237a



									project did not breach the Noise Control Ordinance.		
3	u	29-Jan -19	Anderso n Road Quarry Site	Undis closed	wast ewat	Referr ed 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 nearby Public Stormwater Drainage System.	accumulated over time particularly	IEC on 29 Mar 2019	TCS00864 /16/300/F0 248a
4	()	30-Jan -19	Anderso n Road Quarry Site	Undis closed	noise	SPRO hotline	NA	2019 regarding the construction noise near Ma Yau Tong Village	had provided the noise mitigation	IEC on 15 Mar	TCS00864 /16/300/F0 249a



								† † † † † † † † † † † † † † † † † † †	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.		
4	15-Fe 19	o- 25-Fe b-19	Anderso n Road Quarry Site	TT 1.	noise	1823	2-494 80741 27	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	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	no comment by IEC on 29 Mar 2019	TCS00864 /16/300/F0 251a
42	21-Fe		Anderso en Road Quarry Site		noise	EPD	NA	noise coming from the site. With the echo produces from the penvironment, this is not helping at all. Really a big disturbance of	has implemented noise mitigation measures to reduce the noise impact to the nearby resident. However, to eliminate the inconvenience caused to the nearby resident, CWSTVJV should	no comment by IEC on 28 Mar 2019	TCS00864 /16/300/F0 250



									sound proof measure has lessen as time goes. Follow action is requested.	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.erway by ET.	
4	3 21	1-Feb- 19	26-Fe b-19	Anderso n Road Quarry Site	Undis	noise	receiv ed by DEVB and referre d to CEDD	NA	A public complaint was received by 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 residing at the Anderson Road Squatter Area	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	TCS00864 /16/300/F0 252a



44	1-Mar- 19	- 26-Fe 0 b-19	('ontrac	Undis	noise	CEDD	NA	A complaint is forwarded by CEDD 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 excavation of E3 lift tower. Follow up action is requested.	rapid response from CEDD and the	IEC on 6 May	TCS00864 /16/300/F0 264
45	16-Jun		Anderso n Road Quarry Site		noise	EPD	NA	EPD referred a case to CEDD on on the second of the second	work did not involve the use of	IEC on 21	TCS00864 /16/300/F0 301a



46	12-Jul- 19	15-Jul	Anderso n Road Quarry Site	Undis	dust	EPD	NA	In our investigation, CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident and status of implementation of dust mitigation measures was considered effective based on the site observation. Moreover, there was mostly rainy day throughout June and July 2019 in typical rainy season in Hong Kong and the dust impact was considered not significant in addition to the dust mitigation measures implemented provided by the Contractor. Nevertheless, the ET will closely monitor the environmental performance and dust mitigation measures in subsequent site inspection. The IR is under reviewed by IEC.	no comment by IEC on 12 August 2019	TCS00864 /16/300/F0 292b
47	6-Aug- 19	14-Au g-19	(Slope of Hiu Ming	(北)邨 物業 服務 辦事 處	Nois e	1823	NA	A public complaint was received In our investigation, Kwan On has by 1823 on 6 August 2019 implemented noise mitigation relating to the noise generated from construction work at the lift tower site (Slope E3) at Hui Nevertheless, since the construction Ming Street from the residents of Tsui Yeung House. The complainant expressed that the complainant expressed that the construction works has been undertaken for 2 years and generated construction noise valid to the contract. As the	IEC on 16 Sep	TCS00864 /16/300/F0 310a



		House)				causing serious nuisance to the nearby residents.	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.		
48	15-Oct- 19		Nois e	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.	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	no comment by IEC on 13 Nov 2019	TCS00864 /16/300/F0 326a



49	5-Nov- 19	11-No v-19	Work Area Portion 2&3 (lift tower construc tion work at Hiu Kwong Street)	NA	Nois e	EPD	NA	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 generated from breaking work of lift tower construction work at Hiu Kwong Street (Portion 2&3). 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 /16/300/F0 332a
50	7-Nov- 19	11-No		Mr. Cheng	Nois e	EPD	NA	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	no comment by	TCS00864 /16/300/F0 333a



							reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme.		
5	10-Nov -19	12-No v-19	Underp ass	Undis	EPD	居民止式評估,並同政府提出村民困擾,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 發出噪音,欠缺遮擋,聲音影響馬游塘村 4-22 號村屋。希望政府部	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 /16/300/F0 337



52	11-Nov -19	v-19	Estate Ancillar y Facilitie	nt of Yung Tai House of On	Nois e	1823	ref. 2-597 63031 83	黃先生投訴安秀道安泰邨服務 設施大樓附近掘路工程已持續 數年還未完成,並投訴其經常 發出噪音滋擾,要求部門跟進。 On 22 November 2019, the project hotline received a call from the same complainant reported on the noise nuisance near On Sau Road and On 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.	no comment by IEC on 27 Dec 2019	TCS00864 /16/300/F0 338a
533	5-Mar- 20	6-Mar -20	Tunnel work of Anderso n Road Quarry Site (the Underp ass)	nt of On	Nois	EPD	NA		no comment by IEC on 1 Apr 2020	TCS00864 /16/300/F0 357a



							recently.		
5	4 4-Mar- 20	17-Ma r-20	Near Hiu Ming Street Playgro und (E8)	Undis	1823	ref. 3-628 32371 71	搜斯人投訴有關秀茂坪邨秀安樓附近有兩個地盤 , 地盤由星期一至五 ,每天早上約9AM-5 PM 持續不斷發出強烈的嘈音,投訴人表示地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 and not construction noise continuously during 9AM to 5PM on weekdays.	no comment by IEC on 15 Apr 2020	TCS00864 /16/300/F0 359a



55	23-Mar -20		Near Lin Tak Road (E11)	Undis closed	Ouol	Projec t 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,令梁先生的車輛每次駛經時被濺濕及弄污,請問有何措施改善問題? A public complaint was received by project hotline on 23 March 2020 regarding 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.	no comment by IEC on 15 Apr 2020	TCS00864 /16/300/F0 360a
56	17-Mar -20	19-Ma	Anderso n Road Quarry Site	Reside nt of Yan Tat House		Projec t hotline	NA	許有為區議員接獲安達邨仁達 last implemented noise mitigation 石礦場發展用地工程噪音持續 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 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. 5. Since the works were carried out within the non-restricted hours, it is considered that the works under the	no comment by IEC on 11 May 2020	TCS00864 /16/300/F0 361a



							Control Ordinance.		
57	1-Apr-2 0	•	Undis	1823	NA	被工程噪音滋擾了兩年多;另外投訴人得知完工時間要到2021年,投訴人不明白為何工程頭尾要3年多時間.要求地政總署直接以電郵回覆工程長的原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 nuisance generated from the construction site in Hui Ming Street. The complainant	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.	no comment by IEC on 7 May 2020	TCS00864 /16/300/F0 366a



								from the construction work.			
5	58	11-May -20	12-Ma	Undis	NO1S	Projec t hotline	NA	generated from rock breaking awork from a construction site opposite to Tsui Yeung House, K which affecting his mother's health. The complainant enquired about the completion date of construction work, construction noise level standard and implementation of noise	enhanced the noise mitigation measures to reduce the noise mpact to the nearby resident. Based on the noise measurement result, the construction noise was reduced to acceptable level after the additional noise mitigation measures in place. Nevertheless, Kwan On was reminded to continually implement the noise mitigation measures as far as practicable in the remaining work. The performance of noise mitigation measures will keep in	no comment by IEC on 28 May 2020	TCS00864 /16/300/F0 370a



59	18-Ju	un- 2 20	23-Jun -20	Anderso n Road Quarry Site, System B	Undis	Nois e	EPD	NA	A public complaint was received by EPD on 18 June 2020 regarding the noise generated from rock breaking by machinery before 7pm from construction site near Hau Tat House. The complainant understood that the Contractor could carry out construction works, other than percussive piling, before 7pm under the CNP and hoped that the Contractor could arrange the noisy construction works to be carried out before 6pm. According to the information provided by the complainant, it is suspected complaint location would be Anderson Road Quarry Site, System B.	no comment by IEC on 17 July 2020	TCS00864 /16/300/F0 391a
59		ul- 2 20	24-Jul -20	Anderso n Road Quarry Site near On Tat Estate	Undis	Nois e	EPD	NA	A public complaint was received by EPD on 23 July 2020 regarding the construction noise generated from the use of PME at Anderson Road Quarry Site near On Tat Estate at 6:30am (restricted hours). He/ she requested relevant department to follow up. In our investigation, CWSTVJV had restricted the use of PME before 7am. There was no construction work and use of PME during the restricted hours. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation of legislative requirement. Nevertheless, as the construction site is close to the residential area,	no comment by IEC on 25 August 2020	TCS00864 /16/300/F0 401



									CWSTVJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme		
60	14-Nov -20	V 20	Near Hiu Ming Street Playgro und (E8)	Undis closed		1823	NA	by 1823 on 14 November 2020 regarding the construction noise. The complainant mentioned that there was piling works at Hiu Ming Street Playground, generating huge noise during 9AM to 10AM on 14 November	based on the site activities and our inspection record. Since the works were conducted within approved normal hours with implementation of noise mitigation measures, there were no violation	no comment by IEC on 4 January 2021	TCS00864 /16/300/F0 424
61	4-Dec- 20	7-Dec- 20		Undis closed	Dust	EPD	NA	A public complaint was received by EPD on 4 December 2020 regarding the dust impact. The complainant mentioned that the construction site opposite to On Tai Estate had dust emission problem due to lack of water spraying. He/she requested	In our investigation, CWSTVJV has implemented dust mitigation measures to eliminate the inconvenience caused to the nearby resident. In view of the potential traffic dust impact and implementation of dust mitigation measures, it is considered that the complaint was not valid to the Project	no comment by IEC on 4 January 2021	TCS00864 /16/300/F0 434
62	3-Dec- 20	7-Dec- 20	LV 1Hage	Undis	Nois e and dust	&	3-63/	A public complaint was received by 1823 and EPD on 14 November 2020 regarding the construction dust and noise impact arising from the project.		no comment by IEC on 4 January 2021	TCS00864 /16/300/F0 435



							Portal, however, the complainant enquired about effectiveness of the noise barriers with dozens of 15 cm	enhancement noise measure, the Contractor extended the noise barrier to encircle noisy activity. Since the works were conducted within approved normal hours with implementation of noise and dust mitigation measures, there were no breaches of legislative requirement		
6.	7-Jan-		- System B	Reside nt of Yan Tat House	Projec t hotline	NA	A public complaint was referred by district Councillor Mr. HSU Yau-wai and received by project hotline on 7 January 2021 regarding the construction noise. The complainant mentioned that the construction site next to SKH St. John's Tsang Shiu Tim Primary School generated noise problem and she requested relevant department to follow up.	impact and nuisance to the public.6. Since the works were carried out within the non-restricted hours, it is considered that the works under the	no comment by IEC on 19 July 2021	TCS00864 /16/300/F0 441
6	4 18-Ma	l l	-	Undis closed	1823 & EPD	NA			no comment by IEC on 1 April 2021	TCS00864 /16/300/F0 454



			Tat Estate and On Tai Estate)					Tai Estate. The complainant expressed that construction works of the site started from 6:45am everyday which causing noise disturbance to the nearby	non-compliance of Noise Control Ordinance. Nevertheless, as the construction site is close to the residential area, CWSTVJV was reminded to implement the mitigation measures as far as practicable as recommended in the EM&A Programme		
6	5 1-Apr-2	1-Apr- 21		Undis closed		EPD	NA	A complaint was received by EPD and referred to CEDD on 1 April 2021 regarding the construction noise. The	In our investigation, the Contractor has implemented noise mitigation measures to reduce the noise impact and nuisance to the public. 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	no comment by IEC on 19 July 2021	TCS00864 /16/300/F0 458a
6	5 28-Mai -21	30-Ma	Site (betwee	nt of Tai Fung	Nois e	EPD	E/000	A public complaint was received by EPD on 28 March 2021 regarding the construction noise generated from construction works at Anderson Road Quarry Site until 9pm on Monday to	had followed that CNP for work	no comment by IEC on 22 April 2021	TCS00864 /16/300/F0 459



					Tai Estate				complaint concerned about the construction noise heard on 28 March 2021 which was a Sunday.	been handed over to other contract and construction noise generated from others is not controlled by the project. As a reminder, CWSTVJV should implement the mitigation measures as far as practicable as recommended in the EM&A Programme.		
6	7	11-Jun- 21	11-Jun -21	Anderso n Road Quarry Site	Tat House , On Tai Estate	e	EPD	EPD Ref.: 13208 -21	complainant added that the noise was generated from rock breaking works in front of Chi Tai House (not from the housing sites near the Tai Sheung Tok slope) and no mitigation measure was implemented for the rock breaking works.	CWSTVJV had immediately installed a layer of acoustic barrier at boundary of concern works area. 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 19 July 2021	TCS00864 /16/300/F0 478a
6	\times	20&21/ June/21		Anderso n Road Quarry	DSD	Wate r Qual	EPD	Ref.:	Ü	In our investigation, CWSTVJV had implemented the water quality mitigation measures to minimise	no comment by IEC on 6 August 2021	TCS00864 /16/300/F0 485b



				Site		ity			Lam Road and at the drainage facility near Tin Hau temple.	the impact arising from the construction site. In view of the site condition and inclement weather condition on the complaint days, it is considered that the complaints raised by DSD were unlikely due to the C1 Project. Nevertheless, CWSTVJV was advised to closely monitor the discharge quality to avoid non-compliance of water quality happened in the construction site. Moreover, to cope with the adverse weather condition in wet season, CWSTVJV should regularly review the drainage plan as needed.		
ϵ	559	14&16/ Sep/21	15-Se p- 21	Anderso n Road Quarry Site	DSD	Wate r Qual ity	EPD	NA	EPD received complaints from DSD on 14 Sep 2021 and 16 Sep 2021 concerning about discharge of muddy water as found at the catchpit SCH4003250 near Po Lam Road and catchpit SSH4001400 near Po Tat Tin Hau Temple.	actions were undertaken	no comment by IEC on 6 October 2021	



								not fully contributed byC1 Project. Nevertheless, CWSTVJV was advised to closely monitor the discharge quality to avoid non-compliance of water quality happened in the construction site. Moreover, to cope with the adverse weather condition in wet season, CWSTVJV should regularly review the drainage plan as needed.	
70	23/Sep/ 21	29-Se p-21	Anderso n Road Quarry Site	CEDD & EPD	Nois e	CEDD &EPD	A public complaint was referred by 1823 to both CEDD and EPD on 23 September2021. The complainant stated that the construction works at Anderson Road Quarry Site started before 7am, which generated construction noise and affecting the upper floor resident of On Tat Estate. EPD have contacted the complainant and clarify that the concerned about construction dust and daytime construction noise after 7am.	complainant, and there were other concurrent contracts on Anderson Road Quarry Site and the contribution noise may be related to others. Therefore, it is considered that the poise complaint was	

Complaint in previous months

Complaint in the reporting quarter