



**AUES JOB No.: TCS01137/20**

**TUEN MUN - CHEK LAP KOK LINK  
CONTRACT NO. HMWSD 2/2020 (HY) –  
ESTABLISHMENT OF LANDSCAPE SOFTWORKS FOR  
THE TUEN MUN - CHEK LAP KOK LINK**

**6<sup>TH</sup> MONTHLY ENVIRONMENTAL MONITORING AND  
AUDIT (EM&A) REPORT – SEPTEMBER 2021**

PREPARED FOR  
**HONG KONG LANDSCAPING CO., LTD.**

<b>Date</b>	<b>Reference No.</b>	<b>Prepared By</b>	<b>Certified By</b>
30 March 2022	TCS01137/20/600/R0011v2	 Martin Li (Environmental Consultant)	 Ben Tam (Environmental Team Leader)

<b>Version</b>	<b>Date</b>	<b>Remarks</b>
1	29 October 2021	First Submission
2	30 March 2022	Amended according to the IEC's comment on 30 March 2022

Our Ref: TCS01137/20/300/L0026

**AECOM**

8/F Grand Central Plaza  
Tower 2, 138 Shatin Rural Committee Road  
Shatin

**Attn: Mr. K P Wong**

**6 April 2022**  
By Email

Dear Sir,

**Re: Contract No. HMWSD 2/2020 (HY)**  
**Establishment of Landscape Softworks for the Tuen Mun - Chek Lap Kok Link**  
**Environmental Permit No.: EP-354/2009/D**  
**6<sup>th</sup> Monthly Environmental Monitoring and Audit (EM&A) Report – September 2021**

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We write to certify the 6<sup>th</sup> Monthly Environmental Monitoring and Audit (EM&A) Report –September 2021 (TCS01137/20/600/R0011v2) in accordance with Condition 4.4 of the Environmental Permit no. EP-354/2009/D.

Should you have any queries or require further information, please feel free to contact us or the undersigned at Tel: 2959-6059 or Fax: 2959-6079.

Yours sincerely,  
For and on Behalf of  
**Action-United Environmental Services & Consulting (AUES)**



Ben Tam  
Environmental Team Leader

c.c.	Ramboll (IEC)	Mr. Brian Tam	By email
	Hong Kong Landscaping Co., Ltd	Mr. S.C. Wong	By email
	(Contractor)		

By Fax (2293 6300) and By Post

AECOM Asia Co. Ltd.  
Supervising Officer Representative's Office  
No. 8 Mong Fat Street, Tuen Mun,  
New Territories, Hong Kong

Attention: Mr. K P Wong

Dear Sir,

**Re: Agreement No. CE 48/2011 (EP)  
Environmental Project Office for the  
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and  
Tuen Mun-Chek Lap Kok Link – Investigation**

**Contract No. HMWSD 2/2020 (HY)  
Establishment of Landscape Softworks for the Tuen Mun – Chek Lap Kok Link  
Environmental Permit No.: EP-354/2009/D  
6<sup>th</sup> Monthly EM&A Report for September 2021 (EP-354/2009/D)**

Reference is made to the Environmental Team's submission of the Monthly EM&A Report for September 2021 (ET's ref.: "TCS01137/20/600/R0011v2" dated 30 March 2022) certified by ET Leader and provided to us via e-mail on 30 March 2022.

Please be informed that we have no adverse comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 4.4 of EP-354/2009/D.

Thank you very much for your attention and please feel free to contact the undersigned or the ENPO Leader, Mr. Y H Hui, should you require further information.

Yours faithfully,  
For and on behalf of  
Ramboll Hong Kong Limited



Brian Tam  
Independent Environmental Checker  
Tuen Mun – Chek Lap Kok Link

c.c.

HyD	Attn.: Mr. Stephen Wong	(By Fax: 3188 6614)
HyD	Attn.: Mr. Tony Wong	(By Fax: 3188 6614)
AUES	Attn.: Mr. Ben Tam	(By Fax: 2959 6079)
HKL	Attn.: Mr. S C Wong	(By Fax: 2385 7911)

### EXECUTIVE SUMMARY

ES01 This is the 6<sup>th</sup> Monthly EM&A Report presenting the monitoring results and inspection findings under the Contract HMWSD 2/2020 (HY) for the period from 1 to 30 September 2021 (hereinafter ‘the Reporting Period’).

### SUMMARY OF EM&A ACTIVITIES FOR THE REPORTING PERIOD

ES02 The EM&A activities conducted in the Reporting Period under this Contract are summary in below:-

- Landscape & Visual Monitoring (Establishment period) – **0 events**

ES03 The Establishment Period monitoring once per three months for planting works was commenced on 1 June 2020 for the planting area under the contract HY/2012/07 & HY/2013/12 and commenced on 1 February 2021 for the planting area under the contract HY/2017/10 according to the EM&A manual requirement. No establishment period inspection was undertaken by this Contract during this reporting period, but **one** establishment period inspection was undertaken by the ET of Contract HY/2017/10 in this reporting period for the planting area under HY/2017/10.

### ENVIRONMENTAL COMPLAINT

ES04 In the Reporting Period, no environmental complaint was received.

ES05 The statistical summary of environmental complaints is summarized in the following table.

Reporting Period	Environmental Complaint Statistics	
	Frequency	Cumulative
Since the Contract commencement	0	0
September 2021	0	0

### NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES06 No environmental summons or successful prosecutions were recorded in the Reporting Period.

### REPORTING CHANGE

ES07 No reporting changes were made in the Reporting Period.

### FUTURE KEY ISSUES

ES08 The Project TM-CLKL had been commissioning at the end of 2020 and the major construction works under the Project had been completed at the end of March 2021. According to the Project EM&A Manual requirement, operational phase EM&A works will be undertaken for a period of two years after the commission of the project

ES09 According to the Project EM&A Manual requirement, monitoring for the planting works at a frequency of 3 months interval during the 24-month establishment period is required to make sure the establishment planting works is complied with EMIS requirement, and during the 12-month establishment period, the maintenance operations must be supervised by fully qualified Landscape Resident Site Staff (Registered Landscape Architect or Professional Member of the Hong Kong Institute of Landscape Architects). Subsequent to the 12-month establishment period supervised by the qualified Landscape Resident Site Staff, the supervision from the 13<sup>th</sup> to the 24<sup>th</sup> month would be continued by other members of the Project.

ES10 According to the contract arrangement, the establishment planting area under the Contract HY/2012/07 Zone 1, 3 & 4 and the Contract HY/2013/12 were handover to this contract from December 2020 and June 2021 separately. For the establishment planting area under the Contract HY/2012/07 Zone 2, it was handed over to the ET of Contact HY/2017/10. Therefore, the establishment planting inspection and maintenance works for the establishment planting area under the Contract HY/2012/07 Zone 1, 3 & 4 and the Contract HY/2013/12 responded from this Contract was commenced from December 2020 and June 2021.

## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	PROJECT BACKGROUND	1
1.2	REPORT STRUCTURE	1
1.3	CONTRACT ORGANIZATION	1
<b>2</b>	<b>SUMMARY OF MONITORING REQUIREMENTS UNDER THE CONTRACT</b>	<b>2</b>
2.1	GENERAL	2
2.2	ENVIRONMENTAL ASPECTS	2
2.3	MONITORING SCHEDULE	4
<b>3</b>	<b>LANDSCAPE AND VISUAL</b>	<b>5</b>
3.1	GENERAL	5
<b>4</b>	<b>ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE</b>	<b>6</b>
4.1	ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION	6
<b>5</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b>	<b>7</b>
5.1	CONCLUSIONS	7

**LIST OF TABLES**

TABLE 2-1	SUMMARY OF ESTABLISHMENT INSPECTION FOR THE PROJECT
TABLE 3-1	DETAILS OF ESTABLISHMENT INSPECTION FOR THE PROJECT DURING THE REPORTING PERIOD
TABLE 4-1	STATISTICAL SUMMARY OF ENVIRONMENTAL COMPLAINTS
TABLE 4-2	STATISTICAL SUMMARY OF ENVIRONMENTAL SUMMONS
TABLE 4-3	STATISTICAL SUMMARY OF ENVIRONMENTAL PROSECUTION

**LIST OF APPENDICES**

APPENDIX A	PROJECT LAYOUT PLAN
APPENDIX B	LAYOUT PLAN OF THE CONTRACT
APPENDIX C	ORGANIZATION OF THE CONTRACT
APPENDIX D	EVENT AND ACTION PLAN
APPENDIX E	MONITORING SCHEDULE
APPENDIX F	CHECKLIST FOR ESTABLISHMENT WORKS MONITORING
APPENDIX G	ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURES IMPLEMENTATION SCHEDULE (EMIS)
APPENDIX H	CUMULATIVE STATISTICS ON EXCEEDANCE AND COMPLAINT

## 1 INTRODUCTION

### 1.1 PROJECT BACKGROUND

- 1.1.1 According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated increase in cross boundary traffic, developments in the Northwest New Territories (NWNT), and possible developments in North Lantau, including the Airport developments, the Lantau Logistics Park (LLP) and the Hong Kong – Zhuhai – Macao Bridge (HZMB). In order to cope with the anticipated traffic demand, two new road sections between NWNT and North Lantau – Tuen Mun – Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB) are proposed.
- 1.1.2 Hong Kong Landscaping Co., Ltd. (hereafter “HKL”) is commissioned by the Highways Department (HyD) as the Main Contractor of the Contract No. HMWSD 2/2020 (HY) – Establishment of Landscape Softworks for the Tuen Mun - Chek Lap Kok Link ((hereafter “the Contract”) and this Contract is part of the Tuen Mun – Chek Lap Kok Link (TM-CLK Link Project). TM-CLK Link Project is a Designated Project under Environmental Permit number EP-354/2009/D issued on 13 March 2015. The layout Plan of the Project and the Contract are showed in [Appendix A and B](#) respectively.
- 1.1.3 The construction works of the Contract mainly include:-
- Maintenance the approx. 33ha planting area of the Project during the establishment period.
- 1.1.4 The TM-CLKL had been commissioning at the end of 2020 and the major construction works under the Project had been completed at the end of March 2021. According to the Project EM&A Manual requirement, operational phase EM&A works will be undertaken for a period of two years after the commission of the project.
- 1.1.5 This is 6<sup>th</sup> monthly EM&A report under the Contract HMWSD 2/2020 (HY) presenting the monitoring results and inspection findings for period from **1 to 30 September 2021**.

### 1.2 REPORT STRUCTURE

- 1.2.1 The Monthly Environmental Monitoring and Audit (EM&A) Report is structured into the following sections:-
- Section 1 Introduction*
  - Section 2 Summary of Monitoring Requirements under the Contract*
  - Section 3 Landscape and Visual*
  - Section 4 Environmental Complaints and Non-Compliance*
  - Section 5 Conclusions and Recommendations*

### 1.3 CONTRACT ORGANIZATION

- 1.3.1 The Contract organization and contact details of key personnel are shown in [Appendix C](#).

## 2 SUMMARY OF MONITORING REQUIREMENTS UNDER THE CONTRACT

### 2.1 GENERAL

2.1.1 In accordance with the Project EM&A Manual requirements, the environmental aspects under the Project shall be included air quality, ecological, cultural heritage, landscape and visual, landfill gas and site inspection.

2.1.2 A summary of EM&A requirements under the contract are presented in the sub-sections below. 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 D](#).

### 2.2 ENVIRONMENTAL ASPECTS

#### Air

2.2.1 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No specific EM&A requirement for air quality related to the establishment of landscape softworks was identify.

2.2.2 The scopes of works under this Contract do not involve any of works listed under Section 4.4.1.1 of the approved EIA Report. Vehicles travel under this contract was carried out in paved area. Therefore, fugitive dust emission from the contract would be limited and no unacceptable air quality impact would be expected. No specific mitigation measure and monitoring would be required.

#### Noise

2.2.3 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No unacceptable noise impact would be expected from the contract. No mitigation measure would be required under the approved EIA Report. No specific EM&A requirement for noise impact related to the establishment of landscape softworks was identify.

2.2.4 Most of the works under this contract would be conducted manually, with limited use of PME for delivery material on site and watering the planting area along the road side. Therefore, no unacceptable noise impact would be expected. No specific mitigation measure and monitoring would be required.

#### Water Quality

2.2.5 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No specific EM&A requirement for water quality related to the establishment of landscape softworks was identify.

2.2.6 All planting area under this contract area are land-based, no major discharge would be expected from the establishment planting maintenance works. Therefore, no direct or indirect impact on marine water quality would be expected. No specific mitigation measure and monitoring would be required.

#### Ecology

2.2.7 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No specific EM&A requirement for ecology related to the establishment of landscape softworks was identify.

2.2.8 No site clearance and associated habitat loss would be required under this contract. Moreover, all planting area under this contract area are land-based, no direct or indirect impact on the marine ecology would be expected. Therefore, no specific mitigation measure and monitoring would be required.



### Landscape and Visual

- 2.2.9 Monitoring of the planting works during the 24-month Establishment period after completion of the construction works should be carried out. Establishment Works Inspection should be carried out once every 3 months to make sure the establishment planting works is complied with EMIS requirement. For the planting area under the Contract HY/2012/07, the first 6-month establishment period inspection and maintenance will be taken by the original Contract's ET and the main Contractor under the contract. For another Contract HY/2013/12 and HY/2017/10, the first 12-month establishment period inspection and maintenance will be taken by the original Contract's ET and the main Contractor under the contract. After the first 6 month or year establishment period, the maintenance and inspection works will be handover to the contract HMWSD 2/2020 (HY) except the planting area under the Contract HY/2012/07 Zone 2. The summary of Establishment inspection for the Project is shown in [Table 2-1](#).

**Table 2-1 Summary of Establishment inspection for the Project**

Contract Area	Establishment Monitoring Commenced	Inspection taken under the contract HMWSD 2/2020 (HY)	Next Quarter of Establishment Monitoring
HY/2012/07 (Zone 1, 3 & 4)	June 2020	December 2020	September to November 2021 (6 <sup>th</sup> Quarter)
HY/2012/07 (Zone 2)	June 2020	TBA	September to November 2021 (6 <sup>th</sup> Quarter)
HY/2013/12	June 2020	June 2021	September to November 2021 (6 <sup>th</sup> Quarter)
HY/2017/10	February 2021	TBA	November 2021 to January 2022 (4 <sup>th</sup> Quarter)

### Cultural Heritage

- 2.2.10 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No specific EM&A requirement for cultural heritage related to the establishment of landscape softworks was identify.
- 2.2.11 No major structural or civil work would be conducted under this contract. Moreover, all planting area are set back from the cultural heritage zone Grave G1 more than 10m. Therefore, no cultural heritage impact would be expected under this contract. No mitigation measure and monitoring would be required.

### Landfill Gas

- 2.2.12 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No specific EM&A requirement for landfill gas related to the establishment of landscape softworks was identify.
- 2.2.13 No major excavation work would be conducted under this contract. Only minor hand digging works will be conducted while tree replacement works. Therefore, no landfill gas hazard would be expected under this contract. No mitigation measure and monitoring would be required.

### Waste Management

- 2.2.14 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No specific EM&A requirement for Waste Management related to the establishment of landscape softworks was identify.

2.2.15 All planting area under this contract area are land-based, no dredged sediment, excavated C&D material, C&D waste, chemical waste and sewage would be generated under this Contract. Only limited level of dead plant would be generated from works during maintenance of the planting area and would be easily controlled by standard waste management practice. No specific mitigation measure would be required.

**Inspection and Audit**

2.2.16 According to the Contract nature is maintenance the planting area of the Project during the establishment period in the operational phase. No construction works would be taken under this contract. Moreover, no potential environmental issue had been identified in the previous sections. No regular site inspections would be required.

**2.3 MONITORING SCHEDULE**

2.3.1 The monitoring schedule for landscape & visual for the present reporting period is presented in [Appendix E](#).

### 3 LANDSCAPE AND VISUAL

#### 3.1 GENERAL

- 3.1.1 According to the Project EM&A Manual requirement, monitoring for the planting works at a frequency of 3 months interval during the 24-month establishment period is required to make sure the establishment planting works is complied with EMIS requirement, and during the 12-month establishment period, the maintenance operations must be supervised by fully qualified Landscape Resident Site Staff (Registered Landscape Architect or Professional Member of the Hong Kong Institute of Landscape Architects). Subsequent to the 12-month establishment period supervised by the qualified Landscape Resident Site Staff, the supervision from the 13<sup>th</sup> to the 24<sup>th</sup> month would be continued by other members of the Project. The updated EMIS for the Contract is shown in [Appendix G](#).
- 3.1.2 According to the contract arrangement, the establishment planting area under the Contract HY/2012/07 Zone 1, 3 & 4 and the Contract HY/2013/12 were handover to this contract from December 2020 and June 2021 separately. For the establishment planting area under the Contract HY/2012/07 Zone 2, it was handed over to the ET of Contact HY/2017/10. Therefore, the establishment planting inspection and maintenance works for the establishment planting area under the Contract HY/2012/07 Zone 1, 3 & 4 and the Contract HY/2013/12 responded from this Contract was commenced from December 2020 and June 2021.
- 3.1.3 All the establishment inspection method including checklist and zoning plan under this Contract was follow the methodology prepared by original Contract's ET which approved by EPD
- 3.1.4 In the Reporting Period, **one** establishment period inspection was undertaken for the planting area under the contract HY/2017/10. The details of Establishment inspection for the Project during the reporting period are shown in [Table 3-1](#) and the Establishment inspection checklist is shown in [Appendix F](#).

**Table 3-1 Details of Establishment Inspection for the Project during the Reporting Period**

Planting Area	Respond Party	Quarter of Establishment Monitoring	Inspection Date
HY/2012/07 (Zone 1, 3 & 4)	ET of the Contract HMWSD 2/2020 (HY)	NA	NA
HY/2012/07 (Zone 2)	ET of the Contract HY/2017/10	NA	NA
HY/2013/12	ET of the Contract HMWSD 2/2020 (HY)	NA	NA
HY/2017/10	ET of the Contract HY/2017/10	August to October 2021 (3 <sup>rd</sup> Quarter)	20 & 24 September 2021

#### 4 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

##### 4.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

4.1.1 In the Reporting Period, no environmental complaint, summons and prosecution under the EM&A Programme was lodged.

4.1.2 The statistical summary table of environmental complaint, summons and prosecution are presented in [Tables 4-1, 4-2 and 4-3](#).

**Table 4-1 Statistical Summary of Environmental Complaints**

Reporting Period	Environmental Complaint Statistics					
	Frequency	Cumulative	Complaint Nature			
			Air	Noise	Water	Others
September 2021	0	0	NA	NA	NA	NA

**Table 4-2 Statistical Summary of Environmental Summons**

Reporting Period	Environmental Summons Statistics				
	Frequency	Cumulative	Complaint Nature		
			Air	Noise	Water
September 2021	0	0	NA	NA	NA

**Table 4-3 Statistical Summary of Environmental Prosecution**

Reporting Period	Environmental Prosecution Statistics				
	Frequency	Cumulative	Complaint Nature		
			Air	Noise	Water
September 2021	0	0	NA	NA	NA

4.1.3 In the Reporting Period, no warning letter related to environmental issue was received from the EPD or HyD.

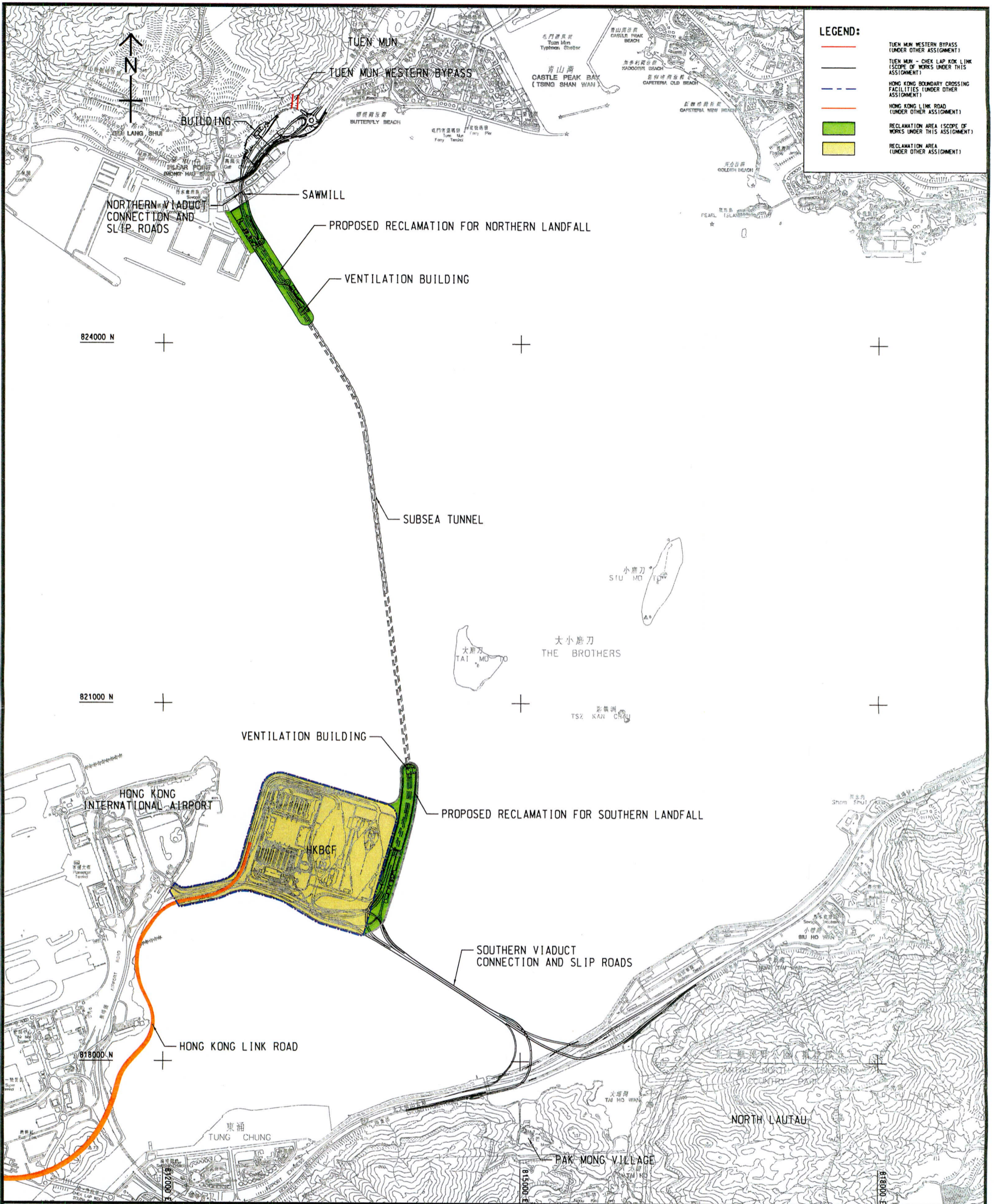
## 5 CONCLUSIONS AND RECOMMENDATIONS

### 5.1 CONCLUSIONS

- 5.1.1 This is 6<sup>th</sup> monthly EM&A report presenting the monitoring results and inspection findings under the Contract HMWSD 2/2020 (HY) for the period of 1 to 30 September 2021.
- 5.1.2 There is no air quality, noise, water quality, ecology, cultural heritage and landfill gas monitoring was required for the contract.
- 5.1.3 The Establishment Period monitoring once per three months for planting works was commenced on 1 June 2020 for the planting area under the contract HY/2012/07 & HY/2013/12 and commenced on 1 February 2021 for the planting area under the contract HY/2017/10 according to the EM&A manual requirement. One establishment period inspection was undertaken during this reporting period for the planting area under the contract HY/2017/10.
- 5.1.4 According to the contract arrangement, the establishment planting area under the Contract HY/2012/07 Zone 1, 3 & 4 and the Contract HY/2013/12 were handover to this contract from December 2020 and June 2021 separately. Therefore, the establishment planting inspection and maintenance works for those areas responded from this Contract was commenced from December 2020 and June 2021.
- 5.1.5 In the Reporting Period, no environmental complaint was received.
- 5.1.6 No notifications of summons, or successful prosecution were received during the Reporting Period.

## **Appendix A**

### **Project Layout Plan**



**Project Title: Tuen Mun - Chek Lap Kok Link**

工程項目名稱: 屯門至赤鱸角連接路

**Project Location**

工程項目位置

(Plan originated from Figure 3.1 of Approved EIA Report reference no.: AEIAR-146/2009)  
(圖則源自已批准的環境影響評估報告編號AEIAR-146/2009圖3.1)

Environmental Protection Department  
環境保護署



Environmental Permit No.: EP-354/2009/D  
環境許可證編號: EP-354/2009/D

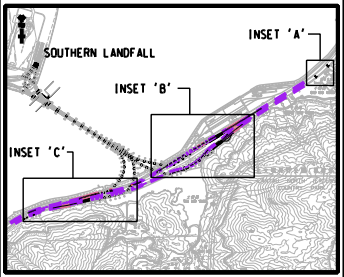
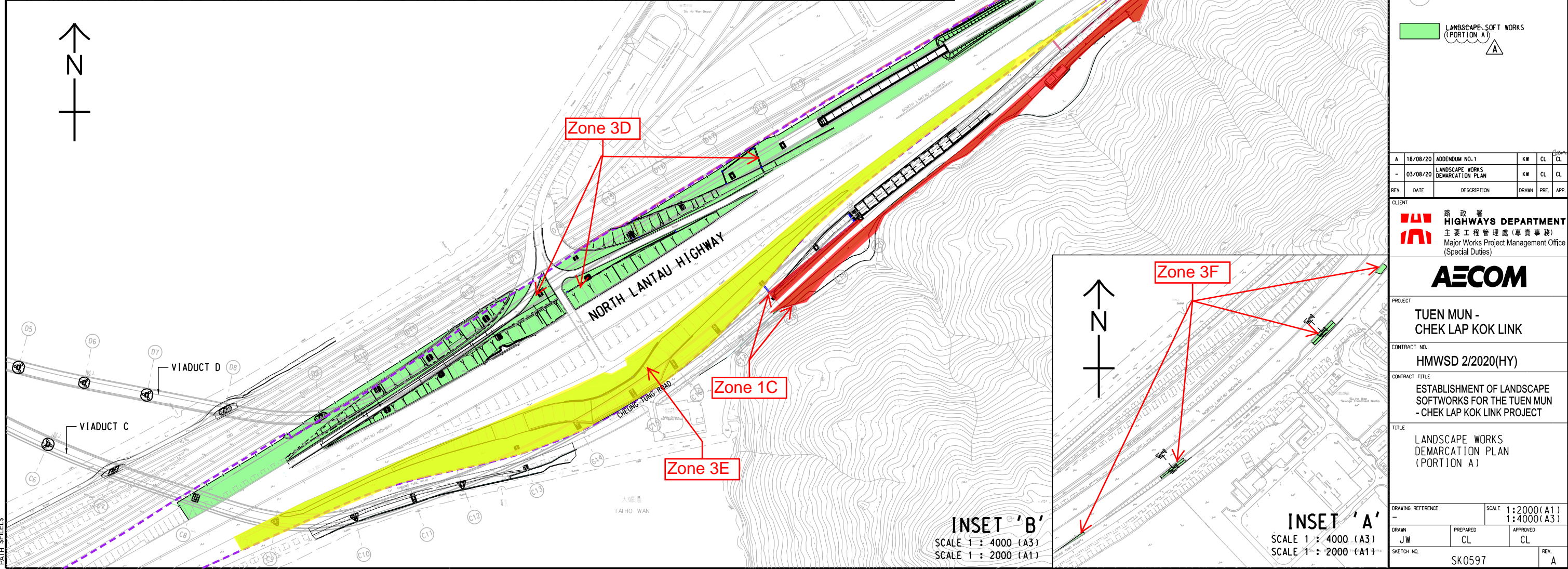
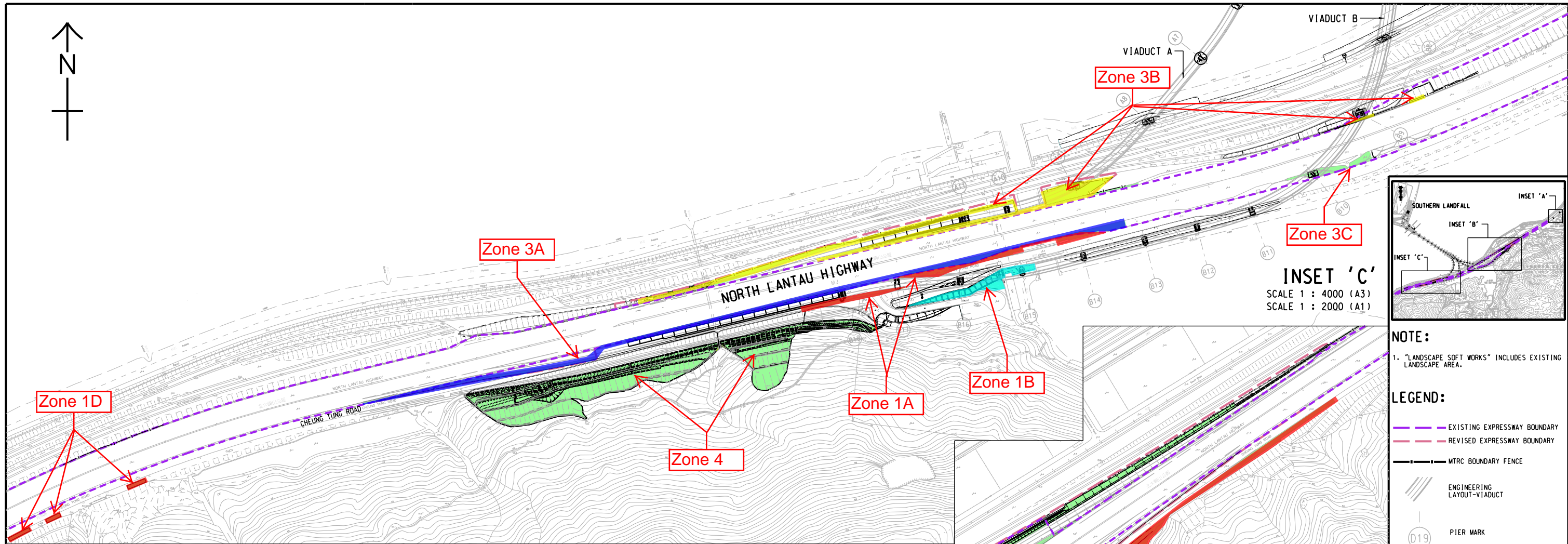
Figure 1  
圖1

## **Appendix B**

### **Layout Plan of the Contract**



## **Planting Area under Contract HY/2012/07**



**NOTE:**  
1. "LANDSCAPE SOFT WORKS" INCLUDES EXISTING LANDSCAPE AREA.

- LEGEND:**
- EXISTING EXPRESSWAY BOUNDARY
  - REVISED EXPRESSWAY BOUNDARY
  - MTRC BOUNDARY FENCE
  - ENGINEERING LAYOUT-VIADUCT
  - D19 PIER MARK
  - LANDSCAPE SOFT WORKS (PORTION A)

REV.	DATE	DESCRIPTION	DRAWN	PRE.	APP.
A	18/08/20	ADDENDUM NO.1	KW	CL	CL
-	03/08/20	LANDSCAPE WORKS DEMARCATION PLAN	KW	CL	CL

CLIENT  
**路政署**  
**HIGHWAYS DEPARTMENT**  
主要工程管理處(專責事務)  
Major Works Project Management Office  
(Special Duties)

**AECOM**

PROJECT  
**TUEN MUN - CHEK LAP KOK LINK**

CONTRACT NO.  
**HMWS2 2/2020(HY)**

CONTRACT TITLE  
**ESTABLISHMENT OF LANDSCAPE SOFTWORKS FOR THE TUEN MUN - CHEK LAP KOK LINK PROJECT**

TITLE  
**LANDSCAPE WORKS DEMARCATION PLAN (PORTION A)**

DRAWING REFERENCE	SCALE	SCALE
-	1:2000(A1)	1:4000(A3)

DRAWN	PREPARED	APPROVED
JW	CL	CL

SKETCH NO.	REV.
SK0597	A



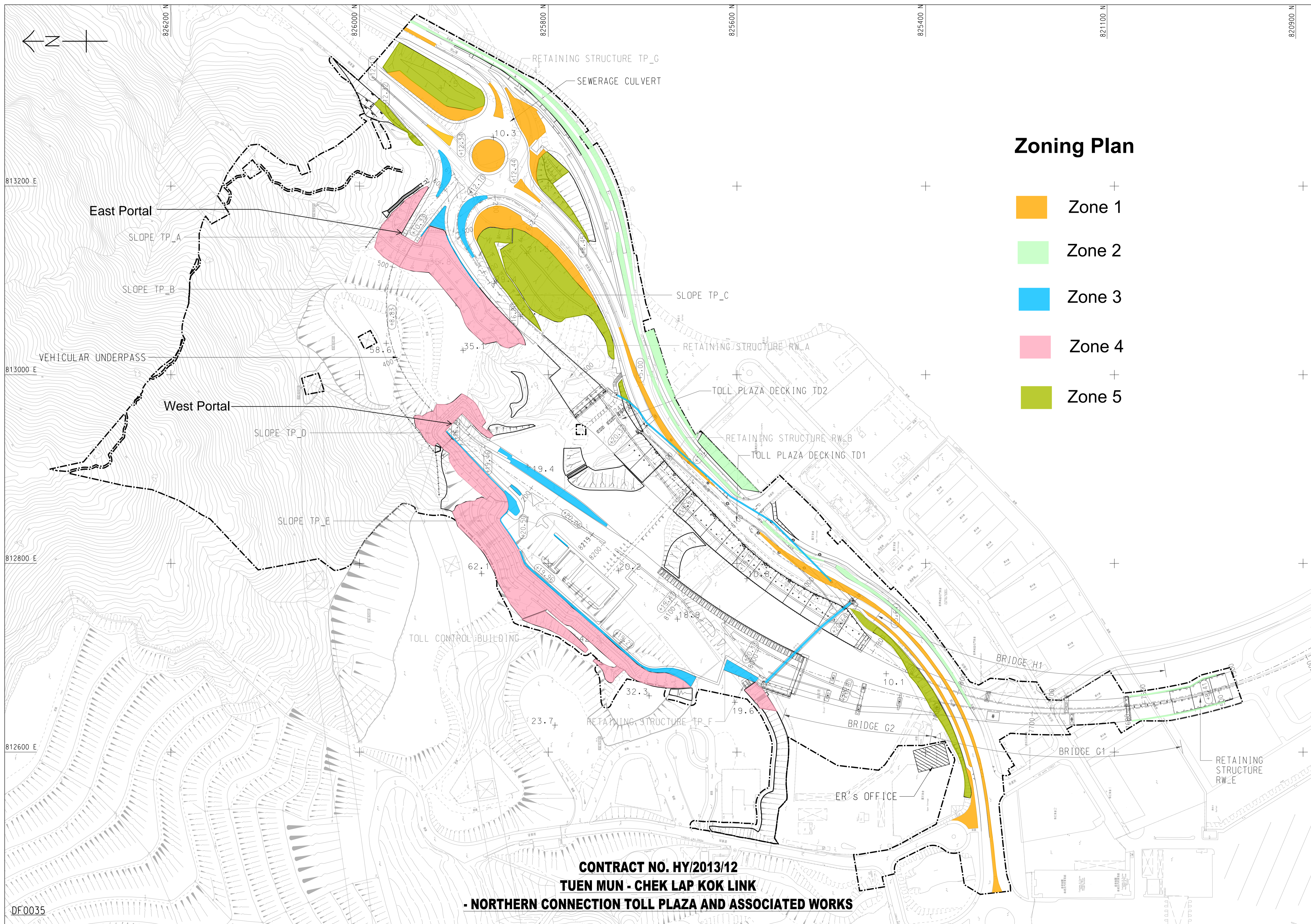
Contract No. HY/2017/10  
TUEN MUN-CHEK LAP KOK LINK  
- NORTHERN CONNECTION TUNNEL BUILDINGS,  
ELECTRICAL AND MECHANICAL WORKS

ZONING PLAN – LANDSCAPE WORKS MONITORING (ESTABLISHMENT WORKS)

Note: Planting works were completed under Contract No. HY/2012/07.

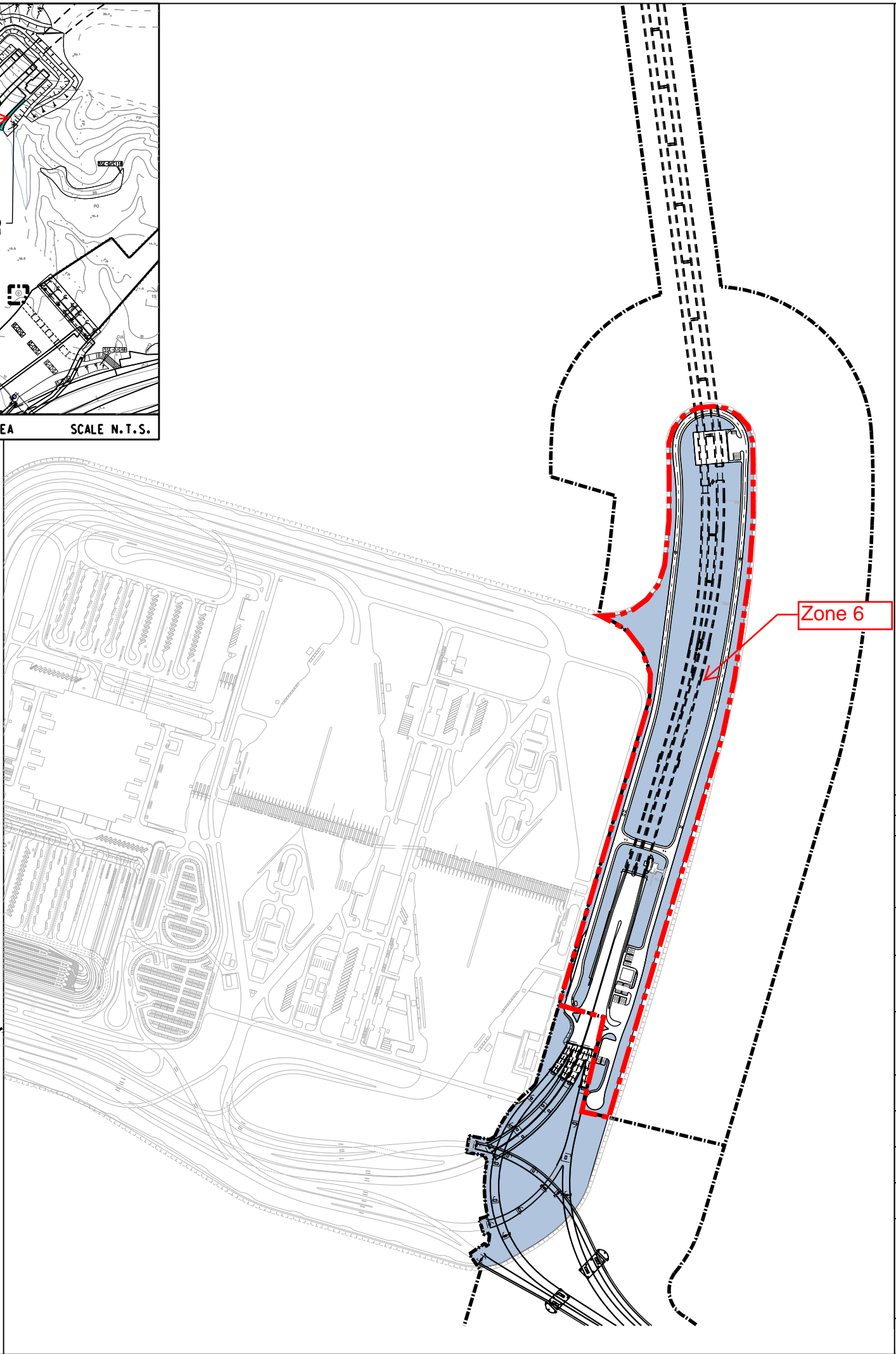
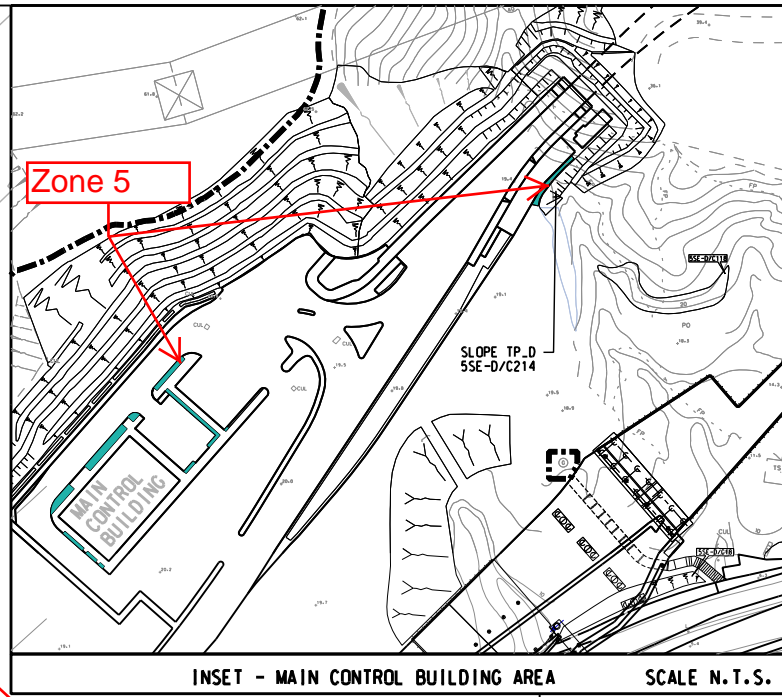
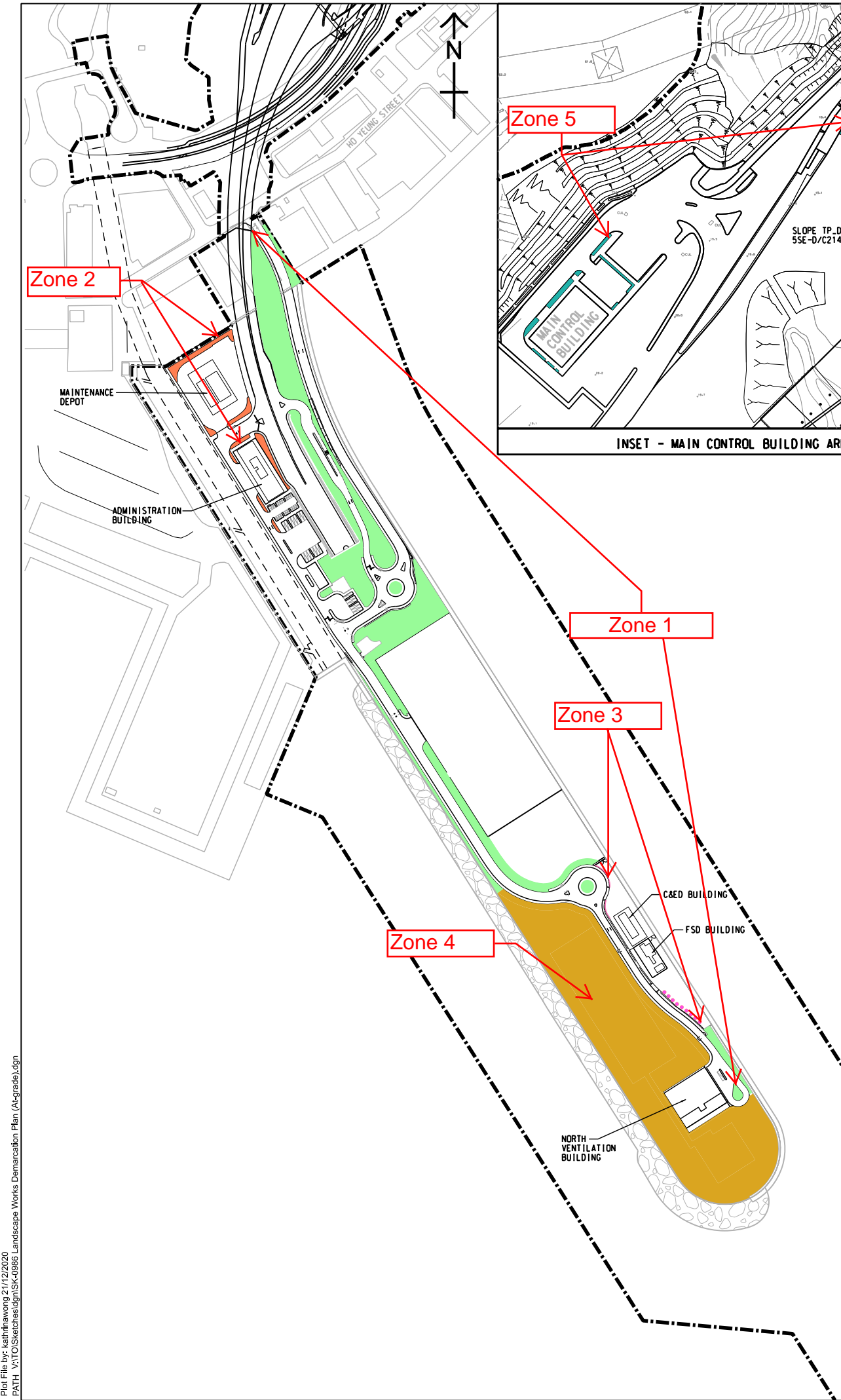
Monitoring of the establishment works continue under Contract No. HY/2017/10.

## **Planting Area under Contract HY/2013/12**



**CONTRACT NO. HY/2013/12**  
**TUEN MUN - CHEK LAP KOK LINK**  
**- NORTHERN CONNECTION TOLL PLAZA AND ASSOCIATED WORKS**

## **Planting Area under Contract HY/2017/10**



**FOR INFORMATION**

REV.	DATE	DESCRIPTION	CHK.	PREP.	DRAWN

CLIENT  
 **HIGHWAYS DEPARTMENT**  
 主要工程管理處(專責事務)  
 Major Works Project Management Office  
 (Special Duties)

**AECOM** Imagine it. Delivered.

PROJECT  
**TUEN MUN - CHEK LAP KOK LINK**

CONTRACT TITLE  
**TUEN MUN - CHEK LAP KOK LINK - NORTHERN CONNECTION TUNNEL - BUILDINGS, ELECTRICAL AND MECHANICAL WORKS**

PROJECT NO. 60240249 CONTRACT NO. HY/2017/10

SCALE N.T.S. DATE 21 DEC. 2020

AMENDMENT TO WORKING DRAWING NO.  
 60240249/C4/

CHECKED	PREPARED	DRAWN
CL	CD	KW

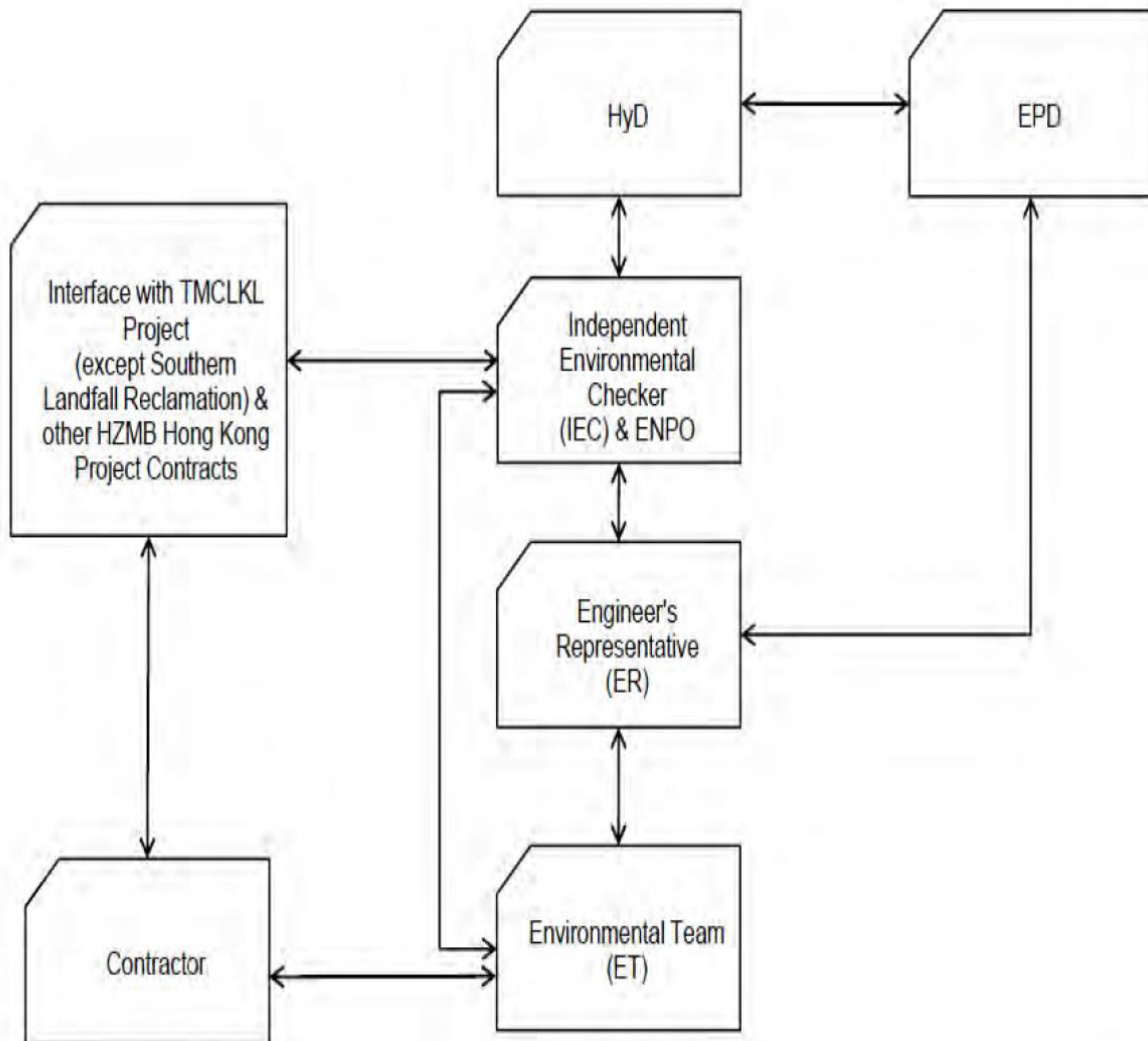
SKETCH TITLE  
**ZONING PLAN - LANDSCAPE WORKS MONITORING (ESTABLISHMENT WORKS)**

SKETCH NO.  
 60240249/C4/SK/0986

## **Appendix C**

### **Organization of the Contract**





↔ Line of Communication

**Project Organization chart**

**Contact Details of Key Personnel for the Contract HMWSD 2/2020 (HY)**

<b>Organization</b>	<b>Project Role</b>	<b>Name of Key Staff</b>	<b>Tel No</b>	<b>Fax No.</b>
HyD	Employer	Mr. Tony Wong	2762 4982	3188 6614
AECOM	Principal Resident Engineer	Mr. S.W. Fok	2293 6200	2218 7399
AECOM	Senior Resident Landscape Architect	Ms. Candy Lau	2293 6200	2218 7399
AECOM	Resident Engineer (S&E)	Mr. Kelvin Yeung	2293 6200	2218 7399
Ramboll	Environmental Project Office Leader (ENPO Leader)	Mr. YH Hui	3465 2850	3465 2899
Ramboll	Independent Environmental Checker (IEC)	Mr. Brian Tam (Since 12 April 2021)	9700 6767	3465 2899
HKL	Project Manager	Mr. S.C. Wong	2388 6332	2385 7911
AUES	Environmental Team Leader	Mr. Ben Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Miss Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Mr. Martin Li	2959 6059	2959 6079

**Legend:***HyD (Employer) –Highways Department**AECOM (Engineer) – AECOM Asia Co. Ltd.**HKL (Main Contractor) – Hong Kong Landscaping Co., Ltd.**Ramboll (ENPO and IEC) – Ramboll Hong Kong Limited**AUES (ET) – Action-United Environmental Services & Consulting*

## **Appendix D**

### **Event and Action Plan**

**Event and Action Plan for Landscape and Visual Impact**

EVENT ACTION LEVEL	ACTION			
	ET	IEC	ER	Contractor
Design Check	<ul style="list-style-type: none"> <li>Check final design conforms to the requirements of EP and prepare report.</li> </ul>	<ul style="list-style-type: none"> <li>Check report.</li> <li>Recommend remedial design if necessary</li> </ul>	<ul style="list-style-type: none"> <li>Undertake remedial design if necessary</li> </ul>	
Non- conformity on one occasion	<ul style="list-style-type: none"> <li>Identify Source</li> <li>Inform IEC and ER</li> <li>Discuss remedial actions with IEC, ER and Contractor</li> <li>Monitor remedial actions until rectification has been completed</li> </ul>	<ul style="list-style-type: none"> <li>Check report</li> <li>Check Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advise ER on effectiveness of proposed remedial measures.</li> <li>Check implementation of remedial measures</li> </ul>	<ul style="list-style-type: none"> <li>Notify Contractor</li> <li>Ensure remedial measures are properly implemented</li> </ul>	<ul style="list-style-type: none"> <li>Amend working methods</li> <li>Rectify damage and undertake any necessary replacement</li> </ul>
Repeated Non-conformity	<ul style="list-style-type: none"> <li>Identify Source</li> <li>Inform IEC and ER</li> <li>Increase monitoring frequency</li> <li>Discuss remedial actions with IEC, ER and Contractor</li> <li>Monitor remedial actions until rectification has been completed</li> <li>If nonconformity stops, cease additional monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Check monitoring report</li> <li>Check Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advise ER on effectiveness of proposed remedial measures</li> <li>Supervise implementation of remedial measures</li> </ul>	<ul style="list-style-type: none"> <li>Notify Contractor</li> <li>Ensure remedial measures are properly implemented</li> </ul>	<ul style="list-style-type: none"> <li>Amend working methods</li> <li>Rectify damage and undertake any necessary replacement</li> </ul>

ET – Environmental Specialist, IEC – Independent Environmental Checker, ER – Engineer's Representative

## **Appendix E**

### **Monitoring Schedule**

**Establishment Inspection Schedule for this Reporting Period**

Date		Planting Area under HY/2012/07 (Zone 1, 3 & 4)	Planting Area under HY/2012/07 (Zone 2)	Planting Area under HY/2013/12	Planting Area under HY/2017/10
Sun	1-September-21				
Mon	2-September-21				
Tue	3-September-21				
Wed	4-September-21				
Thu	5-September-21				
Fri	6-September-21				
Sat	7-September-21				
Sun	8-September-21				
Mon	9-September-21				
Tue	10-September-21				
Wed	11-September-21				
Thu	12-September-21				
Fri	13-September-21				
Sat	14-September-21				
Sun	15-September-21				
Mon	16-September-21				
Tue	17-September-21				
Wed	18-September-21				
Thu	19-September-21				
Fri	20-September-21				✓
Sat	21-September-21				
Sun	22-September-21				
Mon	23-September-21				
Tue	24-September-21				✓
Wed	25-September-21				
Thu	26-September-21				
Fri	27-September-21				
Sat	28-September-21				
Sun	29-September-21				
Mon	30-September-21				

✓	Monitoring Day
	Sunday or Public Holiday

**Establishment Inspection Schedule for the Next Reporting Period**

Date		Planting Area under HY/2012/07 (Zone 1, 3 & 4)	Planting Area under HY/2012/07 (Zone 2)	Planting Area under HY/2013/12	Planting Area under HY/2017/10
Fri	1-October-21				
Sat	2-October-21				
Sun	3-October-21				
Mon	4-October-21				
Tue	5-October-21				
Wed	6-October-21				
Thu	7-October-21				
Fri	8-October-21				
Sat	9-October-21				
Sun	10-October-21				
Mon	11-October-21				
Tue	12-October-21				
Wed	13-October-21				
Thu	14-October-21				
Fri	15-October-21				
Sat	16-October-21				
Sun	17-October-21				
Mon	18-October-21				
Tue	19-October-21				
Wed	20-October-21				
Thu	21-October-21				
Fri	22-October-21				
Sat	23-October-21				
Sun	24-October-21				
Mon	25-October-21				
Tue	26-October-21				
Wed	27-October-21				
Thu	28-October-21				
Fri	29-October-21				
Sat	30-October-21				
Sun	31-October-21				

✓	Monitoring Day
	Sunday or Public Holiday

## **Appendix F**

### **Checklist for Establishment Works Monitoring**



22 October 2021

*Our ref: 0463091\_91\_Establishment L&V Checklist (SLF\_NLF\_MCB) Aug-Oct 21.docx*

By email

Mr Brian Tam  
Independent Environmental Checker  
Ramboll Hong Kong Limited  
21/F, BEA Harbour View Centre  
56 Gloucester Road  
Wan Chai, Hong Kong



Dear Sir,

**Contract No. HY/2017/10  
Tuen Mun - Chek Lap Kok Link - Northern Connection Tunnel Buildings,  
Electrical and Mechanical Works**

**Reporting of Landscape Planting Works for  
Southern Landfall, Northern Landfall and Main Control Building  
during the 24-month Establishment Period (August to October 2021)**

In accordance with *Section 7.3.1.2 of the Updated EM&A Manual*, we are pleased to provide you with the *Establishment Landscape Monitoring Checklist for August to October 2021* for your perusal and counter-signature.

Should you require any further information or clarification please do not hesitate to contact the undersigned.

Yours faithfully  
For ERM-Hong Kong, Ltd

Dr Jasmine Ng  
*Environmental Team Leader*

Direct Tel: (852) 2271 3311  
E-mail: [jasmine.ng@erm.com](mailto:jasmine.ng@erm.com)

*c.c.*  
AECOM (Attn: Mr Desmond Fung)  
GCL (Attn: Ms Phoebe Ng)



**Inspection Date:** 20<sup>th</sup> and 24<sup>th</sup> September 2021 **Inspected By:** Ray Yan  
**Time:** 9:30 a.m. **Weather Condition:** Sunny with occasional showers  
**Participants:** 20<sup>th</sup> (Zones 1, 4 to 6): Sue Kei (AECOM); Agnes Wong (Gammon); Rachel Wong (Ramboll); Rebecca Chong (ERM)  
 24<sup>th</sup> (Zones 1 to 4): Sue Kei (AECOM); Agnes Wong (Gammon); Rachel Wong (Ramboll)

		N/A or not observed	Yes	No	Remarks / Photo
<b>1</b>	<b>Zone 1</b>				
1.1	Is watering provided to plants to ensure satisfactory growth and health (manual and automatic irrigation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Obs. 4
1.2	Are tree stakes, guys and ties provided properly for safety and avoid chaffing of bark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.3	Are trees or limb overhanging branches pruned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.4	Are pest and disease observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.5	Are litter and debris removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.6	Are plants/ grasses overgrown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.7	After inclement weather conditions, are proper action implemented to replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.8	Are planting locations and tree spacing matched with the approved planting plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
1.9	Are the planting species on site matched with the approved planting plans? Consolidated planting schedule in Annex B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<b>Good</b>	<b>Fair</b>	<b>Poor</b>	
1.10	Overall health condition of the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>2</b>	<b>Zone 2</b>				
2.1	Is watering provided to plants to ensure satisfactory growth and health (manual and automatic irrigation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Obs. 5
2.2	Are tree stakes, guys and ties provided properly for safety and avoid chaffing of bark?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No trees
2.3	Are trees or limb overhanging branches pruned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No trees
2.4	Are pest and disease observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.5	Are litter and debris removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.6	Are plants/ grasses overgrown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2.7	After inclement weather conditions, are proper action implemented to replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.8	Are planting locations and tree spacing matched with the approved planting plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2.9	Are the planting species on site matched with the approved planting plans? Consolidated planting schedule in Annex B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<b>Good</b>	<b>Fair</b>	<b>Poor</b>	
2.10	Overall health condition of the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

<b>3</b>	<b>Zone 3</b>	<b>N/A or not observed</b>	<b>Yes</b>	<b>No</b>	<b>Remarks / Photo</b>
3.1	Is watering provided to plants to ensure satisfactory growth and health (manual and automatic irrigation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.2	Are tree stakes, guys and ties provided properly for safety and avoid chaffing of bark?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No trees
3.3	Are trees or limb overhanging branches pruned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No trees
3.4	Are pest and disease observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.5	Are litter and debris removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.6	Are plants/ grasses overgrown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3.7	After inclement weather conditions, are proper action implemented to replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.8	Are planting locations and tree spacing matched with the approved planting plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3.9	Are the planting species on site matched with the approved planting plans? Consolidated planting schedule in Annex B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<b>Good</b>	<b>Fair</b>	<b>Poor</b>	
3.10	Overall health condition of the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<b>4</b>	<b>Zone 4</b>	<b>N/A or not observed</b>	<b>Yes</b>	<b>No</b>	<b>Remarks / Photo</b>
4.1	Is watering provided to plants to ensure satisfactory growth and health (manual and automatic irrigation)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Obs. 2 & 3
4.2	Are tree stakes, guys and ties provided properly for safety and avoid chaffing of bark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.3	Are trees or limb overhanging branches pruned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4	Are pest and disease observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.5	Are litter and debris removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.6	Are plants/ grasses overgrown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4.7	After inclement weather conditions, are proper action implemented to replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.8	Are planting locations and tree spacing matched with the approved planting plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4.9	Are the planting species on site matched with the approved planting plans? Consolidated planting schedule in Annex B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
		<b>Good</b>	<b>Fair</b>	<b>Poor</b>	
4.10	Overall health condition of the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

5	Zone 5	N/A or not observed	Yes	No	Remarks / Photo
5.1	Is watering provided to plants to ensure satisfactory growth and health (manual and automatic irrigation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.2	Are tree stakes, guys and ties provided properly for safety and avoid chaffing of bark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.3	Are trees or limb overhanging branches pruned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.4	Are pest and disease observed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Obs. 1
5.5	Are litter and debris removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.6	Are plants/ grasses overgrown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5.7	After inclement weather conditions, are proper action implemented to replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.8	Are planting locations and tree spacing matched with the approved planting plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5.9	Are the planting species on site matched with the approved planting plans? Consolidated planting schedule in Annex B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<b>Good</b>	<b>Fair</b>	<b>Poor</b>	
5.10	Overall health condition of the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6	Zone 6	N/A or not observed	Yes	No	Remarks / Photo
6.1	Is watering provided to plants to ensure satisfactory growth and health (manual and automatic irrigation)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.2	Are tree stakes, guys and ties provided properly for safety and avoid chaffing of bark?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.3	Are trees or limb overhanging branches pruned?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.4	Are pest and disease observed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6.5	Are litter and debris removed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.6	Are plants/ grasses overgrown?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6.7	After inclement weather conditions, are proper action implemented to replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.8	Are planting locations and tree spacing matched with the approved planting plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6.9	Are the planting species on site matched with the approved planting plans? Consolidated planting schedule in Annex B.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
		<b>Good</b>	<b>Fair</b>	<b>Poor</b>	
6.10	Overall health condition of the plants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	General Document	N/A or not observed	Yes	No	Remarks / Photo
7.1	Are the records of watering, fertilizing, weeding, pruning and mowing kept for checking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Follow-up actions for previous Site Audit:**

Follow-up actions taken for the observations as recorded during last landscape monitoring conducted on 27 and 30 July 2021:

i) The health of tree – tree no. TS1177 (*Callistemon viminalis*) within Zone 6 was satisfactory with leaf buds observed (see *Follow-up action 1*); ii) The health of tree – tree no. TM42 (*Bauhinia variegata*) within Zone 4 was satisfactory (see *Follow-up action 2*); iii) Suspected pest infestation on the leaves of shrub species, *Schefflera arboricola* “variegata”, planted in the vicinity of car park area within Zone 5 was still noticed, and such was also noticed on the same plant species planted in the vicinity of Main Control Building. The health of shrub should be closely monitored and reviewed, and take remedial actions in terms of pest control as appropriate (see *Follow-up action 3 & Observation 1*); iv) Tree re-planting works for the dead tree - tree no. TM149 (*Grevillea robusta*) within Zone 4 was completed in accordance with the latest planting plan (see *Follow-up action 4*); v) Tree re-planting works for tree no. TM175 (*Bauhinia variegata*) within Zone 4 was completed in accordance with the latest planting plan (see *Follow-up action 5*); vi) Tree re-planting works for tree no. TN158 (*Pongamia pinnata*) within Zone 1 was completed in accordance with the latest planting plan (see *Follow-up action 6*); and vii) The health of trees – tree nos. TN78 and TN80 (*Plumeria rubra*) within Zone 1 was satisfactory without scale insects belonging to the family Coccidae noticed (see *Follow-up action 7*).

**Observations:**

**Obs. 1:** Suspected pest infestation on the leaves of shrub species, *Schefflera arboricola* “variegata”, planted in the vicinity of car park area within Zone 5 was still noticed, and such was also noticed on the same plant species planted in the vicinity of Main Control Building. The health of shrub should be closely monitored and reviewed, and take remedial actions in terms of pest control as appropriate

**Obs. 2:** Dieback twigs were noticed from tree – tree no. TM160 (*Sterculia lanceolata*) within Zone 4. The health of the tree should be closely monitored and reviewed.

**Obs. 3:** Dieback twigs were noticed from trees – tree nos. TM2 and TM9 (*Viburnum odoratissimum*) within Zone 4. The health of the trees should be closely monitored and reviewed.

**Obs. 4:** Trees – tree nos. TN297, TN308 and TN309 (*Elaeocarpus hainanensis*) with necrotic foliage within Zone 1 were noticed. The health of the trees should be closely monitored and reviewed; and tree re-planting works should also be carried out in accordance with the latest planting plan if the tree(s) is/are unavoidably removed from site.

**Obs. 5:** Groundcover species (*Cuphea hyssopifolia*) with necrotic foliage within Zone 2 was noticed. The health of groundcover species in terms of irrigation should be closely monitored and reviewed.

**Corrective Actions (if any):**

- The health of trees/groundcover species should be closely monitored and reviewed, with irrigation and/or remedial actions taken for pest control, as appropriate.
- Tree re-planting works for the trees requiring replacement should be completed in accordance with the latest planting plan.

**General Conclusion:**

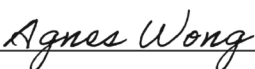
Total number of trees planted <sup>(1)</sup>: 431 (Zone 1); 0 (Zone 2); 0 (Zone 3); 435 (Zone 4); 4 (Zone 5); and 2,127 (Zone 6).


Planting area under Contract No. HY/2017/10: 14.42 ha (based on the survey data provided by the SOR).

<sup>(1)</sup> Only compensatory trees were counted during the monitoring with reference to the approved Landscape and Visual Plan for Tuen Mun-Chek Lap Kok Link project.



Inspected by  
(ET's Representative): Ray Yan Title: Deputy Environmental Team Leader  
Signature:  Date: 24 September 2021

Reviewed by  
(RSS Landscape Representative): Candy Lau Title: Senior Resident Landscape Architect  
Signature:  Date: 4 October 2021



Contractor's Representative: Agnes Wong Title: Sr. Horticultural Inspector  
Signature:  Date: 22 October 2021



Checked by  
(IEC's Representative): Rachel Wong Title: Assistant Environmental Consultant  
Signature:  Date: 25 Oct 2021



Location	Photo	Information
Zone 6		<p>Date: 20 September 2021</p> <p>Follow-up action 1: The health of tree – tree no. TS1177 (<i>Callistemon viminalis</i>) within Zone 6 was satisfactory with leaf buds observed.</p> <p>Species: <i>Callistemon viminalis</i></p>
Zone 4		<p>Date: 20 September 2021</p> <p>Follow-up action 2: The health of tree – tree no. TM42 (<i>Bauhinia variegata</i>) within Zone 4 was satisfactory.</p> <p>Species: <i>Bauhinia variegata</i></p>




Location	Photo	Information
<p>Zone 5</p>	 <p>car park</p> <p>MCB</p>	<p>Date: 20 September 2021</p> <p>Follow-up action 3 (Observation 1): Suspected pest infestation on the leaves of shrub species, <i>Schefflera arboricola</i> “variegata”, planted in the vicinity of car park area within Zone 5 was still noticed, and such was also noticed on the same plant species planted in the vicinity of Main Control Building (MCB). The health of shrub should be closely monitored and reviewed, and take remedial actions in terms of pest control as appropriate.</p> <p>Species: <i>Schefflera arboricola</i> “variegata”</p>
<p>Zone 4</p>		<p>Date: 20 September 2021</p> <p>Follow-up action 4: Tree re-planting works for the dead tree - tree no. TM149 (<i>Grevillea robusta</i>) within Zone 4 was completed in accordance with the latest planting plan.</p> <p>Species: <i>Grevillea robusta</i></p>




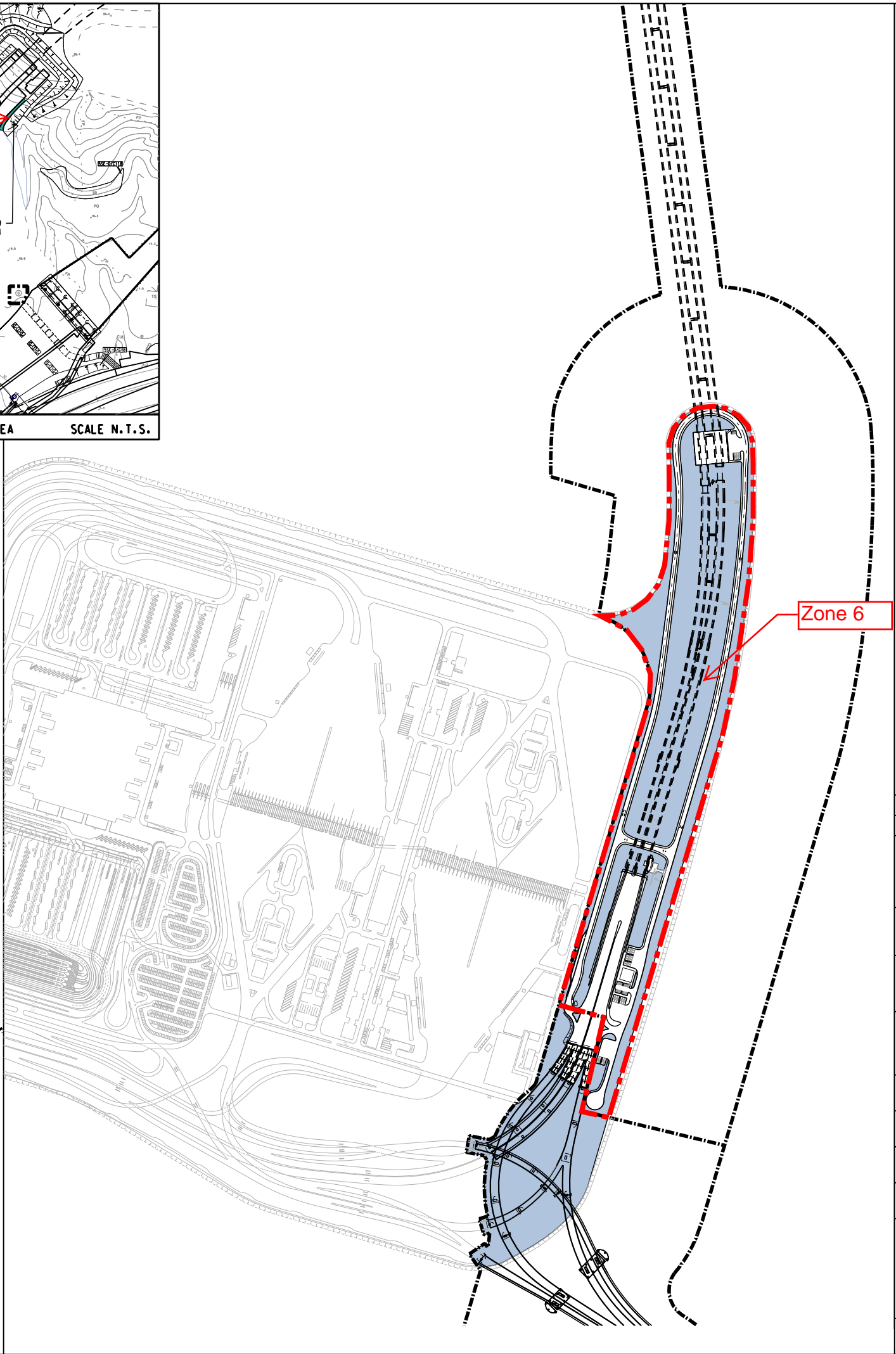
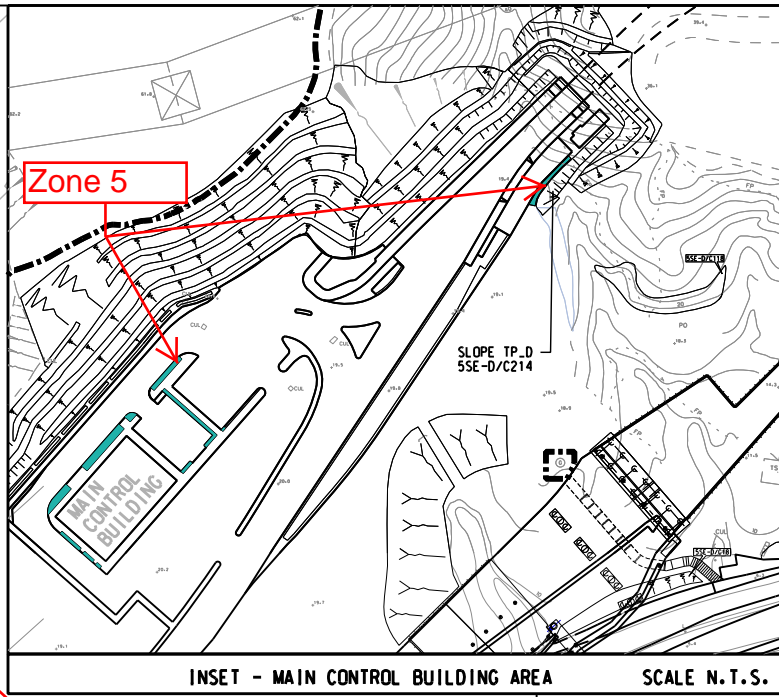
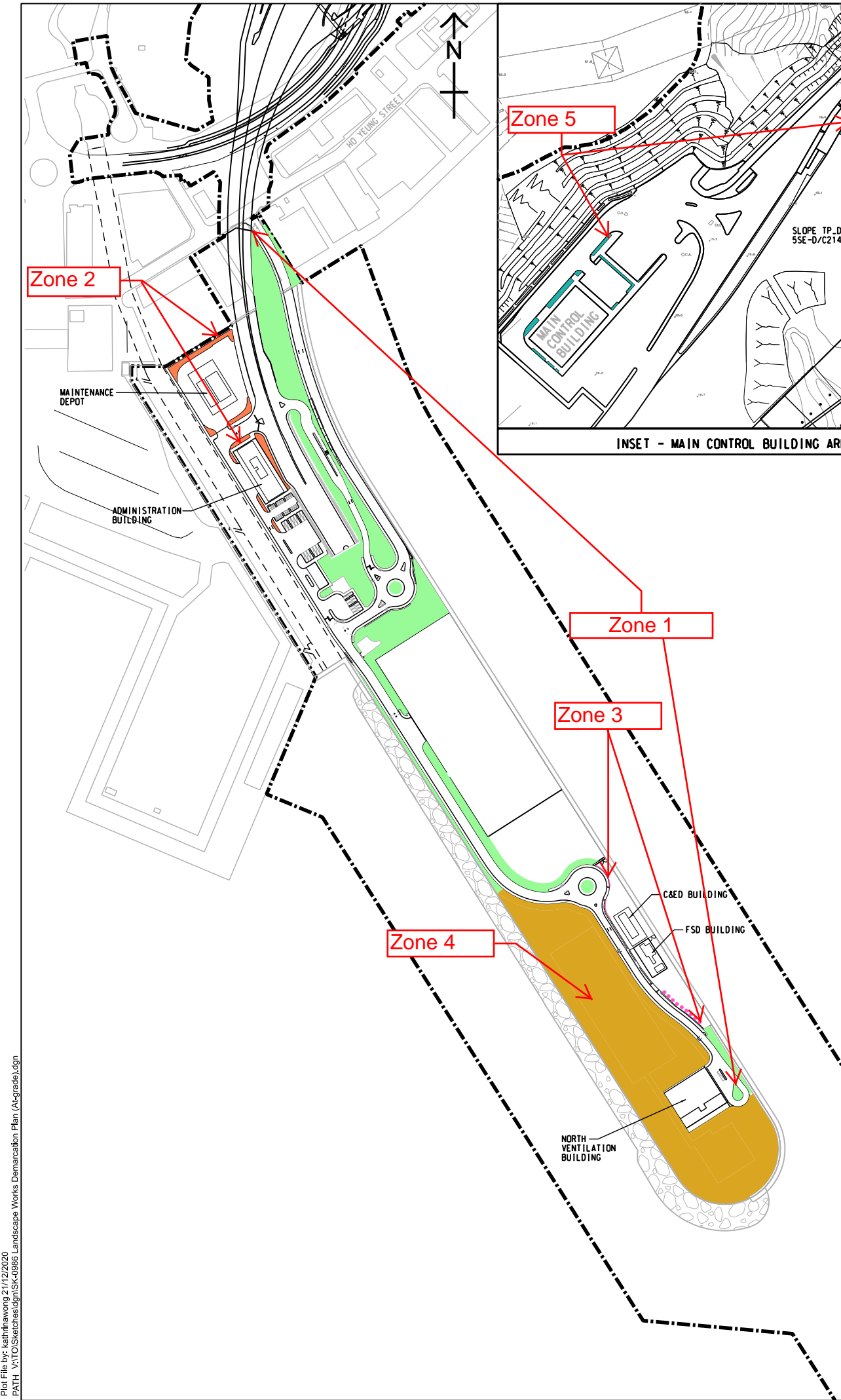
Location	Photo	Information
Zone 4		<p>Date: 20 September 2021</p> <p>Follow-up action 5: Tree re-planting works for tree no. TM175 (<i>Bauhinia variegata</i>) within Zone 4 was completed in accordance with the latest planting plan.</p> <p>Species: <i>Bauhinia variegata</i></p>
Zone 1		<p>Date: 24 September 2021</p> <p>Follow-up action 6: Tree re-planting works for tree no. TN158 (<i>Pongamia pinnata</i>) within Zone 1 was completed in accordance with the latest planting plan.</p> <p>Species: <i>Pongamia pinnata</i></p>

Location	Photo	Information
Zone 1	 <p>TN78</p>  <p>TN80</p>	<p>Date: 24 September 2021</p> <p>Follow-up action 7: The health of trees – tree nos. TN78 and TN80 (<i>Plumeria rubra</i>) within Zone 1 was satisfactory without scale insects belonging to the family Coccidae noticed.</p> <p>Species: <i>Plumeria rubra</i></p>

Location	Photo	Information
Zone 4		<p>Date: 20 September 2021</p> <p>Observation 2: Dieback twigs were noticed from tree – tree no. TM160 (<i>Sterculia lanceolata</i>) within Zone 4. The health of the tree should be closely monitored and reviewed.</p> <p>Species: <i>Sterculia lanceolata</i></p>
Zone 4	 <p style="text-align: right;">TM2</p> <p style="text-align: right;">TM9</p>	<p>Date: 24 September 2021</p> <p>Observation 3: Dieback twigs were noticed from trees – tree nos. TM2 and TM9 (<i>Viburnum odoratissimum</i>) within Zone 4. The health of the trees should be closely monitored and reviewed.</p> <p>Species: <i>Viburnum odoratissimum</i></p>

Location	Photo	Information
Zone 1	 <p>TN297</p>  <p>TN308</p>  <p>TN309</p>	<p>Date: 24 September 2021</p> <p>Observation 4: Trees – tree nos. TN297, TN308 and TN309 (<i>Elaeocarpus hainanensis</i>) with necrotic foliage within Zone 1 were noticed. The health of the trees should be closely monitored and reviewed; and tree re-planting works should also be carried out in accordance with the latest planting plan if the tree(s) is/are unavoidably removed from site.</p> <p>Species: <i>Elaeocarpus hainanensis</i></p>

Location	Photo	Information
Zone 2		<p>Date: 24 September 2021</p> <p>Observation 5: Groundcover species (<i>Cuphea hyssopifolia</i>) with necrotic foliage within Zone 2 was noticed. The health of groundcover species in terms of irrigation should be closely monitored and reviewed.</p> <p>Species: <i>Cuphea hyssopifolia</i></p>



**FOR INFORMATION**

REV.	DATE	DESCRIPTION	CHK.	PREP.	DRAWN

CLIENT  
 **HIGHWAYS DEPARTMENT**  
 主要工程管理處(專責事務)  
 Major Works Project Management Office  
 (Special Duties)

**AECOM** Imagine it. Delivered.

PROJECT  
**TUEN MUN - CHEK LAP KOK LINK**

CONTRACT TITLE  
**TUEN MUN - CHEK LAP KOK LINK - NORTHERN CONNECTION TUNNEL - BUILDINGS, ELECTRICAL AND MECHANICAL WORKS**

PROJECT NO. 60240249 CONTRACT NO. HY/2017/10

SCALE N.T.S. DATE 21 DEC. 2020

AMENDMENT TO WORKING DRAWING NO.  
 60240249/C4/

CHECKED	PREPARED	DRAWN
CL	CD	KW

SKETCH TITLE  
**ZONING PLAN - LANDSCAPE WORKS MONITORING (ESTABLISHMENT WORKS)**

SKETCH NO.  
 60240249/C4/SK/0986

Northern Landfall - Roadside Planting

CODE	BOTANICAL NAME	CHINESE NAME	SIZE (mm) HEIGHT (H) X SPREAD (S)	SPACING (mm)
<b>TREE</b>				
BAU.BLA	<i>Bauhinia x blakeana</i> *	洋紫荊	HEAVY STANDARD	4500-5000
BAU.VAR	<i>Bauhinia variegata</i>	宮粉羊蹄甲	HEAVY STANDARD	4500-5000
ELA.API	<i>Elaeocarpus apiculatus</i>	尖葉杜英	HEAVY STANDARD	6000
ELA.HAI	<i>Elaeocarpus hainanensis</i>	水石榕	HEAVY STANDARD	5000
GAR.SUB	<i>Garcinia subelliptica</i>	菲島福木	HEAVY STANDARD	3500-4000
GRE.ROB	<i>Grevillea robusta</i>	銀樺	HEAVY STANDARD	4500-5000
MEL.QUI	<i>Melaleuca quinquenervia</i>	白千層	HEAVY STANDARD	4500-5000
PLU.MUL	<i>Plumeria rubra</i> (multi-colour flower)	雞蛋花(多色花)	HEAVY STANDARD 2000(H) x 2000(S) - 2500(H) x 2500(S)	4000-4500
PLU.RUB	<i>Plumeria rubra</i> (red flower)	雞蛋花(紅花)	HEAVY STANDARD 2000(H) x 2000(S) - 2500(H) x 2500(S)	4000-4500
PLU.RUB(Y)	<i>Plumeria rubra</i> (yellow flower)	雞蛋花(黃花)	HEAVY STANDARD 2000(H) x 2000(S) - 2500(H) x 2500(S)	4000-4500
PON.PIN	<i>Pongamia pinnata</i> *	水黃皮	HEAVY STANDARD	5000-6000
STE.LAN	<i>Sterculia lanceolata</i> *	假蒺藜	HEAVY STANDARD	4500-5000
TER.CAT	<i>Terminalia catappa</i>	欖仁樹	HEAVY STANDARD	5000-7000
VIB.ODO	<i>Viburnum odoratissimum</i> *	珊瑚樹	HEAVY STANDARD	4500-5000
XAN.CHR	<i>Xanthostemon chrysanthus</i>	金蒲桃	HEAVY STANDARD	5000
<b>PALM</b>				
ARE.CAT	<i>Areca catechu</i>	檳榔	3000(H) x 1500(S)	4000
HYO.LAG	<i>Hyophorbe lagenicaulis</i>	酒瓶椰子	2000(H) x 1500(S)	3000
LIV.CHI	<i>Livistona chinensis</i>	蒲葵	3000(H) x 2000(S)	4000-4500
ROY.REG	<i>Roystonea regia</i>	王棕	4000(H) x 2000(S)	4500-5000
WOD.BIF	<i>Wodyetia bifurcata</i>	狐尾椰子	3000(H) x 1500(S)	4500
<b>SHRUB</b>				
CMI	<i>Carmona microphylla</i>	福建茶	300(H) x 300(S)	300
CRE	<i>Cycas revoluta</i>	蘇鐵	500(H) x 600(S)	N/A
DLU	<i>Dyopsis lutescens</i>	散尾葵	2000(H) x 2000(S)	2000
JKA	<i>Juniperus chinensis</i> 'Kaizuca'	龍柏球	600(H) x 600(S)	N/A
ICH	<i>Ixora chinensis</i> *	龍船花	300(H) x 300(S)	300
ICO	<i>Ixora coccinea</i>	橙紅龍船花	300(H) x 300(S)	300
ILU	<i>Ixora coccinea</i> 'Lutea'	黃花龍船花	400(H) x 300(S)	300
IST	<i>Ixora stricta</i>	細葉龍船花	250(H) x 250(S)	250
IWE	<i>Ixora westii</i>	粉紅龍船花	400(H) x 300(S)	300
NOL	<i>Nerium oleander</i>	夾竹桃	500(H) x 400(S)	500
PTO	<i>Pittosporum tobira</i>	海桐	300(H) x 300(S)	350
PMA	<i>Podocarpus macrophyllus</i> *	羅漢松	600(H) x 500(S)	N/A
PAX	<i>Polyspora axillaris</i> *	大頭茶	300(H) x 300(S)	350
RIN	<i>Rhaphiolepis indica</i> *	車輪梅	300(H) x 300(S)	300-350
RPU	<i>Rhododendron pulchrum</i>	錦繡杜鵑	300(H) x 300(S)	350
RSI	<i>Rhododendron simsii</i> *	紅杜鵑	250(H) x 250(S)	350
RTO	<i>Rhodomyrtus tomentosa</i> *	桃金娘	300(H) x 300(S)	350
STA	<i>Scaevola taccada</i> *	草海桐	300(H) x 300(S)	350
SDA	<i>Schefflera arboricola</i> 'Dazzle'	黃金八葉	300(H) x 300(S)	350
SVA	<i>Schefflera arboricola</i> 'Variegata'	斑葉鵝掌藤 (花葉八葉木)	300(H) x 300(S)	300-350

CODE	BOTANICAL NAME	CHINESE NAME	SIZE (mm) HEIGHT (H) X SPREAD (S)	SPACING (mm)
<b>GROUND COVER</b>				
ADU	<i>Arachis duranensis</i>	蔓花生(金花生)	100(H) x 200(S)	200
AMY	<i>Asparagus densiflorus</i> 'Myersii'	孤尾天冬	300(H) x 300(S)	300
ASP	<i>Asparagus densiflorus</i> 'Sprengeri'	非洲天門冬	100(H) x 200(S)	200
CHY	<i>Cuphea hyssopifolia</i>	細葉萼距花	200(H) x 250(S)	250
CRO	<i>Catharanthus roseus</i>	長春花	200(H) x 200(S)	200
LFL	<i>Lantana camara</i> 'Flava'	黃花馬纓丹	200(H) x 200(S)	200
LMO	<i>Lantana montevidensis</i>	小葉馬纓丹	200(H) x 200(S)	200
NAU	<i>Nephrrolepis auriculata</i> *	腎蕨	250(H) x 250(S)	200
NHI	<i>Nephrrolepis hirsutula</i> *	毛蕨腎蕨	250(H) x 250(S)	200
ONA	<i>Ophiopogon japonicus</i> 'Nana'	玉龍草	50(H)	N/A
WTR	<i>Wedelia trilobata</i>	三裂葉雙瓣菊	150(H) x 200(S)	200
<b>CLIMBER</b>				
BCO	<i>Bauhinia corymbosa</i>	首冠藤	MIN. 4 SHOOTS PER PLANT, 600mm LONG	300-500
QIN	<i>Quisqualis indica</i>	使君子	MIN. 4 SHOOTS PER PLANT, 600mm LONG	300-500

**NOTE:**

1. ALL PROPOSED PLANT SPECIES AND SPECIFICATIONS ARE SUBJECT TO CHANGE DURING CONSTRUCTION TO SUIT THE SITE CONDITIONS.
2. SHRUB / GROUND COVER SHOULD BE PLANTED IN A STAGGERED PATTERN.
3. SIZE OF TREES SHALL REFER TO THE GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS, 2006 EDITION.
4. GRASS SEED AS GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS, CLAUSE 3.26(3).
5. \* SPECIES NATIVE TO HONG KONG ACCORDING TO THE HONG KONG HERBARIUM WEBSITE.

Agreement No. CE7/2011(HY)

Tuen Mun - Chek Lap Kok Link - Northern Connection Tunnel Buildings, Electrical and Mechanical Works  
Planting Schedule for Northern Landfall - Road Planting (Contract 4 - HY/2017/10)

Drawing No.: Figure 6.3

**Southern Landfall (Contract 4 - HY/2017/10)**

CODE	BOTANICAL NAME	CHINESE NAME	SIZE (mm) HEIGHT (H) X SPREAD (S)	SPACING (mm)
TREE				
CV	<i>Callistemon viminalis</i>	串錢柳	HEAVY STANDARD	4000-5000
GR	<i>Grevillea robusta</i>	銀樺	HEAVY STANDARD	4000-5000
PRR	<i>Plumeria rubra</i> (red flower)	雞蛋花(紅花)	HEAVY STANDARD 2000(H) x 2000(S) - 2500(H) x 2500(S)	4000-5000
PRY	<i>Plumeria rubra</i> (yellow flower)	雞蛋花(黃花)	HEAVY STANDARD 2000(H) x 2000(S) - 2500(H) x 2500(S)	4000-5000
PLU.MUL	<i>Plumeria rubra</i> (multi-colour flower)	雞蛋花(多色花)	HEAVY STANDARD 2000(H) x 2000(S) - 2500(H) x 2500(S)	4000-5000
GROUND COVER				
IPE	<i>Ipomoea pes-caprae</i> *	海灘牽牛	150(H) x 200(S)	200
LMO	<i>Lantana montevidensis</i>	小葉馬纓丹 (鋪地臭金鳳)	200(H) x 300(S)	200
OJA	<i>Ophiopogon japonicus</i> *	麥冬(沿階草)	100(H) x 100(S)	100
SPO	<i>Syngonium podophyllum</i>	白蝴蝶	100(H) x 200(S)	200
TSP	<i>Tradescantia spathacea</i> 'dwarf'	矮蚌花	100(H) x 100(S)	100
WTR	<i>Wedelia trilobata</i>	三裂葉薔琪菊	150(H) x 200(S)	200
GRASS				
ZJA	<i>Zoysia japonica</i>	朝鮮草	300(L)x300(W)x50(H)	N/A

NOTE:

1. ALL PROPOSED PLANT SPECIES AND SPECIFICATIONS ARE SUBJECT TO CHANGE DURING CONSTRUCTION TO SUIT THE SITE CONDITIONS.
2. SHRUB / GROUND COVER SHOULD BE PLANTED IN A STAGGERED PATTERN.
3. SIZE OF TREES SHALL REFER TO THE GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS, 2006 EDITION.
4. GRASS SEED AS GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS, CLAUSE 3.26(3).
5. \* SPECIES NATIVE TO HONG KONG ACCORDING TO THE HONG KONG HERBARIUM WEBSITE.
6. THE PLANT SPECIES ALLOWED FOR PLANTING IN EACH ZONE STATED IN THE HONG KONG INTERNATIONAL AIRPORT (HKIA) APPROVED PLANT SPECIES LIST (Revision: 4.0.1: October 2015).





Photo 1: (A): *Roystonea regia*; and (B): *Areca catechu* within Zone 1  
 (Taken on: 24 September 2021)



Photo 2: (A): *Elaeocarpus apiculatus* within Zone 1  
 (Taken on: 24 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
 North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
 Management**





Photo 3: (A): *Plumeria rubra* within Zone 1  
(Taken on: 24 September 2021)

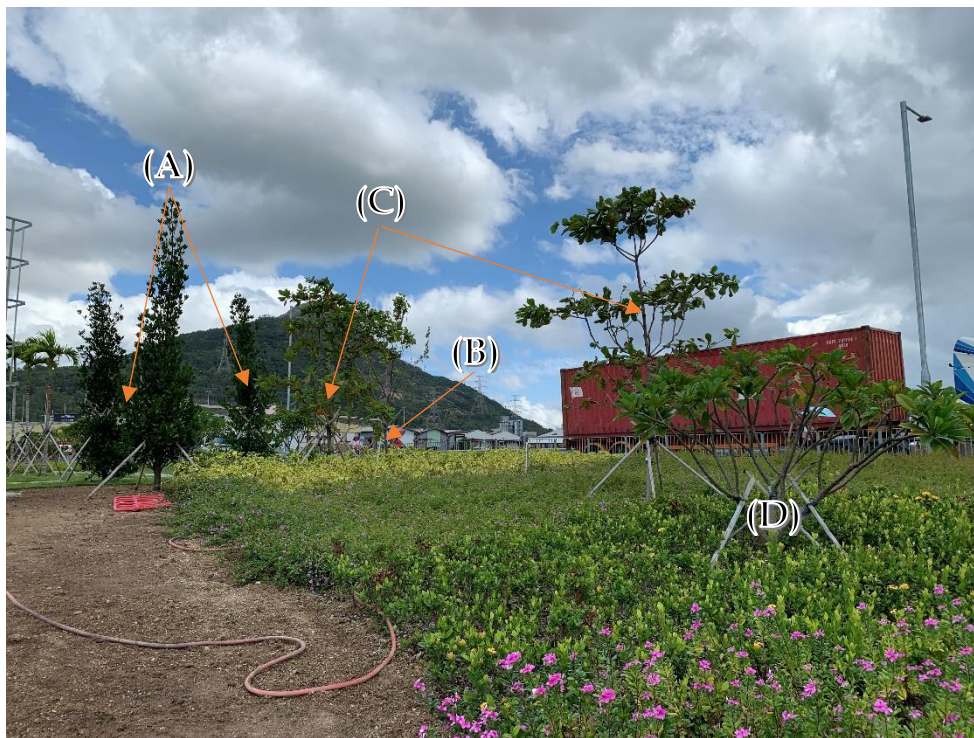


Photo 4: (A): *Garcinia subelliptica*; (B): *Pongamia pinnata*; (C): *Terminalia catappa*; and (D): *Plumeria rubra* within Zone 1  
(Taken on: 24 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
Management**





Photo 5: (A): *Hyophorbe lagenicaulis* within Zone 1  
 (Taken on: 24 September 2021)



Photo 6: (A): *Livistona chinensis* within Zone 1  
 (Taken on: 24 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
 North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
 Management**





Photo 7: (A): *Wodyetia bifurcata* within Zone 1  
 (Taken on: 24 September 2021)



Photo 8: (A): *Elaeagnus hainanensis*; and (B): *Xanthostemon chrysanthus* within Zone 1  
 (Taken on: 24 September 2021)

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 North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
 Management**





Photo 9: (A): *Cycas revoluta*; (B): *Latana montevidensis*; (C): *Cuphea hyssopifolia*; (D): *Nephrolepis auriculata*; and (E): *Podocarpus macrophyllus* within Zone 2  
 (Taken on: 24 September 2021)



Photo 10: (A): *Dypsis lutescens*; and (B): *Ixora stricta* within Zone 2  
 (Taken on: 24 September 2021)

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 North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
 Management**





Photo 11: (A): *Ixora westii*; and (B): *Cuphea hyssopifolia* within Zone 2  
 (Taken on: 24 September 2021)

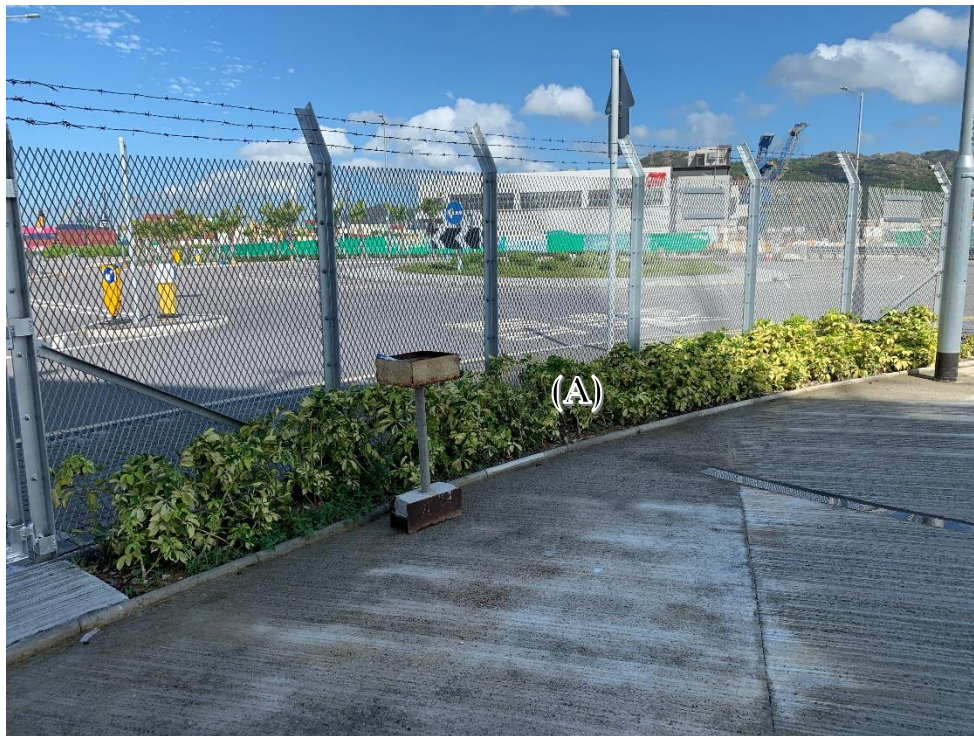


Photo 12: (A): *Schefflera arboricola* 'Dazzle' within Zone 3  
 (Taken on: 24 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
 North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
 Management**





Photo 13: (A): *Scaevola taccada* within Zone 3  
(Taken on: 24 September 2021)



Photo 14: (A): *Bauhinia variegata* within Zone 4  
(Taken on: 24 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
Management**





Photo 15: (A): *Bauhinia x blakeana* within Zone 4  
(Taken on: 20 September 2021)



Photo 16: (A): *Grevillea robusta* within Zone 4  
(Taken on: 20 September 2021)

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North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
Management**







Photo 17: (A): *Livistona chinensis* within Zone 4  
(Taken on: 20 September 2021)



Photo 18: (A): *Melaleuca quinquenervia* within Zone 4  
(Taken on: 20 September 2021)

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North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
Management**





Photo 19: *Pongamia pinnata*; and (B): *Sterculia lanceolata* within Zone 4  
 (Taken on: 20 September 2021)



Photo 20: (A): *Terminalia catappa* within Zone 4  
 (Taken on: 20 September 2021)

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 North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
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Photo 21: (A): *Viburnum odoratissimum* within Zone 4  
(Taken on: 20 September 2021)



Photo 22: (A): *Wodyetia bifurcata* within Zone 4  
(Taken on: 20 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
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Photo 23: (A): *Wodyetia bifurcata* within Zone 5  
 (Taken on: 20 September 2021)

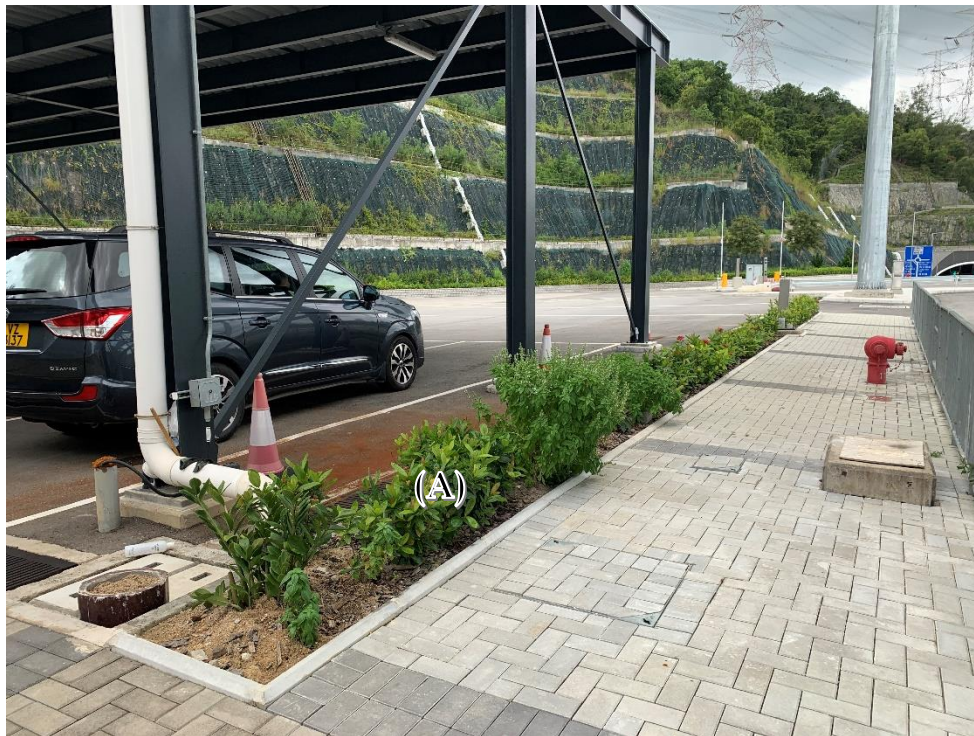


Photo 24: (A): *Ixora chinensis* within Zone 5  
 (Taken on: 20 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
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 checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
 Resources  
 Management**





Photo 25: (A): *Ixora coccinea* within Zone 5  
(Taken on: 20 September 2021)



Photo 26: (A): *Schefflera arboricola* 'variegata' within Zone 5  
(Taken on: 20 September 2021)

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North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
Management**





Photo 27: (A): *Cuphea hyssopifolia* within Zone 5  
(Taken on: 20 September 2021)



Photo 28: (A): *Callistemon viminalis* within Zone 6  
(Taken on: 20 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
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Photo 29: (A): *Grevillea robusta* within Zone 6  
(Taken on: 20 September 2021)



Photo 30: (A): *Plumeria rubra* within Zone 6  
(Taken on: 20 September 2021)

Source: P:\Projects\0463091 Gammon Construction Limited Gammon TMCLKL  
North Tunnel.JT\08\_Site Audit\05\_L&V establishment period  
checklist\02\_SLF\_NLF\_TM\03\_Aug-Oct 2021

Date: 24/09/21

**Environmental  
Resources  
Management**



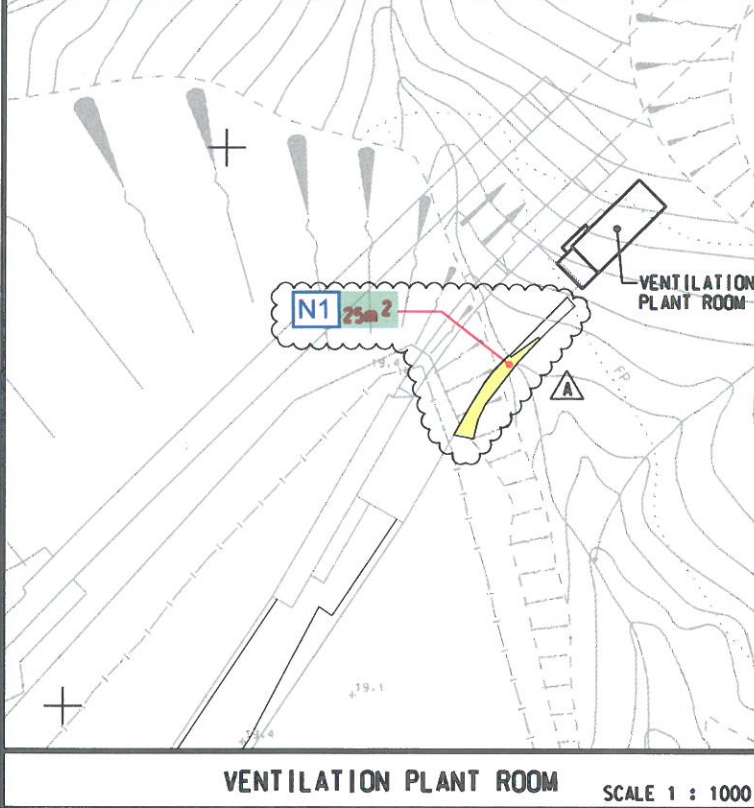
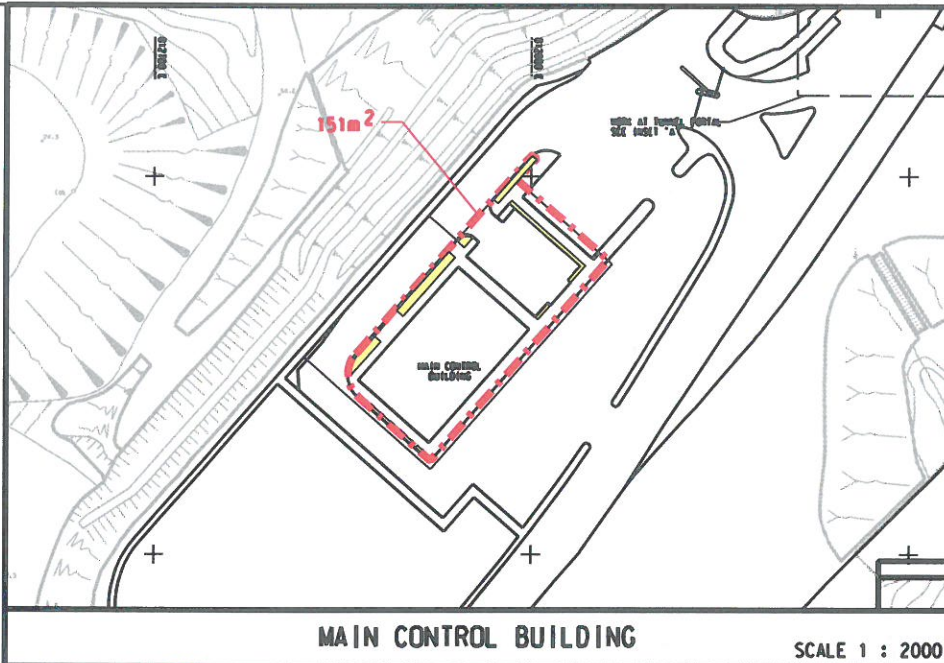
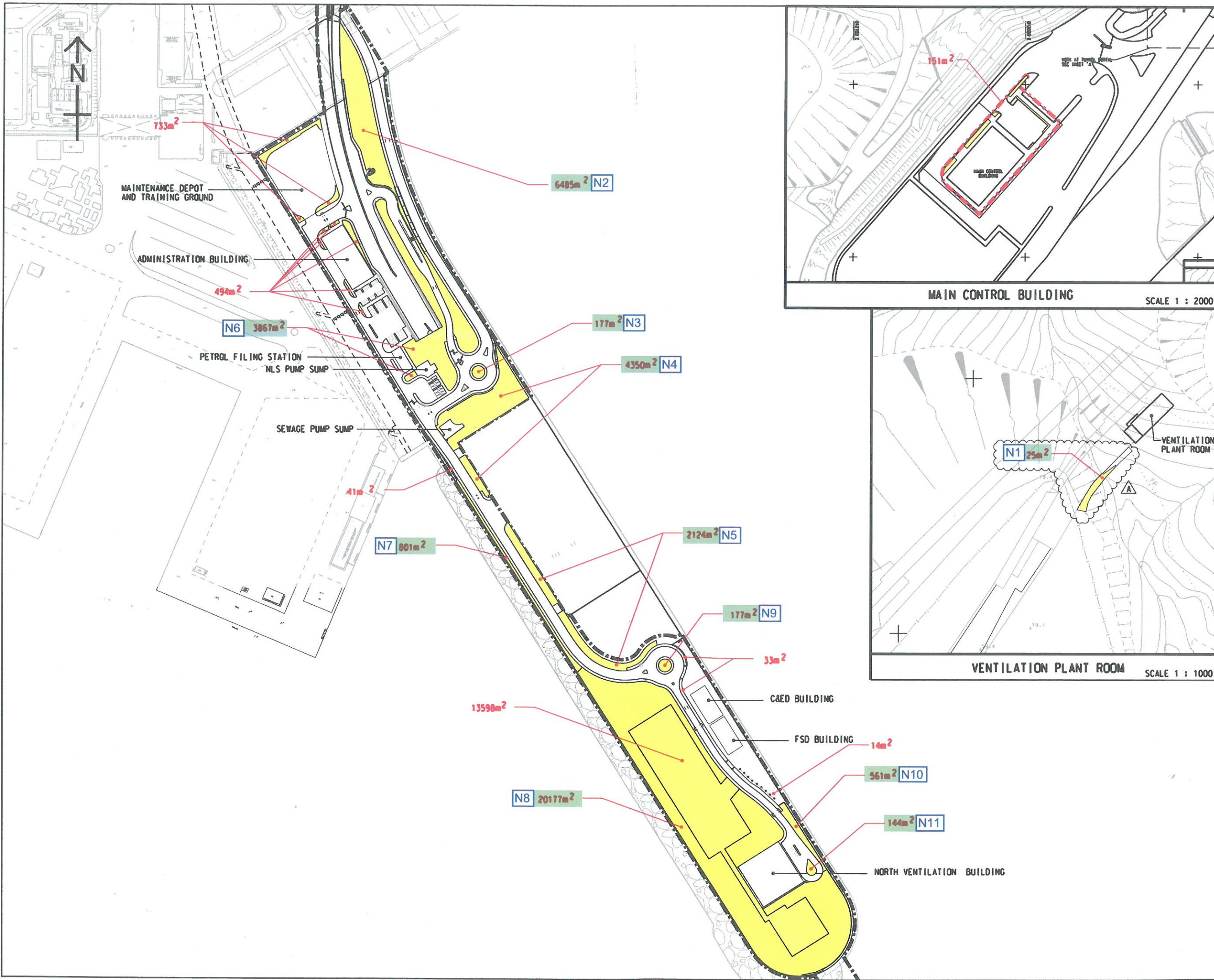
**Contract No. HY/2017/10 (C4) Landscape Area Checking for EP Condition 2.9**

<b>Area Code</b>	<b>Location</b>	<b>Plan Area (sq.m.) Approx.</b>
N1	VPR	25
N2	NLF	6485
N3	NLF	177
N4	NLF	4350
N5	NLF	2124
N6	NLF	3867
N7	NLF	801
N8	NLF	20177
N9	NLF	177
N10	NLF	561
N11	NLF	144
<b>Sub-total (A)</b>		<b>38888</b>
N12	SLF	105314
<b>Sub-total (B)</b>		<b>105314</b>
<b>Total (A) + (B)</b>		<b>144202</b>

ABBREVIATIONS

VPR	Ventilation Plant Room
NLF	Northern Landfall
SLF	Southern Landfall





**LEGEND:**

- SITE BOUNDARY
- LANDSCAPE AREA

APPROVED AND CONFIRMED BY  
 TITLE: AECOM (SRLA)  
 NAME: CANDY LAU  
 SIGNATURE: *Candy*  
 4-8-2021

**FOR INFORMATION**

REV.	DATE	DESCRIPTION	CHK.	PREP.	DRAWN
A	04/08/21	N1 REVISED	CL	CD	JW

路政署  
 HIGHWAYS DEPARTMENT  
 主要工程管理局(專責事務)  
 Major Works Project Management Office  
 (Special Duties)

**AECOM** Imagine it. Delivered.

PROJECT  
**TUEN MUN - CHEK LAP KOK LINK**

CONTRACT TITLE  
 TUEN MUN - CHEK LAP KOK LINK - NORTHERN CONNECTION TUNNEL - BUILDINGS, ELECTRICAL AND MECHANICAL WORKS

PROJECT NO. 60240249 CONTRACT NO. HY/2017/10

SCALE A3 1:4000 DATE 19 FEB. 2021

AMENDMENT TO WORKING DRAWING NO. NIL

CHECKED	PREPARED	DRAWN
CL	CD	JW

SKETCH TITLE  
 LANDSCAPE AREA

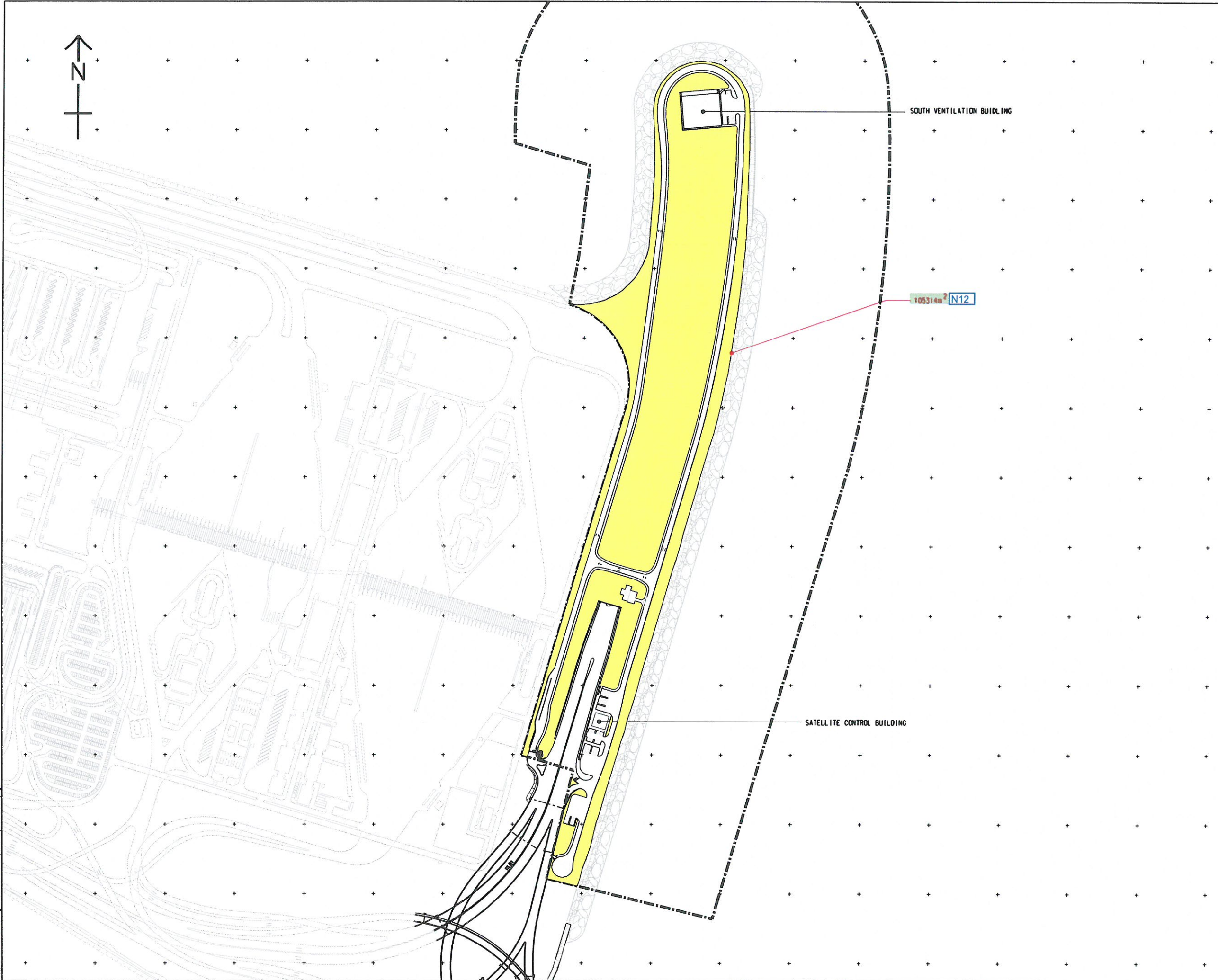
SHEET 1 OF 2


SKETCH NO.  
 60240249/C4/SK/1011A



**LEGEND:**

- SITE BOUNDARY
- LANDSCAPE AREA



APPROVED AND CONFIRMED BY  
 TITLE  
 AECOM (RLS)  
 NAME  
 SAMMY TSOI  
 SIGNATURE  


22-3-2021

**FOR INFORMATION**

REV.	DATE	DESCRIPTION	CHK.	PREP.	DRAWN

CLIENT  

**HIGHWAYS DEPARTMENT**  
 主要工程管理局 (專責事務)  
 Major Works Project Management Office  
 (Special Duties)

**AECOM** Imagine it. Delivered.

PROJECT  
**TUEN MUN - CHEK LAP KOK LINK**

CONTRACT TITLE  
**TUEN MUN - CHEK LAP KOK LINK - NORTHERN CONNECTION TUNNEL - BUILDINGS, ELECTRICAL AND MECHANICAL WORKS**

PROJECT NO. **60240249** CONTRACT NO. **HY/2017/10**

SCALE **A3 1:4000** DATE **19 FEB. 2021**

AMENDMENT TO WORKING DRAWING NO.  
**NIL**

CHECKED <b>CL</b>	PREPARED <b>CD</b>	DRAWN <b>JW</b>
----------------------	-----------------------	--------------------

SKETCH TITLE  
**LANDSCAPE AREA**

SHEET 2 OF 2

SKETCH NO.  
**60240249/C4/SK/1012**

**Summary of Compensatory Trees under Contract No. HY/2017/10**

Compensatory tree		Quantity					
Botanical name	Chinese name	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6
<i>Areca catechu</i>	檳榔	48					
<i>Bauhinia variegata</i>	宮粉羊蹄甲				38		
<i>Bauhinia x blakeana</i>	洋紫荊				10		
<i>Callistemon viminalis</i>	串錢柳						135
<i>Elaeocarpus apiculatus</i>	尖葉杜英	6					
<i>Elaeocarpus hainanensis</i> *	水石榕	18					
<i>Garcinia subelliptica</i>	福木	3					
<i>Grevillea robusta</i>	銀樺				18		306
<i>Hyophorbe lagenicaulis</i>	酒瓶椰子	16					
<i>Livistona chinensis</i>	蒲葵	87			158		
<i>Melaleuca quinquenervia</i>	白千層				18		
<i>Plumeria rubra</i>	雞蛋花	159					1686
<i>Pongamia pinnata</i>	水黃皮	25			26		
<i>Roystonea regia</i>	王棕	44					
<i>Sterculia lanceolata</i>	假蘋婆				54		
<i>Terminalia catappa</i>	欖仁樹	2			36		
<i>Viburnum odoratissimum</i>	珊瑚樹				10		
<i>Wodyetia bifurcata</i>	狐尾椰子	10			67	4	
<i>Xanthostemon chrysanthus</i>	金蒲桃	13					
	Sub-total	431	0	0	435	4	2127
	Total	2997					

Remarks \* One to three in terms of quantity in Zone 1 will be re-planted as per latest planting plan if the tree(s) is/are unavoidably removed from site.

## **Appendix G**

### **Environmental Mitigation and Enhancement Measures Implementation Schedule (EMIS)**

**CONTRACT NO. HMWSD 2/2020 (HY)**  
**ESTABLISHMENT OF LANDSCAPE SOFTWARES FOR THE TUEN MUN - CHEK LAP KOK LINK**  
**ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE**

Landscape and Visual									
EIA reference	EM&A Manual reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
10.9	7.6	Existing trees on boundary of the Project Area shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage) (CM1)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Trees unavoidably affected by the works shall be transplanted where practical. Trees will be transplanted straight to their final receptor site and not held in a temporary nursery. A detailed Tree Transplanting Specification shall be provided in the Contract Specification. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme (CM2)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Hillside and roadside screen planting to proposed roads, associated structures and slope works (CM3)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material (in earth tone) (CM4)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Screening of construction works by hoardings around works area in visually unobtrusive colours, to screen works (CM5)	All areas/detailed design/ during Construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A

**CONTRACT NO. HMWSD 2/2020 (HY)**  
**ESTABLISHMENT OF LANDSCAPE SOFTWARES FOR THE TUEN MUN - CHEK LAP KOK LINK**  
**ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE**

<b>Landscape and Visual</b>									
EIA reference	EM&A Manual reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
10.9	7.6	Control night-time lighting and glare by hooding all lights (CM6)	All areas/detailed design/ during Construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Ensure no run-off into water body adjacent to the Project Area (CM7)	All areas/detailed design/ during Construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (CM8)	All areas/detailed design/ during Construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Recycle/Reuse all felled trees and vegetation, e.g. mulching (CM9)	All areas/detailed design/ during Construction	Design Consultant/ Contractor	TMEIA	Y	Y		N/A
10.9	7.6	Compensatory tree planting shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006 (CM10)	All areas/detailed design/ during Construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Re-vegetation of affected woodland/shrubland with native species (OM1)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓ maintenance agent : HyD
10.9	7.6	Tall buffer screen tree / shrub / climber planting where appropriate should be incorporated to soften hard engineering structures and facilities (OM2)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓ maintenance agent : HyD & LCSD
10.9	7.6	Streetscape elements (e.g. paving, signage, street furniture, lighting etc.) shall be sensitively designed in a manner that responds to the local context, and minimises potential negative landscape and visual impacts. Lighting units should be directional and	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A

**CONTRACT NO. HMWSD 2/2020 (HY)**  
**ESTABLISHMENT OF LANDSCAPE SOFTWARES FOR THE TUEN MUN - CHEK LAP KOK LINK**  
**ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE**

Landscape and Visual									
EIA reference	EM&A Manual reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		minimize unnecessary light spill (OM3)							
10.9	7.6	Structure, ornamental tree / shrub / climber planting should be provided along roadside amenity strips, central dividers and newly formed slopes to enhance the townscape quality and further greenery enhancement (OM4)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓ maintenance agent : HyD & LCSD
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities (OM5)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (OM6)	All areas/detailed design/ during Construction/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A

Remarks:

- ✓ Compliance of Mitigation Measures
- <> Compliance of Mitigation Measures but need improvement.
- × Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by Contractor
- △ Deficiency of Mitigation Measures but rectified by Contractor
- N/A Not Applicable in Reporting Period

Legend: D=Design, C=Construction, O=Operation

Note: Funding Agent for all mitigation measures will be the Highways Department of the Hong Kong SAR Government

## **Appendix H**

### **Cumulative Statistics on Exceedance and Complaint**



**Table H-1 Statistical Summary of Environmental Complaints**

Reporting Period	Environmental Complaint Statistics					
	Frequency	Cumulative	Complaint Nature			
			Air	Noise	Water	Others
September 2021	0	0	NA	NA	NA	NA
Cumulative since Contract commencement	0	0	NA	NA	NA	NA

**Table H-2 Statistical Summary of Environmental Summons**

Reporting Period	Environmental Summons Statistics				
	Frequency	Cumulative	Complaint Nature		
			Air	Noise	Water
September 2021	0	0	NA	NA	NA
Cumulative since Contract commencement	0	0	NA	NA	NA

**Table H-3 Statistical Summary of Environmental Prosecution**

Reporting Period	Environmental Prosecution Statistics				
	Frequency	Cumulative	Complaint Nature		
			Air	Noise	Water
September 2021	0	0	NA	NA	NA
Cumulative since Contract commencement	0	0	NA	NA	NA