



CONTRACT NO: DC/2016/01

**CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN
BETWEEN TUNG CHUNG AND SIU HO WAN AND
ASSOCIATED WORKS**

**ENTRUSTED LANDSCAPE WORKS FROM CONTRACT NO.
HY/2012/07 TO CONTRACT NO. DC/2016/01
UNDER ENVIRONMENTAL PERMIT NO. EP-354/2009/D**

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

MARCH 2024

CLIENTS:

Highways Department

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CERTIFIED BY:

Raymond Dai
Environmental Team Leader

DATE:

16 April 2024



Highways Department
5th Floor, Ho Man Tin Government Offices
88 Chung Hau Street
Ho Man Tin
Kowloon

Your reference:

Our reference: HKHYD203/50/109693

Date: 16 April 2024

Attention: Mr Eric Wong

BY EMAIL & POST
(email: se1tcl.mw@hyd.gov.hk)

Dear Sirs

Agreement No. HMWSD 6/2022 (EP)
Environmental Project Office for the Hong Kong-Zhuhai-Macao Bridge
Hong Kong Link Road, Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary
Crossing Facilities & Tuen Mun-Chek Lap Kok Link – Investigation

Contract No. DC/2016/01
Entrusted Landscape Works from Contract No. HY/2012/07 to
Contract No. DC/2016/01 Under Environmental Permit No.: EP-354/2009/D
18th Monthly EM&A Report for March 2024

We refer to the emails of 15 April 2024, attaching the 19th Monthly EM&A Report for March 2024 prepared by the Environmental Team (ET) of the captioned.

We have no comment and hereby verify the Monthly EM&A Report in accordance with Clause 4.4 of the Environmental Permit no. EP-354/2009/D.

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

Yours faithfully
ANEWR CONSULTING LIMITED

James Choi
Independent Environmental Checker

CPSJ/LCCR/CYCA/csym

cc Highways Department – Mr Nick Li (email: e1tcl.mw@hyd.gov.hk)
Lam Environmental Services Limited – Mr Raymond Dai (email: raymond dai@lamenviro.com)
Binnies Hong Kong Limited – Mr Charlson Leung (email: leungcsc@binnies.com)



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EXECUTIVE SUMMARY

- i. This is the 19th Environmental Monitoring and Audit (EM&A) Monthly Report – March 2024 as referred to the approved EM&A manual under the approved EIA report for the Agreement No. CE52/2007(HY) for the entrusted landscape works under Environmental Permit no. EP-354/2009/D, presenting the environmental monitoring findings and information recorded during the period of 01 March 2024 to 31 March 2024.

- ii. In the reporting period, the work activities conducted for the establishment period of the entrusted landscape works are as follow:

- Weeding, watering, shrubs and turf replacement

EM&A activities for the reporting period

- iii. The EM&A programme was carried out in accordance with the contract specific EM&A Manual requirements, no air quality, noise, water quality, ecology, cultural heritage and landfill gas monitoring was required for the contract.
- iv. With the completion of all the entrusted landscape works associated with the interface areas between Contract No. HY/2012/07 and DC/2016/01 along a section of Cheung Tung Road certified by the Project Manager's Delegate under Contract No. DC/2016/01 in mid-July 2022, the 24-month landscape establishment period was proposed for commencement on 14 July 2022 as per the joint inspection with HyD, IEC and ET.
- v. v.No landscape establishment monitoring was conducted in this reporting period

Complaints, Notifications of Summons and Successful Prosecutions

- vi. No environmental complaint, notification of summons and successful prosecution regarding the construction works was recorded in the reporting period.

Reporting Changes

- vii. No changing circumstances requiring alterations to the EM&A programme were made in the reporting period.

Future Key Issues

- viii. In coming reporting 2 months, the scheduled construction activities for the establishment period of the entrusted landscape works are listed as follows,
 - Watering, weeding
- ix. Quarterly monitoring for 24-month establishment period has been commenced starting from October 2022 as notified in August 2022 via the submission of the contract specific EM&A manual to EPD.



1 Introduction

1.1 Scope of the Report

- 1.1.1. Lam Environmental Services Limited has been appointed by Penta-Ocean – Wo Hing Joint Venture (hereinafter referred to as “Contractor”) to undertake the Environmental Monitoring and Audit (EM&A) works for the Additional Entrusted Landscape Works under Contract no. DC/2016/01 (Hereafter referred as “the entrusted landscape works”).
- 1.1.2. As referred to the approved EM&A manual under the approved EIA report for the Agreement No. CE52/2007(HY) for the entrusted landscape works under Environmental Permit no. EP-354/2009/D, a contract-specific EM&A manual has been submitted to the Environmental Protection Department (EPD) and accepted for commencing EM&A programme for the establishment period of the entrusted landscape works.
- 1.1.3. This is the 19th Monthly EM&A Report – [March 2024](#) of the entrusted landscape works, presenting the environmental monitoring findings and information recorded during the period of [01 March 2024 to 31 March 2024](#).

1.2 Structure of the Report

- Section 1** ***Introduction*** – details the scope and structure of the report.
- Section 2** ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- Section 3** ***Status of Regulatory Compliance*** – summarizes the status of EM&A implementation, valid Environmental Permits / Licenses during the reporting period.
- Section 4** ***Monitoring Programme*** – summarizes all monitoring requirements, monitoring locations, monitoring frequency, and respective event and action plan and monitoring programmes.
- Section 5** ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.
- Section 6** ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 7** ***Conclusion***

2 Project Background

2.1 Background

2.1.1. The entrusted landscape works associated with the interface areas between Contract No. HY/2012/07 and DC/2016/01 along a section of Cheung Tung Road form part of landscape mitigation measures as recommended under the approved EIA report (Register No.: AEIAR-146/2009). A Landscape and Visual Plan (LVP) has been submitted under Condition 2.9 of Environmental Permit EP-354/2009/D and approved by EPD.

2.1.2. Locations and planting schedule of entrusted landscape works are showed in [Figure 2.1](#), [Figure 2.2](#) and [Figure 2.3](#) respectively.

2.2 Project Organization and Contact Personnel

2.2.1 Highways Department is the overall project controllers for the Project. For the construction phase of the Project, Project Engineer / Supervisor, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.2.2 The project organization and lines of communication with respect to environmental protection works are shown in [Figure 2.4](#). Key personnel and contact particulars are summarized in **Table 2.1**:

Table 2.1 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
Highways Department (HyD)	Project Proponent	Principal Project Coordinator	LO Kwok-chung, David	2762 4153	3188 6614
Drainage Services Department (DSD)	Project Manager	Engineer / Consultants Management	Marcus LAU	2594 7218	3104 6426
Binnies Hong Kong Limited	Project Manager's Delegate	Senior Resident Engineer	Charlson LEUNG	3757 6615	3100 0143
Penta-Ocean Wo Hing JV	Contractor	Sub Agent	Sandy NGAN	9280 6602	2398 8301
ANewR Consulting Limited	Environmental Project Office (ENPO)	Independent Environmental Checker (IEC)	James CHOI	2618 2831	3007 8648
Lam Environmental Services Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Raymond DAI	2882 3939	2882 3331



2.3 Work Activities

2.3.1 In the reporting period, the work activities conducted for the establishment period of the entrusted landscape works are as follows,

- Weeding, watering, shrubs replacement

2.3.2 In coming reporting 2 months, the scheduled construction activities for the establishment period of the entrusted landscape works are listed as follows,

- Watering, weeding

3 Status of Regulatory Compliance

3.1 EM&A Implementation under the Project

3.1.1. As per the a contract-specific EM&A manual submitted to and accepted by EPD, the monitoring and audit requirements of the environmental aspects of the EM&A programme for the establishment period of the entrusted landscape works are summarized in the sub-sections below,

Air Quality

3.1.2. Scopes of the entrusted landscape works 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 and no specific monitoring and mitigation measures would be required.

Noise

3.1.3. Most of the works under the entrusted landscape works would be conducted manually, with limited use of Power Mechanical Equipment (PME) for delivery material on site and watering the planting area along the road side. Therefore, no unacceptable noise impact would be expected and no specific monitoring and mitigation measures would be required.

Water Quality

3.1.4. All planting area under the entrusted landscape works 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 and no specific monitoring and mitigation measures would be required.

Ecology

3.1.5. 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 monitoring and mitigation measures would be required.

Landscape and Visual

3.1.6. The approved EIA report (Register No.: AEIAR-146/2009) has recommended landscape and visual mitigation measures to be undertaken. Furthermore, Section 7.3 of the Updated EM&A Manual for the TM-CLK Link Project has recommended monitoring and audit of these measures as referred to the design laid down in the Landscape and Visual Plan (LVP) submitted under Condition 2.9 of Environmental Permit EP-354/2009/D approved by EPD.



3.1.7. Monitoring and audit is necessary for monitoring of landscape establishment stage for fulfilling the requirements in Section 7 of the Updated EM&A Manual for the TM-CLK Link Project are presented in **Table 3.1**.

Table 3.1 Monitoring Requirement of Landscape Establishment

Stage	Monitoring Task	Monitoring Report	Form Approval	of	Frequency
Establishment Works	Monitoring of the planting works during the 24-month Establishment period after completion of the construction works.	Report on Contractor's compliance, by ET	Counter-signature report by IEC	of	Quarterly

Remark:

*Quarterly monitoring for 24-month establishment period will be commenced starting from October 2022 as notified in August 2022 via the submission of the contract specific EM&A manual to EPD.

3.1.8. Implementation status of the recommended mitigation measures is presented in [Appendix 3.1](#).

Waste Management

3.1.9. All planting area under the entrusted landscape works are land-based, no dredged sediment, excavated C&D material, C&D waste, chemical waste and sewage would be generated. With only limited level of dead plant would be generated from works during maintenance of the planting area handled as part of overall waste management under Contract No. DC/2016/01 instead of as part of the EM&A under TM-CLKL project easily controlled by standard waste management practice, no specific monitoring and mitigation measure would be required.

Cultural Heritage

3.1.10. No historical/heritage object is required to be handled, no specific monitoring and mitigation measures would be required.

Landfill Gas

3.1.11. No landfill gas hazard is required to be handled, no specific monitoring and mitigation measures would be required.

3.2 Status of Environmental Licensing and Permitting under the Project

3.2.1. As reported by contractor, no environmental license and permit are applicable to the area of the entrusted landscape works in the reporting period.

4 Monitoring Programme

4.1 Landscape and Visual Monitoring Requirements

4.1.1. As referred to layout plan of the entrusted landscape works, the landscape and visual impact mitigation measures applicable to the entrusted landscape works are listed in **Table 4.1**:

Table 4.1 Landscape and Visual Mitigation Measures applicable to the entrusted landscape works

Ref.	Landscape and Visual Mitigation Measures
CM2	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.
CM10	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.
OM4	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.

Remark:

Mitigation measures OM1, OM2, OM3, OM5 and OM6 are NOT applicable to the entrusted landscape works.

*Approved L&VP states that under the Contract Specification for HY/2012/07, 'Transplanted trees shall be relocated to the specified locations under single handling where possible. If it not possible, the Contractor shall make provision for the relocation of the transplanted trees temporarily to a holding nursery and replanting back of the transplanted trees to the specified locations.' As such, 5 transplant trees no. A149, NL0483, NL0489, NL0490 and NL0498 have been maintained in landscape sub-contractor's nursery to be replanted to final receptor site at Area 3A.

**Change of tree nos. ET092 and ET093 from *Peltophorum tonkinense* 銀珠 to *Xanthostemon chrysanthus* 黃金蒲桃/澳洲黃花樹(due to lack of availability) is approved by AECOM, DSD Landscape Unit, HyD and LCSD.

4.1.2. Should non-compliance of the landscape and visual impacts occur, actions in accordance with the action plan as presented in **Table 4.2** should be carried out.

Table 4.2 Event and Action Plan for Landscape and Visual Impact

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

4.2 Monitoring Programme

- 4.2.1. With the completion of all the entrusted landscape works associated with the interface areas between Contract No. HY/2012/07 and DC/2016/01 along a section of Cheung Tung Road certified by the Project Manager's Delegate under Contract No. DC/2016/01 in mid-July 2022, the 24-month landscape establishment period was proposed for commencement on 14 July 2022 as per the joint inspection with HyD, IEC and ET.
- 4.2.2. Quarterly monitoring for 24-month establishment period will be commenced starting from October 2022 as notified to EPD in August 2022 via the submission of the contract specific EM&A manual to EPD. Tentative monitoring schedule is presented in **Table 4.3**:

Table 4.3 Current and Upcoming Schedule of Landscape Establishment Monitoring

Month	Monitoring Location
March 2024	Nil
April 2024	Entrusted landscape areas (c.f. Figure 1.2)



5 Monitoring Results

5.1 Landscape Establishment Monitoring Results

No landscape establishment monitoring was conducted in this reporting period. Detailed information are referred to [Appendix 5.1](#).



6 Complaints, Notification of Summons and Prosecution

- 6.0.1. No environmental complaint, notification of summons and successful prosecution associated with entrusted landscape establishment was recorded for the in the reporting period.
- 6.0.2. The details of cumulative complaint log and updated summary of complaints are presented in [Appendix 6.1](#).
- 6.0.3. Cumulative statistic on complaints, notification of summons and successful prosecutions are summarized in **Table 6.1**, **Table 6.2** and **Table 6.3** respectively.

Table 6.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
March 2024	0
Project commencement to the end of last reporting month	-
Total	0

Table 6.2 Cumulative Statistics on Summons

Month to Date	Cumulative No. Brought Forward	No. of Summons this month (Offence Date)	Cumulative No. Project-to-Date
March 2024	-	0	0
Total	-	0	0

Table 6.3 Cumulative Statistics on Successful Prosecutions

Month to Date	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
March 2024	-	0	0
Total	-	0	0

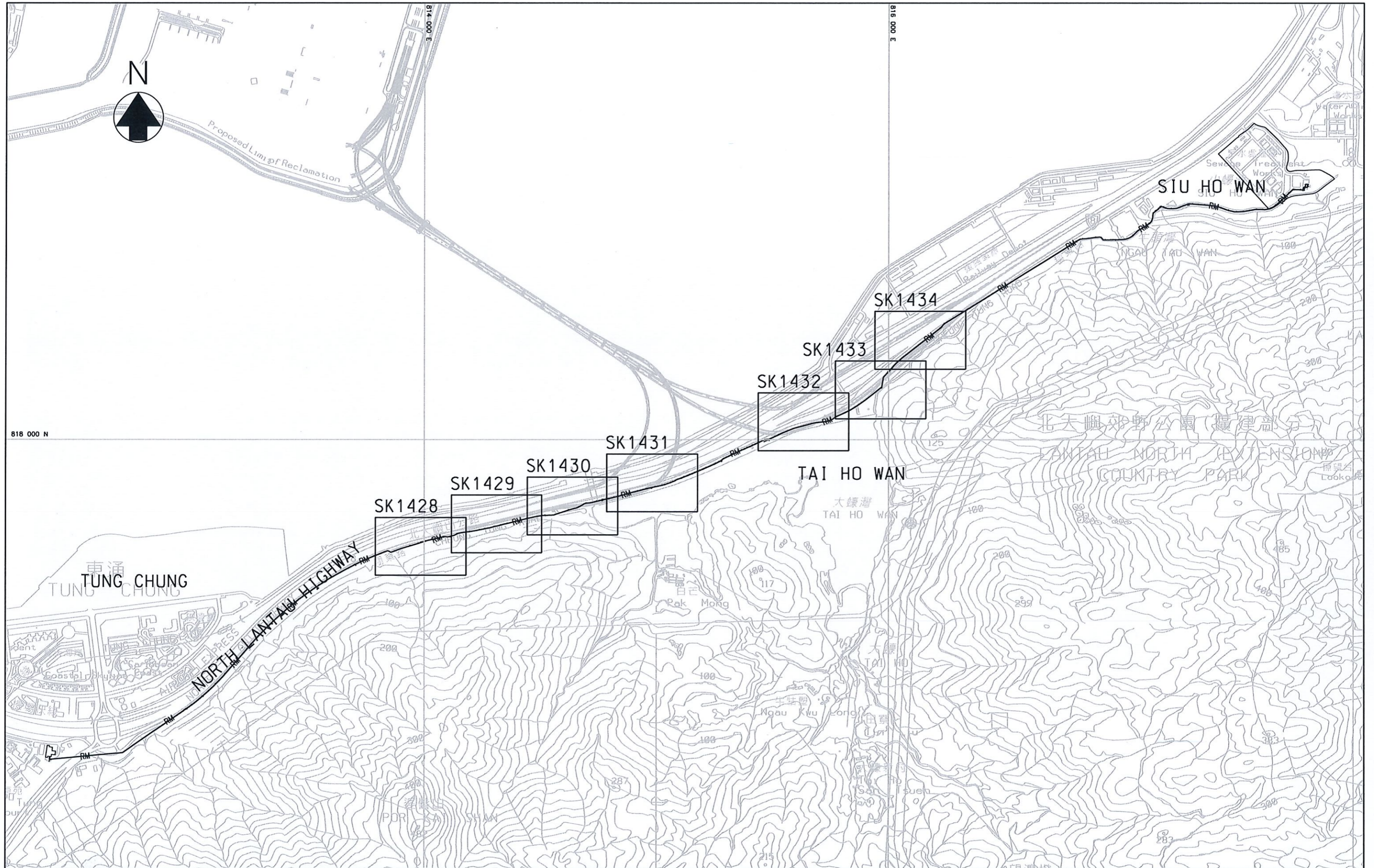
7 Conclusion

- 7.0.1. The EM&A programme was carried out in accordance with the contract specific EM&A Manual requirements, no air quality, noise, water quality, ecology, cultural heritage and landfill gas monitoring was required for the contract. No alterations to the programme proposed were made in response to changing circumstances.
- 7.0.2. With the completion of all the entrusted landscape works associated with the interface areas between Contract No. HY/2012/07 and DC/2016/01 along a section of Cheung Tung Road certified by the Project Manager's Delegate under Contract No. DC/2016/01 in mid-July 2022, the 24-month landscape establishment period was proposed for commencement on 14 July 2022 as per the joint inspection with HyD, IEC and ET.
- 7.0.3. No landscape establishment monitoring was conducted in this reporting period. Quarterly monitoring for 24-month establishment period will be commenced starting from October 2022 as notified in August 2022 via the submission of the contract specific EM&A manual to EPD.
- 7.0.4. No environmental complaint, notification of summons and successful prosecution associated with entrusted landscape establishment was recorded for the in the reporting period.

Figure 2.1

Key Plan for Entrusted Landscape Works from HY/2012/07 to DC/2016/01

Figure 2.1



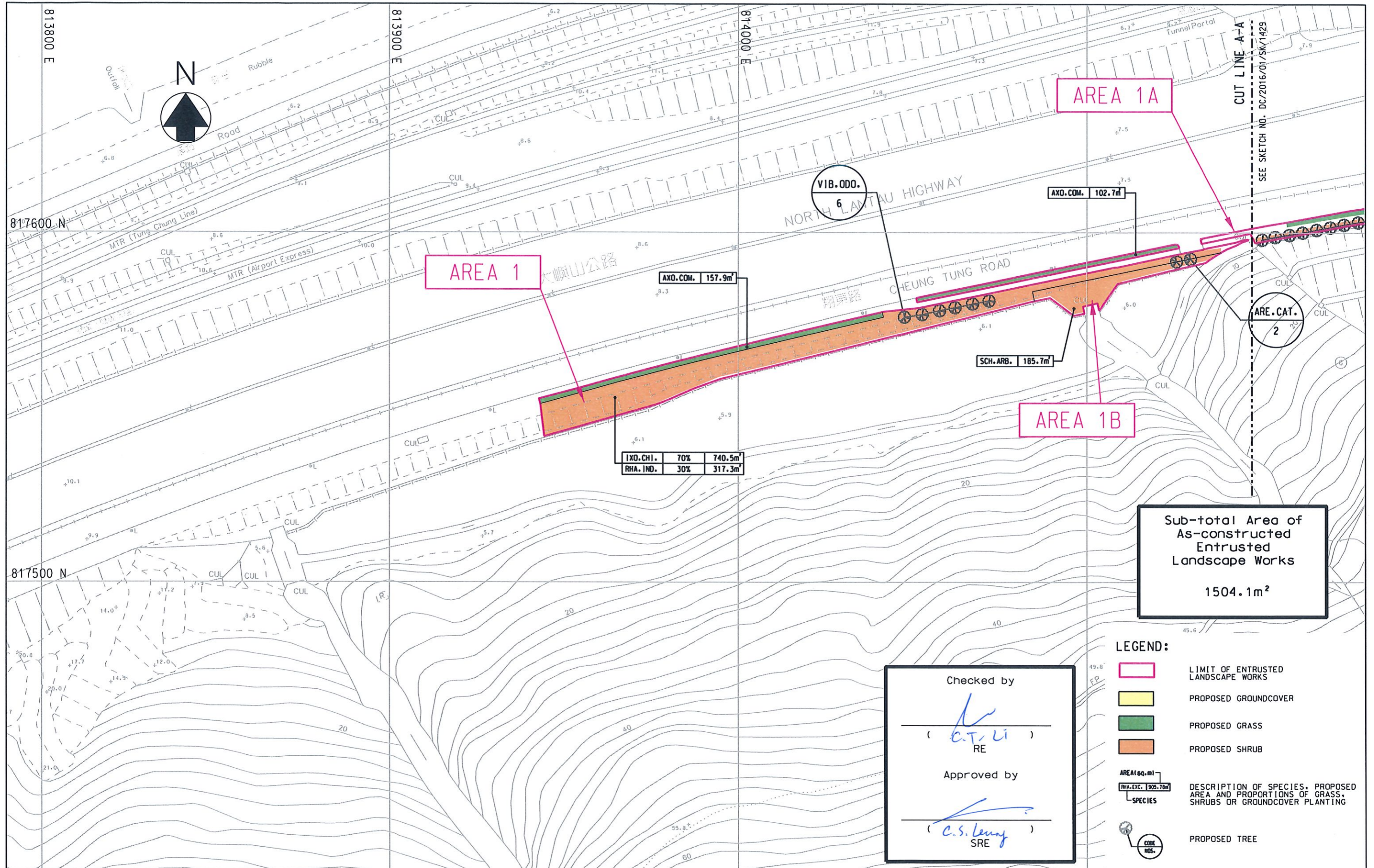
LEGENDS PROPOSED DN1200 SEWAGE RISING MAIN	Project CONTRACT NO. DC/2016/01 CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS 建造東涌至小蠔灣額外污水泵喉及附屬工程	香港特別行政區政府渠務署 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION DRAINAGE SERVICES DEPARTMENT	Drawn by KYC	Date 22/10/2021
	Title KEY PLAN FOR ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01		Checked by B P S BS	Scale A3 1 : 15000
	Approved by CL		Sketch no. DC/2016/01/SK/1427	Revision -

Plot Date = 11/3/2021

Figure 2.2

Layout Plan of Entrusted Landscape Works from HY/2012/07 to DC/2016/01 (Sheet 1 to Sheet 7)

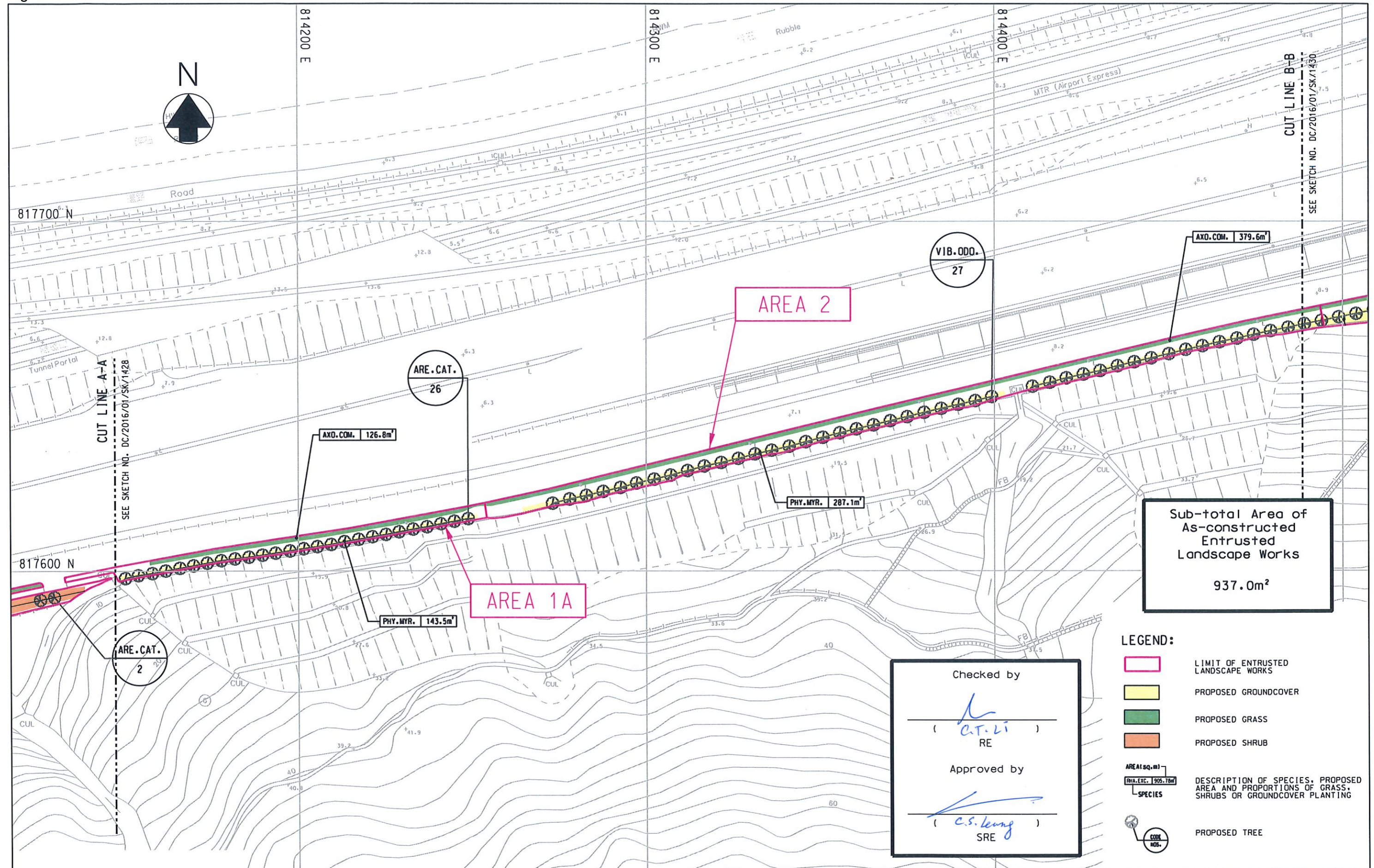
Figure 2.2



NOTES: 1. PLANTING SCHEDULE REFERS TO SITE SKETCH NO. DC/2016/01/SK/1435.	Project CONTRACT NO. DC/2016/01 CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS 建造東涌至小蠔灣額外污水泵喉及附屬工程		Drawn by C T L	Date 19/04/2022
	Title LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 1 OF 7)		Checked by B P S	Scale A3 1 : 1000
	Approved by C L		Sketch no. DC/2016/01/SK/1428	Revision B

Plot Date = 4/19/2022

Figure 2.2



Project CONTRACT NO. DC/2016/01
CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS
建造東涌至小蠔灣額外污水泵喉及附屬工程

Title LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 2 OF 7)

Checked by
(Signature)
RE

Approved by
(Signature)
SRE

Checked by
(Signature)
RE

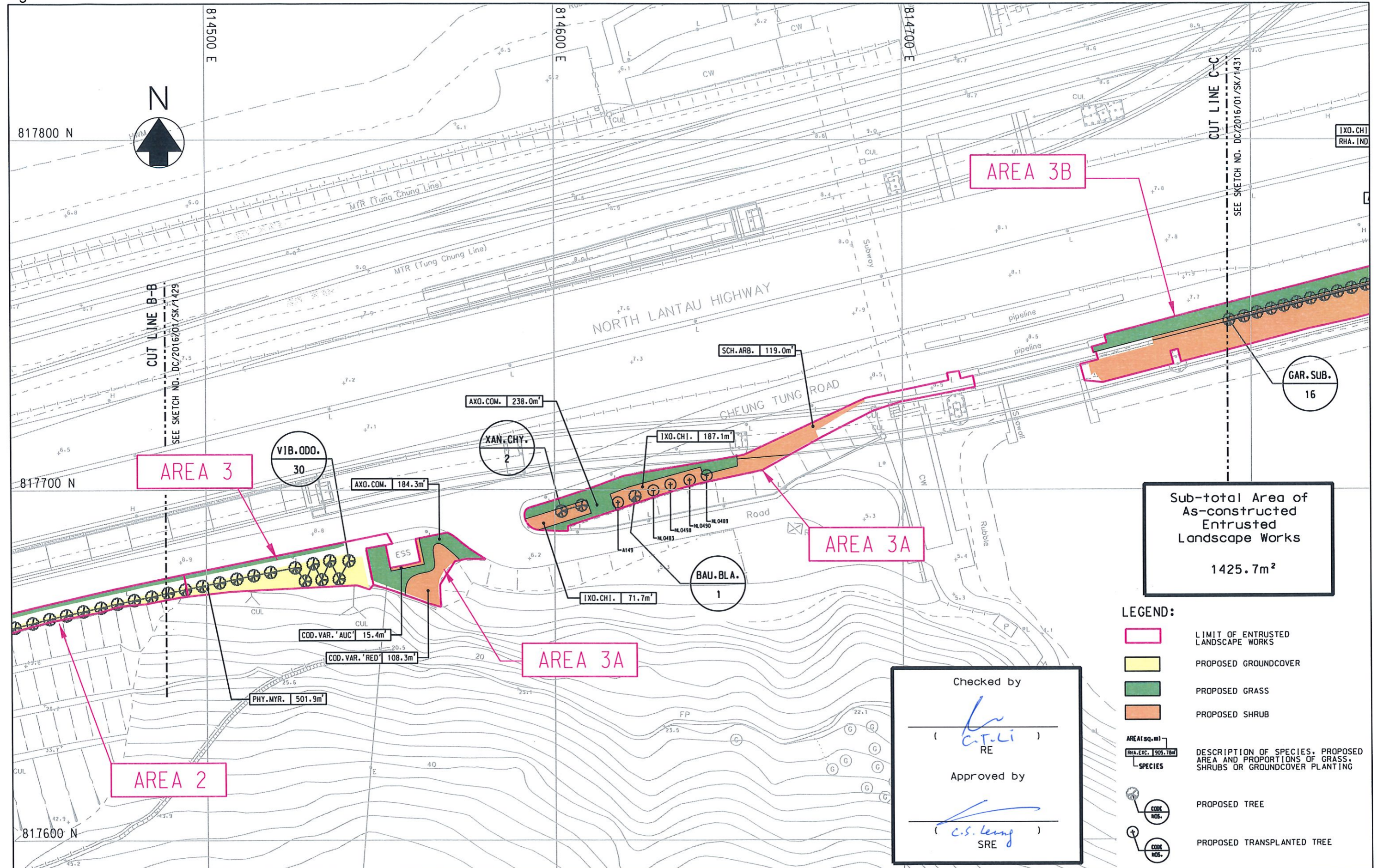
Approved by
(Signature)
SRE

Drawn by	C T L	Date	19/04/2022
Checked by	B P S	Scale	A3 1 : 1000
Approved by	C L	Sketch no.	DC/2016/01/SK/1429
		Revision	B

Plot Date = 09/06/2022

CAD Filename = Q:\Technical\TO\Site Sketch\SK1429B.dgn

Figure 2.2



Sub-total Area of As-constructed Entrusted Landscape Works
1425.7m²

Checked by
C.T. LI
RE
Approved by
C.S. Leung
SRE

- LEGEND:**
- LIMIT OF ENTRUSTED LANDSCAPE WORKS
 - PROPOSED GROUNDCOVER
 - PROPOSED GRASS
 - PROPOSED SHRUB
 - AREASq.m
RHA-EXC. 905.7m²
SPECIES DESCRIPTION OF SPECIES, PROPOSED AREA AND PROPORTIONS OF GRASS, SHRUBS OR GROUNDCOVER PLANTING
 - COD NOS. PROPOSED TREE
 - COD NOS. PROPOSED TRANSPLANTED TREE

Project	CONTRACT NO. DC/2016/01 CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS 建造東涌至小蠔灣額外污水泵喉及附屬工程
Title	LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 3 OF 7)

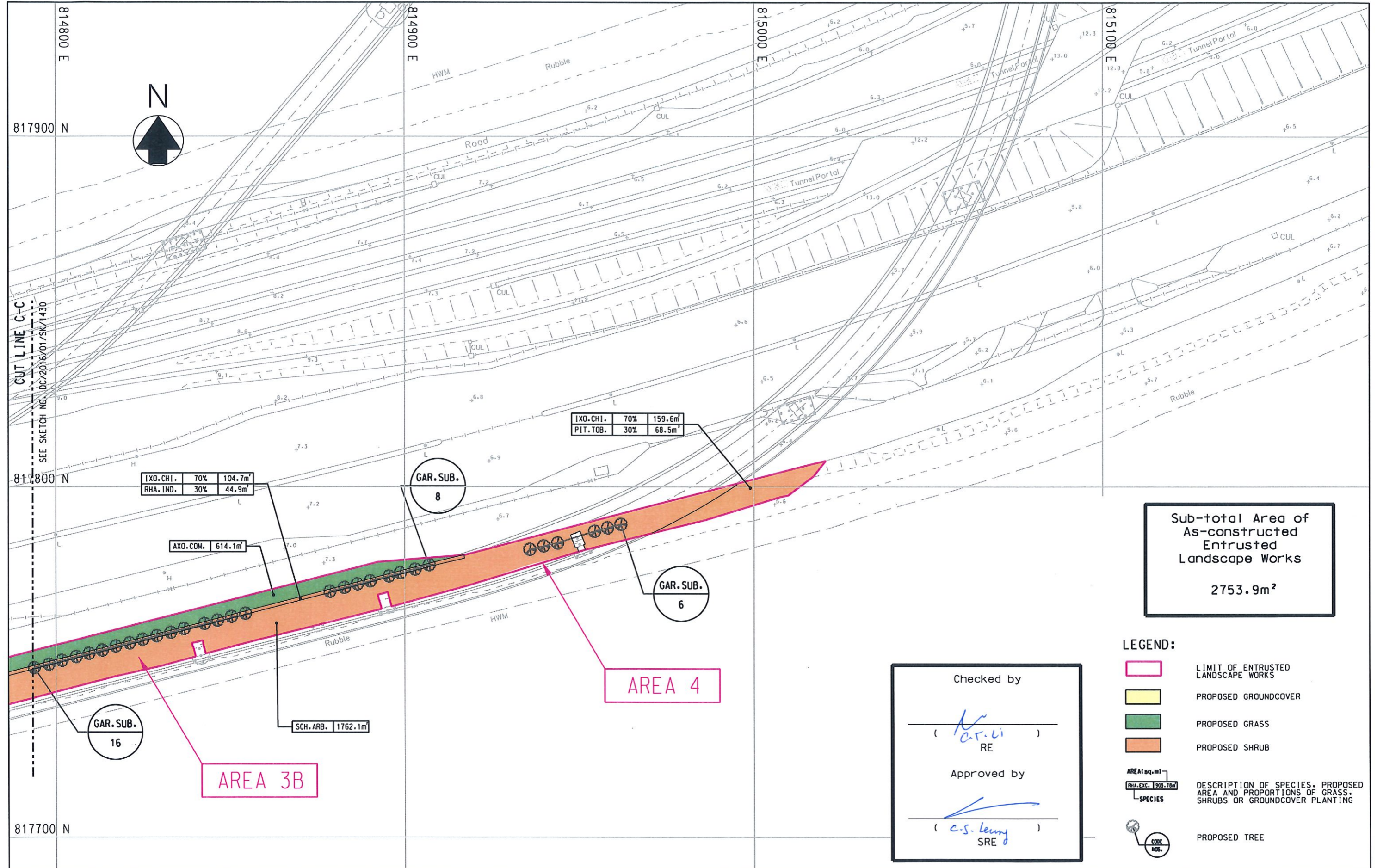
香港特別行政區政府渠務署
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
DRAINAGE SERVICES DEPARTMENT

binnies
BINNIES HONG KONG LIMITED
賓尼士工程顧問有限公司

Drawn by	C T L	Date	19/04/2022
Checked by	B P S	Scale	A3 1 : 1000
Approved by	C L	Sketch no.	DC/2016/01/SK/1430
		Revision	B

Plot Date = 09/06/2022

Figure 2.2



Sub-total Area of As-constructed Entrusted Landscape Works
2753.9m²

Checked by
(Signature)
RE

Approved by
(Signature)
SRE

- LEGEND:**
- LIMIT OF ENTRUSTED LANDSCAPE WORKS
 - PROPOSED GROUNDCOVER
 - PROPOSED GRASS
 - PROPOSED SHRUB
- AREAS (sq.m)**
- | AREA | EXC. | TOT. |
|---------|-------|-------|
| AREA 3B | 104.7 | 144.9 |
| AREA 4 | 159.6 | 204.8 |
- DESCRIPTION OF SPECIES, PROPOSED AREA AND PROPORTIONS OF GRASS, SHRUBS OR GROUNDCOVER PLANTING**
- PROPOSED TREE

Project CONTRACT NO. DC/2016/01
CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS
建造東涌至小蠔灣額外污水泵喉及附屬工程

Title LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 4 OF 7)

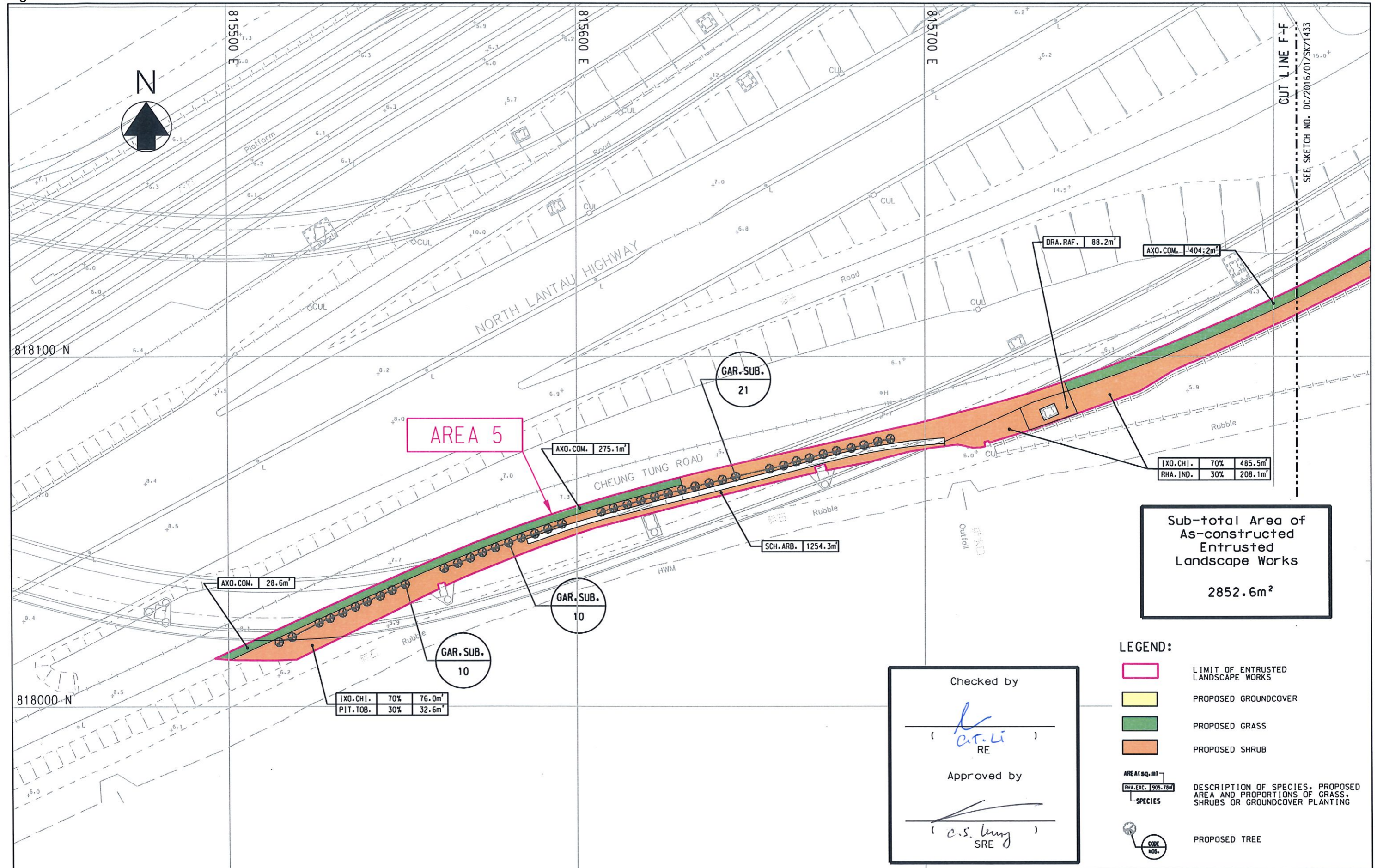
香港特別行政區政府渠務署
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
DRAINAGE SERVICES DEPARTMENT

binnies
BINNIES HONG KONG LIMITED
賓尼士工程顧問有限公司

Drawn by	C T L	Date	19/04/2022
Checked by	B P S	Scale	A3 1 : 1000
Approved by	C L	Sketch no.	DC/2016/01/SK/1431
		Revision	B

Plot Date = 4/19/2022

Figure 2.2



Sub-total Area of As-constructed Entrusted Landscape Works
2852.6m²

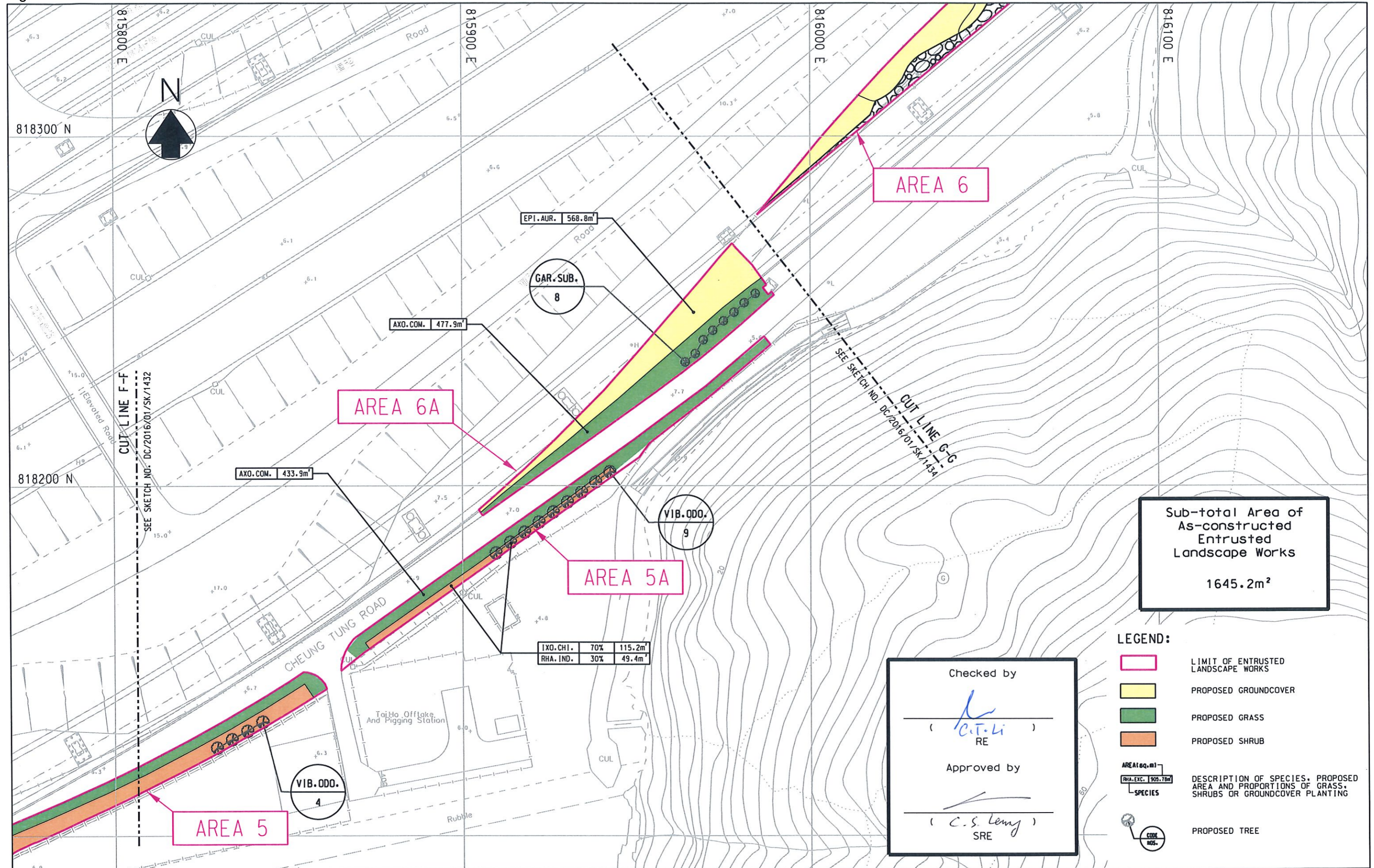
Checked by
C.T. LI
RE

Approved by
C.S. LUNG
SRE

- LEGEND:
- LIMIT OF ENTRUSTED LANDSCAPE WORKS
 - PROPOSED GROUNDCOVER
 - PROPOSED GRASS
 - PROPOSED SHRUB
 - AREA: 1sq.m
RHA: EXC. 1905.78m²
SPECIES DESCRIPTION OF SPECIES, PROPOSED AREA AND PROPORTIONS OF GRASS, SHRUBS OR GROUNDCOVER PLANTING
 - CODE NOS. PROPOSED TREE

Plot Date = 23/05/2022	Project	CONTRACT NO. DC/2016/01 CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS 建造東涌至小蠔灣額外污水泵喉及附屬工程	 香港特別行政區政府渠務署 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION DRAINAGE SERVICES DEPARTMENT	Drawn by C T L	Date 19/04/2022
	Title	LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 5 OF 7)	 BINNIES HONG KONG LIMITED 賓尼斯工程顧問有限公司	Checked by B P S	Scale A3 1 : 1000
				Approved by C L	Sketch no. DC/2016/01/SK/1432
					Revision B

Figure 2.2



Sub-total Area of As-constructed Entrusted Landscape Works
1645.2m²

Checked by
(C.T. Li)
RE
Approved by
(C.S. Leng)
SRE

- LEGEND:**
- LIMIT OF ENTRUSTED LANDSCAPE WORKS
 - PROPOSED GROUNDCOVER
 - PROPOSED GRASS
 - PROPOSED SHRUB
 - AREA (sq.m)
RHA. EXC. 905.76m²
SPECIES DESCRIPTION OF SPECIES, PROPOSED AREA AND PROPORTIONS OF GRASS, SHRUBS OR GROUNDCOVER PLANTING
 - CUL
NO. PROPOSED TREE

Project CONTRACT NO. DC/2016/01
CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS
建造東涌至小蠔灣額外污水泵喉及附屬工程

Title LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 6 OF 7)

Checked by
(C.T. Li)
RE
Approved by
(C.S. Leng)
SRE

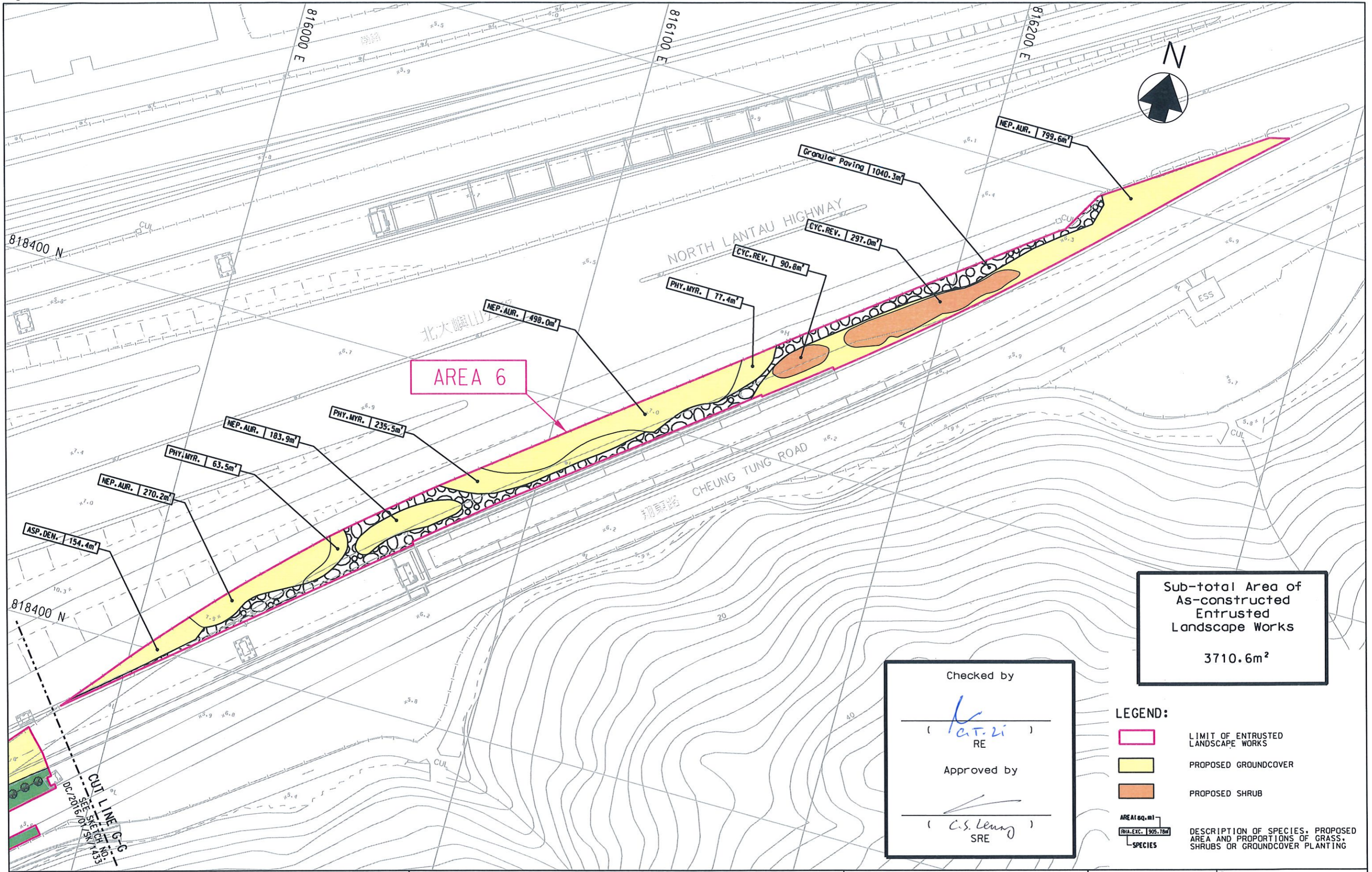
香港特別行政區政府渠務署
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
DRAINAGE SERVICES DEPARTMENT

binnies
BINNIES HONG KONG LIMITED
賓尼斯工程顧問有限公司

Drawn by	C T L	Date	19/04/2022
Checked by	B P S	Scale	A3 1 : 1000
Approved by	C L	Sketch no.	DC/2016/01/SK/1433
		Revision	B

Plot Date = 4/19/2022

Figure 2.2



Sub-total Area of As-constructed Entrusted Landscape Works

3710.6m²

Checked by

(K.T. Li)
RE

Approved by

(C.S. Leung)
SRE

LEGEND:

[Pink Line] LIMIT OF ENTRUSTED LANDSCAPE WORKS

[Yellow] PROPOSED GROUNDCOVER

[Orange] PROPOSED SHRUB

AREA (sq. m)

[Table]

DESCRIPTION OF SPECIES, PROPOSED AREA AND PROPORTIONS OF GRASS, SHRUBS OR GROUNDCOVER PLANTING

Project CONTRACT NO. DC/2016/01 CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS 建造東涌至小蠔灣額外污水泵喉及附屬工程	香港特別行政區政府渠務署 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION DRAINAGE SERVICES DEPARTMENT		Drawn by C T L	Date 19/04/2022	
	Title LAYOUT PLAN OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01 (SHEET 7 OF 7)		Checked by B P S		Scale A3 1 : 1000
		Binnies BINNIES HONG KONG LIMITED 賓尼士工程顧問有限公司	Approved by C L	Sketch no. DC/2016/01/SK/1434	Revision B

Plot Date = 4/19/2022

Figure 2.3

Planting Schedule of Entrusted Landscape Works from HY/2012/07 to DC/2016/01

Figure 2.3

PLANTING SCHEDULE								
CODE	BOTANICAL NAME	CHINESE NAME	SIZE (mm) HEIGHT (H) x SPREAD (S)	SPACING (mm)	NO./m ²	%MIX.	QUANTITY (APPROX. NOS.)	REMARK
TREE PLANTING								
GAR.SUB.	<i>Garcinia subelliptica</i>	非洲福木	Light Standard	4000-5000	-	-	79	
BAU.BLA	<i>Bauhinia x blakeana</i>	洋紫荊	Heavy Standard	5000	-	-	5	4 NOS. TRANSPLANTED TREE NOS. NL0483, NL0489, NL0490 AND NL0498
PEL.TON.	<i>Peltophorum tonkinense</i>	銀珠	Heavy Standard	5000	-	-	1	1 NO. TRANSPLANTED TREE NO. A149
VIB.ODO.	<i>Viburnum odoratissimum</i>	珊瑚樹	Heavy Standard	5000	-	-	76	
XAN.CHR.	<i>Xanthostemon chrysanthus</i>	金蒲桃	Heavy Standard	5000	-	-	2	
PALM PLANTING - EXOTIC								
ARE.CAT	<i>Areca catechu</i>	檳榔	4000(H)	4000	-	-	28	
SHRUB PLANTING								
IXO.CHI.	<i>Ixora chinensis</i>	龍船花	300(H) x 300(S)	300	12.54	-	24331	
DRA.REF.	<i>Dracaena reflexa</i>	金黃百合竹	600(H)	500	4.62	-	407	
SCH.ARB.	<i>Schefflera arboricola</i>	八葉	300(H) x 300(S)	300	12.54	-	41647	
COD.VAR.'AUC'	<i>Codiaeum variegatum 'aucubaefolium'</i>	灑金榕	300(H) x 300(S)	300	12.54	-	1358	
COD.VAR.'RED'	<i>Codiaeum variegatum 'red'</i>	灑金榕 (紅色)	300(H) x 300(S)	300	12.54	-	193	
PIT.TOB.	<i>Pittosporum tobira</i>	海桐花	300(H) x 300(S)	300	12.54	-	1268	
RHA.IND.	<i>Rhapholepis indica</i>	車輪梅	300(H) x 300(S)	300	12.54	-	7771	
CYC.REV.	<i>Cycas revoluta</i>	蘇鐵	400(H) x 500 (S)	500	4.6	-	1784	
GROUND COVER PLANTING								
ASP.DEN.	<i>Asparagus densiflorus</i>	非洲天門冬	200(H) x 300 (S)	200	29	-	4478	
NEP.AUR.	<i>Nephrolepis auriculata</i>	腎蕨	250(H) x 250 (S)	150	51.59	-	90370	
EPI.AUR.	<i>Epipremnum aureum</i>	綠蘿	200(H) x 300(S)	300	12.54	-	7133	
PHY.MYR.	<i>Phyllanthus myrtifolius</i>	錫蘭葉下珠	300(H) x 300(S)	300	12.54	-	16414	
GRASS PLANTING								
AXO.COM.	<i>Axonopus compressus</i>	地毯草 (大葉草)	WHOLE PIECE TURF 300(L) x 300(W) x 50(H)	-	-	-	3423 m ²	25mm HIGH SWORD AND 25mm SOIL BASE OF TURF
GRANULAR PAVING								
-	-	-	-	-	-	-	1040 m ²	

NOTES:

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING NOS. DC/2016/01/SK/1428 TO DC/2016/01/SK/1434.
2. SHRUB / GROUND COVER SHOULD BE PLANTED IN STAGGERED PATTERN.

Project	CONTRACT NO. DC/2016/01 CONSTRUCTION OF AN ADDITIONAL SEWAGE RISING MAIN BETWEEN TUNG CHUNG AND SIU HO WAN AND ASSOCIATED WORKS 建造東涌至小蠔灣額外污水泵喉及附屬工程	 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION DRAINAGE SERVICES DEPARTMENT	Drawn by	C T L	Date	20/04/2022
	Title		SCHEDULE OF ENTRUSTED LANDSCAPE WORKS FROM HY/2012/07 TO DC/2016/01	Checked by	B P S	Scale
		 BINNIES HONG KONG LIMITED 賓尼斯工程顧問有限公司	Approved by	C L	Sketch no.	DC/2016/01/SK/1435
			Revision			

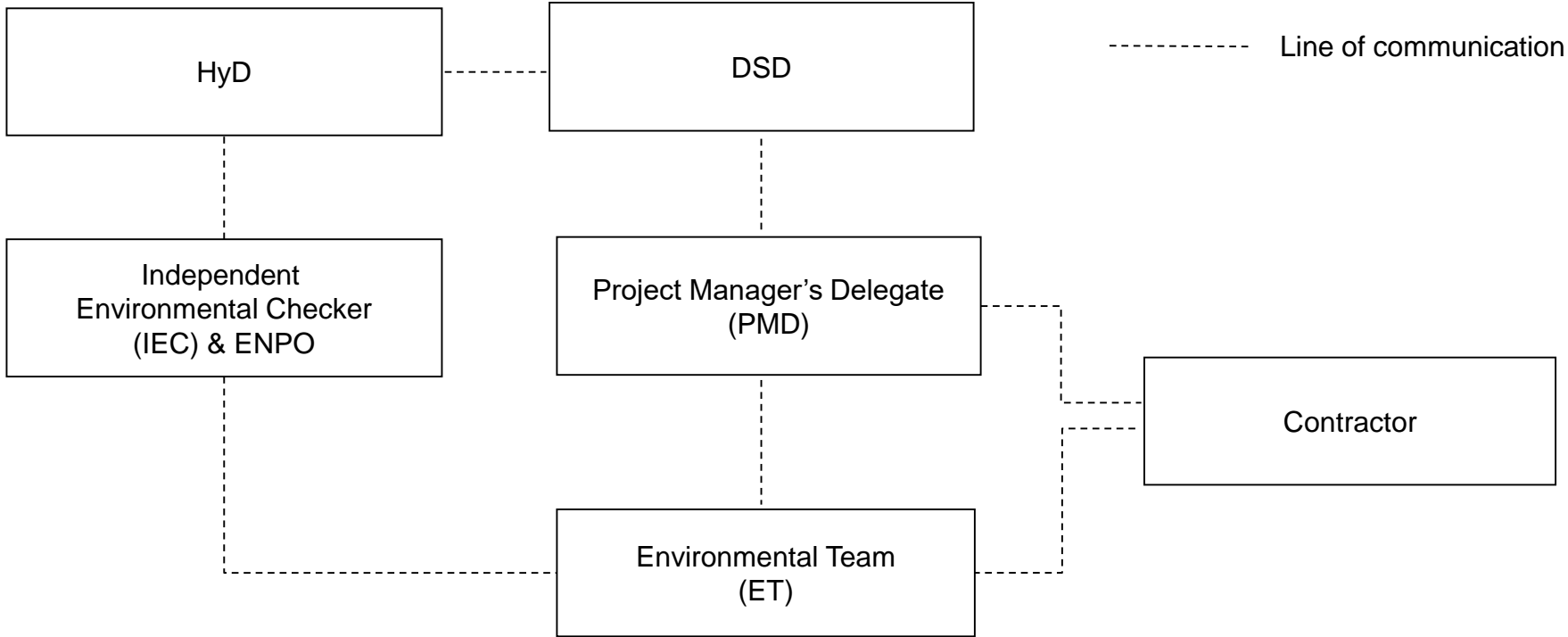


Figure 2.4

Project Organization Chart

Figure 2.4

Organization Chart of Environmental Team for Contract DC/2016/01





Appendix 3.1

Environmental Mitigation Implementation Schedule

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Maintenance Agency
						D	C	O	
10.9	7.6	The large surface of the retaining wall along the toll plaza area shall adopt a patterned/ smoother finishes and texture design to break the large surface. Climber treatment is proposed to soften the structures (DM1)	All areas Detailed design	Design Consultant	TMEIA	✓			N/A
10.9	7.6	The colour and shape of the toll control buildings, ventilation building and administration building shall adopt a design which could blend it into the vicinity elements, and the details will be developed in detailed design stage (DM2)	All areas Detailed design	Design Consultant	TMEIA	✓			N/A
10.9	7.6	Round angle, patterned finishes, and oval shaped pier were considered in the viaduct design, and further details will be developed under ACABAS submission (DM3)	All areas Detailed design	Design Consultant	TMEIA	✓			N/A
10.9	7.6	Details of the street furniture will be developed in the detailed design stage (DM4)	All areas Detailed design	Design Consultant	TMEIA	✓			N/A
10.9	7.6	Aesthetic design of the viaduct, retaining wall and other structures will be developed under ACABAS submission (DM5)	All areas Detailed design	Design Consultant	TMEIA	✓			N/A

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Maintenance Agency
						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	✓	✓		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	✓	✓		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	✓	✓		N/A

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Maintenance Agency
						D	C	O	
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	✓	✓		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/post construction	Design Consultant/ Contractor	TMEIA	✓	✓		N/A
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	✓	✓		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	✓	✓		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	✓	✓		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	✓	✓		N/A

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Maintenance Agency
						D	C	O	
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	✓	✓		N/A
10.9	7.6	Re-vegetation of affected woodland/shrubland with native species (OM1)	All areas Detailed design / during construction / during operation	Design Consultant/ Contractor	TMEIA	✓	✓	✓	AFCD/ HyD/ LCSD
10.9	7.6	Tall buffer screen tree / shrub / climber planting should be incorporated to soften hard engineering structures and facilities (OM2)	All areas Detailed design / during construction / during operation	Design Consultant/ Contractor	TMEIA	✓	✓	✓	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 minimise unnecessary light spill (OM3)	All areas Detailed design / during construction / during operation	Design Consultant/ Contractor	TMEIA	✓	✓	✓	HyD/ LCSD
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 / during operation	Design Consultant/ Contractor	TMEIA	✓	✓	✓	HyD/ LCSD

EIA Ref.	EM&A Manual Ref.	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Maintenance Agency
						D	C	O	
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and furnishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities (OM5)	All areas Detailed design / during construction / during operation	Design Consultant/ Contractor	TMEIA	✓	✓	✓	HyD
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (OM6)	All areas Detailed design / during construction / during operation	Design Consultant/ Contractor	TMEIA	✓	✓	✓	N/A

Abbreviations:

D: Design; C: Construction; and O: Operation.

AFCD: Agriculture, Fisheries and Conservation Department; HyD: Highways Department; and LCSD: Leisure, Cultural and Services Department.

TMEIA: Technical Memorandum on Environmental Impact Assessment Process.

N/A: Not applicable.

Note:

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



Appendix 5.1

Landscape Establishment Monitoring Checklist (NIL for this report)



Appendix 6.2

Complaint Log

COMPLAINT LOG

Ref: _____

Log Ref.	Date / Location	Complainant/ Date of Contract	Details of Complaint	Investigation / Mitigation Action	File Closed

Filed by Environmental Team Leader _____

Date: _____