

FORM 5
ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
SECTION 13(1)

Application for Variation of an Environmental Permit

PART A PREVIOUS APPLICATIONS

No previous application for variation of an environmental permit.
 The environmental permit was previously amended.
Application No. :

PART B DETAILS OF APPLICANT

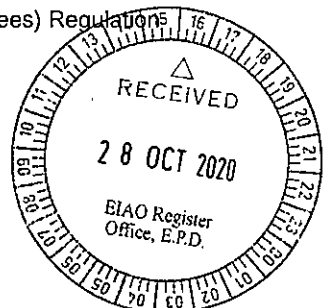
B1. Name : (person or company)
Highways Department
[Note : In accordance with section 13(1) of the Ordinance, the person holding an environmental permit or a person who assumes responsibility for the designated project may apply for variation of the environmental permit.]
B2. Business Registration No. : [REDACTED]
(if applicable)
B3. Correspondence Address : [REDACTED]
B4. Name of Contact Person : [REDACTED] B5. Position of Contact Person : [REDACTED]
B6. Telephone No. : [REDACTED] B7. Fax No. : [REDACTED]
B8. E-mail Address : (if any) [REDACTED]

PART C DETAILS OF CURRENT ENVIRONMENTAL PERMIT

C1. Name of the Current Environmental Permit Holder :
Highways Department
C2. Application No. of the Current Environmental Permit : EP-541/2017
C3. The Current Environmental Permit was Issued in : month / year
|08| |20|17|

Important Notes : Please submit the application together with
(a) 3 copies of this completed form; and
(b) appropriate fee as stipulated in the Environmental Impact Assessment (Fees) Regulations
to the Environmental Protection Department at the following address :
The EIA Ordinance Register Office,
27th floor, Southorn Centre, 130 Hennessy Road,
Wan Chai, Hong Kong.

Tick (✓) the appropriate box



PART D PROPOSED VARIATIONS TO THE CONDITIONS IN CURRENT ENVIRONMENTAL PERMIT

D1. Condition(s) in the Current Environmental Permit :	D2. Proposed Variation(s) :	D3. Reason for Variation(s) :	D4. Describe the environmental changes arising from the proposed variation(s) :	D5. Describe how the environment and the community might be affected by the proposed variation(s) :	D6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or project profile previously submitted for this project may be affected :	D7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed variation(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process :
Project boundary shown in Figure 1 of Environmental Permit No. EP-541/2017.	Please refer to the Environmental Review Report.	Please refer to the Environmental Review Report.	Please refer to the Environmental Review Report.	Please refer to the Environmental Review Report.	Please refer to the Environmental Review Report.	No additional measures are required for the proposed variations.

PART E DECLARATION BY APPLICANT

E1. I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental permit may be suspended, varied or cancelled if any information given above is false, misleading, wrong or incomplete.



Signature of Applicant



Full Name in Block Letters



Position



on behalf of Highways Department
Company Name and Chop (as appropriate)

28 October 2020
Date

NOTES :

1. A person who constructs or operates a designated project in Part I of Schedule 2 of the Ordinance or decommissions a designated project listed in Part II of Schedule 2 of the Ordinance without an environmental permit or contrary to the permit conditions commits an offence under the Ordinance and is liable to a maximum fine of \$5,000,000 and to a maximum imprisonment for 2 years.
2. A person for whom a designated project is constructed, operated or decommissioned and who permits the carrying out of the designated project in contravention of the Ordinance commits an offence and is liable to a maximum fine of \$5,000,000 and to a maximum imprisonment for 2 years.

Highways Department

**CE72/2015 (HY) Flyover from Kwai Tsing Interchange Upramp to
Kwai Chung Road**

ENVIRONMENTAL REVIEW REPORT





CE72/2015 (HY)

**Flyover from Kwai Tsing Interchange Upramp
to Kwai Chung Road**

Environmental Review Report

REVISION 2

PROJECT NO.: 2512146B

DATE: 28 OCTOBER 2020

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QUALITY MANAGEMENT

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Checked by	Derek Lam	Derek Lam	Derek Lam	
Signature				
Authorised by	James Xiong	James Xiong	James Xiong	
Signature				
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1 INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 Transport Department (TD) has reviewed the traffic condition and found that the volume to capacity (v/c) ratio of a section of the southbound carriageway of Tsuen Wan Road (TWR) between Kwai Tsing Interchange (KTI) and Kwai Chung Road (KCR) would approach its capacity and traffic congestion would occur. Congestion is anticipated to deteriorate on the southbound carriageway of TWR at KTI during peak hours in the future years. In the subject Project, an additional traffic lane and widening of existing carriageway are proposed to be constructed so as to resolve the capacity problem. TD considers that there is a genuine need to implement the Project to improve the road section to cope with the future traffic growth.
- 1.1.2 The proposed Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road (hereinafter referred to as “the Project”) is a Designated Project under the Environmental Impact Assessment Ordinance (EIAO) (Chapter 499). The Environmental Impact Assessment Report (“EIA Report”) was prepared and submitted to Environmental Protection Department (EPD) in June 2015 and was approved without conditions on 3 August 2015 (Registered No.: AEIAR-190/2015). Environmental Permit No. EP-541/2017 was granted to the Highways Department on 2 August 2017 for the construction and operation of the Project.

2 PROPOSED CHANGES & POTENTIAL ENVIRONMENTAL ISSUES

2.1 PROPOSED AMENDMENTS

2.1.1 The proposed works involve allocation of works areas underneath the Tsuen Wan Road viaduct and southern area besides Lai King Catholic Secondary School, traffic lanes, road marking modification and bus stop relocation at Kwai Chung Road, road marking modification at bridge level of Tsuen Wan Road viaduct, landscaping works between Container Port Road South and installation of directional sign at existing footbridge NF286 near Hing Fong Road and Tsuen Wan Road. The Project boundaries of the Environmental Permit (EP) and the current design are shown in **Figure 2.1**, the new project boundaries are shown in **Figure 2.1A** and the layout and location of additional five works areas and one additional works area (“hereinafter referred to as extended areas”) are shown in **Figure 2.2**.

2.2 NEED FOR THE PROPSOED AMENDMENTS

- 2.2.1 To allow more flexibility for site activities, additional works areas are required for area at south of Lai King Catholic Secondary School and area underneath Tsuen Wan Road viaduct.
- 2.2.2 To cope with the proposed road widening and construction of additional southbound lane from the elevated Tsuen Wan Road (southbound fast lane) to the at-graded Kwai Chung Road, relocation of bus stop, the existing traffic lanes and road marking at different locations should be modified to maintain a smooth driving experience.
- 2.2.3 During the construction of the additional southbound lane, phased Temporary Traffic Management (TTM) arrangement is required, thus the existing planter between Container Port Road South should be removed during construction and will be reinstated in permanent operation and the landscaping area will be reinstated as well.
- 2.2.4 As there is modified road marking at the concerned area, a new directional sign is required at upstream (at footbridge NF286) for giving a clear notice to drivers in advance.
- 2.2.5 The above-mentioned works are shown in **Figure 2.1**. A figure showing the works areas as presented in the approved EIA Report is included in **Appendix 2.1**.

2.3 PURPOSE OF THE ENVIRONMENTAL REVIEW REPORT

- 2.3.1 As the project boundary as stipulated in the EP No. EP-541/2017 is to be extended to carry out minor works within the additional works areas, there is a need to apply for Variation of an Environmental Permit (VEP) for the Project.
- 2.3.2 The main purpose of this Environmental Review Report (ERR) is to identify the key changes and assess the environmental implications due to the proposed minor works within the additional works areas, and to serve as a supporting document for the VEP submission. Besides, ERR would also cover justification of whether (i) there is material change to the environmental impact of the Project with mitigation measures in place and (ii) the Project complies with the requirements described in the EIAO-Technical Memorandum (TM).

2.4 REVIEW OF ENVIRONMENTAL IMPACTS

- 2.4.1 Various environmental impacts were assessed in the approved EIA Report, including air quality impact, noise impact, water quality impact, waste management implication and land contamination, landscape and visual impact, landfill gas hazard and cultural heritage impact.

- 2.4.2 For the proposed works in the extended areas, air quality, noise, waste management implication and land contamination, landfill gas hazard as well as landscape and visual impact, would be the major concerns. The following assessments will be reviewed in this report.

Section 3 – Review of Noise Impact Assessment

Section 4 – Review of Air Quality Impact Review

Section 5 – Review of Waste Management Implications

Section 6 – Review of Land Contamination Assessment

Section 7 – Review of Landfill Gas Hazard

Section 8 – Review of Landscape and Visual Impact Assessment

- 2.4.3 The proposed works within the extended areas would not cause adverse environmental impacts on water quality and cultural heritage.

Water Quality Impact

- 2.4.4 The closest Water Sensitive Receivers, the Rambler Channel (Typhoon Shelter), is located more than 300m from the extended areas. With the implementation of mitigation measures as stated in the approved EIA Report, adverse impacts during the construction and operation phases of the Project (including the additional road marking works) would not be anticipated.

2.4.5 The environmental performance requirements set out in the approved EIA Report would not be violated and the findings of water quality impact assessment in the approved EIA Report for construction and operation phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

Cultural Heritage Impact

2.4.6 The closest built heritage resources, i.e. Tin Hau Temple near Ha Kwai Chung Tsuen (nil grade) and Tang Ancestral Hall at Ha Kwai Chung Tsuen (nil grade), are distanced away from the extended areas by more than 250m. No adverse built heritage impact associated with the Project during both construction and operation phases would be anticipated.

2.4.7 The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of cultural heritage impact assessment in the approved EIA Report for construction and operation phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

3 REVIEW OF NOISE IMPACT ASSESSMENT

3.1 REVIEW OF ENVIRONMENTAL LEGISLATION

- 3.1.1 As there are no changes to the existing noise related legislation, standards or criteria since the approval of the EIA Report, all the related legislation, standards or criteria stated in the EIA Report are applicable.
-

3.2 REVIEW OF ASSESSMENT CRITERIA

- 3.2.1 The environmental legislation, standards and guidelines relevant to this noise impact assessment review are the same as those presented under Section 4 of the approved EIA Report.
-

3.3 REVIEW OF NOISE SENSITIVE RECEIVERS

- 3.3.1 As there are no changes to the representative noise sensitive receivers (NSRs) since the approval of the EIA Report, all representative NSRs as stated in the EIA Report would be still valid.
- 3.3.2 NSRs have been identified in accordance with Annexes 5 and 13 of the EIAO-TM which include domestic premises, temporary housing accommodation, educational institutions, nurseries, hospitals, medical clinics, homes for the aged, convalescent homes, places of public worship, libraries, courts of law and performing arts centres, having direct line-of-sight and substantial angle of view to the Project. Representative NSRs within a distance of 300m from project boundary have been identified.
- 3.3.3 Construction noise impact was assessed in Section 4 of the approved EIA Report. Works Areas A to F were identified in the approved EIA Report. The notional distances from these works areas and the nearest representative NSRs are summarised in **Table 3.1**. The locations of these NSRs are shown in **Appendix 2.1**.

Table 3.1 Representative Noise Sensitive Receivers

Works Area	NSRs (AP ID)	Description	Use	Noise Criteria, dB(A)	Notional Distance in approved EIA Report (m)	Notional Distance in current design with the extended areas (m)
A	303	Lai King Catholic Secondary School	Institutional	70, 65 (during examination period)	112	114
B	303	Lai King Catholic Secondary School	Institutional	70, 65 (during examination period)	37	37
C	304	Lai King Catholic Secondary School	Institutional	70, 65 (during examination period)	34	34
	501	Fung King House	Residential	75	34	34
D	505	Fung King House	Residential	75	33	33
E	501	Fung King House	Residential	75	62	62
F	303	Lai King Catholic Secondary School	Institutional	70, 65 (during examination period)	142	146
	304	Lai King Catholic Secondary School	Institutional	70, 65 (during examination period)	142	146

POTENTIAL NOISE IMPACT

CONSTRUCTION PHASE

3.3.4 According to the current design, five extended works areas and one additional works area are proposed. The proposed works within the extended areas include modification of central divider, road resurfacing works, road marking modification, landscape works, bus stop relocation and new traffic sign installation. The locations of extended areas are shown in **Figure 2.2**.

3.3.5 It is confirmed that the notional distances between the works areas (including extended areas) and corresponding nearest NSRs would not be closer than that in the approved EIA Report as shown in **Table 3.1** above. **Figure 3.1** shows the locations of nearest NSRs and the extended areas. The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of noise impact assessment in the approved EIA Report for construction phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

3.3.6 Proposed works at each of the extended areas are described as below.

Extended Area A1

3.3.7 It involves road marking modification works. Items of powered mechanical equipment (PME) to be used for such works were already included in the plant inventory for the works "Road Works and Installation of Road Lighting" in Works Area A of the approved EIA Report. No addition of PME is proposed.

Extended Area B1

3.3.8 As the proposed works involve road marking modification will be conducted during restricted hours, Construction Noise Permit (CNP) will be applied separately under the Noise Control Ordinance (Chapter 400).

Extended Area C1

3.3.9 This extended area is only for storage purpose. There will be no construction works or PME operation.

Extended Area D1

3.3.10 The proposed works involve modification of central divider and road resurfacing works. There will be no change to the existing road kerbs. Items of PME to be used for such works were already included in the plant inventory for the works "Modification of Kwai Chung Road (outside Fung King House)" in Works Area D of the approved EIA Report. No addition of PME is proposed.

Extended Area F1

3.3.11 The proposed works involve landscape works. Items of PME to be used for such works were already included in the plant inventory for the works “Tree Planting” in Works Area F of the approved EIA Report. No addition of PME is proposed.

3.3.12 As mentioned above, no addition of PME has been proposed for carrying out the works in the extended areas. Also, the proposed works are minor in terms of scale and nature. It is anticipated that the construction noise impact on the nearest NSRs would not be worsened.

Additional Works Area

3.3.13 A new directional traffic sign will be erected at the existing footbridge at Tsuen Wan Road as shown in **Figure 2.1**. The works will be minor and limited.

OPERATION PHASE

3.3.14 There are no changes in road alignments under the current design. The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of noise impact assessment in the approved EIA Report for operation phase of the Project are still valid. Therefore, the noise mitigation measures (i.e. noise barrier and low noise road surface proposed in the approved EIA Report) will remain unchanged and thus no additional mitigation measures are required to be carried out for works in the extended areas.

4 REVIEW OF AIR QUALITY IMPACT ASSESSMENT

4.1 REVIEW OF ENVIRONMENTAL LEGISLATION

4.1.1 All air quality related legislation and standards stated in the approved EIA Report remain applicable.

4.2 REVIEW OF AIR QUALITY SENSITIVE RECEIVERS

4.2.1 As there are no changes to the representative air sensitive receivers (ASRs) since the approval of the EIA report, all ASRs as stated in the EIA report remain representative for the assessment.

4.3 REVIEW OF CONSTRUCTION PHASE IMPACT

4.3.1 According to the construction phase impact assessment of the approved EIA Report, no massive earthworks and excavation works are expected during the construction phase of the Project.

4.3.2 Dust suppression measures as stipulated under the Air Pollution Control (Construction Dust) Regulation and good site practices are recommended to further minimize the construction dust impact. A monitoring and audit programme during the construction phase should be implemented by the Contractors to ensure the dust impacts are controlled in an acceptance criteria. Hence, significant adverse air quality impact arising from the fugitive dust is not anticipated.

4.3.3 The impacts arising from the proposed works in the extended areas under the current design, as shown in **Figure 2.2**, are described as below.

Extended Area A1

4.3.4 The proposed works involve road marking modification only. No substantial construction work will be carried out.

Extended Area B1

4.3.5 The proposed works involve road marking modification and relocation of bus stop. No substantial construction work will be carried out.

Extended Area C1

4.3.6 This extended area is only for storage of PME.

Extended Area D1

4.3.7 The proposed works involve modification of central divider and road resurfacing. There will be no change to the existing road kerb along eastern side of Kwai Chung Road. No substantial construction work will be carried out.

Extended Area F1

4.3.8 The proposed works involve landscape works. No substantial construction work will be carried out.

Additional Work Area

4.3.9 A new directional traffic sign will be erected at the existing footbridge at Tsuen Wan Road as shown in **Figure 2.1**. The works will be minor and limited. No substantial construction work will be carried out.

4.3.10 In view of the above, the air quality impact arising from the proposed works in the extended areas during construction phase is considered to be minimal. The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of air quality impact in the approved EIA Report for construction phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in in the extended areas.

4.4 REVIEW OF OPERATION PHASE IMPACT

4.4.1 There are no changes in road alignments under the current design. The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of air quality impact assessment in the approved EIA Report for operation phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

5 REVIEW OF WASTE MANAGEMENT IMPLICATIONS

5.1 REVIEW OF WASTE MANAGEMENT LEGISLATION AND GUIDELINES

5.1.1 Various waste management legislations and guidelines required for this Project changed since the approval of the EIA Report, include the addition of legislation and circulars in relation to marine sediment treatment and disposal.

5.1.2 Relevant guidelines listed in the EIA Report have also been superseded by other documents as follows:

- The following guidelines have been subsumed under the Project Administration Handbook for Civil Engineering Works, 2018 Edition:
 - Works Branch Technical Circular (WBTC) No. 32/92 – The Use of Tropical Hard Wood on Construction Site;
 - WBTC Nos. 25/99, 25/99A and 25/99C – Incorporation of Information on Construction and Demolition Material Management in Public Works Subcommittee Papers;
 - WBTC No. 11/2002 – Control of Site Crusher; and
 - Environment Transport and Works Bureau Technical Circular (Works) (ETWB TC(W)) No. 33/2002 – Management of Construction and Demolition Material Including Rock.
- The technical circular WBTC Nos. 6/2002 and 6/2002A – Enhanced Specification for Site Cleanliness and Tidiness, has been superseded by Development Bureau Technical Circular (Works) (DEVB TCW) No. 8/2010 – Enhanced Specification for Site Cleanliness and Tidiness.

5.1.3 The following guideline has also been added:

- CEDD TC No. 11/2019 – Management of Construction and Demolition Materials; Review of Assessment Approach and Methodology

5.1.4 The assessment approach and methodology of inert and non-inert construction and demolition (C&D) waste, chemical waste and general refuse remains the same.

5.2 REVIEW OF CONSTRUCTION PHASE WASTE IMPACTS

5.2.1 Due to the extension of the site boundary, the estimated quantities of waste arising from construction phase has been updated based on the proposed works in the extended areas.

INERT C&D MATERIAL

5.2.2 Based on the additional works in the extended areas, which include modification of Kwai Chung Road, landscape works, roadworks, installation of traffic sign, modification of central divider, road resurfacing works, and road marking modification, the estimated amount of inert material (soft material) and artificial hard material is expected to be increased by 1,300m³ and 1,000m³, respectively.

5.2.3 Site clearance is expected to generate 1,300m³ of the soft material and 100m³ of the artificial hard material, whereas road construction is expected to generate 900m³ of the artificial hard material. All soft material to be generated in the extended areas are to be re-used on site. Artificial hard material shall be transported to public fill reception facilities.

5.2.4 The total quantity of inert C&D material therefore increases from 5,760m³ to 8,060m³. The total amount to be re-used on site is expected to increase from 4,810m³ to 6,110m³ and the amount to public fill from 1,140m³ to 2,140m³.

NON-INERT C&D MATERIAL

5.2.5 The estimated amount of non-inert C&D material is not expected to deviate from the EIA Report.

MARINE SEDIMENT

5.2.6 In the EIA Report, the estimated volume of marine sediment to be generated in the piling works was 400m³. After completion of the detailed design of the proposed works for bridge and footbridge, the estimated volume of marine sediment to be generated is revised to approximately 150m³ based on the latest design.

CHEMICAL WASTE

5.2.7 The estimated amount of chemical waste is not expected to deviate from the EIA Report.

GENERAL REFUSE

5.2.8 The estimated amount of general refuse is not expected to deviate from the EIA Report.

5.2.9 In conclusion, the environmental performance requirements set out in the approved EIA Report would not be violated. The findings of waste management implication assessment in the EIA Report for construction phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

5.3 REVIEW OF OPERATION PHASE WASTE IMPACTS AND MITIGATION MEASURES

5.3.1 The waste implications in the operation phase remains the same as those stated in the EIA Report. This includes the mitigation measures against adverse environmental impacts, evaluation of residual impacts and Environmental Monitoring and Audit (EM&A) requirements.

5.3.2 The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of waste management implication assessment in the EIA Report for operation phase of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

6 REVIEW OF LAND CONTAMINATION

6.1 REVIEW OF ENVIRONMENTAL LEGISLATION

6.1.1 As there are no changes to the existing land contamination related legislation, standards or criteria since the approval of the EIA Report, all the related legislation, standards or criteria stated in the EIA Report are applicable.

6.2 REVIEW OF ASSESSMENT CRITERIA

6.2.1 The environmental legislation, standards and guidelines relevant to this land contamination review are the same as those presented under Section 6 of the approved EIA Report.

6.3 REVIEW OF HISTORICAL LAND USES

6.3.1 There are five extended works areas and one additional works area proposed in the current design as shown in **Figure 2.2**. The proposed works in the extended areas during construction phase include road mark modification, bus stop relocation, landscape works, installation of new traffic sign, modification to central divider, road resurfacing works and storage.

6.3.2 The extended areas involve the Public Works Regional Laboratory of Tsuen Wan in works areas A and F, vegetation in extended areas C1 and F1, as well as roads in other extended areas and works areas.

6.3.3 According to Appendix 6-2 of the EIA Report (**Appendix 6.1**), the historical aerial photos of the extended/additional areas are reviewed to identify the historical land uses. The historical aerial photos until 2008 were reviewed in the EIA study. Aerial photographs from 2008 to now provided by the HKMS 2.0 website of Lands Department were reviewed and shown in **Appendix 6.2**. No observable changes have been identified since 2008 within the site boundary.

6.3.4 The historical land uses of the extended areas are summarised in the following table:

Area	Description
Works areas A, B and F	Part of the Public Works Regional Laboratory of Tsuen Wan site.
Extended area A1	Part of the Tsuen Wan Road constructed in 1982.
Extended area B1	Part of the Kwai Chung Road constructed in 1968 and the slip roads on Kwai Chung Road constructed in 1996.
Extended area C1	The extended area C1 was natural hillside in 1963. The area was vacated in 1982 and occupied by vegetation since 1993.
Extended area D1	Part of the Tsuen Wan Road constructed in 1982.
Works area E	Part of the Tsuen Wan Road constructed in 1982.
Extended area F1	Extended area F1 was open sea and reclaimed land in 1973. The area was vacated in 1982 and occupied by vegetation since 1993.
Additional area	Part of the Tsuen Wan Road constructed in 1982.

6.4 REVIEW OF POTENTIALLY CONTAMINATING LAND USES

6.4.1 Site re-appraisal was conducted for the whole Project area on 30 September 2020. Site walkover checklist and photographs are shown in **Appendix 6.3**. The Public Works Regional Laboratory of Tsuen Wan in works area A has been identified as a chemical waste producer with potentially contaminating land use in the EIA Report. The Dangerous Goods Store for Dichloromethane (Methylene Chloride) identified in the EIA Report (Photos 6 – 8 of **Appendix 6.3**) was abandoned in 2014. A new Dangerous Goods Store (Photos 2 – 5 of **Appendix 6.3**) was constructed in 2014 for storage of Dichloromethane. The Project area involves land currently occupied by the Public Works Regional Laboratory of Tsuen Wan, Tsuen Wan Road, Kwai Chung Road, carpark and vegetation. No potentially contaminating land use is identified in the extended areas. Site re-appraisal of the Project Site confirms that no potentially contaminating land use is identified in the extended areas and the PWRL is the only potentially contaminating land use within the Site, hence potential land contamination issues are not expected to deviate from the approved EIA Report. The allocatee shall be responsible for the land contamination assessment of the Laboratory Site and ensure the Laboratory Site is free from contamination at the expiry of allocation and therefore any land contamination concern arising from the past activities would have been remediated prior to the construction of the works.

6.4.2 The proposed works in the extended areas to be carried out during construction phase include road resurfacing, road marking modification, bus stop relocation, installation of traffic sign, landscape works, modification to central divider and storage of construction materials. The potential contaminants are not expected to deviate from the

approved EIA Report. With implementation of good site practice, land contamination at the Project area arising from construction and operation phases of the Project is not envisaged.

- 6.4.3 The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of land contamination assessment in the approved EIA Report of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

7 REVIEW OF LANDFILL GAS HAZARD ASSESSMENT

7.1 REVIEW OF ENVIRONMENTAL LEGISLATION

7.1.1 As there are no changes to the existing landfill gas (LFG) hazard assessment related legislation, standards or criteria since the approval of the EIA Report, all the related legislation, standards or criteria stated in the EIA Report are applicable.

7.2 REVIEW OF ASSESSMENT CRITERIA

7.2.1 The environmental legislation, standards and guidelines relevant to this landfill gas hazard assessment review are the same as those presented under Section 8 of the approved EIA Report.

7.3 REVIEW OF SITE AREA FALL INTO THE LANDFILL GAS CONSULTATION ZONE

7.3.1 As shown in **Appendix 7.1**, part of the extended area A1 at Tsuen Wan Road falls within the 250m Consultation Zone of the restored Gin Drinkers Bay Landfill. The area located within the Consultation Zone is approximately 40 m². The proposed new works involving road marking modification will be conducted at road surface. There is no ground excavation nor new underground utility connection for the Project within the Landfill Gas Consultation Zone.

7.3.2 Therefore, the LFG hazard assessment is considered not necessary unless there is any possible change(s) on the design in the future that the project/construction boundary shows encroachment on the Consultation Zone and include any ground excavation or new underground utility connection within the landfill gas Consultation Zone.

7.3.3 The environmental performance requirements set out in the approved EIA Report would not be violated. The findings of landfill gas hazard assessment in the approved EIA Report of the Project are still valid. Therefore, no additional mitigation measures are required to be carried out for works in the extended areas.

8 REVIEW OF LANDSCAPE AND VISUAL IMPACTS

8.1 GENERAL

8.1.1 The Project boundary with incorporation of the extended areas has slightly increased works area size by 13,000m². In view of the slightly increase in works area and the short duration of the impact, additional landscape and visual impact caused is considered to be of low significance and generally acceptable with implementation of mitigation measures. Additional tree felling will be needed. Details of the overall landscape and visual impacts associated in the extended areas are described in the following sections.

8.2 TREE REMOVAL AND PRESERVATION

8.2.1 A Final Tree Preservation and Removal Proposal and Compensatory Planting Proposal (TPRP) was submitted and approved in July 2018 after completion of the detailed design (**Appendix 8.1**). The trees assessed under the TPRP which was based on the revised Project boundary and the number of trees affected by the proposed layout compared with the approved EIA Report is shown below.

Table 8.1 Summary of Tree Treatment in Comparison with Approved EIA Report

Type	No. of Trees in the approved EIA (old layout)	No of Trees in proposed amendments (revised layout)
Fell	59	106
Retain	0	32
Transplant	26	24
Total	<u>85</u>	<u>162</u>

8.2.2 To summarize, the number of trees proposed to be felled increased from 59 to 106. This is mainly due to a larger affected area of the buffer tree planting strip along the intersection of Kwai Chung Road and Tsuen Wan Road which will be affected by temporary road diversion works.

8.2.3 An additional 106 nos. of compensatory trees will be planted to mitigate the felling of trees. In accordance to DEVB TC(W) 4/2020, the compensatory ratio is 1:1 in terms of tree number. Compensatory and transplanted trees are proposed to be planted back into the affected planting strip as part of landscape reinstatement and roadside enhancement works. Additional planting areas are located off-site by Tai Wo Hau Road.

8.3 LANDSCAPE IMPACT

- 8.3.1 The extended areas have been overlaid to the Landscape Resources (LR) Plan and Landscape Character Area (LCA) Plan and shown in **Figure 8.1** and **Figure 8.2** and 1 LR and 3 LCAs will be affected. The recommended landscape and visual mitigation measures in the approved EIA Report is shown in **Appendix 8.2**. The location of these recommended mitigation measures will be adjusted to suit the proposed layout, but the recommended mitigation measures will remain the same as the approved EIA Report.
- 8.3.2 Additional roadside and amenity tree planting will be provided in the off-site location at Tai Wo Hau Road which can upgrade the landscape quality in Kwai Chung District. With reference to the approved TPRP, a total of 17 compensatory trees will be planted off-site.
- 8.3.3 Detailed description for each affected LR and LCA are as follows:
- 8.3.4 LR2 Tree Planting by Kwai Chung Road Interchange is rated to have high sensitivity in the approved EIA Report. The affected area of LR2 will be increased by 750m². During construction phase, planting within the road interchange area will be removed due to the temporary road diversion works. 130 nos. of trees will be affected, with 106 nos. proposed to be felled and 24 nos. proposed to be transplanted back into LR2. Recommended mitigation measures CP1, CP2, OP3 and OP4 in the approved EIA Report will still be effective. During operation phase, LR2 will be reinstated with 89 nos. of compensatory tree planting and shrub planting (OP3). Part of the paved area in the approved EIA Report has been amended to a planting area. Hence, there will be an additional 600m² of roadside and amenity planting. Since this LR will be reinstated and enhanced with amenity planting in the operation phase, residual impact significance is expected to remain the same as the approved EIA Report.
- 8.3.5 LCA3 Residential at Lower Level of Lai King Hill along Tsing Kwai Highway is rated to have medium sensitivity in the approved EIA Report. The affected area within LCA3 will increase by approximately 75m². The footbridge works and layout are similar to the approved EIA Report. The increased size of affected area is due to the changes in works areas. Recommended mitigation measures CP1, CP2, OP1, OP2, OP3 and OP4 in the approved EIA Report will still be effective. Temporary affected areas will be reinstated in the operation phase, thus there will be no changes to the overall landscape character. Residual impact significance will be the same as the approved EIA Report.
- 8.3.6 LCA4 Industrial & Open Storage Area along Tsuen Wan Road is rated to have low sensitivity. LCA4 was located outside the site boundary and thus was rated to have negligible magnitude of change in the approved EIA Report. However, LCA4 will be affected due to the temporary road diversion works along Tsuen Wan Road. The affected area is approximately 4,315m². The duration of the impact is temporary because a portion of Kwai Chung Road will require temporary road diversion during the construction phase. The magnitude of change is small in the construction phase. Recommended mitigation measures for LCA4 are CP1, OP1 and OP2. With mitigation measures in place, the residual impact in the construction phase will be slightly adverse. In Day 1 and Year 10 of the operation phase, LCA4 will be reinstated, thus

there will be no changes to the overall landscape character. Therefore, it will have insubstantial residual impact significance on Day 1 and Year 10 of the operation phase.

8.3.7 LCA6 Kwai Chung Road Interchange is rated to have low sensitivity in the approved EIA Report. Affected area of LCA6 will be increased by approximately 3,670m². The duration of the impact is temporary when a portion of Tsuen Wan Road and Tsing Kwai Highway require road diversion during the construction phase. Recommended mitigation measures CP1, CP2, OP1, OP2, OP3 and OP4 in the approved EIA Report will still be effective. Temporary affected areas will be reinstated in the operation phase and no changes to the landscape character are expected. The residual impact significance will be the same as the approved EIA Report.

8.3.8 All other LRs and LCAs are expected to receive no additional environmental changes. A summary of the changes in significance of landscape impacts in construction and operation phases compared to the approved EIA Report is shown in the below table.

Table 8.2 Significance of Landscape impacts in Construction and Operation Phases (LRs & LCAs) in Comparison with Approved EIA Report

Id. No	Landscape Resource / Landscape Character Area	Source of Impact	Sensitivity (Low / Medium / High)	Magnitude of Change (Large/ Intermediate/ Small/ Negligible)		Significance Threshold (Unmitigated) (Insubstantial / Slightly / Moderately / Substantially)		Recommended Mitigation Measures	Residual Impact Significance (Mitigated) (Insubstantial / Slight / Moderate / Substantial)		
				Con.	Op.	Con.	Op.		Con.	Day 1	Year 10
LR2	Tree Planting at Kwai Chung Road Interchange Area	Proposed Road Works (<u>affected area increased by 750sqm</u>)	High	Large	Large	Substantially Adverse	Substantially Adverse	CP1,2 OP3,4	Moderately Adverse	Slightly Adverse	Insubstantial
LCA3	Residential at lower level of Lai King Hill	Proposed Road Works (<u>affected area increased by 75sqm</u>)	Medium	Small	Negligible	Moderately Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
<u>LCA4</u>	<u>Industrial & Open Storage</u>	<u>Temporary Road Diversion Works (4,315sqm)</u>	<u>Low</u>	<u>Small</u>	<u>Negligible</u>	<u>Slightly Adverse</u>	<u>Insubstantial</u>	<u>CP1, OP1,2</u>	<u>Slightly Adverse</u>	Insubstantial	Insubstantial
LCA6	Kwai Chung Road Interchange	Proposed Road Works (<u>affected area increased by 3,670sqm</u>)	Low	Intermediate	Intermediate	Slightly Adverse	Slightly Adverse	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Slightly Beneficial

Note: Differences from the approved EIA Report are in **bold and underlined**.

8.4 VISUAL IMPACT

8.4.1 The extended areas have been overlaid to the Visual Sensitive Receivers (VSR) Plan and shown in **Figure 8.3**. Aside from the identified VSR affected in the approved EIA Report there will be an additional 2 nos. of VSR (R2 and R3) affected.

8.4.2 Since the approval of the EIA Report, 1 additional VSR (R10 Kwai Tsui Estate) has been added to the assessment. Information for VSR R10 is summarized below:

- Type – Residential
- Population of VSRs – Intermediate
- Quality of View – Fair
- Degree of Visibility – Partial
- Availability and Amenity of Alternative Views – Yes alternative surrounding views
- Frequent of View – Occasional
- Sensitivity - Medium

8.4.3 Changes in potential sources of visual impacts during construction phase include the increased size of temporary works area, increased area of vegetation removal, increased area of site hoardings, temporary road works and a reduction in the length of the pre-provisioned footbridge by Lai King Catholic Secondary School. Changes in potential sources of visual impacts during operation phase include the extended noise barrier and the additional tree planting at Tsuen Wan Road adjacent to the flyover. Potential sources of visual impacts compared to the approved EIA Report is shown in the table below.

Table 8.3 Potential Sources of Visual Impacts During Construction and Operation Phase in Comparison with the Approved EIA Report

ID	Source of Visual Impacts	Description
Construction Phase		
VIC1	Loss of Existing Vegetation	Removal of existing trees and shrubs for the new viaduct, footbridge, road widening works <u>and temporary road works.</u>
VIC2	Site Hoarding / Offices	Establishment of site offices and erection of hoardings. <u>Site hoarding area will increase slightly due to a larger temporary works area.</u>
VIC3	Dismantlement of Existing Footbridge	Dismantlement of existing footbridge for the down ramp of the new carriageway
VIC4	Road Widening Works	Widening section of Tsuen Wan Road. <u>Increased affected area south of the site.</u>
VIC5	Construction of Noise Barriers	Construction of noise barriers along the new viaduct. <u>Noise barrier extended past Ming King House.</u>
VIC6	Construction of New Footbridge	Re-provision of the footbridge <u>of reduced length</u> north close to the Lai King Catholic Secondary School.

Operation Phase		
VIO1	New Viaduct	Permanent pre-stressed concrete box girder viaduct
VIO2	Noise Barrier Structure	Permanent noise barrier associated with the new viaduct
VIO3	New Footbridge	Permanent footbridge structure.
VIO4	Shrub <u>and Tree</u> Planting	Shrub <u>and tree</u> planting <u>at roadside amenity planting areas.</u>
VIO5	Streetscape Enhancement	Landscape elements, such as pedestrian walkway paving enhancement, street furniture and lighting.

Note: Additional sources of visual impacts are in **bold and underlined.**

8.4.4 As the approved EIA Report states the visual impact is acceptable with mitigation measures, the same mitigation measures will be applied to the. Mitigation measures for the visual impacts are shown in **Appendix 8.2**. Descriptions of the changes in visual impact due to the proposed amendments for the mitigation measures for the affected VSR are described below and summarized in **Table 8.4**. The landscape master plan and photomontage are shown in **Figure 8.4 to 8.6**.

CONSTRUCTION PHASE

8.4.5 **No substantially adverse** residual impacts will be experienced by the identified VSR.

8.4.6 **Moderately adverse** residual impacts will be experienced by the following VSR.

i. R5 – Residents at Lai King Estate North

ii. O5 – Staff and Students at Lai King Catholic Secondary School

R5 and O5 will overlook a larger construction site, which is clearly visible and at close range. The loss of roadside amenity area can be seen on the flower floors.

iii. R6 – Residents at Yin Lai Court

R6 residents on the top and middle floors will be able to view a portion of the extended works area by Tsuen Wan Road with minimal blockage.

8.4.7 **Slightly adverse** residual impacts will be experienced by the following VSR.

i. R2 – Residents at New Kwai Fong Gardens

ii. R3 – Residents at Kwai Fong Terrace

Since the works boundary has been extended, R2 and R3 will be able to view parts of the works at a distance. Parts of the view looking towards the site will be blocked by existing elevated roads and railway. Mitigation measures proposed to reduce visual impact in the construction phase are CP1 and CP2.

iii. R5A – Residents at Lai King Estate South

Although the construction works boundary has been extended, part of it will be slightly blocked by existing elevated roads and railway.

iv. R7 – Residents at Highland Park

v. R10 – Kwai Tsui Estate

The view of the larger construction works area will be slightly blocked by residential buildings in the foreground.

- vi. O2 – Workers at Kwai Chung Industrial Area*
- vii. O3 – Workers at Kwai Fong Ancillary Building*
- viii. O4 – Staff and Visitors at Polyclinic & Special Educational Services*

The open view looks toward a slightly larger portion.

- ix. O6 – Workers at Ever Gain Plaza*
- x. T1 – Open Storage Area Car Park Users*

O6 & T1 will experience a larger area of construction works and additional loss of amenity planting by Tsuen Wan Road.

- xi. O8 – Staff and Students at Lingnan Dr. Chung Wing Kwong Memorial Secondary School*

Part of the extended portion can be seen. Since the new footbridge length is reduced, most of the footbridge will be blocked from view by Lai King Catholic Secondary School.

- xii. O10 – Staff at Lai King Assessment Centre*

The extended portion by Tsuen Wan Road will be clearly seen.

- xiii. L1 – Visitors to Kwai Shun Street Playground*

- xiv. T2 – Pedestrians travelling on Street Level under Kwai Chung Road Interchange Area*

A slightly larger construction works area is visible between the flyover columns when viewed at ground level. The visual impact is generally the same as the approved EIA Report for L1 and T2.

- xv. T3 – Commuters on Tsuen Wan Road/ Kwai Chung Road*

A larger construction works area will be seen at close proximity.

- xvi. T4 – Commuters at Lai King Bus Terminus*

- xvii. T5 – Commuters on MTR*

The larger construction works area will be clearly visible. However, due to the short duration of the impact, the visual impact is generally the same as the approved EIA Report for T4 and T5.

8.4.8 **Insubstantial** residual impacts will be experienced by the remaining VSRs. No additional VSRs will be impacted by the proposed variation.

Operation Phase Day 1

8.4.9 **No substantially adverse** residual impacts will be experienced by the identified VSR.

8.4.10 **No moderately adverse** residual impacts will be experienced by the identified VSR.

8.4.11 **Slightly adverse** residual impacts will be experienced by the following VSR.

i. R5 – Residents at Lai King Estate North

ii. R6 – Residents at Yin Lai Court

The proposed noise barrier structures that is a visual detractor and visual barrier for the residents, will be extended slightly in the south. Additional roadside amenity areas / mitigation planting by Tsuen Wan Road can be seen visually screening the lower portion of the new flyover.

iii. O5 – Staff and Students at Lai King Catholic Secondary School

Due to the reduced length of the new footbridge, O5 will receive a slightly less impact than the approved EIA Report. However, the close proximity of the new flyover, noise barrier and footbridge structure will still become a permanent visual barrier for an already restricted view.

iv. T1 – Open Storage Area Car Park Users

v. T2 – Pedestrians travelling on Street Level under Kwai Chung Road Interchange Area

Additional roadside amenity areas / mitigation planting by Tsuen Wan Road can be seen visually screening the lower portion of the new flyover, which lessens the visual impact when compared with the approved EIA Report. However, the planting will take time to establish, hence T1 and T2 will still receive slightly adverse residual impact.

vi. T3 – Commuters on Tsuen Wan Road/ Kwai Chung Road

The proposed noise barrier structures will be extended slightly, hence a slight increase in view blockage will be expected. Additional roadside amenity areas / mitigation planting by Tsuen Wan Road will enhance the overall landscape, but they will take time to establish. Therefore, T3 will still receive slightly adverse residual impact.

8.4.12 **Insubstantial** residual impacts will be experienced by the remaining VSRs.

OPERATION PHASE YEAR 10

8.4.13 **No substantially adverse** residual impacts will be experienced by the identified VSR.

8.4.14 **No moderately adverse** residual impacts will be experienced by the identified VSR.

8.4.15 **Insubstantial** residual impacts will be experienced by the following VSR.

- i. R3 – Residents at Kwai Fong Terrace*
- ii. R5 – Residents at Lai King Estate North*
- iii. R6 – Residents at Yin Lai Court*
- iv. O5 – Staff and Students at Lai King Catholic Secondary School*
- v. T3 – Commuters on Tsuen Wan Road/ Kwai Chung Road*

Once the amenity planting is established, it is expected to improve the general appearance of the streetscape in this area, which will offset the visual impact brought about by the permanent elevated structures.

8.4.16 **Slight beneficial** residual impacts will be experienced by the identified VSR.

- i. T1 – Open Storage Area Car Park Users*
- ii. T2 – Pedestrians travelling on Street Level under Kwai Chung Road Interchange Area*

After the mitigation planting of shrubs and trees have become fully established, it is expected the general appearance of the streetscape and quality of the landscape will be improved for this area.

8.4.17 A summary of the changes in significance of visual impacts in construction and operation phases compared to the approved EIA Report is shown in **Table 8.4**.

Table 8.4 Significance of Visual Impacts during Construction and Operation Phases (VSR) in Comparison with the Approved EIA Report

Id. No.	VSRs	Sensitivity (Low / Medium / High)	Source of Impact	Magnitude of Change (Large/ Intermediate/ Small/ Negligible)		Significance Threshold (Unmitigated) (Insubstantial, Slight, Moderate and Substantial)		Mitigation Measures	Significance Residual Threshold (Mitigated) (Insubstantial, Slight, Moderate and Substantial)		
				Con.	Op.	Con.	Op.		Con.	Op.	
										Day 1	Year 10
Residential											
R1	Residents at Kwai Chung Plaza	Medium	VIC1,2,4,5,6 VIO1,2,3	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
R2	Residents at New Kwai Fong Gardens	Medium	VIC1,2,4,5,6 VIO1,2,3,4,5	<u>Small</u>	Negligible	<u>Slightly Adverse</u>	Insubstantial	<u>CP1,2 OP1,2,3,4</u>	<u>Slightly Adverse</u>	Insubstantial	Insubstantial
R3	Residents at Kwai Fong Terrace	Medium	VIC1,2,4,5,6 VIO1,2,3,4,5	<u>Small</u>	Negligible	<u>Slightly Adverse</u>	Insubstantial	<u>CP1,2 OP1,2,3,4</u>	<u>Slightly Adverse</u>	Insubstantial	Insubstantial
R4	Residents at Lai Yiu Estate	Medium	VIC1,2,3,4,5,6 VIO1,2,3	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
R5	Residents at Lai King Estate North	High	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Intermediate	Small	Moderately Adverse	Slightly Adverse	CP1,2 OP1,2,3,4	Moderately Adverse	Slightly adverse	Insubstantial
R5A	Residents at Lai King Estate South	High	VIC1,2,3,4,5 VIO1,2,3,4	Small	Negligible	Moderately Adverse	Insubstantial	CP1,2 OP1,2,	Slightly Adverse	Insubstantial	Insubstantial
R6	Residents at Yin Lai Court	Medium	VIC1,2,3,4,5,6 VIO1,2,3	<u>Intermediate</u>	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,	<u>Moderately Adverse</u>	<u>Slightly Adverse</u>	Insubstantial
R7	Residents at Highland Park	Medium	VIC1,2,4,5,6 VIO1,2,3,4	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2	Slightly Adverse	Insubstantial	Insubstantial

Id. No.	VSRs	Sensitivity (Low / Medium / High)	Source of Impact	Magnitude of Change (Large/ Intermediate/ Small/ Negligible)		Significance Threshold (Unmitigated) (Insubstantial, Slight, Moderate and Substantial)		Mitigation Measures	Significance Residual Threshold (Mitigated) (Insubstantial, Slight, Moderate and Substantial)		
				Con.	Op.	Con.	Op.		Con.	Op.	
										Day 1	Year 10
R8	Residents at Yuet Lai Court	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
R9	Residents at Cho Yiu Chuen	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
R10	Residents at Kwai Tsui Estate	Medium	VIC1,2,3,5,6 VIO1,2,3,4	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
Occupational											
O1	Workers at Metroplaza	Low	VIC1,2,3,4,5,6 VIO1,2,3	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
O2	Workers at Kwai Chung Industrial Area	Low	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Small	Negligible	Slightly Adverse	Insubstantial	--	Slightly Adverse	Insubstantial	Insubstantial
O3	Workers at Kwai Fong Ancillary Building	Low	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Small	Negligible	Slightly Adverse	Insubstantial	--	Slightly Adverse	Insubstantial	Insubstantial
O4	Staff and Visitors at Polyclinic & Special Educational Services	Medium	VIC1,2,3,4,5,6 VIO1,2,3	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4,	Slightly Adverse	Insubstantial	Insubstantial
O5	Staff and Students at Lai King Catholic Secondary School	Medium	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Intermediate	Small	Moderately Adverse	Slightly Adverse	CP1,2 OP1,2,3,4	Moderately Adverse	Slightly adverse	Insubstantial

Id. No.	VSRs	Sensitivity (Low / Medium / High)	Source of Impact	Magnitude of Change (Large/ Intermediate/ Small/ Negligible)		Significance Threshold (Unmitigated) (Insubstantial, Slight, Moderate and Substantial)		Mitigation Measures	Significance Residual Threshold (Mitigated) (Insubstantial, Slight, Moderate and Substantial)		
				Con.	Op.	Con.	Op.		Con.	Op.	
										Day 1	Year 10
O6	Workers at Ever Gain Plaza	Low	VIC1,2,3,4,5,6 VIO1,2,3,4	Intermediate	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
O7	Staff and Workers at Container Terminals	Low	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
O8	Staff and Students at Lingnan Dr. Chung Wing Kwong Memorial Secondary School	Medium	VIC1,2,3,4,5,6 VIO1,2,3,4	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
O9	Staff at Lai King MTR Station	Low	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
O10	Staff at Lai King Assessment Centre	Low	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
O11	Staff and Visitors at OUHK – CITA Lai King Learning Centre	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
O12	Staff and Visitors at Lai King	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial

Id. No.	VSRs	Sensitivity (Low / Medium / High)	Source of Impact	Magnitude of Change (Large/ Intermediate/ Small/ Negligible)		Significance Threshold (Unmitigated) (Insubstantial, Slight, Moderate and Substantial)		Mitigation Measures	Significance Residual Threshold (Mitigated) (Insubstantial, Slight, Moderate and Substantial)		
				Con.	Op.	Con.	Op.		Con.	Op.	
										Day 1	Year 10
	<i>Community Hall</i>										
O13	<i>Staff and Students at Asbury Methodist Primary School</i>	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
Leisure											
L1	<i>Visitors to Kwai Shun Street Playground</i>	Medium	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
L2	<i>Visitors to Kwai Yip Road Playground</i>	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
L3	<i>Visitors to Lai King Sports Centre</i>	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
L4	<i>Visitors to Kwai Chung Park</i>	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
L5	<i>Visitors to Lai King Hill Road Playground</i>	Medium	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial
Traveller											
T1	<i>Open Storage</i>	Low	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Intermediate	Small	Slightly Adverse	Slightly Adverse	CP1,2 OP1,2,3,4	Slightly Adverse	Slightly Adverse	Slightly Beneficial

Id. No.	VSRs	Sensitivity (Low / Medium / High)	Source of Impact	Magnitude of Change (Large/ Intermediate/ Small/ Negligible)		Significance Threshold (Unmitigated) (Insubstantial, Slight, Moderate and Substantial)		Mitigation Measures	Significance Residual Threshold (Mitigated) (Insubstantial, Slight, Moderate and Substantial)		
				Con.	Op.	Con.	Op.		Con.	Op.	
										Day 1	Year 10
	<i>Area Car Park Users</i>										
T2	<i>Pedestrians Travelling on Street Level under Kwai Chung Road Interchange</i>	Low	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Intermediate	Small	Slightly Adverse	Slightly Adverse	CP1,2 OP1,2,3,4	Slightly Adverse	Slightly adverse	Slightly Beneficial
T3	<i>Commuters on Tsuen Wan Road/Kwai Chung Road</i>	Low	VIC1,2,3,4,5,6 VIO1,2,3,4,5	Intermediate	Small	Slightly Adverse	Slightly Adverse	CP1,2 OP1,2,3,4	Slightly Adverse	Slightly adverse	Insubstantial
T4	<i>Commuters at Lai King Bus Terminus</i>	Low	VIC1,2,3,4,5,6 VIO1,2,3	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
T5	<i>Commuters on MTR</i>	Low	VIC1,2,3,4,5,6 VIO1,2,3	Small	Negligible	Slightly Adverse	Insubstantial	CP1,2 OP1,2,3,4	Slightly Adverse	Insubstantial	Insubstantial
T6	<i>Travellers to Kwai Fong Core Area</i>	Low	--	Negligible	Negligible	Insubstantial	Insubstantial	--	Insubstantial	Insubstantial	Insubstantial

Note: "--" denotes no source of impact and mitigation measure due to non-visible from the proposed works.

Changes from the approved EIA Report are in **bold and underlined**.

8.5 SUMMARY OF CHANGES

- 8.5.1 Overall the extended areas will result in additional landscape and visual impacts during construction and operation phase. These impacts have been minimized by the implementation of recommended mitigation measures in the approved EIA Report, additional landscape planting area by Tsuen Wan Road and reduction in the length of the new footbridge.
- 8.5.2 A total of 130 nos. of trees will be affected, of which 106 nos. will be felled and 24 nos. will be transplanted. None of the affected trees are Registered Old and Valuable Trees. No rare and endangered species will be affected. A total of 106 nos. of compensatory trees will be planted. 89 nos. of compensatory trees and 24 nos. of transplanted tree will be planted in LR2 as part of the landscape reinstatement and roadside enhancement works. An additional 17 nos. of trees will be planted in an off-site location.
- 8.5.3 As the EIA report is based on the preliminary design, the details of the compensatory tree locations were not finalized at that stage. In the detailed design stage, the TPRP, incorporating the proposed amendments, was submitted to relevant government departments and was approved in 2018. Based on the information from the approved TPRP, the locations, affected nos. of trees and compensatory tree locations were updated to reflect the changes. These changes in compensatory tree planting numbers and locations are not considered the new mitigation measure but as Roadside and Amenity Planting (OP3) mitigation measure in the approved EIA report.
- 8.5.4 No additional landscape and visual mitigation measures are required. The landscape and visual mitigation measures recommended in the approved EIA Report will continue to be implemented throughout the construction and operation phases with minor adjustments to the size and location for the mitigation works.
- 8.5.5 The residual landscape impacts will remain the same as the approved EIA Report all LR and LCA except LCA4. Due to the extended site boundary in the extended areas, LCA4 will also be affected. With mitigation measures in place, LCA4 is expected to have slightly adverse residual impact during construction phase and insubstantial residual impact in operation phase Day 1 and Year 10.
- 8.5.6 One additional VSR (R10) was identified. Due to its view being partially blocked by other high-rise buildings in the foreground, it is expected to experience slightly adverse residual impact during construction phase and insubstantial impact by Day 1 and Year 10 of the operation phase.
- 8.5.7 With the exception of VSR R2, R3 and R6, all residual visual impact for the other VSR will remain the same as the approved EIA Report. VSR R2 and R3 will be affected by the extended areas at the north of the site boundary. As the works are temporary, R2 and R3 will receive slightly adverse residual impact in the construction phase and operation phase Day 1 when the mitigation planting is not yet established. Similarly, R6 will be affected by the extended construction works area south of the site boundary. Due to its closer proximity to the construction works, it will receive moderately adverse

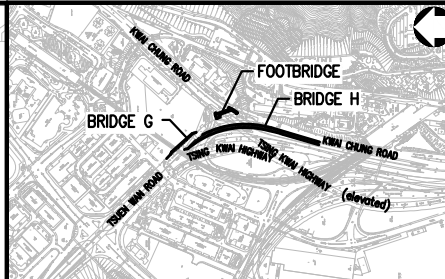
residual impact in the construction phase. In operation phase Day 1, the temporary works area will be reinstated, and the residual impact will be reduced to slightly adverse. Once the mitigation planting is established in operation phase Year 10, R2, R3 and R6 will receive insubstantial residual impact.

- 8.5.8 In view of the above, it is considered that the overall landscape and visual residual impact will be insubstantial with mitigation measures by operation phase Year 10. Therefore, the landscape and visual impact in association with the construction and operation for the extended areas with the implementation of the proposed mitigation measures are acceptable.
- 8.5.9 The environmental performance requirements set out in the approved EIA Report would not be exceeded or violated. The overall conclusion of the landscape and visual impact assessment in the approved EIA Report for construction and operation phase of the Project is still considered valid.

9 CONCLUSION

- 9.1.1 Based on the above review, the environmental performance requirements set out in the approved EIA Report would not be violated, and the scope of works carried under the extended areas is minor in nature and the additional works areas would not cause substantial change to the environmental impact of the Project set out in the approved EIA Report.
- 9.1.2 The findings of the impact assessments under the approved EIA Report for construction and operation phase of the Project are still valid. No additional mitigation measures are required to be carried out for works in the extended areas except the minor adjustments to the size and location for the landscape and visual mitigation works.
- 9.1.3 It is concluded that there is no material change to the environmental impact of the Project with the mitigation measures in place; and the Project complies with the requirements described in the EIAO-TM. The requirements as stipulated in Section 13(5)(a) and (b) of the EIAO have been satisfied.

FIGURES



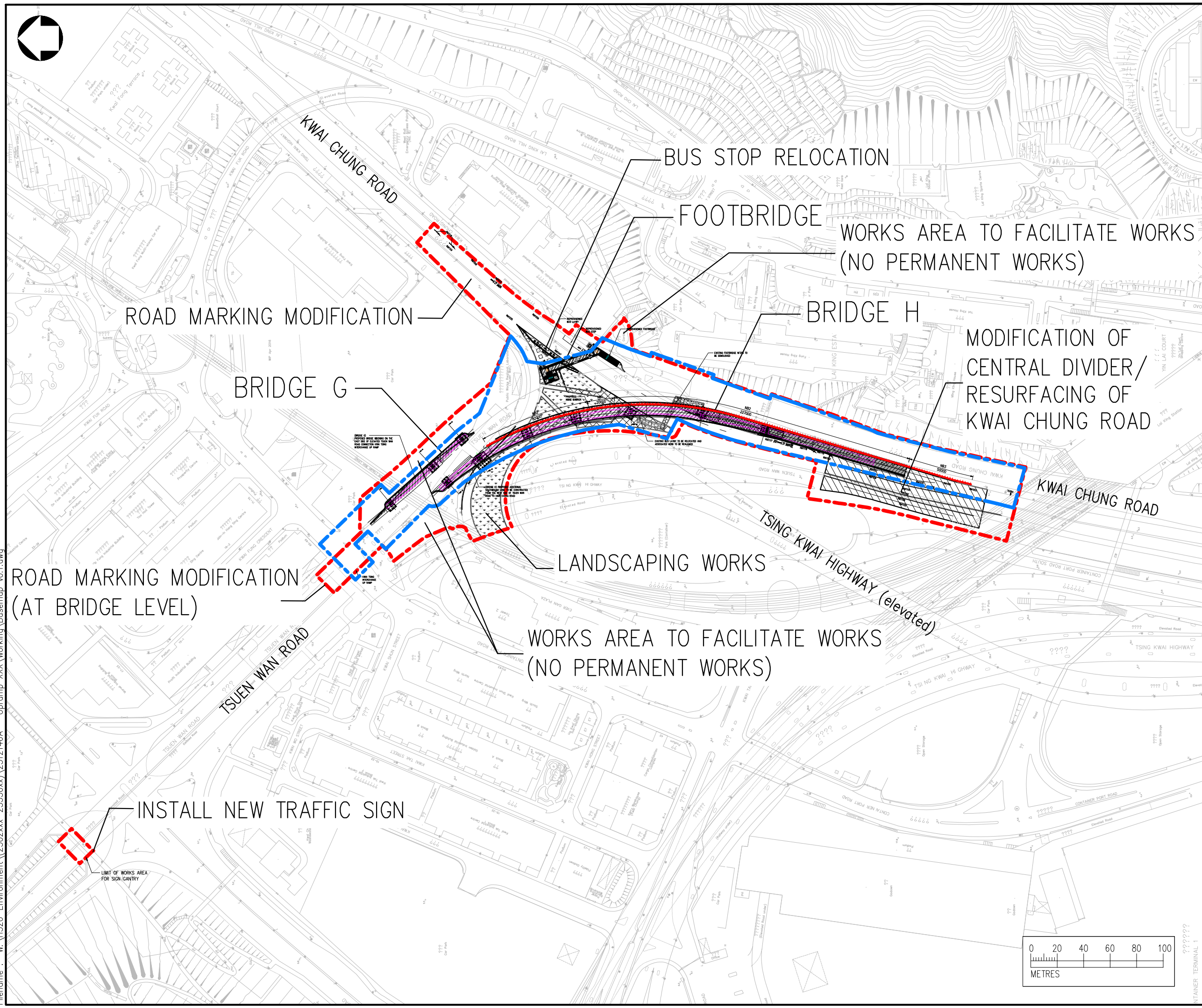
KEY PLAN

NOTES :

- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- 2. ALL LEVELS ARE IN METRES (M) AND RELATIVE TO HONG KONG PRINCIPAL DATUM (mPD).

LEGEND :

- PROJECT BOUNDARY AS EP
- PROJECT BOUNDARY AS PROPOSED DESIGN



Date : 2020-10-08
 Filename : W:\H320-Environment\2502xxx-25350xx\2512146A - Upramp XXX Working\Basemap v0.1.dwg

Rev	Description	By	Date
Consultant			



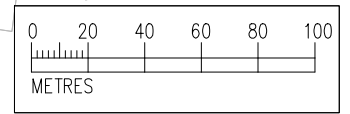
Project title
CONTRACT NO. HY/2020/08
 FLYOVER FROM KWAI TSING INTERCHANGE
 UPRAMP TO KWAI CHUNG ROAD

Drawing title
**PROJECT BOUNDARY
 (EP AND PROPOSED DESIGN)**

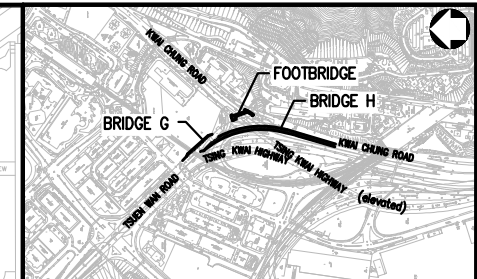
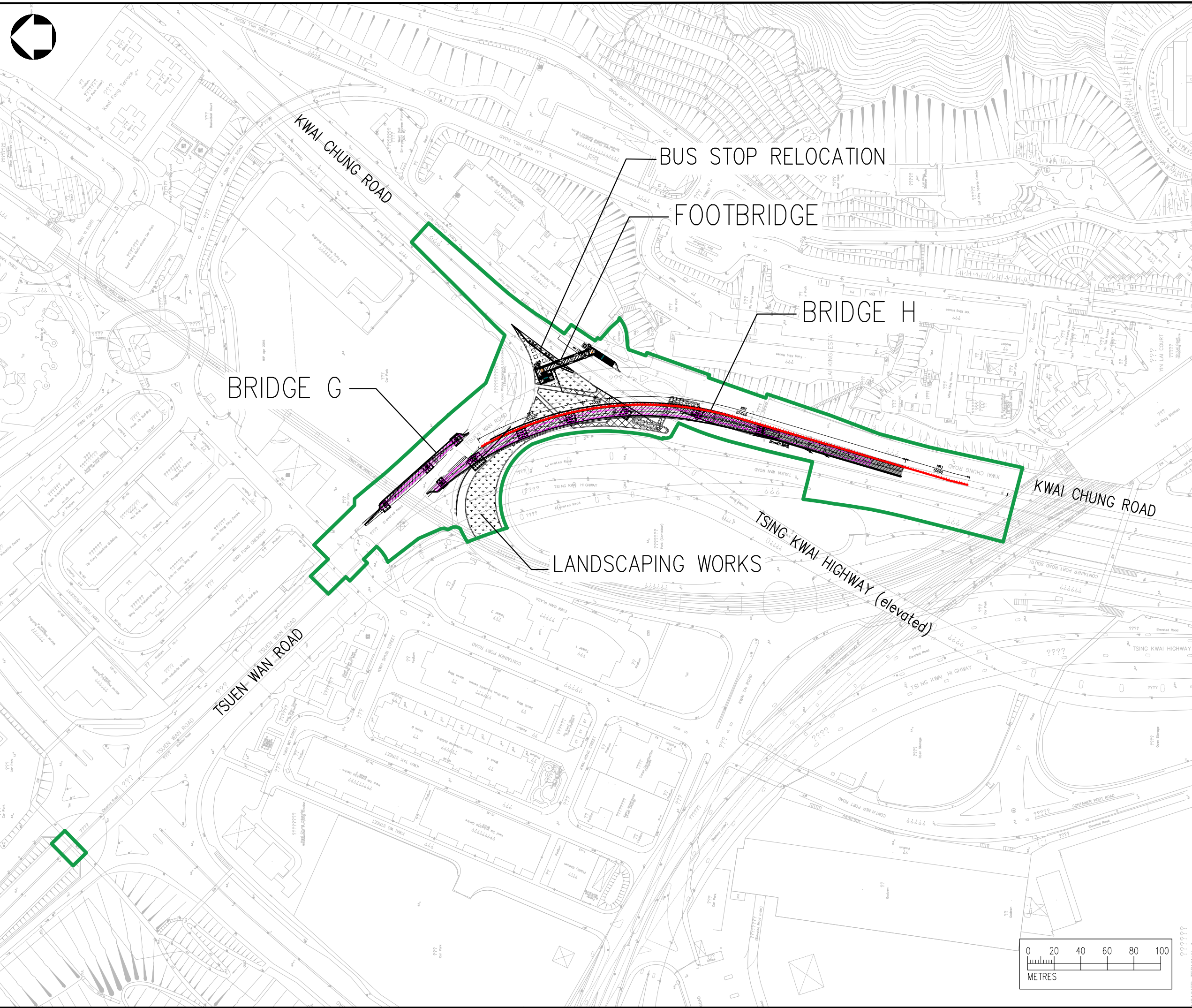
Drawing no. FIGURE 2.1		Rev. -	
Drawn DH	Date 08/10/2020	Checked MW	Approved KL
Scale AS SHOWN		Status EER	

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Date : 2020-10-28
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KEY PLAN

- NOTES :**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 2. ALL LEVELS ARE IN METRES (M) AND RELATIVE TO HONG KONG PRINCIPAL DATUM (mPD).
 3. THE PROPOSED WORKS ARE SHOWN FOR INDICATIVE ONLY.

- LEGEND :**
- PROJECT BOUNDARY

Rev	Description	By	Date
Consultant			



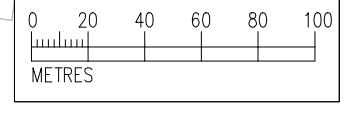
Project title
CONTRACT NO. HY/2020/08
FLYOVER FROM KWAI TSING INTERCHANGE
UPRAMP TO KWAI CHUNG ROAD

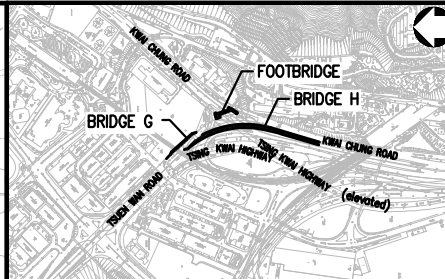
Drawing title
PROJECT BOUNDARY

Drawing no. FIGURE 2.1A		Rev. -	
Drawn DH	Date 28/10/2020	Checked MW	Approved DL
Scale AS SHOWN		Status EER	

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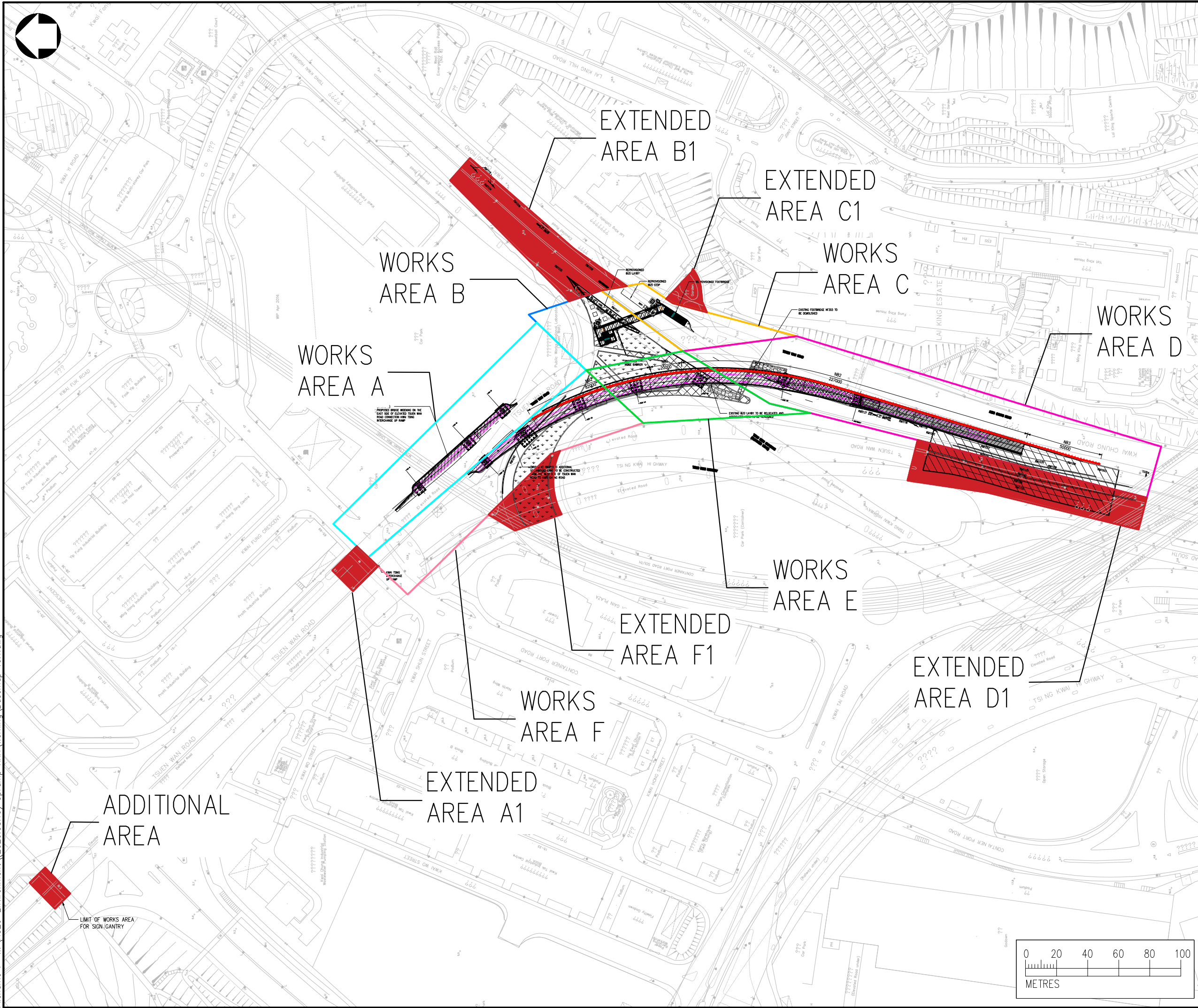


KEY PLAN

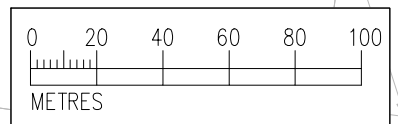
NOTES :

- 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- 2. ALL LEVELS ARE IN METRES (M) AND RELATIVE TO HONG KONG PRINCIPAL DATUM (mPD).

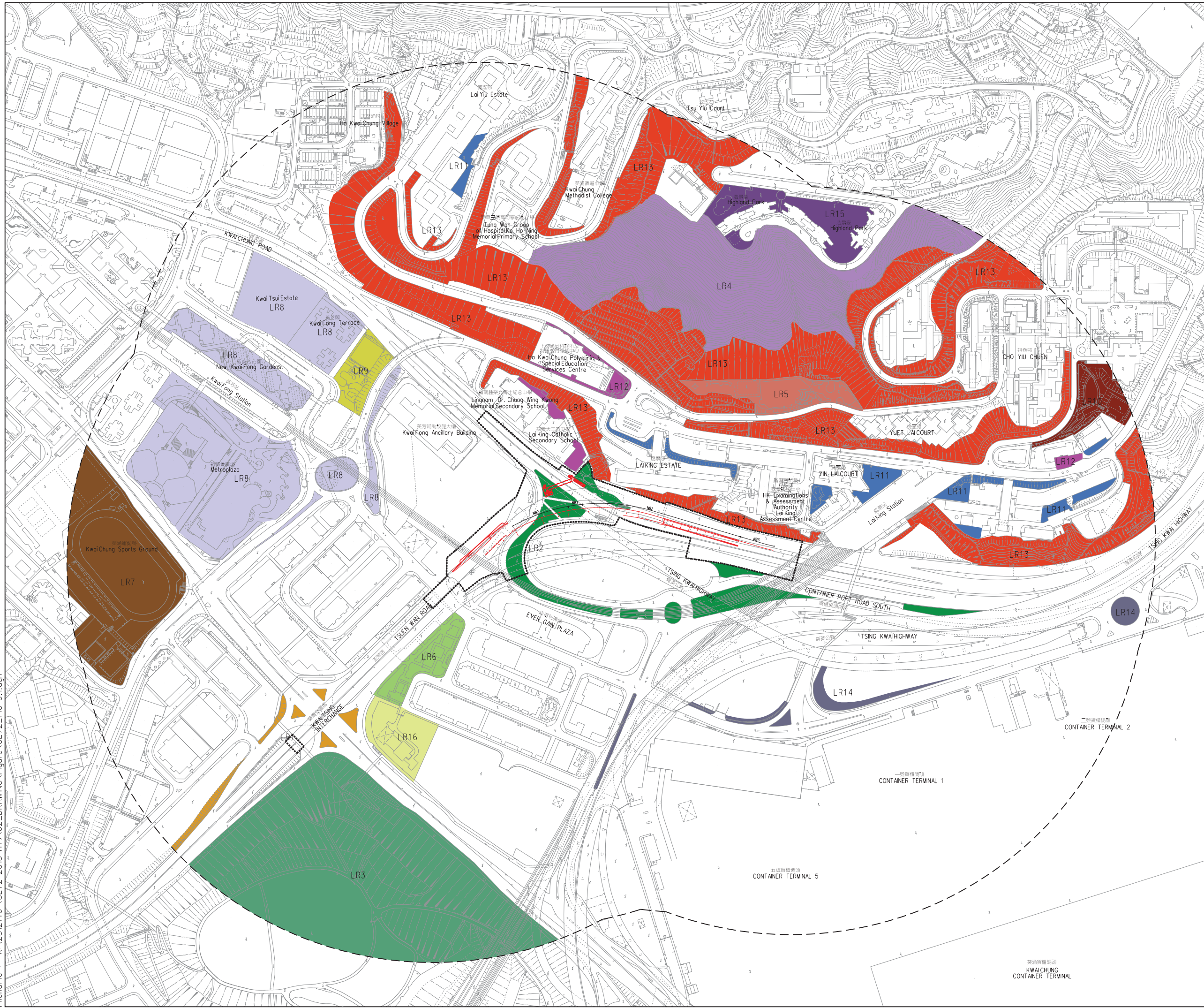
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Rev	Description	By	Date
Consultant			
Project title			
CONTRACT NO. HY/2020/08			
FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD			
Drawing title			
CONSTRUCTION WORK AREAS			
Drawing no.			Rev.
FIGURE 2.2			-
Drawn	Date	Checked	Approved
DH	02/09/2020	MW	KL
Scale	Status		
AS SHOWN	EER		
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Date : 5/10/2020
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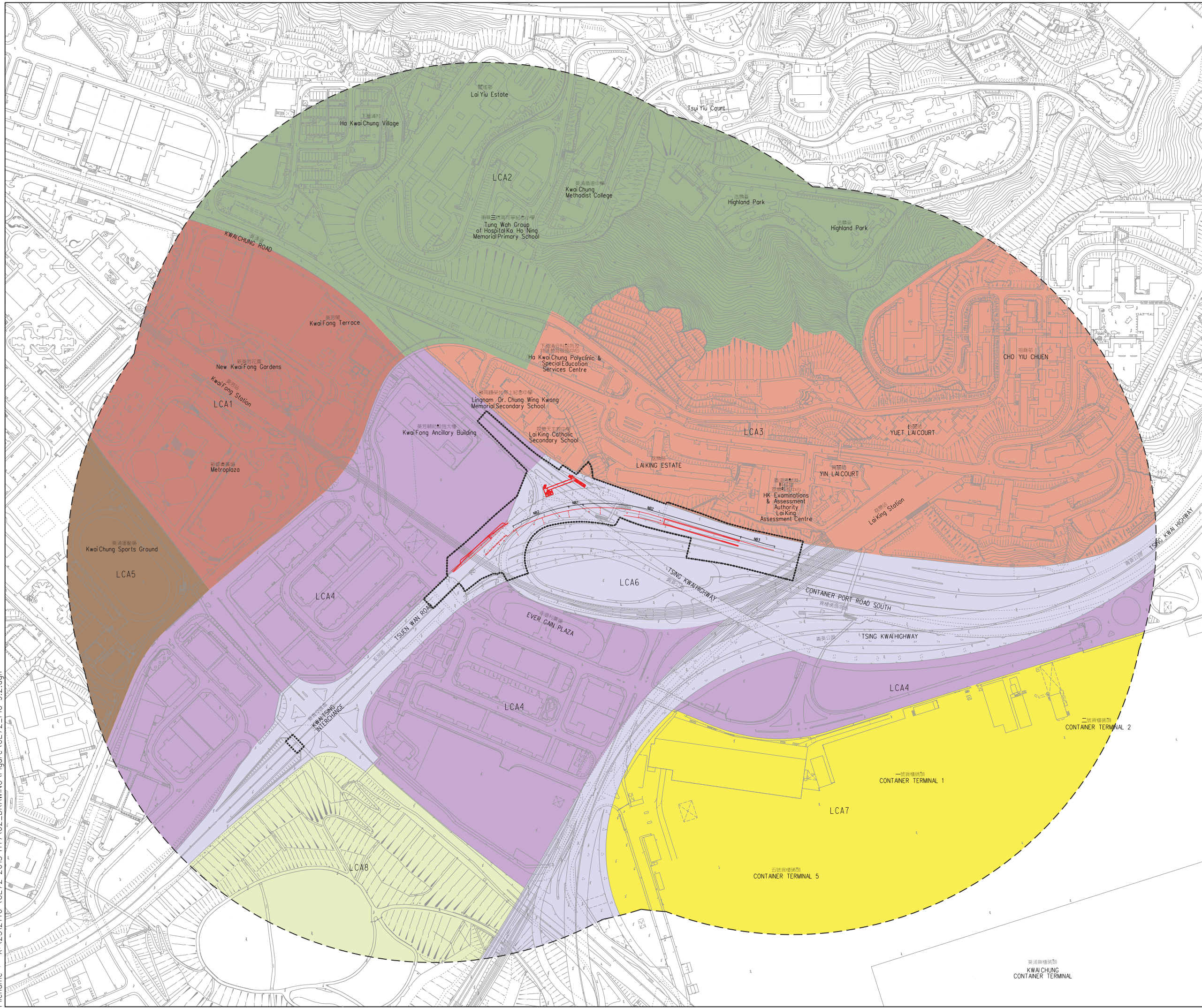
- LEGEND :**
- LIMIT OF WORKS AREA
 - LR LANDSCAPE RESOURCE
 - LR1 TREE PLANTING ALONG TSUEN WAN ROAD
 - LR2 TREE PLANTING AT KWAI CHUNG ROAD INTERCHANGE AREA
 - LR3 KWAI CHUNG PARK
 - LR4 PLANTING AT FOOTHILLS OF LAI KING HILL
 - LR5 LAI KING SPORTS CENTRE
 - LR6 KWAI SHUN STREET PLAYGROUND
 - LR7 KWAI SHUN SPORTS GROUND
 - LR8 LANDSCAPED AREA IN KWAI FONG CORE AREA
 - LR9 KWAI YI ROAD PLAYGROUND
 - LR10 LAI KING HILL ROAD PLAYGROUND
 - LR11 LANDSCAPE AT RESIDENTIAL
 - LR12 LANDSCAPE AT SCHOOL CLINIC, AND OTHER PUBLIC BUILDING
 - LR13 MAN-MADE SLOPE
 - LR14 ROADSIDE PLANTING INSIDE CONTAINER TERMINAL
 - LR15 PLANTING AT HIGHLAND PARK
 - LR16 DSD KWAI CHUNG INDUSTRIAL WASTEWATER PUMPING STATION
 - PROPOSED FLYOVER / FOOTBRIDGE
 - PROPOSED NOISE BARRIER ON PROPOSED FLYOVER
 - NB1 5.5m HIGH VERTICAL BARRIER
 - NB2 5.5m HIGH BARRIER WITH 2.5m CANTILEVER AT 45 DEG.
 - NB3 5.5m HIGH BARRIER WITH 3.5m CANTILEVER AT 45 DEG.
 - 500m STUDY AREA

Rev	Description	By	Date
Consultant			
Project title			
AGREEMENT NO. CE72/2015 (HY)			
FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title			
LANDSCAPE RESOURCES PLAN			
Drawing no.		Rev.	
FIGURE 8.1		-	
Drawn	Date	Checked	Approved
CAD	-	-	-
Scale	Status		
1:5000 (A3)			

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Date : 9/2/2020
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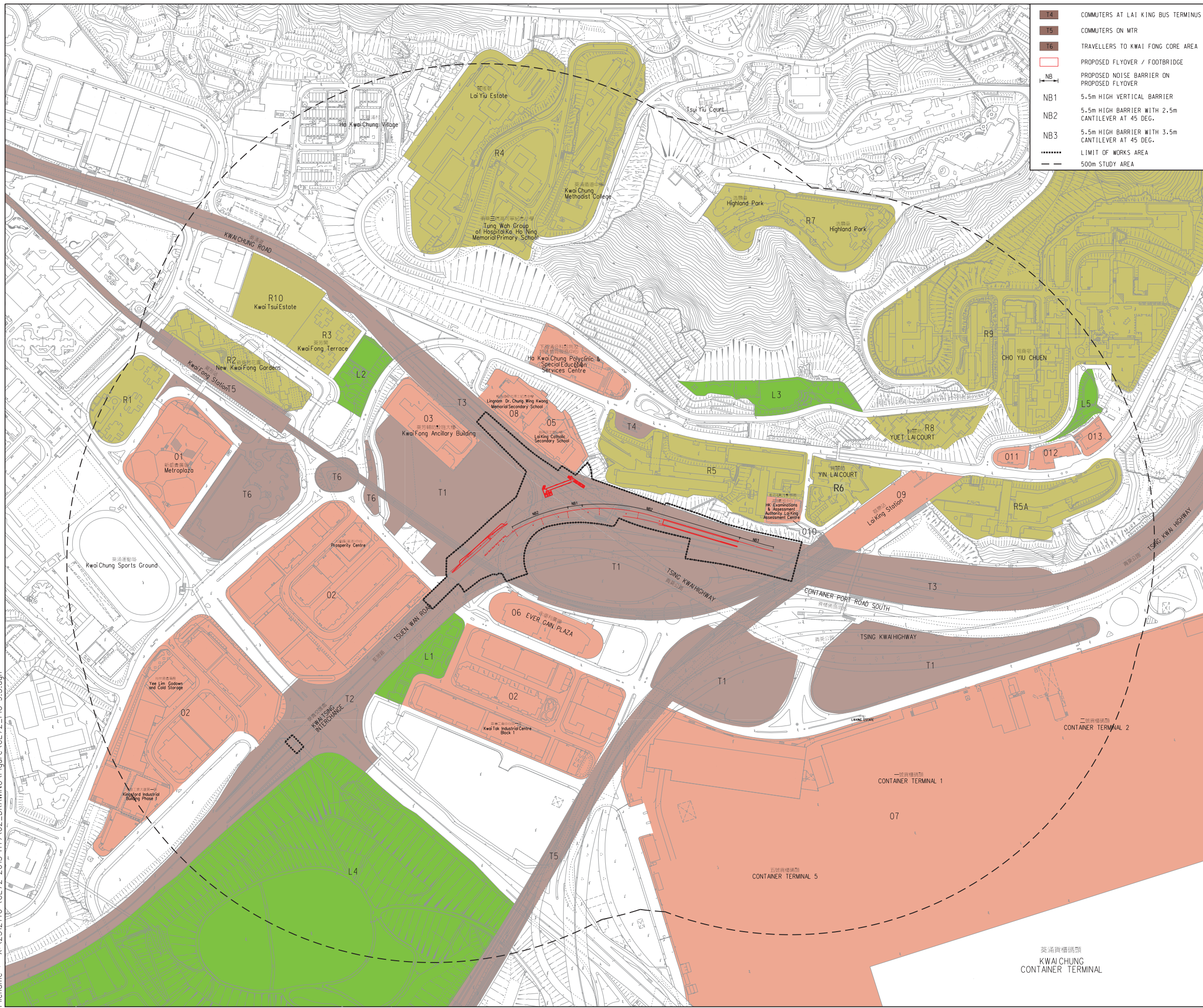
- LEGEND :**
- LIMIT OF WORKS AREA
 - LCA LANDSCAPE CHARACTER AREAS
 - LCA1 MIXED RESIDENTIAL AND COMMERCIAL SURROUNDING KWAI FONG MTR STATION
 - LCA2 RESIDENTIAL AT HIGHER LEVEL OF LAI KING HILL
 - LCA3 RESIDENTIAL AT LOWER LEVEL OF LAI KING HILL
 - LCA4 INDUSTRIAL & OPEN STORAGE AREA ALONG TSUEN WAN ROAD
 - LCA5 KWAI CHUNG SPORTS GROUND
 - LCA6 KWAI CHUNG ROAD INTERCHANGE
 - LCA7 KWAI CHUNG CONTAINER TERMINAL
 - LCA8 KWAI CHUNG PARK
 - PROPOSED FLYOVER / FOOTBRIDGE
 - NB PROPOSED NOISE BARRIER ON PROPOSED FLYOVER
 - NB1 5.5m HIGH VERTICAL BARRIER
 - NB2 5.5m HIGH BARRIER WITH 2.5m CANTILEVER AT 45 DEG.
 - NB3 5.5m HIGH BARRIER WITH 3.5m CANTILEVER AT 45 DEG.
 - 500m STUDY AREA

Rev	Description	By	Date
Consultant			
Project title			
AGREEMENT NO. CE72/2015 (HY)			
FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title			
LANDSCAPE CHARACTER AREAS PLAN			
Drawing no.			Rev.
FIGURE 8.2			-
Drawn	Date	Checked	Approved
CAD	-	-	-
Scale	Status		
1:5000 (A3)			

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 Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Figure\CE72_FIG-9-3.dgn



T4	COMMUTERS AT LAI KING BUS TERMINUS
T5	COMMUTERS ON MTR
T6	TRAVELLERS TO KWAI FONG CORE AREA
[Red outline]	PROPOSED FLYOVER / FOOTBRIDGE
[Red line]	PROPOSED NOISE BARRIER ON PROPOSED FLYOVER
NB1	5.5m HIGH VERTICAL BARRIER
NB2	5.5m HIGH BARRIER WITH 2.5m CANTILEVER AT 45 DEG.
NB3	5.5m HIGH BARRIER WITH 3.5m CANTILEVER AT 45 DEG.
[Dotted line]	LIMIT OF WORKS AREA
[Dashed line]	500m STUDY AREA

- LEGEND :**
- R RESIDENTIAL VSR
 - O OCCUPATIONAL VSR
 - L VISITOR VSR
 - T TRAVELLER VSR
 - R1 RESIDENTS AT KWAI CHUNG PLAZA
 - R2 RESIDENTS AT NEW KWAI FONG GARDENS
 - R3 RESIDENTS AT KWAI FONG TERRACE
 - R4 RESIDENTS AT LAI YIU ESTATE
 - R5 RESIDENTS AT LAI KING ESTATE NORTH
 - R5A RESIDENTS AT LAI KING ESTATE SOUTH
 - R6 RESIDENTS AT YIN LAI COURT
 - R7 RESIDENTS AT HIGH LAND PARK
 - R8 RESIDENTS AT YUET LAI COURT
 - R9 RESIDENTS AT CHO YIU CHUEN
 - R10 KWAI TSUI ESTATE
 - O1 WORKERS AT METROPLAZA
 - O2 WORKERS AT KWAI CHUNG INDUSTRIAL AREA
 - O3 WORKERS AT KWAI FONG ANCILLARY BUILDING
 - O4 STAFFS & VISITORS AT POLYCLINIC & SPECIAL EDUCATIONAL SERVICES
 - O5 STAFFS & STUDENTS AT LAI KING CATHOLIC SECONDARY SCHOOL
 - O6 WORKERS AT EVER GAIN PLAZA
 - O7 STAFFS AND WORKERS AT CONTAINER TERMINALS
 - O8 STAFFS AT LINGNAN DR. CHUNG WING KWONG MEMORIAL SECONDARY SCHOOL
 - O9 STAFFS AT LAI KING MTR CENTRE
 - O10 STAFFS AT LAI KING ASSESSMENT CENTRE
 - O11 STAFF AND VISITORS AT DUHK CITA LAI KING LEARNING CENTRE
 - O12 STAFF AND VISITORS TO LAI KING COMMUNITY HALL
 - O13 STAFFS AND STUDENTS AT ASBURY METHODIST PRIMARY SCHOOL
 - L1 VISITORS TO KWAI SHUN STREET PLAYGROUND
 - L2 VISITORS TO KWAI YIP ROAD PLAYGROUND
 - L3 VISITORS TO LAI KING SPORTS CENTRE
 - L4 VISITORS TO KWAI CHUNG PARK
 - L5 VISITORS TO LAI KING HILL ROAD PLAYGROUND
 - T1 OPEN STORAGE AREA CAR PARK USERS
 - T2 PEDESTRIANS TRAVELLING ON STREET LEVEL UNDER KWAI CHUNG ROAD INTERCHANGE AREA
 - T3 COMMUTERS ON TSUEN WAN ROAD / KWAI CHUNG ROAD

Rev	Description	By	Date

Consultant: **wsp**

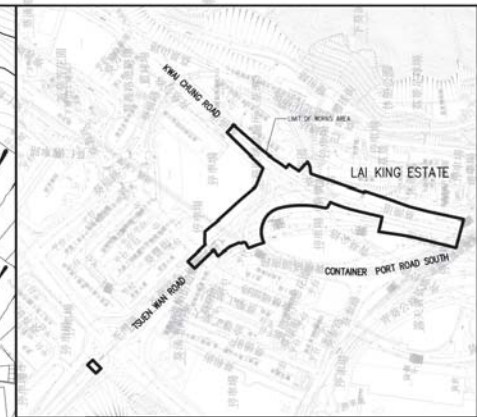
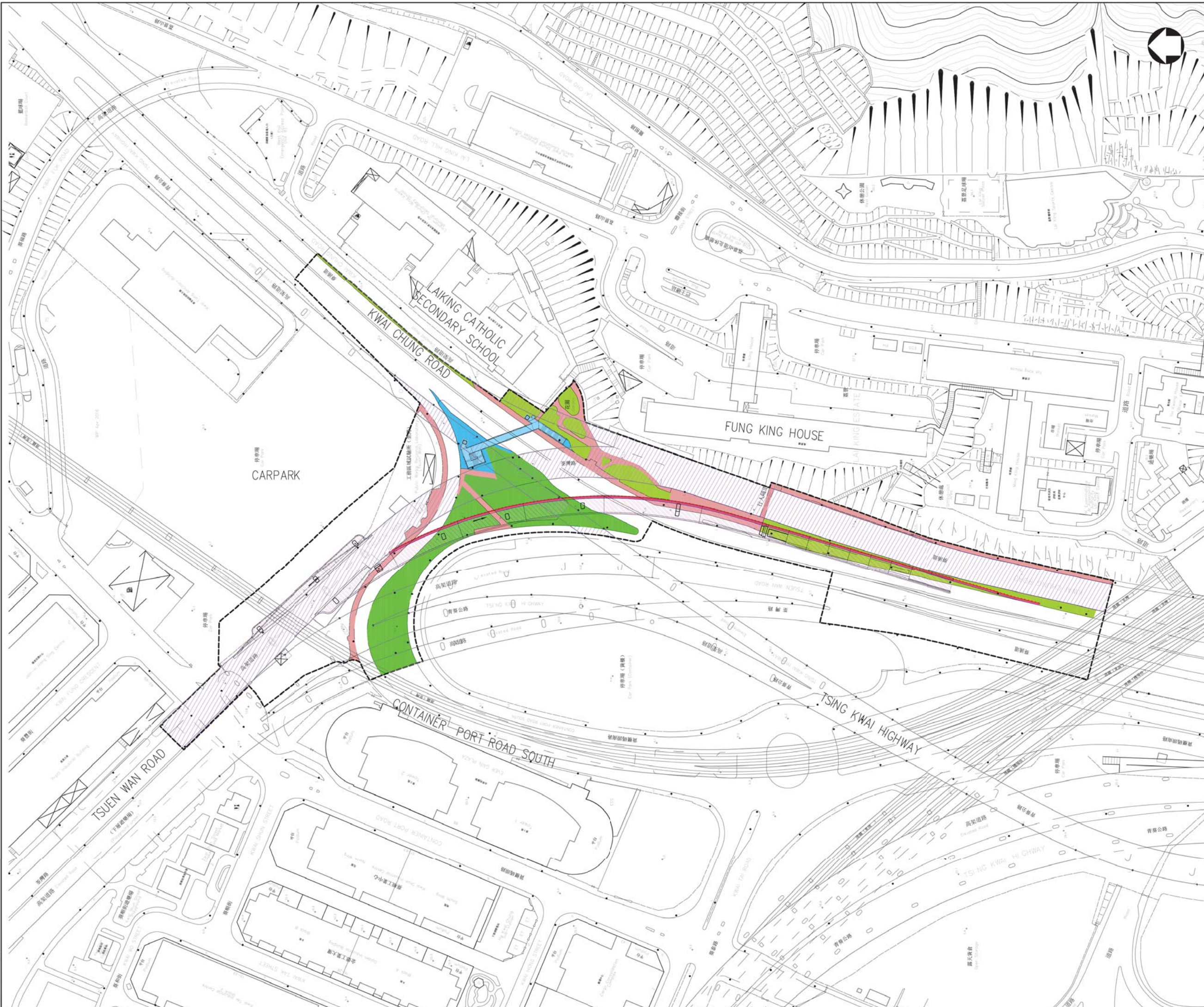
Project title: AGREEMENT NO. CE72/2015 (HY)
 FLYOVER FROM KWAI TSING INTERCHANGE
 UP RAMP TO KWAI CHUNG ROAD
 - DESIGN AND CONSTRUCTION

Drawing title: **VISUAL SENSITIVE RECEIVERS PLANS**

Drawing no.	FIGURE 8.3	Rev.	-
Drawn	CAD	Date	-
Scale	1:5000 (A3)	Checked	-
		Approved	-
		Status	-

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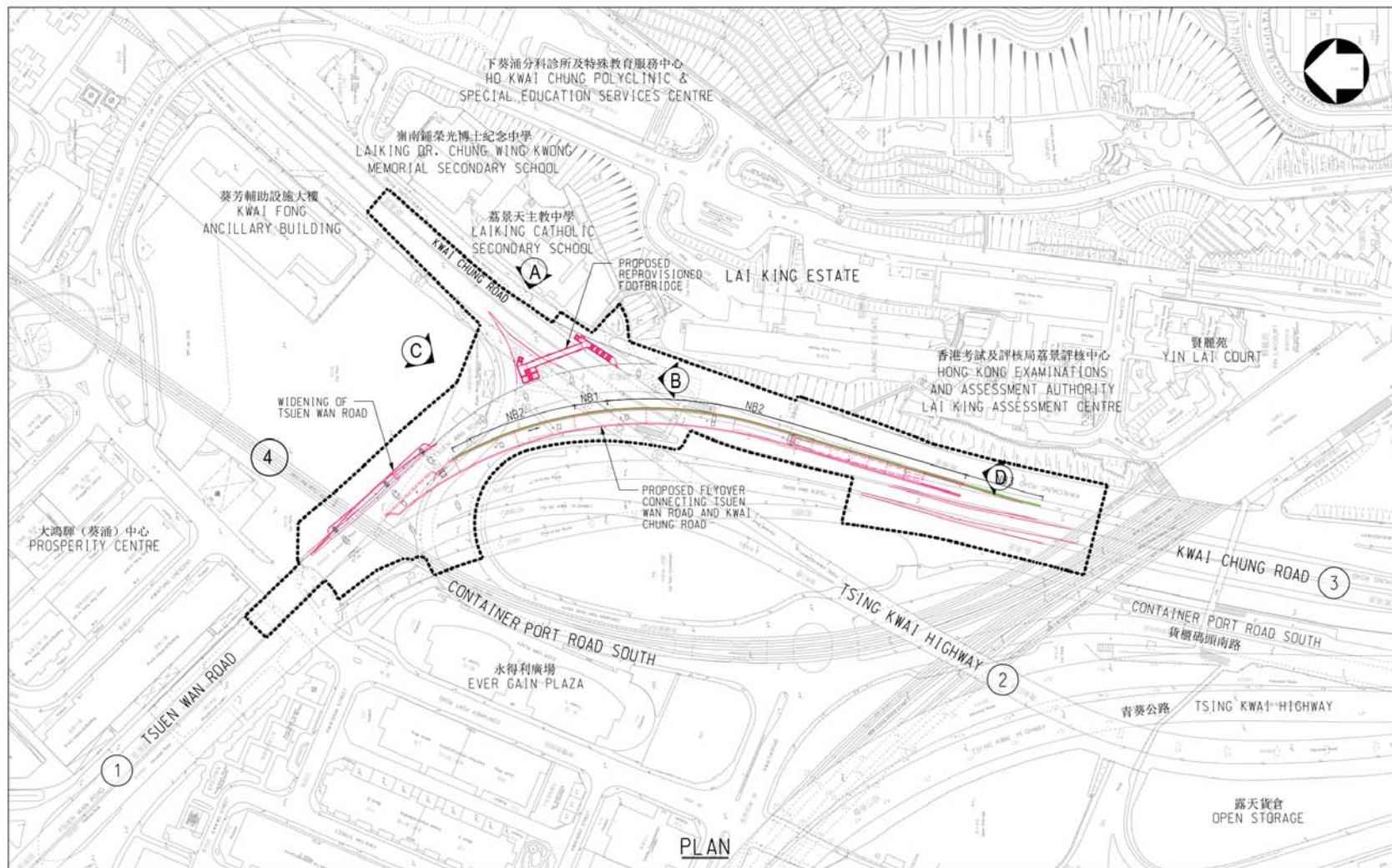
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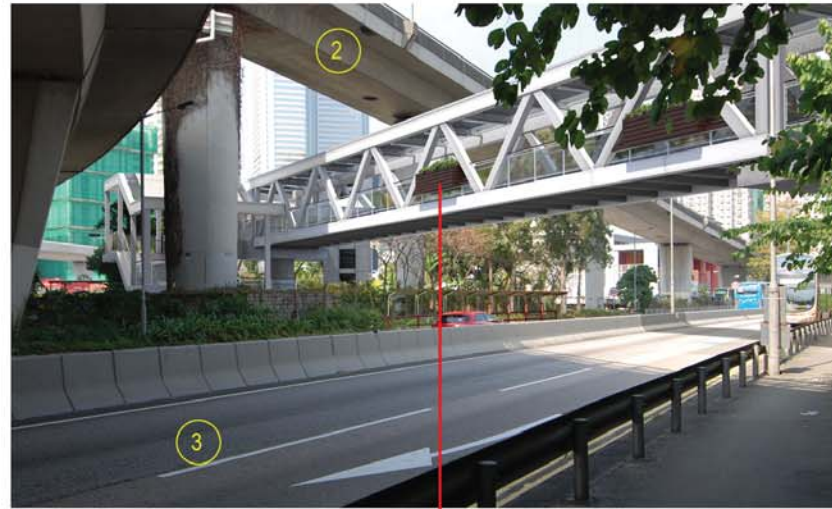
- LEGEND :**
- PROPOSAL WORKS AREA
 - EXISTING FOOTPATH
 - EXISTING PLANTING AREA
 - PROPOSED FOOTPATH
 - PROPOSED PLANTING AREA FOR STREETSCAPE ENHANCEMENT/ REINSTATEMENT
 - PROPOSED ELEVATED VIADUCT/ROAD ALIGNMENT/ WIDENING OF BRIDGE DECK
 - EXISTING ELEVATED VIADUCT
 - PROPOSED REPROVISIONED FOOTBRIDGE NF303
 - PROPOSED NOISE BARRIER

Rev	Description	By	Date
Consultant <div style="text-align: center; font-size: 24px; font-weight: bold; color: red;">wsp</div>			
Project title AGREEMENT NO.CE72/2015(HY) FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title LANDSCAPE MASTER PLAN			
Drawing no. FIGURE 8.4		Rev. -	
Drawn CAD	Date 30/092020	Checked -	Approved -
Scale 1:1000 (A1)		Status FIGURE	
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Date: 30/09/2020
 Scale: 1:1000 (A1)



Photomontage B



Provision of planter on proposed footbridge

Photomontage C



Improvement in streetscape and planting
Provision of noise barrier

LEGEND :

- PROPOSED FLYOVER / FOOTBRIDGE
- PROPOSED NOISE BARRIER ON PROPOSED FLYOVER
- PROPOSED 5.5m HIGH VERTICAL BARRIER
- PROPOSED 5.5m HIGH BARRIER WITH 2.5m CANTILEVER AT 45 DEGREE (CANTILEVER DIRECTION)
- PROPOSED 5.5m HIGH BARRIER WITH 3.5m CANTILEVER AT 45 DEGREE (CANTILEVER DIRECTION)
- VIEWING ANGLE OF PHOTOMONTAGE



Photomontage A

Rev	Description	By	Date
Consultant			
Project title			
AGREEMENT NO. CE72/2015 (HY)			
FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title			
MITIGATION DETAIL & PHOTOMONTAGE (SHEET 1)			
Drawing no. FIGURE 8.5			Rev. -
Drawn	Date	Checked	Approved
CAD	30/09/2020	-	-
Scale	1:2000 (A1)	Status	FIGURE

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Photomontage D



Existing Site Condition



Day 1 without Mitigation Measures



Day 1 with Mitigation Measures




Year 10 with Mitigation Measures

LEGEND :



NOTE: REFER TO FIGURE 9.5 FOR THE VIEWING ANGLE

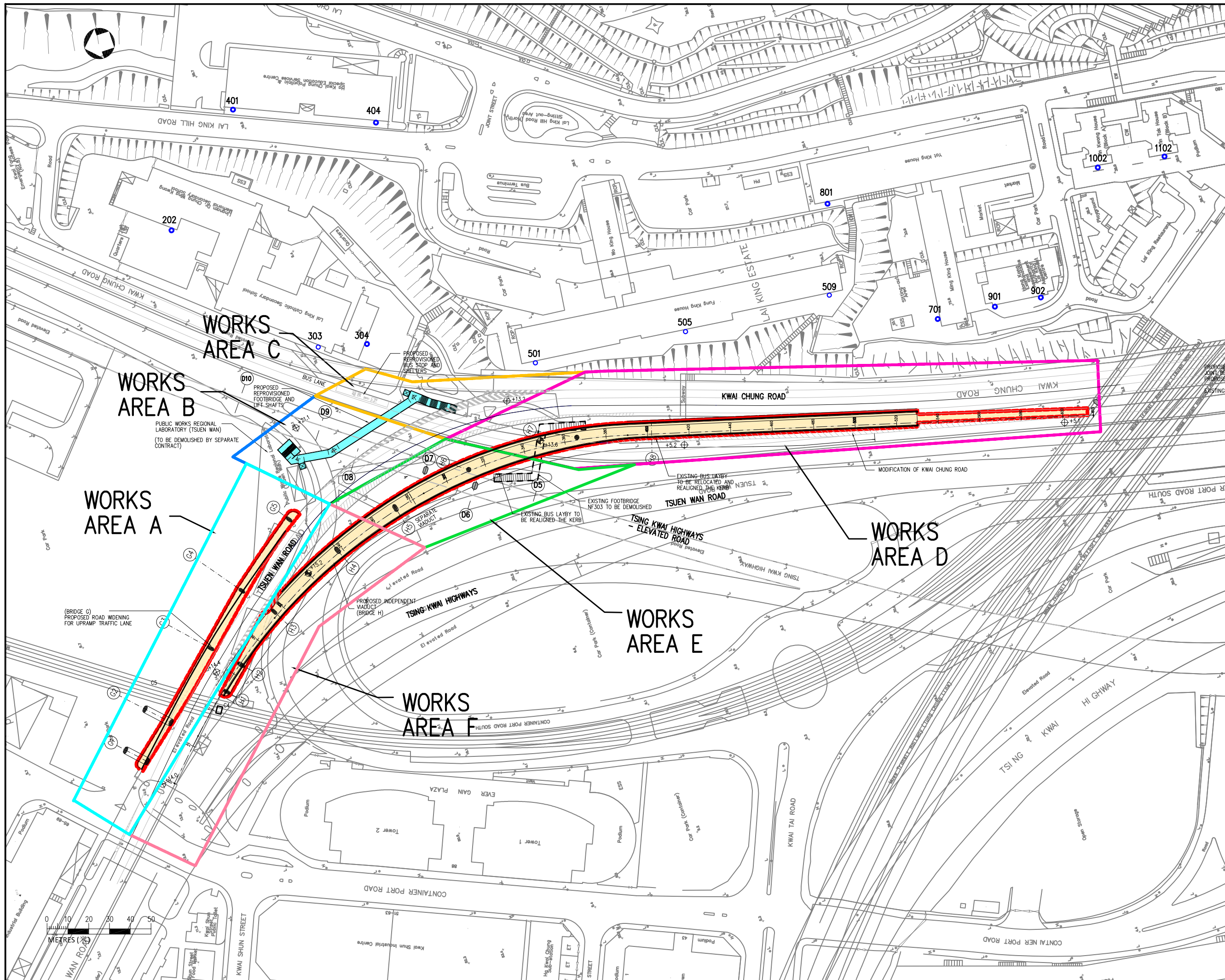
Rev	Description	By	Date
Consultant			
			
Project title AGREEMENT NO. CE72/2015 (HY) FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title MITIGATION DETAIL & PHOTOMONTAGE (SHEET 2)			
Drawing no. FIGURE 8.6		Rev. -	
Drawn CAD	Date 30/092020	Checked -	Approved -
Scale 1:2000 (A1)		Status FIGURE	

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Date : 30/9/2020
Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Figure\CE72_FIG-151.dgn

APPENDIX 2.1

LOCATIONS OF CONSTRUCTION
WORKS AND NOISE ASSESSMENT
POINTS (APPROVED EIA REPORT)



LEGEND:

- PROPOSED VIADUCT / WIDENING OF BRIDGE DECK / ABUTMENT
- PROPOSED REPROVISIONED FOOTBRIDGE
- LOCATIONS OF NOISE ASSESSMENT POINTS
- WORKS AREA
- WORKS AREA A
- +4.9 EXISTING ROAD LEVEL IN mPD (APPROX.)
- +15.1 PROPOSED ROAD LEVEL IN mPD (APPROX.)

Rev.	Date	Description	Drawn	Checked

土木工程拓展署
CEDD Civil Engineering and Development Department

OFFICE: NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE

AGREEMENT NO. CE 8/2012 (HY)
FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD – INVESTIGATION

LOCATIONS OF CONSTRUCTION WORKS AREAS AND NOISE ASSESSMENT POINTS

Drawing No.	FIGURE 4.3			
Designed	Drawn	Checked	Scale	AS SHOWN
SL	SL	MASP	AS SHOWN	AS SHOWN
Approved	Date	Status		
ICWR	29/08/14	FINAL		

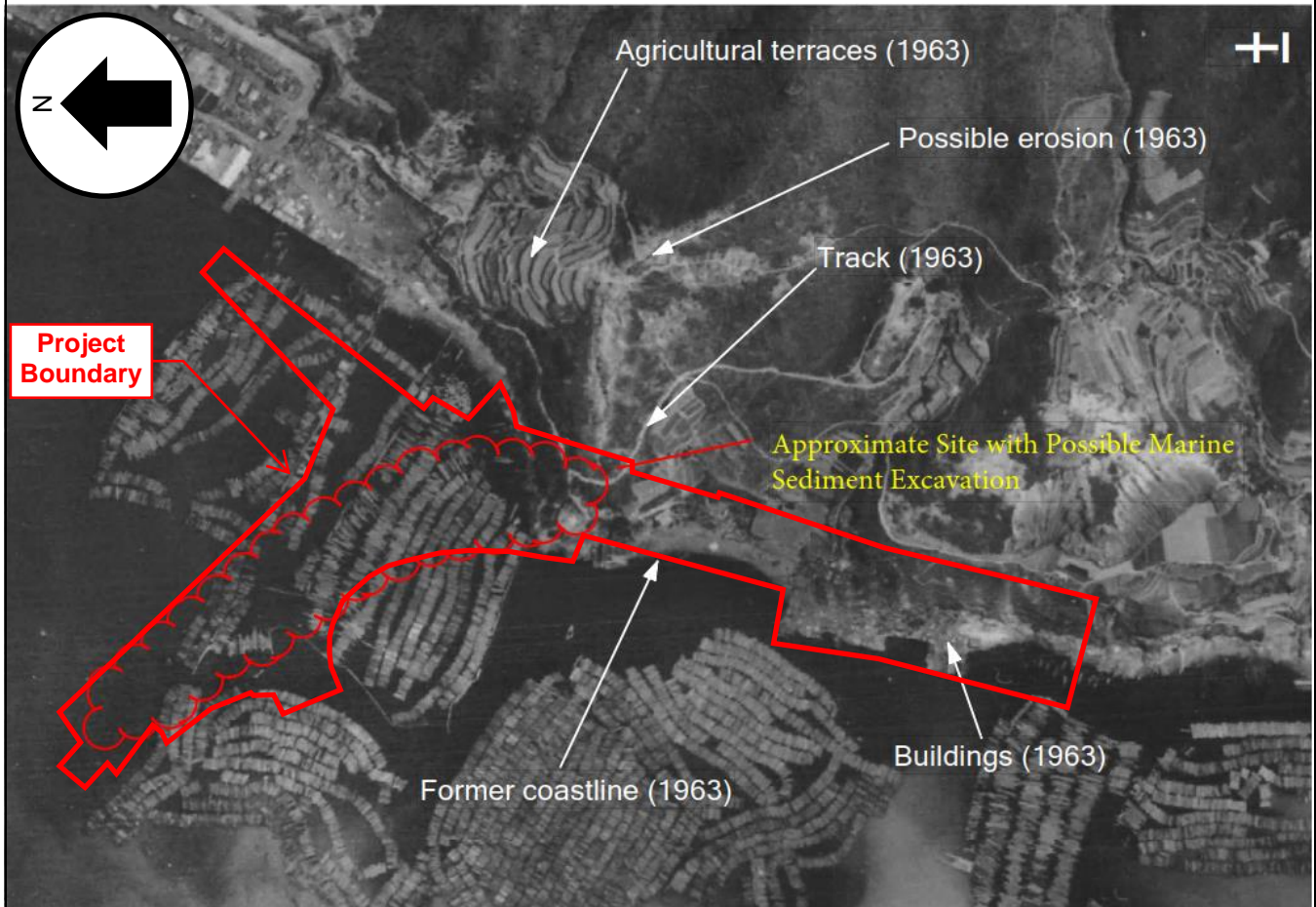
AECOM

APPENDIX 6.1

HISTORICAL AERIAL PHOTOS
(APPROVED EIA REPORT)

Aerial Photographs

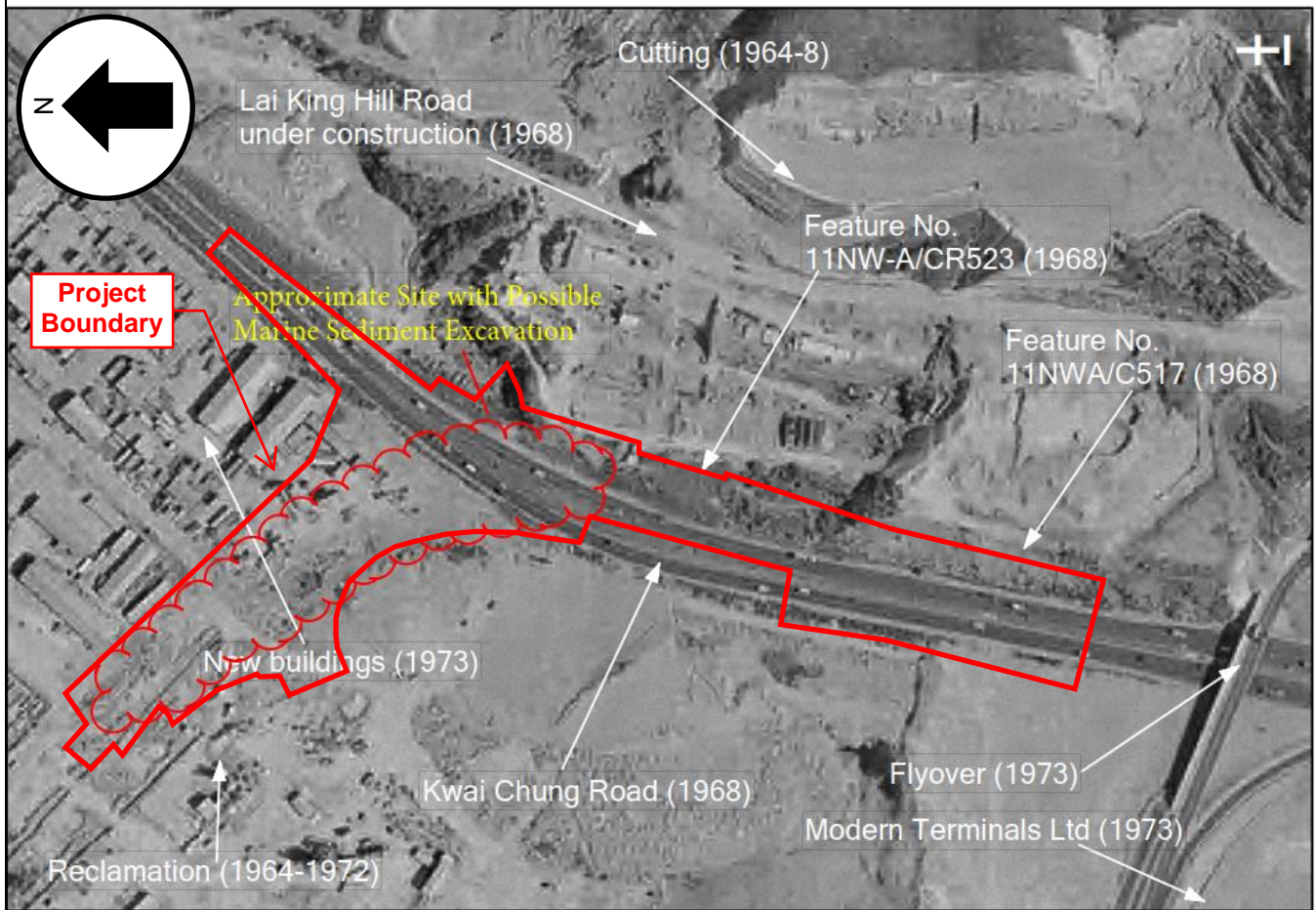
1963 Project Boundary located on Open Sea



Observation:

- Project Boundary located on open sea, surrounding area comprise of natural hillside and anthropogenic terrain.
- Agricultural terraces and a track are observed on the hillside.
- Several small buildings are observed at the toe of the slope.
- An area of possible erosion can be observed at the crest of the hillside.

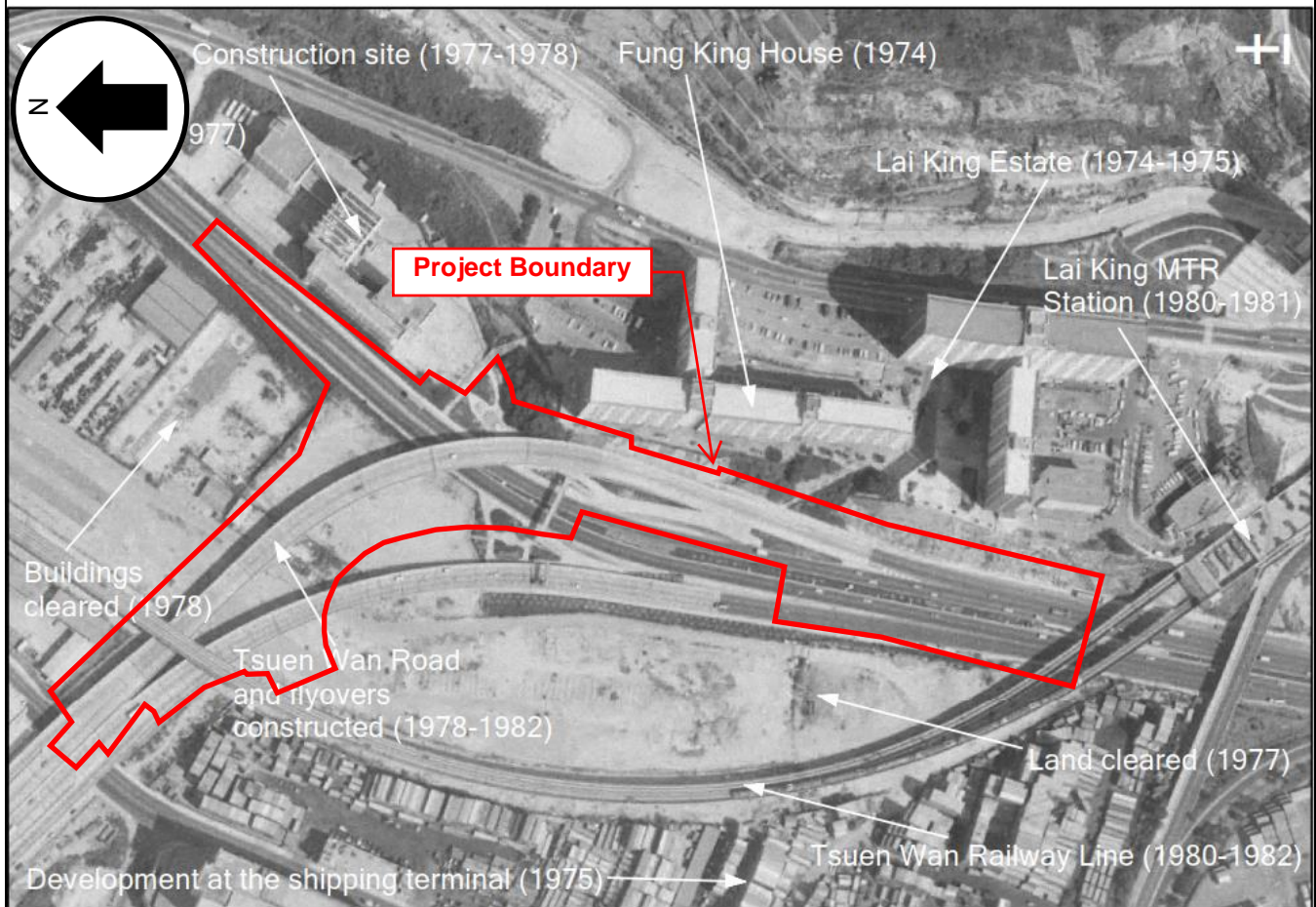
1973 Project Boundary located on Reclaimed Land



Observation:

- Extensive reclamation has taken place at the area within Project Boundary and surrounding area (1964-1972).
- Cut slopes have been formed on the eastern side within Project Boundary associated with the reclamation (1964-1968).
- Kwai Chung Road has been constructed (1968).
- Lai King Hill Road is under development (1968).
- Several new buildings have been constructed on the northwest side within Project Boundary (1973).
- Modern Terminals Ltd has been established to the east side within Project Boundary (1973).

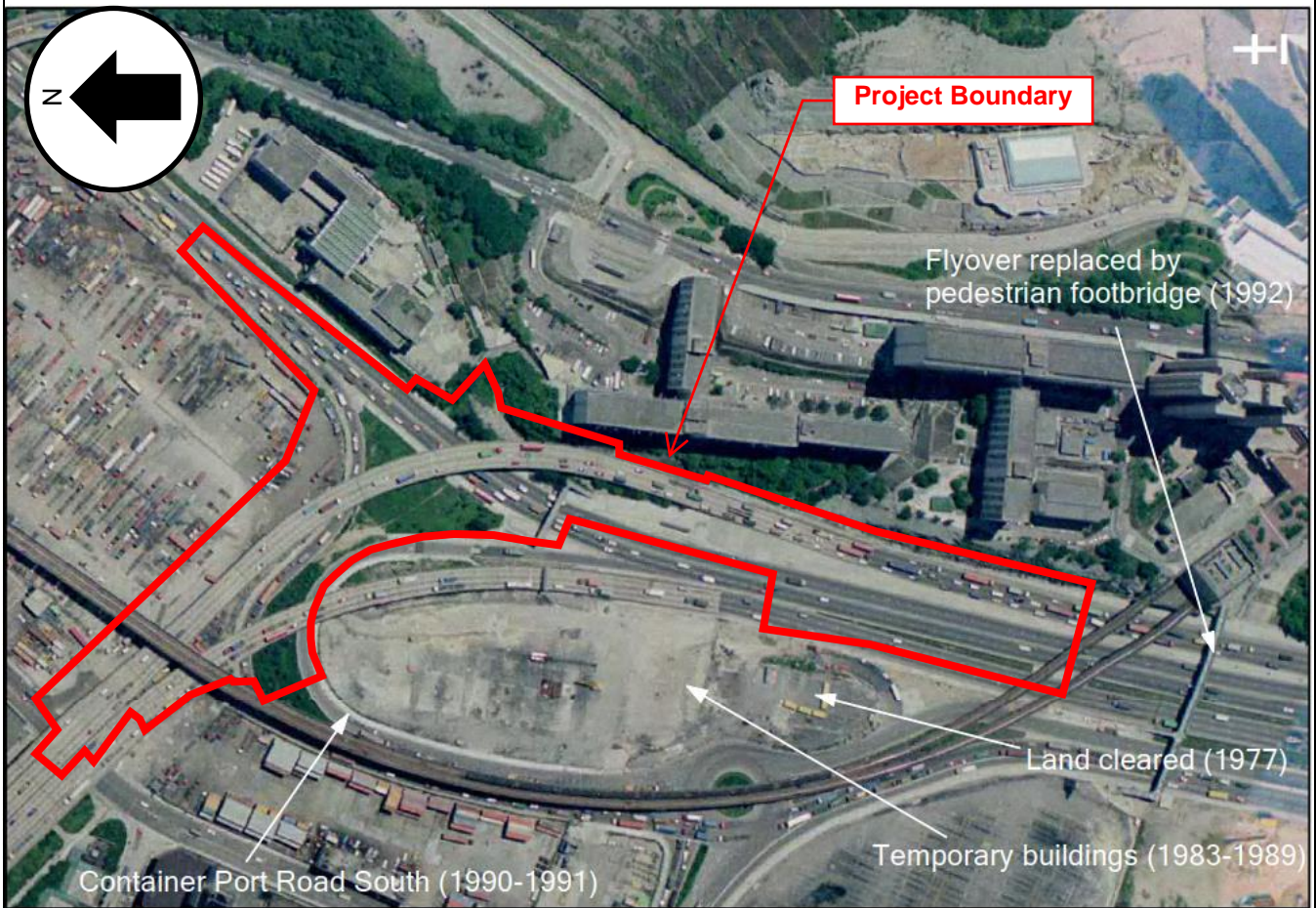
1982 Tsuen Wan Road and Nearby Flyovers Constructed



Observation:

- Lai King Estate has been developed (1974-1975).
- Expansion at the shipping terminal has taken place (1975).
- New buildings have been constructed on the eastern side of Kwai Chung Road (1977-1978).
- A flyover has been built linking Lai King Hill Road with Kwai Chung Road (1977).
- The land between the elevated section of Tsuen Wan Road and the Tsuen Wan Railway has been cleared (1977-1978).
- Foundations were laid in 1978 to support the elevated section of the new Tsuen Wan Road (1978-1982).
- Lai King MTR Station was constructed (1980-1981).
- Tsuen Wan Railway Line was constructed (1980-1982).

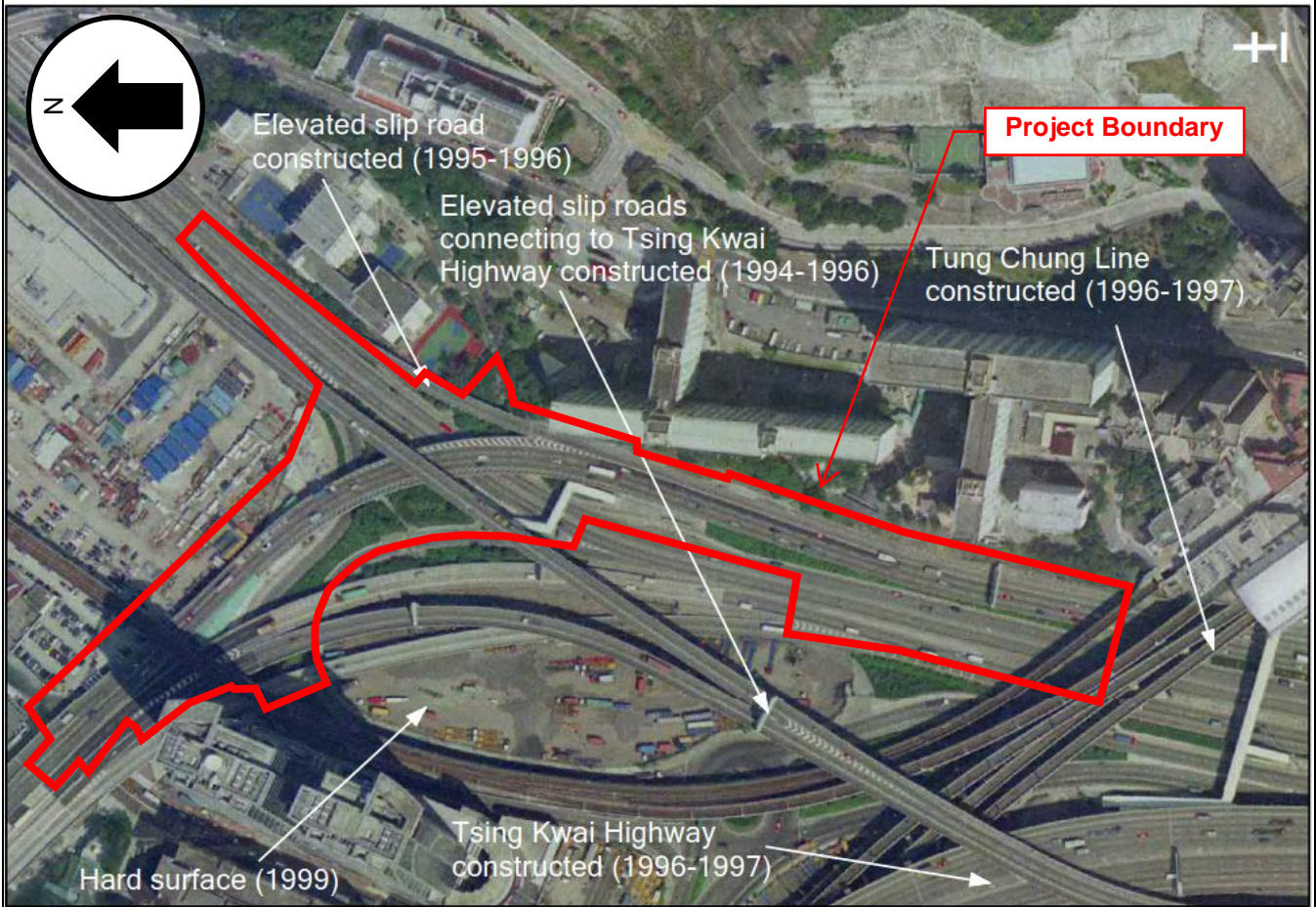
1993 No change to area within Project Boundary



Observation:

- No change to area within Project Boundary, except where more buildings were constructed (1993).
- Temporary buildings were constructed in 1983 and removed in 1989 in the area between the elevated road and Tsuen Wan Railway Line.
- Container Port Road South has been constructed (1989-1991).
- The flyover which provided access to Modern Terminals Ltd has been replaced with a pedestrian footbridge (1992).

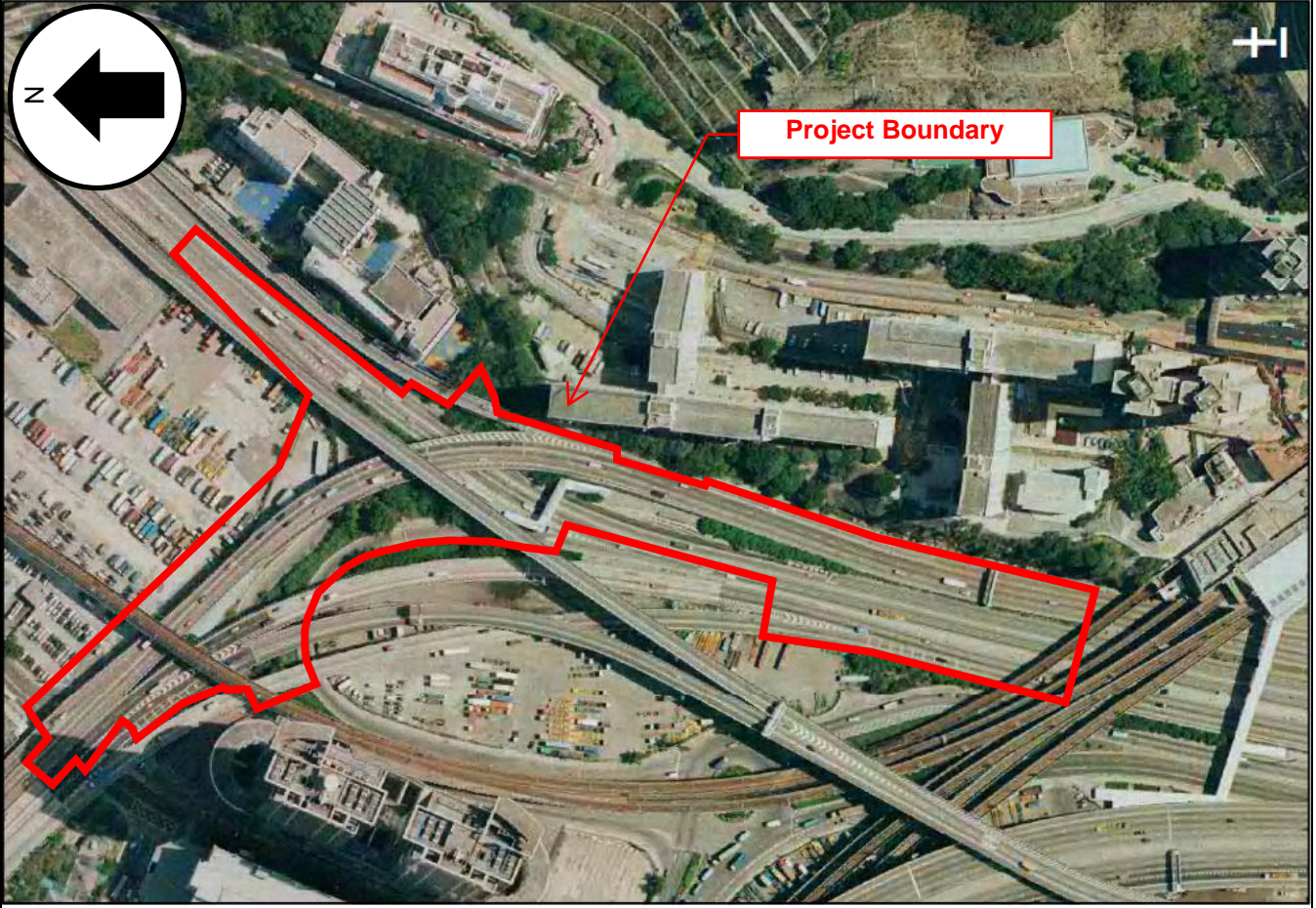
2003 No change to area within Project Boundary



Observation:

- No change to area within Project Boundary.
- The area between the elevated road and railways was cleared in 1994 for development. A hard surface was constructed in 1999.
- Elevated slip roads of Tsing Kwai Highway were constructed (1994-1996).
- Slip roads constructed on Kwai Chung Road (1995-1996).
- Tsing Kwai Highway was built (1996-1997).
- Tung Chung Line was constructed (1996-1997).

2008 No change at area within Project Boundary



Observation:

- No change at area within Project Boundary since 1999.

APPENDIX 6.2

HISTORICAL AERIAL PHOTOS
(PROPOSED BOUNDARY)

Year: 2012

Photo No. CS39662



No observable changes since 1999.

Year: 2019

Photo No. E069365C



No observable changes since 1999.

APPENDIX 6.3

SITE INSPECTION CHECKLIST AND PHOTOGRAPHS

Site Inspection Checklist

1 General Site Details	
Date of Site Inspection :	30 September 2020
Property Address :	Public Works Regional Laboratory (Tsuen Wan) (PWRL), Tsing Kwai Highway and Wai Chung Road

2 Site Activities	
Typical hours of operation :	10 hours (PWRL), 24 hours (other areas)
Days per week :	5.5 days (PWRL), 7 days (other areas)
The main sources of energy at the site :	Electricity

3 Site Description	
Total site area :	35,600 m ²
Surrounding land use, facilities or types of industry:	
North :	Industrial
South :	Residential
East :	Residential
West :	Industrial
Topography of the area	Flat
Size and location of the nearest residential communities	Lai King Estate (approximately 11,400 people)

4 Investigation	
What are the main activities/operations at the Site?	Material Testing (PWRL), Road and vegetation (other areas)
How long have the occupants been occupying the site?	15 years
Were the current occupants the first occupant on site?	Yes
Prior to the current occupancy, who occupied the site?	Vacant Land
What were the main activities/operations during their occupancy?	N/A
Have there been any major changes in operations carried out at the site in the last 10 years?	No
Have any polluting activities been carried out in the vicinity of the site in past?	No
Has the site ever been used as a petrol filling station/car service garage?	No
Are there any boreholes/wells or natural springs either on the site or in the surrounding area?	No
Do the occupants have any registered hazardous installations as defined under relevant ordinances?	No
Are any chemicals used in the occupants' daily operations? Where do they store these chemicals?	Yes, Methylene Chloride stored in Dangerous Goods Store of PWRL
How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks,	Received by trucks and stored in tanks of PWRL

carboys, bags, silos, cisterns, vaults and cylinders)?	
Do the occupants have any underground storage tanks?	No
Are there any disused underground storage tanks?	No
Do the occupants have regular check for any spillage and monitoring of chemicals handled?	Yes
Have the occupants ever received any notices of violation of environmental regulations or received public complaints?	No
Have any spills occurred on site?	No
Do the occupants have any records of major renovation of the site or re-arrangement of underground utilities, pipe work/underground tanks?	No
Are there any known contaminations on site?	No
Has the site ever been remediated?	No

5 Observations	
Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)?	Yes, in Dangerous Goods Store for Methylene Chloride Solvent (PWRL)
What are the conditions of the bund walls and floors?	Good
Are any surface water drains located near to drum storage and unloading areas?	No
Are any solid or liquid waste (other than wastewater) generated at the site?	Yes, Spent Methylene Chloride (PWRL)
Is there a storage site for the wastes?	Yes
Is there an on-site landfill?	No
Were any stressed vegetation noted on site during the site reconnaissance?	No
Were any stained surfaces noted on-site during the site reconnaissance?	Yes, observed in the Dangerous Goods Store (PWRL)
Are there any potential off-site sources of contamination?	No
Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)?	Transformer (PWRL)
Are there any sumps, effluent pits, interceptors or lagoons on site?	Yes, Effluent Pits (PWRL)
Any noticeable odours during site walkover?	No
Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam?	Yes, Methylene Chloride Solvent (PWRL)

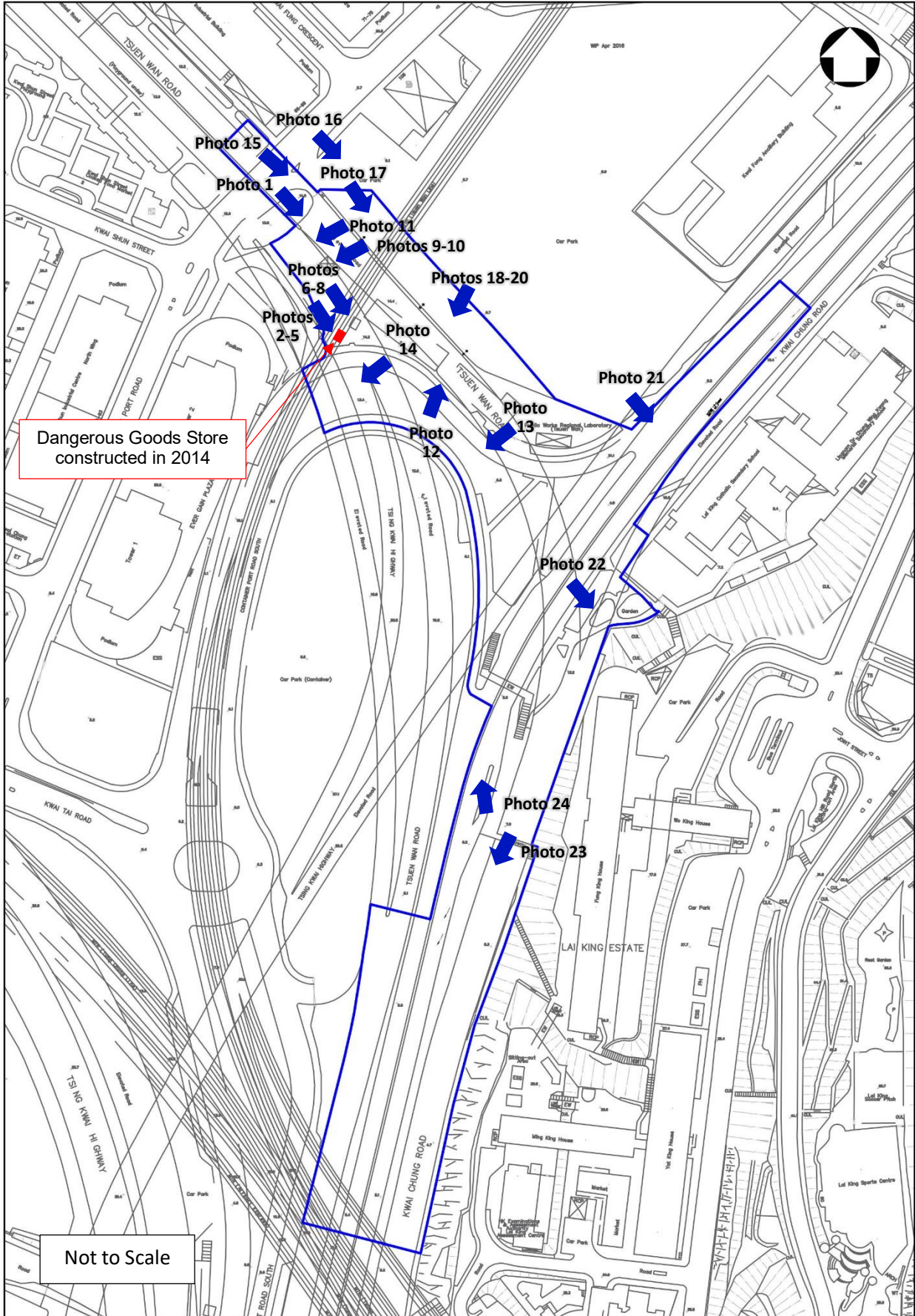




Photo 1. Public Works Regional Laboratory (Tsuen Wan)



Photo 2. Store for Dichloromethane constructed in 2014



Photo 3. Store for Dichloromethane



Photo 4. Store for Dichloromethane



Photo 5. Store for Dichloromethane



Photo 6. Abandoned Store for Dichloromethane



Photo 7. Abandoned Store for Dichloromethane



Photo 8. Abandoned Store for Dichloromethane



Photo 9. Switch Room



Photo 10. Tsuen Wan Regional Lab Substation



Photo 11. Outdoor Storage Area



Photo 12. Back Side of Public Works Regional Laboratory



Photo 13. Container Port Road South and Vegetation



Photo 14. Container Port Road South and Vegetation



Photo 15. Carpark



Photo 16. Carpark



Photo 17. Carpark overview



Photo 18. Carpark overview



Photo 19. Carpark overview



Photo 20. Carpark overview



Photo 21. Kwai Chung Road



Photo 22. Vegetation



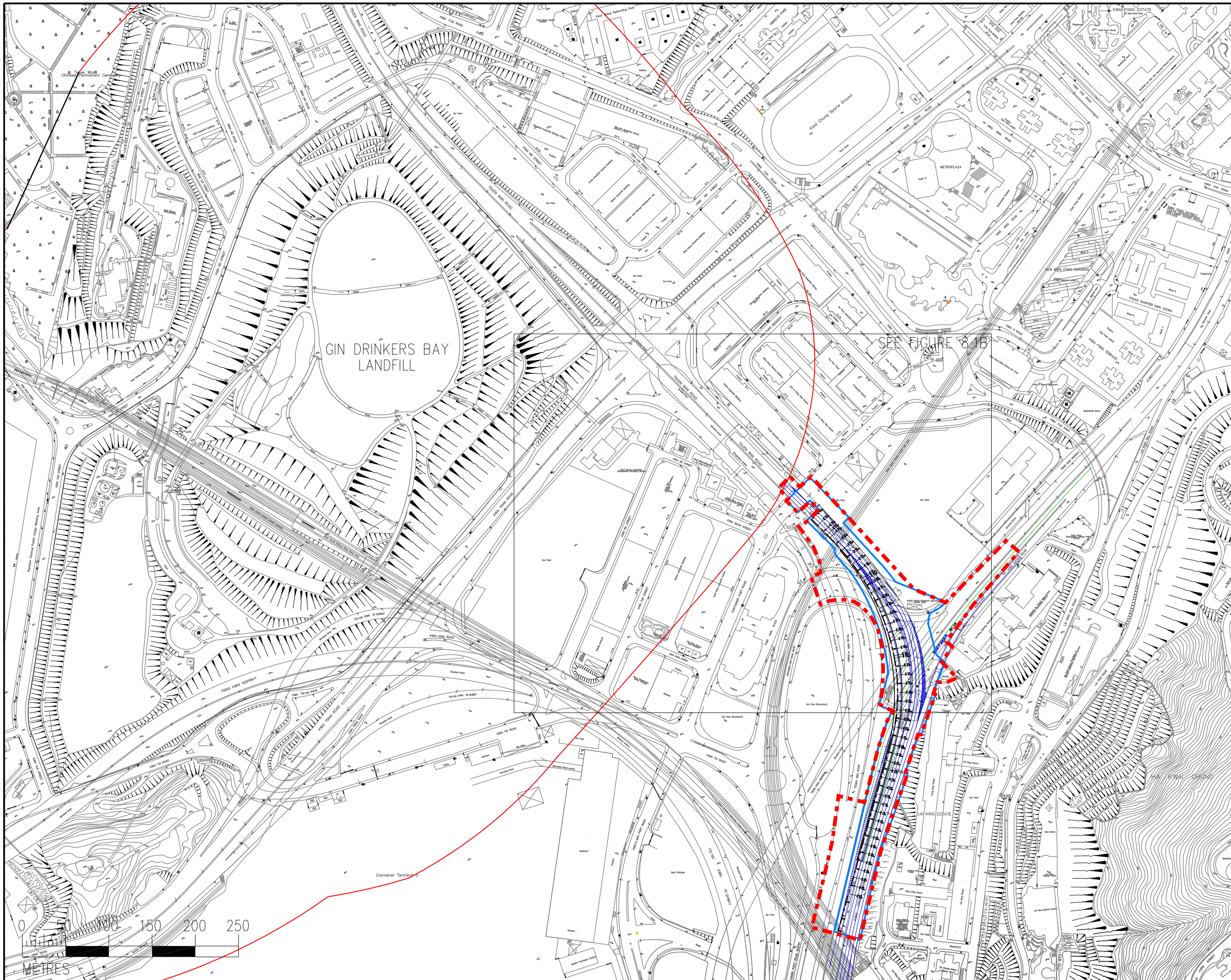
Photo 23. Tsuen Wan Road and Kwai Chung Road



Photo 24. Container Port Road South

APPENDIX 7.1

GIN DRINKERS BAY LANDFILL
CONSULTATION ZONE AND
PROPOSED BOUNDARY



- GIN DRINKERS BAY LANDFILL 250m CONSULTATION ZONE
- PROJECT CONSTRUCTION BOUNDARY
- REVISED PROJECT BOUNDARY

SEE FIGURE 8.1B

GIN DRINKERS BAY LANDFILL

Rev. 修訂	Date 日期	Description 內容摘要	Drawn 繪圖	Checked 校核

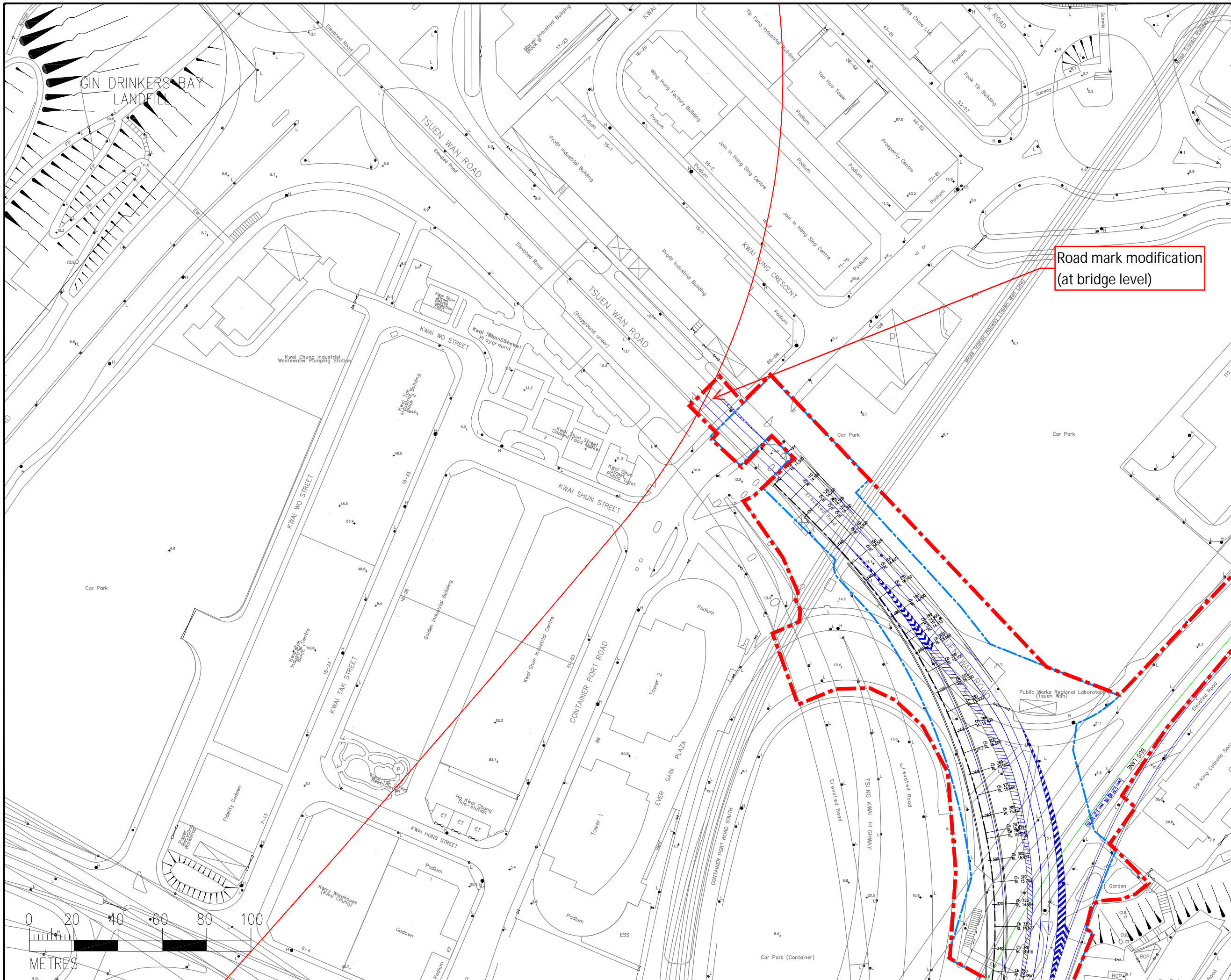
土木工程拓展署
CEDD Civil Engineering and Development Department

OFFICE: NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE
 AGREEMENT NO. CE 8/2012 (HY)
 FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD – INVESTIGATION

GIN DRINKERS BAY LANDFILL CONSULTATION ZONE AND PROJECT CONSTRUCTION BOUNDARY

Drawing No. 圖則編號		FIGURE 8.1A			
Designed 設計	FYS 繪圖	Checked 校核	Scale 比例	Status 狀況	AS SHOWN
Approved 批准	ICWR	Date 日期	10/14	Status 狀況	FINAL





- GIN DRINKERS BAY LANDFILL 250m CONSULTATION ZONE
- PROJECT CONSTRUCTION BOUNDARY
- REVISED PROJECT BOUNDARY

Road mark modification
(at bridge level)

Rev.	Date	Description	Drawn	Checked

土木工程拓展署
Civil Engineering and Development Department

OFFICE: NEW TERRITORIES NORTH AND WEST DEVELOPMENT OFFICE

AGREEMENT NO. CE 8/2012 (HY)
 FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD – INVESTIGATION

GIN DRINKERS BAY LANDFILL CONSULTATION ZONE AND PROJECT CONSTRUCTION BOUNDARY

Drawing No.	FIGURE 8.1B			
Design	Drawn	Checked	Scale	AS SHOWN
FYS	FYS	TWKW	比例	AS SHOWN
Approved	Date	Status		
ICWR	10/14	FINAL		

AECOM

APPENDIX 8.1

TREE PRESERVATION AND REMOVAL
PROPOSAL & COMPENSATORY
PLANTING PROPOSAL (2018)



3 July 2018

By Post & Email

Our ref: 2512146A-GN-00211/18

Distribution List

Dear Sirs,

Agreement No. CE 72/2015 (HY)
Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road –
Design and Construction
Final Updated Tree Survey Report
Final Tree Preservation and Removal Proposal & Compensatory Planting
Proposal (Issue 2)

Pursuant to Clause 6.3.2, Clause 6.3.13, Annex C12 and Annex C13 in Brief, we would like to enclose the Final Updated Tree Survey Report, Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal (Issue 2) for your retention.

Should you have any queries, please contact our Mr. Stephen Ho at 2579 8780 or Mr. Jimmy Lok at 3900 2048.

Yours faithfully,
For and on behalf of
WSP (ASIA) LTD.


Yeung Yiu-wing
Deputy Project Director

YYW/SYCH/JSHL/cyc

Encl.

7/F One Kowloon
1 Wang Yuen Street
Kowloon Bay, Hong Kong

香港九龍灣宏遠街 1 號
一號九龍 7 字樓

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wsp.com

Agreement No. CE 72/2015 (HY)

Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road – Design and Construction

Distribution List

Department	Address	Name	Post	Tel	Fax	Email	Nos. of copies
Highways Department Works Division Works Section/CWY	7th Floor, Trade and Industry Tower, 3 Concorde Road, Kowloon	Mr. TSANG Hin Man/ Mr. KWAN Ka Lung	Sr Engr/CWY 2/ Engr/NT1-5	3903 6791 / 3903 6818	3188 3418	secwy2.wd@hyd.gov.hk ent1-5.wd@hyd.gov.hk	3
Highways Department Headquarters, Landscape Unit	6th Floor, Trade and Industry Tower, 3 Concorde Road, Kowloon	Mr. CHONG King Pan, Derek	Landscape Architect/D(MW/NT)2	3903 6654	2310 8438	ladmwnt2.lu@hyd.gov.hk	1
Leisure and Cultural Services Department Administration Division Planning Section	17/F, Leisure and Cultural Services Headquarters, 1-3 Pai Tau Street, Sha Tin, N.T.	Miss LO Wai Yin, Phoenix	EO (Planning)7	2601 8047	2695 3886	pwyl@lcsd.gov.hk	1

Total: 5

Agreement No. CE 72/2015 (HY)
Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road – Design and Construction
Final Updated Tree Survey Report
Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal
Responses to Comments

No.	Comments	Responses
1	From: HyD/Landscape Contact: Derek CHONG Ref.: (5PCV) in HyD LU/14-5/56 Date: 8 January 2018	
	I refer to WSP's letter under ref. 2512146A-GN-00176/17 dated 9.12.2017 with enclosure of the captioned proposals and responses to comments.	Please note that the corresponding responses to comments was sent to your goodself and LCSD in the email dated 14 March 2018. Noting that no further comment was received on 19 March 2018 and 10 April 2018.
	2. It is noted that there are no trees maintained by HyD among all the surveyed trees. Thus, advice from our internal Tree Works Vetting Committee (TWVC) to DLO, LandsD is not necessary. It is also noted that there are no compensatory trees to be handed over to HyD for future maintenance.	Please refer to <u>Enclosure 1</u> for the captioned email correspondence.
	3. A type is noted in the last item in the RtC table in the email from the Consultants to The LCSD dated 8.12.2017 the last sentence " <i>For the management department, HyD/NTW should be responsible for the management of the roadside <u>vegetation</u> or <u>vegetation</u> in footbridge planter</i> " should be " <i>For the management department, HyD/NTW should be responsible for the management of the <u>roadside planter</u> and <u>footbridge planter</u></i> "	
	4. The Consultants are reminded to obtain formal approval from DLO, LandsD.	
2	From: LCSD Contact: Phoenix LO Ref.: Email Date: 10 May 2018	
	We have no particular comment on the proposed species for compensatory planting. Trees should be avoided planting underneath elevated road or too close to carriageway. Please note and follow Proper Planting Practice promulgated by DEVB that sufficient growing space between trees and adjacent structure should be provided so as to ensure the mature height and spread of trees will not be in conflict with adjacent structures in the long run.	Noted.
3	From: LCSD Tree Preservation Board Contact: Phoenix LO Ref.: Email Date: 25 June 2018	
	Having considered that there is no other better alternative to make way for the improvement work and the affected trees are in poor health / form with structural defect or undesirable species which are unsuitable for transplanting, the Board raised no objection to the application of tree removal by felling (106 nos.). Judging	Noted.

No.	Comments	Responses
	that the trees proposed to be transplanted are feasible in both health and structural, the Board raised no objection to the application for tree transplanting (24 nos.). The Board accepted the compensation planting proposal.	
	In addition, the project consultant should inform us in advance for our further arrangement once the exact tree removal date is fixed.	Noted.
4	From: LandsD/DLO Contact: Ms. Doris T.F. LEUNG Ref.: Email Date: 25 June 2018	
	Please note the preceding e-mail from LCSD for your necessary action.	The Removal Proposal & Compensatory Planting Proposal has been submitted to DLO for approval.

Enclosure 1

Reply from HyD/Landscape on 19/3/2018

Lok, Jimmy Siu-Hung

From: ladmwnt2.lu@hyd.gov.hk
Sent: Monday, March 19, 2018 4:22 PM
To: Lok, Jimmy Siu-Hung
Cc: ent1-5.wd@hyd.gov.hk; pwylo@lcsd.gov.hk; Ho, Stephen Yiu-Chung
Subject: RE: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal
Attachments: RtC_CE72 Final Updated Tree Survey Report, Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal.pdf

Dear Jimmy,

I have no further comments on the R to HyD's C.

Regards
Derek

From: "Lok, Jimmy Siu-Hung" <Jimmy.Lok@wsp.com>
To: "ladmwnt2.lu@hyd.gov.hk" <ladmwnt2.lu@hyd.gov.hk>, "pwylo@lcsd.gov.hk" <pwylo@lcsd.gov.hk>,
Cc: "Ho, Stephen Yiu-Chung" <Stephen.YC.Ho@wsp.com>, "ent1-5.wd@hyd.gov.hk" <ent1-5.wd@hyd.gov.hk>
Date: 14/03/2018 19:41
Subject: RE: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Dear All,

Further to our captioned submission submitted on 19 Dec 2017 and subsequent reply from HyD/LU on 8 Jan 2018, please find the attached RtoC for your review and comment.

Thank you.

Regards,
Jimmy Lok

Tel: 3900 2048

From: Chiu, Carol Sau-Yu
Sent: Wednesday, March 14, 2018 6:09 PM
To: Lok, Jimmy Siu-Hung <Jimmy.Lok@wsp.com>
Subject: FW: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

From: Chiu, Carol Sau-Yu
Sent: Tuesday, December 19, 2017 2:25 PM
To: 'secwy2.wd@hyd.gov.hk' <secwy2.wd@hyd.gov.hk>; 'ent1-5.wd@hyd.gov.hk' <ent1-5.wd@hyd.gov.hk>; 'ladmwnt2.lu@hyd.gov.hk' <ladmwnt2.lu@hyd.gov.hk>; 'lea2twkt@landsd.gov.hk' <lea2twkt@landsd.gov.hk>; 'pwylo@lcsd.gov.hk' <pwylo@lcsd.gov.hk>
Cc: HKG-2512146A-CE72 <hkg-2512146a-ce72@pbworld.com>
Subject: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Agreement No. CE 72/2015 (HY)

Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Dear Sirs/Madams,

Please find attached cover letter ref. 2512146A-GN-00176/17 of **Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal** for your reference and kindly download the full set (letter and report) from following FTP link:-
<https://ftp.pbworld.com/GetFile.aspx?fn=1358524793.zip>

Hard copy of this correspondence will be delivered to your office accordingly.

Should you have any enquiries, please contact Mr. Calvin Chow at 2579 7478 or Ms. Mia WU at 3155 5860, may also via email at hkg-2512146a-ce72@pbworld.com. Thank you.

Best Regards,
Carol Chiu
Project Administrator



D +852 2579 8501
T +852 2579-8899
F +852 2856-9902

Reply from LCSD on 10/4/2018

Lok, Jimmy Siu-Hung

From: Phoenix WY LO <pwylol@lcsd.gov.hk>
Sent: Tuesday, April 10, 2018 2:47 PM
To: Lok, Jimmy Siu-Hung
Cc: Eddie KS CHAN; Elsa C TSENG; TK LI; Luna WK FONG; Rean WH LAW
Subject: RE: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Dear Jimmy,

We have no further comment on the RtC table submitted. By the way, the TPRP cannot be downloaded from the FTP link below. Please submit 5 hard copies to this Department for processing the TPRP with the Tree Preservation Board.

Regards,
Phoenix LO
EO(Planning)7/ LCSD
Tel: 2601 8047
Fax: 2695 3886

From: "Lok, Jimmy Siu-Hung" <Jimmy.Lok@wsp.com>
To: "ladmwnt2.lu@hyd.gov.hk" <ladmwnt2.lu@hyd.gov.hk>, "pwylol@lcsd.gov.hk" <pwylol@lcsd.gov.hk>
Cc: "Ho, Stephen Yiu-Chung" <Stephen.YC.Ho@wsp.com>, "ent1-5.wd@hyd.gov.hk" <ent1-5.wd@hyd.gov.hk>
Date: 14/03/2018 19:41
Subject: RE: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Dear All,

Further to our captioned submission submitted on 19 Dec 2017 and subsequent reply from HyD/LU on 8 Jan 2018, please find the attached RtoC for your review and comment.

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Regards,
Jimmy Lok

Tel: 3900 2048

From: Chiu, Carol Sau-Yu
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To: Lok, Jimmy Siu-Hung <Jimmy.Lok@wsp.com>
Subject: FW: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

From: Chiu, Carol Sau-Yu
Sent: Tuesday, December 19, 2017 2:25 PM
To: 'secwy2.wd@hyd.gov.hk' <secwy2.wd@hyd.gov.hk>; 'ent1-5.wd@hyd.gov.hk' <ent1-5.wd@hyd.gov.hk>; 'ladmwnt2.lu@hyd.gov.hk' <ladmwnt2.lu@hyd.gov.hk>; 'lea2twkt@landsd.gov.hk' <lea2twkt@landsd.gov.hk>; 'pwylol@lcsd.gov.hk' <pwylol@lcsd.gov.hk>
Cc: HKG-2512146A-CE72 <hkg-2512146a-ce72@pbworld.com>
Subject: CE72/2015 (HY) - Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Agreement No. CE 72/2015 (HY)
Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Dear Sirs/Madams,

Please find attached cover letter ref. 2512146A-GN-00176/17 of **Final Updated Tree Survey Report Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal** for your reference and kindly download the full set (letter and report) from following FTP link:-
<https://ftp.pbworld.com/GetFile.aspx?fn=1358524793.zip>

Hard copy of this correspondence will be delivered to your office accordingly.

Should you have any enquiries, please contact Mr. Calvin Chow at 2579 7478 or Ms. Mia WU at 3155 5860, may also via email at hkg-2512146a-ce72@pbworld.com. Thank you.

Best Regards,
Carol Chiu
Project Administrator



D +852 2579 8501
T +852 2579-8899
F +852 2856-9902

[附件檔 "RtC_CE72 Final Updated Tree Survey Report, Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal.pdf" 已被 Phoenix WY LO/LCSD/HKSARG 刪除]

This email message (together with any attachments) is for the designated recipient only. It may contain information that is privileged for the designated recipient. If you are not the intended recipient, you are hereby notified that any use, retention, disclosure, copying, printing, forwarding or dissemination of the message is strictly prohibited. If you have received the message in error, please erase all copies of the message (including attachments) from your system and notify the sender immediately.

Agreement No. CE 72/2015 (HY)

Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road – Design and Construction

Final Updated Tree Survey Report

Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal

Responses to Comments

No.	Comments	Responses
1	<p>From: HyD/Landscape Contact: Derek CHONG Ref.: (5PCV) in HyD LU/14-5/56 Date: 8 January 2018</p>	
	<p>I refer to WSP's letter under ref. 2512146A-GN-00176/17 dated 9.12.2017 with enclosure of the captioned proposals and responses to comments.</p>	
	<p>2. It is noted that there are no trees maintained by HyD among all the surveyed trees. Thus, advice from our internal Tree Works Vetting Committee (TWVC) to DLO, LandsD is not necessary. It is also noted that there are no compensatory trees to be handed over to HyD for future maintenance.</p>	<p>Noted.</p>
	<p>3. A type is noted in the last item in the RtC table in the email from the Consultants to The LCSD dated 8.12.2017 the last sentence "<i>For the management department, HyD/NTW should be responsible for the management of the roadside <u>vegetation</u> or <u>vegetation</u> in footbridge planter</i>" should be "<i>For the management department, HyD/NTW should be responsible for the management of the <u>roadside planter</u> and <u>footbridge planter</u></i>"</p>	<p>Noted. Please be clarified that the last sentence in the last item in the email dated 8 Dec 2017 from our Calvin Chow should be "<i>For the management department, HyD/NTW should be responsible for the management of the roadside planter and footbridge planter</i>".</p>
	<p>4. The Consultants are reminded to obtain formal approval from DLO, LandsD.</p>	<p>Noted.</p>

Chiu, Carol Sau-Yu

To: Chow, Calvin Chun-Kit
Cc: Fung, Janice Wing-Yi
Subject: RE: CE72/2015 (HY) Draft Detailed Landscape Proposal – Issue 1

From: Phoenix WY LO [<mailto:pwylol@lcsd.gov.hk>]
Sent: Monday, December 18, 2017 5:30 PM
To: Chow, Calvin Chun-Kit <Calvin.Chow@wsp.com>
Cc: Eddie KS CHAN <ekschan@lcsd.gov.hk>; TK LI <tkli@lcsd.gov.hk>; Luna WK FONG <lwkfong@lcsd.gov.hk>; Elsa C TSENG <ectsensg@lcsd.gov.hk>; Rean WH LAW <rwhlaw@lcsd.gov.hk>
Subject: RE: CE72/2015 (HY) Draft Detailed Landscape Proposal – Issue 1

Dear Mr CHOW,

We have no further comment.

Regards,
Phoenix LO
EO(Planning)7/ LCSD
Tel: 2601 8047
Fax: 2695 3886

From: "Chow, Calvin Chun-Kit" <Calvin.Chow@wsp.com>
To: "pwylol@lcsd.gov.hk" <pwylol@lcsd.gov.hk>
Cc: "Chung, Johnny Wai-Kin" <Johnny.Chung@wsp.com>, "Fung, Janice Wing-Yi" <Janice.Fung@wsp.com>, "Wu, Xin-Lei" <Xin-Lei.Wu@wsp.com>, "ent1-5.wd@hyd.gov.hk" <ent1-5.wd@hyd.gov.hk>, Rean WH LAW <rwhlaw@lcsd.gov.hk>
Date: 08/12/2017 17:47
Subject: RE: CE72/2015 (HY) Draft Detailed Landscape Proposal – Issue 1

Dear Phoenix,

Further to our letter ref. 2512146A-GN-00145/17 dated 13 September 2017 and your subsequent reply via email dated 21 September 2017, we hereby enclose the RtC table as below for your further comment.

Draft Detailed Landscape Proposal – Issue 1

1	From: LCSD Contact: Phoenix LO Email Dated: 21 September 2017	
	From tree management angle <u>3.1 Maintenance Operation and Responsibility</u> (i) LCSD will be only the maintenance department for the trees and vegetation growing in the roadside planters and footbridge planters.	Noted.
	<u>Tree Compensation Plan</u> (ii) Our previous comments on the proposed compensatory planting plan (i.e. the selection of tree species and planting spacing) have not been addressed;	Noted. The comments on the proposed compensatory plant plan has been replied in the submission of “Draft Updated Tree Survey Report (Issue 3) Draft Tree Preservation and removal proposal and Compensatory Planting Proposal (Issue 2)”.

		Please note that the Drawing Nos. CE72/LS/C01/0005 and 0006 have been revised and Drawing No. CE72/LS/C01/0007 has been added.
	Others (iii) It is advised to include "Response to Comments" in the submission for easy referencing;	Noted. The RtC table will be provided.
	From landscape angle Drawing no. CE72/LS/C01/0005	
	· Please adopt the Botanical name of <i>Cassia surattensis</i> (黃槐) by <i>Senna surattensis</i> .	According to your comment on “Draft Updated Tree Survey Report (Issue 2) Draft Tree Preservation and removal proposal and Compensatory Planting Proposal (Issue 1)” via email dated 28 August, the <i>Cassia surattensis</i> shall not be suitable for planting at open areas such as roadside of high-speed road; thus, the <i>Cassia surattensis</i> shall be replaced by <i>Garcinia subelliptica</i> with at least 4m spacing.
	· Please adopt the Botanical name of <i>Theveria peruviana</i> (黃花夾竹桃) by <i>Thevetia peruviana</i> .	Noted. The Botanical name of <i>Theveria peruviana</i> (黃花夾竹桃) is replaced by <i>Thevetia peruviana</i> .
	· The locations marked for the "proposed new compensatory tree" as shown on the drawing are not tally with the quantities of " <i>Callistemon viminalis</i> (CV)" and " <i>Thevetia peruviana</i> (TP)" as shown on the drawing. Please verify.	According to your comment on “Draft Updated Tree Survey Report (Issue 2) Draft Tree Preservation and removal proposal and Compensatory Planting Proposal (Issue 1)” via email dated 28 August, the <i>Cassia surattensis</i> shall be replaced by <i>Melaleuca bracteata</i> ‘ <i>Revolution Gold</i> ’ with at least 3m spacing. Please note that the Drawing Nos. CE72/LS/C01/0005 and 0006 have been revised as Rev. A and Drawing No. CE72/LS/C01/0007 has been added.
	· The spacing of 3m for the proposed compensatory trees is considered insufficient, please review.	Noted and revised. The spacing between the new planted trees is amended as 4m instead of 3m. Please refer to the Drawing Nos. CE72/LS/C01/0005 to 0007 Rev.A.
	· Please note that the minimum soil depth for tree planting should be 1200mm in accordance with DEVB's latest advice.	Noted.
	· Please observe and follow the Proper Planting Practice particularly keep sufficient space clear of vegetation at the base of trees. Relevant link is copied below for your easy reference. http://www.greening.gov.hk/en/tree_care/practices.html	Noted.
	· Planter boxes at intervals on the footbridge is considered undesirable. Please note that continuous planter of adequate soil volume for healthy plant growth is preferred.	Please refer to our letter ref. 2512146A-GN-00127/17 dated 14 August 2017 and your subsequent email reply dated 21 August 2017 in Attachment 1 . The comments have been included and addressed.
	· Appropriate drainage system is required to prevent water logging. Please confirm.	Please refer to our letter ref. 2512146A-GN-00127/17 dated 14 August 2017 and your subsequent email reply dated 21 August 2017 in Attachment 1 . The comments have been included and addressed.

	<p>Please advise if irrigation system be provided for watering the vegetation on footbridge. Please note that HyD is responsible for the maintenance of irrigation system on footbridge and flyover in accordance with DEVB TC(W) No. 2/2013. Please confirm.</p>	<p>Please refer to our letter ref. 2512146A-GN-00127/17 dated 14 August 2017 and your subsequent email reply dated 21 August 2017 in Attachment 1. The comments have been included and addressed.</p>
	<u>From district management angle</u>	
	<p>P.8 3. Maintenance Table 1. The Management department of Roadside planter and footbridge planters should not be LCSD.</p>	<p>Noted and revised (revised table as extracted in Attachment 2). The management department of roadside planter and footbridge planters should be managed by HyD/NTW.</p>
	<p>P.9 3. Maintenance Table 2. The Management department of Re-provisioned Footbridge NF303, Planter (including vegetation along elevated walkway) should not be LCSD.</p>	<p>Noted and revised (revised table as extracted in Attachment 2). The management department of roadside planter and footbridge planters should be managed by HyD/NTW.</p>
	<p>According to Technical Circular (Works) No.6/2015, LCSD is responsible for horticultural maintenance of the roadside vegetation or vegetation in footbridge planter. The management and maintenance of roadside planters or footbridge planter or hard landscape is out of LCSD's ambit. Please seek appropriate department to take up this job.</p>	<p>Noted. According to Appendix A of Technical Circular (Works) No.6/2015, LCSD is the <u>maintenance department</u> to maintain vegetation on landscaped areas along non-expressway public roads outside country park and the removable planters attached to the parapet or railing of footbridges of public road structures with pedestrian.</p>

Please be clarified that the this sentence should be "For the management department, HyD/NTW should be responsible for the management of the roadside planter and footbridge planter".

For the **management department**, HyD/NTW should be responsible for the management of the roadside vegetation or vegetation in footbridge planter.

We will formally submit the final issue of the report after all the comments have been addressed.

In view of tight programme, it is appreciated if we could have your reply by 13 December 2017.

Should you have any queries, please do not hesitate to contact the undersigned.

Regards,

Calvin Chow

+852 2579 7478

From: HKG-2512146A-CE72

Sent: Thursday, September 14, 2017 9:59 AM

To: Wan, Emeric Wai-Keung <Emeric.Wan@wsp.com>; Chung, Johnny Wai-Kin <Johnny.Chung@wsp.com>; Chan, John Chun-Kai <John.Chan@wsp.com>; Fung, Janice Wing-Yi <Janice.Fung@wsp.com>; Cheung, Helen Hei-Yee <Helen.HY.Cheung@wsp.com>; Wu, Xin-Lei <Xin-Lei.Wu@wsp.com>; Chow, Calvin Chun-Kit <Calvin.Chow@wsp.com>

Subject: FW: CE72/2015 (HY) Draft Detailed Landscape Proposal – Issue 1

Importance: High

From: Yuen, Wendy Lok-Tung

Sent: Thursday, September 14, 2017 9:59:11 AM (UTC+08:00) Beijing, Chongqing, Hong Kong, Urumqi



HIGHWAYS DEPARTMENT
Works Division

Agreement No. CE 72/2015 (HY)

Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road - Design and Construction

Final Updated Tree Survey Report

Final Tree Preservation and Removal Proposal & Compensatory Planting Proposal (Issue 2)



FINAL UPDATED TREE SURVEY REPORT FINAL TREE PRESERVATION AND REMOVAL PROPOSAL & COMPENSATORY PLANTING PROPOSAL (Issue 2)

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1. INTRODUCTION

1.1 Background

1.1.1 Transport Department (TD) has reviewed the traffic condition and found that the volume to capacity (v/c) ratio of a section of the southbound carriageway of Tsuen Wan Road (TWR) between Kwai Tsing Interchange (KTI) and Kwai Chung Road (KCR) would approach its capacity and traffic congestion would occur. Congestion is anticipated to deteriorate on the southbound carriageway of TWR at KTI during peak hours in the future years. There are also difficulties in merging from KTI via a slip road from Hing Fong Road (HFR) southbound to TWR due to the substandard merging lane and inadequate merging capacity from HFR southbound exit slip road onto southbound TWR. With the subject project, an additional traffic lane and widening of existing carriageway are proposed to be constructed so as to resolve the capacity problem. TD considers that there is a genuine need to implement the project to improve the road section to cope with the future traffic growth.

1.1.2 Civil Engineering and Development Department (CEDD) of the Government of Hong Kong Special Administration Region (HKSAR) commissioned a consultant to carry out the investigation and preliminary design study (Agreement No. CE8/2012 (HY), Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road – Investigation) of the Project. The date of commencement of this Agreement was 3 July 2012 and the Assignment was totally completed by end September 2016.

1.1.3 On 21 September 2016, WSP (Asia) Ltd. (formerly named as Parsons Brinckerhoff (Asia) Ltd.) had been appointed by Highways Department to undertake the project, Agreement No. CE72/2015 (HY) “Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road – Design and Construction”.

1.2 Objectives of this Assignment

1.2.1 The main objective of this Project (PWP Item No. 6856TH – Flyover from Kwai Tsing Interchange Upramp to Kwai Chung Road) is to resolve the forecast traffic congestion on the southbound carriageway of Tsuen Wan Road between Kwai Tsing Interchange and Kwai Chung Road during peak hours so as to improve the existing road network to ensure road safety and traffic efficiency in a timely and cost effective manner with minimum disturbance to the public.

1.2.2 The objectives of the Assignment are to:

- (a) Review and updating of previous investigations and studies, preliminary design information and latest available information, and carry out necessary further investigations and studies;
- (b) Carry out the detailed design for the Project;
- (c) Prepare tender and contract documents for the Project;
- (d) Carry out tendering for the Project;

- (e) Provide supervision of construction including necessary additional site investigation for the Project; and
- (f) Provide project management services for quality, programme and cost control for the Project.

1.3 Scopes of the Project

1.3.1 Because of the substandard merging lane and the inadequate merging capacity from the southbound exit slip road of KTI onto southbound TWR, queues are already observed to develop during peak hours extending from the said exit slip road to the adjacent road network including Kwai Tai Road, Container Port Road and Kwai Fuk Road Roundabout. It is considered that the merging capacity at the said exit slip road is at its practical limit in the morning peak period. The high merging flow has already caused disruption to the flow on the inner lane of southbound TWR on the main line, thereby reducing its handling capacity.

1.3.2 To resolve the above capacity problem, TD proposed to implement this Project to widen the existing carriageway of TWR and provide an additional southbound lane of TWR from KTI connecting to KCR.

1.3.3 The scope of works under the Project comprises:

- (i) construction of elevated carriageways, a footbridge, footpaths, a bus stop, lifts, staircases and noise barriers;
- (ii) permanent closure and conversion of a section of the existing footpath into amenity area;
- (iii) permanent closure and conversion of sections of the existing amenity areas into footpaths, bus lay-by and lifts ;
- (iv) permanent closure and conversion of the existing bus lay-by into amenity area;
- (v) permanent closure and demolition of sections of the existing at-grade carriageway, footpath and amenity area;
- (vi) permanent closure and demolition of the existing Footbridge No. NF303, bus lay-by and refuge island;
- (vii) temporary closure and reconstruction of sections of the at-grade carriageways, elevated carriageway, footpaths and amenity areas;
- (viii) temporary closure of sections of the existing at-grade carriageways, elevated carriageways, footpaths, amenity areas and central reserves; and
- (ix) ancillary works including utilities, public lighting, drainage, landscaping and electrical and mechanical works as well as installation of street furniture and traffic aids.

The general layout plan is shown in **Drawing No. CE72/AB/0001** in **Appendix A**.

1.4 Scope of this Deliverables

- 1.4.1** This report is prepared in accordance with Clause 6.3.2, Clause 6.3.13, Annex C12 and Annex C13 of the Brief. The purpose of this deliverable is to survey and identify the existing trees which will be affected by the proposed works and propose the corresponding arrangement for the affected trees, including compensatory planting proposal and the recipient locations for the trees to be transplanted.

2. METHODOLOGY OF TREE SURVEY Tree Survey Schedule

Tree Survey Schedule shown in Appendix C provides the following information:

- Tree No. (numbers allocated to individual trees surveyed on site);
- Scientific Name (of tree species) and Chinese Name;
- Size (Girth – DBH measured at 1.3m, Height and Spread measured in metre);
- Form (of surveyed tree – Good / Fair / Poor);
- Health (of surveyed tree – Good / Fair / Poor);
- Amenity Value (of surveyed tree – High / Medium / Low);
- Survival Rate (after transplantation – High / Medium / Low);
- Recommendation (of surveyed tree – Retain (R) / Transplant (T) / Fell (F));
- Jurisdiction or maintenance department; and
- Remarks (including justification for proposed tree removal, precious or rare or endangered species; anticipated root-ball size to be preserved etc.)

A tree number was allocated to each individual tree. Its species, girth, height, spread are then surveyed on site. Meanwhile, form/health/amenity value/survival rate after transplanting were evaluated.

2.2 Criteria for Evaluation

2.2.1 General Description of the Surveyed Tree:

All living trees at and over 95mm of Diameter at Breast Height (DBH) have been included in the tree survey. Each tree was identified to species, measurements taken of its DBH, height and spread, a photograph taken and its position plotted on topographic plans. The report includes the following information on each tree surveyed:

Tree Number	Tree numbers are determined by Topographic Surveyors and are corresponded to the tree survey plan.
Species	Tree species are identified with their botanical and Chinese names.
Height	Height of trees are measured in meters and are taken from ground level to the top of trees.
Trunk Diameter	Trunk Diameters (DBH) of trees are measured in meters and are taken at above 1300mm height above ground level.
Crown Spread	Crown Spread of trees are measured in meters.

2.2.2 Health Condition and Form of Tree:

The health condition and form of each tree are evaluated according to the following criteria (Webb 1991):

- **E** Trees of attractive form, large sizes and in good health are classified as *excellent*;
- **G** Trees of good form, moderate to large size and in good health are classified as *good*;

- **F** Trees of reasonable form, with few or no visible defects or health problems are classified as being *fair*;
- **P** Trees that are of poor form, badly damaged or clearly suffering from decay, dying back or the effects of very heavy vine growth are classified as *poor*.

2.2.3 Amenity Value:

The subject tree is also graded and assessed on its amenity value. The factors that are taken into consideration are conservation value, functional value, visual impact and aesthetic value. The assessment of each tree was evaluated according to the following criteria:

- **H** Trees that are rare or protected species, Fung Shui *significance* or have high visual impact with good health condition and form are classified as *high* in amenity value;
- **M** Trees that are common species with average health condition and acceptable form are classified as *medium* in amenity value;
- **L** Trees that are common species with poor health and form are classified as *low* in amenity value.

2.2.4 Survival Rate of Transplanting:

The grade of survival rate after transplantation (High/Medium/Low) shall be evaluated under the following criteria:

- Condition of surveyed tree: Trees with balanced form, in good health and with high amenity value are considered for transplanting.
- Size and maturity: Small and younger trees have a better chance of surviving transplantation while larger, mature trees are difficult to transplant both logistically and in terms of survival rate.
- Species: Different tree species have better chances of survival or are better suited to transplanting than other.
- Accessibility: Large machinery is required to lift the trees, steep slopes and rocky terrain therefore make it difficult to access trees.

2.2.5 Recommendations:

With reference to DEVB TCW No. 7/2015 with due consideration on the above criteria and the site constraints, the following order of priority is adopted for the surveyed trees:

- **R** Trees located on unaffected site areas are recommended to be *retained* and shall be protected during site formation and construction in vicinity areas.
- **T** Trees located on affected site areas but have medium to high health condition, form or amenity value are recommended to be *transplanted*. Trees that are to be transplanted shall be relocated to a suitable permanent location on site as far as possible. In case receptor site within the project limit is not practical, trees shall be transplanted to a permanent location off site.
- **F** Trees located on affected site areas but have poor health condition, form or low amenity value are recommended to be *felled*.

3. TREE PRESERVATION AND TRANSPLANTING STRATEGY

3.1 General Strategy and Approach

3.1.1 In-situ Retention

The proposed works is carefully located to avoid affecting existing trees as far as practical.

3.1.2 Tree Transplanting

If retaining the existing trees in-situ is not practical due to site constraints or other reasons, the affected trees should be transplant to other permanent locations in the vicinity of the proposed works. Only if it is not practical to find a suitable location for transplanting in vicinity of the proposed works, then, transplanting to a permanent location off the site is considered. The Contractor will be responsible for temporary nursery of the trees to be transplanted in-situ. Relevant clauses will be incorporated into the Contract.

In terms of assessing the feasibility of tree transplanting, the following factors were considered:

- Possibility of in-situ tree retaining is exhausted.
- Form, health and amenity value.
- Survival rate after transplanting.
- Trees species, rarity and conservation status.
- Feasibility of access (In some cases transplantation would be difficult and dangerous due to the physical characteristics of the site and the inaccessibility of their situations.)
- The physical characteristics of the specimen trees (For example, the trees on steep slopes respond to the existing gradient with a higher proportion of roots on the downhill side and the root ball usually forms itself to the angle of slope. It is often difficult to find a similar location that is suitable for the transplantation of these trees. In addition, these trees often have an unbalanced crown that would make them unstable if transplanted to another location.)

3.1.3 Tree Felling

Tree felling is regarded the last resort only when both in-situ tree retaining and tree transplanting are impossible due to unrecoverable health problem or in poor conditions, or any other justifiable reasons.

3.2 Tree Proposal

Trees to be retained

In case the trees are checked that if they are not affected by the works, the tree will be proposed to retain in-situ.

Based on the criteria, **32** nos. of tree out of the **162** nos. of tree with DBH>95mm are proposed to be kept retained in situ in the site. Please refer to Tree Survey

Schedule in **Appendix C**, Tree Survey Plans in **Appendix D** and Tree Felling Plans in **Appendix E** for details.

Trees to be transplanted

Criteria for transplanting existing trees are based on the health condition, economic value, amenity value, size and ability to withstand transplantation shock and its subsequent regeneration rate. Based on the above criteria, **there are 24 nos. of tree proposed to be transplanted.**

Trees to be felled

Based on the current survey and inspection, **106 nos.** of tree out of the **162 nos.** of tree with DBH > 95mm are proposed to be felled. Please refer to Tree Survey Schedule in **Appendix C**, Tree Survey Plans in **Appendix D** and Tree Felling Plans in **Appendix E** for details.

3.3 Specification of Tree Preservation, Protection and Transplantation Works

As required in Section 42 of DEVB TCW No. 7/2015 – Tree Preservation, contractual requirements on tree preservation, protection and transplantation works should be incorporated into the Contracts, requiring the Contractor to adopt necessary measures to protect and preserve existing trees on Site. The requirements should be complied with Section 3 and 26 of General Specification of Civil Engineering Works (2006 Edition), ETWB TCW No. 29/2004 and DEVB TCW No. 7/2015.

4. TREE REMOVAL APPLICATION & COMPENSATORY PLANTING PROPOSAL

4.1 General Description of Existing Trees

The existing tree found within the subject sites are mostly common species found in Hong Kong - *Thevetia peruviana*, *Ficus benjamina*, *Spathodea campanulata* and etc.

The trees are generally of very common species. No rare or endangered species is identified within the project limit.

With reference to ETWB TCW No. 29/2004, no registered Old and Valuable Tree was identified within the subject site boundary during the tree survey and all surveyed trees are not considered as “potentially registered trees”. No wall tree is identified within the project limit.

4.2 Tree Removal Application and Compensatory Planting Proposal

Total nos. of 162 trees are surveyed within the proposed works limit at ground level, as detailed in Drawing No. CE72/GN/LS/0001 to 0002 in **Appendix D**. 130 nos. of tree are found to be impractical to be retained during construction, including 24 nos. of tree to be transplanted and 106 nos. of tree to be felled.

Department	No. of Tree within Works Limit	No. of Tree to be Retained	No. of Tree to be Transplanted	No. of Tree to be Felled
By maintenance department(s) ^[1]				
LCSD	131	4	24	103
CEDD	10	7	0	3
STT3706K&T	4	4	0	0
LandsD	17	17	0	0
Total	162	32	24	106
By responsible department(s) to provide expert advice on TPRP ^[2]				
LCSD	138	8	24	106
LandsD	24	24	0	0
Total	162	32	24	106

Notes:

[1]. Demarcation of maintenance department is based on principles set out in DEVB TCW No. 6/2015.

[2]. Demarcation of responsible department to provide expert advice on TPRP is based on principles set out in DEVB TCW No. 7/2015.

In accordance with Appendix A of DEVB TCW No. 7/2015, compensatory planting proposal is required to be of a ratio not less than 1 to 1 in terms of number. The aggregate DBH sizes of the proposed felled trees at locations other than SIMAR slope are **20977** mm. In this current proposal, a total of **106** nos. of compensated trees (all of the tree has a DBH size of 80mm or 100 mm) are proposed. Please refer to Tree Compensation Plans in **Appendix F** for details.

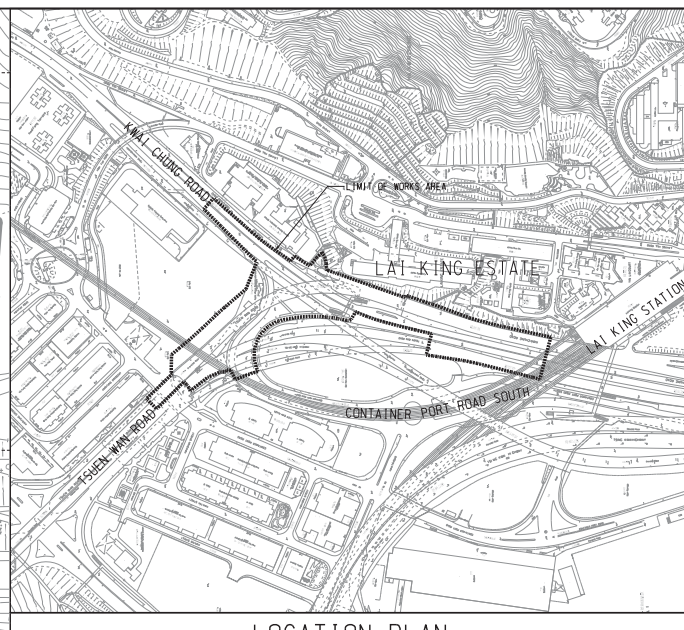
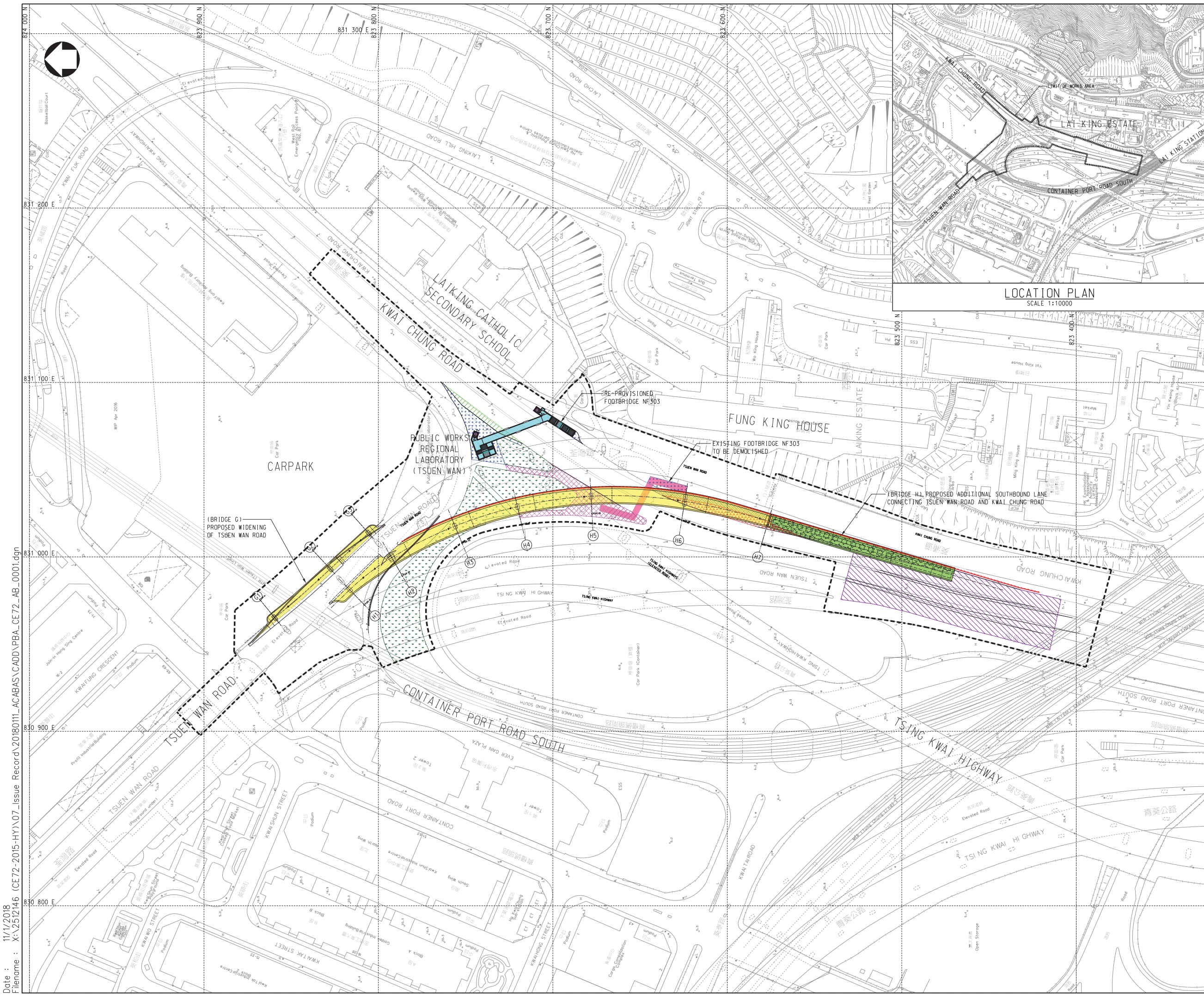
The proposed compensatory trees species are listed hereunder as follows:

Botanical Name	Chinese Name	Maintenance party	DBH (mm)	Quantity (Nos.)	Aggregated DBH size (mm)
<i>Melaleuca bracteata</i> ' <i>Revolution Gold</i> '	黃金串錢柳	LCSD	80	25	2000

Botanical Name	Chinese Name	Maintenance party	DBH (mm)	Quantity (Nos.)	Aggregated DBH size (mm)
<i>Garcinia subelliptica</i>	福木	LCSD	80	17	1360
<i>Syzygium formosana</i>	紅芽赤楠	LCSD	80	18	1440
<i>Viburnum Odoratissimum</i>	珊瑚樹	LCSD	80	18	1440
<i>Theveria peruviana</i>	黃花夾竹桃	LCSD	80	28	2240
Total				106	8480

APPENDIX A

General Layout Plans



- NOTES :**
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
 2. ALL LEVELS ARE APPROXIMATE VALUES AND IN METRES ABOVE HONG KONG PRINCIPAL DATUM.
 3. SECTIONS OF THE EXISTING CARRIAGEWAYS AND FOOTPATHS WITHIN THE LIMIT OF WORKS AREA MAY BE TEMPORARILY CLOSED IN PHASES AS AND WHEN REQUIRED.

- LEGEND :**
- PROPOSED COLUMN
 - PROPOSED ELEVATED CARRIAGEWAY
 - PROPOSED ABUTMENT
 - EXISTING BUS LAYBY TO BE PERMANENTLY CLOSED
 - EXISTING FOOTBRIDGE TO BE PERMANENTLY CLOSED AND DEMOLISHED
 - PROPOSED FOOTBRIDGE
 - PROPOSED AMENITY AREA
 - PROPOSED FOOTPATH
 - EXISTING AMENITY AREA TO BE RETAINED
 - EXISTING FOOTPATH TO BE PERMANENTLY CLOSED
 - EXISTING AT-GRADE CARRIAGEWAY TO BE TEMPORARILY CLOSED AND RECONSTRUCTED
 - EXISTING CENTRAL MEDIAN WITHIN AMENITY AREA TO BE DEMOLISHED AND CONVERTED TO FLYOVER ABUTMENT
 - EXISTING AMENITY AREA TO BE PERMANENTLY DEMOLISHED AND CONVERTED TO BUS LAYBY
 - PROPOSED NOISE BARRIER
 - PROPOSED LIFT

Rev	Description	By	Date

Consultant

Project title
 AGREEMENT NO. CE72/2015(HY)
 FLYOVER FROM KWAI TSING INTERCHANGE
 UP-RAMP TO KWAI CHUNG ROAD
 - DESIGN AND CONSTRUCTION

Drawing title
 OVERALL GENERAL LAYOUT PLAN

Drawing no. CE72/AB/0001		Rev. -	
Drawn CAD	Date	Checked	Approved
Scale 1:2000 (A3)	Status	-	

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 工程處
 WORKS DIVISION

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APPENDIX B

Photographic Reference of Existing Trees

Agreement No. CE72/2015(HY) Tree Survey Photographs



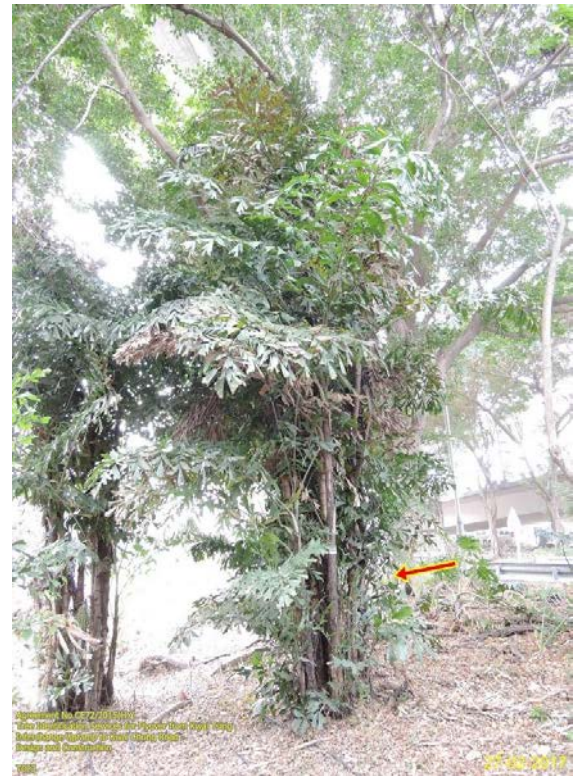
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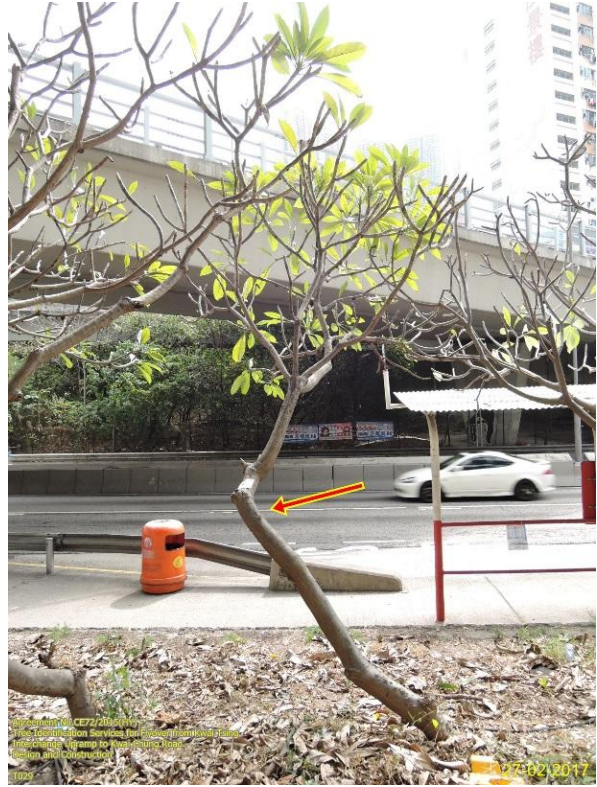


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Agreement No. CE72/2015(HY) Tree Survey Photographs



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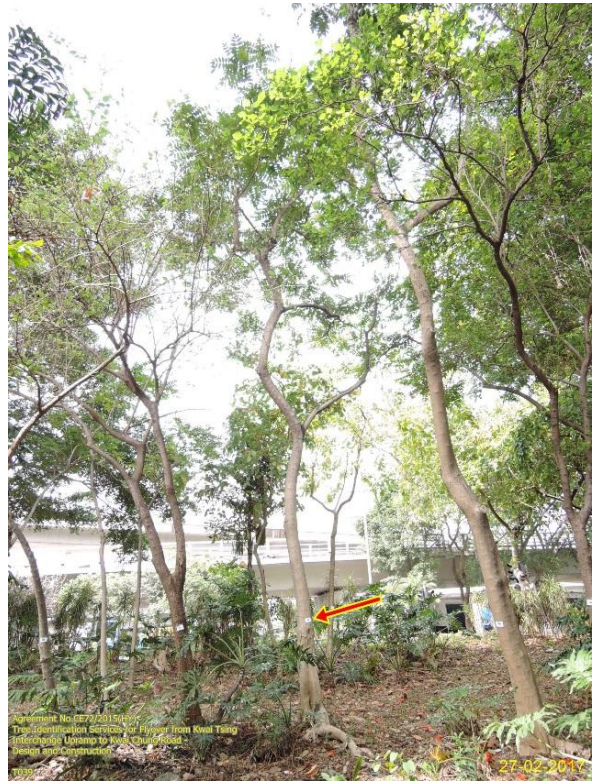
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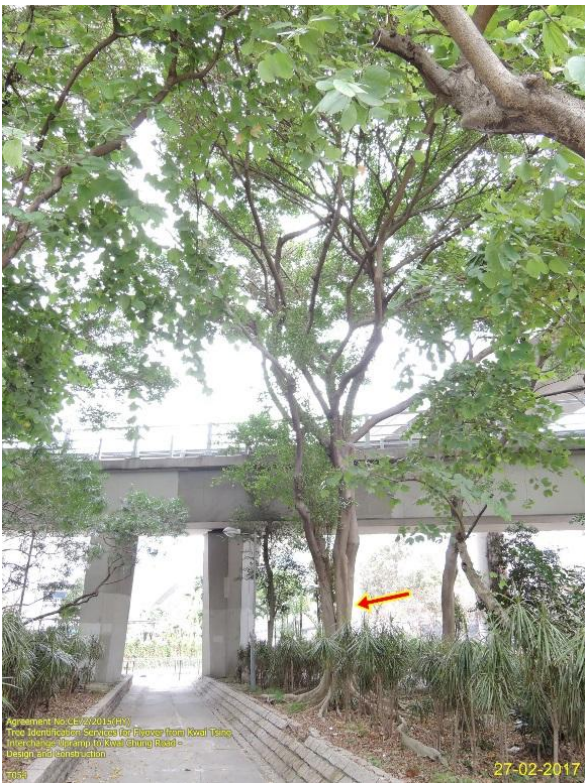
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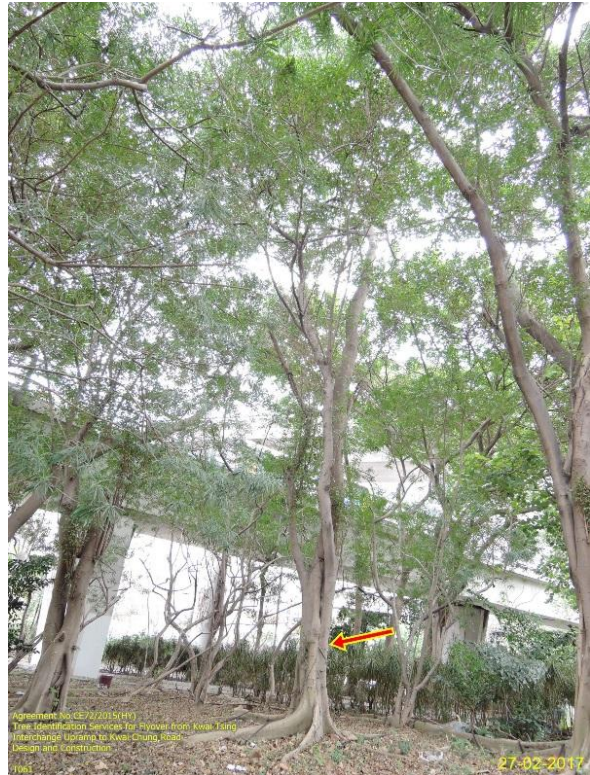


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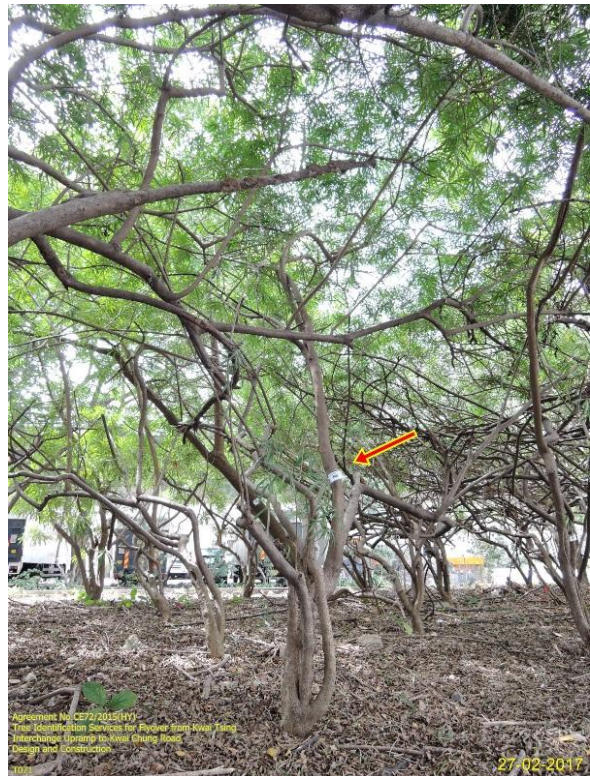
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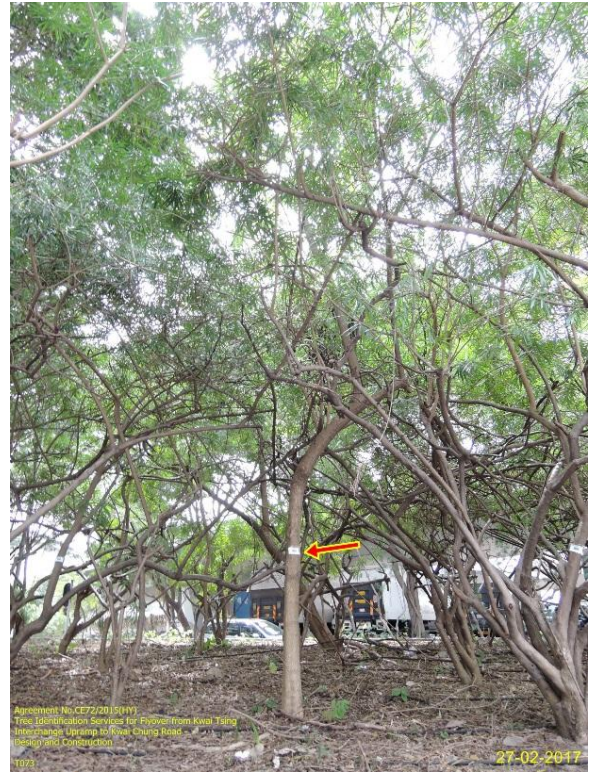


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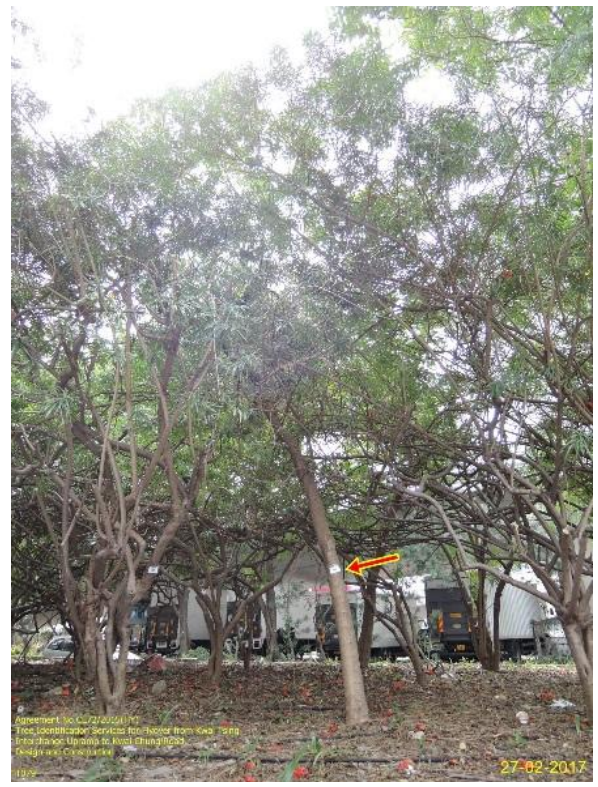
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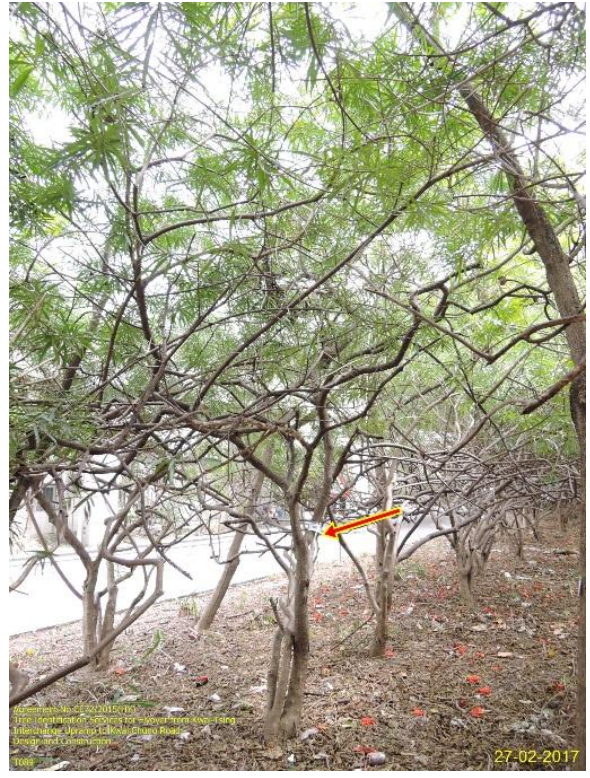


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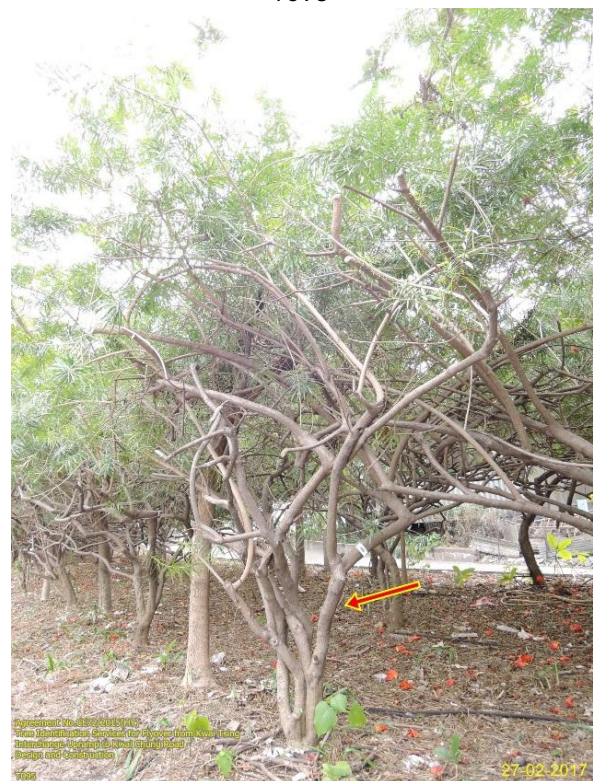
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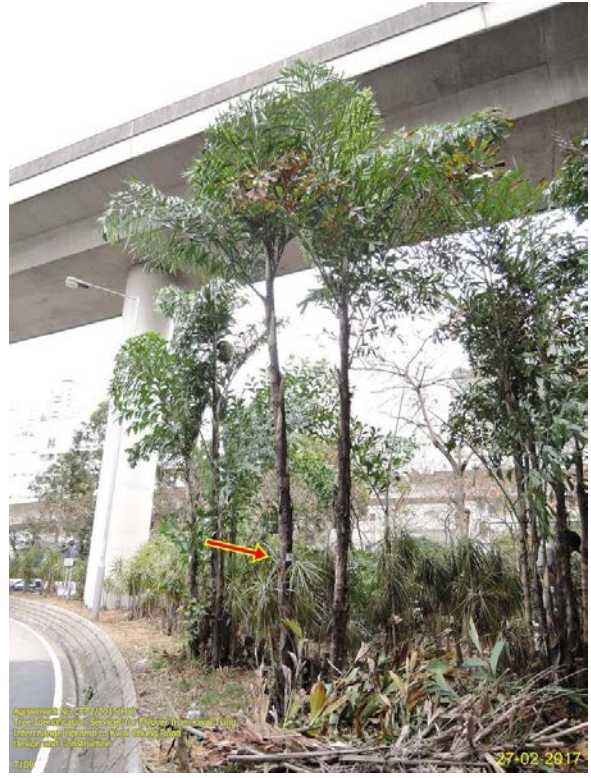


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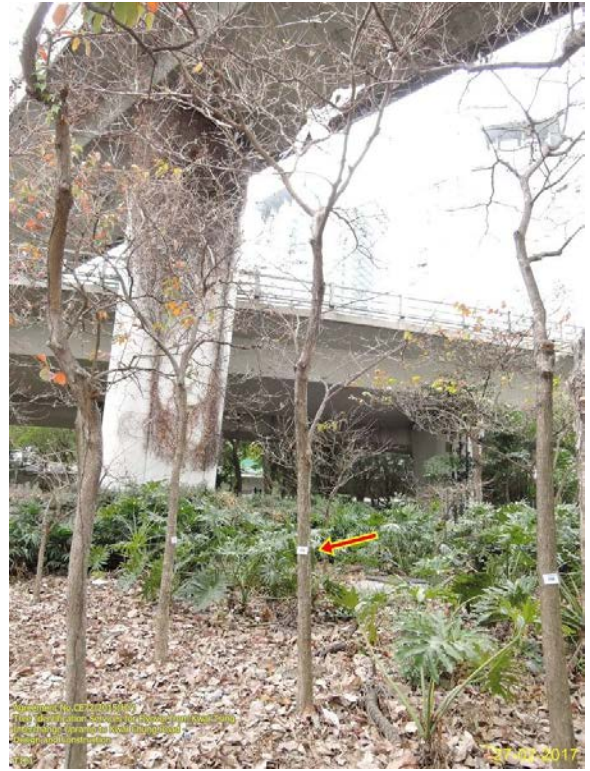


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T133



T134



T135

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T136



T137



T138



T139

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T140



T141



T142



T143

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T144



T146



T147



T148

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T151



T152



T153



T154

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T155



T156



T157



T158

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T159



T160

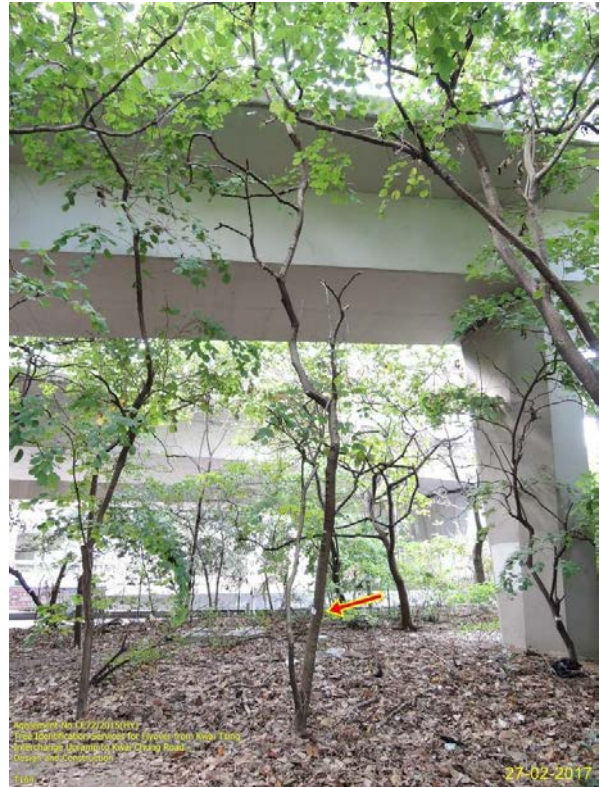


T161



T162

Agreement No. CE72/2015(HY) Tree Survey Photographs



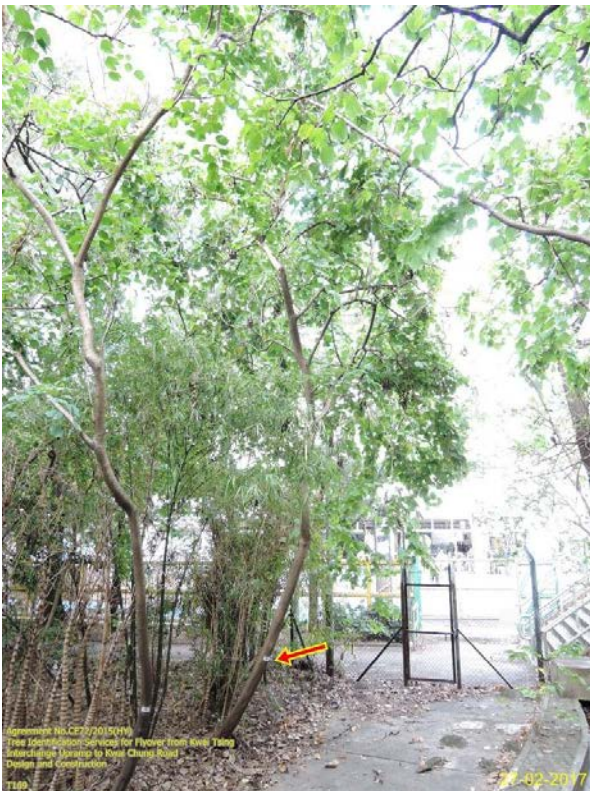
Agreement No. CE72/2015(HY) Tree Survey Photographs



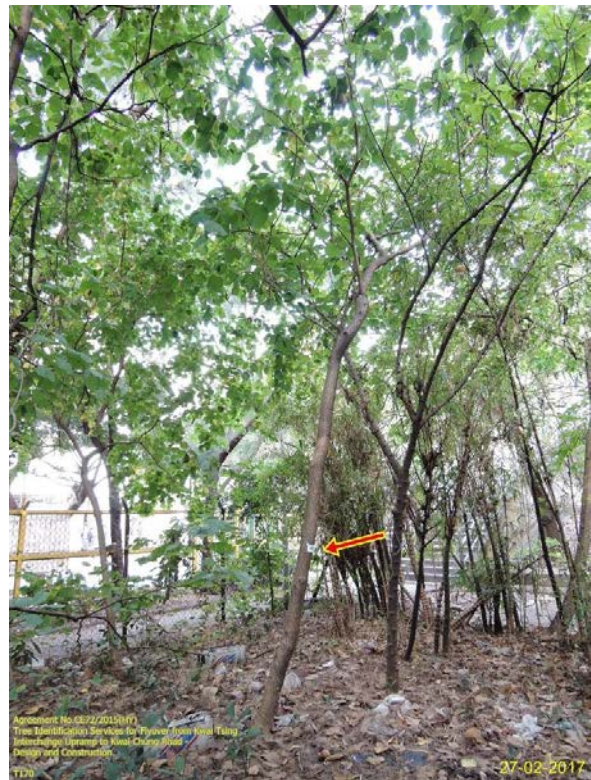
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T168



T169



T170

Agreement No. CE72/2015(HY) Tree Survey Photographs



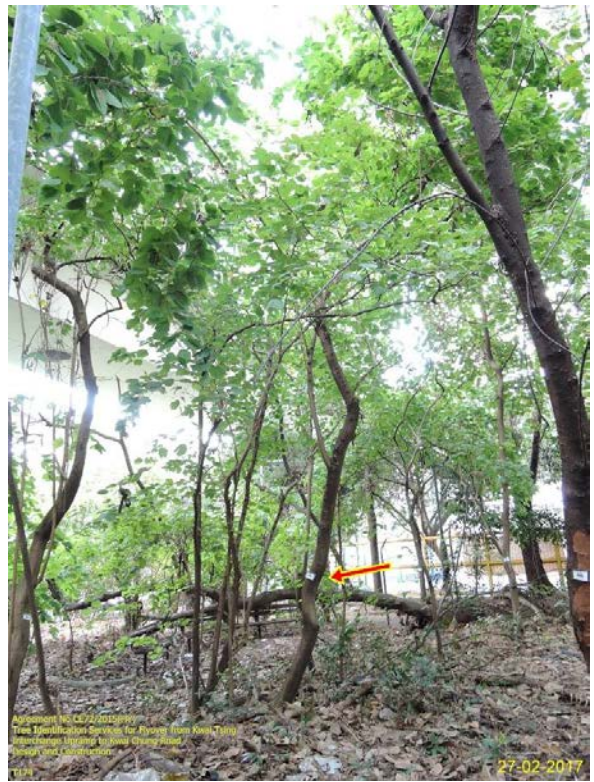
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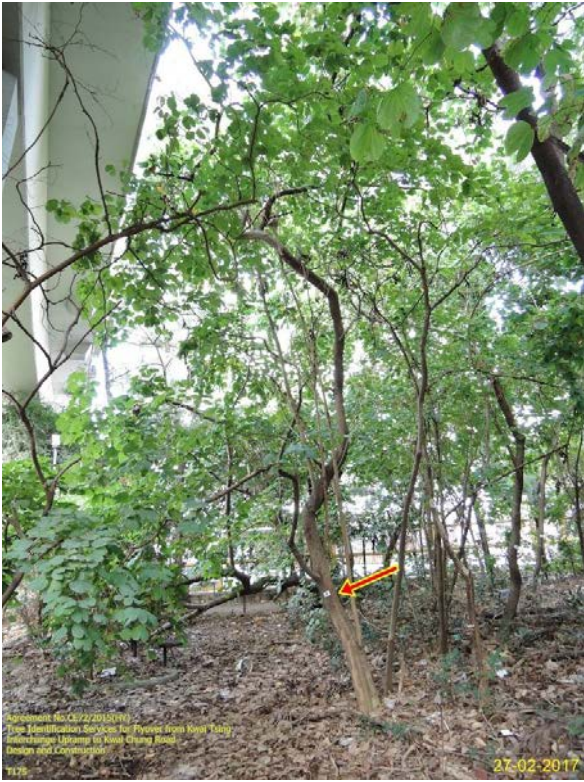


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T174

Agreement No. CE72/2015(HY) Tree Survey Photographs



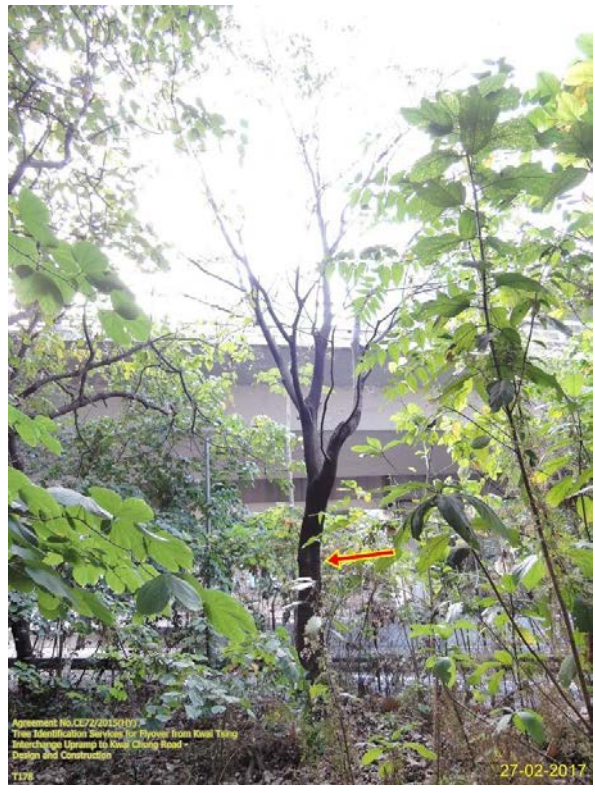
T175



T176



T177



T178

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T189



T190

APPENDIX C

Tree Survey Schedule

Tree Assessment Schedule

Project Agreement No. Flyover from Kwai Tsing interchange upramp to Kwai Chung Road - design and construction
To be read in conjunction with drawing no. : CE72/GNLS/003 & CE72/GNLS/004

Tree ID number	Tree Species (in botanical name)	Chinese Name	Original location (Lot/GA/YA/GHBA etc)	Tree Size					Health Condition (Good / Fair / Poor)	Structural Condition (Good / Fair / Poor)	Amenity Value (High / Med / Low)	Suitability for transplanting		Top of soil level above root collar	Conservation Status	Maintenance Department	Responsible Department	Proposed treatment	Remarks (including justification for proposed tree removal, precious or rare or endangered species; anticipated root-ball size to be preserved etc.)
				Trunk Diameter DBH (mm)	Overall Height (m)	Average Crown Spread (m)	Form (Good / Fair / Poor)	Survival Rate (High/Medium /Low)				Remarks ⁶							
T020	<i>Ficus benjamina</i>	垂葉榕	Lot	573	11	6	Fair	Fair	Fair	Medium	Low	b, c, d	7.276	No	LCSD ¹	LCSD	Fell	Epicormics, wound, low survival rate after transplanting, conflict with the proposed construction work	
T021	<i>Ficus benjamina</i>	垂葉榕	Lot	511	13	14	Good	Fair	Fair	Medium	Low	b, c, d	7.255	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, epicormics, low survival rate after transplanting, conflict with the proposed construction work	
T022	<i>Ficus benjamina</i>	垂葉榕	Lot	436	9	7	Fair	Fair	Fair	Medium	Low	b, c	7.132	No	LCSD ¹	LCSD	Fell	Exposed root, low survival rate after transplanting, conflict with the proposed construction work	
T023	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	191	4	2	Fair	Fair	Fair	Medium	Medium	-	7.069	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T024	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	206	4	2	Fair	Fair	Fair	Medium	Medium	-	6.814	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T025	<i>Plumeria rubra</i>	雞蛋花	Lot	111	2	2	Fair	Fair	Fair	Medium	Medium	-	6.523	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T026	<i>Plumeria rubra</i>	雞蛋花	Lot	173	2	2	Fair	Fair	Fair	Medium	Medium	-	6.328	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, conflict with the proposed construction work	
T027	<i>Plumeria rubra</i>	雞蛋花	Lot	104	2	2	Fair	Fair	Fair	Medium	Medium	-	6.349	No	LCSD ¹	LCSD	Fell	Wound, conflict with the proposed construction work	
T028	<i>Plumeria rubra</i>	雞蛋花	Lot	115	2	2	Poor	Poor	Fair	Low	Medium	a	6.272	No	LCSD ¹	LCSD	Fell	Poor form, poor foliage condition	
T029	<i>Plumeria rubra</i>	雞蛋花	Lot	108	2	2	Poor	Fair	Fair	Low	Medium	a	6.239	No	LCSD ¹	LCSD	Fell	Poor form, leaned trunk	
T030	<i>Plumeria rubra</i>	雞蛋花	Lot	95	2	2	Fair	Fair	Fair	Medium	Medium	-	6.194	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T031	<i>Plumeria rubra</i>	雞蛋花	Lot	135	2	2	Fair	Fair	Fair	Medium	Medium	-	6.168	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, conflict with the proposed construction work	
T032	<i>Plumeria rubra</i>	雞蛋花	Lot	123	2	2	Fair	Fair	Fair	Medium	Medium	-	6.137	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T033	<i>Plumeria rubra</i>	雞蛋花	Lot	121	2	2	Fair	Fair	Fair	Medium	Medium	-	6.176	No	LCSD ¹	LCSD	Fell	Poor foliage condition	
T034	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	197	4	2	Fair	Fair	Fair	Medium	Medium	-	6.203	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T035	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	207	5	2	Fair	Fair	Fair	Medium	Medium	-	6.399	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T036	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	175	4	2	Fair	Fair	Fair	Medium	Medium	-	6.323	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T037	<i>Spathodea campanulata</i>	火焰木	Lot	105	5	3	Fair	Fair	Fair	Medium	Medium	-	5.846	No	LCSD ¹	LCSD	Fell	Bending, conflict with the proposed construction work	
T038	<i>Morus alba</i>	桑	Lot	210	7	5	Fair	Fair	Fair	Medium	Medium	-	5.940	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T039	<i>Spathodea campanulata</i>	火焰木	Lot	204	8	4	Fair	Fair	Fair	Medium	Medium	-	6.867	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T040	<i>Spathodea campanulata</i>	火焰木	Lot	226	8	3	Fair	Fair	Fair	Medium	Medium	-	6.739	No	LCSD ¹	LCSD	Fell	Close to T41, conflict with the proposed construction work	
T041	<i>Morus alba</i>	桑	Lot	127	6	4	Fair	Fair	Fair	Medium	Medium	-	6.735	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T042	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	121	5	3	Fair	Fair	Fair	Medium	Medium	-	7.136	No	LCSD ¹	LCSD	Fell	Leaned trunk, poor crown spread	
T043	<i>Spathodea campanulata</i>	火焰木	Lot	105	5	2	Poor	Fair	Poor	Low	Medium	a, f	6.997	No	LCSD ¹	LCSD	Fell	Leaning: 25 degree, conflict with the proposed construction work, poor structure and form	
T044	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	108	4	2	Fair	Fair	Fair	Medium	Medium	-	7.562	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T045	<i>Bauhinia x blakeana</i>	洋紫荊	Lot	271	7	5	Poor	Fair	Fair	Low	Medium	a, f	7.518	No	LCSD ¹	LCSD	Fell	Wound, conflict with the proposed construction work, poor form	
T046	<i>Bauhinia x blakeana</i>	洋紫荊	Lot	230	5	6	Poor	Fair	Fair	Low	Medium	a, f	7.501	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T047	<i>Spathodea campanulata</i>	火焰木	Lot	153	7	4	Poor	Fair	Poor	Low	Low	a, c, f	6.956	No	LCSD ¹	LCSD	Fell	Root place movement, bending, exposed root, conflict with the proposed construction work, low survival rate after transplanting	
T048	<i>Spathodea campanulata</i>	火焰木	Lot	201	7	5	Fair	Fair	Poor	Medium	Low	c, f	7.095	No	LCSD ¹	LCSD	Fell	Root place movement, leaning, exposed root, conflict with the proposed construction work, low survival rate after transplanting, poor structure	
T049	<i>Spathodea campanulata</i>	火焰木	Lot	102	5	2	Poor	Fair	Poor	Low	Low	a, c, f	7.040	No	LCSD ¹	LCSD	Fell	Root place movement, exposed root, die back twigs, conflict with the proposed construction work	
T050	<i>Ficus benjamina</i>	垂葉榕	Lot	376	11	8	Fair	Poor	Fair	Medium	Medium	b, d, f	7.089	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work	
T051	<i>Ficus microcarpa</i>	榕樹(細葉榕)	Lot	111	4	2	Fair	Fair	Fair	Medium	Medium	-	6.721	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T052	<i>Ficus benjamina</i>	垂葉榕	Lot	178	7	2	Poor	Fair	Fair	Low	Medium	a, f	6.998	No	LCSD ¹	LCSD	Fell	Topped, exposed root, conflict with the proposed construction work	
T053	<i>Ficus benjamina</i>	垂葉榕	Lot	286	11	6	Fair	Fair	Fair	Medium	Medium	d	7.133	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work	
T054	<i>Ficus benjamina</i>	垂葉榕	Lot	662	13	13	Good	Fair	Fair	Medium	Low	b, c, d	7.310	No	LCSD ¹	LCSD	Fell	Co-dominant branches, exposed root, restricted root, conflict with the proposed construction work, low survival rate after transplanting	
T055	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	108	4	3	Fair	Fair	Fair	Low	Medium	a	7.218	No	LCSD ¹	LCSD	Fell	Poor form, leaned trunk	
T056	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	140	5	4	Fair	Fair	Fair	Medium	Medium	-	7.282	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, conflict with the proposed construction work	
T057	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	144	4	5	Fair	Fair	Fair	Medium	Medium	-	7.474	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T058	<i>Bauhinia x blakeana</i>	洋紫荊	Lot	213	8	6	Fair	Fair	Fair	Medium	Medium	-	7.382	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T059	<i>Bauhinia x blakeana</i>	洋紫荊	Lot	286	10	5	Fair	Fair	Fair	Medium	Medium	d	7.612	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T060	<i>Ficus benjamina</i>	垂葉榕	Lot	637	12	18	Good	Fair	Fair	Medium	Low	b, c, d	7.564	No	LCSD ¹	LCSD	Fell	Epicormics, exposed root, conflict with the proposed construction work, low survival rate after transplanting	
T061	<i>Ficus benjamina</i>	垂葉榕	Lot	436	11	10	Fair	Fair	Fair	Medium	Low	b, c, d	7.510	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work, low survival rate after transplanting	
T062	<i>Ficus benjamina</i>	垂葉榕	Lot	297	7	3	Poor	Poor	Fair	Low	Low	a, c, f	7.376	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, exposed root, pruned, epicormics, decay, topped, conflict with the proposed construction work, low survival rate after transplanting, poor health and form	
T063	<i>Ficus benjamina</i>	垂葉榕	Lot	286	9	12	Poor	Poor	Fair	Low	Low	a, b, c, d, f	7.249	No	LCSD ¹	LCSD	Fell	Decay, epicormics, exposed root, pruned, die back twigs, conflict with the proposed construction work, low survival rate after transplanting, poor health and form	
T064	<i>Ficus benjamina</i>	垂葉榕	Lot	605	12	16	Good	Fair	Fair	Medium	Medium	b, d	7.121	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work	
T065	<i>Ficus benjamina</i>	垂葉榕	Lot	541	12	17	Fair	Fair	Fair	Medium	Medium	b, d	7.142	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work	
T066	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	180	4	3	Fair	Poor	Fair	Low	Medium	a, f	7.019	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor health	
T067	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	164	3	4	Fair	Poor	Fair	Low	Medium	a, f	7.153	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor health	
T068	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	139	3	3	Fair	Poor	Fair	Low	Medium	a, f	7.477	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor health	
T069	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	135	3	4	Fair	Poor	Fair	Low	Medium	a, f	7.515	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor health	
T070	<i>Spathodea campanulata</i>	火焰木	Lot	172	6	4	Fair	Fair	Poor	Low	Low	a, c, f	7.446	No	LCSD ¹	LCSD	Fell	Exposed root, leaning: 40 degree, low survival rate after transplanting, poor structure, conflict with the proposed construction work	
T071	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	126	4	3	Poor	Fair	Fair	Low	Medium	a, f	7.215	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T072	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	135	3	3	Poor	Fair	Fair	Low	Medium	a, f	7.036	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T073	<i>Spathodea campanulata</i>	火焰木	Lot	143	6	3	Poor	Fair	Fair	Low	Medium	a	7.161	No	LCSD ¹	LCSD	Fell	Poor taper, poor form	
T074	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	174	3	4	Poor	Fair	Fair	Low	Medium	a, f	7.135	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T075	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	141	2	3	Poor	Fair	Fair	Low	Medium	a, f	7.220	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T076	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	163	3	2	Poor	Fair	Fair	Low	Medium	a, f	7.130	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T077	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	153	3	3	Poor	Fair	Fair	Low	Medium	a, f	7.332	No	LCSD ¹	LCSD	Fell	Cross branches, multi trunk, conflict with the proposed construction work, poor form	
T078	<i>Spathodea campanulata</i>	火焰木	Lot	143	5	3	Poor	Fair	Fair	Low	Medium	a, f	7.344	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T079	<i>Spathodea campanulata</i>	火焰木	Lot	153	5	4	Poor	Fair	Fair	Low	Medium	a, f	7.175	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work, poor form	
T080	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	137	3	4	Poor	Fair	Fair	Low	Medium	a, f	7.136	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work, poor form	
T081	<i>Spathodea campanulata</i>	火焰木	Lot	160	5	3	Poor	Fair	Fair	Low	Medium	a, f	7.121	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work, poor form	
T082	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	156	3	3	Poor	Fair	Fair	Low	Medium	a, f	7.344	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	

Tree ID number	Tree Species (in botanical name)	Chinese Name	Original location (Lot/GA/YA/GHBA etc)	Tree Size					Health Condition (Good / Fair / Poor)	Structural Condition (Good / Fair / Poor)	Amenity Value (High / Med / Low)	Suitability for transplanting		Top of soil level above root collar	Conservation Status	Maintenance Department	Responsible Department	Proposed treatment	Remarks (including justification for proposed tree removal, precious or rare or endangered species; anticipated root-ball size to be preserved etc.)
				Trunk Diameter DBH (mm)	Overall Height (m)	Average Crown Spread (m)	Form (Good / Fair / Poor)	Survival Rate (High/Medium /Low)				Remarks ⁶							
T083	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	142	3	2	Poor	Fair	Fair	Low	Medium	a, f	7.485	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T084	<i>Spathodea campanulata</i>	火焰木	Lot	185	5	3	Fair	Fair	Fair	Medium	Medium	-	7.313	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work	
T085	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	149	3	3	Poor	Fair	Fair	Low	Medium	a, f	7.284	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T086	<i>Spathodea campanulata</i>	火焰木	Lot	178	6	4	Fair	Fair	Fair	Medium	Medium	-	6.995	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T087	<i>Spathodea campanulata</i>	火焰木	Lot	115	4	2	Poor	Fair	Fair	Low	Medium	a, f	7.203	No	LCSD ¹	LCSD	Fell	Leaning, conflict with the proposed construction work	
T088	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	142	3	3	Poor	Fair	Fair	Low	Medium	a, f	7.062	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T089	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	110	4	3	Poor	Fair	Fair	Low	Medium	a, f	7.081	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T090	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	133	2	3	Poor	Fair	Fair	Low	Medium	a, f	7.275	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T091	<i>Spathodea campanulata</i>	火焰木	Lot	178	6	4	Fair	Fair	Fair	Medium	Medium	-	7.260	No	LCSD ¹	LCSD	Fell	Exposed root, conflict with the proposed construction work	
T092	<i>Spathodea campanulata</i>	火焰木	Lot	174	6	4	Fair	Fair	Fair	Medium	Medium	-	7.080	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, conflict with the proposed construction work	
T093	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	150	3	3	Poor	Fair	Fair	Low	Medium	a, f	6.937	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T094	<i>Spathodea campanulata</i>	火焰木	Lot	169	5	3	Poor	Fair	Fair	Low	Medium	a, f	6.896	No	LCSD ¹	LCSD	Fell	Cross branches, conflict with the proposed construction work	
T095	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	165	3	3	Poor	Fair	Fair	Low	Medium	a, f	6.779	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T096	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	161	3	4	Poor	Fair	Fair	Low	Medium	a, f	7.206	No	LCSD ¹	LCSD	Fell	Cross branches, multi trunk, conflict with the proposed construction work	
T097	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	142	3	4	Poor	Fair	Fair	Low	Medium	a, f	7.154	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T098	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	129	2	2	Poor	Fair	Fair	Low	Medium	a, f	7.056	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, conflict with the proposed construction work	
T099	<i>Spathodea campanulata</i>	火焰木	Lot	134	5	3	Poor	Fair	Fair	Low	Medium	a	7.032	No	LCSD ¹	LCSD	Fell	Poor form and poor taper	
T100	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	159	3	3	Poor	Fair	Fair	Low	Medium	a, f	6.956	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T101	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	171	3	2	Poor	Fair	Fair	Low	Medium	a, f	6.843	No	LCSD ¹	LCSD	Fell	Pruned, multi trunk, conflict with the proposed construction work	
T102	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	210	4	5	Poor	Fair	Fair	Low	Medium	a, f	6.897	No	LCSD ¹	LCSD	Fell	Co-dominant trunk, wound, conflict with the proposed construction work	
T103	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	131	4	4	Poor	Fair	Fair	Low	Medium	a, f	7.046	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T104	<i>Thevetia peruviana</i>	黃花夾竹桃	Lot	124	4	3	Poor	Fair	Fair	Low	Medium	a, f	6.905	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T105	<i>Spathodea campanulata</i>	火焰木	Lot	344	7	6	Fair	Fair	Fair	Medium	Medium	-	6.886	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T106	<i>Livistona chinensis</i>	蒲葵	Lot	166	4	3	Good	Good	Fair	High	High	-	7.005	Yes	LCSD ¹	LCSD	Transplant	Bending, conflict with the proposed construction work	
T107	<i>Livistona chinensis</i>	蒲葵	Lot	223	5	3	Good	Good	Good	High	High	-	6.842	Yes	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T108	<i>Livistona chinensis</i>	蒲葵	Lot	223	4	3	Good	Good	Good	High	High	-	6.786	Yes	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T109	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	156	4	2	Fair	Fair	Fair	Medium	Medium	-	6.644	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T110	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	176	3	2	Fair	Fair	Fair	Medium	Medium	-	6.693	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T111	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	140	3	2	Fair	Fair	Fair	Medium	Medium	-	6.720	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T112	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	204	6	2	Fair	Fair	Fair	Medium	Medium	-	6.758	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	
T113	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	162	6	4	Good	Good	Fair	High	Medium	-	6.567	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T114	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	102	4	3	Fair	Fair	Fair	Low	Medium	a	5.833	No	LCSD ¹	LCSD	Transplant	Poor foliage condition, dead back branches	
T115	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	131	5	3	Good	Good	Fair	High	Medium	-	5.878	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T116	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	105	5	3	Fair	Fair	Fair	Low	Medium	a	5.865	No	LCSD ¹	LCSD	Transplant	Leaned trunk, poor form	
T117	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	127	5	3	Good	Good	Fair	High	Medium	-	5.909	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T118	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	108	4	2	Good	Good	Fair	High	Medium	-	6.058	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T119	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	102	4	2	Good	Good	Fair	High	Medium	-	6.079	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T120	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	105	4	2	Fair	Fair	Fair	Medium	Medium	-	5.987	No	LCSD ¹	LCSD	Transplant	Slightly leaning, conflict with the proposed construction work	
T121	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	108	4	2	Good	Good	Fair	High	Medium	-	6.082	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T122	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	108	4	2	Fair	Fair	Fair	Medium	Medium	-	6.121	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T123	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	108	4	2	Fair	Fair	Fair	Medium	Medium	-	6.017	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T124	<i>Melaleuca cajuputi subsp. cumingiana</i>	白千層	Lot	220	5	3	Good	Good	Good	High	Medium	-	6.003	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T125	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	105	4	2	Fair	Fair	Fair	Medium	Medium	-	6.161	No	LCSD ¹	LCSD	Transplant	Leaning: 15 degree, conflict with the proposed construction work	
T126	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	95	3	2	Poor	Poor	Fair	Low	Medium	a	6.255	No	LCSD ¹	LCSD	Transplant	Poor form	
T127	<i>Melaleuca cajuputi subsp. cumingiana</i>	白千層	Lot	274	7	3	Good	Good	Good	High	Medium	-	6.041	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T128	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	115	4	3	Good	Good	Fair	High	Medium	-	6.191	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T129	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	108	4	3	Good	Good	Fair	High	Medium	-	6.179	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T130	<i>Melaleuca cajuputi subsp. cumingiana</i>	白千層	Lot	321	8	3	Good	Good	Good	High	Medium	-	6.07	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T131	<i>Melaleuca cajuputi subsp. cumingiana</i>	白千層	Lot	344	7	3	Good	Good	Good	High	Medium	-	6.074	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T132	<i>Melaleuca cajuputi subsp. cumingiana</i>	白千層	Lot	226	6	3	Good	Good	Good	High	Medium	-	6.067	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T133	<i>Lagerstroemia speciosa</i>	大花紫薇	Lot	95	3	3	Fair	Fair	Fair	Medium	Medium	-	6.208	No	LCSD ¹	LCSD	Transplant	Conflict with the proposed construction work	
T134	<i>Artocarpus heterophyllus</i>	菠蘿蜜	Lot	166	5	5	Good	Fair	Fair	Medium	Medium	-	6.487	Yes	CEDD ³	LCSD	Retain		
T135	<i>Plumeria rubra</i>	雞蛋花	Lot	124	3	3	Good	Good	Good	High	Medium	-	6.981	Yes	CEDD ³	LandsD	Retain	Multi trunk	
T136	<i>Dimocarpus longan</i>	龍眼	Lot	329	8	7	Good	Fair	Fair	Medium	Low	b, c	6.912	Yes	CEDD ³	LCSD	Retain	Co-dominant trunk	
T137	<i>Albizia lebbbeck</i>	大葉合歡	Lot	280	10	12	Fair	Fair	Fair	Medium	Medium	b, d	6.603	Yes	STT3706K&T ⁴	LandsD	Retain		
T138	<i>Bougainvillea spectabilis</i>	光葉子花(籐杜鵑)	Lot	105	3	2	Poor	Fair	Fair	Low	Medium	a	6.968	No	CEDD ³	LCSD	Fell	Poor taper, shrubby and branches cling on existing fence	
T139	<i>Psidium guajava</i>	番石榴	Lot	164	4	2	Poor	Poor	Poor	Low	Medium	a	7.016	No	CEDD ³	LCSD	Fell	Dead branches, co-dominant branches	
T140	<i>Ficus virens var. sublanceolata</i>	大葉榕(黃葛樹)	Lot	433	9	6	Fair	Fair	Fair	Medium	Low	c	6.283	Yes	CEDD ³	LandsD	Retain	Restricted root, exposed root	
T141	<i>Ficus microcarpa</i>	榕樹(細葉榕)	Lot	230	7	6	Fair	Fair	Fair	Medium	Low	c	7.458	Yes	CEDD ³	LandsD	Retain	Restricted root	
T142	<i>Bombax ceiba</i>	木棉	Lot	159	6	3	Fair	Fair	Fair	Medium	Medium	-	6.345	Yes	CEDD ³	LCSD	Retain		
T143	<i>Celtis sinensis</i>	朴樹	Lot	166	7	3	Fair	Fair	Fair	Medium	Medium	-	6.491	Yes	CEDD ³	LCSD	Retain		
T144	<i>Plumeria rubra</i>	雞蛋花	Lot	149	3	3	Poor	Fair	Fair	Low	Medium	a	6.8	No	CEDD ³	LCSD	Fell	Poor taper, leaned trunk	
T146	<i>Ficus religiosa</i>	菩提樹	Lot	133	5	3	Fair	Fair	Fair	Medium	Low	c	5.917	Yes	STT3706K&T ⁴	LandsD	Retain	Restricted root, wound	
T147	<i>Chukrasia tabularis</i>	麻楝	Lot	95	5	2	Fair	Fair	Fair	Medium	Low	c	6.045	Yes	STT3706K&T ⁴	LandsD	Retain	Restricted root	
T148	<i>Macaranga tanarius</i>	血桐	Lot	240	3	2	Fair	Fair	Fair	Medium	Low	c	7.989	Yes	STT3706K&T ⁴	LandsD	Retain	Restricted root, multi trunk	
T151	<i>Ficus virens var. sublanceolata</i>	大葉榕(黃葛樹)	Lot	102	12	8	Fair	Fair	Fair	Medium	Low	b, c, d	5.394	No	LCSD ²	LCSD	Fell	Restricted root, low survival rate after transplanting, conflict with the proposed construction work	
T152	<i>Leucaena leucocephala</i>	銀合歡	Lot	229	11	7	Poor	Fair	Fair	Low	Low	a, b, c, d, g	5.537	No	LCSD ²	LCSD	Fell	Undesirable species, low survival rate after transplanting, conflict with the proposed construction work	
T153	<i>Bauhinia variegata</i>	宮粉羊蹄甲	Lot	288	7	6	Fair	Fair	Fair	Medium	Medium	-	5.639	No	LCSD ²	LCSD	Fell	Conflict with the proposed construction work	
T154	<i>Ficus hispida</i>	對葉榕(牛乳樹)	Lot	215	6	5	Poor	Fair	Poor	Low	Medium	a, f	5.792	No	LCSD ²	LCSD	Fell	Conflict with the proposed construction work, poor structure	
T155	<i>Melia azedarach</i>	棟(苦棟)	Lot	232	8	3	Fair	Fair	Fair	Medium	Medium	-	5.809	Yes	LCSD ²	LCSD	Retain	Close to T156	

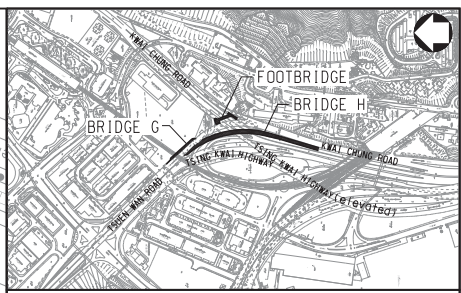
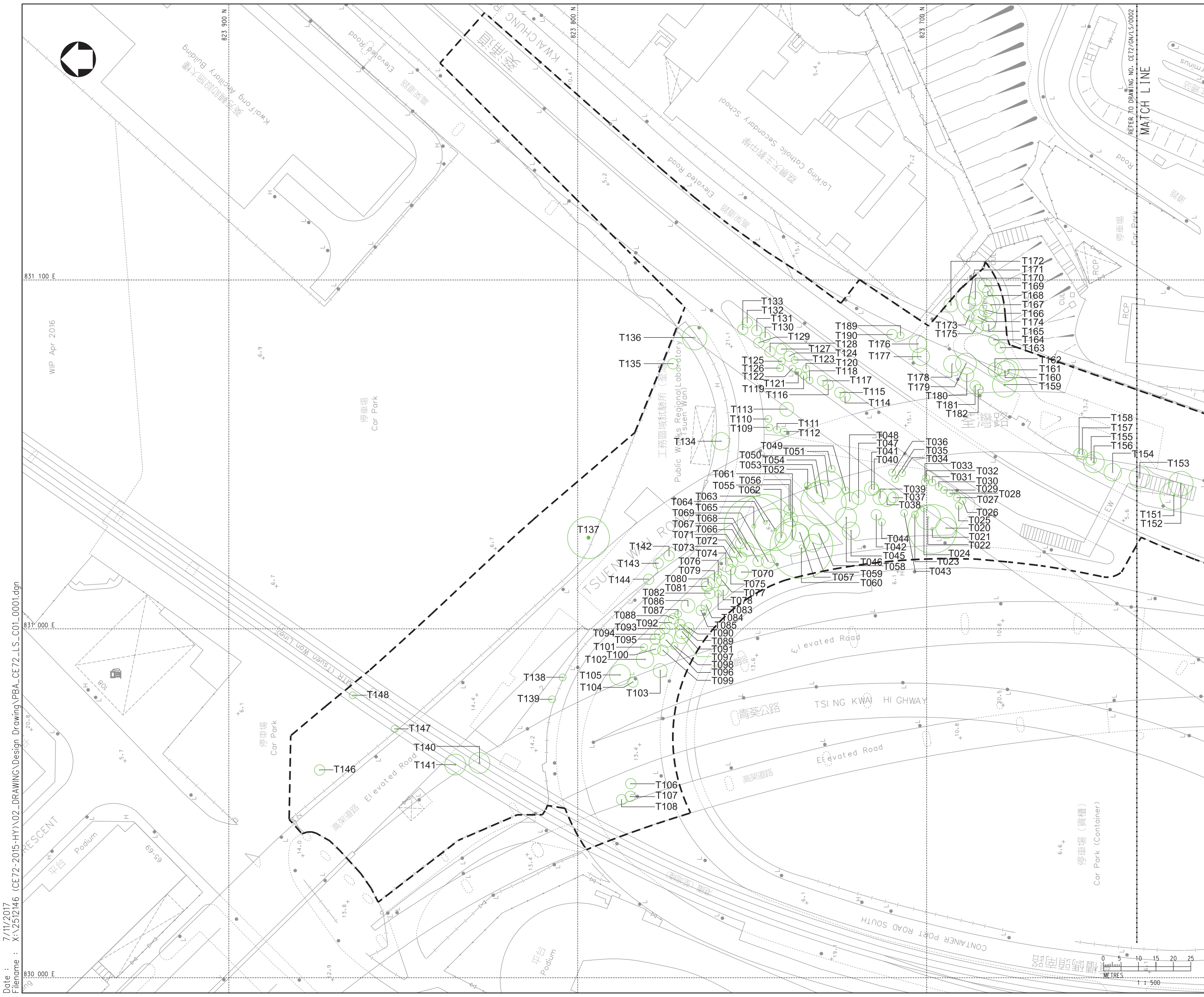
Tree ID number	Tree Species (in botanical name)	Chinese Name	Original location (Lot/GA/YA/GHBA etc)	Tree Size					Health Condition (Good / Fair / Poor)	Structural Condition (Good / Fair / Poor)	Amenity Value (High / Med / Low)	Suitability for transplanting		Top of soil level above root collar	Conservation Status	Maintenance Department	Responsible Department	Proposed treatment	Remarks (including justification for proposed tree removal, precious or rare or endangered species; anticipated root-ball size to be preserved etc.)
				Trunk Diameter DBH (mm)	Overall Height (m)	Average Crown Spread (m)	Form (Good / Fair / Poor)	Survival Rate (High/Medium/Low)				Remarks ⁶							
T156	<i>Leucaena leucocephala</i>	銀合歡	Lot	242	6	6	Fair	Poor	Poor	Low	Low	a, c, f	5.793	Yes	LCSD ²	LCSD	Retain	Root place movement	
T157	<i>Bauhinia variegata</i>	宮粉羊蹄甲	Lot	157	8	3	Fair	Fair	Fair	Medium	Medium	-	5.792	Yes	LCSD ²	LCSD	Retain	Close to T158	
T158	<i>Bauhinia variegata</i>	宮粉羊蹄甲	Lot	185	8	3	Fair	Fair	Fair	Medium	Medium	-	5.715	Yes	LCSD ²	LCSD	Retain		
T159	<i>Bauhinia variegata</i>	宮粉羊蹄甲	Lot	299	10	7	Fair	Fair	Fair	Medium	Medium	d	6.256	Yes	LandsD ⁵	LandsD	Retain	Dead branches	
T160	<i>Bauhinia variegata var. candida</i>	白花羊蹄甲	Lot	124	4	6	Fair	Poor	Poor	Low	Low	a, c, f	6.522	Yes	LandsD ⁵	LandsD	Retain	Leaning	
T161	<i>Macaranga tanarius</i>	血桐	Lot	111	7	6	Fair	Fair	Fair	Low	Medium	a, f	6.39	Yes	LandsD ⁵	LandsD	Retain	Epicormics, withered	
T162	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	156	8	4	Fair	Fair	Fair	Medium	Medium	-	6.52	Yes	LandsD ⁵	LandsD	Retain		
T163	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	137	7	3	Poor	Fair	Fair	Low	Medium	a, f	6.451	Yes	LandsD ⁵	LandsD	Retain		
T164	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	147	7	3	Poor	Fair	Fair	Low	Medium	a, f	6.664	Yes	LandsD ⁵	LandsD	Retain	Dead branches	
T165	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	216	8	4	Fair	Fair	Fair	Medium	Medium	-	6.88	Yes	LandsD ⁵	LandsD	Retain		
T166	<i>Casuarina equisetifolia</i>	木麻黃	Lot	223	10	4	Fair	Fair	Fair	Medium	Medium	d	7.163	Yes	LandsD ⁵	LandsD	Retain		
T167	<i>Macaranga tanarius</i>	血桐	Lot	232	8	5	Fair	Fair	Fair	Medium	Low	c	6.813	Yes	LandsD ⁵	LandsD	Retain	Restricted root	
T168	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	137	8	3	Fair	Fair	Fair	Medium	Low	c	6.918	Yes	LandsD ⁵	LandsD	Retain	Restricted root	
T169	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	169	8	4	Fair	Fair	Fair	Medium	Low	c	6.856	Yes	LandsD ⁵	LandsD	Retain	Restricted root	
T170	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	118	7	4	Fair	Fair	Fair	Medium	Medium	-	7.162	Yes	LandsD ⁵	LandsD	Retain		
T171	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	127	8	4	Fair	Fair	Fair	Medium	Medium	-	6.893	Yes	LandsD ⁵	LandsD	Retain		
T172	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	99	6	4	Fair	Fair	Fair	Medium	Low	c	6.846	Yes	LandsD ⁵	LandsD	Retain	Restricted root	
T173	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	105	6	3	Fair	Fair	Fair	Medium	Medium	-	6.791	Yes	LandsD ⁵	LandsD	Retain		
T174	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	146	7	4	Fair	Fair	Fair	Medium	Medium	-	6.798	Yes	LandsD ⁵	LandsD	Retain		
T175	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	188	8	4	Poor	Fair	Fair	Low	Low	a, c, f	6.674	Yes	LandsD ⁵	LandsD	Retain	Dead branches	
T176	<i>Macaranga tanarius</i>	血桐	Lot	150	6	5	Fair	Fair	Fair	Medium	Low	c	5.797	No	LCSD ²	LCSD	Fell	Restricted root, low survival rate after transplanting, conflict with the proposed construction work	
T177	<i>Bauhinia purpurea</i>	紅花羊蹄甲	Lot	178	6	5	Fair	Fair	Fair	Medium	Low	c	5.952	No	LCSD ²	LCSD	Fell	Restricted root, low survival rate after transplanting, conflict with the proposed construction work	
T178	<i>Celtis sinensis</i>	朴樹	Lot	271	7	5	Fair	Fair	Fair	Medium	Low	c	6.666	No	LCSD ²	LCSD	Fell	Restricted root, low survival rate after transplanting, conflict with the proposed construction work	
T179	<i>Macaranga tanarius</i>	血桐	Lot	239	8	6	Fair	Fair	Fair	Medium	Low	c	6.551	No	LCSD ²	LCSD	Fell	Restricted root, dead branches, low survival rate after transplanting, conflict with the proposed construction work	
T180	<i>Bauhinia variegata</i>	宮粉羊蹄甲	Lot	210	8	4	Fair	Fair	Fair	Medium	Medium	-	6.526	No	LCSD ²	LCSD	Fell	Conflict with the proposed construction work	
T181	<i>Ficus hispida</i>	對葉榕(牛乳樹)	Lot	122	5	3	Fair	Fair	Fair	Low	Low	a, c, f	6.347	No	LCSD ²	LCSD	Fell	Low survival rate after transplanting, conflict with the proposed construction work, poor structure	
T182	<i>Leucaena leucocephala</i>	銀合歡	Lot	134	9	3	Fair	Fair	Fair	Low	Low	a, c, f, g	6.225	No	LCSD ²	LCSD	Fell	Undesirable species, low survival rate after transplanting, conflict with the proposed construction work, poor structure	
T189	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	105	5	2	Good	Fair	Fair	Medium	Medium	-	6.19	No	LCSD ¹	LCSD	Fell	Conflict with the proposed construction work	
T190	<i>Caryota mitis</i>	短穗魚尾葵(小魚尾葵)	Lot	321	5	3	Fair	Fair	Fair	Medium	Medium	-	6.263	No	LCSD ¹	LCSD	Fell	Multi trunk, conflict with the proposed construction work	

Notes:

- As shown on XP plan, these trees are located on LCSD amenity area. Base on DEVB TCW No. 6/2015, the maintenance department is LCSD.
- According to DEVB TCW No. 6/2015, trees located along non-expressway public roads outside country parks are maintained by LCSD.
- According to DEVB TCW No. 6/2015, trees located on TGLA are currently maintained by CEDD and will revert to LandsD upon expiry of allocation.
- Trees located on STT3706K&T are maintained by tenant of STT3706K&T.
- Trees located on UUGL where trees are not maintained by other departments are maintained by LandsD.
- Major determining factors for rating on suitability for transplanting:
 - low amenity value;
 - Irrecoverable form after transplanting
 - low survival rate after transplanting
 - very large size
 - with evidence or notable signs of over-maturity and on set of senescence;
 - with poor health, structure or form
 - undesirable species

APPENDIX D

Tree Survey Plans



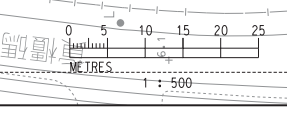
KEY PLAN

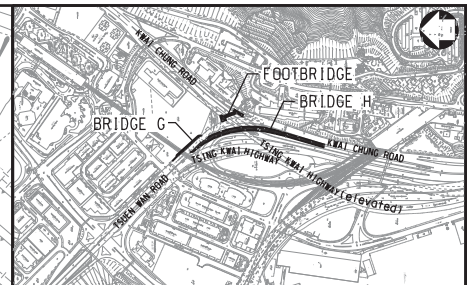
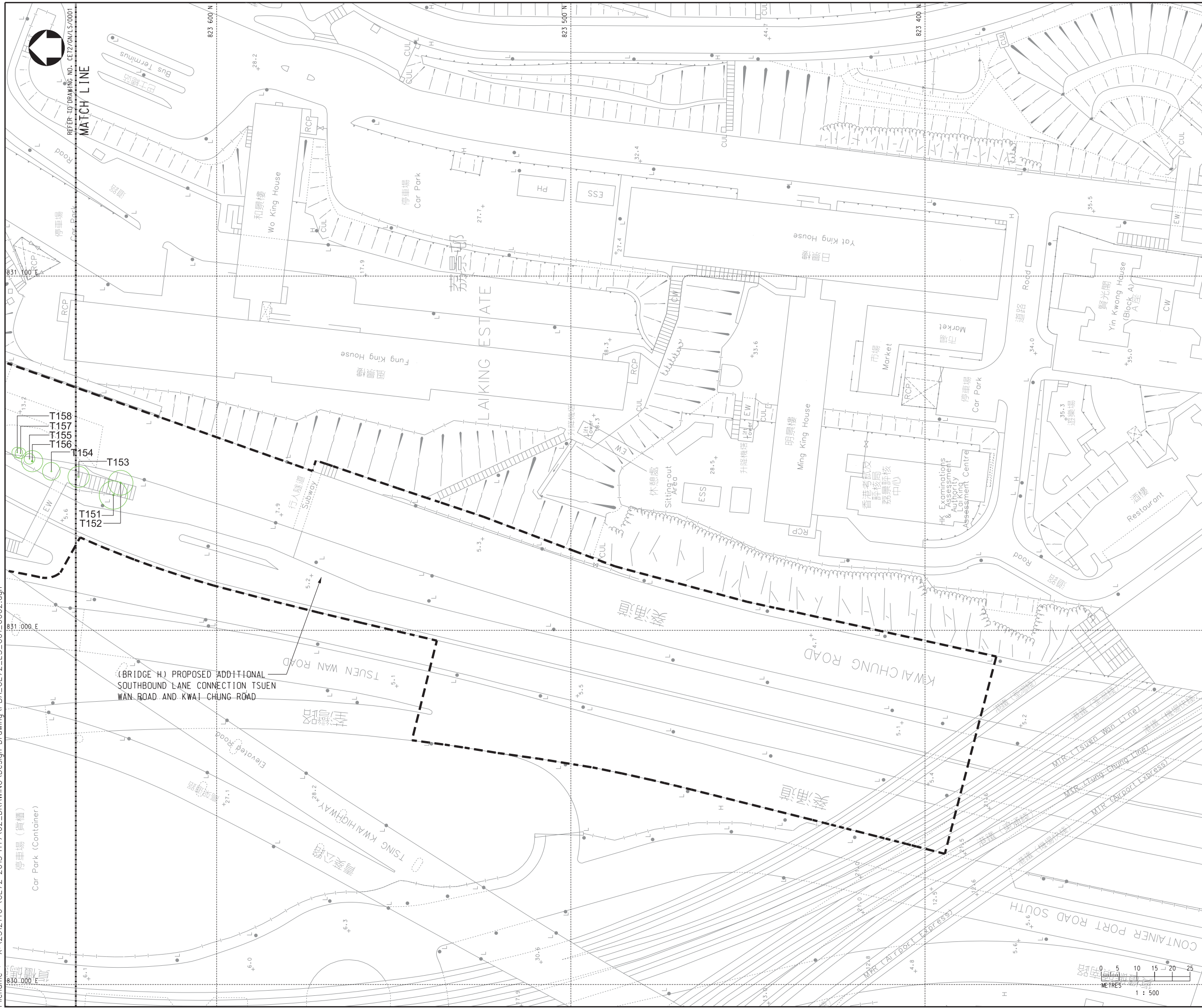
LEGEND :

- EXISTING TREE
- LIMIT OF WORKS SITE (AT GROUND LEVEL)
- PROPOSED LIFT

Date : 7/11/2017
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Rev	Description	By	Date
Consultant			
Project title			
AGREEMENT NO. CE72/2015 (HY)			
FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title			
TREE SURVEY PLAN (SHEET 1 OF 2)			
Drawing no.		Rev.	
CE72/LS/C01/0001		-	
Drawn	Date	Checked	Approved
CSL	-	-	-
Scale	Status		
1:500 (A1)	DETAIL DESIGN		
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路政署 HIGHWAYS DEPARTMENT 工程處 WORKS DIVISION			





KEY PLAN

LEGEND :

- EXISTING TREE
- LIMIT OF WORKS SITE (AT GROUND LEVEL)

Rev	Description	By	Date
Consultant			
Project title			
AGREEMENT NO. CE72/2015 (HY)			
FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title			
TREE SURVEY PLAN (SHEET 2 OF 2)			
Drawing no.		Rev.	
CE72/LS/C01/0002		-	
Drawn	Date	Checked	Approved
CSL	-	-	-
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© COPYRIGHT RESERVED			
		路政署 HIGHWAYS DEPARTMENT 工程處 WORKS DIVISION	

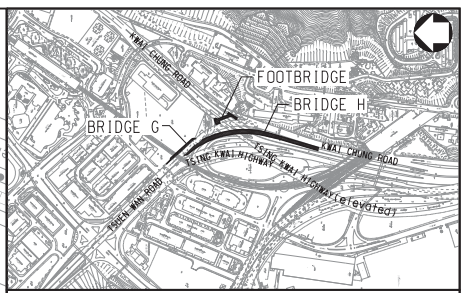


APPENDIX E

Tree Felling Plans



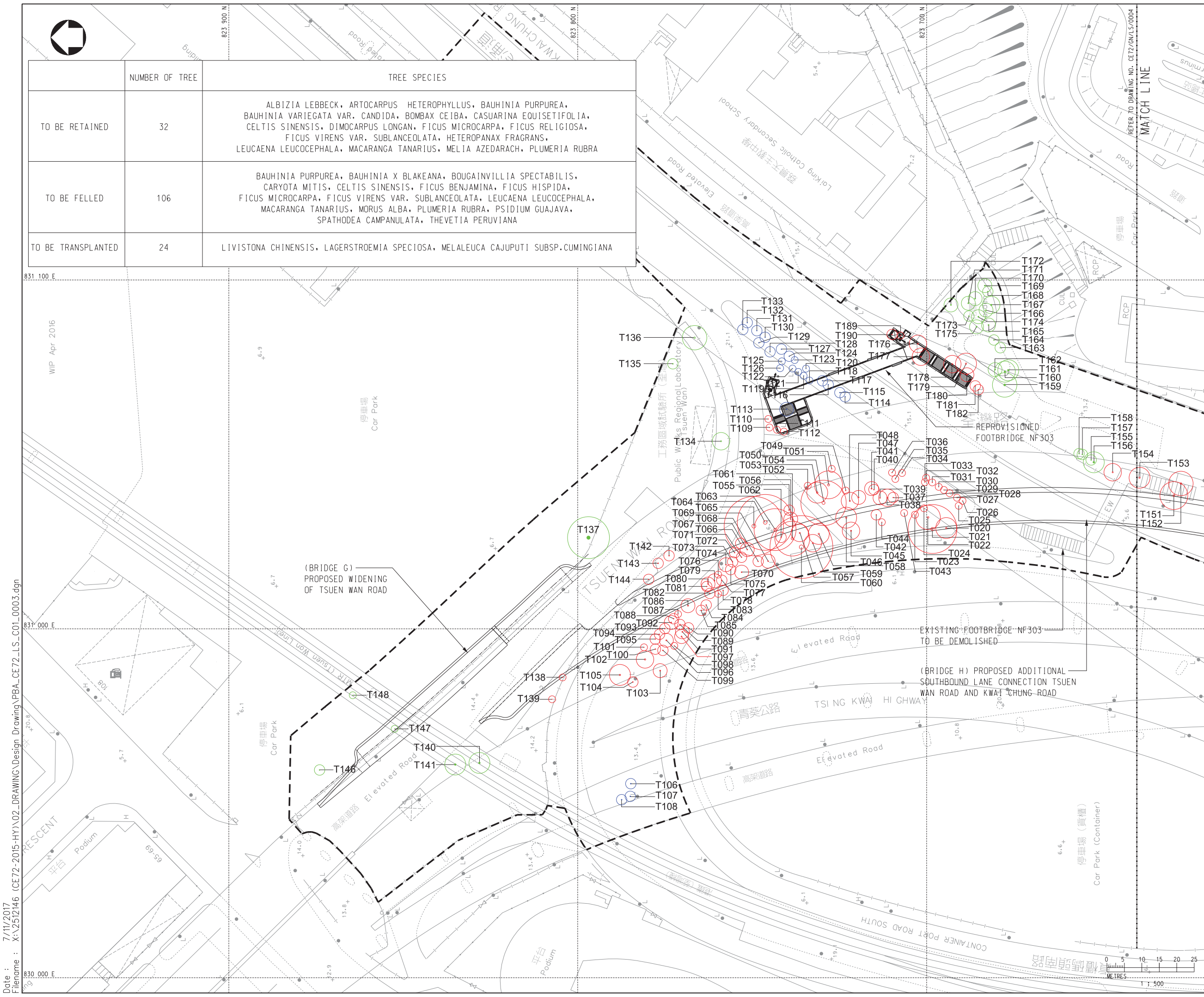
	NUMBER OF TREE	TREE SPECIES
TO BE RETAINED	32	ALBIZIA LEBBECK, ARTOCARPUS HETEROPHYLLUS, BAUHINIA PURPUREA, BAUHINIA VARIEGATA VAR. CANDIDA, BOMBAX CEIBA, CASUARINA EQUISETIFOLIA, CELTIS SINENSIS, DIMOCARPUS LONGAN, FICUS MICROCARPA, FICUS RELIGIOSA, FICUS VIRENS VAR. SUBLANCEOLATA, HETEROPANAX FRAGRANS, LEUCAENA LEUCOCEPHALA, MACARANGA TANARIUS, MELIA AZEDARACH, PLUMERIA RUBRA
TO BE FELLED	106	BAUHINIA PURPUREA, BAUHINIA X BLAKEANA, BOUGAINVILLEA SPECTABILIS, CARYOTA MITIS, CELTIS SINENSIS, FICUS BENJAMINA, FICUS HISPIDA, FICUS MICROCARPA, FICUS VIRENS VAR. SUBLANCEOLATA, LEUCAENA LEUCOCEPHALA, MACARANGA TANARIUS, MORUS ALBA, PLUMERIA RUBRA, PSIDIUM GUAJAVA, SPATHODEA CAMPANULATA, THEVETIA PERUVIANA
TO BE TRANSPLANTED	24	LIVISTONA CHINENSIS, LAGERSTROEMIA SPECIOSA, MELALEUCA CAJUPUTI SUBSP. CUMINGIANA



KEY PLAN

LEGEND :

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE FELLED
- EXISTING TREE TO BE TRANSPLANTED
- LIMIT OF WORKS SITE (AT GROUND LEVEL)
- PROPOSED LIFT



Rev	Description	By	Date



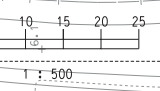
Project title
 AGREEMENT NO. CE72/2015 (HY)
 FLYOVER FROM KWAI TSING INTERCHANGE
 UP-RAMP TO KWAI CHUNG ROAD
 - DESIGN AND CONSTRUCTION

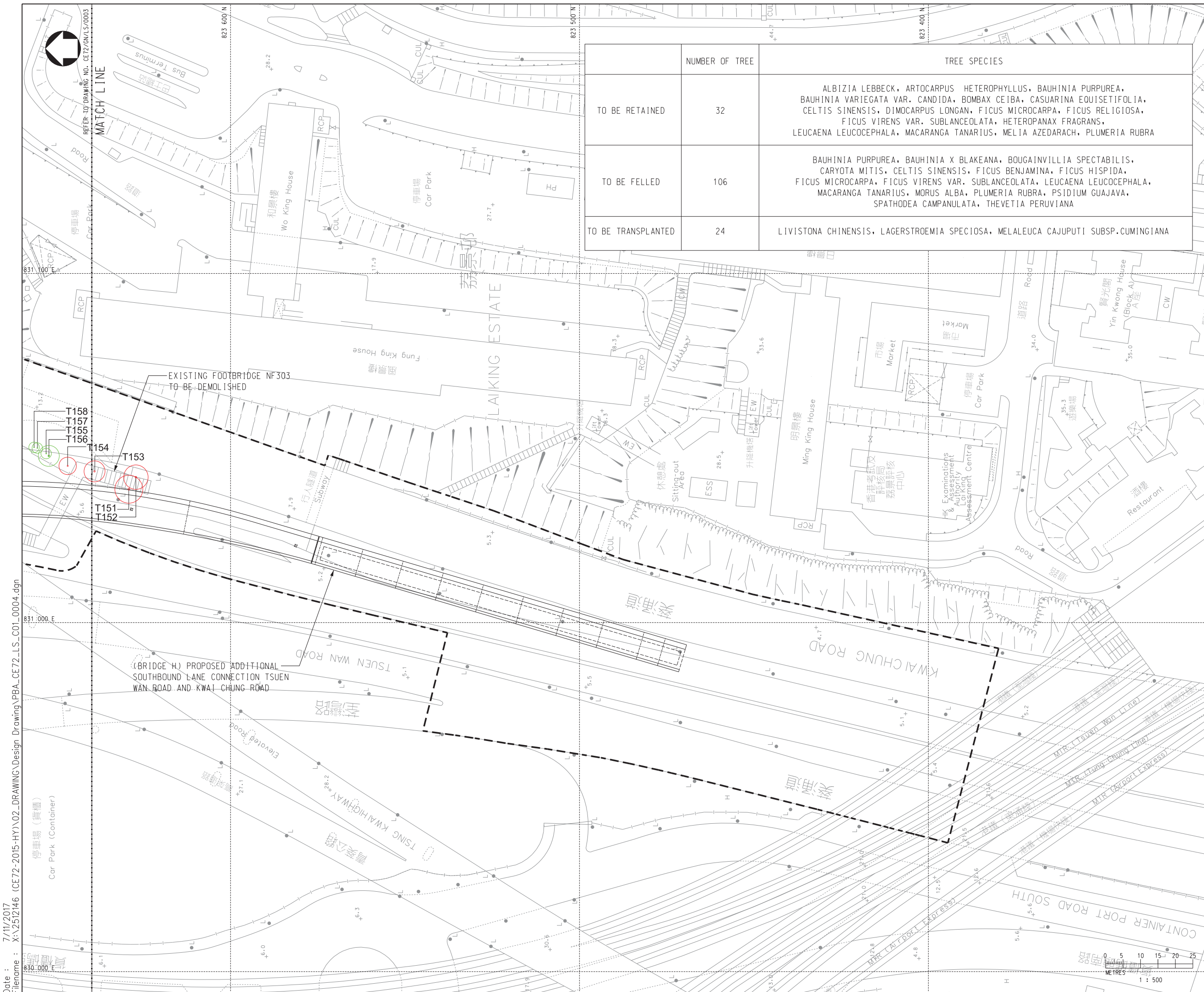
Drawing title
 TREE FELLING PLAN
 (SHEET 1 OF 2)

Drawing no. CE72/LS/C01/0003		Rev. -	
Drawn CSL	Date	Checked	Approved
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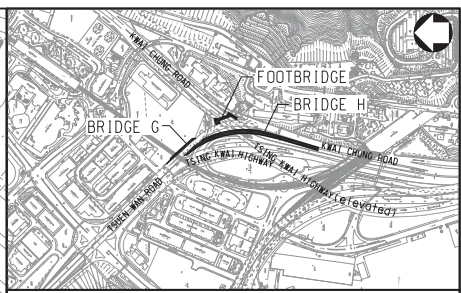


Date : 7/11/2017
 Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Design_Drawing\PBA_CE72_LS_C01_0003.dgn





	NUMBER OF TREE	TREE SPECIES
TO BE RETAINED	32	ALBIZIA LEBBECK, ARTOCARPUS HETEROPHYLLUS, BAUHINIA PURPUREA, BAUHINIA VARIEGATA VAR. CANDIDA, BOMBAX CEIBA, CASUARINA EQUISETIFOLIA, CELTIS SINENSIS, DIMOCARPUS LONGAN, FICUS MICROCARPA, FICUS RELIGIOSA, FICUS VIRENS VAR. SUBLANCEOLATA, HETEROPANAX FRAGRANS, LEUCAENA LEUCOCEPHALA, MACARANGA TANARIUS, MELIA AZEDARACH, PLUMERIA RUBRA
TO BE FELLED	106	BAUHINIA PURPUREA, BAUHINIA X BLAKEANA, BOUGAINVILLEA SPECTABILIS, CARYOTA MITIS, CELTIS SINENSIS, FICUS BENJAMINA, FICUS HISPIDA, FICUS MICROCARPA, FICUS VIRENS VAR. SUBLANCEOLATA, LEUCAENA LEUCOCEPHALA, MACARANGA TANARIUS, MORUS ALBA, PLUMERIA RUBRA, PSIDIUM GUAJAVA, SPATHODEA CAMPANULATA, THEVETIA PERUVIANA
TO BE TRANSPLANTED	24	LIVISTONA CHINENSIS, LAGERSTROEMIA SPECIOSA, MELALEUCA CAJUPUTI SUBSP. CUMINGIANA



KEY PLAN

LEGEND :

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE FELLED
- LIMIT OF WORKS SITE (AT GROUND LEVEL)

Date : 7/11/2017
 Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Design Drawing\PBA_CE72_LS_C01_0004.dgn

EXISTING FOOTBRIDGE NF303 TO BE DEMOLISHED

(BRIDGE H) PROPOSED ADDITIONAL SOUTHBOUND LANE CONNECTION TSUEN WAN ROAD AND KWAI CHUNG ROAD

Rev	Description	By	Date

Consultant:

Project title: AGREEMENT NO. CE72/2015 (HY)
 FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION

Drawing title: TREE FELLING PLAN (SHEET 2 OF 2)

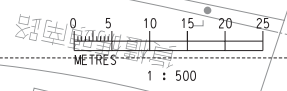
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Drawn	Date	Checked	Approved
CSL	-	-	-

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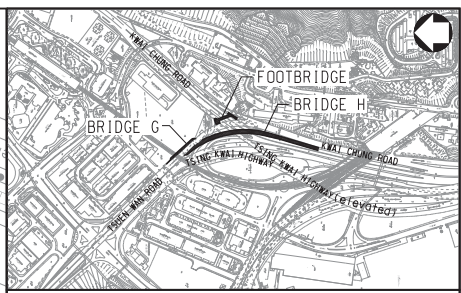
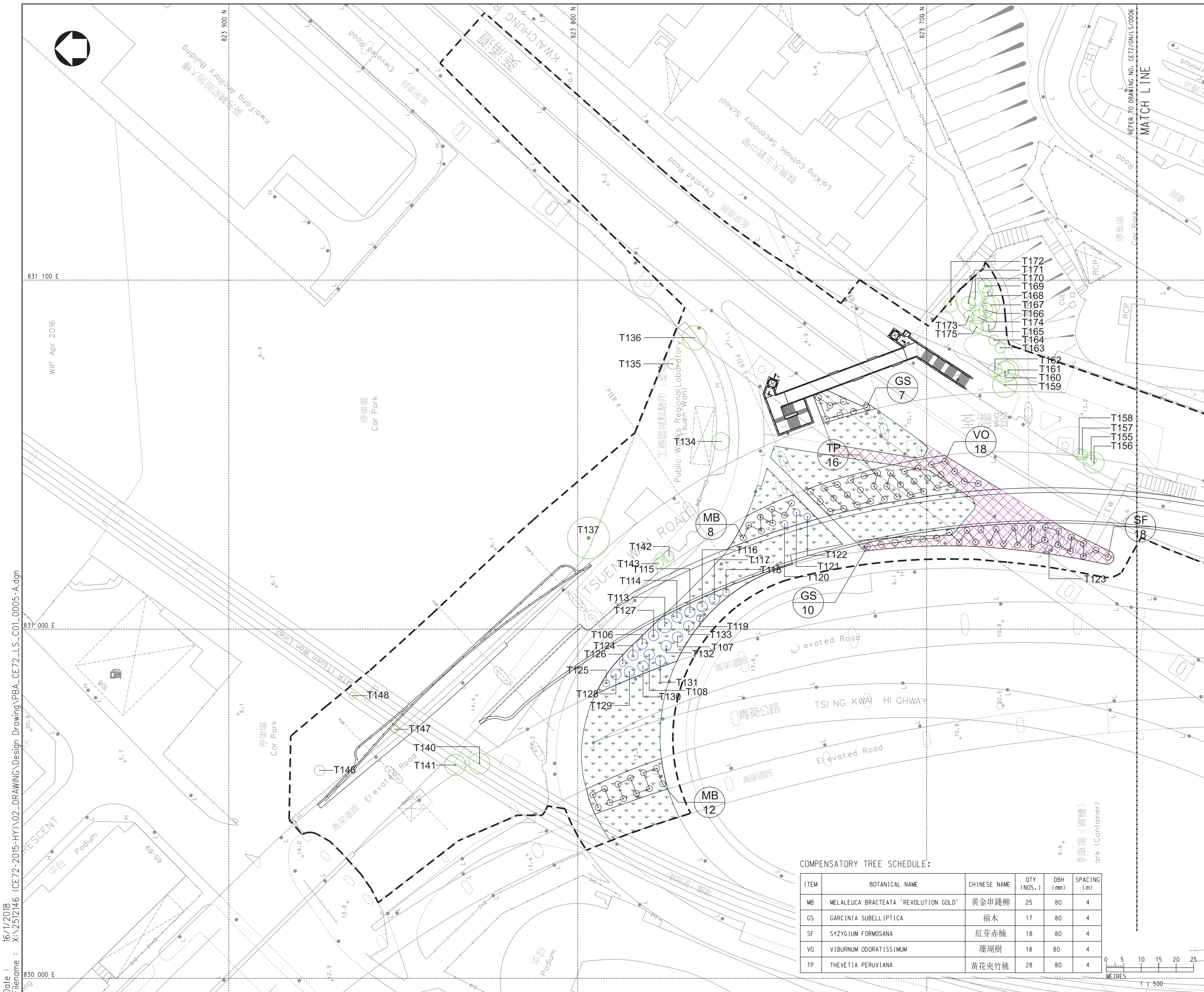
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APPENDIX F

Tree Compensation Plans



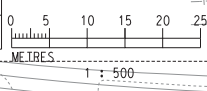
- LEGEND :**
- PROPOSED RETAINED TREE
 - PROPOSED NEW COMPENSATORY TREE MAINTAINED BY LCS
 - PROPOSED TRANSPLANTED TREE
 - LIMIT OF WORKS SITE (AT GROUND LEVEL)
 - PROPOSED LIFT
 - PROPOSED AMENITY AREA
 - EXISTING AMENITY AREA TO BE RETAINED

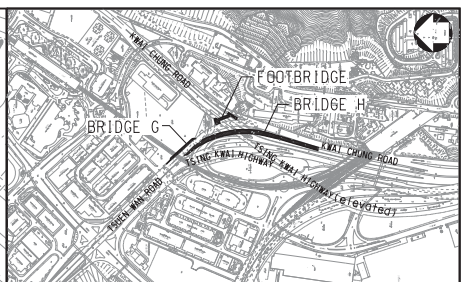
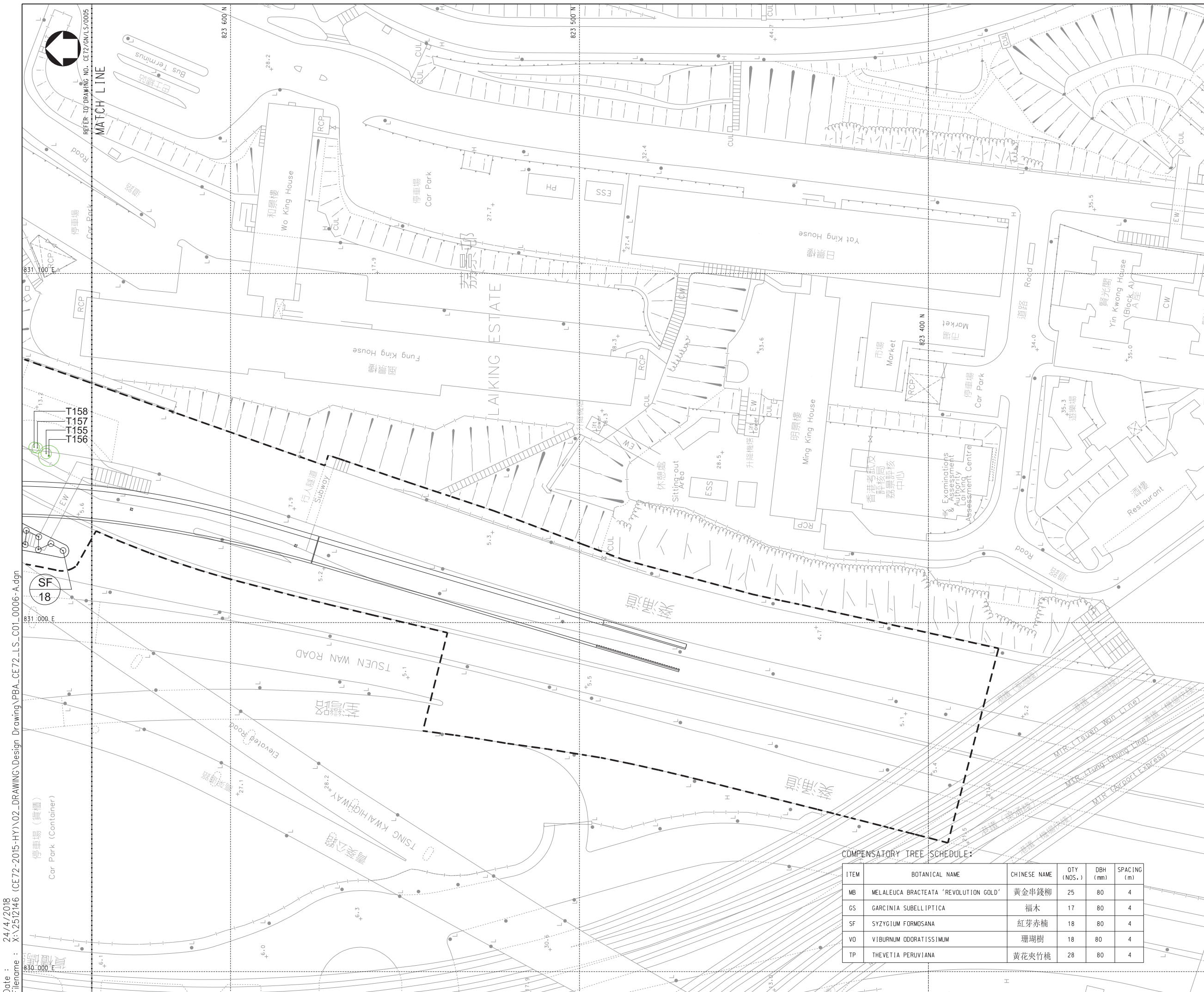
COMPENSATORY TREE SCHEDULE:

ITEM	BOTANICAL NAME	CHINESE NAME	QTY (NOS.)	DBH (mm)	SPACING (m)
MB	MELALEUCA BRACTEATA 'REVOLUTION GOLD'	黃金串錢柳	25	80	4
GS	GARCINIA SUBELLIPTICA	福木	17	80	4
SF	SYZYGIUM FORMOSANA	紅芽赤楠	18	80	4
VO	VIBURNUM ODORATISSIMUM	珊瑚樹	18	80	4
TP	THEVETIA PERUVIANA	黃花夾竹桃	28	80	4

Rev	Description	By	Date
Project title AGREEMENT NO. CE72/2015 (HY) FLYOVER FROM KWAI TSING INTERCHANGE UP-RAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title TREE COMPENSATION PLAN (SHEET 1 OF 3)			
Drawing no.		Rev.	
CE72/LS/C01/0005		-	
Drawn	Date	Checked	Approved
CSL	-	-	-
Scale	1:500 (A1)		Status
			DETAIL DESIGN
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Date : 16/11/2018
 Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Design Drawing\PBA_CE72_LS_C01_0005-A.dgn





KEY PLAN

- LEGEND :
- PROPOSED RETAINED TREE
 - PROPOSED NEW COMPENSATORY TREE MAINTAINED BY LCSO
 - LIMIT OF WORKS SITE (AT GROUND LEVEL)
 - PROPOSED AMENITY AREA

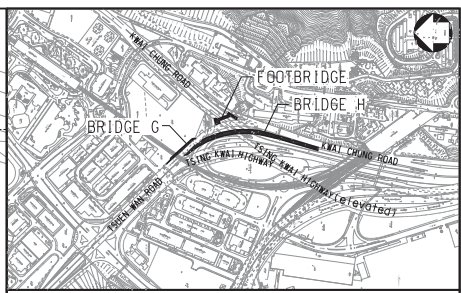
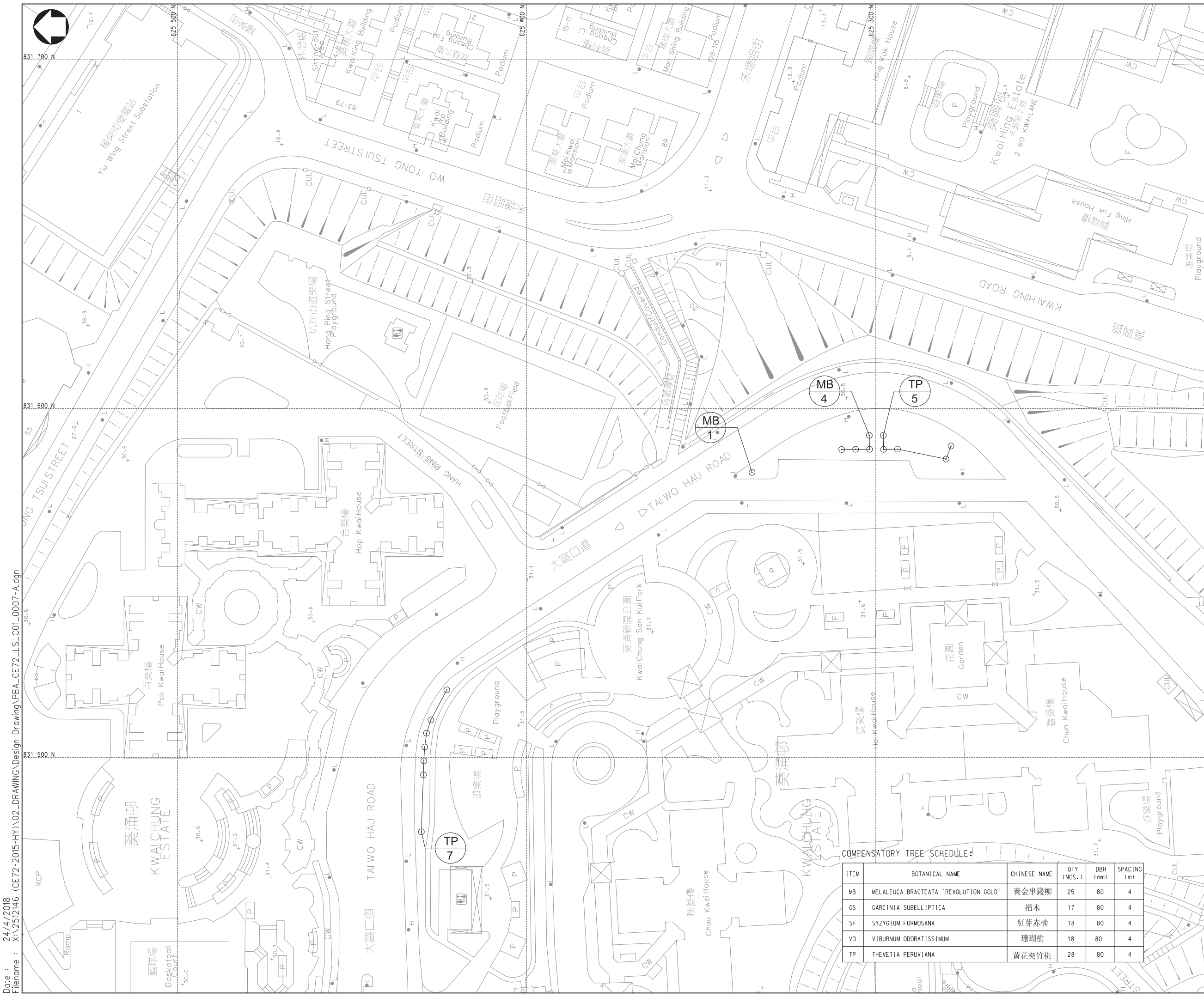
Rev	Description	By	Date
Consultant			
Project title			
AGREEMENT NO. CE72/2015 (HY)			
FLYOVER FROM KWAI TSING INTERCHANGE UPRAMP TO KWAI CHUNG ROAD - DESIGN AND CONSTRUCTION			
Drawing title			
TREE COMPENSATION PLAN (SHEET 2 OF 3)			

COMPENSATORY TREE SCHEDULE:

ITEM	BOTANICAL NAME	CHINESE NAME	QTY (NOS.)	DBH (mm)	SPACING (m)
MB	MELALEUCA BRACTEATA 'REVOLUTION GOLD'	黃金串錢柳	25	80	4
GS	GARCINIA SUBELLIPTICA	福木	17	80	4
SF	SYZYGIUM FORMOSANA	紅芽赤楠	18	80	4
VO	VIBURNUM ODORATISSIMUM	珊瑚樹	18	80	4
TP	THEVETIA PERUVIANA	黃花夾竹桃	28	80	4

Drawing no.		Rev.	
CE72/LS/C01/0006		A	
Drawn	Date	Checked	Approved
CSL	-	-	-
Scale		Status	
1:500 (A1)		DETAIL DESIGN	
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Date : 24/4/2018
 Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Design Drawing\PBA_CE72_LS_C01_0006-A.dgn



- KEY PLAN**
- LEGEND :**
- PROPOSED RETAINED TREE
 - PROPOSED NEW COMPENSATORY TREE MAINTAINED BY LCS
 - LIMIT OF WORKS SITE (AT GROUND LEVEL)
 - PROPOSED AMENITY AREA

Rev	Description	By	Date

Consultant



Project title
 AGREEMENT NO. CE72/2015 (HY)
 FLYOVER FROM KWAI TSING INTERCHANGE
 UP-RAMP TO KWAI CHUNG ROAD
 - DESIGN AND CONSTRUCTION

Drawing title
TREE COMPENSATION PLAN
 (SHEET 3 OF 3)

Drawing no. CE72/LS/C01/0007		Rev. A	
Drawn CSL	Date -	Checked -	Approved -
Scale 1:500 (A1)		Status DETAIL DESIGN	

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COMPENSATORY TREE SCHEDULE:

ITEM	BOTANICAL NAME	CHINESE NAME	QTY (NOS.)	DBH (mm)	SPACING (m)
MB	MELALEUCA BRACTEATA 'REVOLUTION GOLD'	黃金串錢柳	25	80	4
GS	GARCINIA SUBELLIPTICA	福木	17	80	4
SF	SYZYGIVM FORMOSANA	紅芽赤楠	18	80	4
VO	VIBURNUM ODORATISSIMUM	珊瑚樹	18	80	4
TP	THEVETIA PERUVIANA	黃花夾竹桃	28	80	4

Date : 24/4/2018
 Filename : X:\2512146 (CE72-2015-HY)\02_DRAWING\Design Drawing\PBA_CE72_LS_C01_0007-A.dgn

APPENDIX 8.2

RECOMMENDED LANDSCAPE AND
VISUAL MITIGATION MEASURES IN
THE APPROVED EIA REPORT

APPENDIX 8.2

RECOMMENDED LANDSCAPE AND VISUAL MITIGATION MEASURES IN THE APPROVED EIA REPORT

Mitigation Code	Mitigation Measures
CP1	Development Site and Temporary Works Areas – The construction area and contractor’s temporary works area should be minimized to avoid impacts on adjacent landscape. The landscape of these works areas will be restored following the completion of the construction phase. Construction site controls shall be enforced, to ensure that the landscape and visual impacts arising from the construction phase activities are minimized including the storage of materials, the location and appearance of site accommodation and the careful design of site lighting to prevent light spillage. Screen hoarding may be a practicable for this project due to the viewing distances is short in a lot of site situation.
CP2	Mitigation Planting – Replanting of disturbed planting areas with shrubs planting should be undertaken at the earliest possible stage during the construction phase of the project so as to reduce the impact of the removed trees.
OP1	Design of the Proposed Carriageway Structures and Associate Facilities – The carriageway structure will incorporate design features as part of design mitigation measures including choices of material, colour, and shape.
OP2	Integrated Design Approach – The associated noise barrier should consider incorporating different means of mitigation measures including choices of material, colour and integrate, as far as technically feasible, with the carriageway as part of design mitigation measures to reduce the potential cumulative impact of the proposed works.
OP3	Roadside and Amenity Planting – These planting will utilize flowering and colourful foliage shrubs species to improve the road side planting in creating a more pleasant landscape network in the area. Large shrubs should also be considered to create visual buffers of the supporting.
OP4	Enhancement of Streetscape – The landscape proposal should consider introducing coloured paving materials to tie with the paving pattern in Kwai Chung area.