Gammon Construction Limited

Gammon

Landscape Mitigation Plan

for

Contract No. HY/2014/07

Central Kowloon Route – Kai Tak West

J3718

Version : A **Date : 1 Feb 2018**

Prepared by :	Reviewed by :	Approved by :
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By Email

Gammon Construction Limited
28/F Devon House, Taikoo Place,
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Attn.: Mr. Brian Kam

14 February 2018

Dear Brian,

Contract No. HY/2014/07
Central Kowloon West – Kai Tak West
Certification for Landscape Mitigation Plan (Version A)

We refer to the Landscape Mitigation Plan submitted by Gammon via email on 13 February 2018. We have no comment and certified the captioned plan.

Should you have any queries, please do not hesitate to contact our Y W Fung at 3922 9366.

Yours sincerely
For and on behalf of
AECOM Asia Co. Ltd

Y T Tang
Executive Director
Environment

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

ERM

Environmental Permit No. EP-457/2013/C

Central Kowloon Route

Independent Environmental Checker Verification

Works Contract:	**Kai Tak West (HY/2014/07)**

Reference Document/Plan

~~Document~~/Plan to be ~~Certified~~/ Verified:	Landscape Mitigation Plan
Date of Report:	1 February 2018 (Version A)
Date received by IEC:	20 February 2018

Reference EP Condition

Environmental Permit Condition: 2.8

Submission of Landscape Mitigation Plan of the Project

2.8 The Permit Holder shall, at least one month before the commencement of construction of the corresponding component(s) of the Project, deposit with the Director four hard copies and one electronic copy of a Landscape Mitigation Plan(s). The Landscape Mitigation Plan(s) shall be certified by the ET leader and verified by the IEC as conforming to the information and recommendations of landscape and visual mitigation measures in the EIA Report (Register No.: AEIAR-171/2013) or otherwise approved by the Director in compliance with the requirements in the Technical Memorandum on Environmental Impact Assessment Process, and Condition 2.10 of this Permit.

IEC Verification

I hereby verify that the above referenced ~~document~~/plan complies with the above referenced condition of EP-457/2013/C.

Ms Mandy To Date: 21 February 2018

Independent Environmental Checker

Our ref: 0436942_IEC Verification Cert_LMP(KTW)_20180221.docx

CONTENTS

1 INTRODUCTION 1
1.1 This Assignment 1
1.2 Background 1
1.3 The Project 1
1.4 Scope of the Landscape Mitigation Plan of the Project 4

2 Detailed Tree Preservation, Transplanting and Felling Proposals 4
2.1 Tree Preservation, Transplanting and Felling Proposals 4

3 Landscape Works to be constructed under Contract No. HY/2014/07 4
3.1 Landscape Design for Contract No. HY/2014/07 4

4 Measures for Lighting Control 5
4.1 Mitigation Measures during Construction Phase 5

5 Mitigation Measures 5

6 Conclusions 14

APPENDICES

Appendix A **General Layout for the Project**
Appendix B **Tree Treatment Plans and Tree Treatment Schedules**
Appendix C **Hoarding Layout Plans**
Appendix D **Method Statement for Tree Protection**
Appendix E **Method Statement for Tree Transplant**

1 INTRODUCTION

1.1 This Assignment

1.1.1. Gammon Construction Limited (GCL) was commissioned by the Highways Department (HyD) of the Government of the Hong Kong Special Administrative Region (HKSARG) as the Civil Contractor for Works Contract No. HY/2014/07 – Central Kowloon Route – Kai Tak West (hereafter referred to as "the Project").

1.1.2. As per Environmental Permit (EP-457/2013/C) Condition 2.8, a Landscape Mitigation Plan (This Assignment) is required before the commencement of the Project.

1.2 Background

1.2.1 Central Kowloon Route (CKR) is a proposed dual 3-lane trunk road across central Kowloon linking the West Kowloon in the west and the proposed Kai Tak Development (KTD) in the east. The CKR will be about 4.7km long with an underground tunnel section of about 3.9km long, in particular, there will be an underwater tunnel of about 370m long in Kowloon Bay to the north of the To Kwa Wan Typhoon Shelter. It will connect the West Kowloon Highway at Yau Ma Tei Interchange with the road network at Kowloon Bay and the future Trunk Road T2 at KTD which will connect to the future Tseung Kwan O – Lam Tin Tunnel (TKO-LTT) and Cross Bay Link (CBL). CKR, Trunk Road T2 and TKO-LTT will form a strategic highway link, namely Route 6, connecting West Kowloon and Tseung Kwan O.

1.2.2 The Environmental Impact Assessment (EIA) Report for CKR (Register No.: AEIAR-171/2013) was approved on 11 July 2013 under the Environmental Impact Assessment Ordinance (EIAO). Following the approval of the EIA Report, an Environmental Permit (EP) was granted on 9 August 2013 (EP No.: EP- 457/2013) for the construction and operation. Variations of EP (VEP) were applied after the issuance of the EP. The latest VEP was applied on 20 December 2016, and the corresponding latest version of EP (EP-457/2013/C) was issued by the Director of Environmental Protection (DEP) on 16 January 2017.

1.2.3 The construction of the CKR is divided into different civil construction works contracts and Works Contract HY/2014/07 Central Kowloon Route – Kai Tak West covers construction of cut-and-cover tunnel and underwater tunnel between drill-and-blast / drill-and-break tunnel section at Ma Tau Kok and the depressed road of Central Kowloon Route within Kai Tak Development, as well as reconstruction of seawall at Ma Tau Kok public pier and sloping seawall at the Former Kai Tak Airport Runway; construction of underground tunnel ventilation adit of Central Kowloon Route and depressed road underpass of Central Kowloon Route connecting with road of Central Kowloon Route within Kai Tak Development, and associated works.

1.3 The Project

1.3.1. The scope of Works Contract HY/2014/07 Central Kowloon Route – Kai Tak West comprises the following:

(1) Construction of approximately 160 m long cut-and-cover tunnel and 370 m long underwater tunnel between drill-and- blast/ drill-and-break

tunnel section at Ma Tau Kok under another contract and the depressed road of Central Kowloon Route within Kai Tak Development under this Contract;

(2) Reconstruction of the seawall at Ma Tau Kok public pier, and the sloping seawall at the Former Kai Tak Airport Runway;

(3) Construction of approximately 125 m long depressed road and 200 m long underpass of Central Kowloon Route connecting with future road sections under another contract of Central Kowloon Route within Kai Tak Development;

(4) Construction of approximately 360 m long underground tunnel ventilation adit of Central Kowloon Route;

(5) Detailed design and construction of access shaft structures including the access shaft, access platform and associated noise enclosure at Ma Tau Kok for facilitating the access and use by another contractor for the construction of drill-and- blast/ drill-and-break tunnel section of Central Kowloon Route under another contract;

(6) Detailed design and construction of the covered pedestrian walkway for leading to the landing steps facilities at King Wan Street Leisure Path seawall in front of the To Kwa Wan Vehicle Examination Centre;

(7) Design, construction, modification, subsequent removal of staged temporary reclamation and reinstatement of seabed, when required in facilitating the works related to the construction of underwater tunnel in compliance with all statutory requirements and the requirements specified under the Contract;

(8) Reconstruction of Kowloon City Ferry Pier Public Transport Interchange (PTI), including but not limited to the following:-

(i) Temporary relocation and re-arrangement of the existing Kowloon City Ferry Pier PTI including but not limited to design, construction, maintenance, modification, demolition and removal of bus shelters and planters, and subsequent removal of any temporary public transport interchange to facilitate the execution of the works under this Contract and other related construction activities;

(i) To implement and maintain all the necessary provision, including temporary traffic management measures, for the operation of Kowloon City Ferry Pier PTI throughout the construction period; and

(ii) Re-construction of the Kowloon City Ferry Pier PTI;

(9) Demolition and removal of the landside portion of the existing disused Kowloon City Vehicular Ferry Pier including but not limited to the following:-

(i) Associated building structures;

(ii) Ramps;

(10) Reprovisioning of the Kowloon City Ferry Pier Public Transport Interchange metered parking facilities;

(11) Demolition and subsequent re-provisioning of Ma Tau Kok Public Pier, including but not limited to the following:-

(i) Construction, and subsequent handover of the landing steps facilities serving as part of the re-provisioned Ma Tau Kok Public Pier at King Wan Street Leisure Path seawall in front of the To Kwa Wan Vehicle Examination Centre with all necessary modification and reinstatement works at existing seawalls, footpath, etc; and

(ii) Provision of Electrical and Mechanical (E&M) facilities for the operation of the re-provisioned pier;

(12) Modification of the existing Kowloon City Ferry Pier, which has been categorised as a Grade 2 Historic Building in accordance with the grading system under Antiquities Advisory Board on 16 September 2014, to accommodate a pontoon system to facilitate the ferry operator's normal ferry services including provision of a suitable pontoon system throughout Stage 2 temporary reclamation works and necessary internal re-arrangement for passenger flow. The modification works mainly involve rearrangement of interior fencing and gates to accommodate the changeover arrangement from the pier to the pontoon system which is illustrated in "Case 3: Tentatively Proposed Operation at Pontoon during Stage 2 Temporary Reclamation" of Appendix B37(d) of this Specification;

(13) Associated roadworks including footpath and drainage, sewerage, fresh and salt watermains, street lighting, traffic aids, electrical and mechanical works and utility diversion works;

(14) Construction of civil engineering provisions and coordination with future CKR - Tunnel E&M contractor for installation of tunnel E&M and Traffic Control and Surveillance System (TCSS) equipment;

(15) Implementation of all necessary Environmental Monitoring and Audit (EM&A) measures as required under relevant environmental permit; and;

(16) Other works which are shown on the Drawings including ground investigation works (both land and marine) or specified or which may be

ordered in accordance with the Contract.

1.4 Scope of the Landscape Mitigation Plan of the Project

1.4.1. This Landscape Mitigation Plan has been prepared in accordance with Condition 2.8 of the Environmental Permit No. EP-457/2013/C. The Landscape Mitigation Plan for the entire Project shall describe the landscape and visual mitigation measures in accordance with EIA Report (Register No.: AEIAR-171/2013).

1.4.2. This Landscape Mitigation Plan covers the works to be constructed under Contract No. HY/2014/07 of the Project. The General Layout for Contract No. HY/2014/07 is illustrated in **Appendix A**. Under this Project, there are no buildings to be constructed and the streetscape elements are those for road safety purpose using the standard details of HyD.

1.4.3. Following this introductory section, the remainder of the Report is arranged as follows:

- Section 2 describes the detailed tree preservation, transplanting and felling proposals;
- Section 3 describes the landscape works to be constructed under Contract No. HY/2014/07;
- Section 4 describes the measures for lighting control to be implemented in Contract No. HY/2014/07;
- Section 5 describes the mitigation measures to be implemented under Contract No. HY/2014/07;
- Section 6 summarizes the findings.

2 Detailed Tree Preservation, Transplanting and Felling Proposals

2.1 Tree Preservation, Transplanting and Felling Proposals

2.1.1. Tree Treatment Plans and Tree Treatment Schedules were provided in this Assignment and are attached in **Appendix B**.

2.1.2. The findings and recommended treatments to existing tress extracted for the Tree Treatment Plans of this Project is summarized as below:

- To transplant 8 numbers of trees;
- To fell 171 numbers of tress within the site boundary of the Project;
- To retain 37 numbers of trees

3 Landscape Works to be constructed under Contract No. HY/2014/07

3.1 Landscape Design for Contract No. HY/2014/07

3.1.1. Detailed landscape design for Central Kowloon Route is outside the scope of Contract No. HY/2014/07 and therefore will not be implemented by this Contract.

4 Measures for Lighting Control

4.1 Mitigation Measures during Construction Phase

4.1.1. Mitigation Measures for Lighting Control during Construction Phase proposed under the approved EIA Report (Agreement No. CE 43/2010) had been incorporated in the contract specification.

5 Mitigation Measures

5.1.1. The mitigation measures proposed in the approved EIA report are consolidated in **Table 5.1**. A summary of landscape and visual mitigation measures that are considered applicable to the Contract and will be adopted as far as practicable is included in Table 5.1.

5.1.2. With reference to Condition 2.8 of the Environmental Permit No. EP-457/2013/C, landscape and visual mitigation measures including lighting control form part of the mitigation measures are to be implemented in Contract No. HY/2014/07.

Table 5.1 Mitigation Measures to be implemented under this Plan

EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan
MM1	**Detailed Design - Landscape**. All works shall be carefully designed to minimize impacts on existing landscape resources and visually sensitive receivers, particularly those of high value or high sensitivity. For this purpose, the extent of the works area will be minimised and existing trees within the works area shall be avoided were practicable. Designs which ensure the construction time frame is kept to a practical minimum should also be considered.	Detailed Landscape of the whole project is out of the Works scope under the Contract No. HY/2014/07. Contract-specific tree treatment proposal has been specified in the Tree Treatment Plans and Tree Treatment Schedules as given in **Appendix B**.
MM2	**Detailed Design - Visual.** Tunnel portals and all structures above ground including noise barriers shall be sensitively designed with colour, texture and tonal quality being compatible with the existing urban context. The 'natural terrain' idea will be applied to the design of ventilation and administration buildings. For noise barriers/ enclosures, the colour of the structural frames and the frame of the glazing panels shall give a natural look and match with the colour of the adjacent buildings in the area. Designs which ensure the construction time frame is kept to a practical minimum should also be considered.	Detailed Visual Design of the whole project is out of the Works Scope under the Contract No. HY/2014/07. The Contractor will design the temporary noise enclosure for the Access Shaft at Ma Tau Kok in compliance with respective EIA recommendations, i.e. the colour of the structural frame and the frame of the glazing panels, giving a natural look and match with the colour of the adjacent building in the area.
MM3	**Good Site Management.** Large temporary stockpiles of excavated material shall be covered with unobtrusive sheeting to prevent dust and dirt spreading to adjacent landscape areas and vegetation, and to create a neat and tidy visual appearance. Construction plant and building material shall be orderly and carefully stored in order to create a neat and tidy visual appearance.	The Contractor will provide unobtrusive sheeting to cover the large temporary stockpiles of excavated material, preventing dust and dirt spreading to adjacent landscape areas and vegetation, and creating a neat and tidy visual appearance. The Contractor will orderly and carefully store the construction plant and building material in order to create a neat and tidy visual appearance

EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan
MM4	**Screen Hoarding.** Decorative screen hoarding should be erected to screen the public from the construction area. It should be designed to be compatible with the existing urban context.	Hoarding plans as specified under the Contract are given in **Appendix C**.
MM5	**Lighting Control during Construction.** All lighting in the construction site shall be carefully controlled to minimize light pollution and night-time glare to nearby residencies and GIC. The contractor shall consider other security measures, which shall minimize the visual impacts.	The Contractor will carefully control the lighting in the construction site to minimize light pollution and night-time glare to nearby residences and GIC.
MM6	**Erosion Control.** The potential for soil erosion shall be reduced by minimizing the extent of vegetation disturbance on site and by providing a protective cover over newly exposed soil.	The Contractor shall only carry out respective tree works as required in the Tree Treatment Plans and Schedules given in **Appendix D** and provide suitable protective cover over newly exposed soil.
MM7	**Not used**	
MM8	**Tree Protection & Preservation**. Exiting trees to be retained within the Project Site should be carefully protected during construction. Note no Registered Old and Valuable Trees are located within Works Area and none of the affected trees are LCSD champion Trees or Registered Old and Valuable Trees, neither are they rare or endangered species, but mainly common exotic trees. Tree protection measures will be detailed at the Tree Removal Application stage and plans submitted to the relevant Government Department for approval in due course in accordance with ETWB TC no. 3/2006. Care should be taken to preserve as many trees as possible by avoidance (also see MM1).	The Method Statement of the Tree Protection & Preservation proposed for the Contract is given in **Appendix D**.

EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan
MM9	**Tree Transplantation**. For trees unavoidably affected by the Project that have to be removed, where practical transplantation will be chosen as the top priority method of removal. If this is not possible or practical (e.g. the tree is too large or has a low survival rate) compensatory planting will be provided for trees unavoidably felled (See MM10). For trees unavoidably affected by the Project works that are transplanted, transplantation must be carried out in accordance with ETWBTC 2/2004 and 3/2006. According to the 2010 Tree Survey, of the 2812 trees surveyed, approximately 163 trees affected by the Project are suitable for transplantation and onsite planting sites were identified for these trees. Due to Project re-alignment, other projects development (e.g. XRL) and the updated Tree Survey due to be carried out in mid 2013, however, the numbers of trees affected by the Project has been reduced, particularly in the West Portion and therefore the number of trees that will require transplanting may reduce also. Since final numbers have not been confirmed, a worst case scenario of approximately 160 trees requiring transplantation is estimated.	There are 8 numbers of trees (spp. *Phoenix roebelenii*) under the Contract to be transplanted to the CKR project area subject to the Engineer's Instruction. The Method Statement of Tree Transplant proposed for the Contract is given in **Appendix E**.
MM10	**Compensatory Planting**. For trees unavoidably affected by the Project that have to be removed, where practical transplantation will be chosen as the top priority method of removal but if this is not possible or practical (e.g. the tree is too large or has a low survival rate) compensatory planting will be provided for trees unavoidably felled. All felled trees shall be compensated for by planting trees to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006. Compensatory tree planting may be incorporated into public open spaces and along roadside amenity areas affected by the construction works and	The landscape planting including compensatory planting work is out of the Works Scope under the Contract No. HY/2014/07.

EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan
	therefore be part of the wider planting plans. According to the 2010 Tree Survey, 2,401heavy standard trees with 80mm DBH trees would have been required to compensate for the loss of about 1141 trees with 192,030mm total DBH that would have been felled by the Project. This allowed for 1:1 DBH compenstation ratio and 1:2 quantity compensation ratio. If 100mm (rather than 80mm) DBH heavy standard trees are used for compensatory planting, just 1,921 trees would be required for compensatory planting rather than 2,401. Due to Project re-alignment, other projects development (e.g. XRL) and the updated Tree Survey due to be carried out in mid 2013, the numbers of trees affected by the Project has been reduced, particularly in the West Portion. Although the final treatment of trees numbers will be subject to the final Tree Felling Application, it is now estimated that approximately 300 trees that were previously due to be felled, will no longer be affected by the Project.. Assuming a 5 m centre to centre spacing for planting 100mm DBH heavy standard trees, an approximate area of 21 m^2 is required for each compensatory tree. It has been estimated that each area is able to absorb the following number of compensatory trees and transplanting trees:East Portion - 505 in KTD and 75 in Ma Tau Kok; Central Portion area – 26; West Portion – 765 i.e. TOTAL 1371. In the worst case scenario (using 2010 Tree Survey Report felling number) this approximate calculation estimates it will be necessary to agree additional receptor sites for approximately 550 compensatory trees, but given the reduction in felled trees in the West Portion, this number is likely to reduce.	

EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan
MM11	**Screen planting.** Tall screen/buffer trees, shrubs and climbers should be planted, in so far as is possible, to soften and screen proposed structures such as roads and central strip, vertical edges and buildings and to enhance streetscape greening effect where appropriate. Indiscriminate selection of tree species for screening should be avoided and the principle of 'right tree for the right place' followed. This detail will be provided at the Detailed Design stage. This measure may additionally form part of the compensatory planting and will improve and create a pleasant pedestrian environment.	The work is out of the Works Scope under the Contract No. HY/2014/07.
MM12	**Green Roof.** Roof greening will be established on ventilation and administration buildings to reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to VSRs at high levels.	The construction of the ventilation and administration buildings is out of the Works Scope under the Contract No. HY/2014/07.
MM13	**Reinstatement.** All works areas, excavated areas and disturbed areas for tunnel construction and temporary road diversion or any other proposed works shall be reinstated to former conditions or better, with reasonable landscape treatment and to the satisfaction of the relevant Government departments. (Specific mitigation for disturbance to public open space is detailed separately under MM14).	The Contractors will reinstate all works areas, excavated areas and disturbed areas for tunnel construction and temporary road diversion or any other proposed work to former conditions or better with reasonable landscape treatment and to the satisfaction of the relevant Government departments.
MM14	**Re-provising of Public Open Space.** All areas of public open space affected by the Project will be re-provisioned either at the same location following the completion of temporary works, or at a separate site, as agreed with relevant Government departments. Open space should be re-provisioned in an enhanced manner. Under the proposed development, approximately 980 m^2 of Public Square Street Playground (LR1.1a), 1,400m^2 of Shanghai Street / Market Street Playground (LR1.1b), 310m^2 of the Bazaar (LR1.1c), and 365m^2 of Temple Street / Kansu Street Temporary Rest Garden (LR1.1d) will be temporarily closed and affected during the construction stage. Following construction, the same areas affected will be re-provisioned in situ for the Public Square	The mentioned Public Open Space Landscape Resources is out of the Works Scope under the Contract No. HY/204/07.

<table>
<tr><th>EIA Id No.</th><th>EIA Recommendations of Landscape and Visual Mitigation Measure</th><th>Contractor's proposed Landscape Mitigation Plan</th></tr>
<tr><td></td><td>Street Playground (LR1.1a) and Temple Street / Kansu Street Temporary Rest Garden (LR1.1d). Similarly the same area of the Shanghai Street / Market Street Playground (LR1.1b) and of the Bazaar (LR1.1c) will be re-provisioned/ reinstated. The Yau Ma Tei Jade market (LR1.1e Jade Hawker Bazaar) will be demolished during construction, re-sited to a temporary location and ultimately reinstated back at its original location, underneath the alignment. In addition some new open space areas are proposed; the original Yau Ma Tei Specialist Clinic Extension Site and Proposed Yau Mau Tei Landscape Deck are both new public open spaces, such that overall more public open space will be re-provisioned/ reinstated than is taken during construction.

Summary of Public Open Space Landscape Resource Affected

<table>
<tr><th>ID</th><th>Landscape Resource Affected</th><th>Approx. Existing Area</th><th>Approx. Area taken during Construction</th><th>Approx. Area to be re-provisioned / reinstated</th></tr>
<tr><td>LR1.1a</td><td>Public Square Street Playground</td><td>980 m^2</td><td>980 m^2</td><td>980 m^2</td></tr>
<tr><td>LR1.1b</td><td>Shanghai Street / Market Street Playground</td><td>1,400 m^2</td><td>1,400 m^2</td><td>1,400 m^2</td></tr>
<tr><td>LR1.1c</td><td>Jade Hawker Bazaar (West)</td><td>310 m^2</td><td>310 m^2</td><td>310 m^2</td></tr>
<tr><td>LR1.1d</td><td>Temple Street / Kansu Street Temporary Rest Garden (Currently zoned as G/IC)</td><td>365 m^2</td><td>365 m^2</td><td>365 m^2</td></tr>
</table>
</td><td></td></tr>
</table>

EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan

LR1.1e	Ya Ma Tei Jade Market/ Jade Hawker Bazaar	1,395 m^2	1,395 m^2	1,395 m^2

Summary of Proposed New Open Space

Item no.	Proposed Open Space	Approx. Area
1	Proposed open space at the original Yau Ma Tei Specialist Clinic Extension site	710 m^2
2	Proposed Yau Ma Tei Landscape Deck	31,000 m^2
Total		**31,710 m^2**

MM15

Landscape Enhancement. Implement a comprehensive landscape plan to maximize the greening opportunity and create a unique landscape for the project to blend in with the surrounding, including in re-provisioned areas. In particular,:

- landscape enhancement of re-provisioned Public Transport Interchange;
- landscape deck on tunnel portals;
- viaduct planters for trailer planting,
- vertical greening of piers and walls with climbers or trailer planting;
- roadside planting i.e. planting along central dividers and on road

The overall landscape design and construction is out of the Works Scope under the Contract No. HY/2014/07.

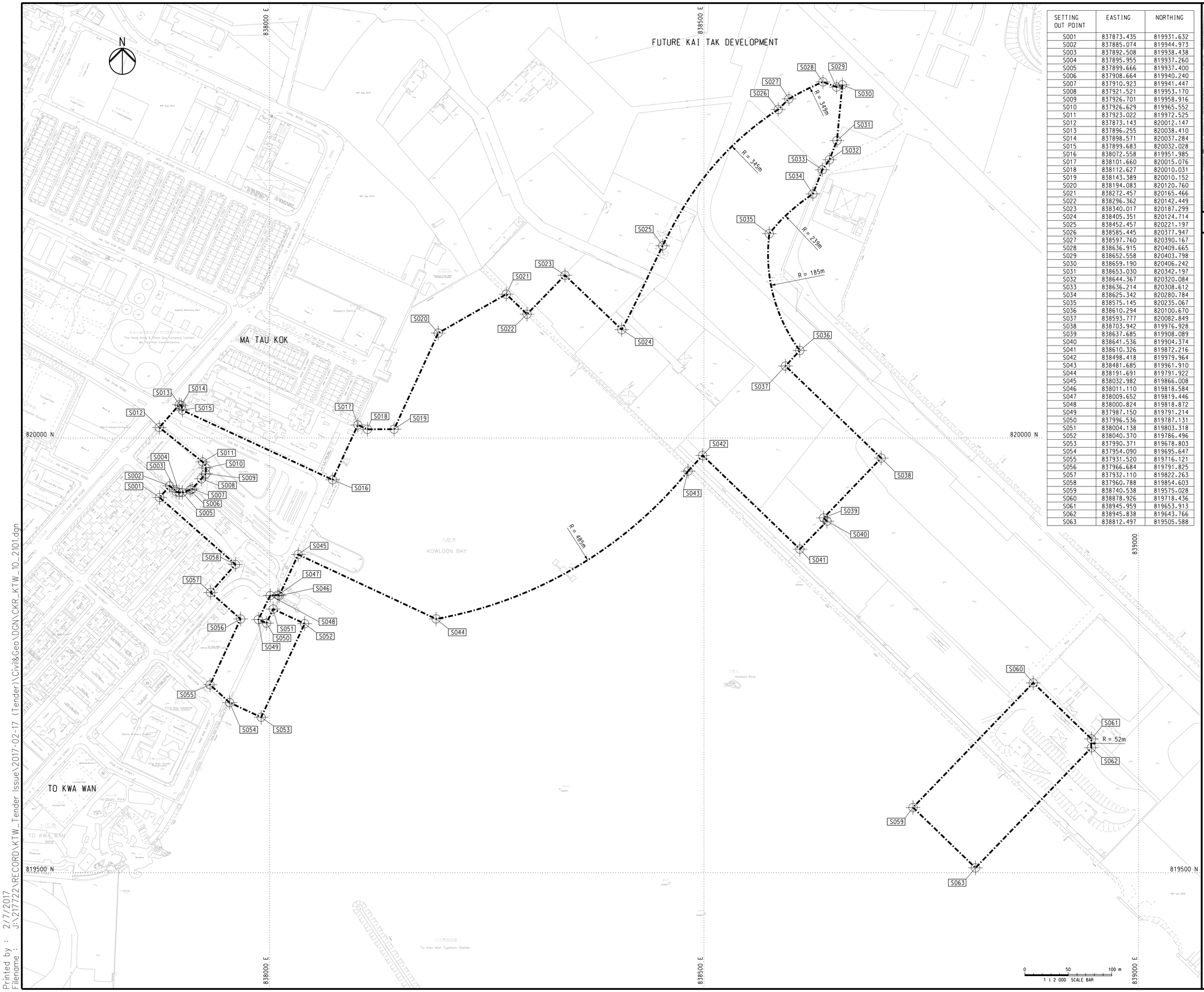
EIA Id No.	EIA Recommendations of Landscape and Visual Mitigation Measure	Contractor's proposed Landscape Mitigation Plan
	islands e.g. in the middle of roundabouts. (Roadside planting i.e. at the road edge and not in the central divider or road island, and vertical greening may be considered part of Screen Planting) Purpose-built maintenance access without temporary traffic arrangement must be provided and detailed design of landscape decks and planting, including details of maintenance access locations, will be sent to maintenance and management parties for endorsement and ensures these mitigation measures are feasible.	
MM16	**Lighting Control during Operation.** Roadside lighting and that at the ventilation and administration buildings should be controlled so as to minimize the visual impacts at night. For the enclosed noise barriers, lighting will be provided by two rows of continuous fluorescent lights mounted along the ceiling of the noise enclosure so drivers see continuous lines on the ceiling..	The operation of the ventilation and administration building is out of the Works Scope under the Contract No. HY/2014/07

6 Conclusions

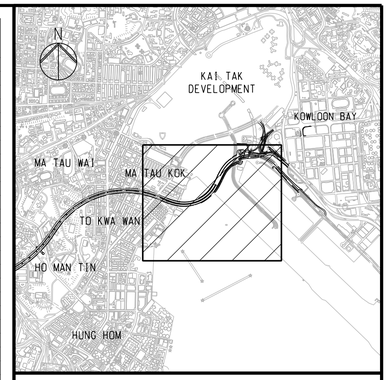
6.1.1. This Landscape and Visual Plan for Contract No. HY/2014/07 has been prepared based on the latest engineering information and the approved EIA Report as far as practicable.

APPENDIX A

GENERAL LAYOUT FOR THE PROJECT



SETTING OUT POINT	EASTING	NORTHING
S001	837873.435	819931.632
S002	837885.074	819944.973
S003	837892.508	819938.438
S004	837895.955	819937.260
S005	837899.666	819937.400
S006	837908.664	819940.240
S007	837910.923	819941.447
S008	837921.521	819953.170
S009	837926.701	819958.916
S010	837926.629	819965.552
S011	837923.022	819972.525
S012	837873.143	820012.147
S013	837896.255	820038.410
S014	837898.571	820037.284
S015	837899.683	820032.028
S016	838072.558	819951.985
S017	838101.660	820015.076
S018	838112.627	820010.031
S019	838143.389	820010.152
S020	838194.083	820120.760
S021	838272.457	820165.466
S022	838296.362	820142.449
S023	838340.017	820187.299
S024	838405.351	820124.714
S025	838452.457	820221.197
S026	838585.445	820377.947
S027	838597.760	820390.167
S028	838636.915	820409.665
S029	838652.558	820403.798
S030	838659.190	820406.242
S031	838653.030	820342.197
S032	838644.367	820320.084
S033	838636.214	820308.612
S034	838625.342	820280.784
S035	838575.145	820235.067
S036	838610.294	820100.670
S037	838593.777	820082.849
S038	838703.942	819976.928
S039	838637.685	819908.089
S040	838641.536	819904.374
S041	838610.326	819872.216
S042	838498.418	819979.964
S043	838481.685	819961.910
S044	838191.691	819791.922
S045	838032.982	819866.008
S046	838011.110	819818.584
S047	838009.652	819819.446
S048	838000.824	819818.872
S049	837987.150	819791.214
S050	837996.536	819787.131
S051	838004.138	819803.318
S052	838040.370	819786.496
S053	837990.371	819678.803
S054	837954.090	819695.647
S055	837931.520	819716.121
S056	837966.684	819791.825
S057	837932.110	819822.263
S058	837960.788	819854.603
S059	838740.538	819575.028
S060	838878.926	819718.436
S061	838945.959	819653.913
S062	838945.838	819643.766
S063	838812.497	819505.588



KEY PLAN

LEGEND

WORKS LIMIT

S001 SETTING OUT POINT

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱

Contract No. HY/2014/07

Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱

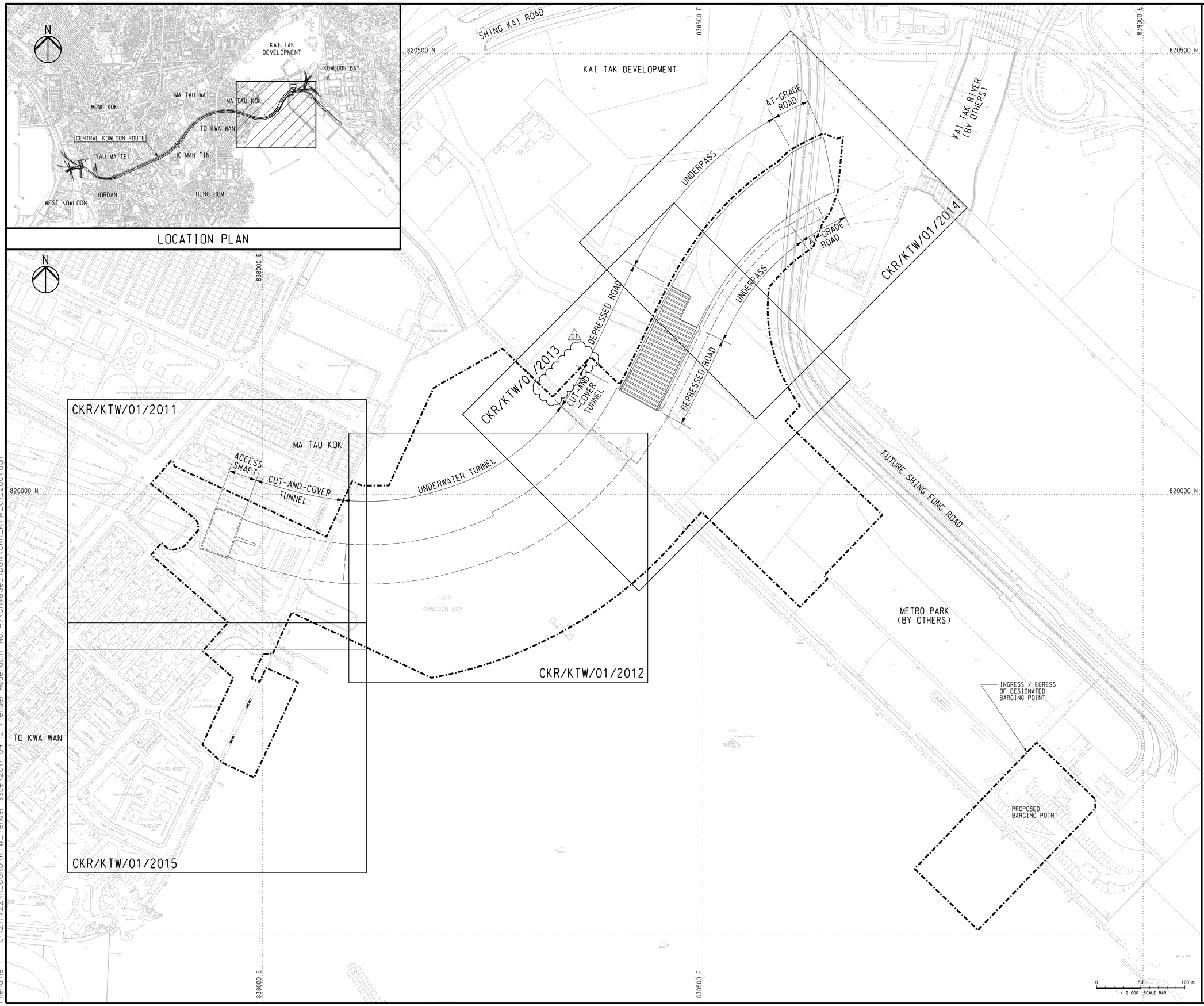
LIMIT OF SITE BOUNDARY AND SETTING OUT PLAN

Drawing no. 圖紙編號	CKR/KTW/10/2101	Rev. 修訂	00
Drawn By 繪圖	RY	Checked By 覆核	HL
Approved By 批准人	EC		
Scale 比例	1:2000 @ A1	Status 階段	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_10_2101.dgn

LOCATION PLAN



NOTES

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. CKR/KTW/01/2011 TO 2015.

LEGEND

WORKS LIMIT

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 4	JL	04/17
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
OVERALL LAYOUT PLAN

Drawing no. 圖紙編號 CKR/KTW/01/2001 Rev. 修訂 01

Drawn By 繪圖 RY | Checked By 覆核 HL | Approved By 批准人 EC

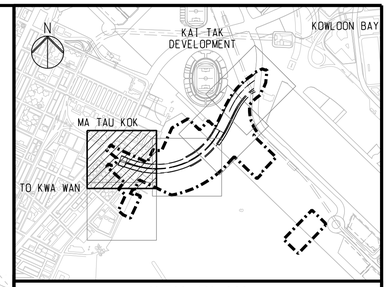
Scale 比例 1:2000 @ A1 | Status 階段 TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_01_2001.dgn

NOTES

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. CKR/KTW/01/2012 TO 2015.
2. ALL LEVELS ARE IN METRES AND REFER TO PRINCIPAL DATUM.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
4. ALL COORDINATES ARE IN ACCORDANCE WITH HK (1980) COORDINATES SYSTEM.
5. DETAILS INCLUDING DIMENSIONS, LEVELS, INFERRED BED ROCK LEVELS, DESCRIPTIONS, LOCATIONS, ETC. GIVEN FOR EXISTING ROADS, FOOTPATH, BRIDGE STRUCTURES ARE INDICATIVE ONLY. THE CONTRACTOR SHALL VERIFY THE ACTUAL EXISTING DETAILS ON SITE.



KEY PLAN

LEGEND

- WORKS LIMIT
- EXTENT OF STAGE 1 TEMPORARY RECLAMATION
- EXTENT OF STAGE 2 TEMPORARY RECLAMATION

MATCH LINE
FOR CONTINUATION
SEE DRG CKR/KTW/01/2012

ACCESS SHAFT STRUCTURE

EXISTING HKCG'S NAPHTHA PIER AND THE ASSOCIATED NAVIGATION CHANNEL TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD

EXISTING OUTFALL TO BE TEMPORARY DIVERTED FOR STAGE 2 TEMPORARY RECLAMATION AND THEREAFTER BE REINSTATED AFTER CONSTRUCTION OF TUNNEL

MA TAU KOK PUBLIC PIER TO BE DEMOLISHED AND RECONSTRUCTED AFTER COMMISSIONING OF NEW LANDING STEP FACILITIES

EXISTING GRAND WATERFRONT VEHICULAR INGRESS/EGRESS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD

CUT-AND-COVER TUNNEL

UNDERWATER TUNNEL

EXISTING EMERGENCY VEHICULAR ACCESS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD

CKR EASTBOUND TUNNEL

EXISTING PLANTER TO BE DEMOLISHED

CKR WESTBOUND TUNNEL

EXISTING FEE PAYING CAR PARK AREA TO BE USED FOR REPROVISIONING OF THE EXISTING METERED PARKING FACILITIES

EXISTING FOOTPATH TO BE REPROVISIONED AFTER CONSTRUCTION OF THE CKR TUNNEL AS PER DRAWINGS IN CKR/KTW/19 SERIES

RECONSTRUCTION OF EXISTING SEA WALL AT MA TAU KOK PUBLIC PIER

TWO STOREY REINFORCED CONCRETE BUILDING TO BE DEMOLISHED

LAND SIDE OF DISUSED KOWLOON CITY VEHICULAR FERRY PIER TO BE DEMOLISHED

TEMPORARY KMB KIOSKS TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD

EXISTING PUBLIC LATRINE TO BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD

MATCH LINE
FOR CONTINUATION
SEE DRG CKR/KTW/01/2015

0 5 10 15 20 25 m
1 : 500 SCALE BAR

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 4	JL	04/17
00	ISSUE FOR TENDER	JL	01/17

ARUP
Mott MacDonald
Joint Venture

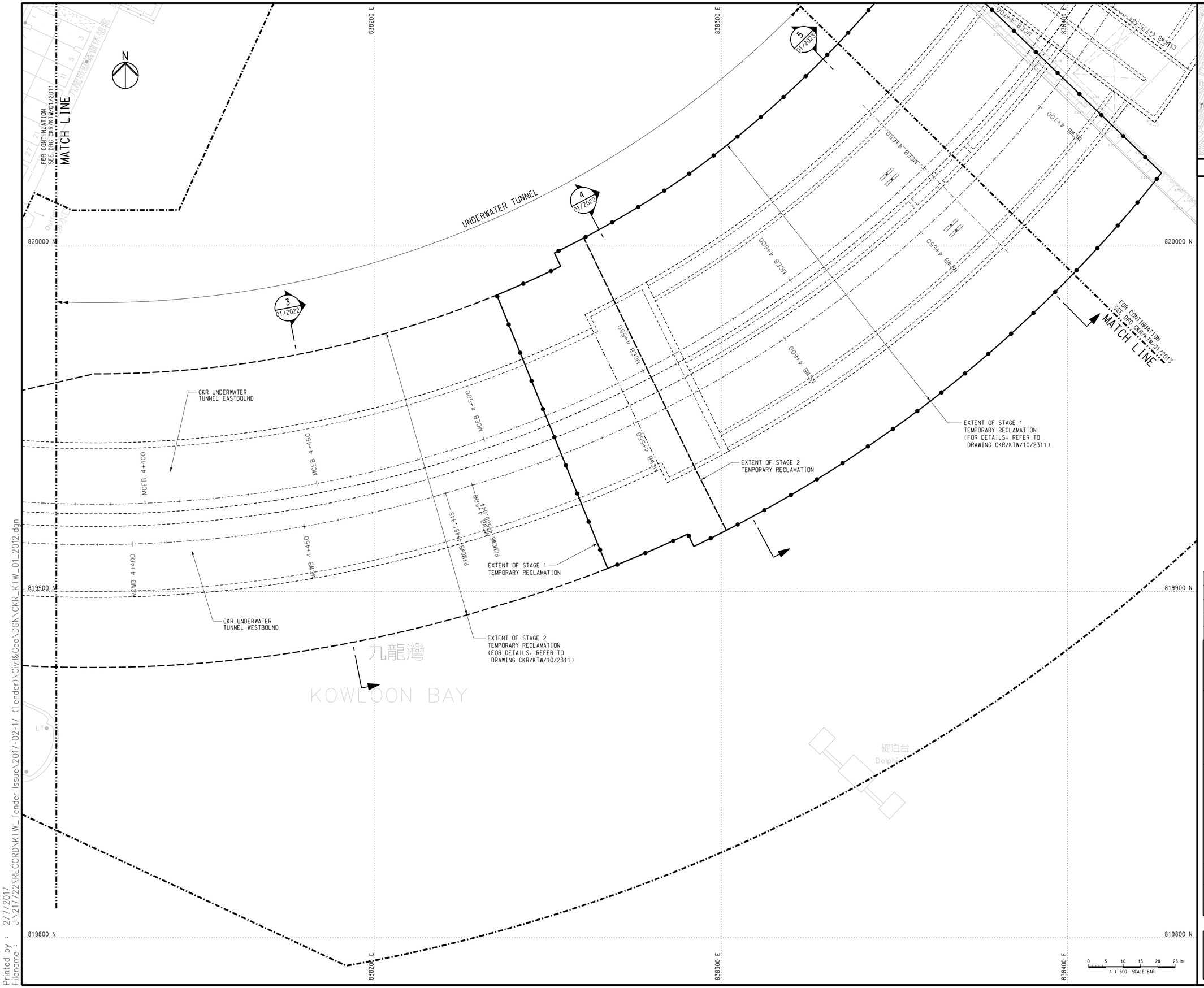
Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

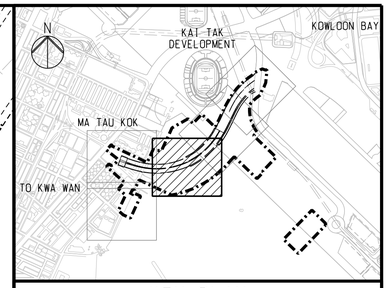
Drawing title 圖紙名稱
GENERAL LAYOUT PLAN
SHEET 1

Drawing no. 圖紙編號	CKR/KTW/01/2011	Rev. 修訂	01
Drawn By 繪圖	RY	Checked By 覆核	HL
Approved By 批准人	EC		
Scale 比例	1:500 @ A1	Status 階段	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_01_2011.dgn





KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. CKR/KTW/01/2011.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/01/2011 AND 2013 TO 2015.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱

Contract No. HY/2014/07

Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱

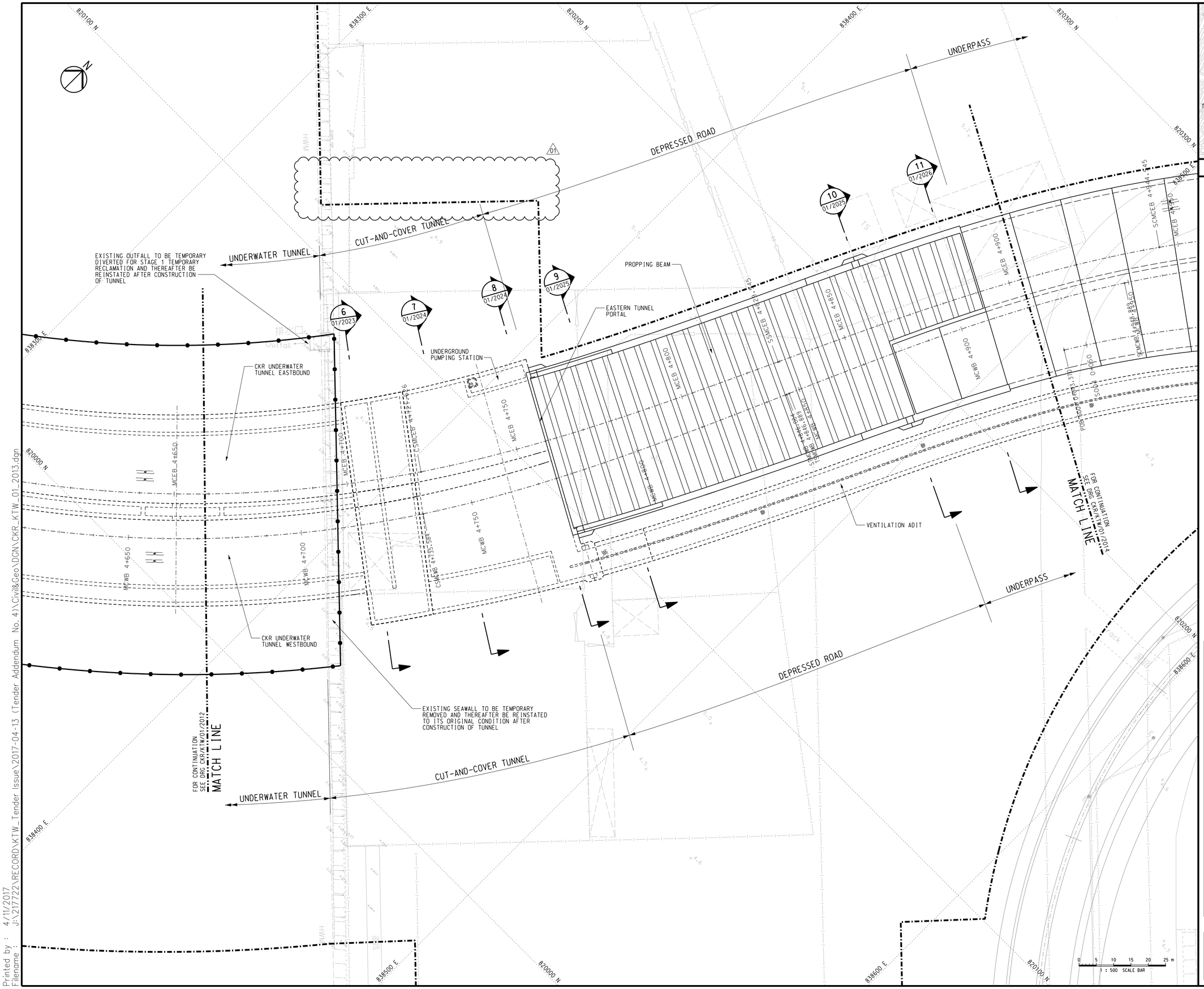
GENERAL LAYOUT PLAN

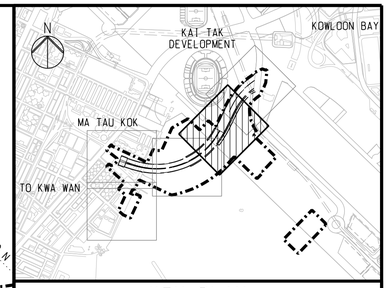
SHEET 2

Drawing no. 圖紙編號	CKR/KTW/01/2012	Rev. 修訂	00
Drawn By 繪圖	RY	Checked By 覆核	HL
Approved By 批准人	EC		
Scale 比例	1:500 @ A1	Status 階段	TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_01_2012.dgn





KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. CKR/KTW/01/2011.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/01/2011, 2012, 2014 AND 2015.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 4	JL	04/17
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱

Contract No. HY/2014/07

Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱

GENERAL LAYOUT PLAN

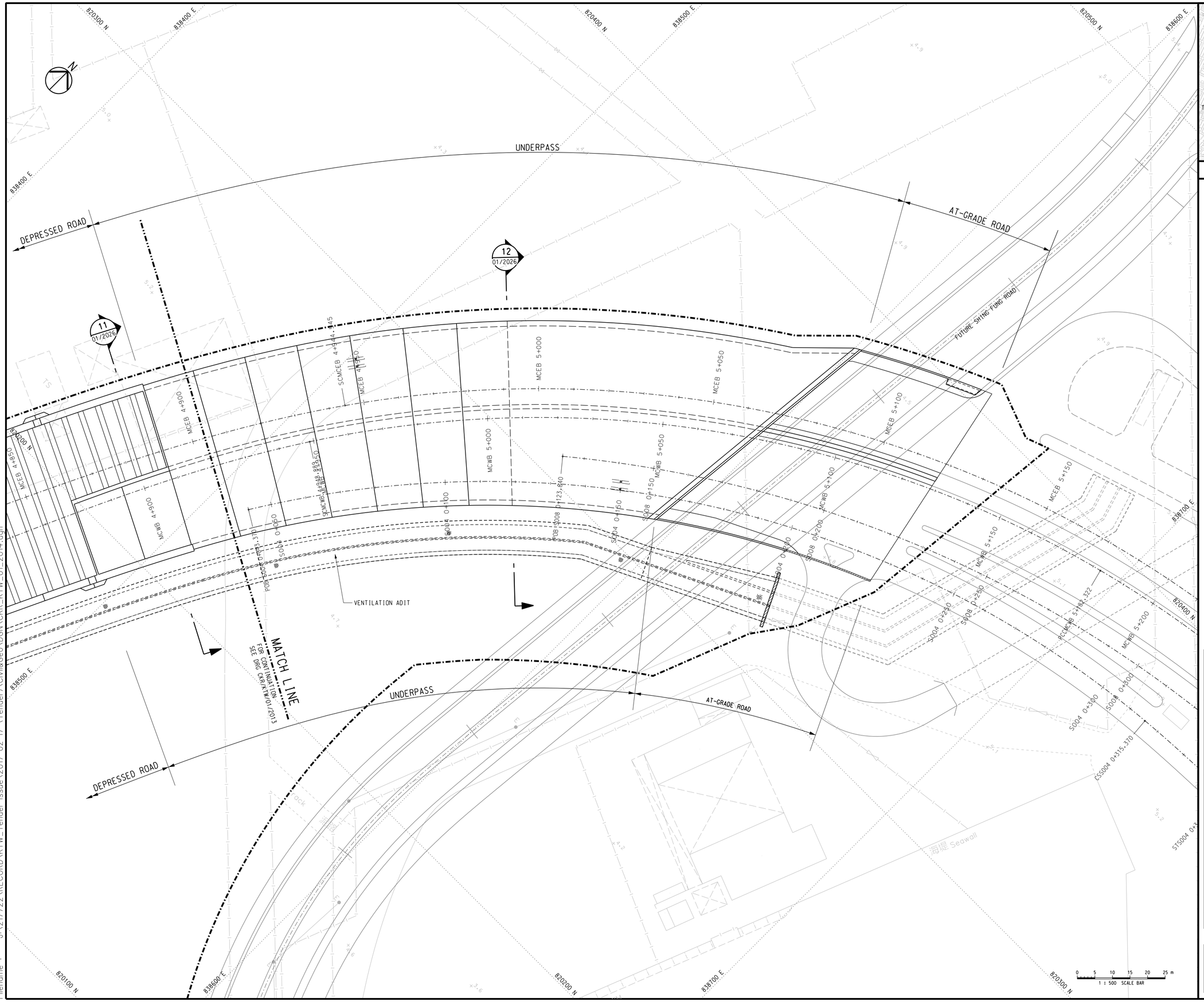
SHEET 3

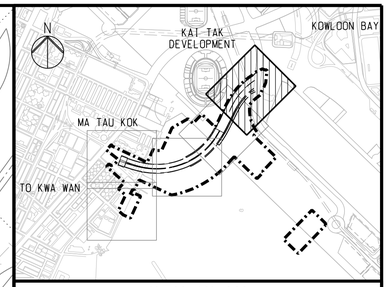
Drawing no. 圖紙編號	CKR/KTW/01/2013	Rev. 修訂	01
Drawn By 繪圖	RY	Checked By 覆核	HL
Approved By 批准人	EC		
Scale 比例	1:500 @ A1	Status 階段	TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

0 5 10 15 20 25 m
1 : 500 SCALE BAR

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_01_2013.dgn





KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. CKR/KTW/01/2011.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/01/2011-2013 AND 2015.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
GENERAL LAYOUT PLAN
SHEET 4

Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/01/2014	00

Drawn By 繪圖	Checked By 覆核	Approved By 批准人
RY	HL	EC

Scale 比例	Status 階段
1:500 @ A1	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_01_2014.dgn

FOR CONTINUATION
SEE DRG CKR/KTW/01/2011

MATCH LINE

MATCH LINE
FOR CONTINUATION
SEE DRG CKR/KTW/01/2012

LANDSIDE OF DISUSED
KOWLOON CITY VEHICULAR
FERRY PIER TO BE DEMOLISHED

EXISTING GRADE 2 MARINE SIDE DISUSED
KOWLOON CITY VEHICULAR FERRY PIER
TO BE MONITORED AS PER DRAWING
CKR/KTW/22/2011

OPERATION OF EXISTING
UNDERGROUND PUMP HOUSE
(PM P1027) TO BE MAINTAINED
THROUGHOUT THE CONSTRUCTION
PERIOD

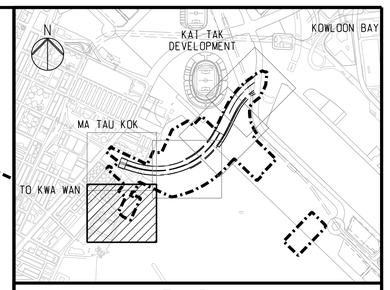
EXISTING UNDERGROUND
PUMP HOUSE CHAIN LINK FENCE
TO BE MAINTAINED THROUGHOUT
THE CONSTRUCTION PERIOD

COVERED WALKWAY

NEW LANDING STEPS FACILITIES

837800 E
837900 E
838000 E
838100 E
819800 N
819700 N
819600 N

0 5 10 15 20 25 m
1 : 500 SCALE BAR



KEY PLAN

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. CKR/KTW/01/2011.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/01/2011 TO 2014.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱
GENERAL LAYOUT PLAN
SHEET 5

Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/01/2015	00

Drawn By 繪圖	Checked By 覆核	Approved By 批准人
RY	HL	EC

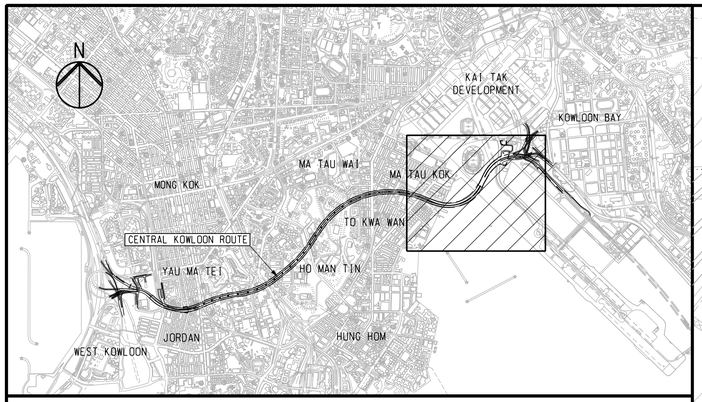
Scale 比例	Status 階段
1:500 @ A1	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

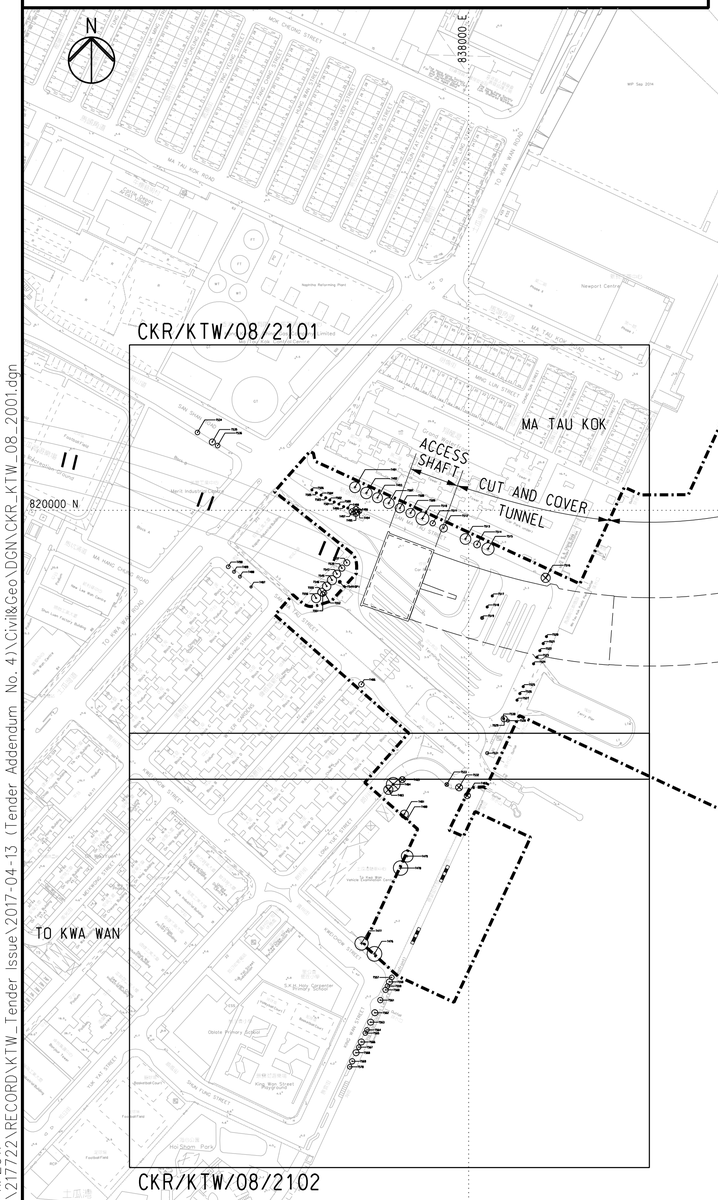
Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_01_2015.dgn

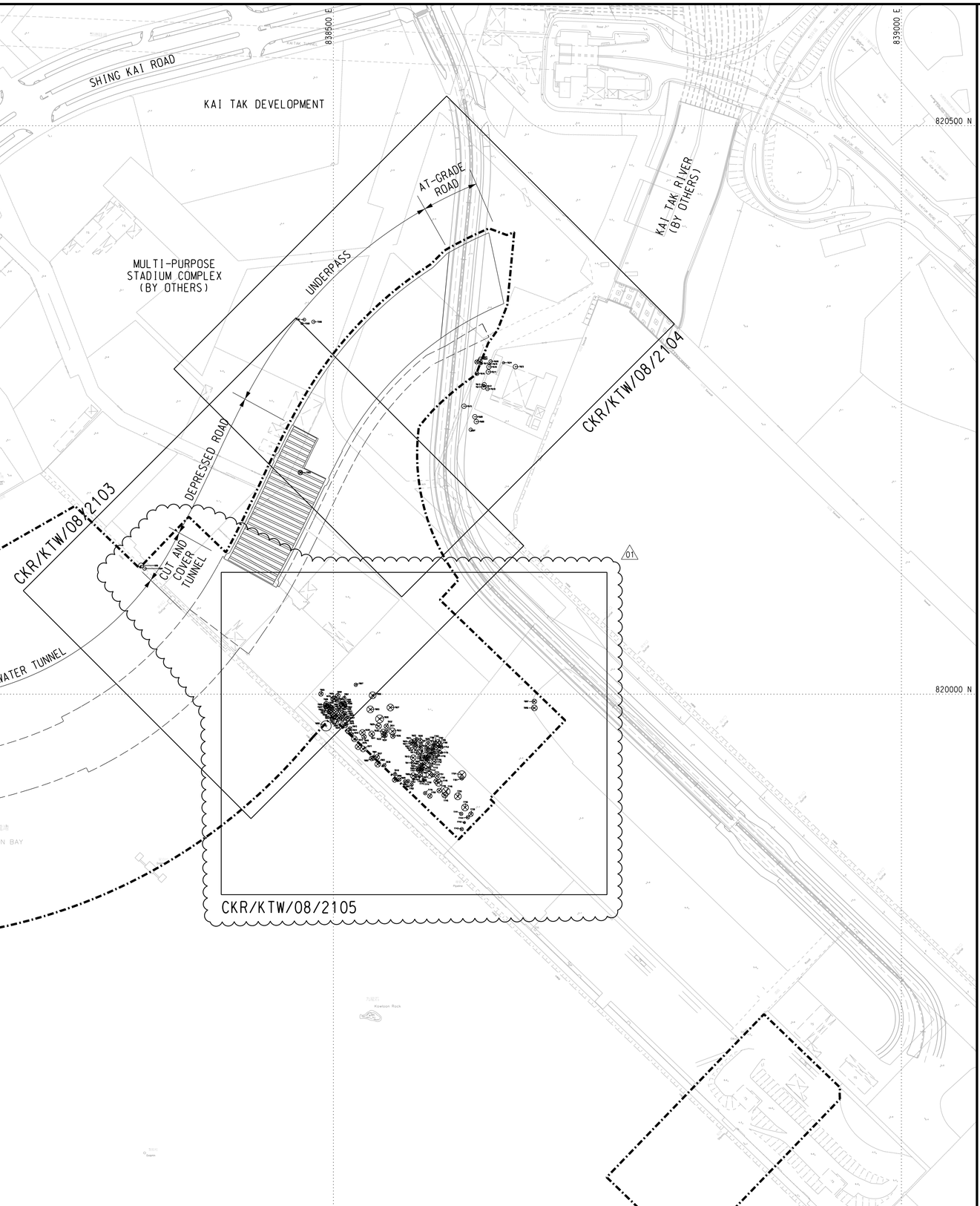
APPENDIX B

TREE TREATMENT PLANS & TREE TREATMENT SCHEDULES



LOCATION PLAN





NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2101 TO 2104.

LEGEND

WORKS LIMIT

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 4	EL	04/17
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

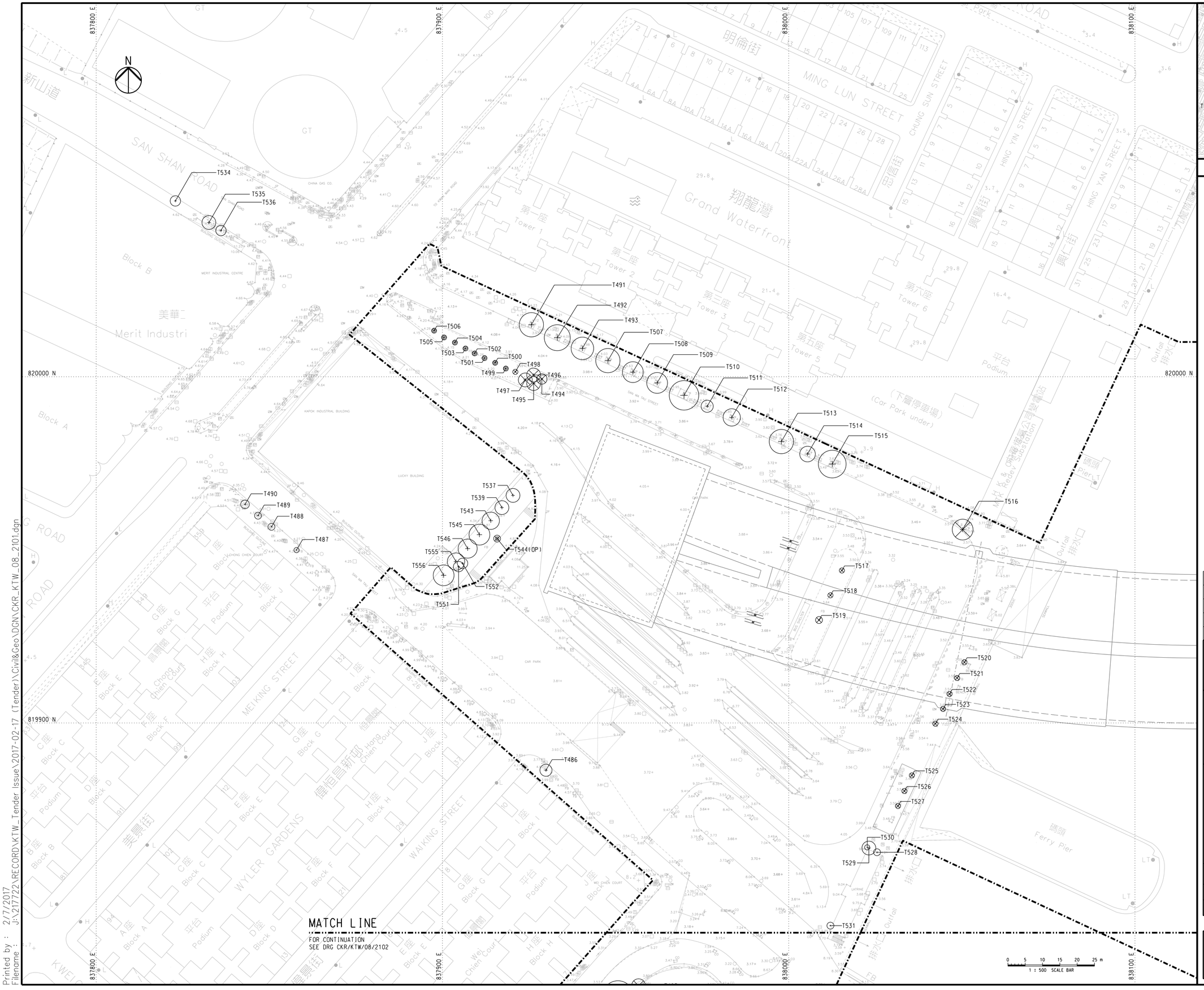
Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

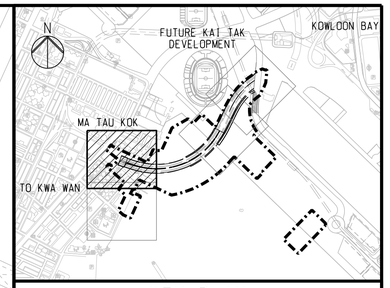
Drawing title 圖紙名稱
TREE TREATMENT PLAN
KEY PLAN

Drawing no. 圖紙編號	CKR/KTW/08/2001	Rev. 修訂	01
Drawn By 繪圖	RY	Checked By 覆核	HL	Approved By 批准人	EC
Scale 比例	1:2000 @ A1	Status 階段	TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_08_2001.dgn





KEY PLAN

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2102 TO 2104.

LEGEND

- WORKS LIMIT
- T000 — EXISTING TREE TO BE RETAINED
- T000 — EXISTING TREE TO BE FELLED
- T000 — EXISTING TREE TO BE TRANSPLANTED
- T000(OP) — EXISTING TREE TO BE FELLED (TREES AFFECTED BY OTHER PROJECTS)

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT PLAN

SHEET 1

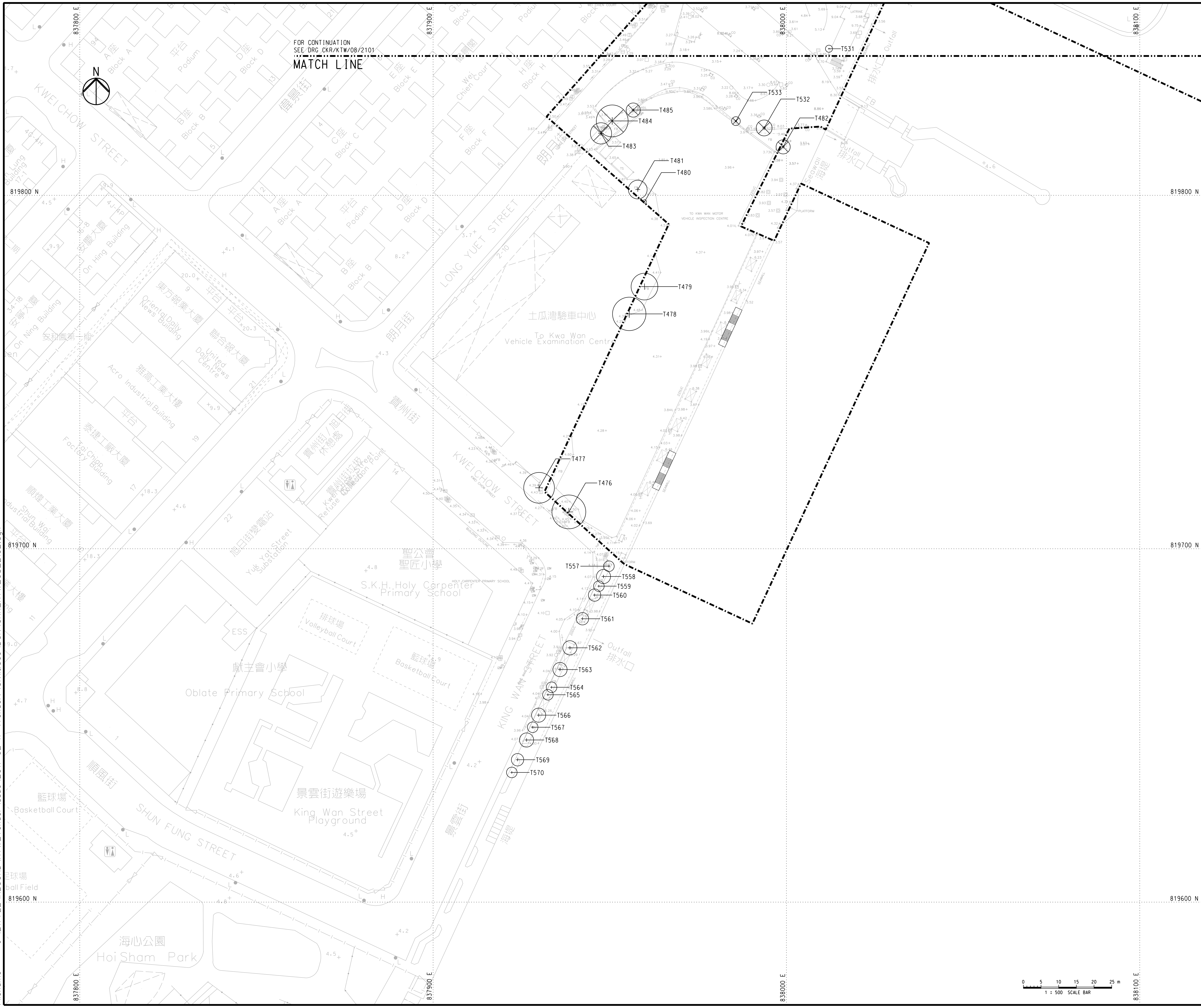
Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/08/2101	00

Drawn By 繪圖	Checked By 覆核	Approved By 批准人
RY	HL	EC

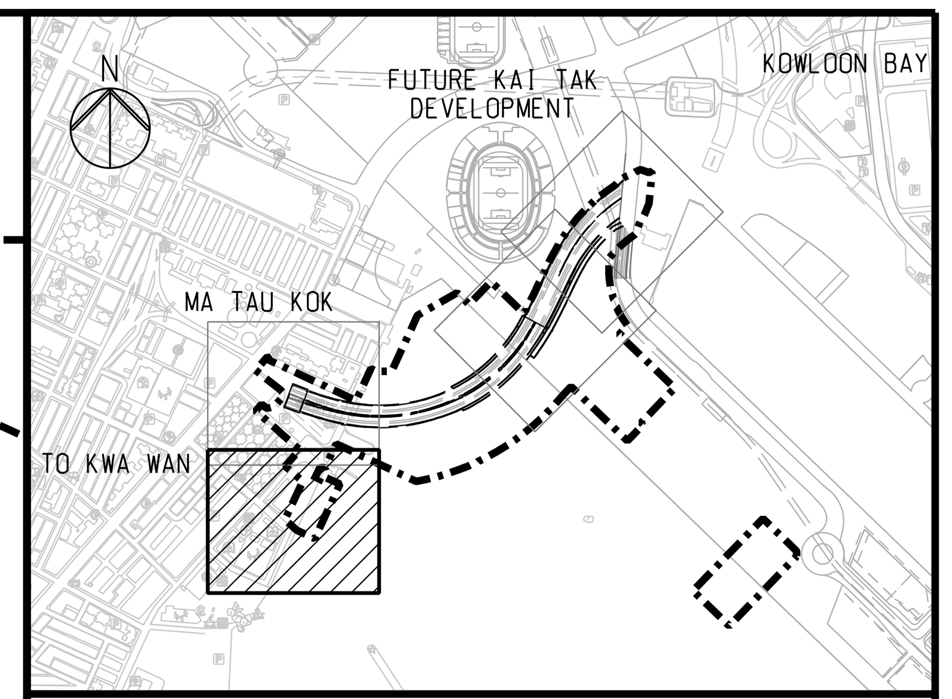
Scale 比例	Status 階段
1:500 @ A1	TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_08_2101.dgn



Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_08_2102.dgn



KEY PLAN

NOTES

1. FOR LEGEND, REFER TO DRAWING NO. CKR/KTW/08/2101.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2101, 2103 & 2104 .

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱

Contract No. HY/2014/07

Central Kowloon Route -
Kai Tak West

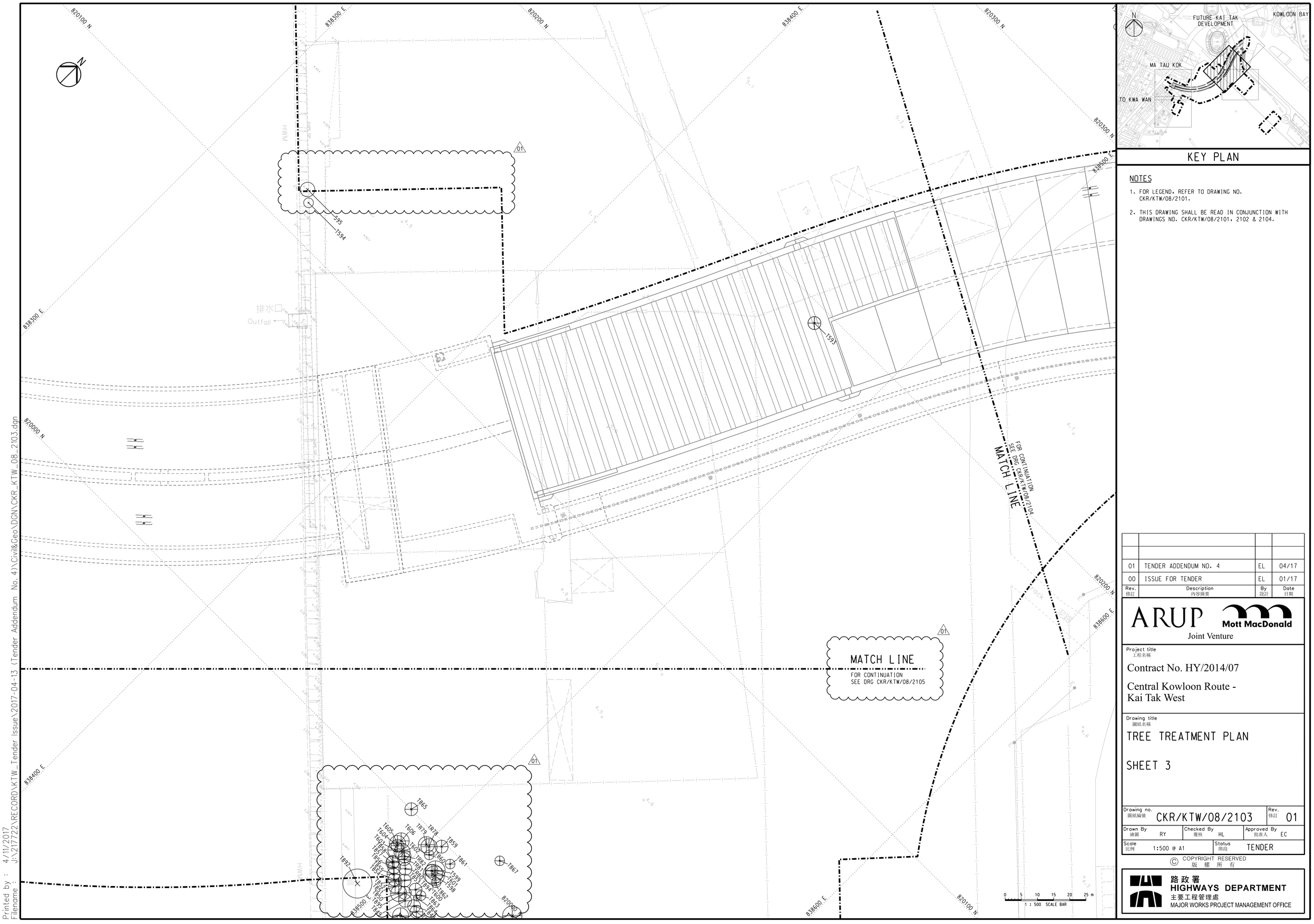
Drawing title 圖紙名稱

TREE TREATMENT PLAN

SHEET 2

Drawing no. 圖紙編號	CKR/KTW/08/2102	Rev. 修訂	00
Drawn By 繪圖 RY	Checked By 覆核 HL	Approved By 批准人 EC	
Scale 比例 1:500 @ A1	Status 階段 TENDER		

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE



KEY PLAN

NOTES

1. FOR LEGEND, REFER TO DRAWING NO. CKR/KTW/08/2101.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2101, 2102 & 2104.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 4	EL	04/17
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT PLAN

SHEET 3

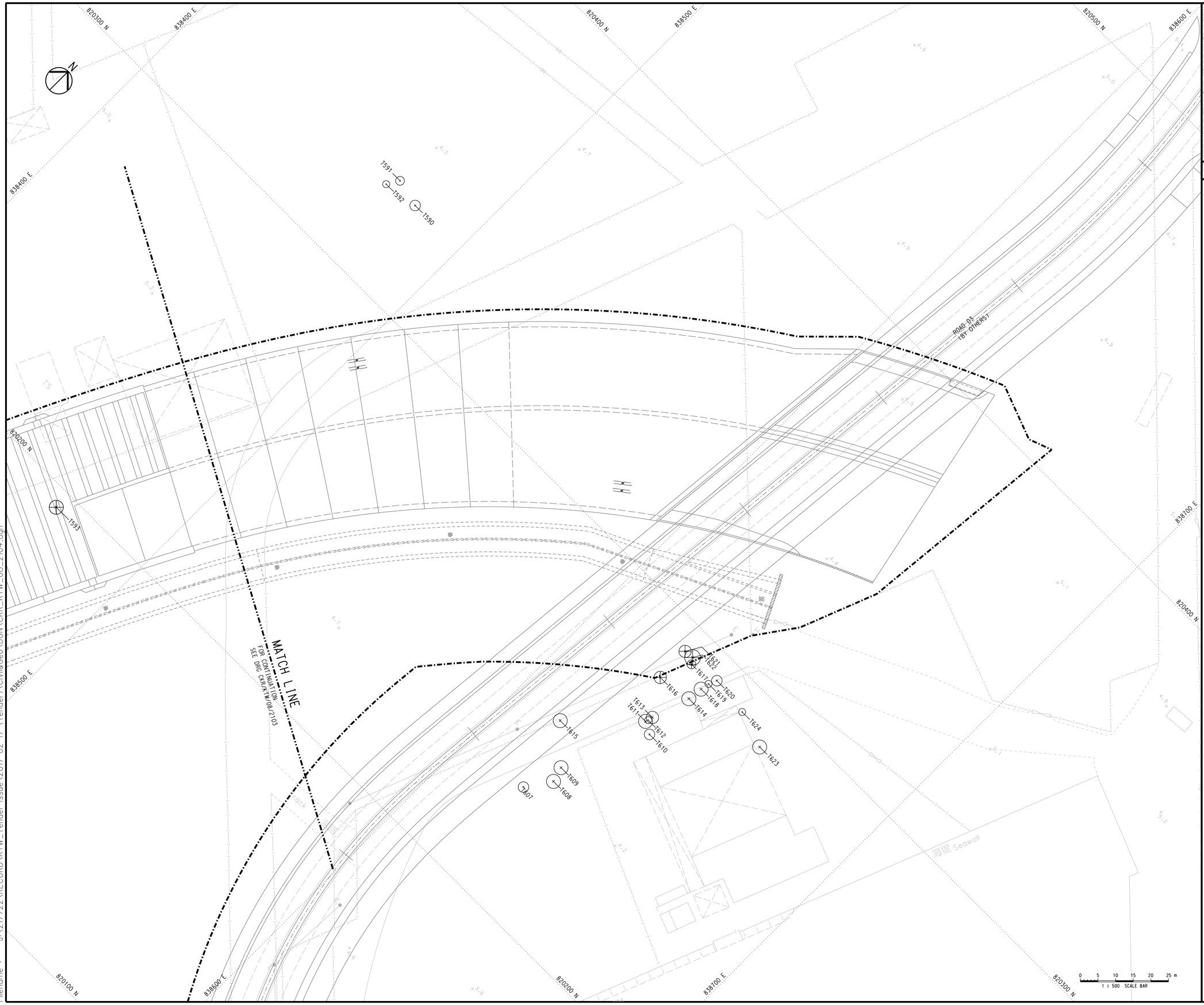
Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/08/2103	01

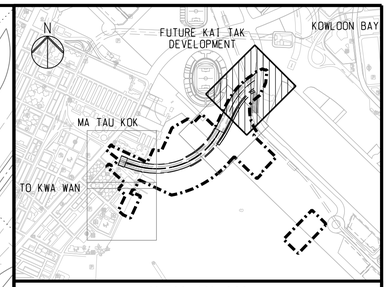
Drawn By 繪圖	Checked By 覆核	Approved By 批准人
RY	HL	EC

Scale 比例	Status 階段
1:500 @ A1	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_08_2103.dgn





KEY PLAN

NOTES

1. FOR LEGEND, REFER TO DRAWING NO. CKR/KTW/08/2101.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2101 TO 2103.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

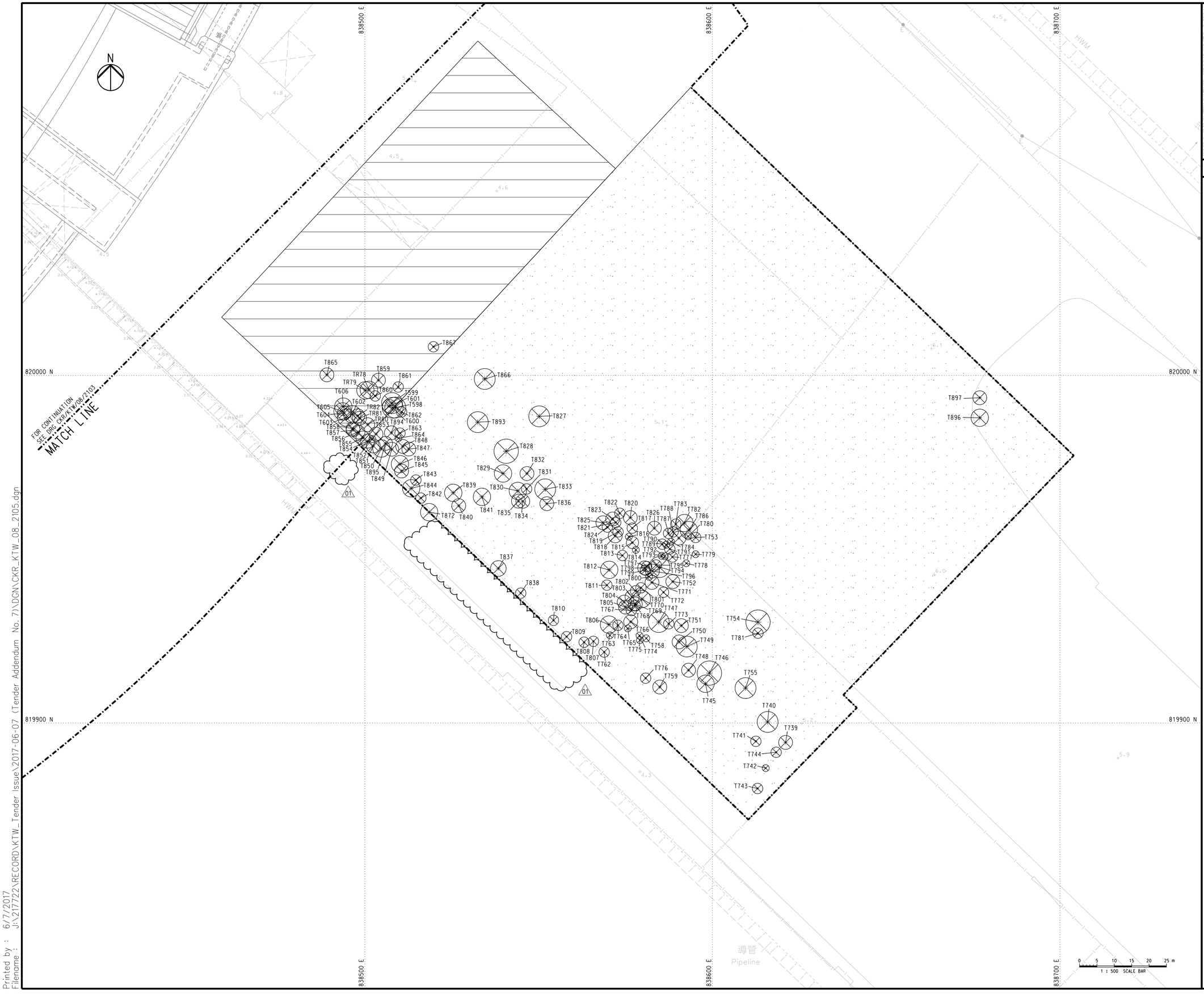
Drawing title 圖紙名稱
TREE TREATMENT PLAN

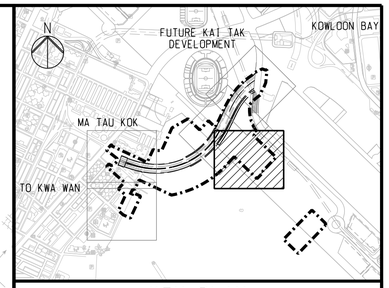
SHEET 4

Drawing no. 圖紙編號	CKR/KTW/08/2104	Rev. 修訂	00
Drawn By 繪圖	RY	Checked By 覆核	HL
Approved By 批准人	EC		
Scale 比例	1:500 @ A1	Status 階段	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_08_2104.dgn





KEY PLAN

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2102 TO 2104.

LEGEND

- WORKS LIMIT
- SITE OFFICE
- STOCKPILE AREA
- T000 EXISTING TREE TO BE RETAINED
- T000 EXISTING TREE TO BE FELLED

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 7	EL	06/17
00	TENDER ADDENDUM NO. 4	EL	04/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT PLAN
SHEET 5

Drawing no. 圖紙編號	CKR/KTW/08/2105	Rev. 修訂	01
Drawn By 繪圖	RY	Checked By 覆核	HL
Approved By 批准人	EC		
Scale 比例	1:500 @ A1	Status 階段	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 6/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-06-07 (Tender Addendum No. 7)\DGN\CKR_KTW_08_2105.dgn

Tree ID No.	Original Location (Name of Site)	Species: Scientific Name	Species: Chinese Name	Jurisdiction (AFCD/HyD/LCSD)	SIMAR Slope Maintenance Agent	Tree Size: Height (m)	Tree Size: Spread (m)	Tree Size: Diameter at Breast Height (mm)	Health (Good/ F/ P) (G/ F/ P)	Form (Good/ F/ P) (G/ F/ P)	Structural Condition (Good/ F/ P) (G/ F/ P)	Amenity Value (Good/ F/ P) (G/ F/ P)	Suitability for Transplanting (High/ Medium/ L) (H/ M/ L)	Recommendation (Retain/ Fell/ Transplant)
KT/T476	Kai Tak West	Ficus microcarpa	榕樹	AFCD	-	8.0	9.5	520	F	F	F	G	L	Retain
KT/T477	Kai Tak West	Ficus religiosa	菩提樹	LCSD	-	7.5	9.0	500	F	F	F	F	L	Retain
KT/T478	Kai Tak West	Bombax ceiba	木棉	AFCD	-	6.5	4.5	250	F	P	F	F	L	Retain
KT/T479	Kai Tak West	Ficus religiosa	菩提樹	AFCD	-	8.5	7.8	620	F	F	F	F	L	Retain
KT/T480	Kai Tak West	Dead tree	死樹	AFCD	-	5.0	4.2	350	P	P	P	P	L	Retain
KT/T481	Kai Tak West	Aleurites moluccana	石栗	AFCD	-	8.6	5.5	580	F	F	P	F	L	Retain
KT/T482	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	6.0	4.0	245	F	P	P	P	L	Fell
KT/T483	Kai Tak West	Ficus religiosa	菩提樹	LCSD	-	10.0	11.0	688	F	F	F	F	L	Fell
KT/T484	Kai Tak West	Ficus religiosa	菩提樹	LCSD	-	8.5	9.0	644	F	P	P	F	L	Fell
KT/T485	Kai Tak West	Ficus religiosa	菩提樹	LCSD	-	3.5	4.0	170	F	P	P	P	L	Fell
KT/T486	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	5.5	3.5	220	F	F	F	G	M	Retain
KT/T487	Kai Tak West	Cinnamomum burmannii	陰香	LCSD	-	3.5	1.5	97	F	F	F	F	M	Retain
KT/T488	Kai Tak West	Cinnamomum burmannii	陰香	LCSD	-	5.0	2.2	150	F	F	F	F	M	Retain
KT/T489	Kai Tak West	Cinnamomum burmannii	陰香	LCSD	-	5.0	2.1	170	F	F	F	F	M	Retain
KT/T490	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	5.4	2.5	210	F	F	F	F	M	Retain
KT/T491	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	8.5	7.0	600	F	F	F	G	L	Retain
KT/T492	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	8.0	7.5	380	F	F	F	F	L	Retain
KT/T493	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	8.0	6.5	470	F	F	F	F	L	Retain
KT/T494	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	10.0	5.0	367	F	P	F	F	L	Fell
KT/T495	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	10.0	5.0	340	F	P	F	F	L	Fell
KT/T496	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	10.0	6.0	470	F	P	F	F	L	Fell
KT/T497	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	10.0	5.0	420	F	P	F	F	L	Fell
KT/T498	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	110	F	P	F	F	L	Fell
KT/T499	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	100	F	F	F	F	H	Transplant
KT/T500	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	102	F	F	F	F	H	Transplant
KT/T501	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	99	F	F	F	F	H	Transplant
KT/T502	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	110	F	F	F	F	H	Transplant
KT/T503	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	104	F	F	F	F	H	Transplant
KT/T504	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	108	F	F	F	F	H	Transplant
KT/T505	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	111	F	F	F	F	H	Transplant
KT/T506	Kai Tak West	Phoenix roebelenii	江邊刺葵	LCSD	-	2.5	1.0	100	F	F	F	F	H	Transplant
KT/T507	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	8.0	7.0	450	F	F	F	G	L	Retain
KT/T508	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	8.0	5.0	480	F	F	F	F	L	Retain
KT/T509	Kai Tak West	Ficus virens	黃葛樹	LCSD	-	8.0	4.5	430	F	P	F	F	L	Retain
KT/T510	Kai Tak West	Bombax ceiba	木棉	LCSD	-	11.0	8.5	590	F	F	F	F	L	Retain
KT/T511	Kai Tak West	Casuarina equisetifolia	木麻黃	LCSD	-	6.6	3.5	201	F	F	F	F	L	Retain
KT/T512	Kai Tak West	Ficus benjamina	垂葉榕	LCSD	-	4.0	6.0	310	F	F	P	F	L	Retain
KT/T513	Kai Tak West	Albizia lebbeck	大葉合歡	LCSD	-	7.5	7.0	430	F	P	F	F	L	Retain
KT/T514	Kai Tak West	Bombax ceiba	木棉	LCSD	-	8.0	4.5	570	F	F	F	F	L	Retain
KT/T515	Kai Tak West	Ficus virens	黃葛樹	LCSD	-	9.5	8.0	490	F	F	P	F	L	Retain
KT/T516	Kai Tak West	Bischofia javanica	秋楓	LCSD	-	7.8	6.0	460	F	P	P	F	L	Fell
KT/T517	Kai Tak West	Livistona chinensis	蒲葵	LCSD	-	18.0	4.0	560	G	G	G	G	L	Fell
KT/T518	Kai Tak West	Livistona chinensis	蒲葵	LCSD	-	18.0	4.0	530	G	G	G	G	L	Fell
KT/T519	Kai Tak West	Livistona chinensis	蒲葵	LCSD	-	16.0	4.0	490	G	G	G	G	L	Fell
KT/T520	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	150	P	P	F	P	L	Fell
KT/T521	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	160	P	P	F	P	L	Fell
KT/T522	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	154	P	P	F	P	L	Fell
KT/T523	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	155	P	P	F	P	L	Fell
KT/T524	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	160	P	P	F	P	L	Fell
KT/T525	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	180	P	P	F	P	L	Fell
KT/T526	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	157	P	P	F	P	L	Fell
KT/T527	Kai Tak West	Archontophoenix alexandrae	假檳榔	LCSD	-	4.5	1.5	164	P	P	F	P	L	Fell
KT/T528	Kai Tak West	Araucaria heterophylla	異葉南洋杉	LCSD	-	3.0	2.0	110	F	P	F	P	L	Retain
KT/T529	Kai Tak West	Ficus subpisocarpa	筆管榕	LCSD	-	3.0	4.0	160	F	P	P	P	L	Retain
KT/T530	Kai Tak West	Dimocarpus longan	龍眼	LCSD	-	3.0	1.5	95	F	P	P	P	L	Retain
KT/T531	Kai Tak West	Syzygium jambos	蒲桃	LCSD	-	1.8	2.1	150	F	P	P	P	L	Retain
KT/T532	Kai Tak West	Macaranga tanarius var. tomentosa	血桐	LCSD	-	3.5	4.0	210	F	P	P	P	L	Fell
KT/T533	Kai Tak West	Ficus microcarpa	榕樹	LCSD	-	3.0	4.0	165	F	P	P	P	L	Fell
KT/T534	Kai Tak West	Callistemon viminalis	串錢柳	LCSD	-	5.0	3.0	140	F	P	P	F	L	Retain
KT/T535	Kai Tak West	Callistemon viminalis	串錢柳	LCSD	-	5.0	4.0	140	F	P	P	F	L	Retain
KT/T536	Kai Tak West	Callistemon viminalis	串錢柳	LCSD	-	5.0	3.0	140	F	P	P	F	L	Retain
KT/T537	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	14.0	4.0	530	F	F	F	G	L	Retain
KT/T539	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	14.0	4.0	520	F	F	P	G	L	Retain

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. CKR/KTW/08/2101 TO 2104.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT SCHEDULE

SHEET 1

Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/08/2201	00

Drawn By 繪圖	Checked By 覆核	Approved By 批准人
RY	HL	EC

Scale 比例 N.T.S. Status 階段 TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_08_2201.dgn

Tree ID No.	Original Location (Name of Site)	Species: Scientific Name	Species: Chinese Name	Jurisdiction (AFCD/HyD/LCSD)	SIMAR Slope Maintenance Agent	Tree Size: Height (m)	Tree Size: Spread (m)	Tree Size: Diameter at Breast Height (mm)	Health (Good/ F/ P) (G/ F/ P)	Form (Good/ F/ P) (G/ F/ P)	Structural Condition (Good/ F/ P) (G/ F/ P)	Amenity Value (Good/ F/ P) (G/ F/ P)	Suitability for Transplanting (High/ Medium/ L) (H/ M/ L)	Recommendation (Retain/ Fell/ Transplant)
KT/T543	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	15.0	5.0	485	F	F	P	G	L	Retain
KT/T544	Kai Tak West	Araucaria heterophylla	異葉南洋杉	LCSD	-	6.0	1.8	230	F	P	F	F	M	Affected by other projects
KT/T545	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	14.0	6.0	520	F	F	P	G	L	Retain
KT/T546	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	14.0	5.5	510	F	F	P	G	L	Retain
KT/T551	Kai Tak West	Livistona chinensis	蒲葵	LCSD	-	7.0	3.0	200	F	P	F	F	L	Retain
KT/T552	Kai Tak West	Livistona chinensis	蒲葵	LCSD	-	7.0	3.0	200	F	F	F	F	M	Retain
KT/T555	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	14.0	5.0	500	F	F	P	G	L	Retain
KT/T556	Kai Tak West	Ailanthus fordii	常綠臭椿	LCSD	-	15.0	6.0	510	F	F	P	G	L	Retain
KT/T557	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	165	F	F	F	F	L	Retain
KT/T558	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	170	F	F	F	F	L	Retain
KT/T559	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	165	F	F	F	F	L	Retain
KT/T560	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	5.0	4.0	168	F	F	F	F	L	Retain
KT/T561	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	165	F	F	F	F	L	Retain
KT/T562	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	4.0	165	F	F	F	F	L	Retain
KT/T563	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	5.0	3.0	165	F	F	F	F	L	Retain
KT/T564	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	4.0	170	F	F	F	F	L	Retain
KT/T565	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	5.0	3.0	165	F	F	F	F	L	Retain
KT/T566	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	4.0	165	F	F	F	F	L	Retain
KT/T567	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	170	F	F	F	F	L	Retain
KT/T568	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	165	F	F	F	F	L	Retain
KT/T569	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	165	F	F	F	F	L	Retain
KT/T570	Kai Tak West	Melaleuca cajuputi subsp. cumingiana	白千層	LCSD	-	4.5	3.0	165	F	F	F	F	L	Retain
KT/T590	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	3.0	120	F	P	F	P	L	Retain
KT/T591	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	2.5	102	F	P	F	P	L	Retain
KT/T592	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	2.0	110	F	P	F	P	L	Retain
KT/T593	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	3.0	4.0	105	F	P	F	P	L	Fell
KT/T594	Kai Tak West	Bombax ceiba	木棉	AFCD	-	6.0	3.0	245	F	P	F	F	L	Retain
KT/T595	Kai Tak West	Bombax ceiba	木棉	AFCD	-	9.0	10.0	380	F	F	F	F	L	Retain
KT/T598	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	6.0	120	F	P	P	P	L	Retain
KT/T599	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	6.0	125	F	P	P	P	L	Retain
KT/T600	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	6.0	105	F	P	P	P	L	Retain
KT/T601	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	4.0	115	F	P	P	P	L	Retain
KT/T602	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	5.0	113	F	P	P	P	L	Retain
KT/T603	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	5.0	95	F	P	P	P	L	Retain
KT/T604	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	4.0	96	F	P	P	P	L	Retain
KT/T605	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	5.0	105	F	P	P	P	L	Retain
KT/T606	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	5.0	113	F	P	P	P	L	Retain
KT/T607	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	3.0	114	F	P	P	P	L	Retain
KT/T608	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	4.0	130	F	P	P	P	L	Retain
KT/T609	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	4.0	110	F	P	P	P	L	Retain
KT/T610	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	3.5	3.0	100	F	P	P	P	L	Retain
KT/T611	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	5.0	4.0	130	F	P	P	P	L	Retain
KT/T612	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	5.0	2.0	127	F	P	P	P	L	Retain
KT/T613	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	5.0	3.5	124	F	P	P	P	L	Retain
KT/T614	Kai Tak West	Melia azedarach	楝	AFCD	-	6.0	4.0	176	F	P	P	P	L	Retain
KT/T615	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	4.0	139	F	P	F	P	L	Retain
KT/T616	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.5	3.5	132	F	P	F	P	L	Fell
KT/T617	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	3.5	2.5	129	F	P	F	P	L	Fell
KT/T618	Kai Tak West	Macaranga tanarius var. tomentosa	血桐	AFCD	-	3.5	4.0	146	F	P	F	P	L	Retain
KT/T619	Kai Tak West	Macaranga tanarius var. tomentosa	血桐	AFCD	-	3.5	2.0	152	F	P	F	P	L	Retain
KT/T620	Kai Tak West	Macaranga tanarius var. tomentosa	血桐	AFCD	-	2.0	3.0	135	F	P	F	P	L	Retain
KT/T621	Kai Tak West	Acacia confusa	台灣相思	AFCD	-	3.5	3.5	129	F	P	F	P	L	Fell
KT/T622	Kai Tak West	Leucaena leucocephala	銀合歡	AFCD	-	4.0	4.5	134	F	P	P	P	L	Fell
KT/T623	Kai Tak West	Ficus subpisocarpa	筆管榕	AFCD	-	3.5	4.0	210	F	P	P	P	L	Retain
KT/T624	Kai Tak West	Ficus religiosa	菩提樹	AFCD	-	3.0	2.0	140	F	P	P	P	L	Retain

01

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. CKR/KTW/08/2101 TO 2104.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 4	EL	04/17
00	ISSUE FOR TENDER	EL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT SCHEDULE
SHEET 2

Drawing no. 圖紙編號 CKR/KTW/08/2202 | Rev. 修訂 01
Drawn By 繪圖 RY | Checked By 覆核 HL | Approved By 批准人 EC
Scale 比例 N.T.S. | Status 階段 TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_08_2202.dgn

Tree ID No.	Original Location (Name of Site)	Species: Scientific Name	Species: Chinese Name	Jurisdiction (AFCD/HyD/LCSD)	SIMAR Slope Maintenance Agent	Tree Size: Height (m)	Tree Size: Spread (m)	Tree Size: Diameter at Breast Height (mm)	Health (Good/ Fair/ Poor) (G / F/ P)	Form (Good/ Fair/ Poor) (G / F/ P)	Structural Condition (Good/ Fair/ Poor) (G / F/ P)	Amenity value (Good/ Fair/ Poor) (G / F/ P)	Suitability for transplanting (High/ Medium/Low) (H / M / L)	Recommendation (Retain/ Fell/ Transplant)
KT/T598	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	6	156	F	P	P	P	L	Fell
KT/T599	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	10	6	175	F	P	P	P	L	Fell
KT/T600	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	6	124	F	F	P	P	L	Fell
KT/T601	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	197	F	F	P	P	L	Fell
KT/T602	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	5	174	F	P	P	P	L	Fell
KT/T603	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	5	153	F	P	P	P	L	Fell
KT/T604	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	4	95	F	F	P	P	L	Fell
KT/T605	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	5	127	F	F	P	P	L	Fell
KT/T606	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	5	194	F	P	P	P	L	Fell
KT/T739	Kai Tak West	*Bombax ceiba*	木棉	AFCD	-	5	4	223	F	F	F	G	L	Fell
KT/T740	Kai Tak West	*Bombax ceiba*	木棉	AFCD	-	5	6	325	F	F	F	G	L	Fell
KT/T741	Kai Tak West	*Bombax ceiba*	木棉	AFCD	-	5	3	277	F	F	F	G	L	Fell
KT/T742	Kai Tak West	*Bombax ceiba*	木棉	AFCD	-	5	2	245	F	P	F	P	L	Fell
KT/T743	Kai Tak West	*Bombax ceiba*	木棉	AFCD	-	4	3	153	F	F	F	G	L	Fell
KT/T744	Kai Tak West	*Bombax ceiba*	木棉	AFCD	-	4	3	166	F	F	F	G	L	Fell
KT/T745	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	5	134	F	P	P	P	L	Fell
KT/T746	Kai Tak West	*Ficus religiosa*	菩提樹	AFCD	-	14	7	477	F	F	F	G	L	Fell
KT/T747	Kai Tak West	*Aleurites moluccana*	石栗	AFCD	-	15	6	490	F	F	P	G	L	Fell
KT/T748	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	178	F	F	F	P	L	Fell
KT/T749	Kai Tak West	*Aleurites moluccana*	石栗	AFCD	-	14	6	535	F	F	P	G	L	Fell
KT/T750	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	4	188	F	F	P	P	L	Fell
KT/T751	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	159	F	F	F	P	L	Fell
KT/T752	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	178	F	F	F	P	L	Fell
KT/T753	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	10	3	162	F	F	F	P	L	Fell
KT/T754	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	7	216	F	F	F	P	L	Fell
KT/T755	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	6	223	F	F	F	P	L	Fell
KT/T758	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	108	F	F	F	P	L	Fell
KT/T759	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	169	F	F	F	P	L	Fell
KT/T762	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	131	F	F	F	P	L	Fell
KT/T763	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	2	105	F	F	F	P	L	Fell
KT/T764	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	111	F	F	F	P	L	Fell
KT/T765	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	95	F	F	F	P	L	Fell
KT/T766	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	4	135	F	P	P	P	L	Fell
KT/T767	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	137	F	P	P	P	L	Fell
KT/T768	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	105	F	P	P	P	L	Fell
KT/T769	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	146	F	F	F	P	L	Fell
KT/T770	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	5	174	F	P	P	P	L	Fell
KT/T771	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	143	F	F	F	P	L	Fell
KT/T772	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	137	F	F	F	P	L	Fell
KT/T773	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	102	F	F	F	P	L	Fell
KT/T774	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	95	F	F	F	P	L	Fell
KT/T775	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	2	105	F	F	F	P	L	Fell
KT/T776	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	108	F	F	F	P	L	Fell
KT/T777	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	118	F	F	F	P	L	Fell
KT/T778	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	105	F	F	F	P	L	Fell
KT/T779	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	105	F	F	F	P	L	Fell
KT/T780	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	2	95	F	F	F	P	L	Fell
KT/T781	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	4	3	95	F	F	F	P	L	Fell
KT/T782	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	4	5	127	F	F	F	P	L	Fell
KT/T783	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	118	F	F	F	P	L	Fell
KT/T784	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	2	105	F	F	F	P	L	Fell
KT/T785	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	140	F	F	F	P	L	Fell
KT/T786	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	5	146	F	F	F	P	L	Fell
KT/T787	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	131	F	F	F	P	L	Fell

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. CKR/KTW/08/2105.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	TENDER ADDENDUM NO. 4	EL	04/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT SCHEDULE

SHEET 3

Drawing no. 圖紙編號 CKR/KTW/08/2203 | Rev. 修訂 00

Drawn By 繪圖 CN | Checked By 覆核 HL | Approved By 批准人 EC

Scale 比例 N.T.S. | Status 階段 TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_08_2203.dgn

Tree ID No.	Original Location (Name of Site)	Species Scientific Name	Species Chinese Name	Jurisdiction (AFCD/HyD/LCSD)	SiMAR Slope Maintenance Agent	Tree Size Height (m)	Tree Size Spread (m)	Tree Size Diameter at Breast Height (mm)	Health (Good/ Fair/ Poor) (G / F/ P)	Form (Good/ Fair/ Poor) (G / F/ P)	Structural Condition (Good/ Fair/ Poor) (G / F/ P)	Amenity value (Good/ Fair/ Poor) (G / F/ P)	Suitability for transplanting (High/ Medium/Low) (H / M / L)	Recommendation (Retain/ Fell/ Transplant)
KT/T788	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	3	124	F	P	P	P	L	Fell
KT/T789	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	3	159	F	P	P	P	L	Fell
KT/T790	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	2	95	F	F	F	P	L	Fell
KT/T791	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	102	F	F	F	P	L	Fell
KT/T792	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	2	102	F	F	F	P	L	Fell
KT/T793	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	2	115	F	F	F	P	L	Fell
KT/T794	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	10	6	219	F	P	P	P	L	Fell
KT/T795	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	10	3	140	F	F	F	P	L	Fell
KT/T796	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	111	F	F	F	P	L	Fell
KT/T797	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	3	95	F	F	F	P	L	Fell
KT/T798	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	99	F	F	F	P	L	Fell
KT/T799	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	3	111	F	F	F	P	L	Fell
KT/T800	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	2	108	F	F	F	P	L	Fell
KT/T801	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	3	102	F	F	F	P	L	Fell
KT/T802	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	127	F	F	F	P	L	Fell
KT/T803	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	153	F	F	F	P	L	Fell
KT/T804	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	143	F	F	F	P	L	Fell
KT/T805	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	134	F	F	F	P	L	Fell
KT/T806	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	5	162	F	F	F	P	L	Fell
KT/T807	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	105	F	F	F	P	L	Fell
KT/T808	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	4	3	95	F	F	F	P	L	Fell
KT/T809	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	102	F	F	F	P	L	Fell
KT/T810	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	95	F	F	F	P	L	Fell
KT/T811	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	102	F	F	F	P	L	Fell
KT/T812	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	5	131	F	F	F	P	L	Fell
KT/T813	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	121	F	F	F	P	L	Fell
KT/T814	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	111	F	F	F	P	L	Fell
KT/T815	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	95	F	F	F	P	L	Fell
KT/T816	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	2	105	F	F	F	P	L	Fell
KT/T817	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	95	F	F	F	P	L	Fell
KT/T818	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	121	F	F	F	P	L	Fell
KT/T819	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	118	F	F	F	P	L	Fell
KT/T820	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	108	F	F	F	P	L	Fell
KT/T821	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	99	F	F	F	P	L	Fell
KT/T822	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	159	F	P	P	P	L	Fell
KT/T823	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	4	105	F	P	P	P	L	Fell
KT/T824	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	95	F	F	F	P	L	Fell
KT/T825	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	4	95	F	P	P	P	L	Fell
KT/T826	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	146	F	P	P	P	L	Fell
KT/T827	Kai Tak West	*Acacia auriculiformis*	耳果相思	AFCD	-	6	6	210	F	F	F	G	L	Fell
KT/T828	Kai Tak West	*Casuarina equisetifolia*	木麻黃	AFCD	-	9	7	191	F	F	F	G	L	Fell
KT/T829	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	5	133	F	P	P	P	L	Fell
KT/T830	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	5	127	F	F	F	P	L	Fell
KT/T831	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	95	F	P	P	P	L	Fell
KT/T832	Kai Tak West	*Casuarina equisetifolia*	木麻黃	AFCD	-	5	4	135	F	F	F	G	L	Fell
KT/T833	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	10	6	153	F	F	F	P	L	Fell
KT/T834	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	108	F	F	F	P	L	Fell
KT/T835	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	146	F	F	P	P	L	Fell
KT/T836	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	4	95	F	F	F	P	L	Fell
KT/T837	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	5	108	F	F	F	P	L	Fell
KT/T838	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	95	F	F	F	P	L	Fell
KT/T839	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	4	5	135	F	F	P	P	L	Fell
KT/T840	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	4	102	F	F	P	P	L	Fell
KT/T841	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	5	108	F	F	F	P	L	Fell
KT/T842	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	102	F	F	F	P	L	Fell
KT/T843	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	95	F	F	F	P	L	Fell
KT/T844	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	5	143	F	F	F	P	L	Fell
KT/T845	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	150	F	F	F	P	L	Fell

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. CKR/KTW/08/2105.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	TENDER ADDENDUM NO. 4	EL	04/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT SCHEDULE
SHEET 4

Drawing no. 圖紙編號 CKR/KTW/08/2204 Rev. 修訂 00

Drawn By 繪圖 CN | Checked By 覆核 HL | Approved By 批准人 EC

Scale 比例 N.T.S. | Status 階段 TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 4/11/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-04-13 (Tender Addendum No. 4)\Civil&Geo\DGN\CKR_KTW_08_2204.dgn

Tree ID No.	Original Location (Name of Site)	Species: Scientific Name	Species: Chinese Name	Jurisdiction (AFCD/HyD/LCSD)	SIMAR Slope Maintenance Agent	Tree Size: Height (m)	Tree Size: Spread (m)	Tree Size: Diameter at Breast Height (mm)	Health (Good/ Fair/ Poor) (G / F/ P)	Form (Good/ Fair/ Poor) (G / F/ P)	Structural Condition (Good/ Fair/ Poor) (G / F/ P)	Amenity value (Good/ Fair/ Poor) (G / F/ P)	Suitability for transplanting (High/ Medium/Low) (H / M / L)	Recommendation (Retain/ Fell/ Transplant)
KT/T846	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	5	140	F	F	F	P	L	Fell
KT/T847	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	131	F	P	P	P	L	Fell
KT/T848	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	111	F	F	F	P	L	Fell
KT/T849	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	134	F	F	F	P	L	Fell
KT/T850	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	5	159	F	F	F	P	L	Fell
KT/T851	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	168	F	F	F	P	L	Fell
KT/T852	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	2	95	F	F	F	P	L	Fell
KT/T853	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	150	F	P	P	P	L	Fell
KT/T854	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	95	F	F	F	P	L	Fell
KT/T855	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	95	F	F	F	P	L	Fell
KT/T856	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	108	F	F	F	P	L	Fell
KT/T857	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	4	95	F	F	F	P	L	Fell
KT/T858	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	4	108	F	F	F	P	L	Fell
KT/T859	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	121	F	F	F	P	L	Fell
KT/T860	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	111	F	F	F	P	L	Fell
KT/T861	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	3	95	F	F	F	P	L	Fell
KT/T862	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	3	95	F	F	F	P	L	Fell
KT/T863	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	3	127	F	F	F	P	L	Fell
KT/T864	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	2	99	F	F	P	P	L	Fell
KT/T865	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	102	F	F	F	P	L	Fell
KT/T866	Kai Tak West	*Casuarina equisetifolia*	木麻黃	AFCD	-	7	6	146	F	F	F	G	L	Fell
KT/T867	Kai Tak West	*Casuarina equisetifolia*	木麻黃	AFCD	-	9	3	127	F	F	F	G	L	Fell
KT/T872	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	5	175	F	F	F	P	L	Retain
01														
KT/T893	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	5	6	174	F	F	F	P	L	Fell
KT/T894	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	4	131	F	F	F	P	L	Fell
KT/T895	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	8	4	102	F	F	F	P	L	Fell
KT/T896	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	5	178	F	F	F	P	L	Fell
KT/T897	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	7	5	232	F	F	F	P	L	Fell
KT/TR78	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	5	153	F	F	F	P	L	Fell
KT/TR79	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	5	140	F	F	F	P	L	Fell
KT/TR80	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	6	4	95	F	P	P	P	L	Fell
KT/TR81	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	4	108	F	F	F	P	L	Fell
KT/TR82	Kai Tak West	*Leucaena leucocephala*	銀合歡	AFCD	-	9	4	111	F	F	F	P	L	Fell

NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. CKR/KTW/08/2105.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
01	TENDER ADDENDUM NO. 7	EL	06/17
00	TENDER ADDENDUM NO. 4	EL	04/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱
TREE TREATMENT SCHEDULE

SHEET 5

Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/08/2205	01

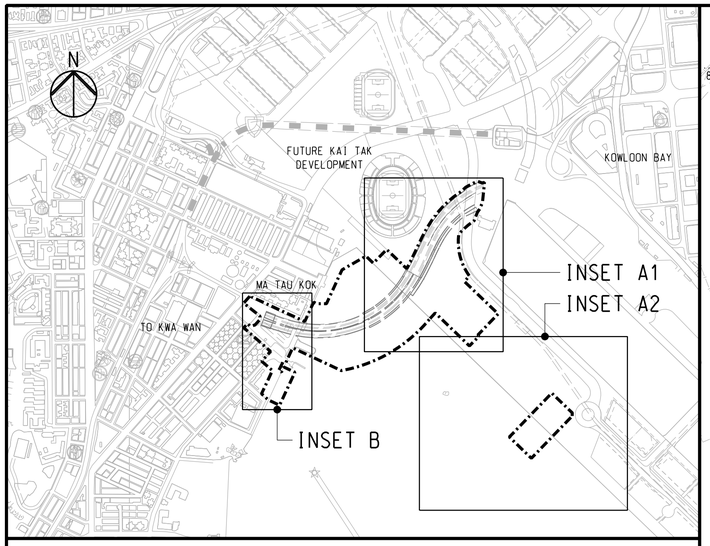
Drawn By 繪圖	Checked By 覆核	Approved By 批准人
CN	HL	EC

Scale 比例	Status 階段
N.T.S.	TENDER

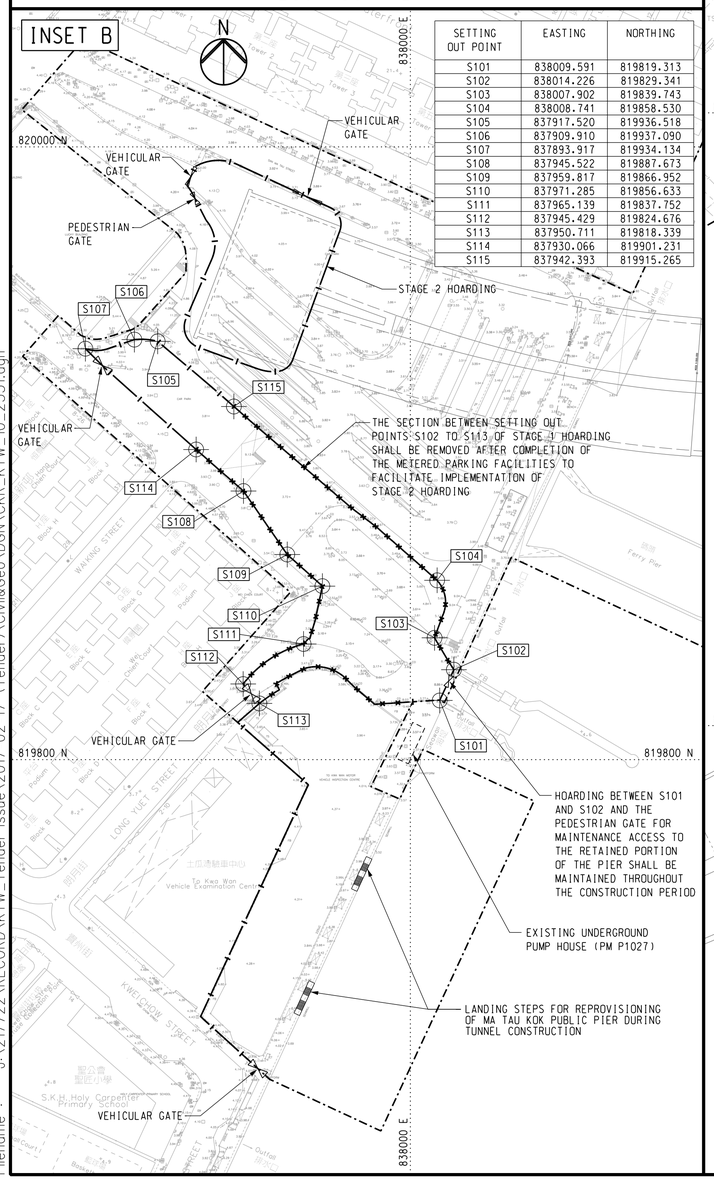
路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

APPENDIX C

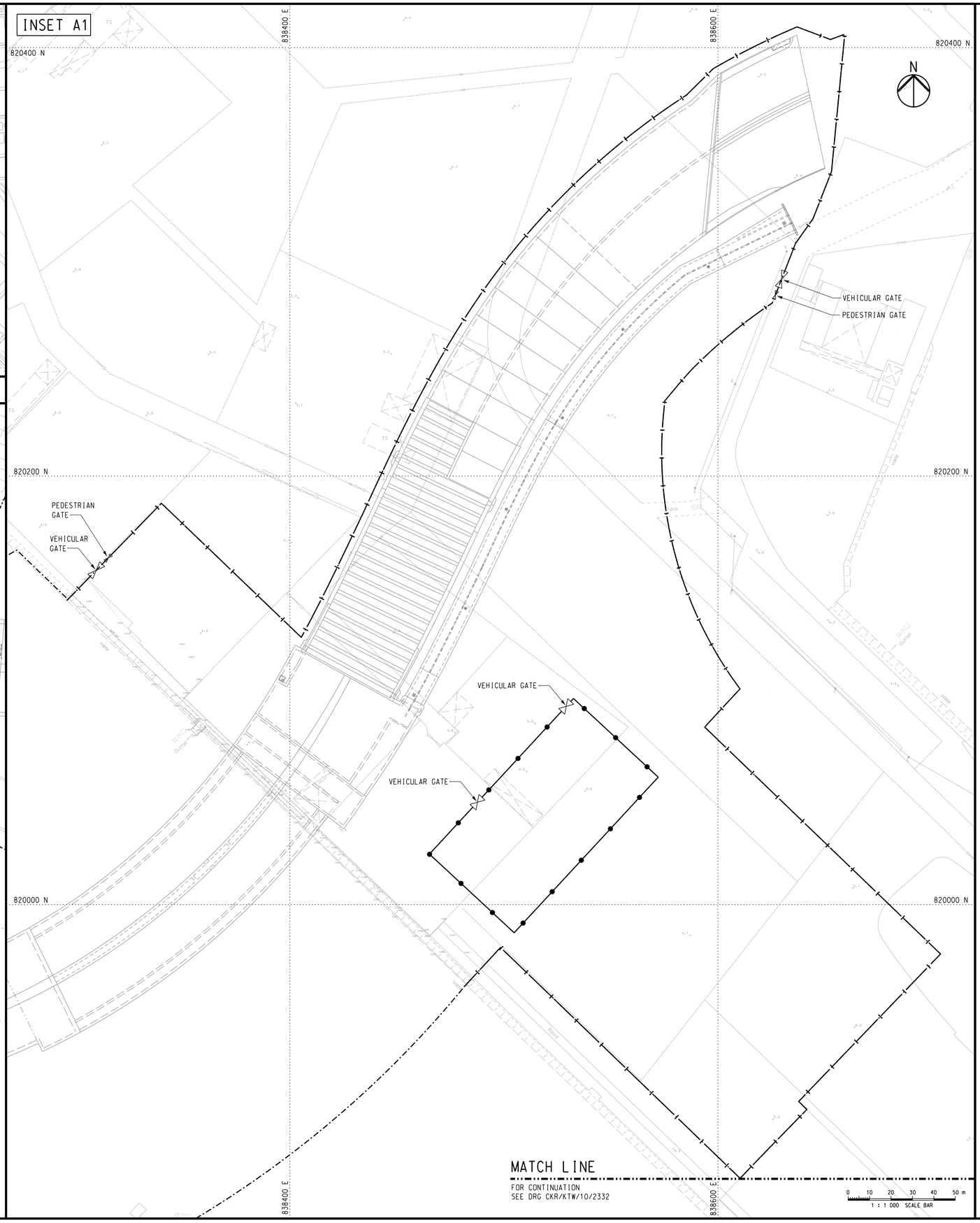
HOARDING LAYOUT PLANS



LOCATION PLAN



SETTING OUT POINT	EASTING	NORTHING
S101	838009.591	819819.313
S102	838014.226	819829.341
S103	838007.902	819839.743
S104	838008.741	819858.530
S105	837917.520	819936.518
S106	837909.910	819937.090
S107	837893.917	819934.134
S108	837945.522	819887.673
S109	837959.817	819866.952
S110	837971.285	819856.633
S111	837965.139	819837.752
S112	837945.429	819824.676
S113	837950.711	819818.339
S114	837930.066	819901.231
S115	837942.393	819915.265



NOTES

1. FOR SETTING OUT POINT OF SITE HOARDING ON KAI TAK AREA, REFER TO DRAWING NO. CKR/KTW/10/2101.
2. THE CONTRACTOR SHALL MODIFY THE DETAILS OF THE CONCRETE FOOTING OF THE HOARDING TO SUIT THE ACTUAL SITE CONDITIONS, IF REQUIRED.

LEGEND

- WORKS LIMIT
- CHAIN LINK FENCE (DETAILS, REFER TO HyD STANDARD DRAWING NO. H6122)
- HOARDING TYPE I (DETAILS, REFER TO HyD STANDARD DRAWING NOS. H6110 AND H6111)
- HOARDING TYPE II (DETAILS, REFER TO CEDD STANDARD DRAWING NOS. C1005/1I, C1005/2H, C1005/3G, C1500/4G & C1500/5L)
- VEHICULAR AND PEDESTRIAN GATES (DETAILS, REFER TO HyD STANDARD DRAWING NOS. H6121 AND H6122)
- SETTING OUT POINT S101

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	JL	01/17

ARUP Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title 圖紙名稱
HOARDING LAYOUT PLAN

SHEET 1

Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/10/2331	00

Drawn By 繪圖	Checked By 複核	Approved By 批准人
RY	HL	EC

Scale 比例	Status 情況
1:1000 @ A1	TENDER

路政署 HIGHWAYS DEPARTMENT
主要工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_10_2331.dgn

INSET A2

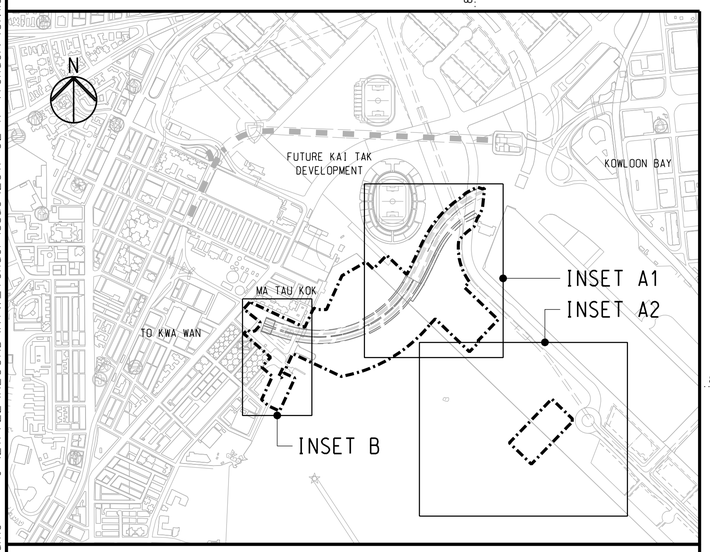
FOR CONTINUATION
SEE DRG CKR/KTW/10/2331
MATCH LINE

838600 E
838800 E
839000 E
819800 N
819600 N
819400 N

VEHICULAR GATE
PEDESTRIAN GATE

九龍石
Kowloon Rock

N



LOCATION PLAN

0 10 20 30 40 50 m
1 : 1 000 SCALE BAR

NOTES

1. FOR NOTES AND LEGEND, REFER TO DRAWING NO. CKR/KTW/10/2331.

Rev. 修訂	Description 內容摘要	By 設計	Date 日期
00	ISSUE FOR TENDER	JL	01/17

ARUP
Mott MacDonald
Joint Venture

Project title 工程名稱
Contract No. HY/2014/07
Central Kowloon Route -
Kai Tak West

Drawing title 圖紙名稱
HOARDING
LAYOUT PLAN

SHEET 2

Drawing no. 圖紙編號	Rev. 修訂
CKR/KTW/10/2332	00

Drawn By 繪圖	Checked By 覆核	Approved By 批准人
RY	HL	EC

Scale 比例	Status 階段
1:1000 @ A1	TENDER

路政署
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE

Printed by : 2/7/2017
Filename : J:\217722\RECORD\KTW_Tender Issue\2017-02-17 (Tender)\Civil&Geo\DGN\CKR_KTW_10_2332.dgn

APPENDIX D

METHOD STATEMENT FOR TREE PROTECTION

GAMMON CONSTRUCTION LIMITED

Gammon

Contract No. HY/2014/07

CENTRAL KOWLOON ROUTE-KAI TAK WEST

J3718

Method Statement For Tree Protection

Document No.: J3718-MS-020

Effective Date : 16 January 2018

Rev. No. : 0

Prepared by :	Reviewed by :	Reviewed by :
Agnes Wong	Brian Kam	Ming Chi Cheng
Reviewed by	**Reviewed by :**	**Approved by :**
Ryan Kwok	Nicholas GIBBS	Niki Lui

REVISION STATUS SHEET

Rev. No.	Effective Date	Summary of Revision	Reviewed		Approved	
			By	Date	By	Date

Distribution :

Method Statement for Tree Protection

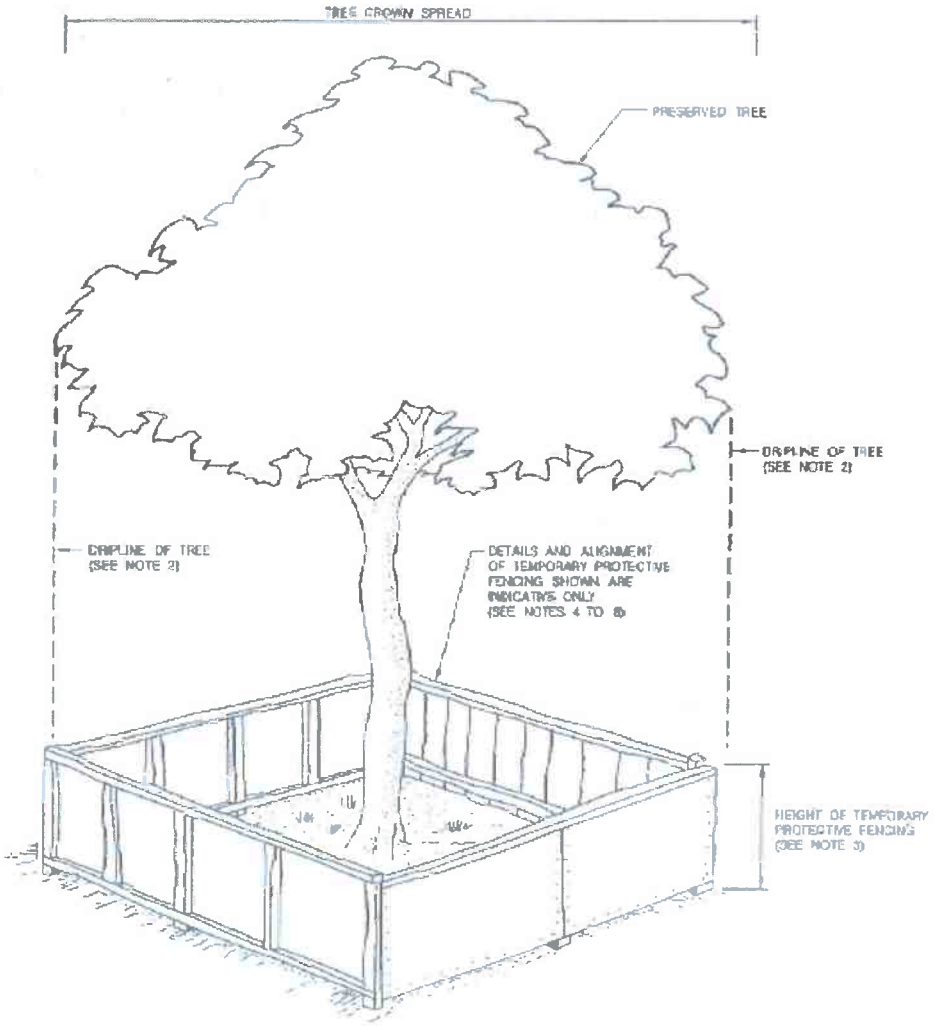
- Preserved tree(s) on site are to be protected during the construction period. A temporary protective fencing is to be erected at the dripline of tree or as agreed with the engineer / client / consultant.
- **When the preserved tree(s) is near construction area**, water barrier and wire mesh on top will be set up as Tree Protection Zone, restricting unauthorised people go inside the protection area. The water barrier and wire mesh on top will be around 1.5 meters above ground level. If necessary an opening would be kept for entrance to carry out maintenance work.
- Temporary protective fencing shall be strong and appropriate for resisting the impacts of construction activities on the site. It shall be made of robust materials and well braced supporting.
- The alignment of temporary protective fencing can be in circular, square, rectangular or any other shape.
- When the preserved tree(s) is far from construction area, water barrier or concrete block or hoarding sheet will be setup at the edge of the construction area as segregation.
- Before construction phase start and during tree felling stage, red and white safety tape will be used to separate tree protection area and tree felling area if they locate closely.
- Warning notice will be erected to alert about the tree protection zone.
- Warning notice is located on each protection area for information in Chinese and English.

Appendix A – Tree Protection Sample

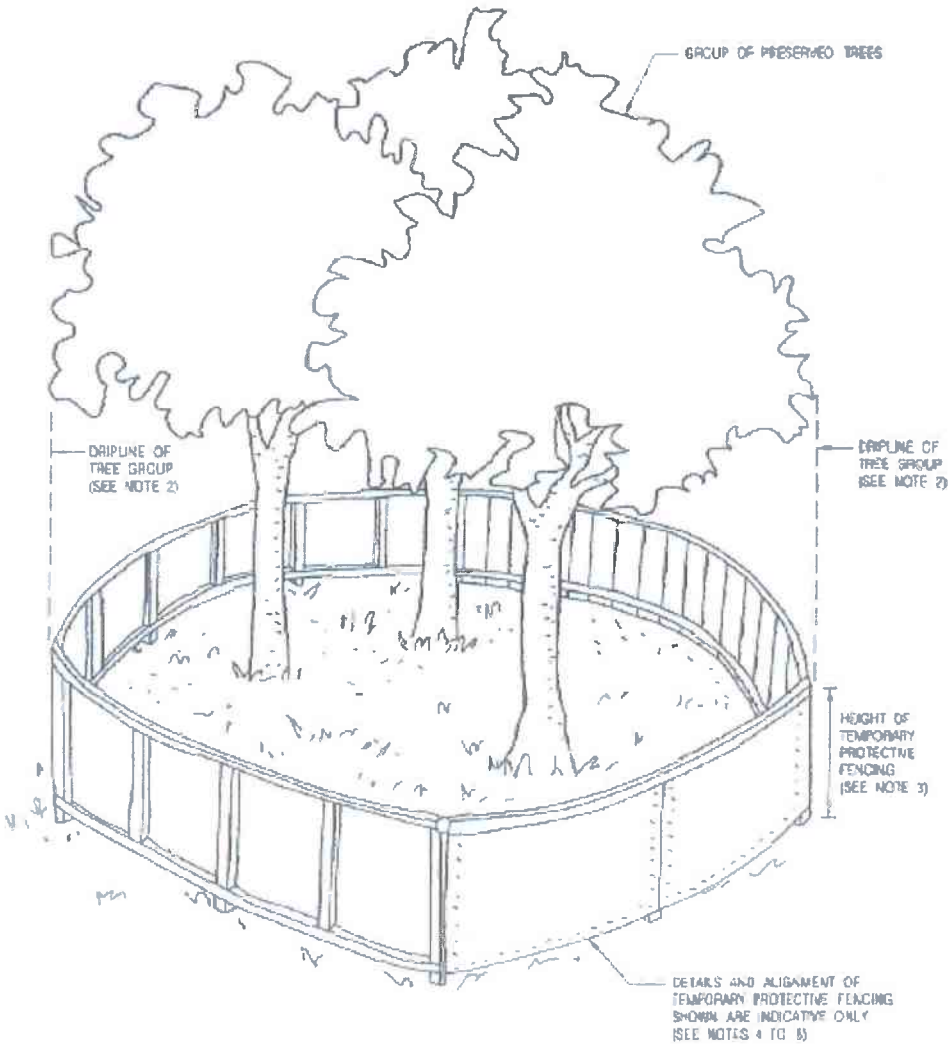
Appendix B – Tree Protection Plan

Appendix C – Risk Assessment Report

Tree protection method



PERSPECTIVE - INDIVIDUAL TREE
(DIAGRAMMATIC)



PERSPECTIVE – GROUP OF TREES

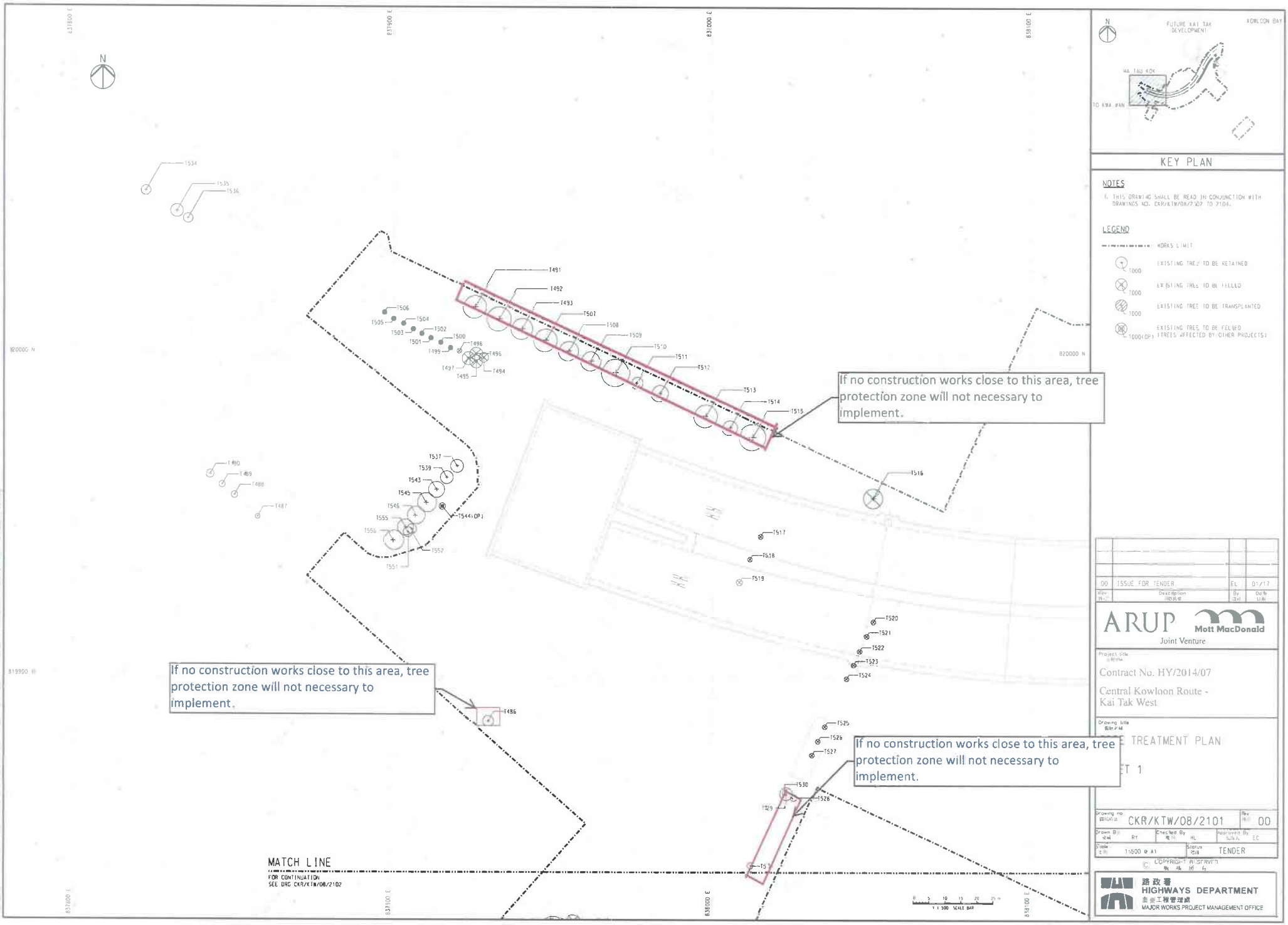
(DIAGRAMMATIC)

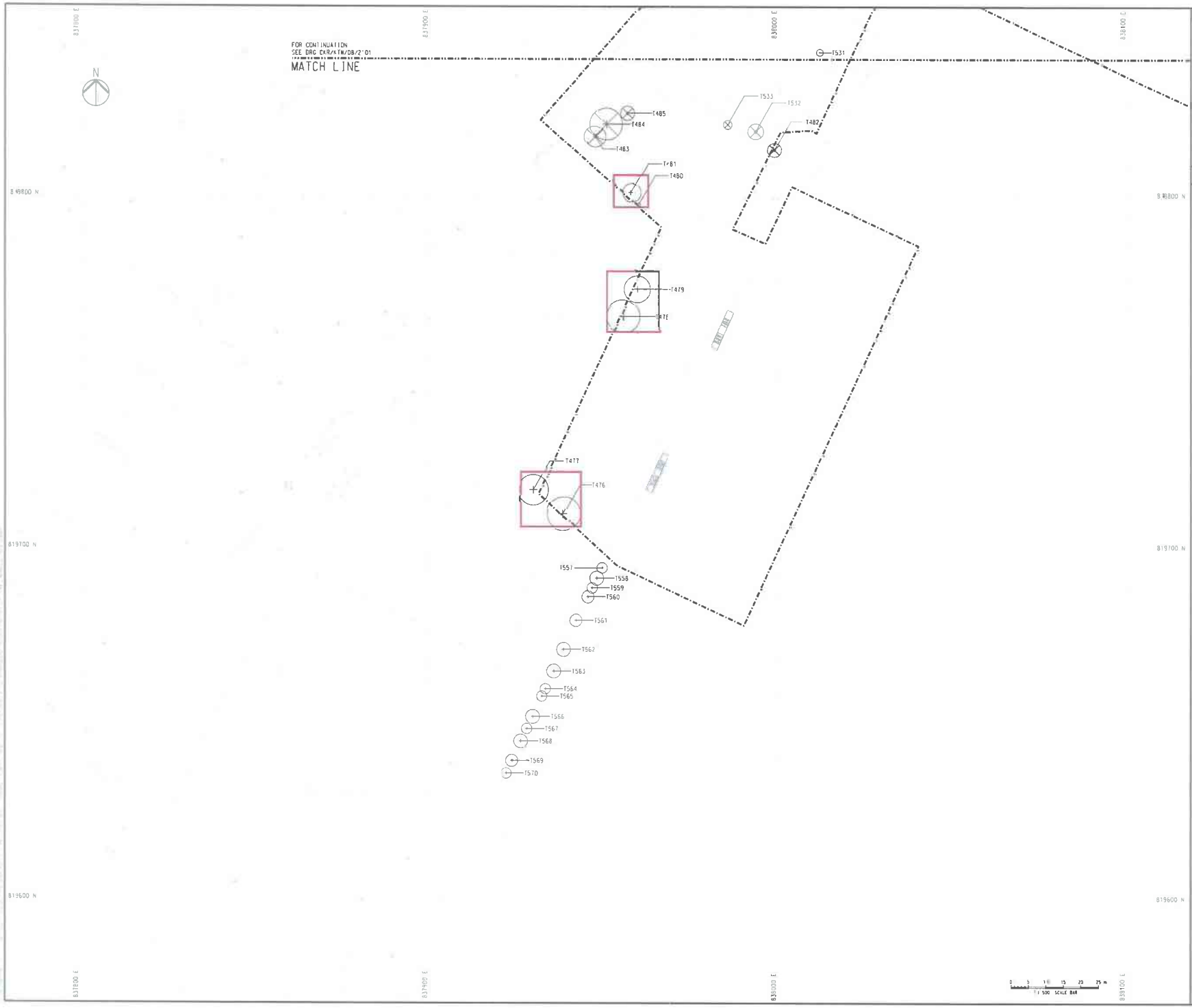
Appendix A – Tree Protection Sample

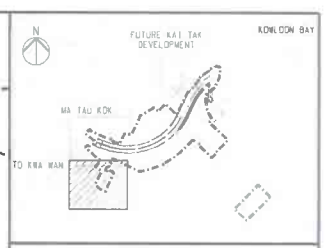
Appendix A – Tree Protection Sample

Sample of Water Barrier and Wire Mesh On Top

Appendix B – Tree Protection Plan


N
T534
T535
T536
T491
T492
T493
T507
T508
T509
T510
T511
T512
T513
T514
T515
T506
T505
T504
T503
T502
T501
T500
T499
T498
T497
T496
T495
T494
If no construction works close to this area, tree protection zone will not necessary to implement.
T516
T490
T489
T488
T487
T537
T539
T543
T545
T546
T555
T556
T552
T551
T544(OP1)
T517
T518
T519
T520
T521
T522
T523
T524
If no construction works close to this area, tree protection zone will not necessary to implement.
T486
T525
T526
T527
T530
T529
T528
If no construction works close to this area, tree protection zone will not necessary to implement.
MATCH LINE
FOR CONTINUATION
SEE DRG CKR/KTW/08/2102
837800 E
837900 E
838000 E
838100 E
820000 N
819900 N
1:1 500 SCALE BAR
FUTURE KAI TAK DEVELOPMENT
KOWLOON BAY
MA TAU KOK
TO KWA WAN
KEY PLAN
NOTES
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2102 TO 2104.
LEGEND
WORKS LIMIT
EXISTING TREE TO BE RETAINED
EXISTING TREE TO BE FELLED
EXISTING TREE TO BE TRANSPLANTED
EXISTING TREE TO BE FELLED (TREES AFFECTED BY OTHER PROJECTS)
00 ISSUE FOR TENDER EL 01/17
Rev Description By Date
ARUP Mott MacDonald
Joint Venture
Project title
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West
Drawing title
TREATMENT PLAN
T 1
Drawing no. CKR/KTW/08/2101
Rev 00
Drawn By RT
Checked By HL
Approved By EC
Scale 1:500 @ A1
Status TENDER
COPYRIGHT RESERVED
HIGHWAYS DEPARTMENT
主要工程管理處
MAJOR WORKS PROJECT MANAGEMENT OFFICE





KEY PLAN

NOTES

1. FOR LEGEND, REFER TO DRAWING NO. CKR/KTW/08/2101.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWINGS NO. CKR/KTW/08/2101, 2103 & 2104.

00	ISSUE FOR TENDER	EL	01/17
Rev	Description	By	Date

ARUP Mott MacDonald
Joint Venture

Project title
Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

Drawing title
TREE TREATMENT PLAN

SHEET 2

Drawing no.	CKR/KTW/08/2102	Rev No.	00
Drawn By	RY	Checked By	HL
Approved By	EC		
Scale	1:500 @ A1	Status	TENDER

路政署 HIGHWAYS DEPARTMENT
土木工程管理處 MAJOR WORKS PROJECT MANAGEMENT OFFICE

Appendix C – Risk Assessment Report

Appendix C - Risk Assessment Report	Assessed by:	Date of this Assessment:	Revision No.	Date of last assessment	Date of next assessment

Note:

1. Probability Rating: Very likely, almost certain (5) / Probable (4) / Possible (3) / Remote (2) / Improbable (1)
2. Impact Consequence Rating: Very High (5) / High (4) / Medium (3) / Low (2) / Very Low (1)
3. Risk Level: RED / ORANGE / YELLOW / GREEN

* Safety helmet and safety shoes should be worn

Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work Control Measures	Training Required	PPE Required	Action / Monitor By	Residue Risk Rating
General Works	Heat Stroke	2	4	8	1. Allow workers to take additional breaks 2. Make arrangements for workers to rest in a cool or shady place during very hot periods. 3. Provide cool potable water for workers during work and encourage them to take plenty of water to replenish the fluid lost through sweating. 4. Encourage them to wear light-colored and loose-fitting clothing to minimize heat absorption and enhance heat dissipation. 5. Request front line supervisor to pay attention to any report of workers suffering from symptoms of heat stroke and inform their senior whenever symptoms observed. 6. When temperature is higher than 40oC, no work shall be allowed. 7. Provide ventilation to reduce temperature if possible.	1. Induction Training 2. CIC guideline		Engineer/ Foreman	4
General Works	Insert bites (Bees, snakes)	2	3	6	1. Provision of face protection net 2. Provision of wellinton boots. 3. Provision of glove	1. Induction Training 2. Tool Box Talk Training	screen/net Glove	Foreman Engineer	3
Manual Handling	Back injury / Muscle injury / Shoulder strains / collision with stationary objects / lacerations to fingers, hands, arms / objects falling onto feet / legs / hands	2	3	6 (Y)	1. Always size up the load before attempting a lift, make a trial lift a few inches to get a self assessment. 2. Never attempt to lift alone, objects that are either too heavy, too large or awkward in shape or size. 3. Adopt the correct position before beginning the lift. Take up position, feet hip breadth apart, one foot slightly advanced pointing in the direction it is intended to move. 4. Always step off in the direction that your advanced foot is pointing in with the load held close to the body. 5. Bend the knees; back muscles should be relaxed. Keep the back straight, arms close to the body. 6. Ensure adequate planning & supervision of the work. 7. Provide appropriate training for manual handling. 8. Ensure that there are no obstructions, and if necessary plan the route. 9. Operatives must never lift loads that obstruct their view. 10. Provide gloves to protect hands against cuts, scratches or puncture wounds. 11. Provide safety boots to protect feet from falling or dropped objects. 12. Use manual handling as a last resort when it is either not possible to move a load by mechanical means or if mechanical means are not available. 13. Ensure training and instruction is provided to all employees on correct manual handling for specific & general tasks. 14. Ensure suitably competent persons carry out all manual handling training. 15. Conduct manual handling assessment 16. Provide sufficient man power.	1. Induction Training 2. Tool Box Talk Training	Safety Boots Golves Safety Helmets	Foreman / Area Manager	3 (Y)

Appendix C - Risk Assessment Report	Assessed by:	Date of this Assessment:	Revision No.	Date of last assessment	Date of next assessment

Note:

1. Probability Rating: Very likely, almost certain (5) / Probable (4) / Possible (3) / Remote (2) / Improbable (1)
2. Impact Consequence Rating: Very High (5) / High (4) / Medium (3) / Low (2) / Very Low (1)
3. Risk Level: RED / ORANGE / YELLOW / GREEN

* Safety helmet and safety shoes should be worn

Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work			Action / Monitor By	Residue Risk Rating
					Control Measures	Training Required	PPE Required		
Tree protection zone	Worker / tree hit by plant / vehicle	2	3	6	1. Fence off the working zone 2. Inform section manager 3. Proper set up the pedestrian walkway. 4. No contruction works carry out inside the tree protection zone.	1. Induction Training		Foreman	3

Safety Supervisor

Project Manager

APPENDIX E

METHOD STATEMENT FOR TREE TRANSPLANT

GAMMON CONSTRUCTION LIMITED

Gammon

Contract No. HY/2014/07

CENTRAL KOWLOON ROUTE-KAI TAK WEST

J3718

Method Statement For Tree Transplant

Document No.: J3718-MS-002

Effective Date : 15 January 2018

Rev. No. : 0

Prepared by :	Reviewed by :	Reviewed by :
Agnes Wong	Brian Kam	Ming Chi Cheng
Reviewed by	Reviewed by :	Approved by :
Ryan Kwok	Nicholas GIBBS	Niki Lui

REVISION STATUS SHEET

Rev. No.	Effective Date	Summary of Revision	Reviewed		Approved	
			By	Date	By	Date

Distribution :

Contents

1. REFERENCE 3
2. SEQUENCE OF WORK 3
3. PLANTS AND MATERIALS 4
4. PREPAREATION WORKS – CROWN AND ROOT PRUNING WORKS 5
5. TRANSPLANTING FROM SITE TO NURSERY/ ONSITE LOCATION 8
6. RE-TRASNPLANT FROM NURSERY/ ONSITE LOCATION TO FINAL LOCATION 10
7. MAINTENANCE 11
8. SAFETY REQUIREMENTS & PRECAUTION MEAURES 12
9. ENVIRONMENTAL IMPACTS 13
10. TRANSPLANT DIAGRAM AND REFERENCE PHOTOS 14
11. PHOTOS OF EQUIPMENT/MACHINERY 19

Appendices

APPENDIX A – TREE SCHEDULE

APPENDIX B – PROPOSED ZONES TO BE CLOSED AND SAMPLE TTA ARRANGEMENT

APPENDIX C – TRANSPORT REGULATION

APPENDIX D – RISK ASSESSMENT REPORT

APPENDIX E – SUCCESSFUL CASE OF ROOT PRUNING WITH SHORTEN LEAD TIME

1. REFERENCE

- List of approved suppliers of materials and specialist contractors for Public Works in the category of landscaping : Class I- General Landscape Work
- CEDD General Specification for Civil Engineering Works (2006) - Section 26: Preservation and protection of trees.
- CEDD General Specification for Civil Engineering Works (2006) - Section 3: Landscape Softworks and Establishment Works
- ETWB TCW No. 2/2004 – Maintenance of Vegetation and Hard Landscape Features;
- ETWB TCW No. 3/2006 – Tree Preservation;
- ETWB No. 29/2004 – Registration of Old and Valuable Trees, and Guidelines for their Preservation.
- Specification of HY/2014/07 Section 3 and Section 26.
- General Guidelines on Tree Pruning issued by GLTM Section Development Bureau

2. SEQUENCE OF WORK

Step	Summary
1	TTM planning depending on the nature of work area
2	Safety inspection for plants
3	Identify the Tree
4	Fence off the tree transplant area
5	Pruning would be carried out if necessary
6	Conduct 1st root pruning and rest for a period of time agreed with SO
7	Conduct 2nd root pruning and rest for a period of time agreed with SO
8	3rd root pruning or undercut rootball then uplift
9	Transport and plant at the temporary holding nursery
10	Re-transplant from temporary holding nursery to final location

3. PLANTS AND MATERIALS

3.1 Machineries

3.1.1 Lifting appliances and lifting gear such as mobile crane or crane lorry or Grab lorry

3.1.2 Excavator

3.1.3 Aerial platform truck

3.1.4 Dump truck

3.2 Materials

3.2.1 Chain Link Fence (triple twisted wire mesh)
(Mesh eye: 50mm width x 50mm height; ~2mm thick)

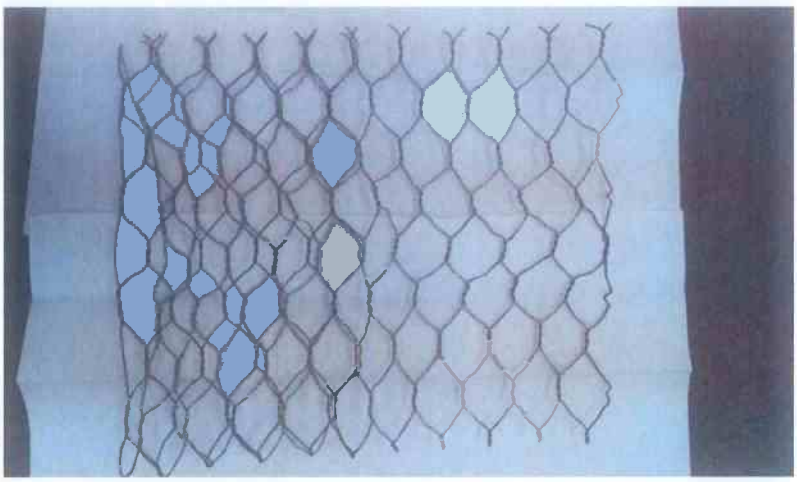
3.2.2 Wrapping material (P.P. Rope Net)

3.2.3 Round sling

3.2.4 Soft sling

3.2.5 Hand saw

3.2.6 Chain saw



Triple Twisted Wire Mesh

Round Sling

P.P. Rope Net

Nylon Webbing Sling

4. PREPAREATION WORKS – CROWN AND ROOT PRUNING WORKS

4.1 Crown pruning

4.1.1 Excessive removal of healthy fronds is not recommended.

4.1.2 The tree is to be stabilized by wiring method. If the trees are of height more than 8m, bamboo staking method will be used. (**Figure 2**)

4.1.3 Terminal buds of palms must be carefully protected since it is from where the new growth develops.

4.1.4 Remove dead, broken, diseased and dying fronds.

4.1.5 Pruning will be facilitated by hand saw or chain saw or crane lorry and man cage

4.1.6 For trees transplant to offsite (**Appendix A**), tree crown larger than 2.5m would be required pruning according to the transport regulation (the width of "Overhanging load" cannot be more than 2.5m, see attached **Appendix C** for transport regulation). Pruning proposal shall be reviewed by RSS. The tree specialist shall supervise the operation on site.

4.2 Formation of root ball

4.2.1 Allow 1 or 2 stages of root pruning at alternate segments (**Figure 1**). For tree under 500mm DBH, each stage of root pruning shall be maximum 30 days apart or at an interval approved by RSS. For special circumstances, tree may require to shorten the root pruning period, successful case is attached in **Appendix M** to demonstrate tree health can be maintained properly. Detail of proposed root pruning for each tree is listed on **Appendix A**.

4.2.2 Tree with shorten root pruning period will provide additional mitigation measures to increase the survival rate of transplanting including:

a. Reduce root loss by shuffling the fibrous roots towards the rootball instead of cutting.

b. Apply root activator once per week if necessary.

c. Apply mulching to reduce water loss after the trees are transplanted to holding nursery or temporary location.

d. Apply pesticide before transport.

4.2.3 Cable detection will be carried out before any trenches excavation. If underground utilities are found, trenches excavation will be done by hand, otherwise, done by excavator.

4.2.4 Trenches ranging from 350mm to 750mm in depth (depends on tree species, soil characteristics and the underground utilities) shall be formed encircling the trunk.

4.2.5 Distance measured from trunk to trench at earlier stage of root pruning shall be smaller than that of the final stage.

4.2.6 The root ball should have adequate mass and depth to structurally support the palm. The minimum root ball radius should also follow international practice of 6 inches (15 cm) from the base of the trunk at ground level. Root balls larger than the minimum radius shall be preferred. And against to the site condition, rootball size may vary in consideration to structures in proximity, underground utilities or boulders. Rootball size subject to site condition assessed by Certified Arborist, Competent Person of cable and utilities detection and agreed with RSS on site (The proposed rootball size of individual tree referred to **Appendix A**).

4.3 1st root pruning (stage 1)

4.3.1 Trenches shall be formed using sharp spade to avoid tearing or breaking the roots.

4.3.2 Roots shall be cut at the edge of the root ball and the outer edge of the trench to facilitate further digging.

4.3.3 Shaping and cutting of roots protruding form root ball shall be clean.

4.3.4 The root ball facing edge shall be lined with burlap or Hessian material with application of root generating hormone to encourage root development.

4.3.5 Trenches shall be backfilled with soil mix.

4.3.6 Backfilled area with soil mix shall be fenced off by thin water fill barrier as demarcation to alert people or lifting plant about soft ground.

4.3.7 Support the tree with guying materials (wire or rope or bamboo stakes etc.) with rubber padding against the trunk. Staking method will be adjusted subject to the site condition. For tree > 200mm DBH would be fenced off after first root pruning.

4.3.8 Watering the trees regularly.

4.4 2rd root pruning (final stage) - Undercutting

4.4.1 2nd root pruning shall be carried out after 1st root pruning or period approved by RSS.

4.4.2 The root ball shall be shaped to become taper, slanting inward to the base.

4.4.3 In case soil cannot be hold up on rootball due the nature of sandy soil, mist spray will be used to keep the exposed root moisture during the undercutting operation.

4.4.4 The root ball shall be drum-laced with rope for security during uplift and transport.

4.4.5 The tree hold will be backfilled with suitable material and compacted.

5. TRANSPLANTING FROM SITE TO NURSERY (if necessary)

5.1 Holding nursery preparation (if necessary)

5.1.1 Concrete and debris shall be removed before construction of nursery.

5.1.2 Backfill soil should be agreed with SO.

5.1.3 Good drainage build-in to avoid water logging.

5.1.4 Clean water shall be available for irrigation.

5.1.5 Nursery shall be fenced off with material approved by SO.

5.1.6 Holding nursery shall be accessible for maintenance works.

5.2 Temporary road closure

5.2.1 During the operation of transplanting work, temporarily closure for the area is necessary, to allow lifting gear or lifting appliances such as mobile crane or crane lorry or excavator to sit properly to uplift the tree to crane lorry or lorry. (See attached **Appendix B** for the TTA plan)

5.2.2 Specific lifting plan for each lifting location will be produced and satisfied by operating-in-charge before any lifting operation.

5.3 Uplift and transport to nursery location

5.3.1 Uplifting shall be carried out at the same time as the final root pruning/Undercutting or period approved by consultants, or approval authorities or relevant Government Departments.

5.3.2 Removal of dead fronds shall be carried out to reduce water and energy loss.

5.3.3 Excavation to facilitate uplift shall be outside the root ball to avoid disturbance and damage to the root ball.

5.3.4 Rootball shall be padded with hessian material or plastic wrap, with chain link fence installed around the rootball to facilitate lifting (**Figure 3**). Round sling and soft sling would be used to uplift and transport the trees. Certificate of test and through examination of chains, ropes and lifting gear shown in (**Appendix N**).

5.3.5 Lifting gear or lifting appliances such as mobile crane or crane lorry or other mechanical devices shall be parked adjacent to the transplant tree. Tyre should be used as cushion of root balls during transplant. Protective mat will be used to wrap around the tree trunk while lifting.

5.3.6 The transplant tree is uplifted to transporting machines such as lorry or crane lorry.

5.3.7 Tree crown shall be loosely wrapped with tarpaulin or burlap to minimize drying and wind damage during transportation. The wrapping is operated on ground level once the tree is uplifted.

5.3.8 Tree with large crown should be supported by large rack (at least 1.8 height) to avoid broken branch.

5.3.9 The approximate weight of the heaviest tree is 5 ton (including water content).

i.e. Weight of Tree Trunk = $\pi r2h$ x Density
= $\pi r2h$ x 0.7~0.9 ton
i.e. Weight of Rootball = $\pi r2h$ x Density
= $\pi r2h$ x ~1.5 ton

5.4 Planting at temporary nursery / location

5.4.1 Diameter of planting pit shall be at least 150mm greater than that of the root ball.

5.4.2 Before planting, pit base soil shall be at least 150mm loosen downward.

5.4.3 Remove all crown wrappings and fastenings used to tie the branches during transportation.

5.4.4 Rootball will be raised above grade to allow better drainage.

5.4.5 Set the tree into the pit with wrapping material retain to control vigorous root propagation and ensure an up-right position.

5.4.6 Backfill the pit with soil mix.

5.4.7 Water thoroughly to ensure adequate moisture supply and facilitate soil settlement for maximum ground anchorage.

5.4.8 Root hormone would be apply to enhance root propagation (if necessary)

5.4.9 Support the tree with guying materials (wire or rope or bamboo stakes etc.) with rubber padding against the trunk.

5.4.10 Carry out maintenance stated in item 7 until re-transplanting to final location.

6. RE-TRASNPLANT FROM NURSERY TO FINAL LOCATION

6.1 Preparation before uplift

6.1.1 To reduce transplantation shock, trenches shall be formed just outside the rootball with protruding roots cut back using secateurs.

6.1.2 Back fill the trench with soil mix and water thoroughly for moisture supply and soil settlement.

6.1.3 Trenches shall be formed before uplift or period approved by RSS.

6.2 Uplift and transport to final location

6.2.1 Trunk shall be padded and crown shall be loosely tied up to avoid damage during uplift and transport.

6.2.2 Excavate only outside the root-ball before uplift.

6.2.3 The tree shall be lifted in a single full-swing (i.e. the tree shall be transferred to the crane lorry within one lift) and secured firmly on the lorry.

6.2.4 Tree crown shall be loosely wrapped with tarpaulin or burlap to minimize drying and wind damage during transportation.

6.3 Planting at final location

6.3.1 Pit base soil shall be at least 150mm loosen downward before planting.

6.3.2 Remove all crown wrappings and fastenings used to tie the branches during transportation.

6.3.3 Set the tree on the pit and ensure an up-right position.

6.3.4 Backfill the pit using soil mix.

6.3.5 Water thoroughly to ensure adequate moisture supply and facilitate soil settlement for maximum ground anchorage.

6.3.6 Support the tree with guying materials (wire or rope or bamboo stakes) with rubber padding against the trunk.

6.3.7 Carry out maintenance stated in item 7.

7. MAINTENANCE

7.1 Watering

7.1.1 Watering tree thoroughly to ensure wetting of root volume for the 1st 3 months period.

7.1.2 Watering frequency shall be reduced gradually to promote deep root system.

7.1.3 Watering frequency shall be adjusted to weather condition to avoid root rotting due to excessive soil moisture content.

7.2 Pest and weed control

7.2.1 Control weeds growth using herbicide.

7.2.2 Check pest or fungal infestation by applying pesticide and fungicide respectively. **(Appendix N)**

7.3 Nutrition's

7.3.1 Slow release fertilizer (15-9-15-2) shall be applied 3 months apart. First application shall be at the 6th month from the commencement of the maintenance period.

7.4 Additional Mitigation measures for transplant trees

7.4.1 For transplanted trees which may be affected by heavily crown or root pruning, or trees transplanted immediately without root pruning lead time, mitigation measures apart from general maintenance care are necessary.

7.4.2 Water soluble foliar fertiliser would be applied to foliage to provide extra macronutrients (NPK) for maintaining supply of necessary nutrient.

7.4.3 Root hormone would be applied at root area to promote root growth.

7.4.4 Regular and monitored watering subject to weather condition is necessary.

7.4.5 A micro-climatic mist system around dripline will be installed to increase humidity of air around the trees, so to decrease the rate of transpiration.

8. SAFETY REQUIREMENTS & PRECAUTION MEAURES

8.1 Safety during the works

8.1.1 The uncontrolled collapse of trunks/brunches has been identified as being the main risk while cutting operations. A system of temporary barriers will be erected at the work area to visually identify the working area to workers. The access to the activity zone will be prohibited to unauthorized persons and only trained workers will be able to carry out cutting/lifting works. Prior to cutting of brunches and trunks, the area at ground will be secured and checked by the safety officer at front line.

8.2 Safety induction training course

8.2.1 All workers will attend an induction training course conducted by the safety officer before commencement of any work. During this course Safety department will informed the workers on the potential risk subsequent to construction activities and the prevention measures to protect themselves, other workers and the public at the vicinity. Environment protection and quality of the works will be explained as well.

8.3 Risk assessment

8.3.1 All the potential hazards, consequences and mitigations will be analyzed before works conduct.

8.4 Precaution measures during uplifting

8.4.1 To stabilise the tree from swing when lifting, precaution measures include:.

8.4.2 The lifting cables and harnesses shall only be anchored to the chain net wrapping around the root ball.

8.4.3 The upper part of the lifting cable shall be spread out by frame spacer to prevent the cable from touching the stem and branch at the time of lifting.

8.4.4 Guying rope should be tie to the lifting cable to stabilize the tree at the time of lifting.

8.4.5 The trunk and the branch should be temporary protected by burlap wrapping and be removed once complete.

9. ENVIRONMENTAL IMPACTS

Anticipated environmental aspects/ impacts and respective mitigation measures are summarized in below table.

Item	Activity/ Work Procedure	Environmental Aspect & Impact	Mitigation Measures	Action Party *
1	Tree Pruning	Noise from plants operation	◆ Works between 0700-1900 hrs weekdays. In the event that lane closure TTM in restricted hours be required to facilitate the work, apply noise permit respectively	AreaM, EnvM/EnvO, SEngr, SiteSupr, SubC
		Disposal of pruned tree trunks/ branches	◆ Send to local timber recycle whenever possible. The surplus to be disposed of at designated landfill	SiteSupr, SubC
3	General Site Operation	Dark plant exhausts	◆ Regular plants maintenance	SiteSupr, SubC
		Domestic sewage from workforces	◆ Provide chemical toilets on-site with regular clearing	SiteSupr, SubC
		Garbage from workforces	◆ Provide garbage receptacles on-site with regular emptying	SiteSupr, SubC
		Lube oil spillage/ leakage from plants	◆ Provide drip trays for generators/ air compressors	SiteSupr, SubC
			◆ Implement emergency cleanup procedure as per the 'Environmental Management Plan'	SiteSupr, SubC
			◆ Dispose of the contaminated soil as chemical waste	SiteSupr, SubC

* - SubC - Sub-contractor, AreaM - Area Manager, SEngr - Site Engineer,
SiteSupr - Superintentant, G. Foreman, Const Supr, S. Foreman or Foreman, EnvM - Env Manager, EO - Env Officer

10. TRANSPLANT DIAGRAM AND REFERENCE PHOTOS

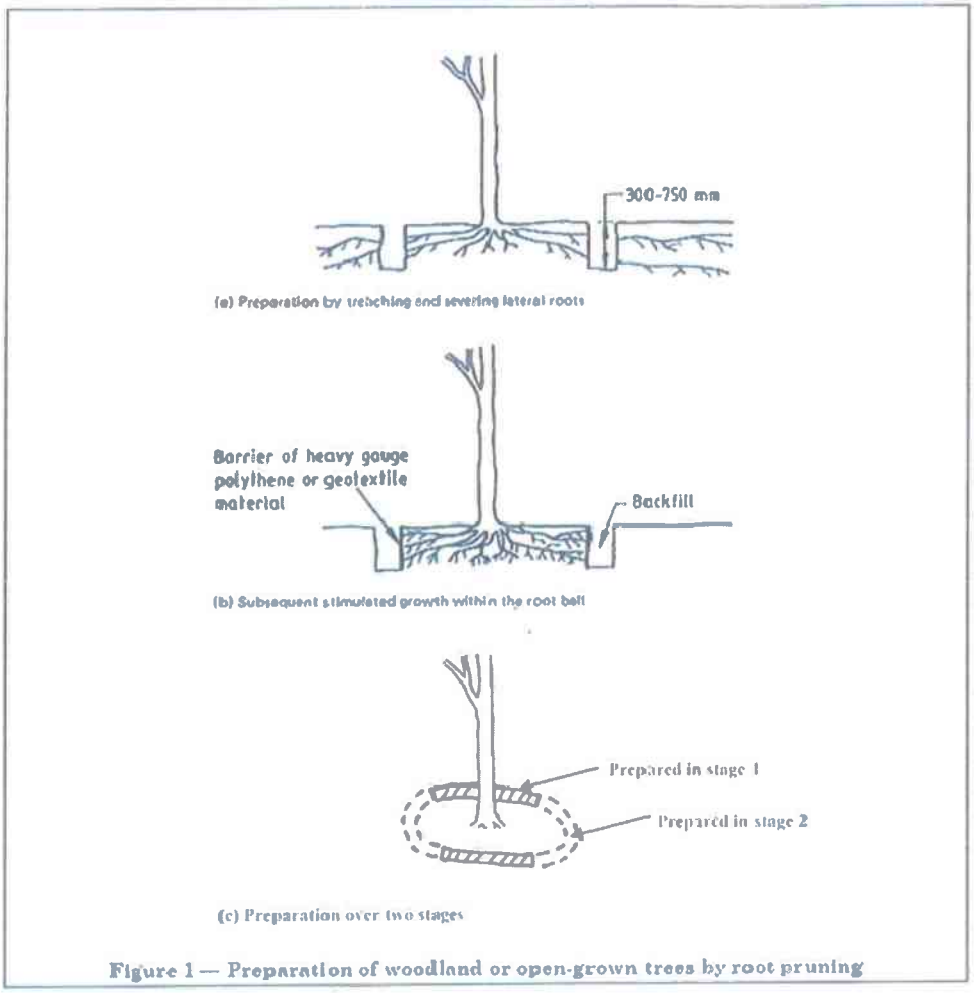


Figure 1 — Preparation of woodland or open-grown trees by root pruning

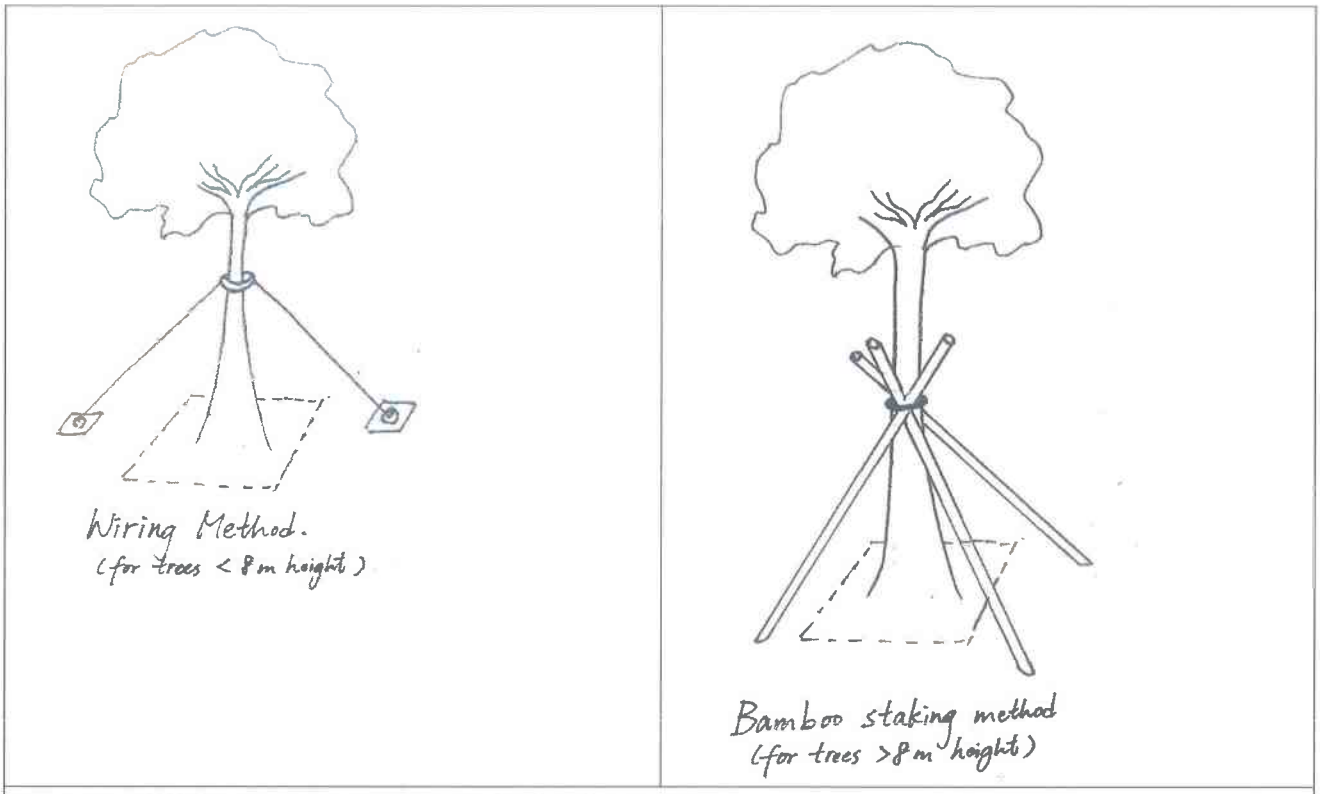


Figure 2 Staking methods for stabilizing the trees

Figure 3 Root ball installed with chain link fence

Figure 4 Formation of Root ball

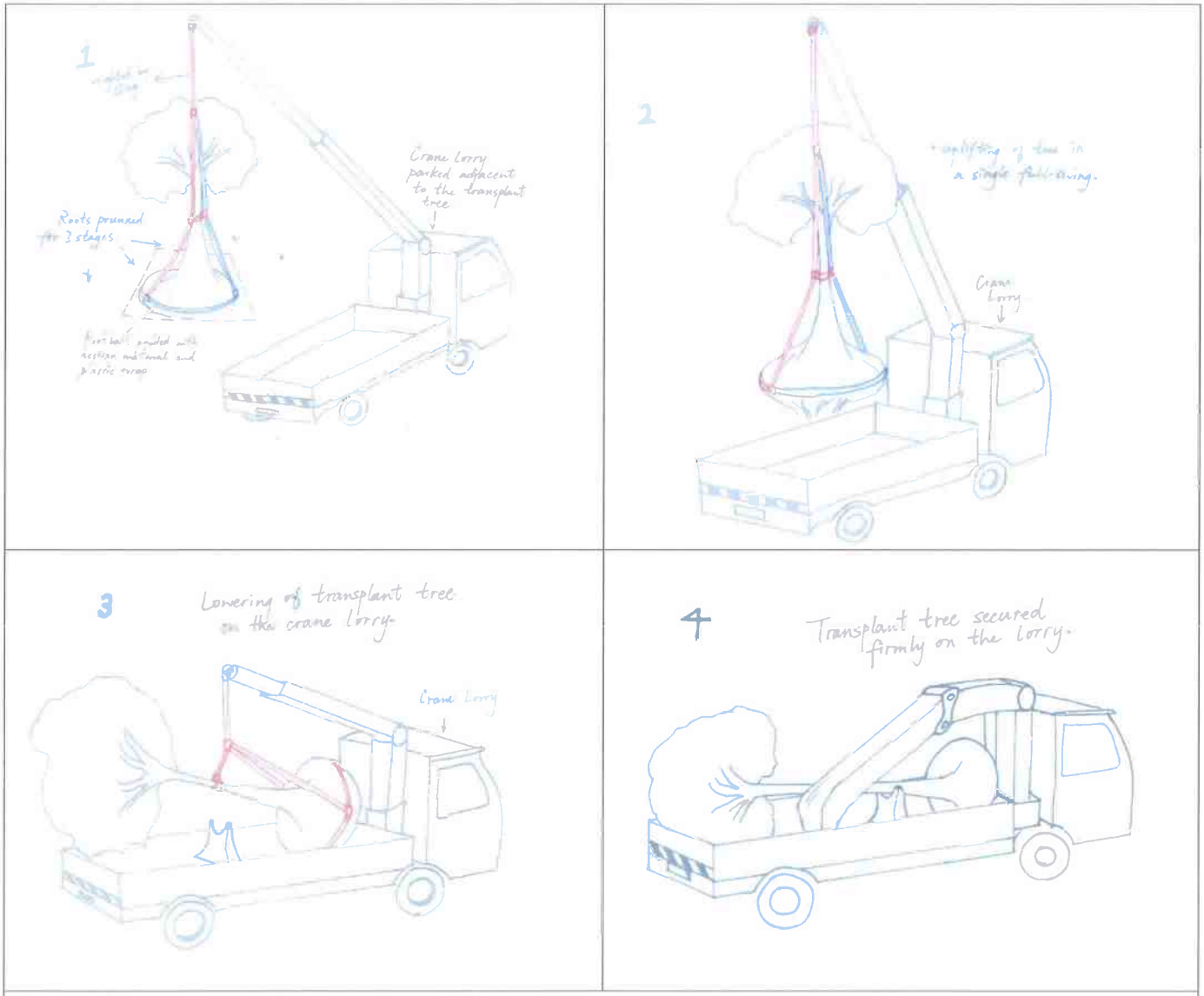


Figure 5 Transplant diagram for uplifting of tree

Figure 6 Uplifting of trees

11. PHOTOS OF EQUIPMENT/MACHINERY

	**Figure 5** Hydraulic Truck Crane 液壓汽車起重機
	**Figure 6** Excavator 挖掘機 (雞頭,細雞)
	**Figure 7** Skid Steer Loader 滑移轉向裝載機 (貓仔)

APPENDIX A – TREE SCHEDULE

Ref: Drawing no. CKR/KTW/08/2101
Date of Inspection: 21 Oct 2017
Surveyor : Agnes Wong

TREE SURVEY SCHEDULE

CLIENT: Highways Departmemt
Contract No. HY/2014/07 Central Kowloon Route - Kai Tak West
LOCATION: Kowloon City Ferry Public Transport Interchange

Monthly Tree Report for Retained Trees													
Tree No.	Tree Species		DBH (mm)	Height (m)	Spread (m)	Form	Health	Structural	Amenity	Survival Rate	Action	Remarks
	Scientific Name	Chinese Name				Fair	Fair	Fair	Medium	Medium	Transplant	
T499	*Phoenix roebelenii*	江邊刺葵	100	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T500	*Phoenix roebelenii*	江邊刺葵	102	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T501	*Phoenix roebelenii*	江邊刺葵	99	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T502	*Phoenix roebelenii*	江邊刺葵	110	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T503	*Phoenix roebelenii*	江邊刺葵	104	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T504	*Phoenix roebelenii*	江邊刺葵	109	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T505	*Phoenix roebelenii*	江邊刺葵	111	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	
T506	*Phoenix roebelenii*	江邊刺葵	100	2.5	1.0	Fair	Fair	Fair	Medium	High	Transplant	

APPENDIX B – PROPOSED ZONES TO BE CLOSED

KEY PLAN

Area closed for tree transplanting

ARUP Mott MacDonald
Joint Venture

Contract No. HY/2014/07
Central Kowloon Route - Kai Tak West

TREE TREATMENT PLAN

SHEET 1

CKR/KTW/08/2101 00

HIGHWAYS DEPARTMENT

APPENDIX C – TRANSPORT REGULATION

Transport Department
The Government of the Hong Kong Special Administrative Region

Loads, Long Vehicles, Towing

Carrying loads

You must properly secure a load - cover it if necessary.

You must not drive a vehicle which is loaded so that its permitted gross vehicle weight or maximum permitted axle weights are exceeded.

The permitted gross vehicle weight and maximum permitted axle weights of a goods vehicle are marked on either side of the vehicle.

Gross vehicle or axle weight includes the weight of the vehicle and any passengers and load etc.

You must not carry or support any load on the tailgate.

You must not allow the load to touch the roadway.

You must make sure that your vehicle, or trailer, is loaded so as not to cause danger to you or your passengers or other road users; or to cause damage to the road or property.

(For rules and advice on where to stop on the road to load and unload goods see pages 82 and 83.)

Overhanging loads

When driving a vehicle with an overhanging load, you must ensure that there is a red flag not less than 1 square metre at the rear extremity of the load other than during the hours of darkness or in poor visibility. During the hours of darkness or in poor visibility, you must install a white light showing on each side of the front of the load and a red light showing at the rear of the load.

You must **not** load or drive a vehicle so that the load

- Extends beyond the front of the vehicle by more than 1.5 metres.
- Extends beyond the rear of the vehicle by more than 1.4 metres.
- Is more than 2.5 metres in width.
- Is higher than 4.6 metres from the road surface.
- Is at a height that may cause damage to any object or wires erected above the road.

Fallen or spilled loads

If a load or object falls or spills from your vehicle then stop your vehicle in a safe place and try to remove the fallen load or deal with the spillage - if it is safe to do so. If you are

APPENDIX D – RISK ASSESSMENT REPORT

Appendix A - Risk Assessment Report	Assessed by:	Date of this Assessment:	Revision No.	Date of last assessment	Date of next assessment

Note:

1. Probability Rating: Very likely, almost certain (5) / Probable (4) / Possible (3) / Remote (2) / Improbable (1)
2. Impact Consequence Rating: Very High (5) / High (4) / Medium (3) / Low (2) / Very Low (1)
3. Risk Level: RED / ORANGE / YELLOW / GREEN

* Safety helmet and safety shoes should be worn

Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work			Action / Monitor By	Residue Risk Rating
					Control Measures	Training Required	PPE Required		
Excavation	Trench collapse	2	4	8	1. Application of Excavation Permit from Highway Department 2. Excavation deeper than 1.2m should have designed and be secured properly or cut to a safe angle. 3. Inspect the excavation before commencement and every 7 days to ensure the stability, T4 and Form 4 should be filled before work 4. Do not store material near the edge of excavation. 5. Proper barriers around the trench	1. Induction Training 2. Tool Box Talk Training		CP / Engineer	4
Ditto	Electrocution	2	5	10	1. Proper warning sign erected 2. Worker to extreme care 3. Hand dig by spades and shovels area preferred 4. Implement Permit to Dig and Permit to Work (UU) System	1. Induction Training 2. Tool Box Talk Training		Foreman	5
Ditto	Damage Utilities	2	5	10	1. Proper warning sign erected 2. Worker to extreme care 3. Hand dig by spades and shovels 4. Implement Permit to Dig and Permit to Work (UU) System 5. Cable detection and demarcate the existing UU should be done before work 6. Pre-work briefing should be given to all workers about the location of UU	1. Induction Training 2. Tool Box Talk Training		Foreman	5
Ditto	Falling of Person	2	3	6	1. Provide proper access to the working location 2. Display warning notice at excavation area. 3. Provide proper working platform or mancage to access the high level area 4. Safety harness shall be attached to independent lifeline or designated anchorage point when cherry picker or mancage	1. Induction Training		Foreman	3
Ditto	Falling of Object	2	5	10	All the materials should be placed at least 1m far from the edge of the excavation. No load or plant should be placed or moved near the edge of the excavation where it is likely to cause the collapse of the side of the excavation thereby endangering any person working in it.	1. Induction Training 2. Tool Box Talk Training		Foreman	5
Ditto	Collapsed Excavator	2	5	10	1. Good communication among relevant parties regarding the operation procedures shall be maintained. 2. Provide adequate training of safe use of machine for tree hoisting operations to operators / workers. 3. Follow the operation procedure laid down in operation manual. 4. Check before use to ensure the excavator were examined and test by RPE with valid certificates 5. Check the excavator before use and ensure that it is well maintained. 6. Check the ground condition.	1. Induction Training		Foreman Engineer	5
Ditto	Struck by Excavator	2	5	10	1. Fence off the area (fatal zone). 2. Operate by competent person.	1. Induction Training		Foreman	5
Emergency Preparedness	Fire / Chemical Spillage	2	4	8	1. Safe evacuation procedures / Specific emergency plan shall be set up and let all designated workers familiar with. Area Manager issues the the evacuation order.	1. Induction Training	1. Gloves	Area Manager	4

Appendix A - Risk Assessment Report	Assessed by:	Date of this Assessment:	Revision No.	Date of last assessment	Date of next assessment

Note:

1. Probability Rating: Very likely, almost certain (5) / Probable (4) / Possible (3) / Remote (2) / Improbable (1)
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3. Risk Level: RED / ORANGE / YELLOW / GREEN

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Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work			Action / Monitor By	Residue Risk Rating
					Control Measures	Training Required	PPE Required		
					2. Emergency contact list / Emergency Procedures should be displayed prominently at 3. Provide sufficient and appropriate fire extinguisher and fire protection equipment 4. Provide sufficient marks on site in case of emergency 5. Provide proper tranining on chemcial handling 6. Provide glassess to prevent chemical spillage to eyes 7. No Smoking is allowed on site in work area	2. Evacuation Drill 3. Tool Box Talk Training			
Emergency Preparedness	Lightning Warnings / Typhoon and Heavy Rainstorm Signal	2	4	8	1. Monitor weather conditions (such as Hong Kong Observatory – Lightning Location 2. Suspension and resumption of outdoor activities shall be planned in advance. 3. Safe evacuation procedures shall be set up and let all employees familiar with. 4. Familiar with emergency procedure by conducting regular drill. 5. No outdoor work should be carried out during inclement weather 6. During lighting enter 5km per meter of working location, outdoor work should be suspended. All workers should stay in sheltered area	1. Induction Training 2. Evacuation Drill		Area Manager	4
General Works	Fire Hazards	2	5	10	1. No-smoking" policy is strictly enforced. 2. Provide sufficient number of fire extinguishers. 3. No flammable materials such as enamel paints, lacquer etc. can be temporarily 4. Maintain good housekeeping. 5. Implement hot work permit system.	1. Induction Training		Area Manager	5
General Works	Heat Stroke	2	4	8	1. Allow workers to take additional breaks 2. Make arrangements for workers to rest in a cool or shady place during very hot 3. Provide cool potable water for workers during work and encourage them to take 4. Encourage them to wear light-colored and loose-fitting clothing to minimize heat 5. Request front line supervisor to pay attention to any report of workers suffering from symptoms of heat stroke and inform their senior whenever symptoms observed. 6. When temperature is higher than 40oC, no work shall be allowed. 7. Provide ventilation to reduce temperature if possible.	1. Induction Training 2. CIC guideline		Engineer / Foreman	4
General Works	Noise (Over 85 dBA)	2	4	8	1. Conduct noise assessment when necessary. 2. Provide ear protector when required for the workers.	1. Induction Training	Ear Plug	Engineer / Foreman	4
Identify underground utilities	Wrong Identification	2	4	8	1. Obtain update drawings from utilities companies 2. Detect cable and utilities by competent person 3. Regular calibration of cable detector 4. Consults relevant utilities company before work start if utilities found under the work 5. Utility services identified should be provided on site and briefing to the front-line	1. Induction Training 2. Permit to Work 3. Tool Box talk		CP / Engineer	4
Manual Handling	Back injury / Muscle injury / Shoulder strains / collision with stationary objects /	2	3	6 (Y)	1. Always size up the load before attempting a lift, make a trial lift a few inches to get a self assessment. 2. Never attempt to lift alone, objects that are either too heavy, too large or awkward in shape or size.	1. Induction Training 2. Tool Box Talk Training	Safety Boots Golves	Foreman / Area Manager	3 (Y)

Appendix A - Risk Assessment Report	Assessed by:	Date of this Assessment:	Revision No.	Date of last assessment	Date of next assessment

Note:

1. Probability Rating: Very likely, almost certain (5) / Probable (4) / Possible (3) / Remote (2) / Improbable (1)
2. Impact Consequence Rating: Very High (5) / High (4) / Medium (3) / Low (2) / Very Low (1)
3. Risk Level: RED / ORANGE / YELLOW / GREEN

* Safety helmet and safety shoes should be worn

Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work			Action / Monitor By	Residue Risk Rating
					Control Measures	Training Required	PPE Required		
	lacerations to fingers, hands, arms / objects falling onto feet / legs / hands				3. Adopt the correct position before beginning the lift. Take up position, feet hip breadth apart, one foot slightly advanced pointing in the direction it is intended to move. 4. Always step off in the direction that your advanced foot is pointing in with the load held close to the body. 5. Bend the knees; back muscles should be relaxed. Keep the back straight, arms close to the body. 6. Ensure adequate planning & supervision of the work. 7. Provide appropriate training for manual handling. 8. Ensure that there are no obstructions and if necessary plan the route. 9. Operatives must never lift loads that obstruct their view. 10. Provide gloves to protect hands against cuts, scratches or puncture wounds. 11. Provide safety boots to protect feet from falling or dropped objects. 12. Use manual handling as a last resort when it is either not possible to move a load by mechanical means or if mechanical means are not available. 13. Ensure training and instruction is provided to all employees on correct manual 14. Ensure suitably competent persons carry out all manual handling training. 15. Conduct manual handling assessment. 16. Provide sufficient man power.		Safety Helmets		
Cutting of grass with grassing cutting machine	Eye injury	2	3	6 (O)	1. Provide the training course about how to use the grass cutting machine 2. Provide eyes goggles.	1. Induction Training	goggles	Foreman Engineer	3 (Y)
Ditto	Hand/ body injury	2	3	6	1. Only can operate by competed person. 2. Provide proper gloves 3. Check the machine before use. 4. Switch off the main switch when perform checking.	1. Induction Training	Glove	Foreman Engineer	3
Ditto	Noise > 85 dBA	2	3	6 (R)	1. Provide PPE-Ear Plug 2. Provide anti-noise equipment if required 3. Conduct Noise Assessment by competent person at noisy workplace/machine	1. Induction Training 2. Tool Box Talk Training	Ear Plugs	Foreman Engineer	3 (O)
Clear grass with knife	hand injury	2	3	6 (Y)	1. Provide proper training 2. Provide proper glove	1. Induction Training	Gloves	Foreman Engineer	3 (Y)
Root pruning	hand injury	2	3	6	1. Use of sharp hand tool 2. Repeated works (digging) 3. Tripping after backfilling uncompacted soil 4. Tree collapse 5. Use of excavator	1. Induction Training		Foreman	3
Pruning by Chain Saw at Mobile Crane with man	Eye / Hand injury	2	3	10	1. Provide the training course about how to use the chain saw 2. Provide eyes goggles.	1. Induction Training 2. Tool Box Talk Training	Goggles	Foreman Engineer	5

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3. Risk Level: RED / ORANGE / YELLOW / GREEN

* Safety helmet and safety shoes should be worn

Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work			Action / Monitor By	Residue Risk Rating
					Control Measures	Training Required	PPE Required		
cage					3. Only trained person can operate chain saw.				
Ditto	Hand injury	2	4	10	1. Provide the training course about how to use the chain saw 2. Provide Work Gloves and pretective clothes. 3. Only trained person can operate chain saw. 4. Isolate power when performing maintenamc or checking 5. 'Deadman' switch should be equipped at chain saw.	1. Induction Training 2. Tool Box Talk Training	Cotton Gloves	Foreman Engineer	5
Ditto	Tree collapsed	2	5	10	1. Provide training about tree pruning to the labours. 2. To ensure affected area are condoned off at least 1.5 times of height of tree. 3. To ensure the related worker stay outside the fence off zone. 4. Stable the tree before pruning.	1. Induction Training 2. Tool Box Talk Training		Foreman Engineer	5
Ditto	Fall from from Mobile Crane with man cage	2	5	10	1. Use approved mobile Crane with man cage while performing tree pruning works at height. 2. Mobile Crane with man cage hould be examined by RPE and have valid certificates 3. Labour should wear safety harnesses and anchored at a secure point with independent lifeline.. 4. Ensure the ground is flat, firm and level.	1. Induction Training 2. Tool Box Talk Training	Safety harness	Foreman Engineer	5
Ditto	Collapsed of Mobile Crane with man cage	2	5	10	1. Good communication among relevant parties regarding the operation procedures shall be maintained. 2. Provide adequate training of safe use of machine. 3. Follow the operation procedure laid down in operation manual. 4. Check before use to ensure the mobile crane were examined and test by RPE with 5. Check the condition of the elevating platform before use. 6. Do not exceed the SWL and allowable lifting angle. 7. Ensure the ground is flat, firm and level. 8. Avoid the cut truck struck against the MEWP.	1. Induction Training 2. Tool Box Talk Training		Foreman Engineer	5
Hoisting of Trees by Mobile Crane / Crane Lorry	Falling of Trees during Hoisting	2	5	10	1. Check and remove any loose objects on load 2. Works area should be probably fenced off. 3. Warning notices should be displayed to prevent workers from entering into the 4. Tagline should be provided. 5. Establish lifting plan and strictly follow.	1. Induction Training		Foreman Engineer	5
Ditto	Hit by Mobile Crane	2	5	10	1. Check before use to ensure the mobile crane were examined and test by RPE with 2. Works area is fenced off. 3. Delegated Lifting Supervisors and Delegated Banksmen should supervise the 4. Install CCTV or Ultrasonic Detection Device at the loadshifting machineries. 5. Workers wear reflective jacket and working outside fence off area.	1. Induction Training 2. Tool Box Talk Training		Foreman / Area Engineer	5
Ditto	Struck by Lifting Objects	2	5	10	1. Good communication among relevant parties regarding the operation procedures 2. Tagline should be provided.	1. Induction Training		Foreman Engineer	5

Appendix A - Risk Assessment Report	Assessed by:	Date of this Assessment:	Revision No.	Date of last assessment	Date of next assessment

Note:

1. Probability Rating: Very likely, almost certain (5) / Probable (4) / Possible (3) / Remote (2) / Improbable (1)
2. Impact Consequence Rating: Very High (5) / High (4) / Medium (3) / Low (2) / Very Low (1)
3. Risk Level: RED / ORANGE / YELLOW / GREEN

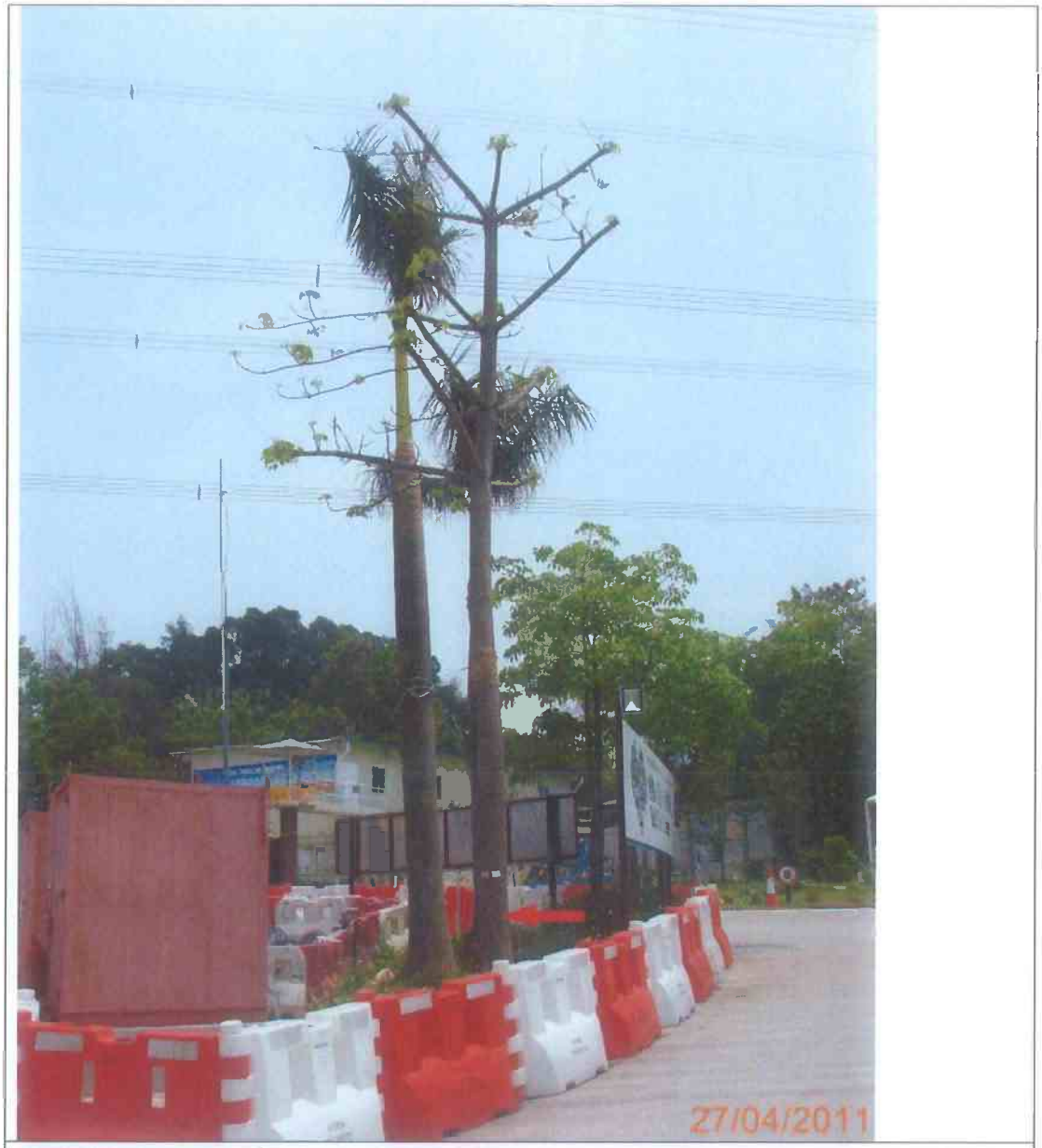
* Safety helmet and safety shoes should be worn

Circumstances	Hazard Identified	P	IC	Risk Level	Safe System of Work			Action / Monitor By	Residue Risk Rating
					Control Measures	Training Required	PPE Required		
					3. Delegated Lifting Supervisors and Delegated Banksmen should supervise the lifting 4. Works area is fenced off. 5. Do not wrap tagline around hands				
Ditto	Collapsed Mobile Crane	2	5	10	1. Good communication among relevant parties regarding the operation procedures 2. Provide adequate training of safe use of machine for tree hoisting operations to 3. Follow the operation procedure laid down in operation manual. 4. Check the ground condition before lift. 5. Check before use to ensure the mobile crane were examined and test by RPE with valid certificates (LALG Form 1, 3, 5, 6, & 7) 6. Check the mobile crane before use and ensure that it is well maintained. 7. Do not exceed the SWL and allowable lifting angle. 8. Beware of overhead obstacles such as tree branches. 9. The ground for crane sitting area should be firm and level and check by responsible 10. Permit to lifting is required. 11. A trial lift is needed to confirm the route of lifting is free from obstruction and within 12. Check the loading radius against the estimated weight of object to be lifted. 13. Ensure the extension of outrigger of mobile crane as far as practicable.	1. Induction Training		Foreman Engineer	5
Manual Handing	Back injury / Cut by edge	2	3	6	1. To keep in correct posture for manual handling 2. Manual Handing Risk Assessment 3. Use machine for heavy lifting. 4. Sharp edge to be protected after branch cutting.	1. Induction Training 2. Tool Box Talk Training		Foreman Engineer	3
General Works	Insert bites (Bees, snakes)	2	3	6	1. Provision of face protection net 2. Provision of wellinton boots. 3. Provision of glove	1. Induction Training 2. Tool Box Talk Training	screen/net Glove	Foreman Engineer	3
Ditto	Use of chemical	2	3	6	1. Provide eye goggles 2. Provision of face protection net 3. Read the insturction of the lable of the chemical before use	1. Induction Training 2. Tool Box Talk Training	Eye goggles Screen /net	Foreman Engineer	3
TTA/ Road traffic	Public concern	2	3	6	1. Ensure the water barrier fill with water and in good condition 2. All workers and works should stay inside the closure area. 3. All workers should wear reflection vest. 4. Strictly implement the TTA. 5. Proper set up the pedestrian walkway.	1. Induction Training		Foreman	3

Safety Supervisor

Project Manager

APPENDIX E – SUCCESSFUL CASE OF ROOT PRUNING WITH SHORTEN LEAD TIME



Above Bombax ceiba (木棉) was root pruned, under cut and uplifted on the same day and for the contract of widening of Tolo Highway (Contract No. HY/200908) by Pegasus on Apr 27, 2011. Scaffold branches was pruned in order to comply with traffic ordinance. Tree health is satisfactory with new branches and leaf. Photo record at Dec 27, 2013 and Feb 21, 2014 is attached as a reference below.


環保與關愛承諾 Green & Caring Site Commitment
推動·創造·綠色未來
Go! Get! Green!
27/12/2013