## **Leighton Joint Venture**



### Leighton Joint Venture

c/o 39<sup>th</sup> Floor Sun Hung Kai Centre 30 Harbour Road Hong Kong

t: (852) 2823-1111 f: (852) 2529-8784 e: info@leightonasia.com

### By Hand

18-FEB-2015

Our Ref: H2613-LJV-EN-LE-1011

The EIA Ordinance Register Office Environmental Protection Department 27/F, Southorn Centre 130 Hennessy Road Wan Chai, Hong Kong

Dear Sir,

Contract No. HY/2011/08
Central – Wan Chai Bypass – Tunnel Buildings, Systems and Fittings, and Works
Associated with Tunnel Commissioning
Landscape Plan (Rev. 2)

Pursuant to Condition 2.14 of the Environmental Permit no. FEP-11/364/2009/B and we refer to your letter ref. (10) in EP2/H4/S3/15 Pt. 32 dated 08.08.2014, we submit herewith four hard copies and one electronic copy of the revised Landscape Plan (Rev. 2) with ET's certification letter and IEC's verification letter for your information.

Should you have any query, please do not hesitate to contact our Mr. Malcolm Leung at 6323 9478, or malcolm.leung@leightonasia.com.

Yours faithfully
For and on behalf of
Leighton Joint Venture

Colman Wong Project Director

CW / RP / CC / ML / PY

cc. AECOM - Mr. Peter Poon, PRE (w/ a CD only)

LAM - Mr. Raymond Dai, ETL (w/ a CD only)
ENVIRON - Mr. David Yeung, IEC (w/ a CD only)

Our Ref: H2613-LJV-EN-LE-1011 Page 1 of 1



## Lam Geotechnics Limited

Ground Investigation & Instrumentation Professionals

Ref

: G1120/CS/L930/FEP-11/364/2009/B

Date

13 February 2015

Leighton Joint Venture 39/F Sun Hung Kai Centre 30 Harbour Road Wan Chai Hong Kong

Attn: Site Agent, Mr. Colman Wong

Dear Mr. Wong,

Contract No. HY/2011/08 Central – WanChai Bypass Tunnel –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

### Landscape Plan (Rev. 2)

Referring to the captioned submission dated 12 February 2015 received through email on 12 February 2015, we have reviewed your submitted details and hereby certified this submission in accordance with Condition 2.14 of FEP-11/364/2009/B.

Should you have any enquiry, please feel free to contact the undersigned at 2839 5666.

Yours faithfully,

Raymond Dai

**Environmental Team Leader** 

C.C.

HyD AECOM - Mr. Bond Chow

(By Fax: 2714 5289) (By Fax: 3912 3090)

AECOM

- Mr. Peter Poon - Mr. Frankie Fan

(By Fax: 2587 1877)

**ENVIRON** 

- Mr. David Yeung

(By Fax: 3548 6988)







Ref.: AACWBIECEM00\_0\_6254L.15

By Post and Fax (2140 6799)

Leighton Joint Venture 39<sup>th</sup> Floor Sun Hung Kai Centre 30 Harbour Road Hong Kong

Attention: Site Agent, Mr. Colman Wong

Dear Sir,

Re: Contract No. HY/2011/08

Central - Wan Chai Bypass - Tunnel Buildings, Systems and Fittings, and Works

**Associated with Tunnel Commissioning** 

**Landscape Plan (Revision 2)** 

Reference is made to your submission of the Landscape Plan (Revision 2) dated 12 February 2015 for our review and comment.

Please be informed that we have no further comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 2.14 of FEP-11/364/2009/B.

Thank you for your kind attention.

Yours sincerely,

David Yeung

Independent Environmental Checker

c.c.

HyD AECOM

Mr. Bond Chow

nia Chow

Mr. Peter Poon Mr. Frankie Fan

LAM

AECOM

Mr. Raymond Dai (ETL)

by fax: 2714 5289

by fax: 3912 3090

by fax: 2587 1877

by fax: 2882 3331

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Contract No. HY/2011/08 Central-Wan Chai Bypass - Tunnel Building, Systems and Fittings, and Works Associated with Tunnel Commissioning

Landscape Plan

Reviewed by:

Chris CHAN

**Environmental Officer** 

Approved by:

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### **About this Document**

This document is available for all project employees via the project network. We regularly revise this document and the latest version is always available electronically. Once printed, the document should no longer be considered to be the latest version. It may be distributed to the Highways Department and the Engineer on the understanding that any such document may not be the latest version or it may be distributed to the Highways Department and the Engineer as a controlled document in which case the front cover is to be stamped "Controlled Copy" in red and a copy number added.

The Environmental Officer is responsible for updating and maintaining the plan, including the original hard copy, which is signed by the person in charge of the project to indicate approval.

The status of this plan is identified by a revision number and date on each page. On revision, the plan will be uploaded as a whole to the project server or within the Incite Keystone. The Environmental Officer maintains a record of the revision status of the plan, which is available on request.

If you have any enquiry relating to this plan, please contact the Environmental Officer.

### Revision History and Plan Approval

Revision	Date	Section/Description	Prepared	Reviewed	Authorised by
01	16.07.2014	Issue for Construction	Penny Yiu	Donald Ip	Colman Wong
02	12.02.2015	Responses to Comments	Malcolm Leung	Chris Chan	Colman Wong

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Contract No. HY/2011/08 Central – Wan Chai Bypass – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning Landscape Plan

#### 1. Introduction

- The purpose of this Landscape Plan is to fulfil the Condition 2.14 under 1.1. Environmental Permit number: FEP-11/364/2009/B.
- This Landscape Plan provides the design details, locations, implementation 1.2. programme, maintenance and management schedules, and drawings of the landscape and visual mitigation measures for mitigation of the landscape and visual impact arising from the construction of the Central - Wan Chai Bypass - Tunnel Building, Systems and Fittings and Works Associated with Tunnel Commissioning (Contract No. HY/2011/08, hereinafter referred to as "the CWB-CC") as per the requirements in the approved CWB&IECL EIA Report (Register No. AEIAR-041/2001) and the WDII&CWB EIA Report (Register No. AEIAR-125/2008).
- 1.3. With reference to the Urban Design Study for the New Central Harbourfront (UDS) and the Master Greening Plan (MGP), it is noted that the development in the UDS area might require associated transplanting needed to be addressed in the future. However, the development works in the UDS area and the associated MGP are not covered in CWB-CC.
- 1.4. Moreover, the operational phase mitigation measures for the CWB project as mentioned in EIA Reports are not covered by the CWB-CC.

Contract No. HY/2011/08 Central – Wan Chai Bypass – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning Landscape Plan

#### 2. Project Background (Contract No. HY/2011/08)

- 2.1. The scope of the CWB-CC mainly includes:
  - construction of the tunnel control buildings and ventilation buildings including Administration Building, West Ventilation Building, Central Ventilation Building, East Ventilation Building and East Vent Shaft;
  - provision of associated road lighting, road signing, traffic control and surveillance system; and
  - carrying out other associated works.
- 2.2. The project boundary of the CWB-CC is shown in Appendix A and the key visual sensitive receivers (hereinafter referred to as "VSR") for the CWB project were identified in Figure 10.4 of the WDII&CWB EIA Report (**Appendix B**).
- 2.3. Hence, only VSR numbers C1-C37, C50, C52-C54, C54A, C/R1-C/R23, GIC1012, O1-O9, OU1, R1-R7, S1 and T1-T3 and 98-99 in the abovementioned figure have been identified as the key visual sensitive receivers related to the CWB-CC.

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Contract No. HY/2011/08 Central - Wan Chai Bypass - Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning Landscape Plan

#### 3. **EIA Requirements**

- 3.1. In order to fulfil the Condition 2.14 of the EP, the Permit Holder "Leighton JV" shall implement a series of landscape and visual mitigation measures for the reduction of the landscape and visual impact during the construction phase of the CWB-CC.
- 3.2. Sections 7.6.27 and 7.6.28 of the approved CWB&IECL EIA Report listed additional mitigation measures for landscape and visual impacts. Meanwhile, Table 10.5 of the approved WDII&CWB EIA Report listed proposed mitigation measures for landscape and visual impacts during the construction phase. To comply with the requirements, the CWB-CC shall implement the following aspects:
  - Implementation of Landscape Works (Section 4)
    - Soil Mix
    - Tree Preservation and Planting
  - Provision of Hoarding (Section 5)
  - Control of Night Lighting (Section 6)

Contract No. HY/2011/08 Central - Wan Chai Bypass - Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning Landscape Plan

#### Landscape Works 4.

- The CWB-CC requires carrying out trees and shrubs planting as shown in 4.1. Appendix C. No planned tree transplanting and felling works are required during the construction phase. The proposed landscape works to be implemented include provision of new soil mix and implementation of tree preservation and planting.
- 4.2. Provision of New Soil Mix
  - New soil mix shall be used for new planting areas.
  - Soil mix shall be tested by a HOKLAS accredited laboratory and submitted to the Engineer's Representative for approval before installation.
  - Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practicable.
- 4.3. Implementation of Tree Preservation and Planting
  - Initial tree survey shall be carried out after the CWB-CC took over the site portions with trees from other CWB projects.
  - The existing trees recommended to be retained shall be protected by means of fencing to prevent vehicles, construction machines or pedestrian intrusion which may potentially damage the tree canopies, trunks and root zones concerned.
  - Tree inspection for retained trees shall be carried on a bi-monthly basis and reports shall be submitted to the Engineer's Representative.
  - In any cases where trees are required to be felled during the construction phase, proposal and compensation scheme shall be submitted to relevant government department(s) for approval and implemented accordingly upon receipt of approval.

### Contract No. HY/2011/08 Central - Wan Chai Bypass - Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning Landscape Plan

#### 5. **Hoarding Works**

- 5.1. The CWB-CC provides three types of hoardings along the site boundary as shown in Appendix D. In the meantime, except hoarding surface treatment, all hoardings shall follow the HyD Standard Drawings H6110 & H6111 and all access gates shall follow the CEDD Standard Drawings C1007.
- 5.2. Before installation of hoardings, hoarding surface treatment shall be submitted to the Engineer's Representative for approval.
- 5.3. Suitable surface treatment in the urban context shall be applied to the screen hoardings. The proposed hoardings intend to illustrate the completed Central – Wan Chai Bypass (CWB) and Island Eastern Corridor Link (IECL) from the view of local people, road users and that on the Kowloon side.
- 5.4. The three types of hoardings are:
  - Type A hoarding view from local people in North Point.
  - Type B hoarding view from the Kowloon side.
  - Type C hoarding view from road users in Central.
- 5.5. Weekly tidying inclusive of cleansing, re-conditioning and/or replacement of hoarding shall be carried out to maintain the hoarding in good work condition.

Contract No. HY/2011/08 Central – Wan Chai Bypass – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning Landscape Plan

#### 6. **Control of Night Lighting**

- 6.1. The CWB-CC shall implement the following mitigation measures to minimise the impacts on its neighbours due to night lighting:
- 6.2. Night Lighting Arrangement
  - Any night-time works required shall be carefully planned to minimise the amount of unnatural lighting.
  - The usage of lighting equipment shall be minimised. Assessments shall be conducted carefully to evaluate the need of lighting based on the tasks performed.
  - The lighting equipment shall be directed to the site area and controlled to be diverted from adjoining residential and hotel development.
  - The layout and alignment of construction activities shall be carefully planned to reduce the lighting impact.
- On-site Supervision 6.3.
  - During night-time works, the lighting impact shall be monitored, assessed and controlled by designated site supervision staff.
  - Upon receipt of any public concerns and/or complaints, the lighting equipment shall be repositioned, shielded, redirected, dimmed and/or lowered where necessary.

#### 7. Part D - Implementation Programme, Maintenance and Management Schedule

7.1. The implementation programme of the mitigation measures is summarised below:

Item	ID No.*	Mitigation Measures	Location / Timing	
A1.	CM1	Approved new soil-mix for new planting areas.	New planting areas / Entire construction period.	
A2.	CM2, 3, 4	Retention and protection of existing trees where feasible and transplanting of trees which are in conflict with the road works (where practicable).  All in accordance with the tree preservation, transplanting and felling plans.	Entire works area / Entire construction period. (tree protection and transplanting to be carried in stages to suit the programme of the works)	
B.	CM6	Screen hoarding to be installed, where appropriate, with suitable surface treatment in the urban context.	Entire works area / Entire construction period. (hoarding erection to be carried out in stages to suit the programme of the works)	
C.	CM5	Control of night time lighting.	Entire works area / Entire construction period.	

<sup>\*</sup>The above mitigation measures with ID no. are made reference to EIA Report AEIAR-125/2008 Table 10.5 Proposed Construction Phase Landscape Mitigation Measures

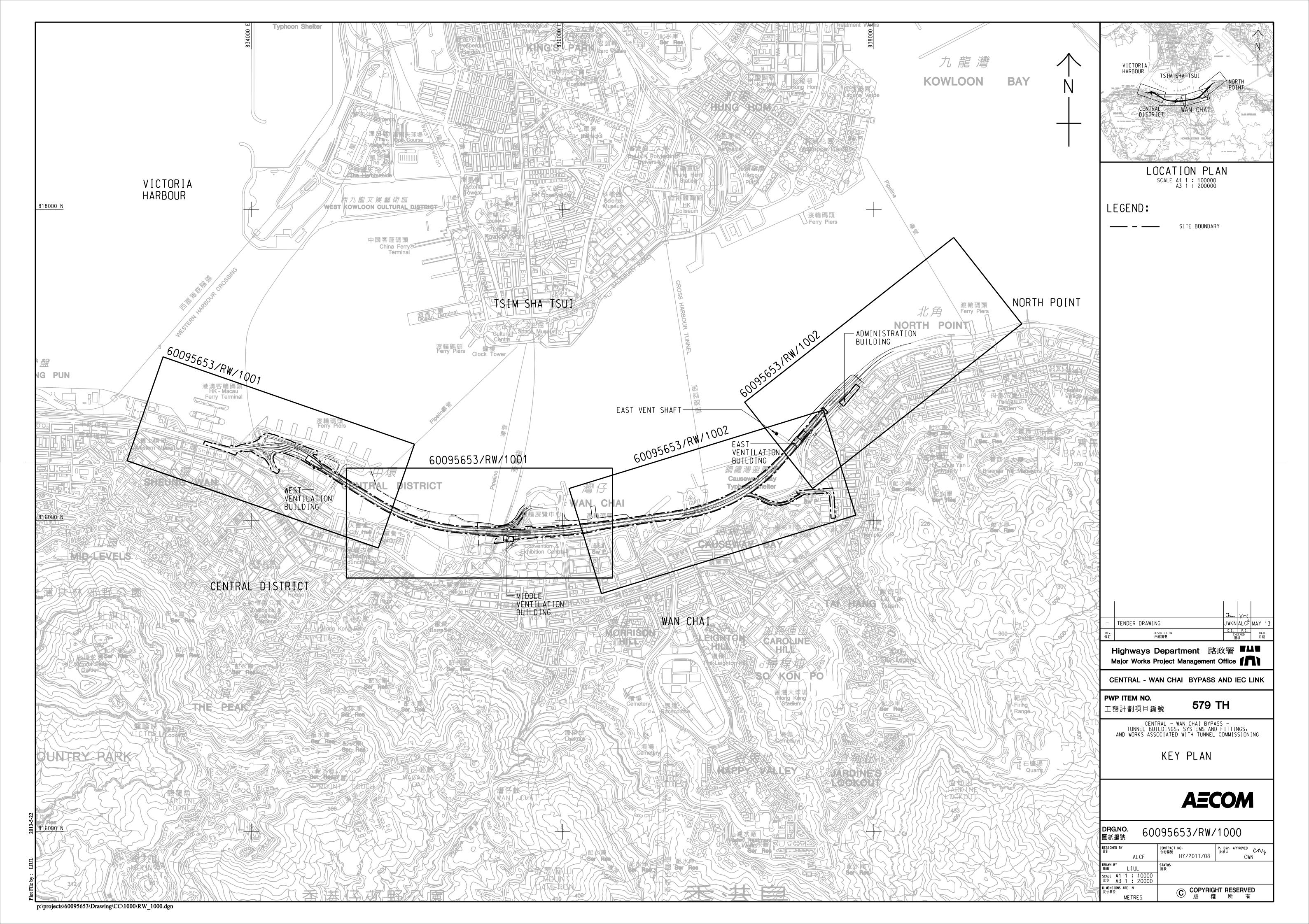
7.2. The maintenance and management schedules are summarised below:

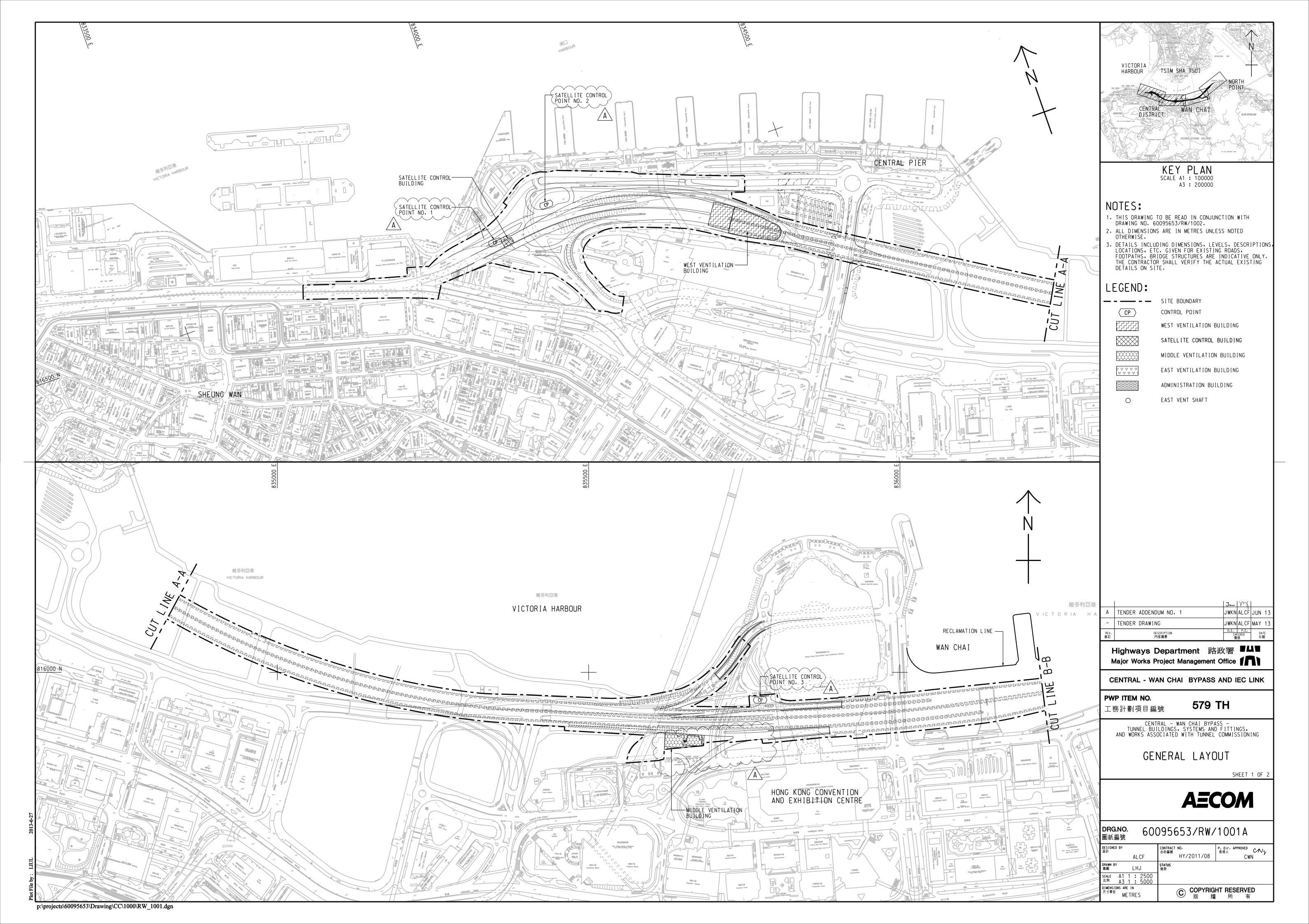
Item	Maintenance and Management Schedule			
A1.	The Contractor of the CWB-CC shall test the proposed soil mix and submit the results to Engineer's Representative for approval before installation.			
A2.	The Contractor of the CWB-CC shall implement sufficient tree protection measures and shall rectify deficiencies when necessary.			
	Routine checking and photo records shall be submitted to Engineer's Representative for records.			
B.	The Contractor of the CWB-CC is responsible for carrying out weekly tidying which shall include cleansing, re-conditioning and/or replacement of hoarding to good working condition. To comply with these requirements, an inspection checklist for weekly tidying shall be submitted to the Engineer's Representative for records.			
C.	The Contractor of the CWB-CC shall check night time lighting every night and switch off unnecessary lighting. If practicable, spotlights shall be diverted away from sensitive receivers.			

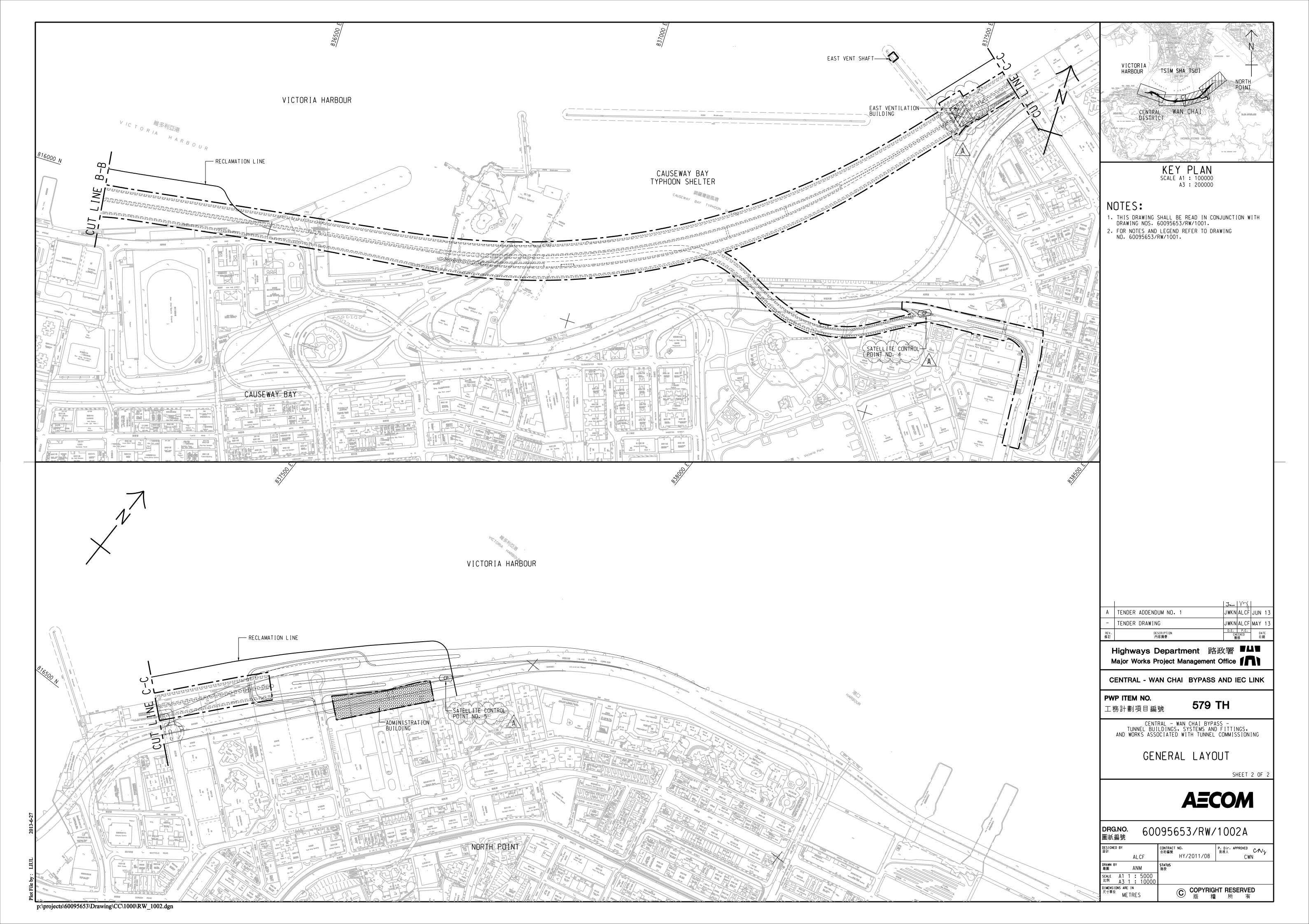
7.3. With the implementation of mitigation measures by the Contractor of the CWB-CC, the residual landscape and visual impacts would become minimal.

## **Appendix A Layout Plan of the CWB-CC**

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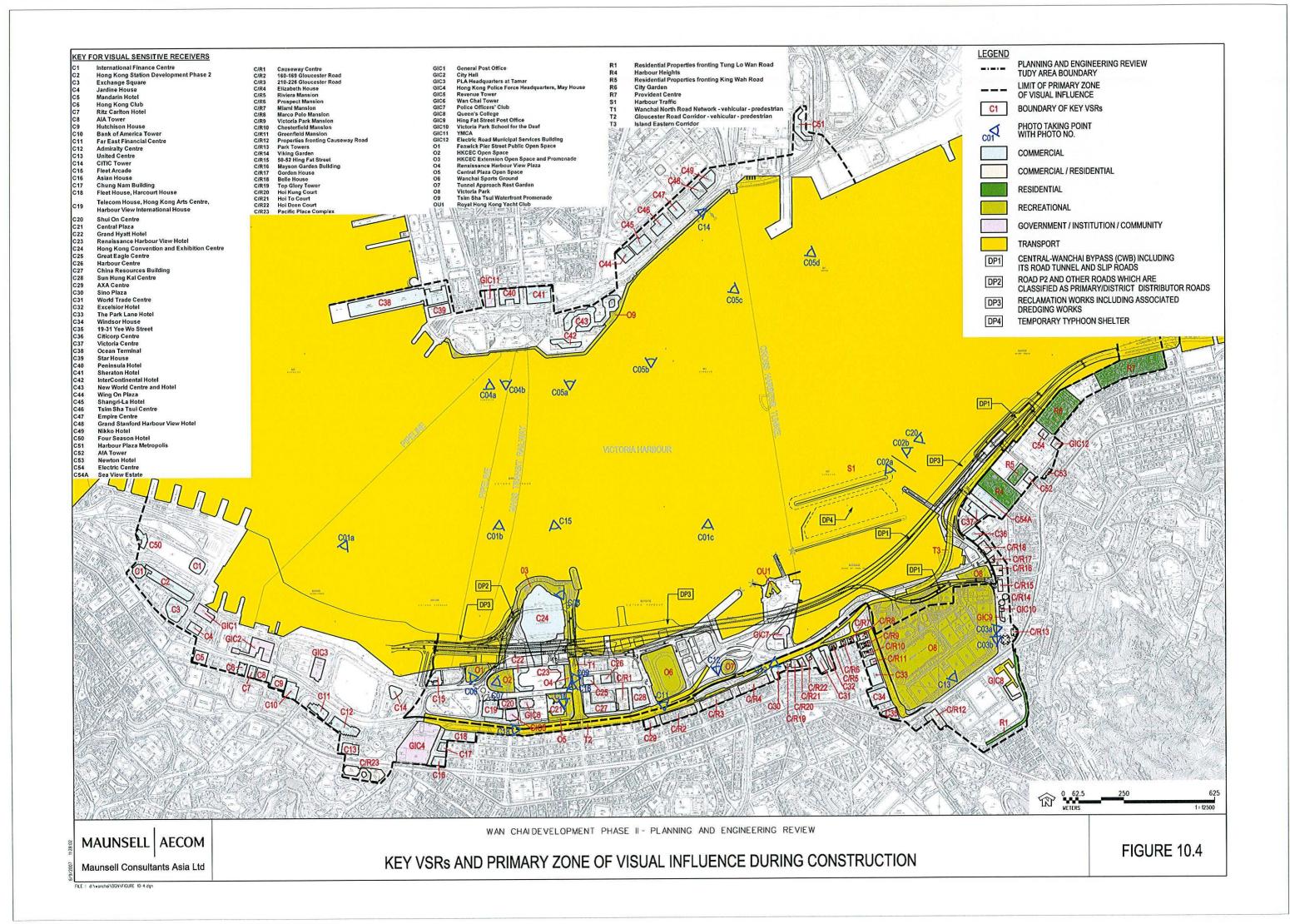






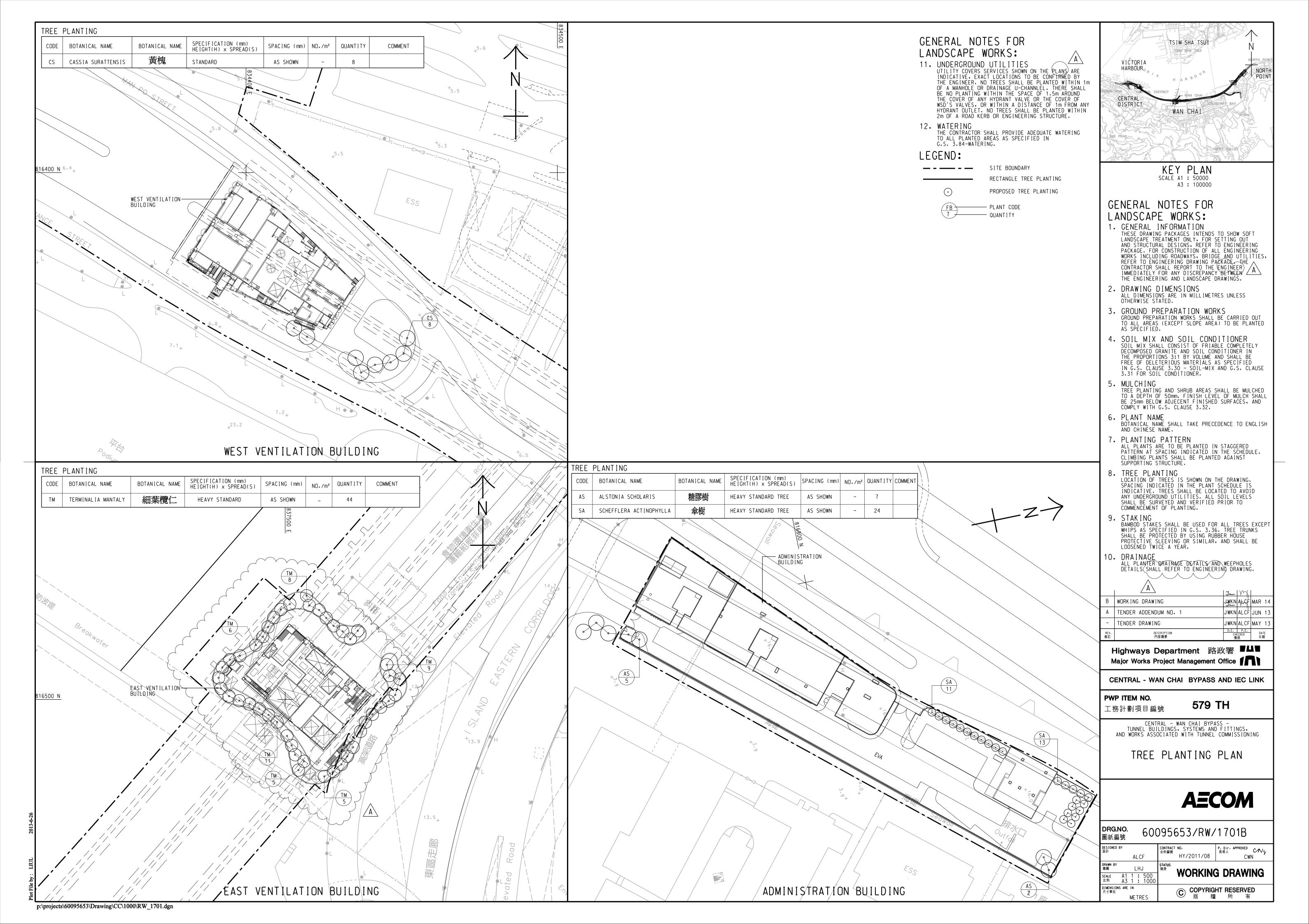
## **Appendix B Layout Plan of the Key Visual Sensitive** Receivers

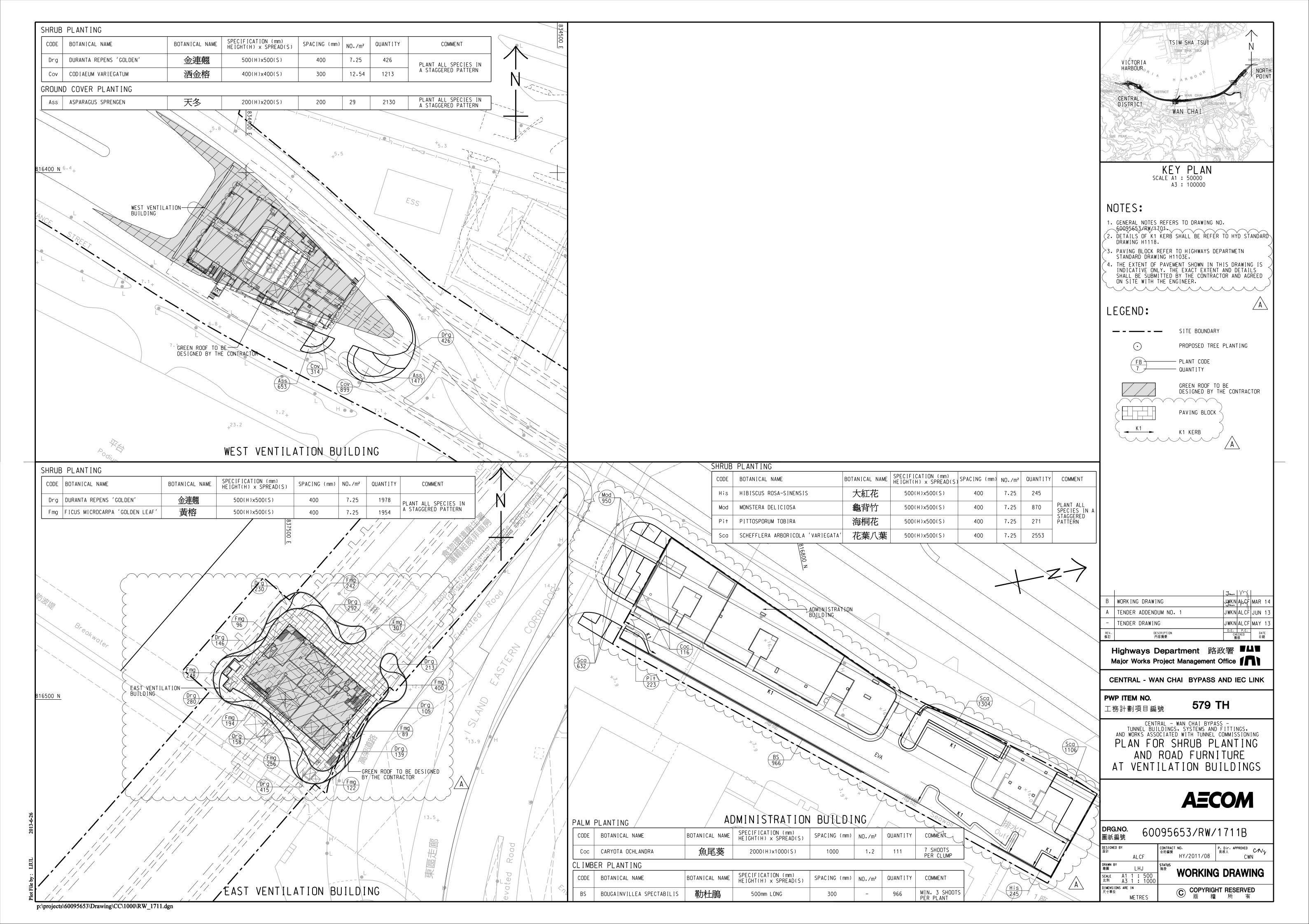
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## **Appendix C Layout Plan of Tree and Shrub Plantings**

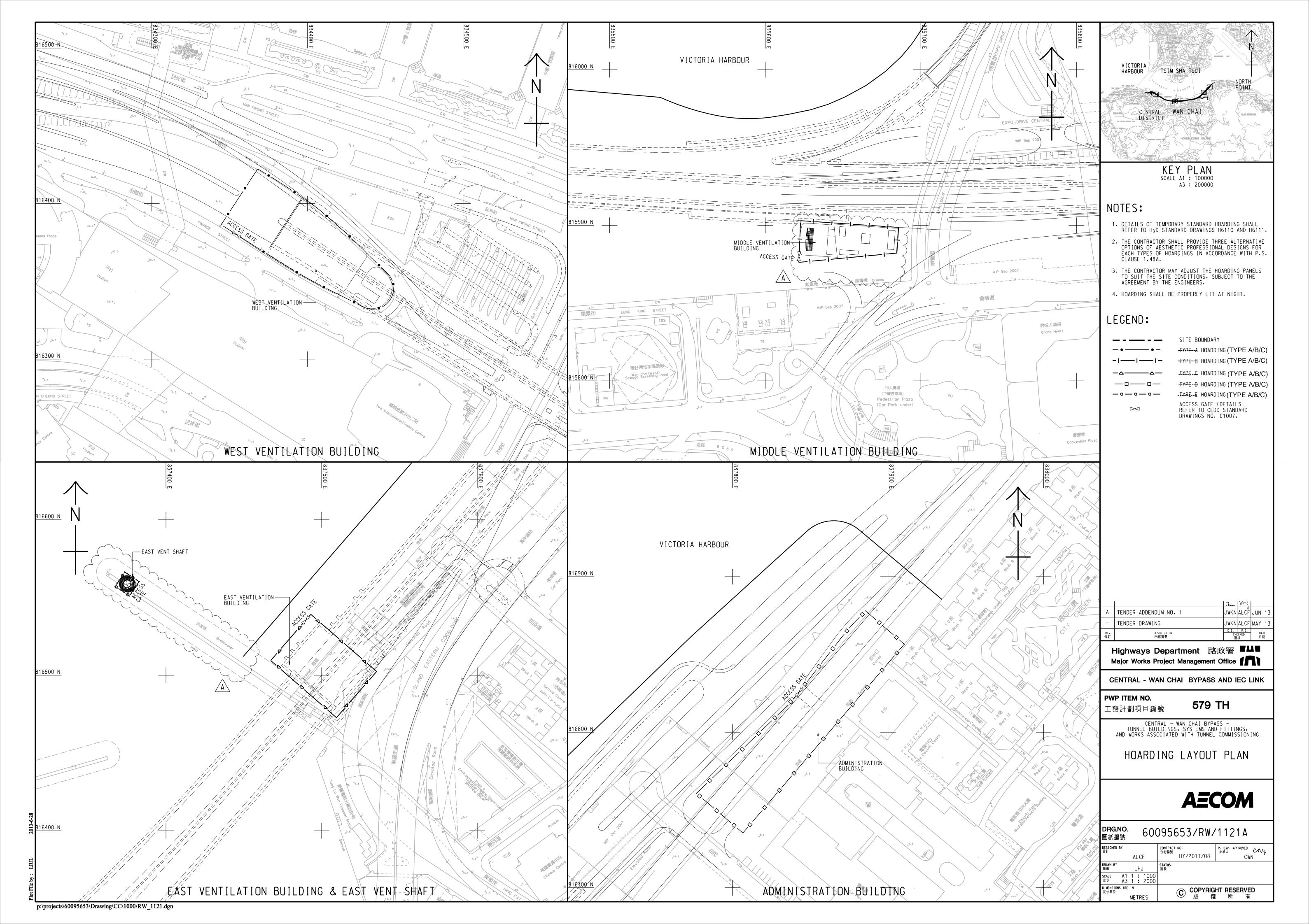
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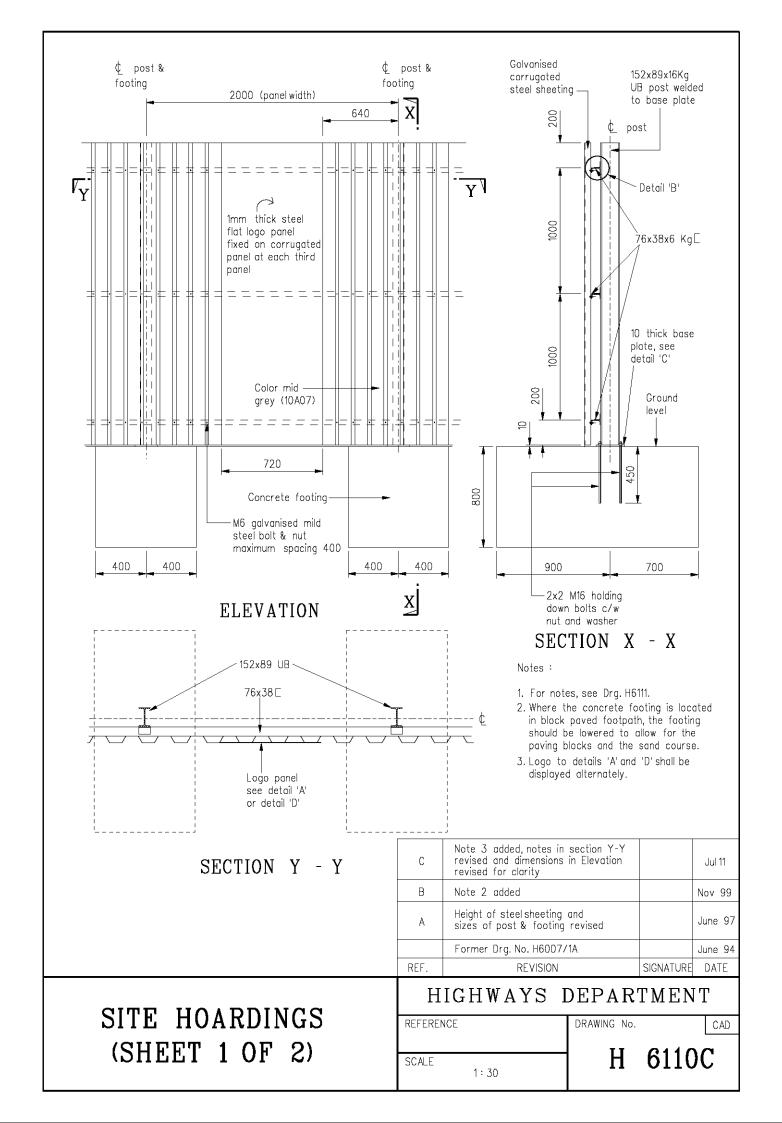


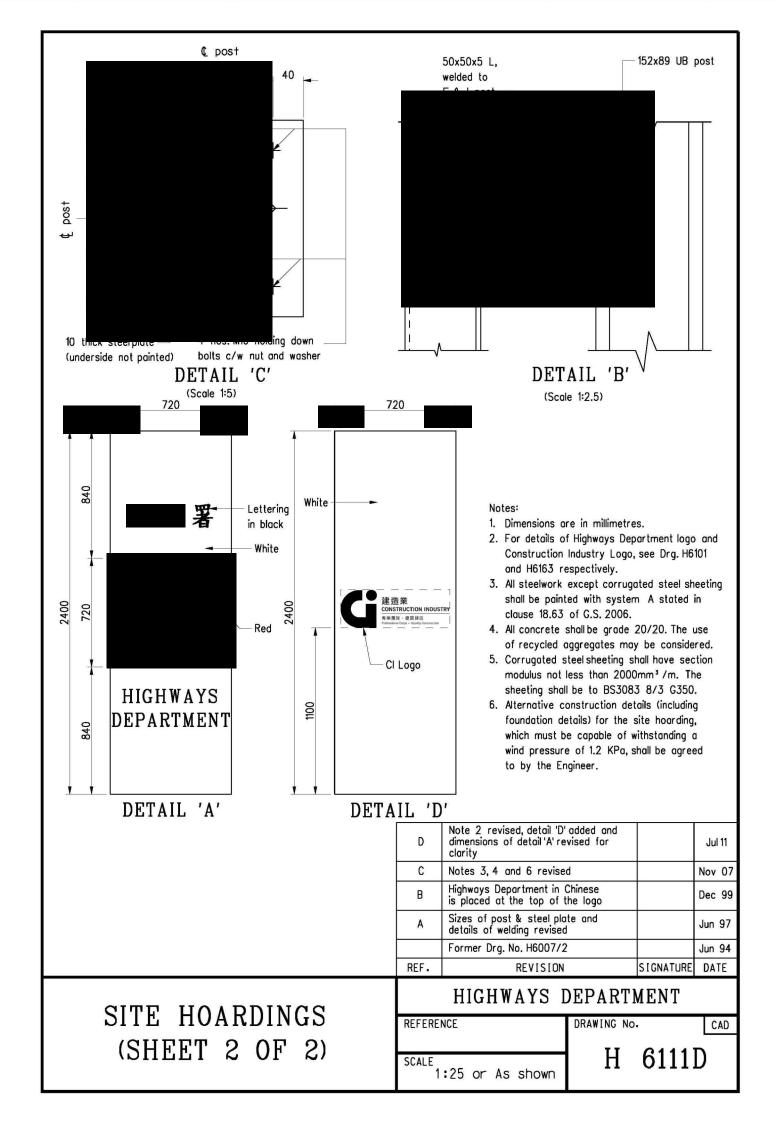


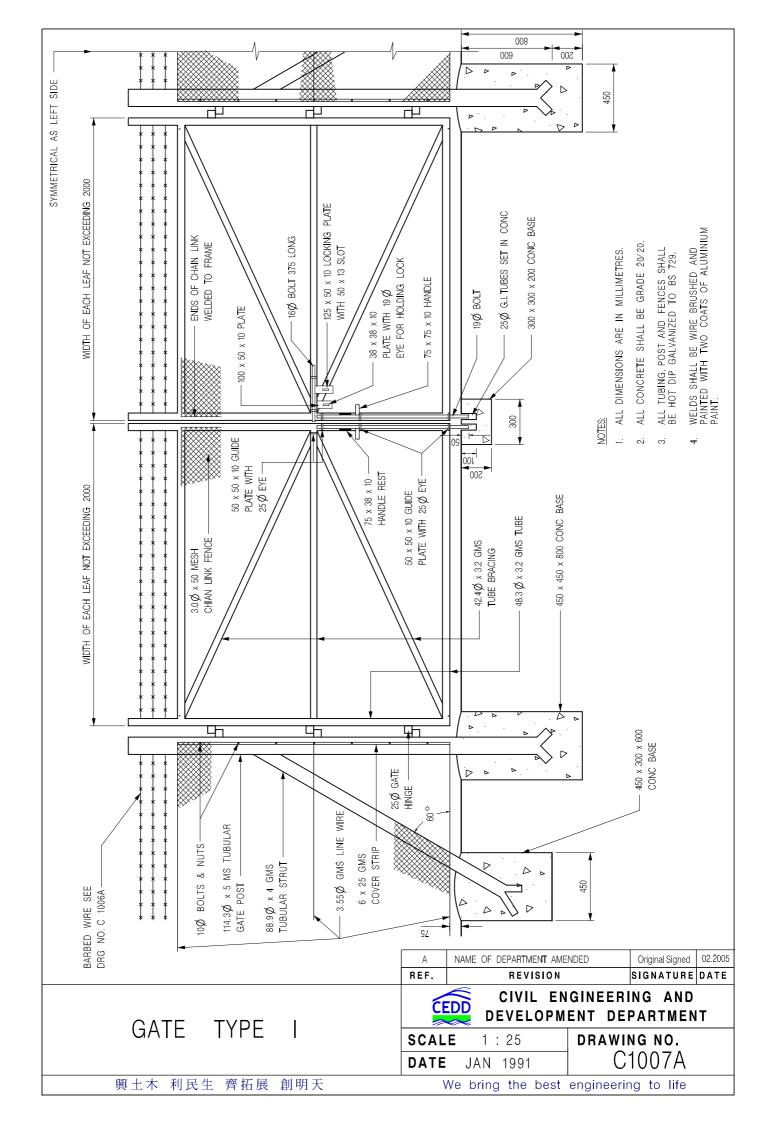
## **Appendix D Layout Plan of Hoarding Works and Hoarding Designs**

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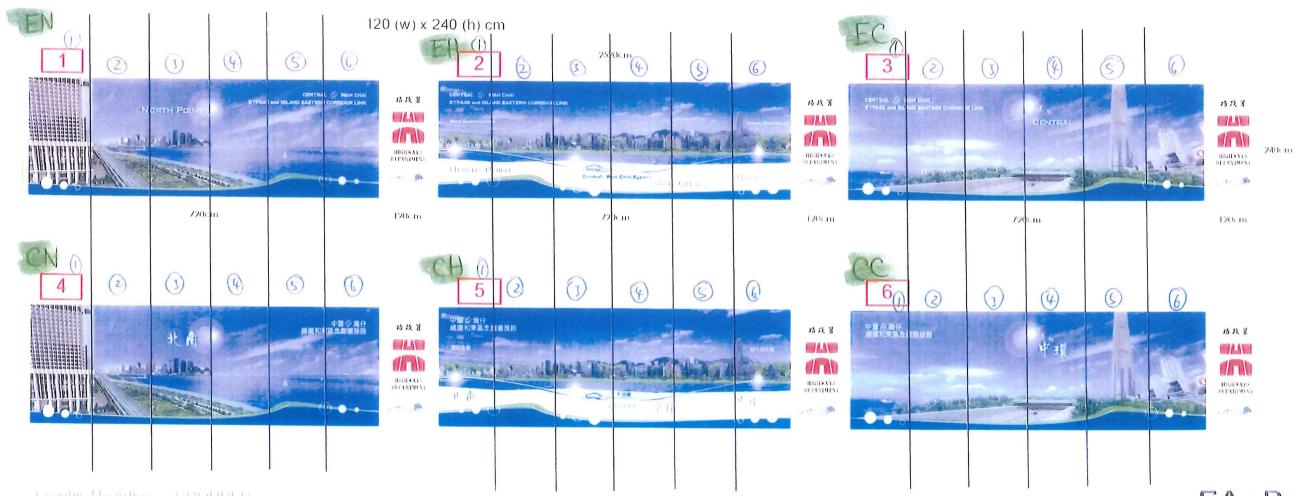
## The Perspective of Hoarding

路政署









-Campbin Hounding (512(31)) (4.1)

GA D

# Type A (Chinese Version)





720 (w) x 240 (h) cm

# Type A (English Version)





120 cm



120 cm

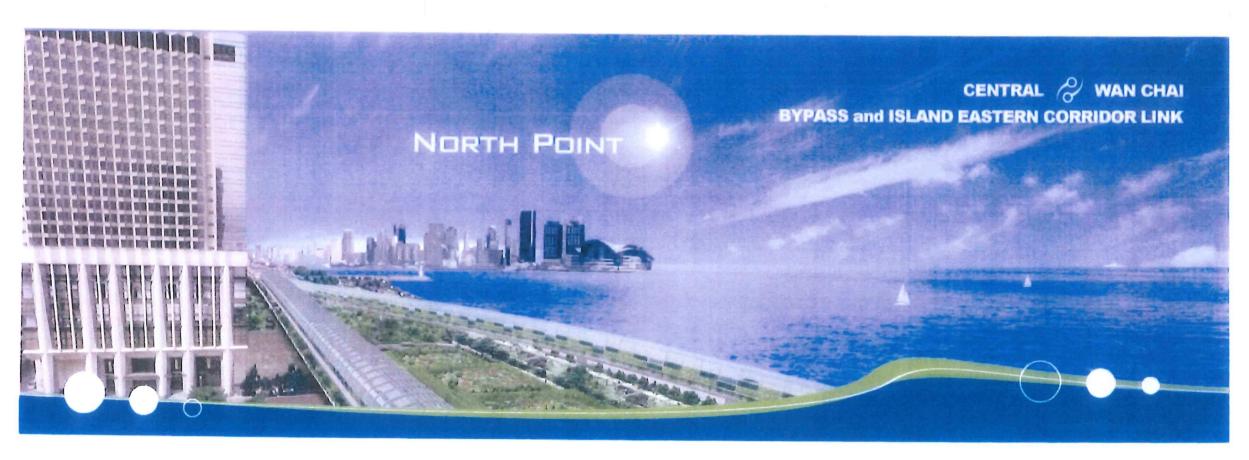


120 cm









720 (w) x 240 (h) cm

# Type B (Chinese Version)















120 cm

120 cm

120 cm

120 cm

120 cm

120 cm



 $720 \text{ (w)} \times 240 \text{ (h)} \text{ cm}$ 



# Type B (English Version)

















120 cm

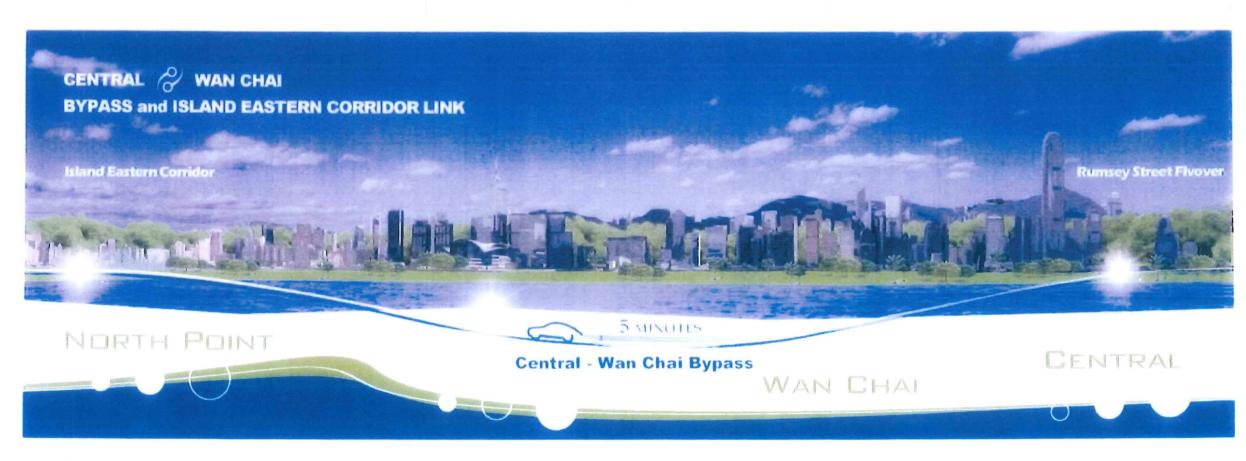
120 cm

120 cm

120 cm

120 cm

120 cm



720 (w) x 240 (h) cm



# Type C (Chinese Version)





 $720 (w) \times 240 (h) cm$ 



# Type C (English Version)





 $720 \text{ (w)} \times 240 \text{ (h)} \text{ cm}$