

# Contract C21C01 Environmental Team Consultancy Services for Airport City Link

Landscape and Visual Plan May 2022 Mott MacDonald 3/F Manulife Place 348 Kwun Tong Road Kwun Tong Kowloon Hong Kong

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Airport Authority Hong Kong

# Contract C21C01 Environmental Team Consultancy Services for Airport City Link

Landscape and Visual Plan

May 2022

This Submission of Landscape and Visual Plan

has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Conditions 1.9 and 2.6 of Environmental Permit No. EP-581/2020

of the Project.

**Certified by:** 

dem llen.

Ir Thomas Chan Environmental Team Leader (ETL) Mott MacDonald Hong Kong Limited

Date

27 May 2022



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Your Ref: Our Ref: 60664934/C/FYW2205271

### By Email

Airport Authority Hong Kong HKIA Tower, 1 Sky Plaza Road, Hong Kong International Airport, Lantau, Hong Kong

### Attn: Alan Chan (Manager, Civil)

27 May 2022

Dear Sir,

### Contract C21C02 – Independent Environmental Checker Consultancy Services for Airport **City Link** Landscape and Visual Plan

Reference is made to the Permit Holder's submission of Landsacpe and Visual Plan in accordance with Condition 2.6 of the Environmental Permit (No: EP-581/2020) of the Project certified by the ET Leader on 27 May 2022.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore we write to verify the captioned submission in accordance with the requirement stipulated in Condition 1.9 of EP-581/2020.

Should you have any queries, please feel free to contact the undersigned at 3922 9366.

Yours faithfully, AECOM Asia Co. Ltd.

Y W Fung Independent Environmental Checker

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# **1** Introduction

## 1.1 **Project Background**

The Airport City Link (ACL) (hereinafter as "the Project") is situated between the Airport Island and Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Port (HKP) Island, at the south of existing SkyPier on the Airport Island. To enhance vehicular mobility and walkability between HKP Island and the SKYCITY, the Project serves as a connection bridge providing shuttle services and pedestrian pathway.

The construction for ACL consists of a marine section in a marine area between the Airport Island and HKP Island, and a land section on the Airport Island and HKP Island. The connection bridge comprises of approximately 400m long marine section and 450m long land section. The construction works of the Project will tentatively commence in Q2 2022 for completion in end-2024. The location of the Project site and layout area is shown in **Figure 1.1**.

In July 2020, a Project Profile (PP) (Register No.: PP-606/2020) of the Project was submitted for the application for permission to apply directly for an Environmental Permit (EP), which was approved by Environmental Protection Department (EPD) in August 2020. The EP of the Project (No.: EP-581/2020) was obtained in October 2020.

As stipulated in Condition 2.6 of EP No.EP-581/2020, "The Permit Holder shall, no later than 2 months before the commencement of construction works of the Project, deposit 3 hard copies and 1 electronic copy of Landscape and Visual Plan (L&VP) with the Director to specify quality criteria on the overall landscape and visual environment of the Project with broad-brush targets to be achieved for greening and planting as benchmarked against international standards and best practices."

On 10 June 2021, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by Airport Authority Hong Kong (AAHK) under Contract C21C01 to provide Environmental Team (ET) consultancy services for the implementation of an EM&A programme in accordance with the EP requirements throughout the Pre-construction, Construction and Post-construction phases of the Project.

## **1.2 Project Description**

The Project consists of the facilities as follows:

- Connection bridge with covered walkway and lookout points (i.e. ACL)
- Associated building structures including:
  - SKYCITY platform (Elevated platform at Airport Island side)
  - HKP platform (Elevated platform at HKP side)
  - Plant room

### **1.3** Objectives of the Landscape and Visual Plan (L&VP)

This L&VP is prepared to fulfil the EP Condition 2.6. The objectives of this L&VP include the following:

- To specify quality criteria on the overall landscape and visual environment of the Project with broad-brush targets to be achieved for greening and planting. Also attempted to benchmark against international standards and best practices, if applicable;
- To describe the aesthetic architectural designs for building structures, and facilities;
- To describe the locations, size, number and plant species of trees to be transplanted and their final transplanting locations;
- To describe the locations, size, number and plant species to be felled;
- To describe locations, size, number and plant species to be provided or compensated; and
- To provide implementation programme, maintenance and management schedules.

## 1.4 Structure of the Landscape and Visual Plan

Following this introductory chapter, this L&VP is structured as follows:

### Chapter 2

Design codes, standards and benchmarks that describe the relevant local legislation, codes and standards. It also describes the landscape and visual mitigation measures. International benchmarks and best practices are summarized and design quality criteria with broad-brush targets are described.

### Chapter 3

A description of the aesthetic architectural design concepts for the ACL and associated building structures, together with description of associated landscape design.

### Chapter 4

Tree Treatment and Landscape Planting Proposal which summarize the treatment of trees to be felled, transplanted and compensated. It also includes details of the implementation programme, maintenance and management schedule.

### Chapter 5

Summary

# 2 Design Codes, Standards and Benchmarks

## 2.1 Relevant Legislation, Codes and Standards

The following legislation, codes and standards are applicable to landscape and visual impact assessment associated with the construction and operation of the Project:

- EIAO (Cap.499 S.16) and the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM), particularly Annexes 10 and 18;
- EIAO Guidance Note No. 8/2010;
- Town Planning Ordinance (Cap. 131);
- Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586);
- Hong Kong Planning Standards and Guidelines (HKPSG) Chapters 4, 10 and 11;
- Agriculture, Fisheries and Conservation Department (AFCD) Nature Conservation Practice Note No. 2 – Measurement of Diameter at Breast Height (DBH);
- AFCD Nature Conservation Practice Note No. 3 The Use of Plant Names;
- Buildings Department, Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers, APP-152
- Environment, Transport and Works Bureau (ETWB), Technical Circular (Works) (TCW) No. 5/2020 – Registration and Preservation of Old and Valuable Trees (OVT);
- ETWB TCW No. 8/2005 Aesthetic Design of Ancillary Buildings in Engineering Projects;
- DevB TCW No. 3/2012 Site Coverage of Greenery for Government Building Projects;
- DevB TCW No. 6/2015 Maintenance of Vegetation and Hard Landscape Features;
- DevB TCW No. 4/2020 Tree Preservation;
- DevB TCW No. 1/2018 Soft Landscape Provisions for Highway Structures
- DevB TCW No. 5/2020 Registration and Preservation of Old and Valuable Trees
- Geotechnical Engineering Office (GEO) Publication No. 1/2011 Technical Guidelines on Landscape Treatment for Slopes;
- Guidelines on Tree Transplanting (September 2014) issued by Greening, Landscape and Tree Management (GLTM) Section of DevB;
- Guidelines on Tree Preservation during Development (April 2015) issued by GLTM Section of DevB;
- Study on Landscape Value Mapping of Hong Kong;
- HKIA Approved Plant Species List (APSL) (Revision 6.0: August 2021) (Appendix A); and
- Lands Administration Office Practice Note (LAO PN) No. 2/2020 Tree Preservation and Removal Proposal for Building Development in Private Projects Compliance of Tree Preservation Clause under Lease.

## 2.2 Landscape and Visual Mitigation Measures under the EIAO Process

In Section 6.6.1 of the PP, landscape and visual mitigation measures are proposed for construction and operation phases. These mitigation measures are considered and shall be adopted during construction and operation as far as practicable.

Implementation details of mitigation measures under the Project are summarized in **Table 2-1**, which provides a review of the Project design against these landscape and visual mitigation measures, summarizing how they are considered and integrated into the Project. The proposed landscape and visual mitigation measures in PP are provided in **Appendix B1**, while the current landscape and visual mitigation measures under the Project are illustrated in **Appendix B2**.

Mitigation Code	Mitigation Measures as Extracted from Section 6.6.1 of the PP	Implementation Details of Mitigation Measure under the Project
Constructio	on Phase	
CM1	Minimising disturbance to significant landscape resources as part of the design.	The design will adopt a similar form to that of the adjacent Intermodal Transfer Terminal – Bonded Vehicular Bridge (ITT-BVB) for visual consistency and harmony.
CM2	Optimising construction activities, e.g. minimising extent of temporary works area, installing site hoardings and minimising illumination on non- target areas.	Construction activities shall be carefully managed and controlled to minimise any potential impact on landscape and visual. The mitigation measures shall be monitored and tracked closely during the construction period.
CM3	Minimise construction periods where possible.	Construction progress will be closely monitored and managed with care to minimise construction period.
CM4	Early establishment of planting areas as far as appropriate.	Planting areas will be established as early as possible.
CM5	Erection of decorative mesh screen or construction hoardings.	Implementation of these construction mitigation measures shall be closely monitored during the construction period to minimize the potential landscape and visual impacts.
CM6	Control of night-time lighting.	Any construction works conducted at night shall be closely monitored during the construction period to prevent light overspill to nearby visual sensitive receivers (VSRs) and into the sky.
CM7	Temporary vertical greening, screen / buffer at- grade planting to soften the engineering structure of construction works.	Temporary greening/ planting will be applied at the temporary site hoardings near permanent structures (i.e. plant room under ITT-BVB project and the existing Customs and Excise Department (C&ED) mobile X-ray tent) and proposed plant room (Option 1 and 2) to soften visual impacts of the construction works.
CM8	Chromatic design in colour tone, finishes and treatments of engineering structures should be visually unobtrusive, non-reflective, and compatible with surrounding context.	The appearance of the ACL will be coherent to the adjacent ITT-BVB, in view of the road light height and spacing, vehicular parapet shape and fire hydrant slab design.

### Table 2-1: Summary of Mitigation Measures for Construction and Operation Phases

Mitigation Code	Mitigation Measures as Extracted from Section 6.6.1 of the PP	Implementation Details of Mitigation Measure under the Project	
CM9	Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS) submission upon completion of conceptual design should be in accordance with ETWB TCW No. 36/2004.	acceptable in the 451 <sup>st</sup> meeting held on 17 August 2021.	
CM10	Affected trees to be transplanted at HKP Island or Airport Island where applicable. Transplanting location will require further discussion with relevant departments in the next detailed design stage.	A total of 6 nos. of planted trees will be affected by the Project. These trees will be felled and ther compensated. Therefore, no affected trees to be transplanted, details please refer to <b>Section 4.2</b> .	
CM11	Tree preservation in accordance with Development Bureau Technical Circular (Works) No. 4/2020 (ref: DEVB(GLTM) 200/2/1/1).	Proper tree maintenance and monitoring shall be carefully implemented during the construction period for tree preservation in accordance with Development Bureau Technical Circular (Works No. 4/2020 (ref: DEVB(GLTM) 200/2/1/1).	
CM12	Proposed tree felling/ tree compensation.	AAHK sought agreement with HyD that 56 nos. of trees to be compensated. On the other hand, 6 nos. of affected planted trees will be felled and then compensated, therefore, a total of 62 nos. of trees will be compensated in the HKBCF. Details please refer to <b>Section 4.2</b> .	
Operation F	Phase		
OM1	Provision of greening, aesthetic architectural design of aboveground structures to enhance landscape and visual aesthetic of the area in	The provision of greening at the aboveground structures will not be applied due to the following reasons:	
	proximity.	Busy passenger and traffic flow at the drop-of and pick-up area are expected. Deployment of water trucks to perform manual watering fo plants will seriously obstruct the traffic and operation at the drop-off and pick-up areas. It will also cause slippery floor when gardeners delive water buckets for plant watering and lead to potential injuries.	
		Moreover, the location and environment of the pick-up and drop-off platforms, lookout points and pedestrian walkway are unsuitable for plan growth as they are too windy for plants to survive Plants will easily get wind burnt and die unde such windy environment.	
		In view of the operational and safety concern planters or landscape is not recommended to be provided for ACL.	
		To conclude, greening will only be applied to the plant room (Option 2), while aesthetically pleasing design will be adopted in the aboveground structures. Details please refer to <b>Section 3</b> .	
OM2	Sensitive lighting design and installation to minimise night-time glare.	All the lighting will be designed not to project skyward or produce glare to the pilots to avoid misleading them in the concern of aviation safety also not to produce glare or lighting pollution to premises in HKIA, HKP and Tung Chung.	

Mitigation Code	Mitigation Measures as Extracted from Section 6.6.1 of the PP	Implementation Details of Mitigation Measure under the Project
OM3	Tree maintenance in accordance with Guidelines on Tree Risk Assessment and Management Arrangement by DevB (latest version) for compensatory trees.	Tree maintenance and risk assessment for compensatory trees under the Project will be regularly conducted by AAHK.

## 2.3 International Standards and Best Practices

The ACL is the key element of the Project to enhance vehicular mobility and walkability between HKP Island and the SKYCITY by constructing a connection bridge to provide shuttle services and pedestrian pathway.

Taking the abovementioned the Project nature and functionality into consideration with reference to international standards and best practices, it is found that local standards and best practices are more applicable to the Project. The local standards and best practices are then reviewed. The standards applicable to the design have been stated above in **Section 2.1**.

## 2.4 Design Quality Criteria and Broad-Brush Targets

Following the review of local standards and best practice and taking the Project nature and functionality into account, design quality criteria for the overall landscape and visual environment of the Project have been developed, with suggested broad-brush targets to help achieve the design quality criteria. These are set out in **Table 2-2**.

#	Design Quality Criteria	Broad Brush Target
1	Minimize adverse impacts on the existing landscape and visual resources	<ul> <li>Targets to include:</li> <li>Preservation of new tree planting (including compensatory trees) as far as appropriate (Refer to Section 4.2).</li> <li>Compensate felled trees based on a target replacement ratio of 1:1 (Refer to Section 4.2).</li> <li>Requirement that 100% of disturbed area (e.g. temporary works areas) shall be reinstated (Refer to Section 4.2).</li> </ul>
2	Balance built form to blend with surrounding landscape	<ul> <li>Target to minimize the sense of visual intrusion of any aboveground/ above sea structures (Refer to Section 3.1).</li> <li>Ensure visual compatibility with the surrounding landscape and visual context (Refer to Section 3.1).</li> </ul>
3	Select planting species that are sustainable and do not attract wildlife, are characteristic of the local micro-climate and are economically feasible and cost-effective to maintain	<ul> <li>Ensure the planting species comply with the HKIA APSL (Refer to Section 4.2 and Table 4-1).</li> </ul>

#### Table 2-2: Recommended Design Quality Criteria and Broad-Brush Targets

# 3 Aesthetic Architectural Design Objectives for the Project Facilities and Landscape Design

## 3.1 Introduction

The ACL and associated building structures are sensitively designed to meet aesthetical pleasing design objectives. The mitigation measures as stated in **Section 2.2** and the design quality criteria developed in **Section 2.4** are proposed and adopted as far as practicable for the Project facilities. The design objectives of the facilities are illustrated below.

### 3.1.1 Airport City Link (Overall Design)

To enhance vehicular mobility and walkability between HKP Island and the SKYCITY, a connection bridge ACL is proposed to provide shuttle services and pedestrian walkway. The ACL and the shuttle services will be a closed system, only for operation by authorised vehicles managed by AAHK. The photomontage for the ACL is illustrated in **Appendix C1**.

The scope of the Project includes the following major works elements:

- (a) An approximately 850m long bridge for 2-lane single vehicular carriageway, including approximately 400m long section which will span over the marine channel between Airport Island and HKP Island and associated elevated platforms;
- (b) Drop-off and pick-up platforms at the western and eastern ends of the bridge for passengers, at SKYCITY side and HKP side respectively (SKYCITY Platform and HKP Platform);
- (c) A pedestrian walkway on the bridge alongside and at the lower level to the vehicular carriageway connecting the drop-off and pick-up at SKYCITY and HKP Platforms; and
- (d) Associated facilities and utilities for the Project, including architectural features, electric vehicle charging facilities, drainage, utilities, lighting, electrical and mechanical services, airport system provisions, etc.

Four viewpoints were identified in the PP of which two viewpoints (i.e. VP1 and VP3) were considered in close proximity to the ACL. **Figures 3.1** and **3.2** illustrate the viewpoints from Hong Kong SkyCity Marriott Hotel (VP1) and HKP Passenger Clearance Building 1/F Platform (VP3) to the ACL.

### 3.1.2 Bridge Piers

The bridge piers will adopt a similar form to that of the adjacent ITT-BVB for visual consistency and harmony. The typical pier size of ACL bridge is 3.5m (width) x 3m (length), which is slightly larger than that of ITT-BVB at 2.7m (width) x 2m (length), due to the wider deck and larger live load for ACL as it contains a pedestrian walkway along the bridge while ITT-BVB does not have.

To reduce the mass of the structure, the piers are designed with a slight flared and widened top part to support the bridge deck while with a narrower lower part so as to make it look slimmer. Recess and groove features will be introduced to further reduce the mass of the piers, in a similar manner to that of ITT-BVB (design quality criteria #2). **Appendix C2** illustrates the photomontage for the bridge piers.

### 3.1.3 SKYCITY Platform (Elevated platform at Airport Island side)

The elevated platform at Airport Island side, i.e. SKYCITY Platform, will span across the SKYCITY Road East, in a simple column-beam-slab reinforced concrete structure with one row of reinforced concrete columns located at the ~6m wide footpath along east and west side of SKYCITY Road East respectively. The columns will be at about 20m spacing along the direction of SKYCITY Road East, which could give a spatially comfortable environment particularly for ground-level pedestrians (design quality criteria #2). The photomontages with a view from deck level and underneath the elevated platform at Airport Island side are provided in **Appendix C3**.

#### 3.1.4 **HKP Platform (Elevated platform at HKP side)**

The elevated platform at HKP side, i.e. HKP Platform, will deck above existing Shun Lui Road and Shun Wan Road, in a simple column-beam-slab reinforced concrete structure with platform columns located to avoid the various existing facilities and roads on ground level of HKP and thus the column grids cannot be fully standardized to a typical spacing. The column grids are rationalized into regular arrangement as far as practicable with spacing around 12m to 30m to give a spatially comfortable environment for ground-level pedestrians and users (design quality criteria #2). **Appendix C4** shows the photomontages for the elevated platform at HKP side.

#### 3.1.5 Covered Walkway and Lookout Points

Along the ACL bridge, a pedestrian walkway will be provided along the southern side of the carriageway, arranged at a lower level to the carriageway so as to the shield against the vehicular traffic for pedestrian to enjoy a more leisure walk. Upon further design development, the width of the walkway is now adopted to be approximately 3.5m wide.

The pedestrian walkway on the bridge is covered by canopy which is consisted of triangular transparent glass and metal panel to play with the light and shadow effect. Also, some ceiling panels in origami plane form with accent color are proposed to enhance the walking experience. Precast Glass-fibre Reinforced Concrete (GRC) wall panel with triangular pattern is offering a natural color to the entire wall on bridge (design quality criteria #2). At the lookout points 1 and 3, a staircase is proposed to provide the connection between the carriageway and covered walkway for the access of firefighter in case of emergency. GRC feature wall is also proposed to conceal the two staircases and highlight this special lookout point.

For the floor finishes, stone carpet system in triangular pattern with light color is proposed to form a consistent element connecting both platforms. This system uses stone aggregates mixed with epoxy resin to provide a natural looking at outdoor (design quality criteria #2). Durability and slip resistance properties make them to be low in maintenance and are suitable for outdoor area.

Regarding the walkway parapet, it is a modular design of precast concrete panel with metal wire to maximize the view from the covered walkway. A wavy pattern of parapet is proposed to echo the sea and offered a dynamic characteristic along the entire bridge. A continuous composite wood flat top rail is proposed to create a comfortable space to enjoy the sea view. The photomontage for the covered walkway and lookout points is provided in **Appendix C5**.

#### 3.1.6 Canopy

The canopy design for ACL will adopt the concept of "origami-paper plane", which highlights the characteristic of the Airport, while at the same time also echoes with the roof design of the Passenger Clearance Building (PCB) on HKP, providing a holistic design across the whole ACL from HKIA to HKP with a sense of unity. The canopies at the HKP Platform and SKYCITY Platform will comprise of series of "origami-paper plane"; at the pedestrian walkway along ACL bridge,

continuous canopy will be provided. A simple and flat arrangement, while at the lookout points the canopy will be enlarged and raised effect at these nodes of special interests (design quality criteria #2). The proposed canopies at the two platforms and the pedestrian walkway will adopt a modular approach, with a combination of solid metal panels in light color and transparent glass panels, to produce lights and shadows effect in the entire project.

At the section overpassing CLP Substation, an additional full height parapet with skylight will be proposed at the outer edge of the walkway, to address CLP's concern on potential throwing of objects from the walkway onto the CLP substation. Also, in relation to this, Highways Department (HyD) standard containment level L4 reinforced concrete vehicular parapet will be provided as the deterrent on the carriageway side. The external face of the parapet will adopt the same wavy approach of ACL bridge to maintain the consistency of appearance. **Appendix C6** illustrates the photomontage for the canopy.

### 3.1.7 Plant Room

The at-grade plantroom will provide a harmonious and consistent "origami" appearance by a geometric triangle wall pattern on four sides. External ceramic tile (white/ light grey/ grey) will be used (design quality criteria #2). There were two plant room locations under consideration during the PP stage and Option 2 was selected as final option which is located to the southern side of the HKP Island. The photomontage for the plant room is illustrated in **Appendix C7**.

## 3.2 Landscape Design

The planting species are selected in accordance with the HKIA APSL (Revision 6.0: August 2021) with consideration of aviation safety and operation, as well as to suit and adapt to their planting location and create the desired visual effect (design quality criteria #3). Watering and pruning will be performed regularly with plant health check to create visual interests and bring the visitor a pleasant walking experience (design quality criteria #1). Details are to be discussed in **Section 4**.

# 4 Tree Treatment and Landscape Planting Proposal

## 4.1 Background

## Before the Issue of EP (No.: EP-581/2020)

In the PP (Register No.: PP-606/2020), it is anticipated that 3 nos. of existing trees will be affected by the proposed plant room at HKP Island. In addition, based on the information provided in the Landscape and Visual Plan under Highways Department (HyD) Agreement No. CE13/2020 (CE) available online, there are approximately 18 nos. of planned trees to be planted at HKP Island which falls within the boundary of ACL. Hence, there are 21 nos. of affected tree (i.e. 21 = 3 + 18) fall within the boundary of ACL Subject to the tree survey carried out in the detailed design stage development, where trees to be affected will be considered for transplanting in accordance with the Tree Transplanting Guidelines issued by Greening, Landscape and Tree Management (GLTM) Section of DevB.

## After the Issue of EP (No.: EP-581/2020)

After the issue of the EP (No.: EP-581/2020) on 5 October 2020, a coordination meeting (THB/EPD/PlanD/HyD/AAHK) was held on 27 Oct 2020. In the meeting, in addition to the 21 nos. of affected trees mentioned in the PP, AAHK agreed with HyD and confirmed to take over the tree planting responsibility for the 41 nos. of additional affected tree (which are in the same tree groups of the 21 nos. of affected trees). Hence, it is concluded that there are 62 nos. of affected tree in total to be compensated by AAHK, including 6 nos. of existing trees and 56 nos. of planned trees.

On 26 October 2021, a tree condition and identification survey was carried out. From the tree survey, 6 nos. of existing trees (species: *Jacaranda mimosifolia*) were surveyed within the project area at ACL on the HKP Island (north-west section). Since *Jacaranda mimosifolia* is NOT an approved species for future planting in Zone 2a as listed in Table 2 of the latest HKIA Approved Plant Species List (Revision 6.0: August 2021) and these existing trees are in direct conflict with the temporary works of piling works, therefore, instead of transplantation, 6 nos. of existing trees is proposed to be fell and will be compensated. As a result, 6 nos. of existing tree to be fell and 56 nos. of planned trees will be compensated in the HKBCF on areas under AAHK's jurisdiction. No existing trees to be transplanted under the Project.

The following sections will describe the locations, size, number and plant species of the tree planting, followed by implementation programme, maintenance and management schedules.

## 4.2 Tree Planting

Three areas of the HKBCF HKP are available for accommodating all the 62 nos. of tree planting, **Figure 4.1** and **Figure 4.2** show the affected tree area and tree planting layout plan respectively. All the landscape planting shall follow the latest version of HKIA APSL (Revision 6.0: August 2021), which is developed as an environmental management to strike a balance between aviation safety and landscape attractiveness to birds in HKIA and areas in the vicinity. **Table 4-1** provides the distribution of the compensatory trees, and a summary of quantity and species selected in the available planting areas.

1	1

Treatment	Tree Species	Number of Tree Planting	Spacing (m)
Compensatory (1)	Plumeria rubra	36	4
	Callistemon viminalis	26	4
	Total	62	

#### Table 4-1: Summary of Proposed Tree Treatment and Tree Species

Note:

(1) The proposed compensatory tree species are subject to the final approval of relevant tree removal application and tree compensation proposal.

## 4.3 Implementation Programme, Maintenance and Management Schedules

The ET engaged by AAHK will undertake site inspections at least once every month during construction phase for checking the landscape and visual mitigation measures implemented and maintained properly, as specified in Section 9.3.1.1 of the EM&A Manual. The landscape and visual monitoring works shall make reference to this L&VP once this L&VP is endorsed by Planning Department (PlanD)/ EPD. For reporting and submission on landscape and visual monitoring, the ET will submit reports to the Independent Environmental Checker (IEC) who will be responsible for verifying the landscape and visual monitoring works by the ET. All reports shall be submitted to the AAHK for record.

Contractor will be responsible for tree planting works within HKP. AAHK will be responsible for supervision and acceptance of the tree planting works, providing all information on specifications of tree planting works which will ensure the works will meet the requirement of this L&VP, and providing all necessary assistance in coordination between the ET, contractor and the IEC, for commencing the implementation of landscape and visual monitoring.

The schedule of management and maintenance responsibilities for landscape works is shown in **Table 4-2** to identify the long-term management and maintenance responsibilities.

# Table 4-2:Landscape Works Schedule of Management and MaintenanceResponsibilities

ltem	<b>Detailed Description</b>	Management Authority	Maintenance Agent	
Hard La	Indscape			
1	Paving	ААНК	ААНК	
2	Street lighting	ААНК	ААНК	
Soft Landscape				
1	Planting works	ААНК	ААНК	
2	Watering	ААНК	ААНК	

Typical operations and maintenance schedules are illustrated in Table 4-3 to Table 4-6.

## Table 4-3: Landscape Works Schedule of Management and Maintenance

Lighting	
Repair:	Fittings as required
Replace:	Replace bulbs as required
Hard Paving	
Repair:	Check and maintain all paving and repair as required
Clear	Remove debris from drains twice a year and routinely check monthly and after storms

### Table 4-4:Hard Landscape Maintenance Principles

	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Lighting												
Repair:	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Replace:	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hard Paving												
Repair:	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clear	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

## Table 4-5: Soft Landscape Maintenance Principles

## Planting

•	
Watering	Watering to all plants to ensure satisfactory growth and health
Fertilizing	Twice a year November and March with emphasis on March application
Fungicide/ Insecticide	Spray as necessary or 3 times a year with approved non-toxic pesticides
Weeding	Weed is removed manually every day
Securing	Adjust tree stakes, guys and ties as required for safety and avoid chaffing of bark
Repairing	After exceptional weather conditions replace dead plants, repair damaged plants, bed in all plants that have blown over, firm up all other plants and immediately thereafter, remove dead plants and plant debris from the site
Litter Removal	Remove all litter and debris
Pruning Trees	Prune trees/limb overhanging branches in accordance with HKIA APSL (Revision 6.0: August 2021), monthly and as required for safety to minimise usage by birds
Mowing	Weekly grass mowing is required, subject to weather condition
Tree Risk Assessment	Tree maintenance and risk assessment under the Project will be regularly conducted by AAHK

	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Watering*	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fertilizing			Y								Y	
Fungicide/ Insecticide			Y								Y	
Weeding	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Securing			Y						Y			
Repairing						As r	equired					
Litter Removal	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pruning Trees	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Mowing	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tree Risk Assessment			Y									

## Table 4-6: Soft Landscape Maintenance Schedule

\*Exact frequency of watering shall be adjusted from time to time as required to suit the site condition.

# 5 Summary

### 5.1 Summary

This L&VP submission is prepared in fulfilment of Condition 2.6 of EP No.EP-581/2020. This L&VP submission demonstrates the design objectives of the ACL and associated building structures in the Project.

All landscape and visual mitigation measures during the construction and operation phase as stated in Section 6.6.1 of the PP (Register No.: PP-606/2020) shall be considered and adopted into the Project as far as practicable. The landscape and visual mitigation measures implementation schedule is provided in **Appendix D**.

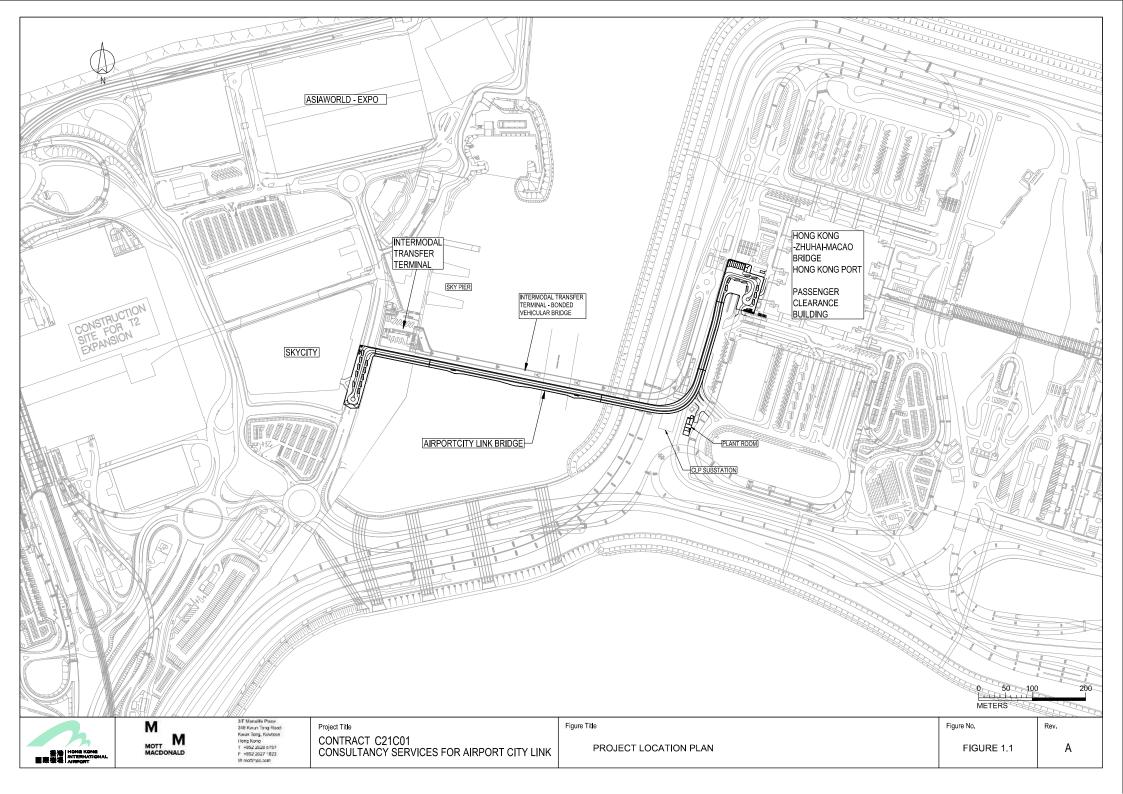
Taking the Project nature and functionality into consideration with reference to international standards and best practices, it is found that local standards and guidelines are more applicable to the Project. Design quality criteria for the overall landscape and visual environment of the Project is then developed, with suggested broad-brush targets to help achieve the design quality criteria.

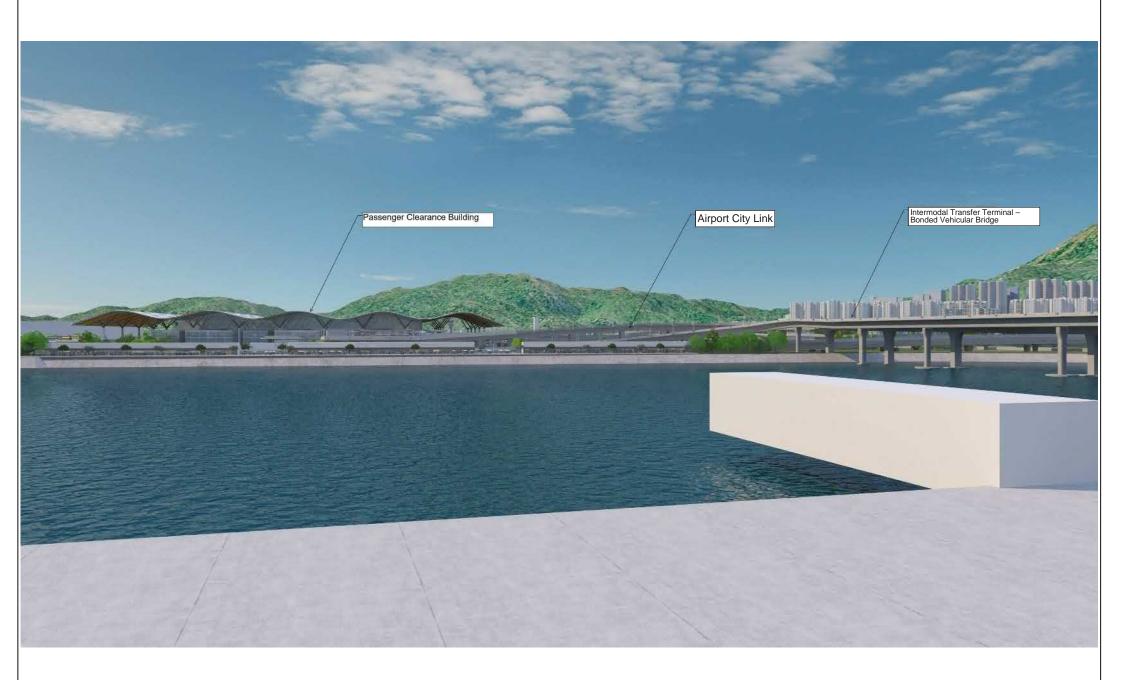
The ACL and associated structures are sensitively designed to avoid visual intrusion and able to blend into the structures of the adjacent HKP Island and Airport Island. Greening is maximised at the external open space as far as practicable and the planting design fulfils the requirements of the HKIA APSL (Revision 6.0: August 2021).

Compensatory trees of 62 nos. will be planted in the HKBCF on areas under AAHK's jurisdiction. Tree species selected fulfil the requirements of the HKIA APSL (Revision 6.0: August 2021). Detailed arrangement on maintenance and management of landscape works is presented to identify the management authorities and maintenance parties and summarize the basic principles for maintenance of landscape works.

Mott MacDonald | Contract C21C01 Environmental Team Consultancy Services for Airport City Link Landscape and Visual Plan

# **Figures**

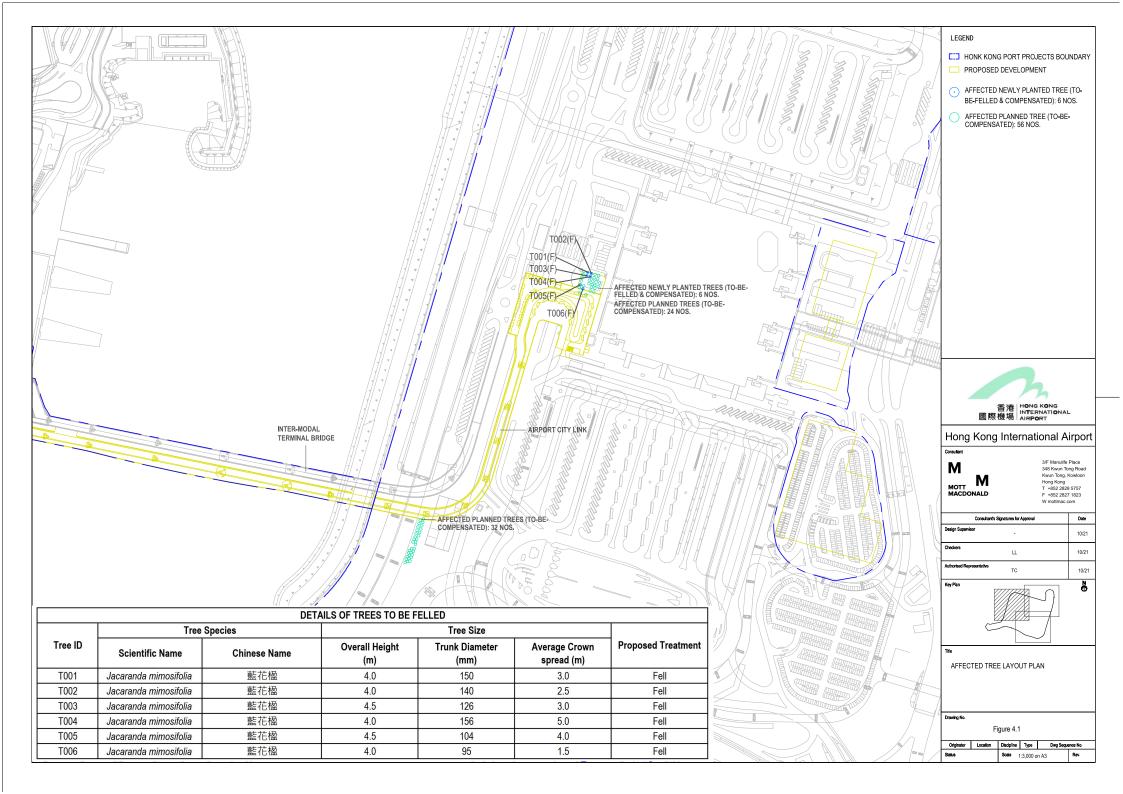


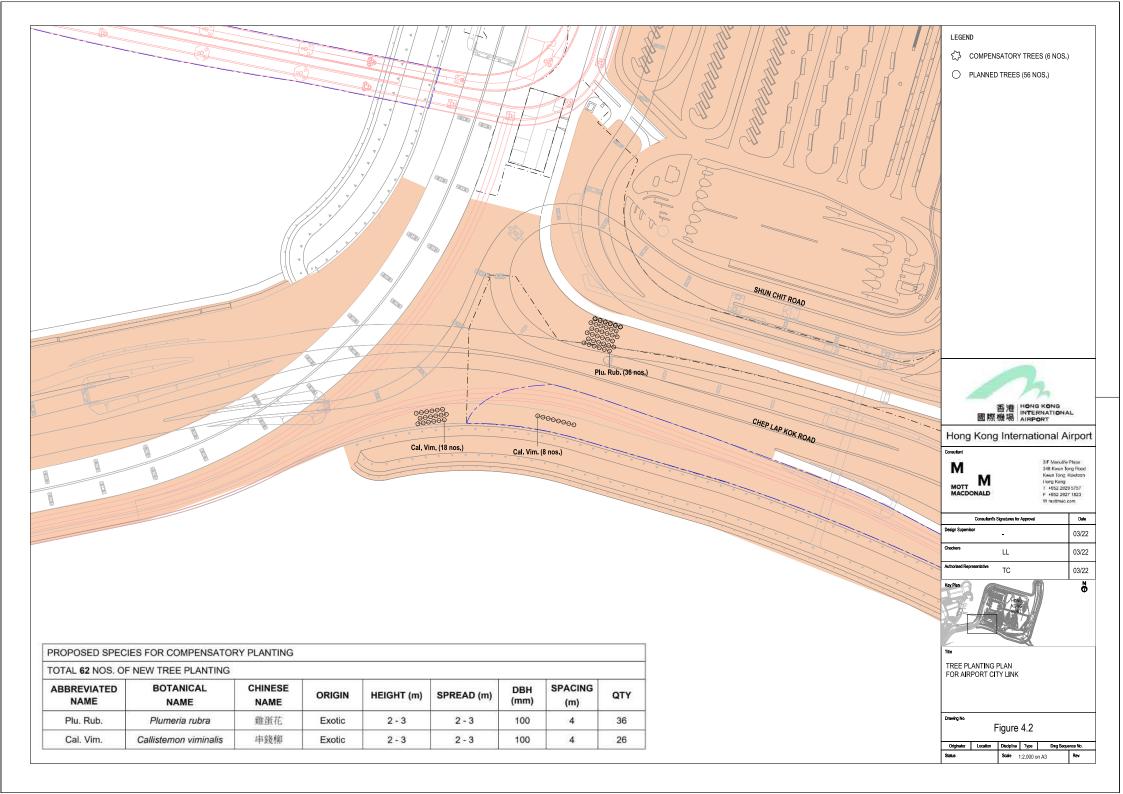


	М	3/F Manulife Place 348 Kwan Tong Road	Project Title	Figure Title	Figure No.	Rev.
香港 HONG KONG INTERNATIONAL 建席機構 Alsport		Kwun Tong, Kowleen Hong Kono F +952 2526 5737 F +852 2627 1823 W mottmae.com	CONTRACT C21C01 CONSULTANCY SERVICES FOR AIRPORT CITY LINK	VIEW FROM HONG KONG SKYCITY MARRIOTT HOTEL (VP1) TO ACL	Figure 3.1	A



	м	3/F Manufile Place 348 Kwun Tong Road	Project Title	Figure Title	Figure No.	Rev.
香港 HONG KONG INTERNATIONAL AISPORT		Kwun Tong, Kowleon Hong Kong T +952 2029 5757 F +952 2027 1823 W mattmac.com	CONTRACT C21C01 CONSULTANCY SERVICES FOR AIRPORT CITY LINK	VIEW FORM HKP PASSENGER CLEARANCE BUILDING 1/F PLATFORM (VP3) TO ACL	Figure 3.2	A





# Appendices

- A. Hong Kong International Airport Approved Plant Species List (Revision 6.0: August 2021)
- B. Landscape and Visual Mitigation Measure Plan
- C. Photomontages of Airport City Link
- D. Implementation Schedule

# A. Hong Kong International Airport Approved Plant Species List (Revision 6.0: August 2021)

## Hong Kong International Airport Approved Plant Species List (Revision 6.0: August 2021)

## 1 Background

In accordance with the ICAO Airport Services Manual Part 3 (5<sup>th</sup> edition – 2020), Wildlife Hazard Management, Chapter 4, Para 4.4.2, a bird/wildlife management plan should be developed for the area, typically a 13 km (or 7NM) circle of the airport aerodrome reference point. In addition, in accordance with ICAO Annex 14, Volume I (8<sup>th</sup> edition – July 2018), Chapter 9, Para 9.4.5, States should give due consideration to aviation safety concerns related to land developments in the vicinity of the aerodrome that may attract wildlife.

Environmental management is integral to wildlife control, especially to reduce bird hazard, at the Hong Kong International Airport ("HKIA"). Given that the species planted for landscaping are directly correlated to the species and numbers of birds attracted, the Airfield Department of the Airport Authority Hong Kong ("AAHK") in February 2000 engaged a consultant to issue and maintain an Approved Plant Species List ("APSL") to reduce and limit the attractiveness of HKIA to birds.

In view of continuing large-scale developments and updated design proposals for future airside areas (i.e. The Third Runway Development), landside areas of the HKIA and in the vicinity of the airport island (e.g. The Hong Kong-Zhuhai-Macao Bridge Hong Kong Port (HKP)), the Airport Authority has issued this Revision 6.0 to guide project proponents in considering future planting proposals in all areas on the airport island and its vicinity.

The APSL aims to strike a balance between aviation safety and landscape attractiveness. The bird control service consultant engaged by AAHK reviews, as necessary, the suitability of any new plant species proposed, as well as the planting and vegetation management guidelines in HKIA.

## 2 General Principles

The aim of the airport bird strike reduction strategy at HKIA is to minimise the presence of bird species that may provide a significant hazard to aircraft or airport operations. Hazardous species are those that are more likely to cause damage to an aircraft; these are defined as species that are large, flocking or large and flocking. The planting prescriptions for all zones have been devised so that numbers of these hazardous species attracted to the airfield for foraging or resting are minimised.

In addition, all species listed in this APSL should be managed in accordance with the same principle of reducing attraction to birds via selective pruning and removal of fleshy fruits, and this principle must be observed in all landscape planning. Large-scale planting of any plant

species in Zones 1, 2 and 2a, even of approved species in the APSL, should be avoided to further minimise the potential attractiveness of extensive plant groups to birds. Plants that produce fleshy fruits should be avoided in future planting in Zone 1, 2, 2a and areas in Zone 3 close to the runway and the airfield. Should new fleshy fruit-bearing plant individuals be proposed and/or planted in these zones, strong justification for such proposal should be provided. In addition, all proposals for new landscape planting or new tree group transplanting should be submitted to the Airfield Department for review and approval on a case-by-case basis.

Considering that the plant community changes over time, planting criteria and management practice for existing plant species, which specify the plants exist in respective zones when APSL is effective already, and future planting and/or transplantation could be different so as to control the plant group size in the airport. Proposals for species not in this APSL or for planting of species that are not in the appropriate zones are subject to review and approval on a case-by-case basis, and they must be justified with due reference to bird strike issues and vegetation characteristics.

## 3 Third Runway development

The construction of a third runway (3RS) will create new airport areas that require to be placed in appropriate vegetation zones.

In addition, courtyard landscape would be developed at Terminal 2 Concourse (T2C). With adherence to general principles in Section 2, the proposals for species in courtyard landscape are subject to review and approval by Airfield Department on a case-by-case basis. Flora species approved for courtyard planning shall be documented, and from time to time supplemented, modified or replaced with the agreement of Airfield Department.

## 4 Hong Kong Port (HKP)

The HKP is a transportation hub connecting Hong Kong-Zhuhai-Macao Bridge (HZMB), the airport and other link roads. The artificial island is connected to the airport by Chek Lap Kok Road and is located at least 1.4 km away from the nearest end of the South Runway. Relatively few birds are likely to habitually use the approach corridor above HKP island, as well as the departure flight path, which is of a steeper gradient, and most of these will be small in size.

## 5 Zones

The airport island and HKP area is divided into five zones based on location airside or landside and distance from the runway centerline (Figure 1). Planting criteria in each zone are described below and summarized in Table 1. All new landscape proposals should be submitted to Airfield Department for review and approval on a case-by-case basis. Proposals for species not in this APSL or for planting of species that are not in the appropriate zones shall be documented, and from time to time supplemented, modified or replaced with the agreement of Airfield Department. For the purposes of review and approval, the proposals may be forwarded to the Authority's other relevant departments.



Figure 1. Zoning of the airport island for existing platform and future Third Runway System (3RS)

## Airside

Only grass of less than 200mm in height is permitted.

Future proposals for outdoor landscape planting adjacent to or within a passenger terminal structure (as may be required for a courtyard, external smoking area or balcony) in the Airside area shall be reviewed by AAHK's bird control service consultant and approved by AAHK on a case-by-case basis to avoid or minimise any bird attraction. Vegetation proposed should follow the management requirements stated in this APSL, or any specific management criteria as recommended in the landscape proposals and approved by AAHK.

## Zone 1

Grass and ground cover of less than 200mm in height is permitted; climbers that do not produce fleshy fruit can be planted in areas not exceeding  $25m^2$ , with regular pruning to control its spread; regularly pruned shrubs that do not produce fleshy fruit and are of less than 1.5m in height and  $25m^2$  in area are also allowed. Bird monitoring of any newly planted areas in Zone 1 is required to evaluate the attractiveness of the new planting to birds.

## Zone 2

In this zone climbers, palms, cycads, trees or shrubs are acceptable only if they do not produce fleshy fruit. Species, height and canopy structure of most of the existing, planted palms, cycads and trees have been strictly reviewed and managed to control their spread and height so as not to be attractive to birds. With the support of routine bird monitoring data and practical tree maintenance practice, the majority of the existing palms, cycads and trees have been restricted to a height range of 5-10m. The exceptions are some areas with mature trees or tree groups (such as Casuarina equisetifolia along Chun Wan Road, and Delonix regia next to Catering Road West) that are at least 10m in height, which have been present since airport inception (Figure 2). These trees and tree groups are present along busy roads (e.g. Chun Wan Road and Catering Road West) and are separated from the runway by tall buildings. Implementing a height restriction (5-10m) on these existing trees may require excessive pruning of canopies, which could negatively influence overall tree structures. Routine bird monitoring has revealed that these areas are not very attractive to birds. In addition, for all existing planted palms, cycads and trees, their suitability and horticultural maintenance practice will be regularly reviewed by AAHK, and their attraction to birds will be monitored by AAHK's bird control service consultant.

As a precautionary measure and for effective horticultural maintenance, a height restriction of 5-10m applies to future planting of palms, cycads and trees; in addition, trees that could produce a spreading crown and/or develop a tall structure should be avoided. The selection of small trees is preferred as a long-term management and maintenance approach to future planting in this zone.

Future planting of palms, cycads, ravenala, bamboos and trees should be in groups of 50 individuals or fewer. The area of each tree group should not exceed 150m<sup>2</sup>, and shrubs / climbers should be planted in areas of no more than 500m<sup>2</sup>. Routine horticultural maintenance should be carried out to maintain vegetation groups of smaller sizes as far as practical. The height restriction of existing and newly-planted shrubs is 1.5m.

Existing planted palms, cycads, ravenala, bamboos, trees and shrubs are monitored by AAHK's bird control service consultant for usage by birds, and by AAHK. The planted area can be no more than 500 m<sup>2</sup> for palms, cycads ravenala, bamboos and trees, and 1,000m<sup>2</sup> for shrubs and climbers. The linear segregation for adjacent groups of palms, cycad, ravenala, bamboo, trees and shrubs should be at least 50m; however, this segregation restriction can be relaxed if the plantation is assessed as not creating significant or hazardous attraction to birds by AAHK's bird control service consultant.

Trees that produce fleshy fruits should be avoided in future planting in Zone 1, 2, 2a and areas in Zone 3 close to the runway and the airfield. Should new fleshy fruit-bearing tree individuals be proposed and/or planted in these zones, strong justification for such proposal should be provided.

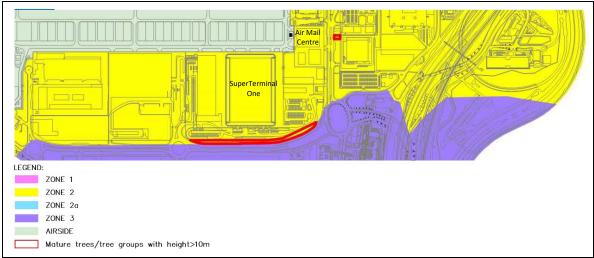


Figure 2. Locations of the mature trees/ tree groups with height >10m in Zone 2

## Zone 2a

Zone 2a has been formulated based on existing planting guidelines and maintenance practice in Zone 2, including a prohibition on planting fleshy fruit bearing plants and a requirement for regular shrub pruning, to avoid creating a habitat that might be used by large numbers of birds, in particular hazardous species. The relaxation of planting area for shrubs and trees releases landside area (e.g., planting areas underneath highways with high vertical clearance and considerable sunlight from both sides) for soft landscaping and tree transplanting in the future.

Most of the plant species that are acceptable in Zone 2 are permitted in Zone 2a. However, in view of the more exposed environment at HKP, trees that are vulnerable to strong wind should be avoided. Any landscape proposals for new tree planting or transplantation to this zone should take into account sensitivity to exposed sites, and be reviewed by the Airfield Department for approval on a case-by-case basis.

Future planting of shrubs and climbers should be in areas of no more than 1000m<sup>2</sup>, while the height restriction on newly-planted shrubs remains at 1.5m. Planting of palms, cycads, ravenala, bamboos and trees should be in groups not exceeding 500m<sup>2</sup>, with a linear separation of tree groups of at least 50m. The height restriction on palms, cycads and trees is 5-10m, and planting of small-sized palms, cycads and trees are preferable as a long-term plant management approach in this zone. Should tree species of a mature size exceeding 10m be planted in the future, routine horticultural maintenance should be carried out to control height.

Transplantation of trees from the airport island to the HKP is acceptable if the above principles are adopted. Planting guidelines and restrictions on newly planted trees in Zone 2a are also applicable to the trees transplanted to HKP.

## Zone 3

Trees, shrubs and palms are allowed since much of this zone is relatively far from the runway centerline; in addition, management control of plant growth and planting works in Zone 2 has reduced bird occurrence in areas close to the airfield. Nonetheless, in regard to the potential increase in development projects and associated landscaping in Zone 3, certain restrictions on species selection and the implementation of horticultural maintenance practices should be followed.

For existing species, bird usage of large trees with a complex structure that could potentially encourage bird foraging or perching should be monitored. Existing plant species with fleshy fruits should also be monitored for bird attraction. In addition, to streamline long-term management and maintenance, in areas close to Zone 2 planting of large and continuous groups of trees, palms, cycads and ravenala that set fleshy fruits should be avoided. New planting of certain species, e.g. *Ficus benjamina* and *Ficus microcarpa*, which provide abundant fleshy fruit, should not be carried out. Any further transplantation of existing *Ficus* spp. to Zone 3 should be planned carefully (e.g. planted in areas far away from the runway and the airfield), and these trees should be transplanted in small groups to minimise their attractiveness to birds. Should AAHK's bird control consultant consider the transplanted *Ficus* trees attract a potentially hazardous number of birds, measures for removal of fleshy fruits from these trees should be adopted on regular basis.

## 6 Approved Plant Species List (APSL)

The plant species allowed in each zone are stated below in the Approved Plant Species List (APSL). The acceptability of each species and management strategy has been evaluated based on their growth form and attraction to wildlife, particularly birds. Plant species proposed in respective proposals should also be subject to review by Airfield department and other relevant departments. The APSL (**Table 2**) provides the most updated flora list to be followed in future planting proposals in each zone in the landside areas on the airport island.

On rare occasions, flora species not in the APSL may be proposed for assessment by AAHK's bird control service consultant. Approval may be granted, with conditions (such as appropriate vegetation management to control the tree spread and remove any potential attractive fleshy fruits), if appropriate, if the proposed species are not considered to pose unacceptable attraction to wildlife, particularly birds.

Natural colonization means that the plant community in the airport island will change over time. AAHK's bird control service consultant conducts monthly landside bird surveys and annual vegetation surveys, submits reports on the monitoring with reference to the APSL when required, and assesses whether vegetation at the Airport is appropriate in regard to its attraction to birds.

## 7 Bibliography

Corlett, R.T. 1992. Plants attractive to frugivorous birds in Hong Kong. *Memoirs of the Hong Kong Natural History Society* 19: 115-116.

Corlett, R.T. 1998. Frugivory and seed dispersal by birds in Hong Kong shrubland. *FORKTAIL* 13: 23-27.

Corlett, R.T. 2011. Seed dispersal in Hong Kong, China: past, present and possible futures. *Integrative Zoology* 6: 97-109.

	Existing plant species <sup>1</sup>	Future planting and transplantation <sup>2</sup>					
Airside	Only grass of less than 200mm in heighted to the second seco	ght is permitted.					
Zone 1	<ul> <li>Grass and ground cover of less than 200mm in height are permitted;</li> <li>Climbers that do not produce fleshy fruit can be planted in areas not exceeding 25m<sup>2</sup>, with regular pruning to control its spread;</li> <li>Regularly pruned shrubs that do not produce fleshy fruit and &lt; 1.5m in height and &lt; 25m<sup>2</sup> in area are allowed;</li> <li>Bird monitoring of any newly planted areas in Zone 1 is required to evaluate the attractiveness of the new planting to birds.</li> </ul>						
Zone 2	produce fleshy fruits.	rubs are acceptable only if they do not					
	<ul> <li>Species, height and canopy structure of most of the existing, planted palms, cycads and trees have been strictly reviewed and managed to control their spread and height so as not to be attractive to birds;</li> <li>The majority of the existing palms, cycads and trees have been restricted to a height range of 5-10m;</li> <li>All existing planted palms, cycads and trees, their suitability and horticultural maintenance practice will be regularly reviewed by AAHK, and their attraction to birds will be monitored by AAHK's bird control service consultant;</li> <li>The planted area of the existing planted area can be no more than 500m<sup>2</sup> for palms, cycads, ravenala, bamboos and trees, and 1,000m<sup>2</sup> for shrubs and climbers;</li> <li>The linear segregation for adjacent groups of palms, cycad, ravenala, bamboo, trees and shrubs should be at least 50m. This segregation restriction can be relaxed if the plantation is assessed as not creating significant or hazardous</li> </ul>	<ul> <li>Selection of small trees is preferred as a long-term management and maintenance approach to future planting in this zone;</li> <li>A height restriction of 5-10m applies to future planting of palms, cycads and trees. Trees that could produce a spreading crown and/or develop a tall structure should be avoided;</li> <li>Future planting of palms, cycads, ravenala, bamboos and trees should be in groups of 50 individuals or fewer;</li> <li>The area of each tree group should not exceed 150m<sup>2</sup>, and shrubs/ climbers should be planted in areas of no more than 500m<sup>2</sup>.</li> <li>Routine horticultural maintenance should be carried out to maintain vegetation groups of smaller sizes as far as practical. The height restriction of existing and newly-planted shrubs is 1.5m.</li> <li>Trees that produce fleshy fruits should be avoided in future planting in Zone 1, 2, 2a and areas in Zone 3 close to the runway and the airfield. Should new fleshy fruit-bearing tree individuals be proposed and/or planted in these zones, strong</li> </ul>					

## Table 1. SUMMARY TABLE OF THE PLANTING GUIDELINES STIPULATED IN RESPECTIVE ZONES

	attraction to birds by AAHK's bird	justification for such proposal
	control service consultant.	should be provided.
	• Trees and tree groups (such as	
	Casuarina equisetifolia and Delonix	
	regia) that are of at least 10m in	
	height are present since airport	
	inception. They are present along	
	busy roads and are separated from	
	the runway by tall buildings. Close	
	monitoring of these trees and tree	
	groups is required since a height	
	restriction (5-10m) on these trees	
	may require excessive canopy	
	reduction, resulting negative	
	impact on the tree structure and	
	health.	
Zone 2a		ed on existing planting guidelines and luding a prohibition on planting fleshy
	fruit bearing plants and a requireme	ent for regular shrub pruning, to avoid
	creating a habitat that might be used	by large numbers of birds, in particular
	hazardous species.	
	<ul> <li>Most of the plant species that are acc</li> </ul>	eptable in Zone 2 are permitted in Zone
	2a, except those trees that are vulne avoided.	erable to strong wind which should be
		an electing of transplantation to LUCD
		ee planting or transplantation to HKP performed by the performed sites, and be reviewed by the performed by the
	Airfield Department for approval on a	
		• Shrubs and climbers should be in
		areas of no more than 1,000m <sup>2</sup> ,
		while the height restriction on
		newly planted shrubs remains at
		1.5m;
		<ul> <li>Planting of palms, cycads, ravenala,</li> </ul>
		bamboos and trees should be in
		groups not exceeding 500m <sup>2</sup> , with a
		linear separation of tree groups of
		at least 50m;
		• The height restriction on palms,
		cycads and trees is 5-10m, and
		planting of small-sized palms,
		cycads and trees are preferable as a
		long-term plant management
		approach;
		appioacii,

		<ul> <li>Should tree species of a mature size exceeding 10m be planted in the future, routine horticultural maintenance should be carried out to control height.</li> <li>Trees transplanted from the airport island to the HKP is acceptable if the above principles are adopted;</li> <li>Planting guidelines and restrictions on newly planted trees in Zone 2a are also applicable to the trees transplanted to HKP.</li> </ul>
Zone 3	<ul> <li>Trees, shrubs and palms are allowed runway centerline.</li> <li>Bird usage of large trees with a complex structure that could potentially encourage bird foraging or perching should be monitored;</li> <li>Existing plant species with fleshy fruits should also be monitored for bird attraction.</li> </ul>	<ul> <li>I in Zone 3, where is far away from the</li> <li>Planting of large and continuous groups of trees, palms, cycads and ravenala that set fleshy fruits should be avoided;</li> <li>New planting of certain species, e.g. <i>Ficus benjamina</i> and <i>Ficus microcarpa</i>, which provide abundant fleshy fruit, should not be carried out.</li> <li>Transplantation of existing <i>Ficus</i> sp. to Zone 3 should be planned carefully (e.g. planted in areas far away from the runway and the airfield), and these trees should be transplanted in small groups to minimise their attractiveness to birds.</li> </ul>

## Notes:

- 1. Existing plant species refers to the species which have been planted after the commissioning of HKIA and exist in respective zones when APSL (Rev. 6.0) is in effective.
- 2. Future planting and transplantation refer to the plant species which will be proposed in future landscape proposal/plan after APSL (Rev. 6.0) is in effective.

## Table 2.FLORA SPECIES APPROVED FOR FUTURE PLANTING IN AIRSIDE, ZONES 1, 2, 2a and 3

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Trees							
Acacia auriculiformis	耳莢相 思	Ν	Ν	N (only allowed for existing individuals already planted)	Ν	N (only allowed for existing individuals already planted)	This exotic species cannot be further planted in Zones 2 and 3 since existing environment will be changed due to development projects. Any existing individuals already planted in Zones 2 and 3 (areas away from runway and airfield in both zones) are allowed but should be regularly pruned to remove any fleshy fruits.
Acacia confusa	台灣相 思	Ν	N	Y	Y	Y	Requires regular pruning in Zone 2.
Acacia mangium	馬占相思	N	N	N (only allowed for existing individuals already planted)	N	N (only allowed for existing individuals already planted)	This species cannot be further planted in Zones 2 and 3 since existing environment will be changed due to development projects. Any existing individuals already planted in Zones 2 and 3 (areas away from runway and airfield in both zones) are allowed but should be regularly pruned to remove any fleshy fruits.
Acerpalmatum Jinling Huang-feng	金陵黄 楓	N	N	Y	N	Y	It is recommended to use the cultivar that does not produce fruit.
<i>Acer palmatum</i> 'Atropurpureum'	紅楓	Ν	N	Y	Ν	Y	
Albizia julibrissin	合歡	Ν	N	Y	Ν	Y	This is a large tree with open canopy; its spreading structure, heavy flowering and insect load encourage bird's perching and foraging on trees. It is acceptable in small scale planting in areas away from runway and airfield in Zones 2 and 3.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Albizia lebbeck	大葉合 歡	Ν	Ν	Y	N	Y	This is a large tree with open canopy; its spreading structure, heavy flowering and insect load encourage bird's perching and foraging on trees. It is acceptable in small-scale planting in areas away from runway and airfield in Zones 2 and 3.
Aleurites montana	皺桐	Ν	Ν	Y	Y	Y	This species can produce showy flowers and with maximum height up to 20m. Acceptable in limited use and small-scale planting in areas away from runway and airfield. AAHK should control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Bauhinia x blakeana	洋紫荊	Ν	N	Y	Y	Y	
Bauhinia purpurea	紅花羊 蹄甲	Ν	N	Y	Y	Y	
Bauhinia variegata / Camel's foot tree	宮粉花 羊蹄甲	Ν	N	Y	Y	Y	
Bauhinia variegata var. candida	白花羊 蹄甲	Ν	N	Y	Y	Y	
Brachychiton acerifolius	槭葉酒 瓶樹	Ν	N	Y	Y	Y	This species can produce showy flowers and with maximum height up to 20m. Acceptable in limited use and small-scale planting in areas away from runway and airfield. AAHK should control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Brassaia actinophylla	澳洲鴨 腳木	Ν	N	Y	Y	Y	Same as <i>Schefflera actinophylla</i> ; this species can produce fruits which are eaten by many birds. Unless the flower spikes can be regularly removed once it is developed, this species is not recommended in any areas which are close to the runways and airfield.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Callistemon rigidus	紅千層	Ν	N	Y	Y	Y	Flowers may be very attractive to small birds and produce perches for birds; only limited use and small-scale planting is allowed in Zones 2 and 2a, as well as the areas in Zone 3 which are away from Zone 2 and the airfield.
Callistemon viminalis	串錢柳	Ν	N	Y	Y	Y	
Cassia fistula	豬腸豆	N	N	Y	Y	Y	AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Cassia nodosa (New scientific name: Cassia javanica var. indochinensis)	爪哇旃 那	N	N	Y	Y	Y	Requires regular pruning in Zones 2 and 2a.
Cassia siamea	鐵刀木	N	N	Y	Y	Y	
Cassia spectabilis	美國槐	N	N	Y	Y	Y	Requires regular pruning in Zones 2 and 2a.
Cassia surattensis	黃槐	N	N	Y	Y	Y	Requires regular pruning in Zones 2 and 2a.
Casuarina equisetifolia	木麻黃	N	N	Y	Y	Y	Requires regular pruning in Zones 2 and 2a.
<i>Cerasus</i> sp.	櫻花	N	N	Y	Y	Y	The cultivars and varieties of this <i>Cerasus</i> sp. for ornamental use usually do not produce fleshy fruits that attract birds. Therefore, this species is still accepted in Zones 2, 2a and 3. Please make sure that the chosen cultivated specimens of <i>Cerasus</i> sp. will not produce fruits so as to minimize its attraction to birds. Moreover, for those in Zones 2 and 2a, it should be monitored regularly for any production of fruits.
Cerasus cv. Guangzhou	櫻花 (廣 州櫻)	Ν	N	Y	Y	Y	The cultivars and varieties of <i>Cerasus</i> sp. for ornamental use usually do not produce fleshy fruits that attract birds. Any planted individuals, especially those planted in Zones 2 and 2a, should be monitored regularly for any production of fruits.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
<i>Cerasus</i> cv. Zhongguohong	櫻花 (中 國紅)	N	N	Y	Y	Y	The cultivars and varieties of <i>Cerasus</i> sp. for ornamental use usually do not produce fleshy fruits that attract birds. Any planted individuals, especially those planted in Zones 2 and 2a, should be monitored regularly for any production of fruits.
Cerbera manghas	海芒果	N	N	Y	Y	Y	Recommend to have small-scale planting in Zones 2 and 2a; also planted in areas away from the public in view of the production of poisonous fruits.
Chukrasia tabularis	麻楝	N	N	Y	Y	Y	AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Coccoloba uvifera	海葡萄	N	N	Y	Y	Y	Removal any fleshy fruits wherever possible. Requires regular pruning if planted in Zones 2 and 2a.
Crateva unilocularis	樹頭菜	Ν	Ν	Y	Y	Y	Tree produces dry fruits which are not attractive and too large for birds to eat. This species is allowed in Zones 2, 2a and 3. Tree may able to grow more than 10m in the long-term, and AAHK has to control the tree height as tree management approach in the planting zones.
Delonix regia	鳳凰木	Ν	Ν	Y	Ν	Y	This species has open and spreading canopy. It is quite vulnerable to storm damage due to its brittle wood. It is only acceptable in small-scale planting in areas away from the airfield and Zone 1. It also requires regular pruning to control its spread in Zones 2 and 3.
Euphorbia cotinifolia	紅烏桕	N	N	Y	Y	Y	Requires regular pruning in Zones 2 and 2a.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Ficus benjamina	垂葉榕	Ν	Ν	N (only allowed for existing individuals already planted)	Ν	N (only allowed for existing individuals already planted)	This species cannot be further planted in Zones 2, 2a and 3 since existing environment will be changed due to development projects. Any existing individuals already planted in Zones 2 and 3 (areas away from runway and airfield in both zones) can be allowed but they should be regularly pruned to remove any fleshy fruits.
Ficus crassifolia	厚葉榕	Ν	Ν	N (only allowed for existing individuals already planted)	Ν	N (only allowed for existing individuals already planted)	<i>Ficus crassifolia</i> is equivalent to <i>Ficus microcarpa var. crassifolia</i> . Depending on the type of cultivar, this could become a larger shrub/ tree. Any existing individuals already planted in Zones 2 and 3 (areas away from the runway and airfield in both zones) can be allowed but they should be regularly pruned to maintain a ball or cone shape, and any fleshy fruits should be removed during pruning.
Ficus microcarpa	細葉榕	Ν	Ν	N (only allowed for existing individuals already planted)	Ν	N (only allowed for existing individuals already planted)	This species cannot be further planted in any zones, or in any area close to the airfield due to its production of fruits which may attract birds. Depending on the type of cultivar, this could become larger shrub/ tree. Any existing individuals already planted in Zones 2 and 3 (areas away from the runway and airfield in both zones) can be allowed but they should be regularly pruned to remove all fleshy fruits.
Ficus microcarpa L.f	圓葉榕	Ν	N	Y	Y	Y	This <i>Ficus</i> species can be accepted in Zones 2, 2a and 3 only if its cultivar form (production of sterile fruits) is used and only small-scale planting (i.e. planting area can be no more than 1000 sq. meter) is allowed. Regular pruning of this species should be carried out in Zone 2 and areas close to the runway and the airfield to maintain its dense low canopy.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Grevillea banksii	紅花銀 樺	Ν	N	Y	Y	Y	This can produce large and open canopy. Acceptable only in small-scale planting. AAHK should control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Grevillea robusta	銀樺	Ν	N	Y	Y	Y	This can produce large and open canopy. Acceptable only in small-scale planting. AAHK should control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Heteropanax fragrans	幌傘楓	Ν	N	Y	Ν	Y	Acceptable in areas away from the airfield; AAHK should control the tree height as a long-term tree management approach in Zones 2 and 3.
Hibiscus tiliaceus	黃槿	Ν	Ν	Y	Ν	Y	This is a small tree that birds may use for shelter. Large-scale planting should be avoided, esp. in areas near Zone 1 and the runway. The planting area can be no more than 500 sq. meter following the restriction stipulated in APSL Rev. 6.
Jacaranda acutifolia (New scientific name: Jacaranda mimosifolia)	藍花楹	N	N	Y	N	Y	This species has a medium tree size and produces showy flowers, but is very vulnerable to storm damage due to its brittle wood. It is only acceptable in small-scale planting if it is planted in Zone 2.
Juniperus chinensis	龍柏	N	N	Y	Y	Y	Regular pruning to maintain height < 5m in Zone 2.
				I	ľ	Į	Requires removal of fruits in Zones 2 and 2a.
Juniperus formosana	刺柏/ 針 松	Ν	N	Y	Y	Y	Acceptable in areas away from the runway and the airfield only. Regular pruning should be applied in Zone 2.
Koelreuteria bipinnata	複葉欒 樹	Ν	N	Y	Ν	Y	Acceptable in areas away from the airfield and runway; AAHK should control the tree height as a long-term tree management approach in Zones 2 and 3.
Koelreuteria formosana	台灣欒 樹	Ν	N	Y	N	Y	Acceptable in areas away from the airfield and runway; AAHK should control the tree height as a long-term tree management approach in Zones 2and 3.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Lagerstroemia speciosa	大葉紫 薇	Ν	N	Y	Y	Y	Acceptable in areas away from the runway and airfield only.
Melaleuca bracteata	黄金香 柳	N	N	Y	Y	Y	Flowers of this species may be regularly visited by bird flocks, like tree <i>Melaleuca cajuputi</i> subsp. <i>cumingiana</i> . This species is acceptable in Zone 2, but regular pruning should be adopted to control its height as shrub or small tree, and monitoring of its attractiveness to birds is required.
Melia azedarach	苦楝	Ν	N	N (only allowed for existing individuals already planted)	Ν	Y	This species cannot be further planted in Zones 1 2, 2a or in any area close to the airfield, due to its production of fruits which may attract birds. Depending on the type of cultivar, this could become larger tree. Any existing individuals already planted in Zone 2 (areas away from the runway and airfield) can be allowed but they should be regularly pruned to remove all fleshy fruits.
Michelia alba	白玉蘭	Ν	N	Y	N	Y	This species has a spreading canopy which encourages bird's foraging. This species can only be accepted in small-scale planting in areas away from the airfield and runway.
Michelia champaca	黃玉蘭	Ν	N	Y	Ν	Y	This species has a spreading canopy which encourages bird's foraging. This species can only be accepted in small-scale planting in areas away from the airfield and runway.
Michelia chapensis	樂昌含 笑	Ν	N	Y	Ν	Y	This species has a spreading canopy which encourages bird's foraging. This species can only be accepted in small-scale planting in areas away from the airfield and runway.
Peltophorum pterocarpum	盾柱木	Ν	N	Y	Y	Y	The large spreading open canopy may encourage bird perching; preferable to be planted in Zone 3 only, but can have limited use in Zones 2 and 2a areas away from the runway and landside. AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
<i>Plumeria obtusa '</i> Pink Flower'	鈍葉雞 蛋花	N	N	Y	Y	Y	Acceptable only in limited use in Zones, 2, 2a and 3 (areas away from the airfield and the runway in these zones).
Plumeria rubra	雞蛋花	Ν	N	Y	Y	Y	Acceptable only in limited use in areas away from the airfield and the runway.
Podocarpus macrophyllus	羅漢松	Ν	N	Y	Y	Y	Acceptable in areas away from the runway and the airfield if routine pruning and vegetation maintenance work is applied to this species so as to reduce its attraction to birds.
Polyalthia longifolia 'Pendula'	長葉暗 羅	N	N	Y	Y	Y	
Prunus subgenus Cerasus	櫻花	N	N	Y	Y	Y	Only the cultivar forms with no fleshy fruits are allowed for planting in Zones 2, 2a and 3. Any planted individuals, especially those planted in Zones 2 and 2a, should be monitored regularly for any production of fruits if in case the source of the cultivar is in doubt.
Saraca asoca	無憂樹	Ν	N	Y	Y	Y	Acceptable in areas away from the airfield and runway. It should be emphasized that this species can grow into a tall tree with spreading canopy. AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
<i>Sophora japonica</i> cv. Golden stem	黃金槐 (金枝槐)	Ν	N	Y	N	Y	Acceptable for sterile cultivar to be planted in areas away from the runway and airfield. Maximum height of this species can reach 25m, AAHK has to control the tree height as a long-term tree management approach in Zones 2 and 3.
Spathodea campanulata	火焰木	Ν	N	Y	Y	Y	This species can produce showy flowers attracting small to medium-sized birds. It can only be used in limited use in areas away from the runway and the airfield. AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Tabebuia argentea	銀鱗風 鈴木	N	N	Y	Y	Y	Acceptable in areas away from the airfield and runway. AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Tabebuia chrysantha	黃花風 鈴木	Ν	N	Y	Y	Y	Acceptable in areas away from the airfield and runway. AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Tabebuia impetiginosa	紫花風 鈴木	Ν	N	Y	Y	Y	Acceptable in areas away from the airfield and runway. AAHK has to control the tree height as a long-term tree management approach in Zones 2, 2a and 3.
Tabebuia rosea	紅花風 鈴木	Ν	N	Y	Y	Y	Acceptable in areas away from the runways and airfield; recommend to have small-scale planting in Zones 2 and 2a.
Tabebuia roseo-alba	白玫瑰 鐘木	Ν	N	Y	Y	Y	Acceptable in areas away from the runways and airfield.
Terminalia mantaly var. tricolor	花葉細 葉欖仁 樹	Ν	N	Y	Y	Y	Acceptable in areas away from the runway and airfield. Drupe fruits may be too large for birds, but possibly eaten by bats, suggest to remove the fruits if this tree has to be planted in Zone 2.
Thespesia populnea	繖楊	Ν	N	Y	Y	Y	Requires regular pruning if planted in Zones 2 and 2a.
<i>Thuja orientalis</i> cv. Aurea Nana	黃金側 柏	Ν	N	Y	Y	Y	Acceptable in Zone 2 with regular pruning.
<i>Ulmus pumila</i> cv. Jinye	金葉榆	Ν	N	Y	N	Y	Acceptable only in small-scale planting and requires regular pruning to maintain dense low canopy in Zone 2.
SHRUBS/HERBS							
Acacia podalyriifolia	銀葉金 合歡	Ν	Y	Y	Y	Y	This small tree can reach 6m or more when mature, and the fleshy arils of the dry seed pods are quite attractive to birds. Only small-scale planting is allowed in areas away from the runway and airfield. Regular pruning is required to control its height <1.5m, as well as removing its attractive seed pods.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Acalypha hispida	狗尾紅	Ν	Y	Y	Y	Y	Acceptable in Zone 1 if regular pruning is carried out to maintain its small size of less than 1.5m.
Ardisia fordii	紫金牛	N	N	Y	Y	Y	Acceptable in areas away from the airfield and runway if regular and special pruning occur at the end of flowering season to remove all fruits.
<i>Agave</i> spp.	龍舌蘭	N	N	Y	N	Y	Its tall flower spike is very attractive to birds and needs regular removal. This species should not be planted at a large-scale. Flower spikes should also be removed.
Agave americana	黃邊龍 舌蘭	Ν	N	Y	N	Y	Remove the flower spikes if planted in Zones 2 and 2a.
Agave angustifolia	狹葉龍 舌蘭	Ν	N	Y	N	Y	Same as Agave americana.
Aglaia odorata	米仔蘭	N	N	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zones 2 and 2a.
Aglaonema 'Silver King'	銀皇后	N	Y	Y	Y	Y	
Allamanda blanchetii	紫花黃 蟬	N	Y	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zone 1.
Allamanda cathartica	軟枝黃 蟬	N	Y	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zone 1.
Allamanda nerifolia (New scientific name: Allamanda schottii)	硬枝黃 蟬	N	Y	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zone 1.
Allamanda spp.	黃蟬類	N	Y	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zone 1.
Alpinia purpurata Pink	粉紅山 姜	N	N	Y	Y	Y	
Alpinia speciosa	艷山薑	N	N	Y	Y	Y	

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
(New scientific name: Alpinia zerumbet)							
Alternanthera versicolor							
(New scientific name: Alternanthera bettzickiana)	錦繡莧	Ν	N	Y	Y	Y	
<i>Amaryllis</i> spp. (Hippeastrum spp.).	朱頂紅 屬	Ν	N	Y	Y	Y	
Asparagus sprengeri (Asparagus densiflorus cv. Sprengeri)	非洲天 門冬	Ν	N	Y	Y	Y	
Barleria cristata	假杜鵑	N	N	Y	Y	Y	
Begonia spp.	秋海棠 屬	Ν	N	Y	Y	Y	
Bougainvilla spp.	勒杜鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain dense low canopy in Zones 1 2 and 2a.
<i>Brunfelsia acuminata</i> Benth	鴛鴦苿 莉	Ν	N	Y	Y	Y	
Buddleja davidii	大花醉 魚草	Ν	N	Y	Y	Y	Acceptable only in limited use in Zone 2. This species is quite invasive in the planting areas.
Caesalpinia pulcherrima	洋金鳳	Ν	N	Y	Y	Y	Regular pruning to maintain dense low canopy in Zone 2.
Calathea spp.	肖竹芋 屬	N	N	Y	Y	Y	
Calliandra haematocephala	紅絨球	Ν	N	Y	Y	Y	Regular pruning to maintain a dense low canopy in Zones 2 and 2a.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Calliandra harrisii	澳洲粉 樸	N	Y	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zone 1. Regular pruning to maintain a dense low canopy in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
<i>Calliandra surinamensis</i> Benth	粉撲花	Ν	Y	Y	Y	Y	This species produces showy flowers and dry seeds, and can be regularly visited by small birds; acceptable only in small-scale planting with regular pruning to maintain its height less than 1.5m in Zone 1, and dense low canopy if it is planted in Zones 2 and 2a.
<i>Camellia japonica</i> (Red/ white Flower)	山茶 (紅 /白花)	N	Ν	Y	Y	Y	This species is not appropriate for heavy pruning, and may form closed canopy structure to attract birds. This species can be in limited use, and accepted in small-scale planting in areas away from the runway and airfield.
<i>Camellia japonica</i> 'Alba- plena' (White Flower)	山茶 (白 花)	N	N	Y	Y	Y	This species is not appropriate for heavy pruning, and may form closed canopy structure to attract birds. This species can be in limited use, and accepted in small-scale planting in areas away from the runway and airfield.
<i>Camellia japonica</i> 'Rosedale beauty' (Red/ pink Flower)	山茶 (紅 花)	N	N	Y	Y	Y	This species is not appropriate for heavy pruning, and may form closed canopy structure to attract birds. This species can be in limited use, and accepted in small-scale planting in areas away from the runway and airfield.
Canna indica	美人蕉	N	N	Y	Y	Y	
Canna x generalis	大花美 人蕉	N	N	Y	Y	Y	
Carmona microphyll	福建茶	N	Y	Y	Y	Y	Acceptable in Zones 1 2 and 2a only if regular pruning is adopted to maintain its dense low canopy.
Cassia alata (New scientific name: Senna alata)	有翅決 明	Ν	Ν	Y	Y	Y	

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Cassia surattensis							
(New scientific name: Senna surattensis)	黃槐	N	N	Y	N	Y	Requires regular pruning if planted in Zone 2.
Catharanthus roseus	長春花	Ν	N	Y	Y	Y	
Clerodendrum quadriloculare	煙火樹	Ν	N	Y	Y	Y	This shrub species can produce large quantity of fleshy fruits which are attractive and dispersed by birds. It can only be planted in small-scale, and in areas in Zone 2, 2a and 3 where are close to building blocks and away from airfield and runway. Removal of its fleshy fruits is required.
Clerodendrum thomsonea	龍吐珠	Ν	N	Y	Y	Y	
Clerodendrum ugandense	藍蝴蝶	N	N	Y	Y	Y	
Codiaeum variegatum	灑金榕	N	Y	Y	Y	Y	Accepted only cultivar form 'Indian Blanket' of this species with no production of fleshy fruits can be allowed in the airport island, future Third Runway area, and the infrastructural works to be completed near the airport island.
<i>Codiaeum variegatum</i> 'Indian Blanket'	彩霞變 葉木	N	N	Y	Y	Y	
Coleus hybridus	洋紫蘇	N	N	Y	Y	Y	
Cordyline terminalis	鐵樹	N	N	Y	Y	Y	Fleshy fruits can attract birds; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway. Removal of fruits is also required in these areas.
<i>Cordyline terminalis</i> cv. Dolly	娃娃朱 蕉	Ν	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
<i>Cordyline terminalis</i> cv. Rubra	紅葉鐵 樹	Ν	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway.
Cuphea spp.	萼距花 屬	Ν	N	Y	Y	Y	<i>Cuphea</i> spp. acceptable in Zone 2 with regular pruning.
<i>Cupressus macroglossus</i> cv. Goldcrest	香冠柏	Ν	Y	Y	Y	Y	Regular pruning is required for Zones 1 and 2; it should be pruned in ball or cone shape if used in Zone 1 and should be pruned to height less than 1.5m tall.
Daphne odora f. marginata	金邊瑞 香	Ν	N	Y	Y	Y	
Dieffenbachia amoena	黛粉葉	Ν	N	Y	Y	Y	
Dietes bicolor	雙色非 洲鳶尾	Ν	N	Y	Y	Y	
Dracaena angustifolia	狹葉龍 血樹	Ν	N	N (only allowed for existing individuals already planted)	N	Y	Not recommended in Zones 2 and 2a as it can develop into heavy clump with fleshy fruit attractive to birds. Any existing individuals can be allowed in areas away from the airfield and runway, if they can be regularly pruned and any produced fleshy fruits are removed during the pruning.
Dracaena marginata	紅邊龍 血樹	Ν	N	Y	N	Y	The species should be regularly pruned and any produced fleshy fruits would be removed during the pruning, if it is planted in Zone 2, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. Please make sure that regular pruning practice would be maintained to remove the fleshy fruits.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Dracaena fragrans	巴西鐵 樹	Ν	N	Y	Y	Y	Fleshy fruits can attract birds; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway. Removal of fruits is also required in these areas.
Dracaena godffiana 'Bausei'	黄道星 點木	Ν	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway.
<i>Dracaena marginata</i> 'Tricolor Rainbow'	彩虹竹 蕉	Ν	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway, if it is planted in Zone 2.
Dracaena reflexa 'Song of Jamaica'	百合竹	N	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway, if it is planted in Zone 2.
Dracaena reflexa 'Variegata'	金邊百 合竹	Ν	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway, if it is planted in Zone 2.
Dracaena sanderiana	白邊萬 年竹	Ν	N	Y	Y	Y	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway, if it is planted in Zone 2.
Dracaena sanderiana 'Golden Edge'	黄邊萬 年竹	Ν	N	Y	Y	γ	The cultivar form of this species may not produce fleshy fruits; acceptable only in small-scale planting in areas close to building blocks and away from the airfield and runway, if it is planted in Zone 2.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Duranta repens	假連翹	N	N	Y	Y	Y	Fruits are attractive to birds and regular removal of fruits by pruning is required, if it is planted in Zones 2 and 2a, as well as the areas in Zone 3 which are close to the airfield and runway.
<i>Duranta repens</i> cv. Marginata	金邊金 露花	N	N	Y	Y	Y	Fruits are attractive to birds and regular removal of fruits by pruning is required if it is planted in Zones 2 and 2a, as well as the areas in Zone 3 which are close to the airfield and runway.
<i>Duranta repens</i> 'Golden Lleaves'	金連翹	N	Ν	Y	Y	Y	Fruits are attractive to birds and regular removal of fruits by pruning is required, if it is planted in Zones 2 and 2a, as well as the areas in Zone 3 which are close to airfield and runway.
Duranta repens 'Variegata'	花葉假 連翹	N	N	Y	Y	Y	Fruits are attractive to birds and regular removal of fruits by pruning is required, if it is planted in Zones 2 and 2a, as well as the areas in Zone 3 which are close to airfield
Eupatorium fortunei	佩蘭	Ν	Y	Y	Y	Y	
Euphorbia leucocephala	白雪木	N	N	Y	Y	Y	Regular pruning to maintain a dense low canopy in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Excoecaria cochinchinensis	紅背桂	N	Y	Y	Y	Y	
Fagraea ceilanica	非洲茉 莉	N	N	Y	Y	Y	Regular pruning should be maintained to reduce its dense cover in Zones 2 and 2a.
<i>Fagraea ceilanica</i> 'Golden Leaves'	金葉灰 莉	N	N	Y	Y	Y	Regular pruning should be maintained to reduce its dense cover in Zones 2 and 2a.
Fatsia japonica	八角金 盤	N	N	Y	Y	Y	Fruits are attractive to birds. Pruning is required to remove all fruits. Only small scale planting is allowed in areas away from the airfield.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
<i>Ficus benjamina</i> 'Variegata'	白斑垂 榕	Ν	Ν	Y	Y	Y	This <i>Ficus</i> species can be accepted only if its cultivar form (production of sterile fruits) is used, and only small-scale planting (i.e. planting area can be no more than 1000 sq. meter) is allowed. Regular pruning of this species should be carried out to maintain its dense low canopy.
<i>Ficus microcarpa</i> cv. Golden Leaves	金葉榕	Ν	Ν	Y	Y	Y	This <i>Ficus</i> species can be accepted only if its cultivar form (production of sterile fruits) is used and only small-scale planting (i.e. planting area can be no more than 500sq. meter for initial planting and 1000 sq. meter for existing planted groups) is allowed. Regular pruning of this species should be carried out to maintain its dense low canopy.
Furcraea foetida	黄紋萬 年麻	N	N	Y	N	Y	Acceptable in limited use and removal of flower spikes is required in Zones 2 and 2a.
Gardenia jasminoides	白蟬	Ν	N	Y	Y	Y	Flowers are quite attractive to small birds. Acceptable only in small-scale planting and with regular pruning in Zones 2 and 2a, as well as areas in Zone 3 which are close to Zone 2 and the airfield.
Gomphocarpus physocarpus	汽球花	Ν	N	Y	Y	Y	
Gordonia axillaries	大頭茶	Ν	N	Y	Y	Y	Regular pruning to maintain height <1.5m in Zone 2.
Hibiscus hamabo	黃芙蓉	N	N	Y	Y	Y	
Hibiscus mutabilis	木芙蓉	Ν	N	Y	Y	Y	Showy flowers may be visited by sunbirds and this species is not suitable for heavy pruning. Limited use in Zone 2 is acceptable if it is planted in areas away from the runway and airfield.
Hibiscus rosa sinensis (red/orange/pink/yellow flowers)	大紅花 (紅花/白 花/粉花 /黄花)	Ν	N	Y	Y	Y	

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Hibiscus schizopetalus	吊燈花	N	N	Y	Y	Y	Showy flowers may be visited by sunbirds and this species is not suitable for heavy pruning. Limited use in Zone 2 is acceptable if it is planted in areas away from the runway and airfield.
Hibiscus syriacus	木槿	N	N	Y	Y	Y	
Iris tectorum	鳶尾 (雙 色)	N	N	Y	Y	Y	
Ixora chinensis	龍船花	N	Y	Y	Y	Y	Regular pruning to maintain its height <1.5m and in small-scale planting in Zone 1. Regular pruning is required in other Zones, except areas in Zone 3 which are away from Zone 2 and the airfield.
Ixora coccinea	龍船花	N	Y	Y	Y	Y	Regular pruning to maintain its height <1.5m and in small-scale planting in Zone 1. Regular pruning is required in other Zones, except areas in Zone 3 which are away from Zone 2 and the airfield.
<i>lxora duffii</i> 'Super King'	大王龍 船花	N	Y	Y	Y	Y	The cultivar form may still produce fruits to attract birds, acceptable only in limited use and with regular pruning in Zones 1, 2 and 2a.
lxora parviflora	白龍船 花	N	Y	Y	Y	Y	The cultivar form may still produce fruits to attract birds, acceptable only in limited use and with regular pruning in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.
lxora stricta	細葉龍 船花	N	Y	Y	Y	Y	The cultivar form may still produce fruits to attract birds, acceptable only in limited use and with regular pruning in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.
lxora x westii	宮粉龍 船花	N	Y	Y	Y	Y	The cultivar form may still produce fruits to attract birds, acceptable only in limited use and with regular pruning in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Jasminum mesnyi	黄素聲	Ν	Ν	Y	Y	Y	Regular pruning work is required in Zones 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.
Jasminum sambac	茉莉	Ν	N	Y	Y	Y	Regular pruning work is required in Zones 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.
Jatropha integerrima	琴葉珊 瑚	Ν	N	Y	Y	Y	Only allowed if planted in low number in areas close to the airfield.
Jatropha pandurifolia	日日櫻	Ν	N	Y	Y	Y	
Lagerstroemia indica	細葉紫 薇	Ν	N	Y	Y	Y	
Lagerstroemia indica 'Pink velour'	美國天 鵝絨細 葉紫薇	Ν	N	Y	Y	Y	Acceptable in small-scale planting in areas away from the runway and airfield.
Leucophyllum frutescens (round shape)	紅花玉 芙蓉 (圓 形)	Ν	Y	Y	Y	Y	Only acceptable in Zone 1 with regular pruning to maintain its low dense form and height <1.5m.
Ligustrum sinense 'Variegatum'	花葉山 指甲	Ν	N	Y	Y	Y	Acceptable in small-scale planting in areas away from the airfield and runway.
Ligustrum ovalifolium	卵葉女 貞	Ν	Y	Y	Y	Y	Acceptable in small-scale planting in areas away from the airfield and runway. Regular pruning is required especially in Zone 1.
Loropetalum chinensis var. rubrum	紅繼木	Ν	Y	Y	Y	Y	Acceptable in small-scale planting in the areas away from runway and airfield. Regular pruning is required especially in Zone 1.
Malvaviscus arboreus var. penduliflorus	垂花懸 鈴花	Ν	Ν	Y	Y	Y	

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Melastoma candidum	野牡丹	Ν	Ν	Y	Y	Y	Allowed in the areas away from the airfield and runway. The species should be regularly pruned in Zones 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield. Any produced fleshy fruits would be removed during the pruning. Please make sure that regular pruning practice would be maintained to remove the fleshy fruits to maintain the ball-cone shape of the species.
Michelia figo	含笑	N	Y	Y	Y	Y	Acceptable in small-scale planting in areas away from the airfield and runway. Regular pruning is required in Zone 1.
<i>Michelia figo</i> (Tree shape)	含笑樹	Ν	N	Y	Y	Y	Not suitable for heavy pruning, but acceptable in small-scale planting in Zones 2 and 2a
Murraya paniculata	九里香	Ν	N	Y	Y	Y	Regular pruning is required and small-scale planting of this species is acceptable in Zones 2 and 2a.
Nandina domestica	南天竺	Ν	N	Y	Y	Y	Regular pruning is required and small-scale planting of this species is acceptable in Zones 2 and 2a.
Nephrolepis exaltata (New scientific name: Nephrolepis hirsutula)	毛葉腎 蕨	Ν	N	Y	Y	Y	
Nerium oleander (Also known as Nerium indicum as its synonym)	洋夾竹 桃	Ν	Y	Y	Y	Y	Regular pruning is required and small-scale planting of this species is acceptable in Zones 1, 2 and 2a.
<i>Nerium oleander</i> 'Petite Pink'		Ν	N	Y	Y	Y	Acceptable but regular pruning to control its spread; this species is poisonous as a reminder
Osmanthus fragrans	桂花	Ν	Y	Y	Y	Y	Regular pruning is required and small-scale planting of this species is acceptable in Zone 1.
Otacanthus coeruleus	藍金花	Ν	Y	Y	Y	Y	
Pentas lanceolata	五星花	Ν	Ν	Y	Y	Y	

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Philodendron selloum	春羽	N	N	Y	Y	Y	
Phyllanthus myrtifolius	瘤腺葉 下珠	Ν	N	Y	Y	Y	
Pilea nummularifolia	古錢冷 水花	N	N	Y	Y	Y	
Pistacia weinmannifolia	清香木	N	N	Y	Y	Y	The species planted in Zone 2, as well as the areas in Zone 3 which are close to Zone 2 and the airfield, should be regularly pruned. Any produced fleshy fruits would be removed in all planting zones. Regular pruning practice would be maintained to remove the fleshy fruits to maintain the ball-cone shape of the species.
Pittosporum tobira	海桐花	Ν	N	Y	Y	Y	Regular pruning is required if it is planted in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Plumbago capensis	藍雪花	N	N	Y	Y	Y	
Polyscias fruticosa	裂葉假 沙梨	N	N	Y	Y	Y	
Polyscias guilfoylei	假沙梨	N	Ν	Y	Y	Y	
Polyscias scutellaria	圓葉假 沙梨	N	N	Y	Y	Y	
Rhaphiolepis indica	車輪梅	Ν	N	Y	N	Y	Fruits are attractive to birds. Pruning is required to remove all fruits if this species must be planted in Zones 2 and 2a. Only small scale planting is allowed in Zones 2 and 2a but it is required to closely monitor its growing. Small-scale planting is allowed in Zone 3.
Rhododendron spp.	山杜鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain the shrubs to less than 1.5m should be adopted in Zones 1, 2, 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Rhododendron farrerae	丁香杜 鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron hybridum	西洋杜 鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron indica	皋月杜 鵑	N	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron Iapponicum	高山杜 鵑花	N	Y	Y	Y	Y	Showy flowers occasionally attract small birds. It is acceptable in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield, if regular pruning is carried out to maintain the small shrub form.
Rhododendron lateritum	磚紅杜 鵑	N	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron mucronatum	白杜鵑	N	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron mucronatum 'Akemono'	平戶杜 鵑(粉紅)	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron mucronatum 'omuraski'	平戶杜 鵑(紫紅)	N	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron pulchrum	紫花杜 鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Rhododendron pulchrum var. phoeniceum	紫杜鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron simsii	紅花杜 鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rhododendron simsii "GR"	紅杜鵑	Ν	Y	Y	Y	Y	Regular pruning to maintain height < 1.5m is required in Zones 1, 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Rondeletia odorata	郎德木	Ν	N	Y	Y	Y	Regular pruning is required in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Ruellia coerulea	翠蘆利	Ν	Y	Y	Y	Y	
Ruellia elegans	紅花蘆 莉	Ν	N	Y	Y	Y	
Ruellia rosea	玫紅蘆 莉	Ν	Ν	Y	Y	Y	
Russelia equisetiformis	吉祥草	Ν	N	Y	Y	Y	
Saintpaulia idantha (ionantha)	非洲紫 蘿蘭	Ν	N	Y	Y	Y	
Schefflera arboricola	八葉	Ν	Y	Y	Y	Y	This cultivar species normally does not produce fleshy fruits. This is acceptable in the areas away from the runway and airfield, if it is regularly pruned to maintain its shrub form less than 1.5m tall. Also, all fleshy fruits produced (if any) should be removed.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Schefflera arboricola 'Golden Marginata'	金邊鵝 掌藤	Ν	N	Y	Y	Y	This cultivar species normally does not produce fleshy fruits. This is acceptable in the areas away from the runway and airfield, if it is regularly pruned to maintain its shrub form less than 1.5m tall. Also, all fleshy fruits produced (if any) should be removed.
Schefflera arboricola 'Variegata'	夏威夷 花八葉	Ν	Y	Y	Y	Y	This cultivar species normally does not produce fleshy fruits. This is acceptable in the areas away from the runway and airfield, if it is regularly pruned to maintain its shrub form less than 1.5m tall. Also, all fleshy fruits produced (if any) should be removed.
Schefflera octophylla 'Var'	荷蘭鴨 腳木	Ν	N	Y	Y	Y	This cultivar species normally does not produce fleshy fruits. This is acceptable in the areas away from the runway and airfield, if it is regularly pruned to maintain its shrub form less than 1.5m tall. Also, all fleshy fruits produced (if any) should be removed.
Serissa japonica 'Variegata'	金邊六 月雪	Ν	N	Y	Y	Y	Regular pruning is required to maintain dense low canopy in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield.
Spathiphyllum commutatum	白掌	N	N	Y	Y	Y	
Strelitzia nicolai	大鶴望 蘭	Ν	Y	Y	Y	Y	
Strelitzia reginae	鶴望蘭	Ν	N	Y	Y	Y	
Stromanthe sanguinea 'Tricolor'	三色竹 芋	Ν	N	Y	Y	Y	
Syzygium campanulatum	星加坡 楠	Ν	N	Y	Y	Y	This species can produce fleshy fruit potentially attractive to birds. This can be acceptable in areas away from runway and the airfield, if regular pruning and removal of fleshy fruit are applied in these areas.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Syzygium rehderianum	紅枝蒲 桃	N	N	Y	Y	Y	Allowed in small-scale planting in areas away from the runway and airfield. The species should be regularly pruned and any produced fleshy fruits would be removed during the pruning. Please make sure that regular pruning practice would be maintained to remove the fleshy fruits to maintain the ball- cone shape of the species.
Tabernaemontana divaricata	珍珠馬 茶花	Ν	Y	Y	Y	Y	Small-scale planting and regular pruning to maintain dense low canopy are required in Zone 1.
Tecoma stans	黃鐘花	Ν	N	Y	Y	Y	
<i>Tecomaria capensis</i> (New scientific name: <i>Tecoma capensis</i> )	洋凌霄	Ν	N	Y	Y	Y	
Thevetia peruviana	黃花夾 竹桃	N	N	Y	Y	Y	Acceptable in small-scale planting in Zones 2 and 2a.
Thryallis glauca	金英	Ν	N	Y	Y	Y	
Tibouchina semidecandra	巴西野 牡丹	Ν	Y	Y	Y	Y	Small-scale planting and regular pruning to maintain dense low canopy are required in Zone 1.
Vitex agnus-castus	紫花牡 荊	Ν	N	Y	Y	Y	
Vitex rotundifolia	海埔姜/ 單葉蔓 荊	N	N	Y	Y	Y	Acceptable only on retaining walls at roadside; close monitoring on bird use and fruiting density; remove any fleshy fruits wherever practical in Zones 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.
Yucca aloifolia	王蘭	N	N	Y	Y	Y	
Zamia furfuracea	金錢樹	Ν	N	Y	Y	γ	Removal of any fruit produced is required, if the species is planted in Zones 2 and 2a, as well as the areas in Zone 3 area which are immediately next to Zone 2 and the airfield.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Zanthoxylum 'Odorum'	胡椒木	Ν	Y	Y	Y	Y	Acceptable in Zones 1, 2 and 2a if regularly pruning is applied.
GROUNDCOVER							
Acorus gramineus 'Variegatus'	花葉石 菖蒲	N	N	Y	Y	Y	
Adenium obesum	沙漢玫 瑰	N	N	Y	Y	Y	
Aerva sanguinolenta	絹毛莧	Ν	N	Y	Y	Y	
Alternanthera dentata 'Ruby'	新加坡 紅草	N	N	Y	Y	Y	
Alternanthera ficoidea 'Yellow Form'	綠草	Ν	N	Y	Y	Y	
Arachis duranensis	蔓花生	Ν	Y	Y	Y	Y	
Asplenium nidus	雀巢芒	Ν	N	Y	Y	Y	
Buxus microphylla	黄楊	Ν	N	Y	Y	Y	
Chlorophytum capense	<b>F</b> 蘭	Ν	N	Y	Y	Y	
Coleus pumilus (Mixed dwarfed)	小洋紫 蘇	Ν	N	Y	Y	Y	
Dianella ensifolia 'Var'	花葉山 管蘭	Ν	N	Y	Y	Y	
Ipomoea brasiliensis							
(New scientific name: Ipomoea pes-caprae)	馬鞍藤	Ν	N	Y	Y	Y	
Iris spp. (Blue folwer)	鳶尾	Ν	N	Y	Y	Y	
Juniperus horizontalis	地柏/ 雞 翼松	Ν	N	Y	Y	Y	Regular pruning is required in the areas close to the airfield and runway in both Zones 2 and 3.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Lantana mista	黃花馬 櫻丹	Ν	Y	Y	Y	Y	Regular pruning is required to maintain dense low canopy in Zones 1 and 2.
Lantana montevidensis	鋪地臭 金鳳	Ν	Y	Y	Y	Y	Regular pruning is required to maintain dense low canopy in Zones 1 and 2.
Liriope spicata	山麥冬	Ν	N	Y	Y	Y	Close monitoring on bird use and fruit production.
Liriope spicata 'Dwarf'	日本小 蒲草	Ν	N	Y	Y	Y	
<i>Liriope spicata</i> 'Variegata'	花葉蒲 草	N	N	Y	Y	Y	
Maranta bicolor	花葉竹 芋	Ν	Y	Y	Y	Y	
Neomarica gracilis	巴西鳶 尾	Ν	N	Y	Y	Y	
Nephrolepis exaltata 'Bostoniensis'	波斯頓 蕨	Ν	N	Y	Y	Y	
Nephrolepis exaltata 'Compacta'	劍蕨	Ν	N	Y	Y	Y	
Ophiopogon japonicus	沿階草	Ν	Y	Y	Y	Y	
<i>Ophiopogon japonicus</i> 'Variegata'	花葉沿 階草	Ν	Y	Y	Y	Y	
Peperomia obtusifolia	圓葉椒 草	Ν	Y	Y	Y	Y	Should maintain regular pruning in Zones 1, 2 and 2a.
Philodendron (mini)	迷你春 羽	Ν	N	Y	Y	Y	
Phyllanthus myrtifolius	錫蘭葉 下珠	Ν	N	Y	Y	Y	
Pilea cadierei	冰水花	N	N	Y	Y	Y	

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Rhoeo discolor 'Dwarf'	矮種蚌 花	Ν	N	Y	Y	Y	
Rhoeo discolor							
(New scientific name: Tradescantia spathacea)	蚌花	Ν	N	Y	Y	Y	
Scindapsus aureus							
(New scientific name: Epipremnum aureum)	黄金葛	Ν	N	Y	Y	Y	Acceptable only on retaining walls at roadside.
Setcreasea purpurea	紫錦草	Ν	N	Y	Y	Y	
<i>Spathiphyllum</i> 'Clevelandii'	白掌	Ν	N	Y	Y	Y	
Spathiphyllum 'Rallas'	綠巨人	Ν	N	Y	Y	Y	
Syngonium podophyllum 'White butterfly'	白蝴蝶	Ν	Y	Y	Y	Y	
Tradescantia zebrina	水竹草	Ν	N	Y	Y	Y	
Tulbaghia violacea	蒜味草	Ν	N	Y	Y	Y	
Wedelia trilobata	南美蟛 蜞菊	Ν	N	Y	Y	Y	Regular pruning is required to maintain dense low mat in Zones 2 and 2a.
Zephyranthes candida	玉簾	Ν	Y	Y	Y	Y	
Zephyranthes candida (white / pink flowers)	玉簾 (白 花/粉花)	Ν	Y	Y	Y	Y	
Zephyranthes rosea	玫瑰玉 簾	Ν	Y	Y	Y	Y	
CLIMBERS							

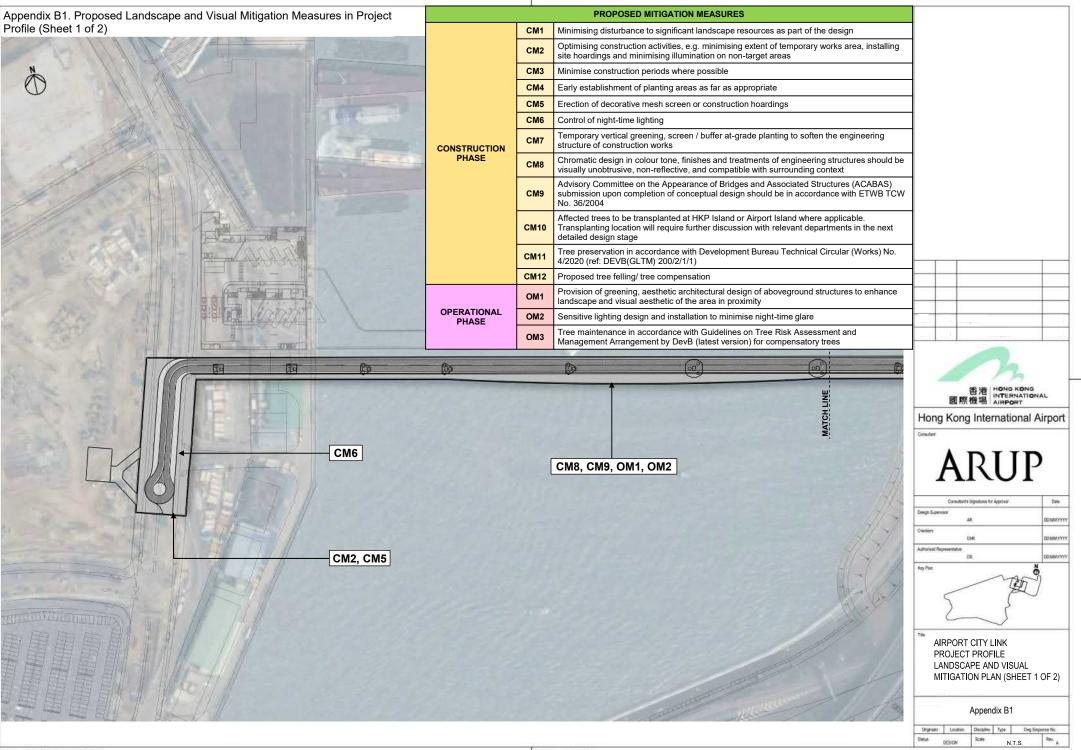
Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Allamanda blanchetii	紫花黃 蟬	N	N	Y	Y	Y	
Bauhinia glauca	洋蹄甲 藤	N	N	Y	Y	Y	
Bougainvillea spectabilis	簕杜鵑	N	Y	Y	Y	Y	Regular pruning is required to maintain dense low canopy in Zones 1, 2 and 2a.
Clerodendrum thomsoniae	龍吐珠	Ν	Y	Y	Y	Y	Regular pruning to maintain its dense low canopy and remove its fleshy fruits are required when planting in Zones 1 and 2.
Dalbergia benthamii	兩粵黃 檀	Ν	N	Y	Y	Y	
Ficus pumila	薜荔	Ν	N	Y	Y	Y	Close monitoring on bird usage and fruiting density; remove any fleshy fruits wherever practical in Zones 2 and 2a, as well as the areas in Zone 3 which are close to Zone 2 and the airfield.
Parthenocissus himalayana (New scientific name: Parthenocissus dalzielii)	爬墙虎	Ν	N	Y	Y	Y	Acceptable only on retaining walls at roadside.
Pseudocalymma alliaceum (Synonyms: Mansoa alliacea)	蒜香藤	Ν	Y	Y	Y	Y	Regular pruning is required to maintain dense low canopy in Zones 1.
Pyrostegia ignea (New scientific name: Pyrostegia venusta)	炮仗花	Ν	Y	Y	Y	Y	Acceptable only on retaining walls at roadside.
Scindapsus aureus (New scientific name: Epipremnum aureum)	綠蘿	Ν	Y	Y	Y	Y	Acceptable only on retaining walls at roadside.
Wisteria sinensis	紫藤	Ν	N	Y	Y	Y	

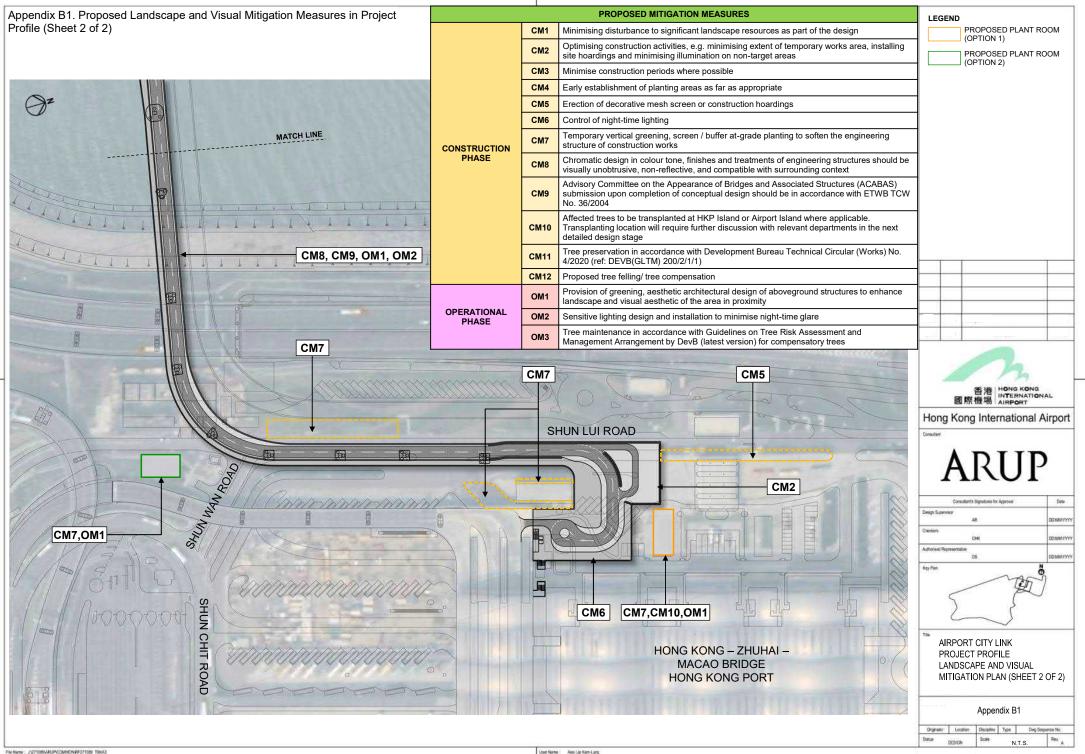
Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
PALMS/ BAMBOOS/ CYCADS/ RAVENALA							
Bambusa multiplex	鳳尾竹	Ν	Ν	Y	Y	Y	
Bambusa ventricosa	佛肚竹	Ν	Ν	Y	Y	Y	
Bambusa vulgaris	大佛肚 竹	Ν	N	Y	Y	Y	
Caryota ochlandra	魚尾葵	N	N	Y	Y	Y	Only small scale planting is allowed in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. The bundle of fruits should be removed regularly.
Chamaedorea elegans	袖珍椰 子	Ν	N	Y	Y	Y	Acceptable in Zones 2 and 2a, but planted in small-scale.
Chrysalidocarpus lutescens	散尾葵	N	N	Y	Y	Y	Small-scale planting is acceptable with removal of any bunches of fruits throughout the maintenance period. And this species should be planted in areas away from the airfield and runways, or with building blocks between the airfield and the planting area.
Cocos nucifera	椰子樹	N	N	Y	Y	Y	
Coryota mitis	短穗魚 尾葵	N	N	Y	Y	Y	Only small scale planting is allowed in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. The bundle of fruits should be removed regularly.
Cycas revoluta	蘇鐵	Ν	N	Y	Y	Y	
Elaeis guineensis	油棕	Ν	N	Y	Y	Y	
Livistona chinensis	蒲葵	Ν	N	Y	Y		Only small scale planting is allowed in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. The bundle of fruits should be removed regularly.

Scientific names	Common names	Airside	Approved in Zone 1	Approved in Zone 2 (Case by case review)	Approved in Zone 2a (Case by case review)	Approved in Zone 3 (Case by case review)	Remarks for planting and management
Phoenix roebelenii	日本葵	N	N	Y	Y	Y	Only small scale planting is allowed in Zones 2 and 2a, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. The bundle of fruits should be removed regularly.
Ravenala madagascariensis	旅人蕉	Ν	Ν	Y	Y	Y	
Rhapis excelsa	棕竹	N	N	Y	Y	Y	
Rhapis excelsa var. rastifolius	大葉棕 竹	N	N	Y	Y	Y	Only small scale planting is allowed in Zone 2, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. The bundle of fruits should be removed regularly in all zones.
Rhapis humilis	細葉棕 竹	N	N	Y	Y	Y	Only small scale planting is allowed in Zone 2, as well as the areas in Zone 3 which are immediately next to Zone 2 and the airfield. The bundle of fruits should be removed regularly in all zones.
GRASS							
Chloris gayana	非洲虎 尾草/羅 滋草	Y	N	N	N	N	Regular cutting to prevent seed head production.
Cynodon dactylon	百慕達 草/ 狗牙 根	Y	N	N	N	N	Regular cutting to prevent seed head production.
Paspalum notatum	百喜草	Y	N	N	N	N	Regular cutting to prevent seed head production.
Zoysia sp.	結縷草 屬	Y	Y	Y	Y	Y	Regular cutting to prevent seed head production.

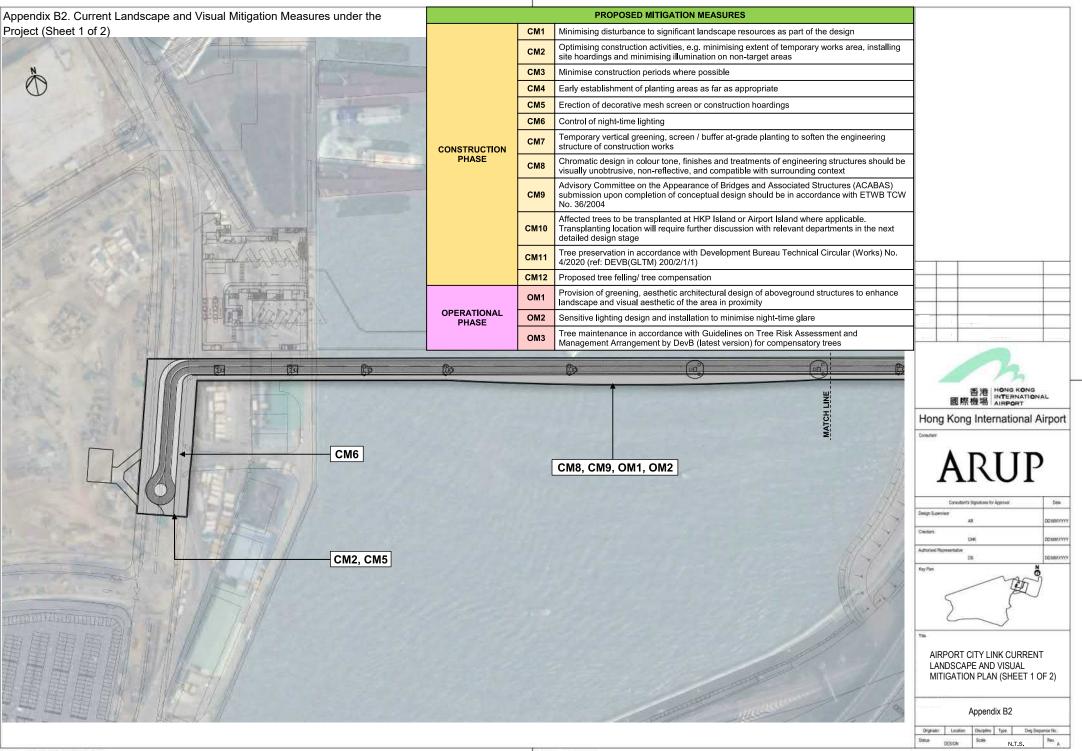
## **B. Landscape and Visual Mitigation Measure Plan**

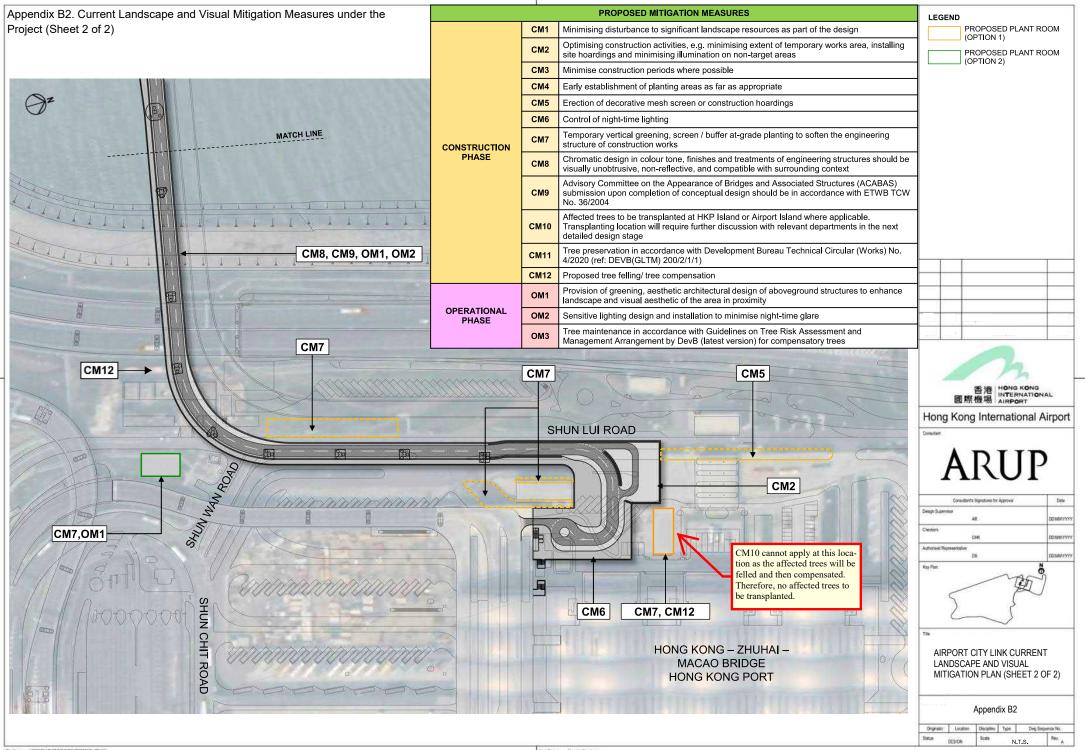
## **B1. Proposed Landscape and Visual Mitigation Measures in Project Profile**





## **B2. Current Landscape and Visual Mitigation Measures under the Project**





# **C.** Photomontages of Airport City Link



香港	HONG KONG				
國際機場	AIRPORT				

#### Appendix C2 - Photomontage for the Bridge Piers

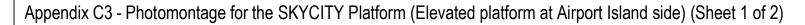


	2
香港國際機場	HONG KONG INTERNATIONAL AIRPORT

RONALD LU & PARTNERS				
然光导端顺环带初度				

Project Title CONTRACT C20C17 CONSULTANCY SERVICES FOR AIRPORT CITY LINK

Α



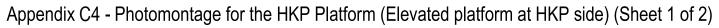




	ARUP Ove Arup & Partners Hong Kong Limited	& PARTNERS
с.		出光共建新环草初份

Appendix C3 - Photomontage for the SKYCITY Platform (Elevated platform at Airport Island side) (Sheet 2 of 2)







	RONALD LU	Project Title	Figure Title	Figure No.	Rev.	
香港 HONG KONG INTERNATIONAL 國際機場 AINPORT	ARUP Ove Arup & Partners	CONTRACT C20C17 CONSULTANCY SERVICES FOR AIRPORT CITY LINK	Computer-generated Image – HKP Platform	Appendix C4	Α	







Rev.

Α

Figure No.

#### Appendix C5 - Photomontage for the Covered Walkway and Lookout Points



香港	HONG KONG

Project Title CONTRACT C20C17 CONSULTANCY SERVICES FOR AIRPORT CITY LINK

#### Appendix C6 - Photomontage for the Canopy



香港國際機場	HONG KONG INTERNATIONAL AIRPORT

Computer-generated Image – ACL Bridge : CLP Section

Α

#### Appendix C7 - Photomontage for the Plant Room





Mott MacDonald | Contract C21C01 Environmental Team Consultancy Services for Airport City Link Landscape and Visual Plan

# **D. Implementation Schedule**

Mott MacDonald | Contract C21C01 Environmental Team Consultancy Services for Airport City Link Landscape and Visual Plan

	EP Condition		Implementation Agent	Location	Implementation Stage		
				-	D	С	0
S3.1.1 to S3.1.7	-	CM1 - Minimising disturbance to significant landscape resources as part of the design.	Design Consultant & AAHK	All locations within the project site boundary	~		
S3.1.1 to S3.1.7	-	CM2 - Optimising construction activities, e.g. minimising extent of temporary works area, installing site hoardings and minimising illumination on non-target areas.	Contractor	All locations within the project site boundary		✓	
S3.1.1 to S3.1.7	-	CM3 - Minimise construction periods where possible.	Contractor	All locations within the project site boundary		✓	
S4.2	-	CM4 - Early establishment of planting areas as far as appropriate.	Contractor & AAHK	At south-west of HKP Island	~	✓	
S3.1.1, S3.1.3 and S3.1.4	-	CM5 - Erection of decorative mesh screen or construction hoardings.	Contractor	Land section on the Airport Island and HKP Island		✓	
S3.1.3 to S3.1.4	-	CM6 - Control of night-time lighting.	Contractor	SKYCITY Platform and HKP Platform		$\checkmark$	
S3.1.1 and S3.1.7	-	CM7 - Temporary vertical greening, screen / buffer at-grade planting to soften the engineering structure of construction works.	Contractor	Land section on the HKP Island		✓	
S3.1.1 to S3.1.6	-	CM8 - Chromatic design in colour tone, finishes and treatments of engineering structures should be visually unobtrusive, non-reflective, and compatible with surrounding context.	Design Consultant	ACL bridge	✓		
S3.1.1 to S3.1.6	-	CM9 - Advisory Committee on the Appearance of Bridges and Associated Structures (ACABAS) submission upon completion of conceptual design should be in accordance with ETWB TCW No. 36/2004.	Design Consultant & AAHK	ACL bridge	✓		
S2.2 and S4.1	-	CM10 - Affected trees to be transplanted at HKP Island or Airport Island where applicable. Transplanting location will require further discussion with relevant departments in the next detailed design stage.	Contractor & AAHK	NA			

Mott MacDonald | Contract C21C01 Environmental Team Consultancy Services for Airport City Link Landscape and Visual Plan

L&VP Ref	EP Condition		Implementation Agent	Location	Implementation Stage		
					D	С	0
S4.2 to S4.3	-	CM11 - Tree preservation in accordance with Development Bureau Technical Circular (Works) No. 4/2020 (ref: DEVB(GLTM) 200/2/1/1).	Contractor	At south-west of HKP Island		$\checkmark$	
S4.1 to S4.2 - CM12 - Proposed tree felling/ tree compensation.	CM12 - Proposed tree felling/ tree compensation.	Contractor	At north-west of HKP (proposed tree felling)/				
			At south-west of HKP Island (proposed tree compensation)		✓		
S3.1.1 to S3.1.7	S3.1.7 aboveground structures to enhance landscape and visual aesthe	OM1 - Provision of greening, aesthetic architectural design of aboveground structures to enhance landscape and visual aesthetic of the area in proximity.	Design Consultant	Proposed plant room (Option 2) (provision of greening)			
			Aboveground structures of the project (provision of aesthetic architectural design)	~	✓	~	
S3.1.1 and S3.1.6	-	OM2 - Sensitive lighting design and installation to minimise night-time glare.	Design Consultant & AAHK	ACL bridge	√	$\checkmark$	✓
S4.3	-	OM3 - Tree maintenance in accordance with Guidelines on Tree Risk Assessment and Management Arrangement by DevB (latest version) for compensatory trees.	Contractor & AAHK	At south-west of HKP Island		~	✓

Remarks:

D: Design Phase

C: Construction Phase

O: Operation Phase