Section 16 Planning Application for Proposed Religious Institution (the Supreme Kwan Ti Temple) and the Associated Existing Access Road, and Improvements to the Tai Tong Kwan Ti Square, D.D. 117 and Adjoining Government Land, Tai Tong, Yuen Long

# **Landscape Master Plan**

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#### 1.0 Introduction

- 1.1 SCENIC Landscape Studio Limited have been commissioned to undertake the preparation of the Landscape Master Plan for the Proposed Religious Institution (the Supreme Kwan Ti Temple) and the Associated Existing Access Road, and Improvements to the Tai Tong Kwan Ti Square, in D.D. 117 and Adjoining Government Land, Tai Tong, Yuen Long, New Territories. The development proposal comprises 1) the Supreme Kwan Ti Temple (the Development Area) and, 2) the improvement of an existing access road, whilst the existing Tai Tong Kwan Ti Square is incorporated as a site to accommodate new tree planting.
- 1.2 This report seeks to present the landscape design proposal. It will outline the landscape design objectives and landscape treatment for each component of the proposed Development Site. This report has been prepared in accordance with Buildings Department, Lands Department and Planning Department Joint Practice Note No. 3 concerning the Reengineering of Approval Process for Land and Building Developments and adheres to the requirements of Buildings Department Practice Notes PNAP APP-152 Sustainable Building Design Guidelines for the calculation of the green coverage.
- 1.3 The Landscape Master Plan is presented as **Figures 4.1** to **4.4** and sections through the landscape as **Figures 5.1** to **5.2**.

# 2.0 Existing Site Description

- 2.1 The Application Site has a total site area of about 31,068 m² and comprises a Development Area, where the proposed Temple is to be located, and a proposed upgraded access road connecting the Development Area with Tai Tong Shan Road to the north. The Application Site falls within an area zoned "Recreation" ("REC"), "Green Belt" ("GB") and "Open Storage" ("OS") on the Approved Tai Tong Outline Zoning Plan (OZP) No. S/YL-TT/20. The Development Area (or the Temple site) has an area of about 17,393m² and is covered by "REC" and "GB" zones.
- The site is located at the south-eastern edge of the broad valley plain which extends north towards Yuen Long and is contained by uplands of the Tai Lam County Park to the South, East and West. The lower slopes of these uplands are typically wooded, with more open grassland / shrubland evident towards the ridgeline formed by Kun Um Shan and Sacred Eagle rock in the west. There are numerous grave sites on the hillsides on the lower hill slopes to the east of the Application Site. The immediate vicinity of the site is dominated by commercial leisure and recreation facilities, including eco parks, horse riding facilities, camping grounds and motor sport circuits. Further north village development and warehouses associated with light industrial premises predominate across the valley floor.
- 2.3 The Development Area is currently vacant, with Kwan Ti Square, an open-air religious facility located to the immediate north. The existing site levels range from around +23.75 to +34.74 mPD in the west to between +27.57 to +39.20 mPD in the east with these existing slopes supporting more than 500 nos. existing trees and open areas of rough grassland. The access road that forms part of the application site is around one kilometre in length and has intermittent tree planting at both sides of the road. The details of the trees have been presented in Tree Preservation Proposals.

# 3.0 Description of the Proposed Development

- 3.1 The Proposed Scheme consists of a several buildings and associated courtyards in a formal arrangement along a west to east axis, rising up the valley side slope. The development works with the natural hilly terrain of the Development Area, rising from the West from approximately 25.25mpd to around 38mpd to the East, where the Grand Hall of the "Supreme Kwan Ti" is located. Other components of the temple complex are arranged either side of this formal sequence of buildings, to utilise the irregularly shaped site area. The complex is entered from the lower, western area through a sequence steps, ornamental gate structures and courtyards / formed as a stepped building platforms and terraces at levels +24.75mPD, +30.5mPD, and +37.25mPD, addressing the arrival to the main temple building; the Supreme Kwan Ti Temple located near the upper portion of the site. Behind this building to the north lies a Scripture library, connected to the main temple building via a courtyard.
- 3.2 The "Supreme Kwan Ti Temple" is a stand-alone Religious Facility comprising several built elements. The primary religious building blocks cluster around the central East to West axis and adopts the traditional Chinese architectural order of "Three Courts Three Halls". The three courts comprise, the Court of Harmony, the Ceremonial Main Court, and the Inner Court. These are integrated with buildings and connected to adjacent facilities via walkways and gateways. The tallest building (+73.99mPD), the Grand Hall of the "Supreme Kwan Ti", is based on a nine-column bay formation with trussed gables and a pitched roof. An 18m high Kwan Tai Statue will be housed inside the Grand Hall which has an overall height of 35.999m. The Grand Hall is 45m wide, 25m deep, with eaves overhanging to 5m.
- 3.3 To the south a Hall of Manifestation sits between a lower arena area and a Hall of Enlightenment to the east. To the north the edge of the site is then occupied by amenity type blocks including toilet facilities and a staff canteen and maintenance offices. These various blocks are separated by visual corridors and setbacks, helping to break down the building massing into smaller scale components.
- 3.4 The proposed access road extends around the eastern and southern edges of the site, connecting to a proposed vehicular drop of at the lower western portion of the site, adjacent to the pedestrian entrance gateways (Gate of Unity and Gate of Harmony). The site is currently accessed from the north via an existing access road with a junction connecting to Tai Tong Shan Road. This access road serves the site and adjacent lots, including visitor attractions and associated car parking facilities.

# 4.0 Landscape Design Proposal

- 4.1 The concept underpinning the Landscape Master Plan for the development scheme, presented as **Figure 4.1** to **4.4** is to integrate the proposals within their future landscape and visual context; provide a synthesis between the proposed symbolic architecture and its landscape setting and provide high quality open space in association with the development. The proposals have sought to create a green setting for the temple complex whilst providing convenient access and pedestrian circulation between the different levels of the site.
- 4.2 The landscape design proposal is described in terms of the main design objectives, followed by a description of the key landscape components, and finally the landscape elements including the proposed hard and soft landscape, which form the palette of materials.

# 5.0 Landscape Design Objectives

- 5.1 The design objectives for the Master Landscape Plan are to:
  - Create a distinctive landscape which responds to the existing context, the architectural scheme proposals and the future needs of visitors and staff;
  - Integrate the proposed development from a landscape and visual perspective with the existing and planned landscape context;
  - Provide visual integration in views of the proposed building mass from the surroundings and provide vegetation screening and softening of the built-form in closer low-level views; and
  - Maximise opportunities for greening measures utilising tree and shrub planting within the new landscape area.

# 6.0 Open Space Proposals

- The Proposed Scheme has sought to provide adequate open space for staff and visitors to the site. It should be noted that there are no statutory requirements for the area of open space within a Religious Institution. The design of the open space is based on the objective of providing high quality passive recreational facilities and features that will satisfy the needs of the staff and visitors to the temple.
- 6.2 Subject to its location, all of the open space within the Application Site boundary would be constructed, managed and maintained by the developer and relevant authorities after the completion of Defect Liability Period and Establishment Period.

# 7.0 Green Coverage

- 7.1 The green coverage for the Development Site will not be less than 20% in accordance with the Buildings Department Practice Notes PNAP APP-152 Sustainable Building Design Guidelines and DEVB Technical Circular (Works) No. 3/2012. This includes a minimum of 10% at the Primary Zone (15m above mean street level). The calculation of area is based on the uncovered areas of tree and shrub, lawn and groundcover planting.
- 7.2 The Green Coverage for the <u>Development Area of the</u> proposed development is shown on **Figure 7.1**. The total site area of Development Area is 17,393m², whereby the site coverage of greening shall be not less than 3,478.6 m² (20%).
- 7.3 It should be noted that the Green Coverage for the Application Site as a whole, which includes the above-mentioned Development Area plus the Access Road and existing Kwan Ti Square, is also able to meet the minimum requirement of 20% Greenery Coverage in accordance with PNAP APP-152.

#### 8.0 Tree Preservation

- 8.1 There are existing trees within and adjacent to the Application Site which are surveyed in detail for the Development Area (Temple Site) and Area of existing Tai Tong Kwan Ti Square, whilst a broadbrush tree survey has been undertaken for the Access Road. These two surveys are described in separately submitted reports, with the results and conclusions briefly summarised as follows:
  - 603 nos. of trees are surveyed <u>as six groups</u> at and around the Development Site (542 nos.) and within area of existing Tai Tong Kwan Ti Square (61 nos);
  - 493 nos. of trees are surveyed as 32 nos. tree groups at the Access Road;
  - Extensive tree removal is required at the Development site to facilitate site formation and construction of the Temple Complex;
  - Localised tree removal is required at the access road to facilitate road widening and minor re-alignment of the carriageway and addition of a pedestrian footpath;
  - Tree removal is proposed to be compensated at a 1:1 overall ratio, with new tree planting to be accommodated at the proposed temple landscape (Development Area), Access Road verges and within the existing Tai Tong Kwan Ti Square.
- 8.2 The proposed treatment of the surveyed existing trees is summarised in **Table 8.1** below:

**Table 8.1: Summary of Tree Recommendations** 

Tree Removal Metrics	Development Area	Existing Kwan Ti Square	Access Road	Total Number
Within Application Site				
Nos. of trees to be retained	<u>24</u>	38	0	<u>62</u>
Nos. of trees to be transplanted	3	0	4	7
Nos. of trees to be removed	<u>438</u>	23	56	<u>517</u>
Nos. of weed* tree to be felled	9	0	1	10
Outside Application Site				
Nos. of trees to be retained	59	0	330	389
Nos. of trees to be transplanted	0	0	8	8
Nos. of trees to be removed	9	0	94	103
Total trees to be retained	<u>83</u>	38	330	<u>451</u>
Total trees to be transplanted	3	0	12	15
Total trees to be removed	447	23	150	<u>620</u>
Total weed* tree to be felled	9	0	1	10
Total number of trees	542	61	493	1096
Total new trees to be planted	410	<u>136</u>	74	<u>620</u>

<sup>\*</sup>Note: Weed tree refer to Leucaena leucocephala.

8.3 Please refer to Tree Preservation Proposal reports for Access Road and Development Area (also including Tai Tong Kwan Ti Square) for further details on the proposed recommendations for existing trees and the incorporation of new tree planting in the proposed Temple and Access Road landscape schemes.

# 9.0 Landscape Design Components

- 9.1 The following description seeks to establish some general principles that are important in realising the landscape design as part of the general mitigation for the development and ensure its feasibility. **Figures 4.1** to **4.4** shows the Landscape Master Plan for the Proposed Scheme.
- 9.2 The landscape seeks to integrate the proposals within future landscape and visual context and create a unique green development and provide a tranquil and contemplative landscape for visitors to the Supreme Kwan Ti Temple. The proposed landscape concept has a number of key components which include the creation of the boundary landscape, arrival landscape (including access road), and the main courtyard spaces, terraces and gardens within the proposed Temple Complex Landscape.

#### **The Boundary Landscape**

- 9.3 Where space allows the design for the Proposed Scheme incorporates tree and shrub planting at the boundary which will function to help integrate the development with its surroundings and soften the architectural form in views form the surrounding landscape. This is particularly important for this development, which is located in close proximity to wooded hillsides which form a key part of the visual context. The architectural concept is that amidst the Tai Tong hilly ranges, the bronze copper Temple become part of the hills. Under the sunshine, the Temple expresses solemnity with the rising hills and merged with the colours of nature in the four seasons.
- 9.4 The Temple complex is backed by the Tai Tong Hills, which demonstrate a partial golden hue in Autumn, by virtue of the high proportion of *Liquidambar formosana* within the woodland cover, and thereby may provide a setting in tone and ambience with the bronze golden Temple. This concept is also reflected in the proposals for tree buffer planting areas which form part of the Development Area, described as follows:

#### Northern Landscape Buffer Planting

9.5 An area of buffer planting is proposed between the existing Kwan Ti Square and the development area, adjacent to the tallest proposed structure, the Grand Hall of Supreme Kwan Ti, and the Ceremonial Main Court. These trees would form part of the visual mitigation measures and would therefore be planted at a larger size (Heavy Standard) to achieve a more instant effect. The Planting mix would include a high proportion of *Liquidambar formosana*, to reflect the architectural concept noted above.

#### Northern Roadside Buffer Planting

An area of buffer planting is proposed around the roadside periphery of the existing Kwan Ti Square. This area has some existing tree groups, and the aim would be to enlarge and enrich this existing tree growth with a mix of native woodland species as a core planting mix, planted as whips in a dense matrix to achieve a dense buffer effect over time. The planting mix would include a high proportion of *Liquidambar formosana*, to reflect the architectural concept noted above. The inner edges of the buffer would then be planted with decorative species in a more formal arrangement suited to the ambience of Kwan Ti Square.

### Southern Roadside Buffer Planting

9.7 The southern edges of the site are proposed as a mix of native woodland planting including a high proportion of *Liquidambar formosana* planted at a larger size (Heavy Standard) to achieve a more instant effect for visual mitigation. Inside layers of this planting belt are then formed by small columnar trees, arranged formally to define the edges of courtyard spaces within the site, described further below.

# **Blossom Grove Buffer Planting**

9.8 A wide belt of tree planting is proposed at the north-western side of the site which forms a backdrop to the Arrival Court, described further below. The northern part of this buffer is proposed as a mix of native woodland planting including a high proportion of *Liquidambar formosana* planted at a larger size (Heavy Standard) to achieve a more instant effect for visual mitigation. Inside layers of this planting belt are then formed by peach trees (*Prunus persica*), which form part of the arrival experience, as described further below.

# **The Arrival Landscape**

9.9 The landscape design for projects of this nature should be readable to first-time visitors and aid orientation and this is known as the Arrival Landscape. This is a sequence of experiences as one moves through composed moments in the landscape, including the following:

# Thickly Vegetated Access Road

9.10 The thickly vegetated access road from Tai Tong Shan Road acts as mind soothing decompression pathway leading to the Supreme Kwan Ti Temple. The road shows evidence of previous landscape enhancements, with intermittent rows of decorative trees, such as *Lagerstroemia speciosa*, as well as *Liquidambar formosana* forming sections of the roadside landscape. The intent would be to re-instate such treatments where they are affected by the road widening and extend this treatment to existing gaps in these tree lines to create an informal entry avenue effect, passing at the base of the existing wooded slopes.

### Arrival Court / Vehicle Drop-off

9.11 The access into the site defines the address of the development and would be designed to provide an attractive entry experience which is also sensitive to the existing landscape context of the site. The entrance will be designed as a subtle threshold, framed by new trees and incorporating naturalistic accent planting and a paved driveway drop off formed in subtle tones of natural stone or block paving. The space establishes the character of the development at the point of entry for both arriving vehicles and pedestrians at the southwestern end of the site. The Arrival Court leads directly to the Gate of Unity and Grand staircase which are the start of the ceremonial journey up to the Grand Hall.

# **Gate of Unity:**

9.12 This is the starting point for worshippers and visitors making their way towards the sacred worship of the "Supreme Kwan Ti" and frames the entrance to the Grand Ceremonial staircase which represents the major pedestrian threshold of the development.

#### **Garden of Peach Blossoms:**

9.13 Both the Gate of Unity and Grand Ceremonial Staircase are set within a matrix of tree planting dominated by *Prunus persica* which frames the entrance to the ceremonial axis. A lawn extends below most of these trees creating an accessible garden richly planted with peach blossoms amongst rare rock setting, signifying the true meaning of Unity so nurtured by the "Supreme Kwan Ti". The Grove is envisaged as a decorative landscape with a gentle slope covered in lawn and edged by shrub planting and punctuated by sculptural rock assemblages.

# **Temple Complex Landscape**

9.14 The landscape should also function as a spiritual landscape forming the setting for the Supreme Kwan Ti Temple and reflecting its functional requirements. The key aspects of the spatial planning and features of the proposed landscape are described as follows:

#### **Religious Landscape Spaces**

9.15 The Landscape components of the Religious Facilities of the "Supreme Kwan Ti Temple", progressing from the West rising to the east and arranged along the main ceremonial axis, include:

# **Gate of Harmony:**

This Gate is located at the top of the Grand Ceremonial Staircase and paves the entrance to the Garden of Harmony.

#### **Garden of Harmony:**

The is a religious ceremonial court leading to the Gate of Divinity. A bronze sculpture of the "Supreme Kwan Ti's" vermilion hare horse is displayed within this space, which is otherwise a simple paved courtyard.

### **Gate of Divinity:**

A further set of Grand ceremonial staircases lead worshippers and visitors up to the main Temple level, passing through the Gate of Divinity, from the Garden of Harmony to the ceremonial main court, which fronts the western side of the Grand Hall of the Supreme Kwan Ti.

#### **Ceremonial Main Court:**

The Ceremonial Main Court is formal rectangular space framed by four symbolic trees towards the corners of the space. There are covered walkways and arched doorways connecting the Ceremonial Main Court to the other facilities. The courtyard leads directly to the Kwan Ti Statue at The East Facing West. The "Supreme Kwan Ti" was killed in Dong Wu at the East, hence it is preferred and auspicious for the "Supreme Kwan Ti" statue to be anchored at the East overlooking West, as is the proposed arrangement at the site. The 18m tall statue will be a significant focal feature, visible as the destination as one moves through the ceremonial spaces of the main axis landscape.

### **Inner Court**

To the east of the Grand Hall of the Supreme Kwan Ti is a simple paved spaces connection to the Scripture Library. The paving in this space is designed to reinforce the link between the temple building and external spaces and uses traditional materials which are appropriate to the architecture.

### Ceremonial Rock Feature

To the east of the Scripture Library the boundary buffer is located. As described, this part of the garden is thickly planted with Hong Kong maple giving a green lush effect in spring and orange golden colour in autumn. At the main axis it is also punctuated by a rock feature, reinforcing connections with nature and the spirit of the Supreme Kwan Ti.

9.16 The other Religious Facilities of the "Supreme Kwan Ti Temple", which do not fall on the main ceremonial axis but nevertheless play an important functional role in the site include the Hall of Enlightenment and the Hall of Manifestation. Both buildings are located to the south of the main ceremonial axis and have associated landscape spaces, described as follows:

## **Courtyards of Enlightenment:**

To the south of the Sculpture Library is the Hall of Enlightenment. Within the more intricate building massing are secluded courtyard compounds where the "Supreme Kwan Ti" is intended to be worshipped and respected as an everyday-life encounter. The compound is filled with Confucius cultural spirit, in contemporary and humble lifestyle, with simple, natural landscape materials such as natural stone to support this intended ambiance.

#### Swords and Arts Arena:

Formed in earth and rock, this external ground of Swords and Arts Arena enabled the practice of martial arts, especially with the sword of the "Supreme Kwan Ti", with dramas, dance and music. Rock features set within landscape, space forming columnar trees and a backdrop of thickly planted maple around the arena, allowing the worshippers and visitors to enjoy the richly coloured maple seasons all round while enjoying the performances and arts.

#### External Grounds for Religious Facilities and Religious Ancillary Facilities

9.17 External Grounds apart from the Courtyards, include the pathway lined with stone statues. Religious Ancillary Facilities include the circulation, corridors, stairways, toilets and means of escapes, emergency vehicle access, driveways, carparking, building services and plant rooms etc. The landscape spaces of such circulation spaces and ancillary Facilities include:

#### **Bamboo Forest Grove**

The Bamboo Forest Grove is located in a narrow sunken courtyard to the east of the Hall of Manifestation and has two key functions, the first to provide a green backdrop to the building and the second to create a distinctive landscape space. The backdrop will be formed by tall forest bamboo clumps, lending a verdant feel whilst still allowing light to penetrate the lower levels of the building.

# **Bamboo Courtyard**

The Bamboo Courtyard forms an intimate enclosed space to the south of the Hall of Manifestation and contains clumps of bamboo to echo the adjacent Bamboo Forest Grove whilst offering an area for quiet contemplation near the proposed Halls of Manifestation.

# **Cloister Courtyards**

The Cloister Courtyards are located within the Staff Canteen / Pantry building to the northeast of the site. These small courtyards provide a green focus within the building.

#### **Banyan Tree Court**

The design of the Banyan Tree Court provides a careful integration of the landscape elements to create a serene harmonious environment. A feature tree is planted in the centre surrounded by a simple plaza exhibiting a contemporary interpretation of traditional paving. The tree will cast dappled shade over the courtyard creating intimate enclosure and helping with the thermal comfort of visitors and staff. The plaza is a key node at the side providing connections to the north, south, east and west and providing a transitional space between the new Temple Complex and the Existing Kwan Ti Square.

#### **Landscape Terraces**

Between the temple and Kwan Ti Square the Landscape Terraces utilise the stepped form of the proposed architectural scheme to create a series of intimate landscape spaces, integrated with tree planting and providing space for exhibiting of a series of carved animal sculptures arranged as a sequence up the terraced slope. These gentle stepped terraces provide a pedestrian link along the northern side of the development site and connections with existing Kwan Ti Square.

## Temple Walk (North and South)

The EVA route at the western side of the site is conceived as a simple paved space, with a subtle grid pattern to help unify these elements with the architectural and landscape composition.

#### Contemplative Cultural Garden

9.18 Located on the northern side of the Proposed Scheme the Contemplative Garden provides a series of intimate spaces for personal quietude and activities such as yoga and tai-chi. The Paths through existing and proposed trees and shrub planting with seating opportunities and a flexible outdoor space.

## **Existing Ti Kwan Square**

9.19 Whilst the existing building and hard landscape arrangement at the existing Kwan Ti Square outside the Development Area is retained, there are minor modifications to better integrate with the new Temple complex. Connections are made to the upper and middle terrace levels for the convenience of visitor using both facilities. The soft landscape of Kwan Ti Square is also enhanced with the addition of tree planting to frame the space and improve the green setting of this existing development.

# **10.0** Landscape Design Elements

#### Soft Landscape Design Approach

- 10.1 The basis for the proposed planting scheme would be to provide a green and comfortable environment for residents and staff and visitors to the Temple complex. Shade trees with a dense canopy and flowering shrubs in addition to the use of hard landscape treatments would be used to emphasise the character of each of the landscape spaces described above. The spaces will be characterised by the use of tree, shrub and groundcover species selected to provide a lush landscape area whilst responding to the character of the architecture that embraces it.
- 10.2 The planting design will contribute to the overall character of the proposed development providing colour throughout the year with seasonal variations providing an evolving tableau. This will be achieved through the selection of species with an interesting form, colour and texture of their foliage and through the use of flowering species to provide an architectural highlight.
- 10.3 The species listed in **Table 10.1** will form the basis of the planting design proposals.

**Table 10.1: Planting Species** 

Botanical Name	Native / Exotic	Stock Size / Size (mm)	Spacing (mm)
Tree Species			
Small Columnar Trees			
Garcinia subelliptica Merr.	Exotic	Standard	2500
Juniperus chinensis	Exotic	Standard	2500
Podocarpus macrophyllus	Native	Standard	2500
Feature Trees			
Bauhinia blakeana	Native	Heavy standard	4000

Botanical Name	Native / Exotic	Stock Size / Size (mm)	Spacing (mm)
Creteva unilocularis	Exotic	Heavy standard	<u>5000</u>
Lagerstroemia speciosa	Exotic	Heavy standard	4000
Magnolia grandifolia	Exotic	Heavy standard	4000
Prunus persica	Exotic	Heavy standard	4000
Tabebuia chrysotricha	Exotic	Heavy standard	4000
Structural Trees			
Alstonia scholaris	Exotic	Heavy standard	4000
Bischofia javanica	Native	Heavy standard	4000
Cinnamomum burmanii	Native	Heavy standard	4000
Cinnamomum camphora	Native	Heavy standard	<u>5000</u>
Elaeocarpus hainanensis	Exotic	Heavy standard	4000
Ficus microcarpa	Native	Heavy standard	<u>5000</u>
Liquidambar formosana	Native	Heavy standard	4000
Melia azedarach	Exotic	Heavy standard	4000
Michelia × alba	Exotic	Heavy standard	4000
Pinus elliottii	Exotic	Heavy standard	4000
Terminalia mantaly	Exotic	Heavy standard	<u>4000</u>
Sterculia lanceolata	Native	Heavy standard	4000
Woodland Whip mix			
Aquilaria sinensis	Native	Whip	1500
Celtis sinensis	Native	Whip	1500
Cratoxylum cochinchinense	Native	Whip	1500
Litsea glutinosa	Native	Whip	1500
Liqidambar formosana	Native	Whip	1500
Phyllanthus emblica	Native	Whip	1500
Reevesia thyrsoidea	Native	Whip	1500
Polyspora axillaris	Native	Whip	1500
Sapium discolor	Native	Whip	1500
Schefflera heptaphylla	Native	Whip	1500
Shrub Planting			
Bougainvillea sp. 'Mary Palmer'	Exotic	600 x 600	500
Duranta repens 'Golden Leaves'	Exotic	300 x 300	250
Ficus microcarpa 'Golden Leaves'	Native	500 x 500	400
Hibiscus rosa sinensis	Native	500 x 500	400
Ixora chinensis	Native	250 x 250	200
Pittosporum tobira	Exotic	600 x 500	400
Rhododendron mucronatum	Exotic	300 x 300	200
Rhododendron pulchrum	Exotic	300 x 300	200

Botanical Name	Native / Exotic	Stock Size / Size (mm)	Spacing (mm)
Rhododendron simsii	Native	300 x 300	200
Schefflera arboricola	Exotic	600 x 600	500
Groundcover Species			
Cuphea hyssopifolia	Exotic	250 x 300	250
Hymenocallis americana	Exotic	300 x 500	400
Iris spp	Exotic	150 x 150	100
Lantana montevidensis	Exotic	300 x 300	200
Nephrolepis auriculata	Native	250 x 400	250
Ophiopogon japonicus	Native	250 x 300	200
Philodendron bipinnatifidum	Exotic	700 x 700	500
Phyllanthus myrtifolius	Exotic	300 x 300	250
Epipremnum aureum	Exotic	300 x 300	250
Spathiphyllum floribundum	Exotic	400 x 400	300
Bamboo			
Bambusa textilis	Exotic	2000-3000 Ht,.3	250
Pseudosasa japonica	Exotic	culms per clump	250
Lawn / Grassland			
Axonopus compressus	Exotic	N/A	N/A

Note: The plant species listed above provide an indication of the future character of the proposed landscape areas however the design will be subject to review during the detailed design stage of the project.

# Soil Depth for Planting Areas

In order to ensure that the planting proposals are feasible, it is proposed that an adequate planting medium be incorporated into the design of the soft landscape areas. All planting areas allow a minimum soil depth of 1200mm facilitating the planting of trees whilst shrub and lawn areas will incorporate a minimum soil depth of 600mm and 300mm respectively, as illustrated in **Figure 10.1**.

#### Irrigation and Drainage

10.5 The proposed irrigation system will utilise a manual system with lockable water points at 40m centres throughout the entire site. The proposed source of water supply will be subject to final approval from the Water Services Department. Sub-soil drainage shall be provided for all planting areas with a cellular drainage system such as "Mira-drain" or an approved equivalent.

#### **Feature Paving**

10.6 The paving will be an important element of the landscape design both in terms of its aesthetic appearance and in terms of producing a hardwearing landscape for usage by the future users. The design of the proposed paving will highlight entrance areas and major pedestrian routes through the site providing a hierarchy for pedestrian movement and help to define the spatial configuration of the landscape. It would be constructed of quality materials in feature patterns creating a distinct identity for each of the key landscape zones responding to the architectural design and function of each. Colour changes within the

patterns would be used to break the linearity of the spaces and establish a theme across the development.

- 10.7 The use of a similar material palette for the vehicular and pedestrian areas is designed to blur the distinction between the two and create the appearance of a shared surface.
- 10.8 Non-slip paving materials will be utilised throughout the site and the proposed finishes and materials are summarized below:
  - Internal vehicular surface and EVA: Subtle shades of natural granite and concrete pavers designed to create visual continuity with the adjacent pedestrian pavement whilst also creating a distinct identity at the threshold of the development.
  - Courtyard spaces: Combination of natural granite, homogeneous tile and concrete paving to create attractive garden scale paving features.
- 10.9 Wherever possible all landscape areas will cater for multiple use needs including people with impaired ability and access for the disabled in accordance with Building Department's Design Manual on 'Barrier Free Access (DMBFA), 2008'. Where changes in level are unavoidable handrails or grab bars will be provided. Steps and staircases should be designed with wider treads and lower risers. Floor surfaces will comply with Division 4. Slipresistant floor finishes and avoids the use of shiny and reflective floors such as marble, glazed tiles and the like. Open jointed pavers or aeration paver blocks with uneven or very rough surface will be avoided at external open spaces.

#### **Planter Walls**

10.11 For the most part planters and/or planting areas will be at-grade and open bottomed. Where planters are raised for effect the planter walls will be clad with a combination of natural stone, selected to match the architectural finishes.

# Lighting

- 10.12 The lighting design concept for the landscaped areas should be designed to contribute to the quality of the development in nocturnal views providing an aesthetically pleasing landscape through the highlighting of landscape elements. All of the landscape areas will be provided with sufficient illumination to meet the required lighting standards, particularly for the entrance areas and pedestrian access paths. The lighting concept will include three types of lighting which are as follows:
  - Amenity lighting highlighting feature trees, walls, sculptures and planting through the use of spotlights and up-lighting;
  - Area lighting involving the use of low-level lighting sources such as lighting bollards and recessed wall lights for sitting areas and main landscape spaces designed to avoid glare / light spillage to adjacent properties; and
  - General safety lighting with the minimum lux level which will last between midnight and early morning.

## Site Furniture

10.13 The landscape design would include the provision of site furniture including seating, which in addition to its functional attributes would also contribute to the perceived quality of the landscape.

### **Safety Requirements**

10.14 All outdoor facilities will be designed, constructed and operated in full compliance with relevant safety standards and guidelines.

# 11.0 Landscape Management and Maintenance

11.1 Upon completion of the construction works, a 12-month Defects Liability Period (DLP) will be implemented applying to the hard landscape whereby the specialist contractor will be responsible for the maintenance during this first year.

# A - Routine Maintenance (Daily - Weekly)

- a. Rubbish and litter removal;
- b. Sweeping and cleaning;
- c. Water feature cleaning; and
- d. Damage inspection, repair of site furniture and light bulb replacement.
- e. Routine management attendance, inspection and cleaning of surface channels and subsoil drainage, in particular at elevated levels.

#### **B – Annual / Long-term Maintenance**

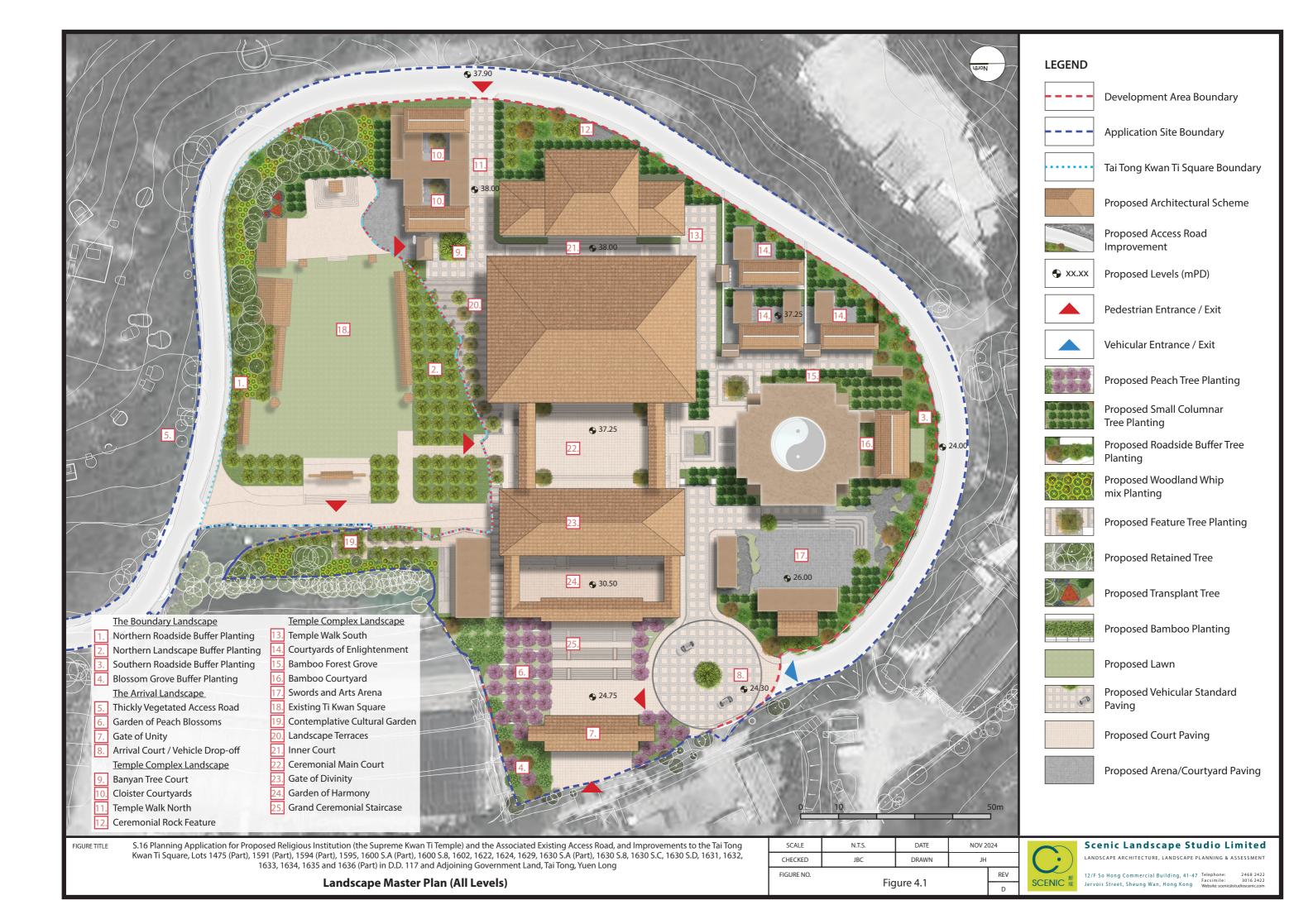
- a. Repainting;
- b. Resurfacing of worn pavements;
- c. Replacing worn parts of site furniture, lighting fixtures and other facilities; and
- d. Replacement of damaged landscape furniture.
- Similarly, the softworks contractor will be responsible for a 12-month Establishment Period (EP) for the planting after practical completion. This allows a period of time for proper establishment of the plants and the replacement of any losses. **Table 10.1** (overleaf) provides the maintenance schedule for the soft landscape.
- 11.3 At the end of the 12-month DLP / EP, subject to the location of the landscape will be managed and maintained by relevant authorities and/or private property owners. This includes general tree care and proper tree maintenance in accordance with relevant guidelines promulgated by DEVB.
- 11.4 **Table 11.1** (overleaf) provides the maintenance schedule for the soft landscape.

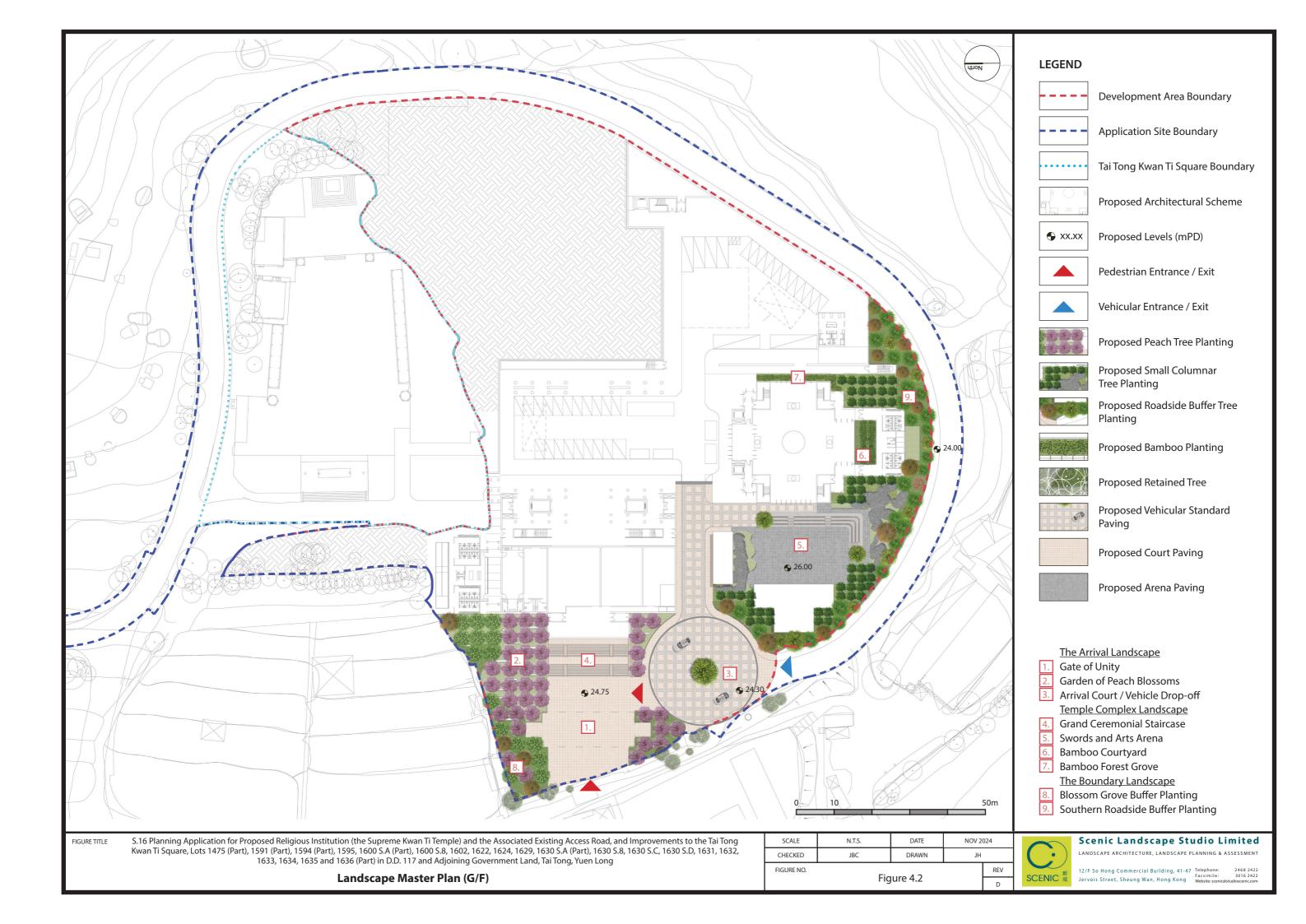
Table 11.1 Landscape Maintenance Schedule

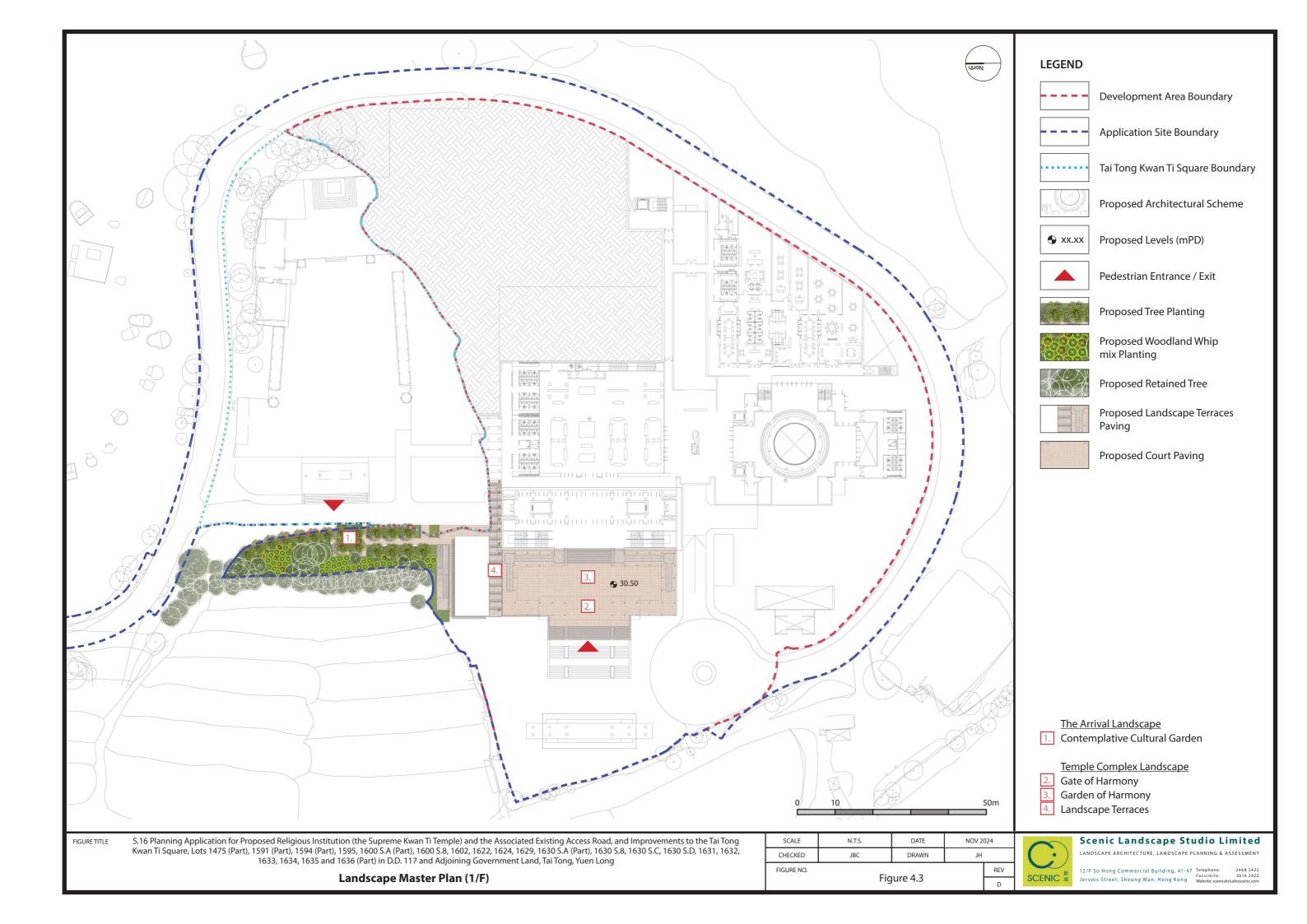
ltem	Maintenance Operation	Frequency	J	F	М	Α	М	J	J	Α	S	0	N	D
1.1	Watering	280 days												
1.2	Litter Collection	Daily												
1.3	Weed Control	16/ year												
1.4	Pruning of Shrubs	As required												
1.5	Pruning of Trees	As required												
1.6	Fertiliser Application	Twice/year												
1.7	Top-up Mulch	Twice/year												
1.8	Pest Control	As required												
1.9	Replacement planting	As required												
1.10	Tree Support Inspection/ Adjustment	Once/month	1	1	1	1	1	1	1	1	1	1		
1.11	Checking After Exceptional Weather	As required												
1.12	Grass Cutting	14 times												
1.13	Periodic Inspection by User and Horticultural Maintenance Contractor is recommended	Four/year				1		1		1			1	
1.14	Tree Risk Assessment in accordance with DEVB methodology at an appropriate time of year	Once/year				1								

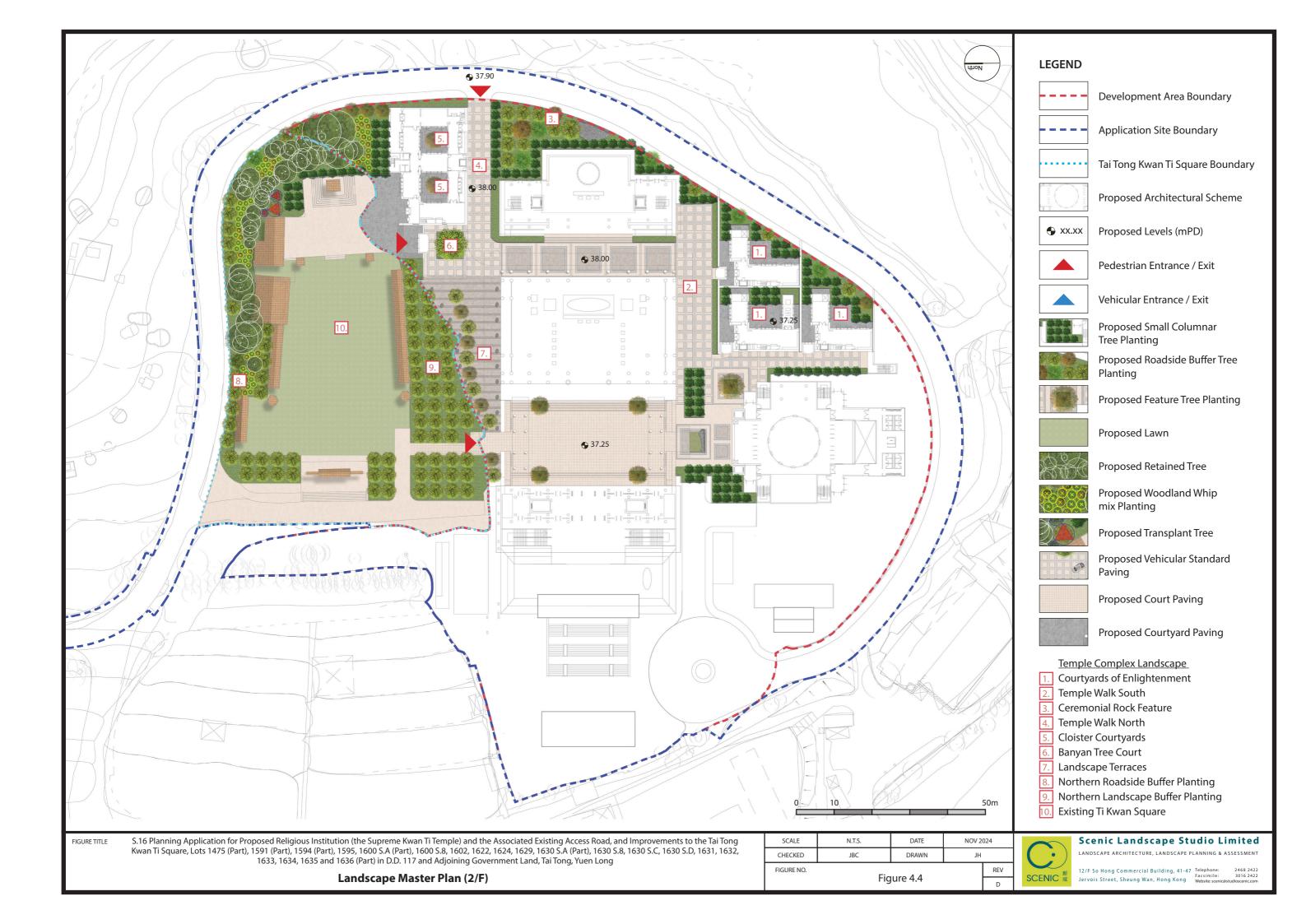
Section 16 Planning Application for Proposed Religious Institution (Supreme Kwan Ti Temple)
and Improvements on the Existing Access Road, Lots 1475 (Part), 1591 (Part), 1594 (Part), 1595,
1600 S.B. 1602, 1622, 1624, 1629 and 1636 (Part) in D.D. 117, Tai Tong, Yuen Long

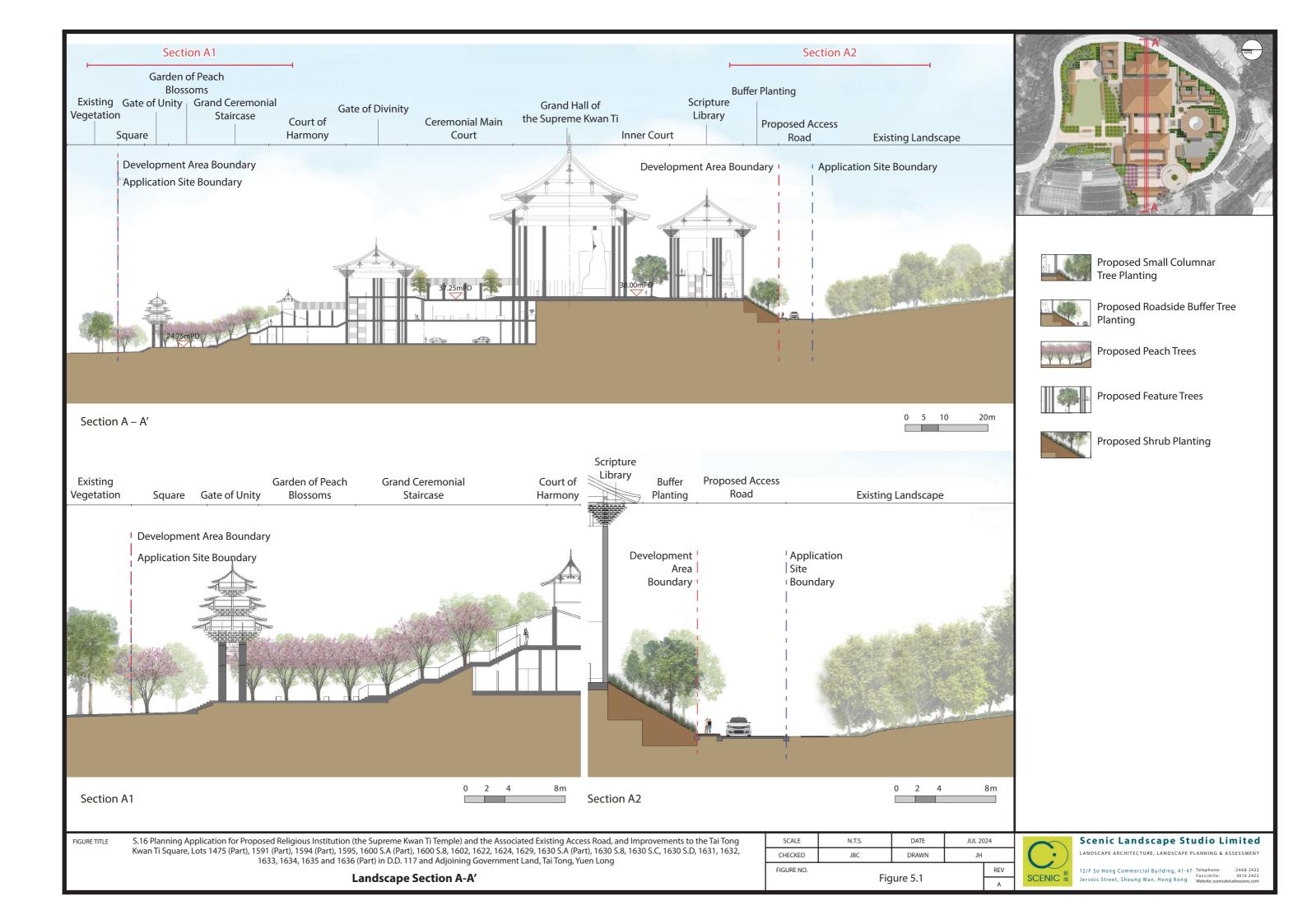
**Landscape Figures** 

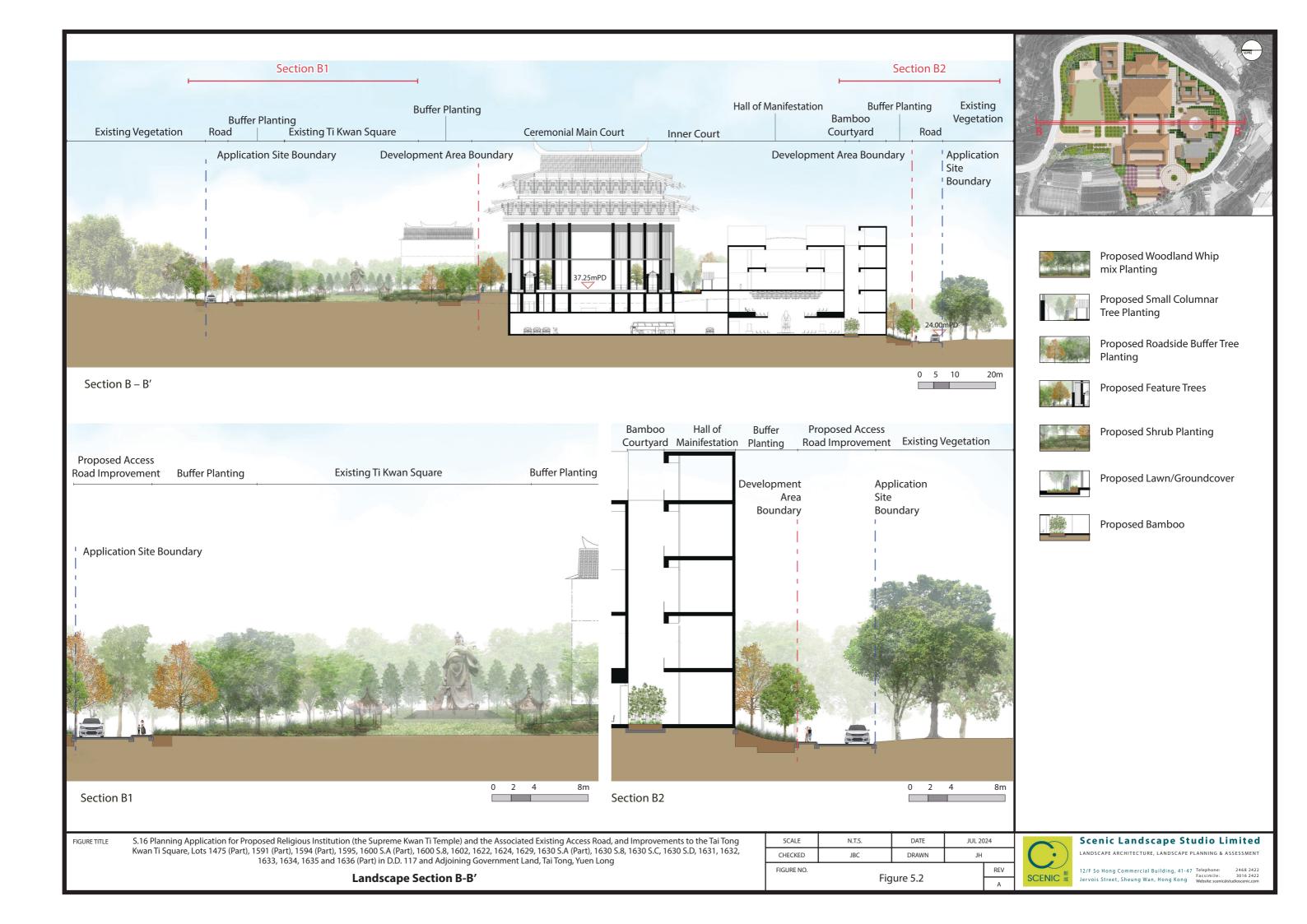


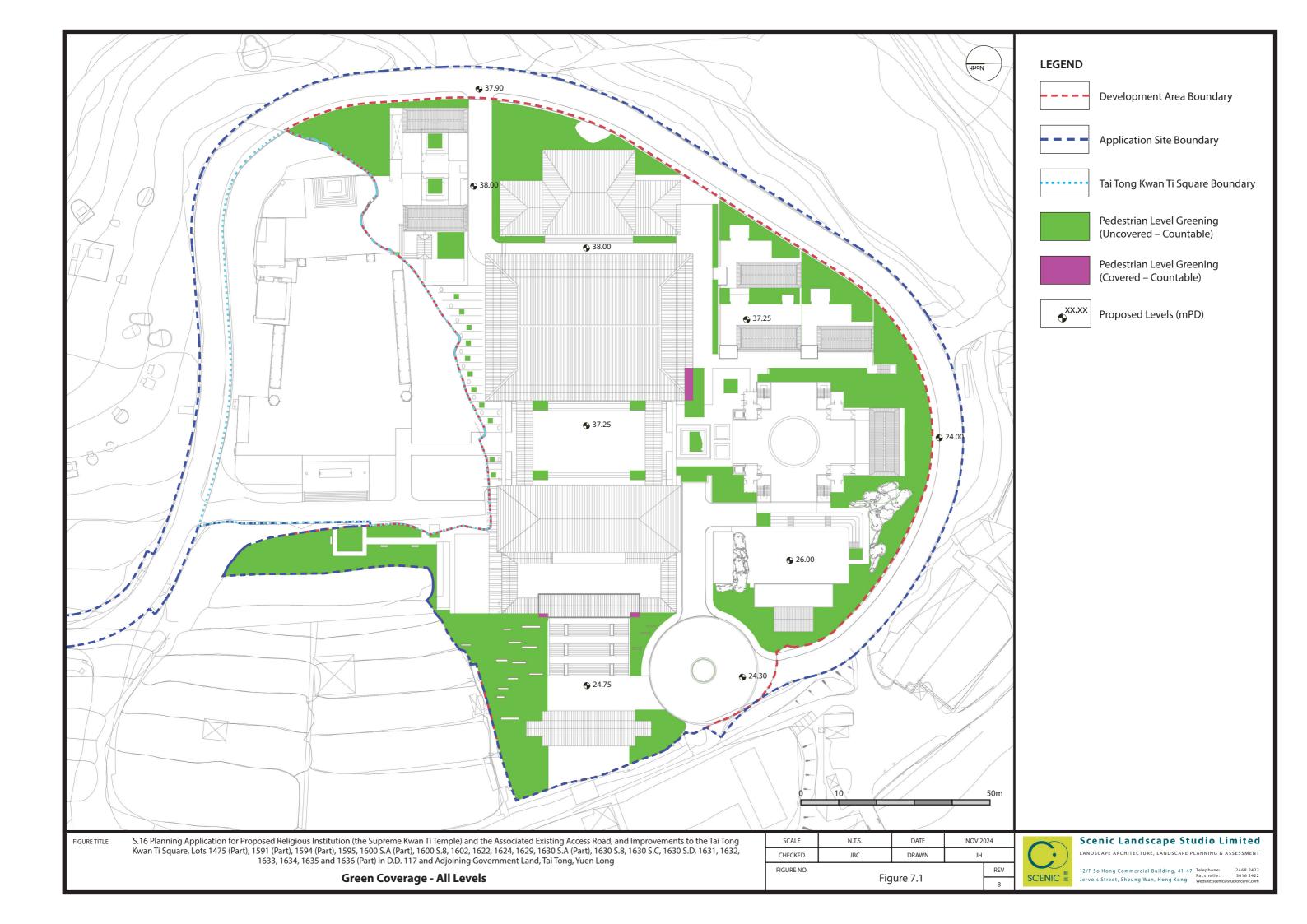


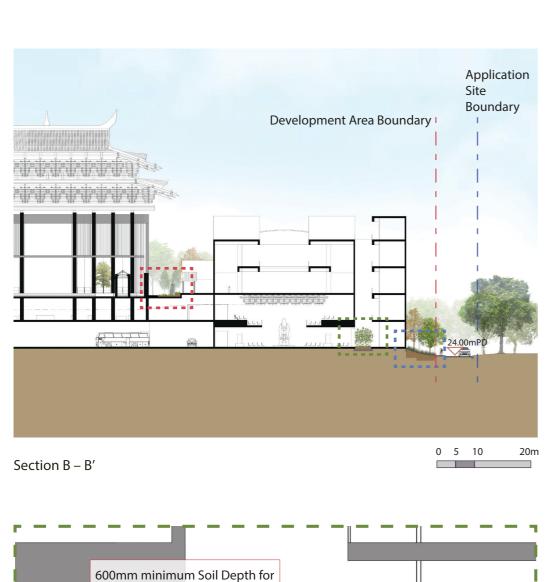








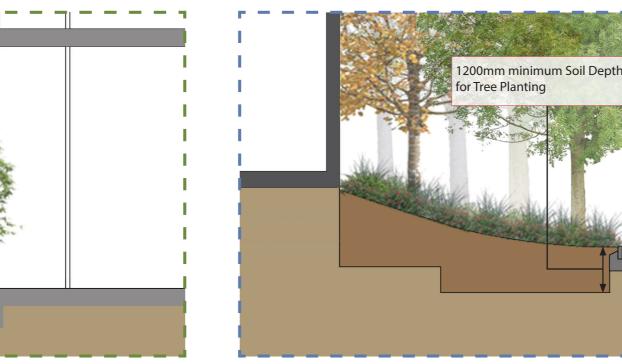




Shrub/Bamboo Planting

Section showing the proposed shrub planting





Section showing the proposed tree and shrub planting





Section Line

XX.XX

Typical Levels



Soil Mix



Planter Drainage Outlet to Engineering's Details



Drainage Cell / Screed Laid to Falls



Gravel Covered with Geotextile at Drain Outlet

#### Note

- All soil depths stated exclude drainage layer.

FIGURE TITLE

S.16 Planning Application for Proposed Religious Institution (the Supreme Kwan Ti Temple) and the Associated Existing Access Road, and Improvements to the Tai Tong Kwan Ti Square, Lots 1475 (Part), 1591 (Part), 1594 (Part), 1595, 1600 S.A (Part), 1600 S.8, 1602, 1622, 1624, 1629, 1630 S.A (Part), 1630 S.B, 1630 S.C, 1630 S.D, 1631, 1632, 1633, 1634, 1635 and 1636 (Part) in D.D. 117 and Adjoining Government Land, Tai Tong, Yuen Long

**Typical Section Showing Soil Depth** 

SCALE N.T.S. DATE JUL 2024

CHECKED JBC DRAWN JH

FIGURE NO. REV

Figure 10.1



