



APPENDIX C

LANDSCAPE REQUIREMENTS

DOCUMENT CONTROL

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NOTE:

These requirements shall take precedence from the time of adoption and will be applied retrospectively.

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DESIGN RESPONSIBILITIES

A general aim for landscape design is to incorporate the existing natural character of the site. This includes consideration of specific natural elements within the site and the wider natural environment. All design measures should aim to reduce potential impacts to the natural resource base and moreover to enhance the function of the natural landscape structure.

The landscape design should also provide accessible and equitable provision of open space to the community. The configuration of reserves and streetscape should aim to be cohesive and legible within the broader urban design of precincts and city, planned and existing.

In accordance with the collective design principles and guidelines such as:

- Crime prevention through environmental design (CPTED).
- Linking open spaces
- Be meaningful to place and community
- Be multi-functional and adaptable
- Provide diversity and innovation
- Encourage social interaction
- Promote health and wellbeing
- Provide equity and accessibility
- Demonstrate environmental sustainability and Safeguard financial sustainability

All landscape plans and documentation must be prepared by a qualified Landscape Architect. Refer to Australian Institute of Landscape Architects website for listings: <http://www.aila.org.au>

LANDSCAPE DESIGN GUIDELINES

1.1

The configuration of open space should;

- a) Complement existing vegetation to attract and support the native fauna and to provide social and environmental sustainability;
- b) Create a buffer between development and viable ecosystems.
- c) Integrate parks, reserves and habitat corridors, to establish linear connections between various destinations
- d) Maximise opportunities for the retention and re-introduction of plant material that is indigenous to the site
- e) Establish plant material of appropriate structure and species composition

1.2

Landscape design and management responses should;

- a) Attempt to meet and resolve issues and opportunities using innovative and best practice approaches.
- b) Ensure that the design minimises the maintenance of landscape works and the requirement for irrigation water.
- c) Ensure that works are to the appropriate standard, of durable materials and low maintenance design where ever possible
- d) Conserve water through xeriscape techniques, appropriate to the climate and utilising water-wise plant selection
- e) Where irrigation is required opportunities for water re-use should be maximised
- f) Consider sustainable use of water

OPEN SPACE CONTRIBUTION AND RESERVE

HIERARCHY

2.1

Every development shall be provided 12.5% open space contribution in the form of land or monetary contribution. Development of open space will comply with Councils Open Space Hierarchy.

2.2

Open space vested towards council through development should be up to 12.5% of total development area. Public open space reserves should be a minimum of 8 metres wide. In case of drainage reserves/ detention basins for storm water management shall be designed and constructed to provide a useable and attractive open space and be landscaped to the satisfaction of Council. Only then may up to 50% of their area be credited towards the 12.5% open space requirement.

2.3

The Developer shall provide a Landscape Masterplan to indicate the design intent and quality of landscape for streetscapes and Public Open space delivery in new or renewal developments.

2.4

In accordance with Open Space Hierarchy, the developer shall provide Landscape Master plan for development indicating intention and character of area. If the developer has a standard Open Space Hierarchy, they must demonstrate how it aligns with Council's own Open Space Hierarchy, to ensure the intent is transparent. This should include information relating to the size, content and function.

Regional Level Parks

- Sports fields
- Reserve/ Park
- Wetland
- Natural bushland
- MOSS Land
- Civic Plaza
- District Level Parks
- Sports field
- Reserve/ Park
- Civic Plaza

Neighbourhood Level Parks

- Sports field
- Reserve/ Park
- Civic Plaza

Minor Park

- SLOAP
- Pop-up/ Pocket Parks

Linear Park

- Open Space Corridor
- Windbreak
- Suburban Trail
- Neighbourhood Link

LANDSCAPE DELIVERY AND TECHNICAL REQUIREMENTS

3.1

All electrical and irrigation bills should be borne by the developer/s during the maintenance period.

3.2

A representative from Council's Development and infrastructure and City Services department must be present at the Practical Completion and Final Completion (one calendar month notice to be given prior to handover date).

3.3

The developer shall provide for the establishment and maintenance of at least one street tree per allotment with single frontage, 3 street trees on allotments with multiple frontage (i.e. corner allotments shall have 3 trees, 1 to the front address and 2 for the side fence line.) and appropriate understorey planting and or inorganic mulch/ compacted gravel to the reasonable satisfaction of Council.

3.4

The developer shall provide for the establishment and maintenance of at least one street tree per two allotment where single frontage is less than 10.0m, 3 street trees on allotments with multiple frontage (i.e. corner allotments shall have 3 trees, 1 to the front address and 2 for the side fence line.) and appropriate understorey planting and or inorganic mulch/ compacted gravel to the reasonable satisfaction of Council.

EXISTING TREE SURVEY

4.1

Every effort shall be made to ensure the retention of all existing trees within the development site to the reasonable satisfaction of council. All trees shall be identified on the site survey.

4.2

For sites that may have significant trees a vegetation survey shall be provided showing position and type of vegetation and structure, having regard for the proposed development of the site by a qualified arborist to the reasonable satisfaction of Council.

Any trees where existing canopy overhangs external to the land division boundaries must be included. For all trees a dimension of trunk circumference/s at 1 metre above natural ground level must be provided.

4.3

The Existing Tree Survey Plan (either separate or incorporated upon the Land Division Plan) must contain the following information:

- a) Identification of the species including botanical name of the tree;
- b) Accurately show the location of the tree, and;
- c) Indicate the height/spread of the tree and girth of the trunk (ie whether the tree is subject to the control of Significant Tree Legislation)
- d) condition rating and estimated remaining lifespan (regulated or significant trees)

4.4

For removal of trees under the Development Act 1993, a "significant tree application" is required to be lodged with Council.

4.5

For the retention of trees (including those considered "significant" under the Development Act 1993), the following measures are to be undertaken by the applicant:

- a) The tree is to be physically protected by the fencing off of the tree canopy and root zones using 1.8 metre high star droppers and chain-wire before the commencement of any demolition or construction works. The fencing shall be located along the Tree Protection Zone and shall remain in place until all works are completed.
- b) All construction drawings shall show the above protection zones. The Landscape Design Plan, earthworks, drainage and service drawings shall show the trees to be retained and their protection zones.
- c) Within this zone there is to be no storage of materials or machinery or site office/sheds, nor is cement to be mixed or chemicals spilt/ disposed of in the area, soil levels altered or excavations undertaken, or stockpiling of soil or rubble. Any works required within this zone shall be under the direction of a suitably qualified Arborist, and to the satisfaction of Council's Landscape Architect.

4.6

Prior to demolition or construction, the applicant shall contact Council's Landscape Architect for a site inspection to confirm the accuracy of Tree Protection Zones required for those trees to be retained.

TREE PROTECTION ZONES

For all trees identified for retention, a Tree Protection Zone (TPZ) is to be implemented by the developer prior to commencement of the development.

DEFINITION OF A TREE PROTECTION ZONE

5.1

A tree is deemed to be significant under the Development Regulations if it;

- a) has "a trunk with a circumference of 2.0 metres or more or, in the case of trees with multiple trunks, that have trunks with a total circumference of 2.0 metres or more and an average circumference of 625 millimetres or more, measured at a point 1.0 metres above natural ground level."

[Please refer to Section 6A of the Development Regulations 1993 for the complete definition of significant trees]

5.2

The Tree Protection Zone (TPZ) is the critical zone of root extension from the tree trunk. It is calculated by multiplying the diameter of the tree trunk at 1.5 m above ground level by a factor of 10 (10DBH).

5.3

A TPZ defines an area that must be left undisturbed during development to safeguard the ongoing health of the retained trees and prevent damage to their roots, trunks and canopies.

5.4

Once established the TPZ will form part of the conditions/easements placed upon the allotment, any future development, construction or demolition shall take into account the TPZ.

5.5

The TPZ applies both at the land division stage, as well as during subsequent construction of dwellings and all associated infrastructure.

5.6

A TPZ takes into account that tree's Root Protection Zone (RPZ) and its Crown Protection Zone (CPZ).

5.7

The diameter of the RPZ is calculated by multiplying the stem diameter by 12. This measurement is taken from the nearest point of the trunk in all directions from the tree.

5.8

The boundary of the CPZ is defined as 1 metre beyond the edge of the canopy in all directions.

DOCUMENTATION REQUIRED FOR DEVELOPMENT ASSESSMENT

5.9

As part of the development assessment application, a site plan shall be lodged showing all Tree Protection Zones. A building envelope plan must also be provided to demonstrate that future development will not impact on the tree/s.

5.10

Once established, the TPZ will form part of the conditions/easements placed upon the allotment. Any future development, construction or demolition shall take into account the TPZ.

DOCUMENTATION REQUIRED FOR APPROVAL

5.11

All concept design and contract documentation shall be signed off by council prior to any works starting on site.

5.12

The landscape design plan, earthworks, drainage and service drawings shall show the trees to be retained and their protection zones.

ON-SITE TPZ IMPLEMENTATION**5.13**

TPZs must be set up by the developer before any demolition or construction works commence. This includes:

- a) IRRIGATION
 - A drip irrigation system shall be established within the TPZ
- b) MULCHING
 - A 100mm layer of composted mulch shall be spread across the tree protection zone
- c) FENCING
 - The 1.8m high temporary fence is to be installed around the TPZ boundary
- d) SIGNAGE
 - Signage shall be fixed to the fencing in a clearly visible manner. The signage shall identify the area as a Tree Protection Zone and indicate that no unauthorised access is allowed.

PRE-CONSTRUCTION TREE INSPECTION**5.14**

After development approval has been granted, but prior to any demolition or construction works, the Developer shall arrange a site inspection with Council's Landscape Architect.

The purpose of this inspection is to confirm that:

- All remedial pruning has been satisfactorily completed;
- All TPZs have been satisfactorily established (see below); and
- All recommendations from the arborist report relating to retained trees have been implemented satisfactorily.

TPZ DURING CONSTRUCTION**5.15**

The TPZ must be excluded from and protected from all development works (including construction and demolition). For example, the following activities are specifically prohibited within any TPZ:

- a) excavation or filling;
- b) stockpiling of soil or rubble;
- c) storage of materials, machinery or site buildings etc;
- d) mixing and/or disposal of cement, chemicals or other substances.

5.16

Any works that need to be undertaken within any TPZ shall be under the direction of a suitably qualified arborist and to the satisfaction of Council's Landscape Architect.

5.17

All irrigation, mulch, fencing and signage shall remain in place and be maintained until all works are completed and have been handed over to council. Verge Maintenance Guidelines & encumbrance Infrastructure Agreements