The Hills Development Control Plan (DCP) 2012

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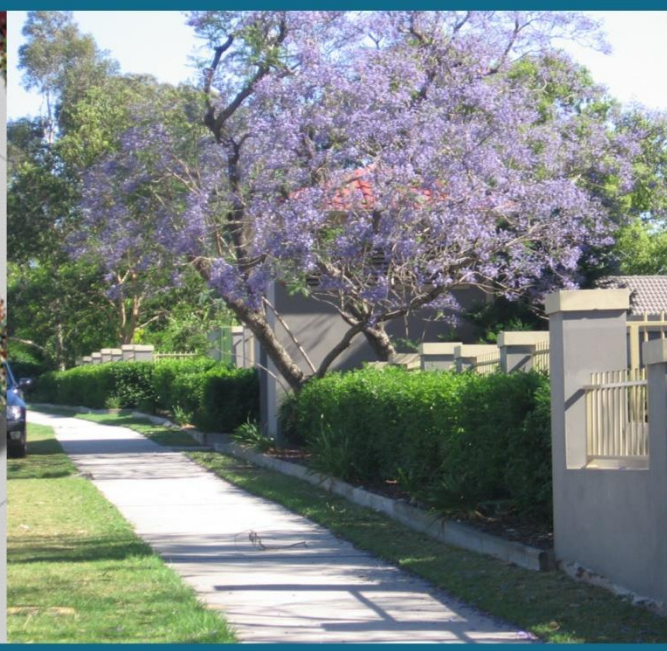
THE HILLS Sydney's Garden Shire



Part C Section 3
Landscaping

C3

INDEX

1. INTRODUCTION

This Section of the DCP must be read in conjunction with Part A – Introduction of this DCP.

1.1. LAND TO WHICH THIS SECTION OF THE PLAN APPLIES

This Section of the DCP applies to land to which The Hills Local Environmental Plan (LEP) 2012 applies.

1.2. AIMS AND OBJECTIVES OF THIS SECTION OF THE DCP

The aim of this Section of the DCP is to identify Council's objectives for landscaping in the Shire and identify controls to ensure the objectives are achieved.

OBJECTIVES

(i) To ensure that landscaping preserves and contributes to the Shire's environmental and visual character and the existing and past cultural landscape.

(ii) To promote the principles of ecologically sustainable development.

(iii) To encourage the landscape treatment of sites which takes into account their context - the subdivision design, the streetscape design, the design of neighbouring buildings.

(iv) To encourage landscaping that can be effectively maintained.

(v) To encourage innovative landscape design.

(vi) To define and outline the provisions necessary for lodgement of landscape proposals.

2. BACKGROUND INFORMATION

2.1. WHY ARE LANDSCAPE PLANS NECESSARY?

Vegetation and natural landscapes rather than the built form dominate the character of the Hills Shire. As such it is Council's intention to retain the predominantly natural landscapes by ensuring that new development does not have a negative impact on established streetscapes and natural environments.

In order to achieve this, The Hills Shire Council requires with most development applications, the submission of a landscape plan that has been prepared in accordance with the development controls outlined in this Section of the DCP. Applications are assessed on their individual merit.

In recognition of the processes involved in the preparation of landscape proposals, Council requires landscape plans to be prepared by a suitably qualified Landscape Architect or experienced horticulturalist.

Applicants may discuss any proposal covered by this Section of the DCP with Council Officers prior to the lodgement of any formal development application.

2.2. THREATENED SPECIES

Where a development site has remnant indigenous species, applicants must take into consideration the provisions of the Threatened Species Conservation Act 1995.

Should the site contain threatened flora or fauna, refer to the Environmental Planning and Assessment Act 1979. The Environmental Planning and Assessment Act 1979 will prescribe whether a Species Impact Statement prepared in accordance with the Threatened Species Conservation Act 1995 is required to accompany the development application.

2.3. NOXIOUS SPECIES

The Noxious Weeds Act 1993, specifies the control of noxious weeds in New South Wales.

The responsibility for eradication of noxious plants on private land is that of the owner. Private landholders are responsible for:

- Removing and / or controlling noxious weeds on their own land according to the specified control category;
- Notifying relevant authorities of any occurrence of W1 weeds.

2.4. TREE MANAGEMENT PROVISIONS

Clause 5.9 *Preservation of trees or vegetation* of *The Hills LEP 2012* applies to all trees within The Hills Shire.

A **'tree'** is a perennial plant with a self-supporting woody stem that has a spread of more than 3 metres or a height of more than 6 metres or has a trunk diameter of more than 300mm measured at the base (see Figure 1).

The following trees may be removed without Council approval:

- Alnus jorrullensis (Evergreen Alder)
- Populus nigra "Italica" (Lombardy Poplar)
- Pittosporum undulatum (Sweet Pittosporum)
- Schefflera actinophylla (Umbrella Tree)
- Ficus elastica (Indian Rubber Tree)
- Acer negundo (Box Elder)
- Salix babylonica (Weeping Willow)
- Gleditsia triacanthos (Honey Locust)
- Ligustrum lucidum (Broad Leaved Privet)
- Ligustrum sinense (Small Leaved Privet)
- Olea europaea var. africana (Wild Olive/African Olive)
- Robinia pseudoacacia (False Acacia/Black Locust)
- Syagrus romanzoffianum (Cocos Palm)
- Toxicodendrum succedaneum (Rhus Tree)
- Cotoneaster spp. (Cotoneaster)
- Ficus benjamina (Weeping Fig)
- Lagunaria patersonia (Norfolk Island Hibiscus)
- Tamarix aphylla (Athel Tree)
- Nerium oleander (Oleander)
- x Cupressocyparis Leylandii (Leyland Cypress)
- Cupressus sempervirens 'Stricta' (Pencil Pine)
- Arcontophoenix alexandrae (Alexandara Palm)
- Arcontophoenix cunninghamiana (Bangalow Palm)
- Celtis australis (Hackberry)
- Ailanthus altissima (Tree of Heaven)
- Citharexylum spinosum (Fiddlewood)
- Harpephyllum caffrum (Kaffir Plum)
- Albizia lophantha (Silk Tree)
- Schinus terebinthifolius (Brazilian Mastic, Broadleaf Pepper Tree)
- a fruit tree or tree grown for the purposes of fruit production, excluding naturally growing native fruiting species

The following trees may be removed without development consent if the height of the tree is less than 10 metres:

- Melia azedarach (White Cedar)
- Liquidambar styraciflua (Liquidambar)
- Cinnamomum camphora (Camphor Laurel)
- Erythrina X sykesii (Coral Tree)
- Araucaria bidwillii (Bunya Bunya Pine)
- Araucaria heterophylla (Norfolk Island Pine)
- Araucaria cunninghamii (Hoop Pine)
- Pinus radiata (Monterey Pine/ Radiata Pine)
- Cupressus marocarpa (Monterey Cypress)

Trees within 3m an Existing Approved Dwelling or Ancillary Structure: Council approval is not required to prune or remove trees within 3m of an existing dwelling or ancillary structure, which has been approved through a development application or complying development certificate, within the same lot as the tree. The distance is to be measured from the face of the tree trunk closest to the dwelling or structure to the external wall or roof line of the dwelling or structure, the definition of which may include a garage, carport, studio, shed, workshop, swimming pool, spa or retaining walls with a height greater than 600mm.

The removal of trees in accordance with this clause must not be inconsistent with any applicable State or Federal legislation relating to the protection of threatened species.

Clause 5.9 of The Hills LEP 2012 applies to all vegetation within The Hills Shire.

'**Vegetation**' means bushland that is either a remainder of the natural vegetation on the land or, if altered, is representative of the structure and/or floristics of the natural vegetation.

Refer to Council's *Tree Management Guidelines for Trees on Private Land* for additional guidelines and assessment criteria.

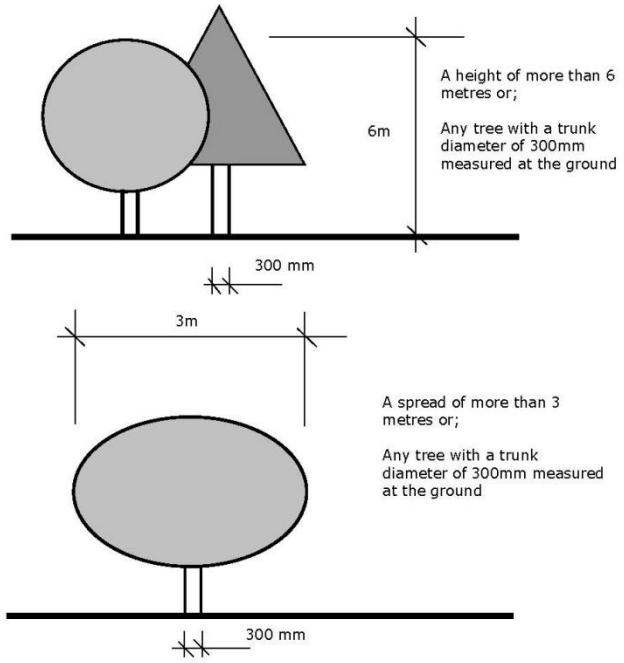


Figure 1 Definition of a tree

3. OBJECTIVES AND DEVELOPMENT CONTROLS

Objectives and development controls for landscaping development are set out in the following sections.

In addition to the policies, guidelines and documents specified in section 1.4 of Part A - Introduction, this Section is to be read in conjunction with other relevant Sections including:

- Part B Section 6 – Business
- Part C Section 1 – Parking
- Part C Section 4 – Heritage

3.1. GENERAL PLANNING AND DESIGN CONTROLS

OBJECTIVES

(i) To provide general design principles to ensure that appropriate landscaping is provided to complement the type of development proposed.

(ii) To ensure that appropriate detail and information is provided on landscape plans.

DEVELOPMENT CONTROLS

(a) The landscaping of any site should have regard to the natural environment of the location and be consistent with landscaping character of the area.

(b) Landscaped areas shall have a minimum width of two metres.

(c) All landscaping is to adhere to the following principles:

- Planting is to be in scale with the proposed buildings;
- Planting to consist of a variety of trees, shrubs and ground covers;
- Landscaping to side and rear boundaries should effectively screen the development;
- Consideration should be made to alternatives to traditional fencing by using vegetation or change in height of the landform as natural barriers;
- Artificial mounding using excavated materials is encouraged to enhance or screen buildings and car parking areas - See Figure 5 – Screening and mounding for noise attenuation
- Planting shall be of advanced species except where it is demonstrated to Council's satisfaction that semi-advanced stock is more suited to soil and / or plant characteristics;
- All electrical substations, water supply valves, hydrants and the like shall be suitably screened, however, due consideration shall be given to the requirements of the appropriate authority, and must not be located through the root ball of any trees being retained;
- Plant selection for all landscape developments will be assessed for its suitability toward existing site conditions such as soils, aspect, drainage and micro-climate;
- Plant selection appropriate to the existing or proposed cultural landscape will also be included in the general assessment of a proposal; and
- Species selection and landscape design should minimise the need for watering.

(c) Trees should be of species unlikely to cause structural damage to buildings, retaining walls, paths, services and other property.

(d) Consideration should be given to the types of footings to be used in a development to reduce the impact on mature trees.

(e) Stormwater drainage lines and other services should be located to minimise the disturbance around existing trees which are to be retained.

(f) Landscaping plans should be consistent with architectural plans and engineering plans, especially with regard to levels, stormwater drainage and on-site detention.

(g) Landscaping in bushfire prone areas shall be in accordance with *Planning for Bush Fire Protection 2006.*

SUBMISSION REQUIREMENTS

- Landscape Plan and other relevant landscape documentation be provided.
- A Landscape Management Statement.

3.2. PROTECTION OF TREES AND UNDERSTOREY

OBJECTIVES

(i) To retain and protect as many mature trees as possible during development.

(ii) To retain the existing natural understorey.

DEVELOPMENT CONTROLS

(a) Where natural vegetation exists, all trees must be preserved in accordance with The Hills LEP 2012.

(b) Where a stand of trees is to be retained, any associated natural understorey must also be retained.

(c) Hard surfaces should be avoided under the drip line of any tree.

(d) Wherever trees are removed (with consent) as a consequence of the development, an equal or greater number of replacement trees must be incorporated into the landscaping of the new development.

(e) Services must not be located in areas that will disturb the root plate of an existing tree.

(f) During construction, an adequate fence or similar structure must be constructed around any remaining trees, at a distance equal to the drip line. This area must not be used by machinery, for stockpiling wastes or for storage of any building materials.

SUBMISSION REQUIREMENTS

- A Tree Management Statement or Arborist Report is to be prepared by a suitably qualified Australian Qualification Framework Level 5 Arborist and contain the following information:
  - Identify all existing trees including species, condition, height and spread;
  - Identify whether trees are to be removed, replanted or retained; and
  - Details of how those trees to be retained will be protected during construction.

3.3. DEVELOPMENT ADJACENT TO BUSHLAND AREAS

OBJECTIVE

(i) To ensure that landscaping does not adversely impact on bushland in adjoining properties.

DEVELOPMENT CONTROLS

(a) Where development is within or adjacent to a bushland preservation area, environmental protection zone or open space zone, the affects on trees within the vicinity of the development needs to be considered.

(b) On sites directly adjacent to bushland, all dominant species are to be indigenous to the local area as recommended in Appendix A of this Section of the DCP. Accent planting of exotic species may occur using ground covers and shrubs.

(c) All non-indigenous plants used are to be non-invasive and unlikely to establish in the adjoining bushland either by seed or vegetative reproduction as recommended in Appendix A.

(d) Bush rock is unsuitable for landscaping purposes, except where it is needed for the authentic restoration of historic gardens or for additions to existing bush rock structures.

SUBMISSION REQUIREMENTS

- A comprehensive assessment of trees or natural vegetation likely to be affected.

3.4. STREET TREES AND STREETSCAPE

OBJECTIVE

(i) To provide functional yet attractive streetscapes that reflects the purpose of the street and enhances the amenity of the surrounding built form.

(ii) To ensure street trees are durable to the street environment and do not conflict with surrounding infrastructure.

DEVELOPMENT CONTROLS

(a) Street tree species must be in accordance with the recommended species list in Attachment B. The use of native species is preferred.

(b) All street trees shall be sourced from a "NATSPEC" accredited nursery.

(c) Street trees, where desirable should seek to provide for:

- Shade;
- Reduction of glare;
- The dissipation of noise and pollution emanating from vehicles; and
- Enhance the visual quality of the streetscape.

(d) It is desirable to promote a streetscape character. This does not necessarily mean a monoculture avenue.

(e) The selection of street trees should have regard to form, shape and colour.

(f) Street trees must not interfere with the movements or sightlines of any pedestrian, cyclist or vehicle.

(g) Street tree location should have regard to areas of potential vehicle / tree collision. Where such areas are identified the use of frangible species is recommended.

(h) Plantings in traffic devices must not be higher than 500mm for shrubs and ground covers, or in the case of trees, have a clear stem with no over hanging branches to a height of at least 20m. Not all traffic devices are suitable for landscaping and consultation with Council staff is necessary.

(i) The location of street trees must have regard to surrounding infrastructure. Guidelines on planting locations for street trees on local roads (excluding collector roads) are provided as Figures 2 and 3.

(j) Where trees are to be proposed to be planted in the vicinity of overhead wires, the mature height of the tree must not exceed four metres.

(k) Street trees require the installation of root barriers at the time of planting, directly adjacent to the kerb to prevent later damage to the kerb, guttering and road surface.

(l) Where street trees are to be planted in areas with a hard surface, suitable grates are to be laid around the tree to protect the roots and allow for water infiltration.

(m) The location of services should be taken into account where street trees are to be provided. Care should be taken to ensure trees are not planted directly over services.

(n) Street trees are not to be planted within 9m of a road corner or within 3m of a driveway.

(o) Street trees are not to be planted within 6m from a street light or within 2m of a drain culvert.

(p) Street trees should be able to tolerate low water conditions and withstand pollution emissions.

(q) Should fruiting trees be planted, the Department of Primary Industry standards in regards to the control of fruit fly, must be applied.

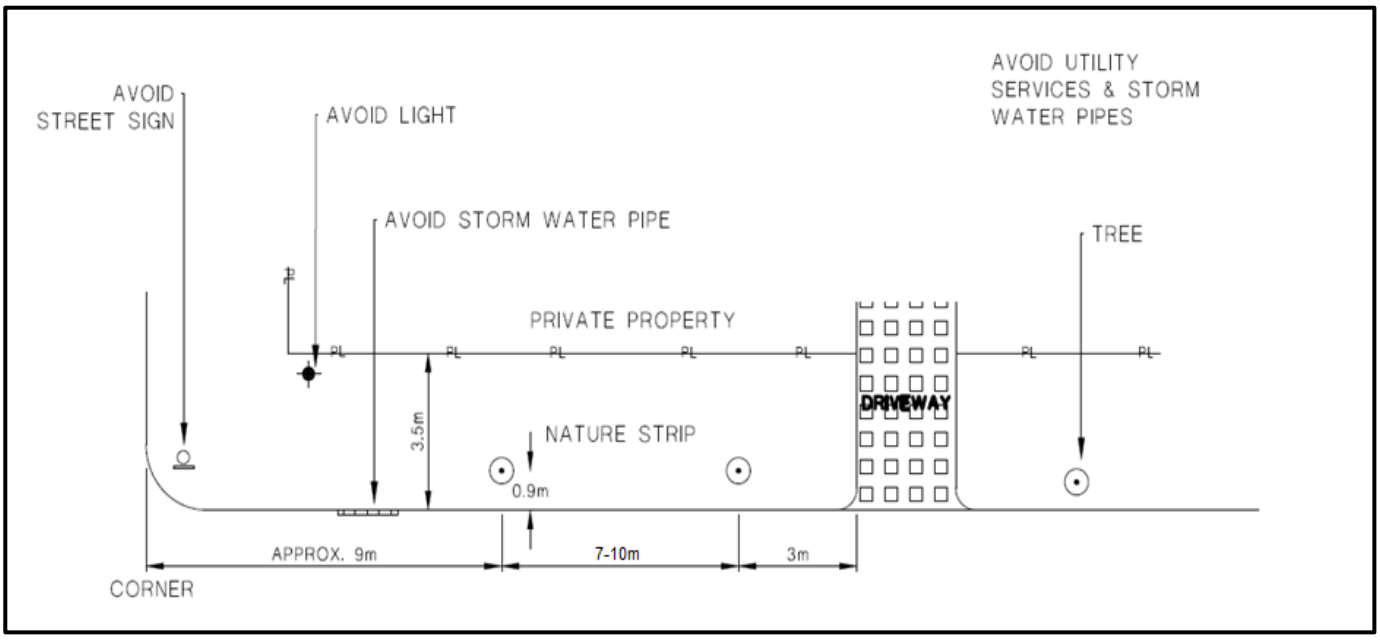


Figure 2 – Planting Guidelines for Street Trees on Local Roads (No Footpath)

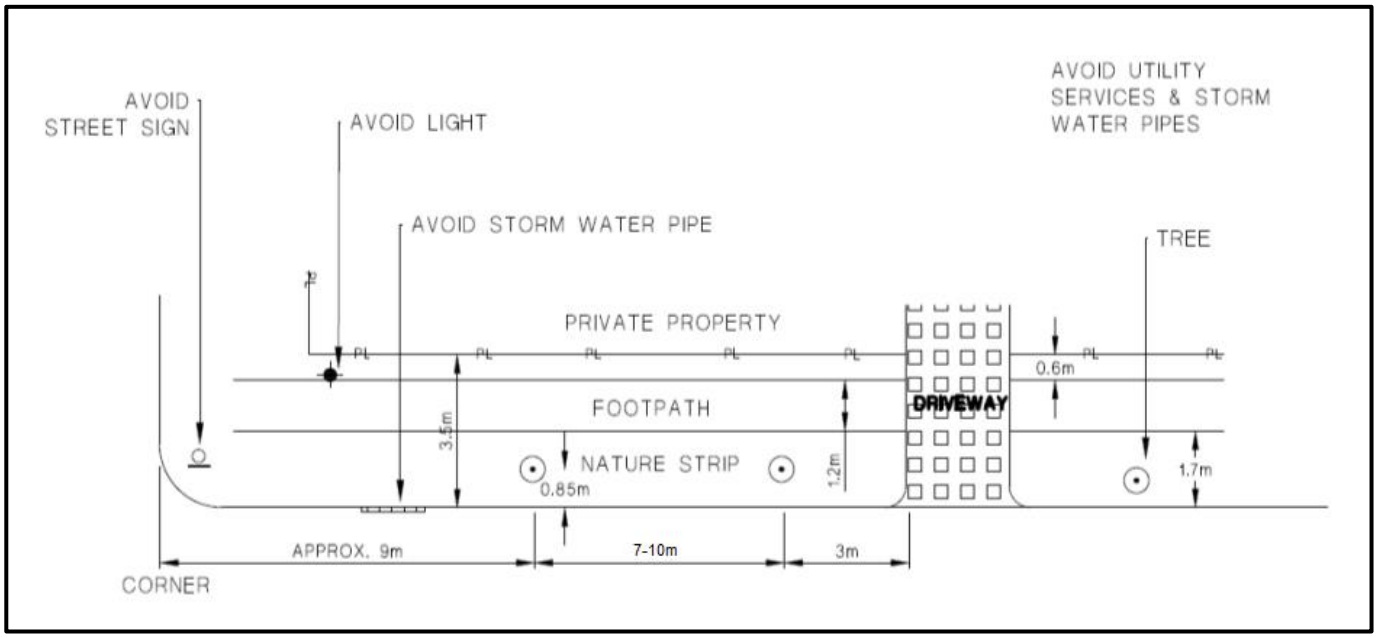


Figure 3 – Planting Guidelines for Street Trees on Local Roads (With Footpath)

SUBMISSION REQUIREMENTS

- Details of the street trees proposed and the relationship with existing buildings and landscaping in the vicinity of the development.

3.5. DRAINAGE AND ON-SITE DETENTION

OBJECTIVES

(i) To improve the visual appearance of above ground on-site detention structures.

(ii) To encourage the integration of detention areas into common open space.

DEVELOPMENT CONTROLS

(a) All landscape works are to include provision for adequate drainage including collection or dispersal of stormwater run-off, prevention of ponding of water on pavements or discharge of run-off onto adjoining properties or public areas.

(b) Above ground detention structures should be suitably landscaped to improve the visual amenity of the development.

(c) Detention structures should be suitably integrated into the landscaping for the whole site, including common open space areas.

(d) Plant species used in these areas must be capable of withstanding periodic inundation and must not impact upon the functioning of the area as a detention structure.

SUBMISSION REQUIREMENTS

- Identification of proposed detention structures on Landscape Plan submitted.
- Details of plant species to be used, including details of the ability to cope with periodic inundation.
- Details of proposed methods to ensure landscaping will not block drains or impact on the functioning of the detention structure.

3.6. LANDSCAPE CONSTRUCTION STANDARDS

OBJECTIVE

(i) To ensure that standards of landscape construction are consistent throughout the Hills Shire.

DEVELOPMENT CONTROLS

(a) All landscape construction is to be carried out by a qualified landscape contractor to ensure that a satisfactory standard of landscaping is achieved.

(b) All garden areas to be filled with a weed free soil mix at minimum 300mm depth.

(c) All turfed areas to have a minimum 150mm of good quality topsoil placed prior to turfing.

(d) Couch or buffalo turf is to be used where lawn areas are proposed. Use of Kikuyu is prohibited except where it can be demonstrated that it is necessary, such as in the case of sports fields.

(e) All trees are to be advanced specimens in 75 litre containers and at least 2 metres in height.

(f) All shrubs are to be advanced specimens in 5 litre containers and at least 500 mm in height.

(g) All ground covers are to be advanced specimens and planted at 5 per square metre.

(h) All trees to be double staked using 40mm square hardwood stakes for marking purposes only. Trees shall not be tied unless support is essential. Where ties are required, trees shall be loosely tied to stakes with a double configuration of Hessian webbing. Ties shall be removed as soon as the plant is able to support itself. Refer to Figure 4 – Tree guard and planting details.

(i) All advanced trees and shrubs to be planted in holes at least 1.5 times the size of the pot, containing good quality soil and humus.

(j) In lawns, holes are required to be backfilled with good quality soil and humus or site soil (if of suitable quality) mixed with suitable soil conditioner.

(k) Minimise on site storage time for plants. Store plants together in an area protected from strong winds and dust - if necessary use a Hessian fence for protection. Soak plants thoroughly once per day during storage, adjusting watering for rainfall.

(l) In lawn areas, grass is to be kept back for a radius of at least 450mm from stems and trunks, a depression formed for the collection of water and the area mulched.

(m) Adequate hose-cocks to be provided at regular intervals to permit maintenance of landscaping.

(n) Suitable retaining structures to be provided where Council's standard site gradients cannot be met or as considered necessary.

(o) Mulch is to be installed to a depth of 75 to 90mm to all mass planted garden areas and around the base of trees in lawn areas. Mulch is to be pine bark, pine flake, decorative gravels or other suitable material. Please note that scoria or other suitable gravels, which will not float, are required in on-site detention areas. Mulch should be kept at least 50mm away from plant stems to reduce the risk of collar rot.

(p) Specifications should include the type of fertilisers to be used. Council requires that organic fertilisers should be used where possible to reduce a build-up of chemical nutrients in soil and waterways. Consideration should also be given to fertilisers, which are suitable to the kind of species being specified.

(q) All garden areas are to be separated from lawn areas by means of a securely affixed concrete, selected brick or creosote treated hardwood.

(r) All landscaped areas to be separated from driveways and car parks by means of a concrete kerb or dwarf wall.

(s) All landscaped embankments having a slope of 1:3 or greater shall be reinforced using an approved stabilisation technique to prevent erosion or slumping. Stabilisation techniques may include, but are not limited to the use of dense ground covers erosion control netting, mesh or rock stabilisation.

(t) All turf embankments are to be a maximum grade of one vertical to five horizontal to facilitate mowing with push-type or ride-on mowers.

(u) Appropriate action is to be carried out to protect and avoid damage to existing trees, subject to provisions in the Hills LEP 2012 strictly in accordance with AS 4970-209 Protection of Trees on Development Sites. Protection must be provided to all site trees during the construction period, by preventing:

- The compaction of roots by vehicles;
- The stockpiling of building materials within the drip line of the tree;
- Permanent change of water table level; and
- Mechanical damage to trunk or limbs.

(v) Maintain soil levels to the area under the canopy. Avoid raising or lowering the soil level within the drip line. If trees are likely to have a significant area under the canopy disturbed by site works, consideration should be given to early removal of the tree and replanting with juvenile plants.

(w) All plants classified as noxious weeds under the Noxious Weeds Act 1993 or known to be invasive in local bushland are to be eradicated from development sites. Council may also advise of additional species to be removed prior to building approval. All weeds or undesirable plants are to be eradicated prior to commencement of the landscape works.

SUBMISSION REQUIREMENTS

- If Kikuyu is proposed the submission of a Management Plan outlining measures to prevent it invading adjoining properties or bushland is required.

3.7. WATER CONSERVATION AND IRRIGATION

OBJECTIVES

(i) To encourage water conservation measures.

(ii) To encourage the implementation of suitable irrigation systems.

(iii) To reduce the ongoing maintenance requirements of landscaped areas.

DEVELOPMENT CONTROLS

(a) The design of irrigation systems for large commercial, industrial and residential flat building developments should be undertaken by a person with appropriate qualifications and take into account the physical features of the site.

(b) The provision of any permanent watering system should give consideration to the requirements of the appropriate authorities (e.g. Sydney Water).

(c) Plants must be appropriate to the soil type and water retention ability of the soil.

(d) Plants should be grouped according to their water requirements.

(e) Lawns that require significant water and fertiliser should be minimised.

(f) Use of mulches and dense ground covers are encouraged to reduce evaporation, and runoff, suppress weed growth and maintain plant growth.

(g) Use of rainwater tanks are encouraged to collect rainwater for the purposes of watering soft landscaped areas.

(h) The adding of organic material or gypsum to the soil prior to undertaking landscaping works, is encouraged.

(i) The irrigation control system must be located in a safe location to avoid vandalism, and pipes and other fittings should be located underground where possible to avoid damage.

(j) The irrigation system should be designed with the varying water needs of the plants within the landscaped area.

(k) Automatic watering systems should be able to detect rainfall and adjust the water regime accordingly.

SUBMISSION REQUIREMENTS

- Details of the proposed irrigation system and compliance with the relevant development controls.

3.8. MAINTENANCE

OBJECTIVE

(i) Ensure that approved landscaping will be maintained in a good condition at all times.

DEVELOPMENT CONTROLS

(a) Maintenance is to be carried out in accordance with accepted horticultural practices and techniques and construction standards.

(b) Watering must be carried out at sufficient intervals to maintain the landscaping.

(c) Weeds and rubbish must be removed at regular intervals.

(d) Vandalism and graffiti should be promptly removed and / or replaced.

(e) Plant species that do not survive must be replaced in accordance with the approved landscape plan.

(f) Grassed areas require watering, weeding, mowing, fertilizing, top dressing and replacement of failed areas of turf.

(g) Dead or dangerous limbs must be promptly removed in accordance with an approved tree removal application.

(h) Spraying of herbicide, insecticide and / or fungicides shall be carried out in accordance with the manufacturer's directions.

(i) Hard surfaces and landscape structures are to be maintained in an appropriate manner.

SUBMISSION REQUIREMENTS

- Developments with common property are required to provide a Plan of Management for the maintenance of the landscaping as per the landscaping plan submitted with the application.

3.9. SUBDIVISIONS

OBJECTIVES

(i) To ensure that new subdivisions minimise the disturbance to the existing landscape and visual amenity of The Hills Shire.

(ii) To ensure an attractive and functional landscape treatment which provides amenity and sense of place within a new subdivision.

DEVELOPMENT CONTROLS

(a) Manage the major visual impacts of the subdivision by controlling and enhancing views into and out of the subject development.

(b) Reduce high maintenance plantings in the streetscape e.g. Annuals, garden beds and shrubbery.

(c) Planting of high branching trees with a low shrub layer, which does not obstruct views where vehicular sight lines are required to be maintained where security is an issue.

(d) Provide single species plantings to each street to provide a continuity of theme.

(e) Avoid trees which are recognised to cause known maintenance problems such as fruiting, aggressive root systems, invasion of bushland, or are allergenic.

(f) Re-use site topsoil at all times (if not possible, the reasons why are to be provided).

(g) Reduce the effects of altered hydrology on vegetation within and surrounding the site.

(h) Identify whether opportunities for recreation and / or open space areas are to be provided within the subdivision.

(i) Identify if noise buffer mounding and / or shields are required within the subdivision.

(j) Landscaped areas may be used to provide site drainage.

(k) Provide pedestrian and bicycle circulation where possible.

(l) Street furniture elements should be cohesive in appearance and enhance the theme of the subdivision.

(m) Land identified as future open space is to be handed to Council in such a condition that Council is not burdened by additional costs in order to commence development or embellishment of the land, or to ensure the safety of the general public using the land. At the time of purchase, it is to be free of dead plants, weed species, vermin, rubbish and undue soil compaction and must be planted with turf (at a minimum) to prevent erosion.

SUBMISSION REQUIREMENTS

- A detailed plan at a suitable scale showing as a minimum the proposed street layout, including the width of the road reserve, distance of planting from the kerb, turf or planted areas, pathways, lot boundaries, service locations, tree spacing and also indicating:
  - The theme of the planting proposed for each street, including information on the species, height, spread and if relevant the condition of any trees being retained;
  - Landscape treatment proposed for entry and threshold areas, noise buffer mounds, drainage areas, open space areas and walkways;
  - Details of topsoil to be re-used and stockpiled on site, its location and treatment;
  - Treatment for regraded or mounded areas of the site;
  - Areas of open space and plans for their embellishment;
  - Integration of landscaped areas with natural and engineered drainage areas;
  - Layout and construction standards for dedicated paths for pedestrian and bicycle circulation; and
  - Typical standards for the design and layout of street furniture.

3.10. BUSINESS AND INDUSTRIAL DEVELOPMENT

OBJECTIVES

(i) To integrate high quality landscaping into the built environment of the Shire's industrial and business precincts.

(ii) To present an attractive visual character and robust landscaped treatments that are appropriate and functional in industrial and business precincts.

DEVELOPMENT CONTROLS

(a) The scale and the appearance of any landscape planting, furniture, signage and lighting must be in scale with the mass of the building.

(b) Use plantings to break down the visual impact of large structures and to frame and present front facades, offices and display areas.

(c) Locate parking and storage areas to reduce visual impact and use plantings and mounding to screen these areas wherever possible. Refer to Figure 6 – Landscaping and screening for car parking for more detail.

(d) Use paving materials and plantings to provide visual cues to desired pedestrian flows and to the entry of the buildings.

(e) Ensure that plantings do not interfere with pedestrian and vehicular sight lines.

(f) Provide safe and pleasant public and staff areas.

SUBMISSION REQUIREMENTS

- Provide a Landscape Plan for the development showing the following (in addition to those items specified in Section 3.1):-

- Street furniture, signage and lighting;
- Entry and exit points;
- Screen planting and mounding;
- Pedestrian and outdoor staff areas; and
- Low maintenance amenity plantings in scale with the development.

3.11. RESIDENTIAL DEVELOPMENT

OBJECTIVES

(i) To ensure that the landscaping of open space areas, both private and communal is functional and meets user requirements for privacy, solar access, shade and recreation.

(ii) To provide attractive landscapes, which reinforce the function of the street and contribute to the amenity of dwellings.

(iii) To ensure that the landscaping does not unduly impact on adjoining developments.

DEVELOPMENT CONTROLS

(a) Open space should take advantage of the outlook and natural features of the site.

(b) Consideration must be given to the privacy between dwellings, security and surveillance of open space.

(c) Unsealed landscaped areas are to be maximised to facilitate on-site infiltration of storm water runoff, subject to the sites conditions.

(d) Landscaping and vegetation must:

- Use vegetation types and landscaping styles that blend the development into the streetscape and visually reduce the bulk and scale of the development;
- Be located with other plants with similar water requirements;
- Not adversely effect the foundations of any structure or cause damage to underground or overhead servicing;
- Ensure vehicular and pedestrian vision and safety;
- Contribute to the energy efficiency of the building by ensuring compliance with the ESD objectives outlined in Part A of the DCP; and
- Maintain the established planting character of the streetscape and wider area.

(e) When paving or hard surfaces are to be used for driveways, patios, paths and other similar uses, these surfaces should be:

- Semi porous or graded (e.g. gravels) to maximise on site water infiltration (if practical);
- In materials and colours that compliment the development and do not detract from the streetscape; and
- Finished in non slip surfaces;

(f) The location and choice of vegetation should take into account the soil conditions, topography and water conditions of the site.

SUBMISSION REQUIREMENTS

- A landscaping plan shall be submitted, showing the following, (in addition to the items listed in Section 3.1):
  - Location and design of any communal recreation facilities including methods of protecting the privacy of adjoining dwellings; and
  - Clear delineation between public and private open space.

3.12. CAR PARKING

OBJECTIVES

(i) To ensure that adequate consideration is given to landscaping in car parking area designs, to reduce the prominent visual appearance of the facility.

(ii) To provide appropriate landscaping for external and uncovered car parks so that they do not detract from the surrounding area.

(iii) To provide shade and improve amenity of loading, service and car parking areas and to provide a buffer to neighbouring properties.

(iv) To utilise landscaping to provide amenity to neighbouring properties in accordance with Council's Ecological Sustainable Development objective 7.

DEVELOPMENT CONTROLS

(a) Outdoor parking areas are to be provided with two metre wide landscaping strips as depicted in Figure 6 – Landscaping and screening for car parking:

- Between rows served by different aisles; and
- Between spaces at a rate of one in every ten car parking spaces (as determined in Part C Section 1 - Parking).

(b) Car Parking is to be provided in accordance with Part C Section 1 – Parking.

(c) Outdoor parking areas are to be screened by a minimum of two metre wide landscaping strips. Such landscaping is to be of a mature and dense nature.

(e) Driveways are to be screened by a minimum of two metre wide landscaping strip on either side.

(f) Landscaping should not:

- Block signs;
- Impede entry and access points;
- Overgrow paths;
- Cause restrictions to pedestrian and vehicle movements; or
- Compromise safety or sight distances.

(g) Plant and tree species need to be chosen based on their:

- Hardiness;
- Vigorous growth;
- Longevity;
- Ample shade provision; and
- Species should not be prone to dropping limbs, fruit, cones or nuts.

(h) Shade trees are to be provided within landscaping strips.

(i) Shade trees should not be located more than fifteen metres apart in any direction to provide shade at maturity of not less than 40% of the car park area.

(j) To protect plant materials, vehicles must be separated from landscaped areas by means of a concrete curb or dwarf wall.

(k) Trees must be pruned for safety reasons and to maintain vehicle sight lines.

(l) Where soils permit infiltration, the landscaping strips should be used to promote reuse of drainage water.

SUBMISSION REQUIREMENT

- Details of the location and dimensions of landscaped areas and species types to be planted in the car parking area.

3.13. TENNIS COURTS

OBJECTIVES

(i) To ensure that the installation of a tennis court does not have an adverse impact on the existing landscape of the subject property or neighbouring properties.

(ii) To ensure that the visual, aural and lighting impact of a tennis court is reduced.

(iii) To provide privacy for users of the court and adjoining neighbours.

DEVELOPMENT CONTROLS

(a) Tennis courts are to be setback a minimum of two metres, from any side or rear boundary, excluding any area occupied by a retaining structure to allow for sufficient landscaping and visual and acoustic privacy.

(b) Tennis courts shall be situated to ensure that no more than one metre of cut or 600mm of fill is required.

(c) Landscaping should consist of tall vertical evergreen species that will fit within the two metre landscape buffer, while not interfering with the fencing structure.

(d) Access points to any landscaped area are to allow for future maintenance and shall be incorporated into the landscape design.

SUBMISSION REQUIREMENTS

- Provide a landscape plan for the development showing the following (in addition to those items specified Section 3.1):-
  - Access points; and
  - Any retaining structures.
- Elevation indicating the extent of cut and fill.

3.14. HERITAGE

Special requirements may exist for the landscaping of areas of environmental heritage. In this regard the applicant will consult with Council officers and other relevant organisations.

See Part C Section 4 - Heritage for specific provisions.

Figure 4 Tree Guard and Planting Details

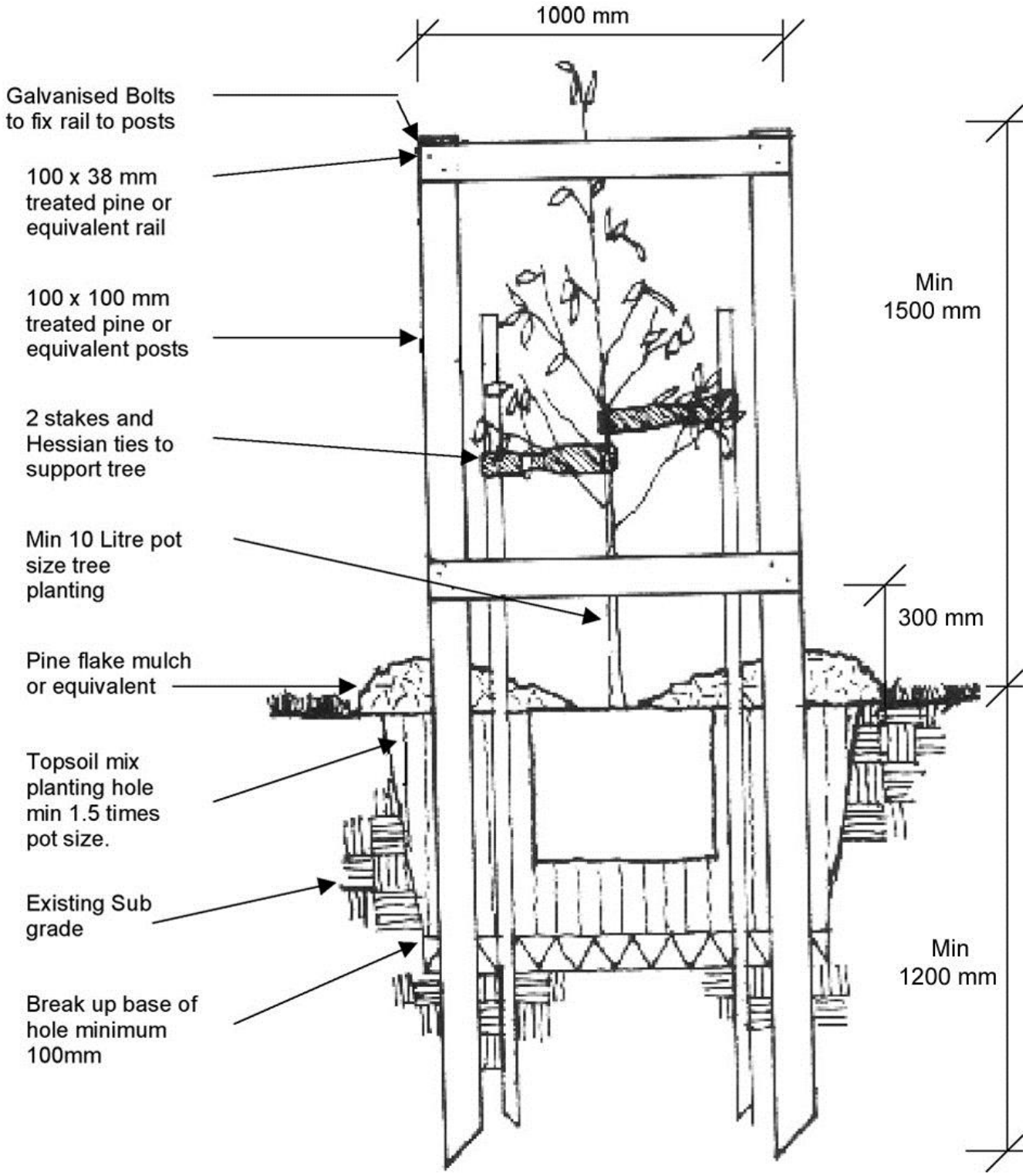


Figure 5 Screening and Mounding for Noise Attenuation

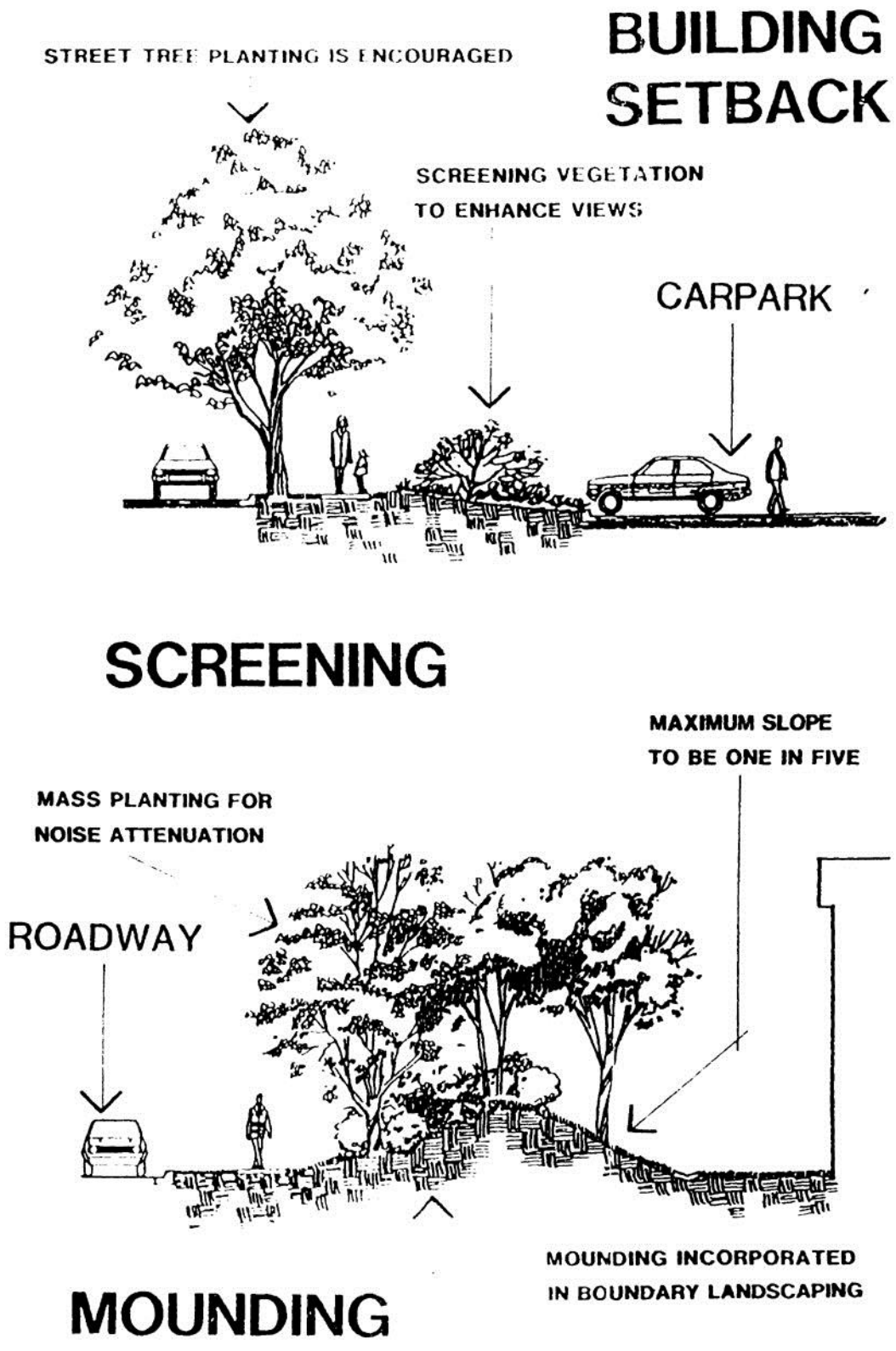
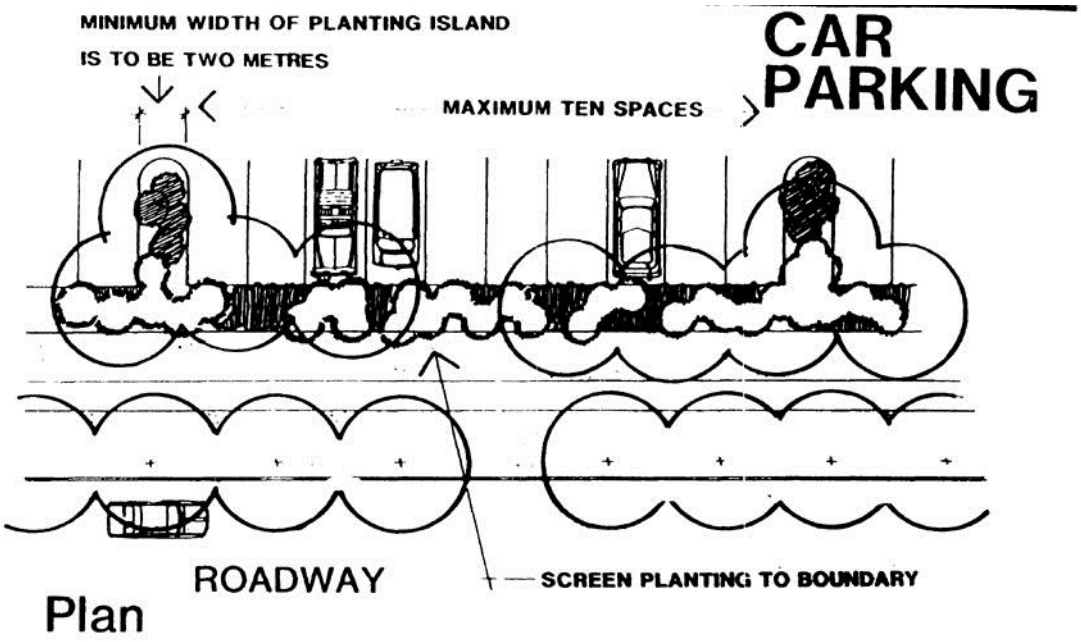
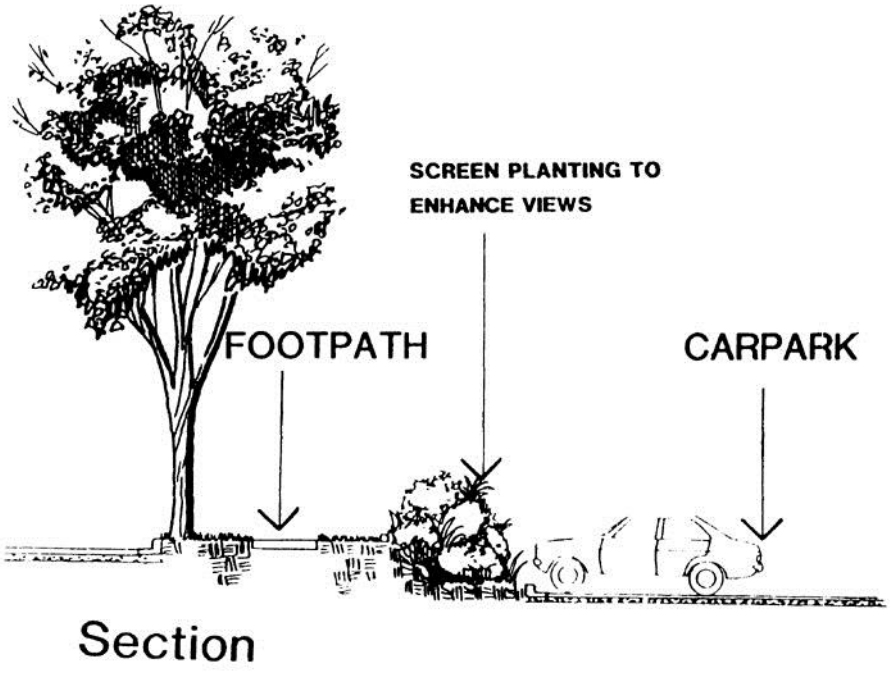


Figure 6 Landscaping and Screening for Car Parking





APPENDIX A - RECOMMENDED SPECIES

Indigenous Species to The Hills Shire						
Botanical Name	Common Name	Plant Community				
		Bird Attracting	Shale Cap Forest	Sandstone Soils	Cumberland Plain Woodland	Transition Forest
Trees						
*Acacia parramattensis	Parramatta green wattle			ø	ø	ø
Allocasuarina littoralis	Black she-oak			ø	ø	ø
Allocasuarina torulosa	Forest oak		ø	ø		ø
*Angophora costata	Sydney red gum	ø		ø		ø
Angophora floribunda	Rough barked apple	ø	ø	ø		ø
Banksia serrata	Old man Banksia	ø		ø		
Banksia integrifolia	Coastal Banksia	ø		ø		ø
Callitris rhomboidea	Port Jackson Cypress			ø		ø
Casuarina cunninghamiana	River she-oak				ø	
Casuarina glauca	Swamp she-oak			ø	ø	
*Ceratopetalum gummiferum	NSW christmas Bush	ø		ø		
Eucalyptus eximia	Yellow Bloodwood	ø		ø		ø
Corymbia gummerifera	Red bloodwood	ø		ø		
*Corymbia maculata	Spotted Gum					ø
*Elaeocarpus reticulatus	Blue Berry ash	ø	ø			
Eucalyptus crebra	Narrow leaved Ironbark	ø			ø	ø
Eucalyptus fibrosa	Broad leaved ironbark	ø			ø	ø
Eucalyptus gummifera	Red blood wood	ø		ø		

Indigenous Species to The Hills Shire						
Botanical Name	Common Name	Plant Community				
		Bird Attracting	Shale Cap Forest	Sandstone Soils	Cumberland Plain Woodland	Transition Forest
*Eucalyptus haemastoma	Scribbly gum	ø		ø		
Eucalyptus moluccana	Grey Box	ø			ø	ø
Eucalyptus paniculata	Grey Ironbark	ø	ø	ø		ø
Eucalyptus pilularis	Blackbutt	ø	ø	ø		
*Eucalyptus punctata	Grey gum	ø		ø		ø
Eucalyptus robusta	Swamp mahogany	ø		ø		
Eucalyptus saligna	Sydney blue gum	ø	ø	ø		
Eucalyptus tereticornis	Forest red gum	ø			ø	ø
Melaleuca decora	White feather Honeymyrtle	ø			ø	
Melaleuca linariifolia	Flax-leaf Paper Bark	ø		ø	ø	
Melaleuca stypheloides	Prickly Paper Bark	ø	ø	ø	ø	ø
*Syncarpia glomulifera	Turpentine	ø	ø	ø		ø
*Tristaniopsis laurina	Water gum	ø		ø		
Shrubs						
*Acacia binervia	Wattle			ø		
Acacia brownii	Heath Wattle			ø		ø
*Acacia decurrens	Sydney green wattle				ø	ø
*Acacia elata	Mountain cedar wattle			ø		
*Acacia floribunda	White sallow wattle			ø	ø	
*Acacia implexa	Hickory		ø	ø	ø	ø
*Acacia longifolia	Sydney golden			ø		

Indigenous Species to The Hills Shire						
Botanical Name	Common Name	Plant Community				
		Bird Attracting	Shale Cap Forest	Sandstone Soils	Cumberland Plain Woodland	Transition Forest
	wattle					
Banksia spinulosa	Hair-pin Banksia	ø		ø		ø
Boronia floribunda	Pink Boronia			ø		
*Callicoma serratifolia	Black wattle			ø		
Callistemon citrinus	Crimson bottlebrush	ø		ø		
Callistemon lineraris	Narrow leafed bottlebrush	ø		ø	ø	
Callistemon pinifolius	Bottlebrush	ø		ø		
Callistemon salignus	Willow bottlebrush	ø		ø		
Davesia ulicifolia	Pea			ø		ø
Dodonea triquetra	Common hop bush			ø	ø	
Dodonea viscosa	Hop bush				ø	
Epacris longiflora	Fuchsia Heath	ø		ø		
*Gravillea mucronulata	Green spider flower	ø		ø		
*Grevillea linearifolia	White spider flower	ø		ø		
*Hakea salicifolia	Willow leaved Hakea	ø		ø		
*Hakea sericea	Bushy needlebush	ø		ø	ø	ø
Hibbertia diffusa	Guinea flower				ø	
*Indigofera australis	Indigofera		ø	ø	ø	ø
Kunzea ambigua	Tick bush	ø		ø		ø
Lambertia formosa	Mountain Devil	ø		ø		

Indigenous Species to The Hills Shire						
Botanical Name	Common Name	Plant Community				
		Bird Attracting	Shale Cap Forest	Sandstone Soils	Cumberland Plain Woodland	Transition Forest
Leptospermum polygalifolium	Lemon sented tea-tree	ø		ø	ø	
Leucopogon juniperus	Bearded Heath		ø			ø
*Lomandra longifolia	Mat rush		ø	ø	ø	ø
Melaleuca armillaris	Giant Honeymyrtle	ø	ø	ø	ø	ø
Melaleuca nodosa	Ball honeymyrtle	ø		ø	ø	
Melaleuca styphellioides	Prickly leaved paperbark	ø		ø	ø	
Melaleuca thymifolia	Honeymyrtle	ø		ø	ø	
Oxylobium ilicifolium	Native holly			ø		
Pimelia linifolia	Rice flower			ø		ø
*Pittosporum revolutum	Sweet pittosporum	ø		ø		
*Polyscias sambucifolia	Elderberry Panax	ø		ø		
Pultanaea villosa	Bush pea				ø	ø
Groundcovers						
Adiantum aethiopicum	Maidenhair Fern		ø	ø		
Danthonia sp.	Wallaby grass			ø	ø	ø
*Dianella caerulea var caerulea	Blue flax lily	ø		ø	ø	ø
*Dianella revoluta	Mauve Flax lily	ø		ø	ø	
Dichelachne crinita	Longhair Plume grass			ø	ø	
Dichelachne micrantha	Shorthair Plume grass			ø	ø	
Gahnia aspera	Saw sedge	ø		ø		

Indigenous Species to The Hills Shire						
Botanical Name	Common Name	Plant Community				
		Bird Attracting	Shale Cap Forest	Sandstone Soils	Cumberland Plain Woodland	Transition Forest
Gahnia clarkei	Saw sedge	ø		ø		
Gahnia melanocarpa	Saw sedge	ø		ø		
Gahnia seiberana	Saw sedge	ø		ø	ø	
Geranium solanderi	Native geranium			ø	ø	
Lepidosperma laterale	Sword sedges			ø		
Microlaena stipioides	weeping meadow grass		ø	ø	ø	ø
Poa	Tussock grass		ø	ø		
Pratia purpurascens	Pratia			ø	ø	
Stipa sp.	Speargrass			ø	ø	
Themeda australis	Kangaroo grass		ø	ø	ø	ø
Viola sp.	Native violet			ø	ø	
Viola hederacea	Native Violet			ø	ø	ø
Wahlenbergia communis	Native bluebell			ø	ø	
Climbers						
*Clematis aristata			ø	ø	ø	
*Clematis glyciniodes	Old mans beard			ø	ø	
Glycine clandestina	Love Creeper		ø			ø
Hardenbergia violacea	False sarsaparilla		ø	ø	ø	ø
Hibbertia scandens	Golden Guinea Flower		ø			
Kennedia rubicunda	Dusky Coral pea			ø	ø	
*Pandorea pandorana	Wonga wonga vine		ø	ø		

Note. Species marked with an asterisk '*' are less fire-prone

Non-Indigenous Species Suitable for Planting in The Hills Shire	
Botanical Name	Common Name
Trees	
Agonis flexuosa	Willow Myrtle
Bauhinia purpurea	Butterfly Tree
Betula penula	Silver Birch
Brachychiton populneus	Kurrajong
Callistemon viminalis	Weeping Bottlebrush
Callitris columellaris	White Cypress Pine
Calodendron capense	Cape Chesnut
Cornus florida	Flowering Dogwood
Cupressus glabra	Arizona Cypress
Cupressus semperviens 'Stricta'	Italian Cypress
Eucalyptus cladocalyx 'Nana'	Dwarf Sugar Gum
Eucalyptus elata	Willow Peppermint
Eucalyptus ficifolia	Scarlet-flowering gum
Eucalyptus leucoxylon	White Ironbark
Eucalyptus melliodora	Yellow Box
Eucalyptus nicholii	Willow-leaf Peppermint
Eucalyptus scoparia	Willow Gum
Fraxinus americana	White Ash
Fraxinus excelsior 'Aurea'	Golden Ash
Fraxinus 'Raywoodii'	Claret Ash
Hakea laurina	Pin-cushion Hakea
Leptospermum petersonii	Lemon-scented Tea Tree
Leptospermum laevigatum	Coastal Tea Tree
Magnolia grandiflora	White Magnolia
Malus floribunda	Flowering Crab Apple
Nyssa sylvatica	Tupelo
Photinia glabra 'Robusta'	Photinia
Photinia glabra 'Rubens'	Red-leaf Photinia
Quercus coccinea	Scarlet Oak
Quercus ilex	Holly Oak

Non-Indigenous Species Suitable for Planting in The Hills Shire	
Botanical Name	Common Name
Quercus palustris	Pin Oak
Schinus molle var ariera	Peppercorn Tree
Ulmus parvifolia	Chinese Elm
Shrubs	
Abelia grandiflora	Glossy Abelia
Aucuba japonica	Japanese laurel
Azalea sp.	Azalea
Bauera ruboides	Native Dog Rose
Berberis thunbergii 'Atropurpurea'	Japanese Berberis
Brunfelsia latifolia	Yesterday, today and tomorrow
Callistemon citrinus	Crimson Bottlebrush
Callistemon speciosus	Albany Bottlebrush
Choisya ternata	Mexican Orange Blossom
Coleonema pulchrum	Pink Diosma
Coprosma repens	Mirror Bush
Correa alba	White Correa
Cyathea cooperii	Rough-barked Tree Fern
Daphne odora	Winter Daphne
Epacris obtusifolia	Bluntleaf Heath
Gardenia sp.	Gardenia
Grevillea hybrids	
Hebe 'Blue Gem'	Veronica
Hibiscus rosa-sinensis	Chinese Hibiscus
Hydrangea macrophylla	Hydrangea
Juniperus chinensis 'Japonica'	Chinese Juniper
Juniperus communis 'Hibernica'	Irish Juniper
Lagerstroemia indica	Crepe Myrtle
Leptospermum scoparium	Manuka
Leptospermum squarrosum	Peach Flowered Tea Tree
Magnolia soulangeana	Japanese Magnolia
Melaleuca bracteata	

Non-Indigenous Species Suitable for Planting in The Hills Shire	
Botanical Name	Common Name
Melaleuca incana	Grey Honey Myrtle
Melaleuca nesophila	
Michelia figo	Port Wine Magnolia
Murraya Paniculata	Orange Jessamine
Rhododendron indicum	Rhododendron
Russelia equisitiformis	Coral Bush
Thuja occidentalis	Common Yew
Viburnum tinus	Laurestinus
Westringia fruiticosa	Coastal Rosemary
Coprosma kirkii	
Grevillea fasciculata	Grevillea
Grevillea 'Gaudichaudi'	Grevillea
Grevillea 'Poorinda Royal Mantle'	Grevillea
Juniperus conferta	Shore Juniper
Parthenocissus quinquefolia	Virginia Creeper
Pyrostegia venusta	Orange Trumpet Creeper
Trachelospermum jasminoides	
Wistaria sinensis	Wistaria

Species Not Suitable for Planting in The Hills Shire	
Botanical Name	Common Name
Trees	
Acer negundo	Box elder
Liquidambar styraciflua	Liquidambar
Shrubs	
Acacia baileyana	Cootamundra Wattle
Acacia glaucescens	Coast Wattle
Cotoneaster glaucophyllus	Cotoneaster
Cotoneaster horizontalis	Dwarf Cotoneaster
Groundcovers and Climbers	

Jasminum polyanthum	Jasmine
Lantana montevidensis	Purple Lantana
Lantana camara	Orange, pink lantana

APPENDIX B - RECOMMENDED STREET TREE SPECIES

Indigenous Species to The Hills Shire				
Tree Species	**Common Name**	**Plant where No Footpath**	**Plant next to Footpaths & Cycleway**	**Soils**
Acmena smithii	Lilly Pilly (Not CVs)		✓	Clay loams adaptable to sand
Angophora floribunda	Thin-Leaved Stringybark	✓		Clay loam and adaptable
Backhousia citriodora	Lemon Myrtle		✓	Clay loam to sandy loam
Backhousia myrtifolia	Grey Myrtle		✓	Alluvial soils and clay loams
Brachychiton populneum	Kurrajong		✓	Sand or sandy loam
Callistemon 'Kings Park Special'	Weeping bottlebrush		✓	Sandy loam
Callistemon salignus	White Bottlebrush		✓	Sandy loam
Callitris collumnaris	White Cypress Pine		✓	Sandy to transitional soils
Callitris rhomboidea	Port Jackson Pine		✓	Sandy to transitional soils
Cupaniopsis anacardiodes	Tuckeroo	✓		Sandy soils adapted to clay loams
Elaeocarpus eumundii	Eumundi Quandong	✓		Well drained loam
Elaeocarpus reticulatus	Blueberry Ash	✓		Adaptable
Eucalyptus crebra	Narrow-Leaved Ironbark	✓		Clay and sandy loams
Eucalyptus elata	River Peppermint	✓		Alluvial soils
Eucalyptus eugenioides	Thin-Leaved Stringybark	✓		Clay loam adaptable to sandstone
Eucalyptus fibrosa	Broad-leaved Ironbark	✓		Clay loam to heavy clay, tolerates sandy soils
Eucalyptus microcorys	Tallow wood	✓		Adaptable
Eucalyptus moluccana	Grey Box	✓		Clay loams
Eucalyptus paniculata	Grey Ironbark	✓		Heavy clay and transitional soils
Eucalyptus punctata	Grey Gum	✓		Transitional
Eucalyptus tereticornis	Forest Red Gum	✓		Adaptable
Glochidion ferdinandii	Cheese Tree		✓	Sandy loam adaptable clay loam
Jacaranda mimosifilia	Jacaranda		✓	
Leptospermum petersonii	Tea Tree		✓	Sandy and clay loams
Leptospermum polygalifolia	Tantoon		✓	Sandy and clay loams
Lophostemon confertus	Queensland Box		✓	Adaptable
Melaleuca bracteata 'Revolution'	Revolution Green	✓		Sandy Loam
Melaleuca decora	Feather Honey Myrtle		✓	Heavy clay

Indigenous Species to The Hills Shire				
Melaleuca lineariifolia	Snow in Summer	✓		Clay loam
Melaleuca styphelioides	Prickly Paperbark		✓	Sandy loam, adaptable to clay loam
Michelia doltsopa	Sweet Michelia	✓		Sandy to clay loam
Syzygium luehmannii	Riberry		✓	Clay loam to Alluvial - Adaptable
Tristaniopsis laurina	Water Gum	✓		Sandy loam adaptable to heavy clay
Tristaniopsis laurina 'Luscious'	Watergum - Luscious		✓	
Waterhousia floribunda	Weeping Lilli Pilli	✓		

Non-Indigenous Species Suitable for Planting in The Hills Shire				
Tree Species	**Common Name**	**Plant where No Footpath**	**Plant next to Footpaths & Cycleways**	**Soils**
Medium Size				
Acer buergeranum			✓	
Acer platanoides 'Crimson Sentry'	Maple		✓	
Acer rubrum 'October Glory'	October Glory	✓		
Acer x freemanii 'Jeffersred'	Maple	✓		
Angophora bakeri			✓	Sandstone soils
Angophora costata	Sydney Red Gum	✓		Sandstone and Transitional soils
Calodendrum capense	Cape Chestnut		✓	
Flindersia australis	Australian Teak	✓		
Franklinia axilaris	Fried egg plant		✓	
Fraxinus pennsylvanica 'Urbdell'-Urbanite™	Ash		✓	
Fraxinus Raywood	Claret Ash	✓		
Lagerstroemia indica	Crepe Myrtle		✓	
Nyssa sylvatica	Tupelo	✓		
Pistacia chinensis	Chinese pistachio	✓		
Prunus campanulata			✓	
Prunus cerasifera 'Oakville Crimson Spire'	Ornamental Plum Fastigate CV		✓	
Prunus x blireana	Flowering plum		✓	
Pyrus calleryana ‘Capital’	Ornamental Pear	✓		
Pyrus salicifolia	Weeping Pear		✓	
Quercus palustris 'Pringreen' Green Pillar®	Fastigate Pin Oak	✓		
Syncarpia glomulifera	Turpentine	✓		Adaptable
Ulmus parvifolia 'Todd'	Chinese Weeping elm	✓		
Zelkova serrata		✓		