



Project No: 134A/BUR/17 Report No: 134A/BUR/AIA/B

ARBORICULTURAL IMPACT ASSESSMENT TREE PROTECTION SPECIFICATION

Burwood Uniting Church
134A-134C Burwood Road and 29A-33A George Street
Burwood

Prepared for: JOHNSTAFF PROJECTS

9th October 2018
Revision B

Authors:

Anna Hopwood

Grad. Cert (Arboriculture)
Dip. Horticulture (Arboriculture)
Dip. Horticulture (Landscape Design)

Martin Peacock

BSc (hons.) Arboriculture
Dip. Horticulture (Landscape Design)
N Dip. Horticulture

p. 0404 424 264 | f. 02 9012 0924
po box 146 summer hill 2130
info@treeiQ.com.au

abn 62 139 088 832

treeiQ.com.au



Contents

1.0	INTRODUCTION	3
1.1	Background	3
1.2	The Proposal	3
2.0	RESULTS	3
2.1	The Site	3
2.2	The Trees	4
3.0	ARBORICULTURAL IMPACT ASSESSMENT	5
3.1	Tree 1	5
3.2	Tree 2	6
3.3	Trees 3-5	6
3.4	Trees 6, 7, 9, 10 & 12-14	6
3.5	Tree 8	7
3.6	Tree 11	7
3.7	Tree 15	7
3.8	Trees A and B	7
3.9	Trees C and D	7
3.10	Replacement Planting	8
4.0	CONCLUSION	8
5.0	LIMITATIONS & DISCLAIMER	9
6.0	BIBLIOGRAPHY & REFERENCES	9
7.0	APPENDICES	10
	Appendix 1: Methodology	11
	Appendix 2: Plans	13
	Appendix 3: Tree Assessment Schedule	14
	Appendix 4: Plates	16
	Appendix 5: Tree Protection Specification	17
	Appendix 6: Typical Tree Protection Details	20

1.0 INTRODUCTION

1.1 Background

1.1.1 This Arboricultural Impact Assessment Report and Tree Protection Specification was prepared for Johnstaff Projects, on behalf of Burwood Uniting Church, in relation to the proposed Concept Development Application for 134A-134C Burwood Road and 29A-33A George Street, Burwood. The purpose of this Report is to undertake a Visual Tree Assessment¹ (VTA), determine the impact of the proposed works on the trees, and where appropriate, recommend the use of sensitive construction methods to minimise adverse impacts.

1.1.2 The authors have taken into account the objectives of *State Environmental Planning Policy Vegetation in Non-Rural Areas (2017)*, *Burwood Development Control Plan 2016*, *Australian Standard 4970-2009 Protection of Trees on Development Sites*, *Australian Standard 4373-2007 Pruning of Amenity Trees*, *Australian Standard 2303-2015 Tree Stock for Landscape Use* and *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)*.

Refer to Methodology (**Appendix 1**)

1.1.3 This impact assessment is based on an assessment of the following supplied documentation/plans only:

- Landscape Concept Plan (dated September 2018) – prepared by Place Design Group
- Tree Management Plan (dated January 2018) – prepared by Place Design Group

Refer to Plans (**Appendix 2**)

1.2 The Proposal

1.2.1 The application is lodged as a 'Concept Development Application' in accordance with *Division 4.4 of the Environmental Planning and Assessment Act 1979*. It includes a concept proposal that outlines the key features of the planned redevelopment of the site (formerly known as a 'Stage 1 DA' and commonly referred to as a 'Masterplan DA').

1.2.2 A detailed proposal for the site (or separate parts of the site) will be provided by way of subsequent development application(s).

Refer to Plans (**Appendix 2**)

2.0 RESULTS

2.1 The Site

2.1.1 The site is located on the eastern side of Burwood Road and the northern side of George Street East, and consists of the following properties:

¹ Mattheck & Breloer (2003)

- 134A, B & C Burwood Road – church, school hall, fellowship hall & church office
- 29A & B George Street – semi-detached dwellings
- 31A & B George Street – semi-detached dwellings
- 33 George Street – semi-detached dwellings
- 33A George Street – semi-detached dwellings

2.1.2 Lot 1, DP 795259 which houses the church and the school hall is a listed heritage item within the *Burwood Local Environmental Plan*.²

2.2 The Trees

2.2.1 Fifteen (15) trees (and groups of trees) were assessed using the VTA criteria and notes, and consist of Australian native and exotic species. An additional four (4) trees are located outside of the site boundaries and within the Burwood Road and George Street East road reserves which have been identified alphabetically. The species and Diameter at Breast Height (DBH) measurement of these trees was recorded for the purposes of determining Tree Protection Zone (TPZ) calculations only.

2.2.2 Tree 4 *Sapium sebiferum* (Chinese Tallowwood) is regulated with a *general biosecurity duty* by the Department of Primary Industries to prevent, eliminate or minimise any biosecurity risk they may pose.³

2.2.3 Tree 10 *Carica papaya* (Papaya Tree) is listed an Exempt Species within the *Burwood Development Control Plan Section 6.1 (Preservation of Trees or Vegetation)*.⁴

2.2.4 A search of the BioNet Atlas of NSW Wildlife Database was undertaken in January 2018. No individual threatened tree species listed within this database for the area were identified during the current field investigations of the site.⁵ The ecological significance and habitat value of the trees has not been assessed and is beyond the scope of this report.

2.2.5 As required by Clause 2.3.2 of *Australian Standard 4970 (2009) Protection of Trees on Development Sites (AS-4970)*, each tree assessed has been allocated a Retention Value. The Retention Value is based on the tree's Useful Life Expectancy and Landscape Significance with consideration to its health, structural condition and site suitability. The Retention Values do not take into account any proposed development works and are not a schedule for tree retention or removal. The trees have been allocated one of the following Retention Values:

- Priority for Retention
- Consider for Retention
- Consider for Removal
- Priority for Removal

Refer to Tree Assessment Schedule (**Appendix 3**)

² Burwood Council (2012)

³ Department of Primary Industries (2017)

⁴ Burwood Council (2012)

⁵ NSW Office of Environment and Heritage (2011)

3.1 Tree 1

3.1.1 Tree 1 was identified as *Ulmus parvifolia* (Chinese Elm) and is located adjacent to the Burwood Road frontage. The tree has moderate landscape Significance and has a Retention Value of *Consider for Retention*.

3.1.2 The supplied plans show Tree 1 is to be retained as part of the proposed landscape treatment. Works including the demolition of existing walls, kerbs and pavements, installation of new pavements and walls, and soft landscaping are proposed within its Tree Protection Zone (TPZ), and represent a *Major Encroachment* as defined by *Australian Standard 4970 Protection of Trees on Development Sites 2009 (AS-4970)*. Clause 3.3.4 of AS-4970 outlines that design factors and tree sensitive construction methods should be considered when determining the potential impact of the encroachment.

3.1.3 **Recommendations:** The following tree sensitive design/demolition/construction methods should be used within the TPZ of Tree 1 to minimise to adverse impacts.

- **Demolition & Excavation Works:** Tree sensitive methods should be used for the demolition of existing walls, kerbs, fixtures and pavements. Where possible, existing footings and sub-base materials should be left in situ and reused. Where footings of demolished walls cannot be left in situ, these structures should be demolished in small sections and removed by hand.
- **Pavement Installation:** New pavements (including sub-base materials) should be installed at or above existing grade and utilise existing sub-base layers where possible. Pavement sub-base layers should either be thinned or finished pavement levels and kerbs modified as required to enable the retention of roots (>25mmØ) as deemed necessary by the Project Arborist.
- **Walls & Landscape Fixtures:** New walls and landscape fixtures should be supported on piered footings (with all other parts of the structures positioned above existing ground levels). Excavation for the pier holes should be undertaken using tree sensitive methods (hand/hydrovac/airspade etc). Pier hole locations should be flexible to enable the retention of roots (>25mmØ) as deemed necessary by the Project Arborist. New walls and fixtures should be located a minimum of 500mm from the tree's trunk to allow for future growth. Drainage should be designed around roots (>25mmØ) as determined by the Project Arborist.
- **Landscape Levels:** Existing levels should be maintained wherever possible. Where minor regrading is required, these works should be undertaken using tree sensitive methods (hand/hydrovac/airspade etc) to enable the retention of roots (>25mmØ) as deemed necessary by the Project Arborist.
- **Landscape Planting:** The installation of plants should be undertaken using hand tools and roots (>25mmØ) should be protected. No mechanical cultivation/ripping of soils should be undertaken. Other than the installation of soil conditioners to a maximum depth of 50mm above the existing soil profile, the installation of imported soil mixes should be excluded from the TPZ.
- **Underground Services:** Underground services should be located outside of the TPZ. Where this is not possible, services should be installed using tree sensitive excavation (hand/hydrovac/airspade etc) methods with the services located around/below roots (>25mmØ) as deemed necessary by the Project Arborist. Alternatively, boring methods may be used for underground service installation where the invert level is greater than 1200mm below existing grade. Excavations for starting and receiving pits for boring equipment should be located outside of the TPZ or located to avoid roots (>25mmØ) as deemed necessary by the Project Arborist. OSD tanks should be located outside of the TPZ.

3.2 Tree 2

- 3.2.1 Tree 2 was identified as *Macadamia ternifolia* (Macadamia) and is located adjacent to the northern site boundary. The tree is in fair health and structural condition as evidenced by leaf necrosis, the presence of epicormic growth in moderate volumes and wounds in various stages of decay. Tree 2 has low Landscape Significance and has a Retention Value of *Priority for Removal*.
- 3.2.2 The supplied plans show Tree 2 is to be removed as part of the proposed landscape treatment. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a short timeframe.

3.3 Trees 3-5

- 3.3.1 Trees 3-5 were identified as *Magnolia grandiflora* (Bulls Bay Magnolia), *Ulmus parvifolia* (Chinese Elm) and *Lophostemon confertus* (Brush Box) and are located between the existing church and northern boundary. The trees have moderate Landscape Significance and a Retention Value of *Consider for Retention*.
- 3.3.2 The overall condition and quality of the trees has been impacted by poor pruning such practices such as lopping (cutting branches between internodes/branch unions) and lions tailing (removing the interior branches from the interior crown leaving most of the foliage on the branch ends). In addition, the co-dominant inclusion between the first order branches of Tree 5 represents a significant structural defect.
- 3.3.3 Aerial images of the site from 1943 show the church set within a landscaped setting.⁶ Mature trees are visible along the northern site boundary. It is possible that Tree 5 formed part of this group of trees. However, the form and subsequent aesthetic value of Tree 5 has been impacted by the removal of a large first order branch on the north-western side of the tree's crown. The heritage significance of the trees has not been assessed and is beyond the scope of this report.
- 3.3.4 The supplied plans show Trees 3-5 are to be removed to accommodate the new church office. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a medium timeframe.

3.4 Trees 6, 7, 9, 10 & 12-14

- 3.4.1 Trees 6, 7, 9, 10 and 12-14 were identified as *Acer negundo* (Box Elder), *Sapium sebiferum* (Chinese Tallowwood), *Camellia japonica* (Japanese Camellia), *Carica papaya* (Papaya Tree), *Syzygium smithii* cvs (Lillypilly cvs), and *Callistemon viminalis* (Weeping Bottlebrush), and are located within the north-eastern portion of the site. The trees have low Landscape Significance and a Retention Value of *Consider for Removal*.
- 3.4.2 The supplied plans show Trees 6, 7, 9, 10 and 12-14 are to be removed to accommodate the proposed building footprint. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a short timeframe.

⁶ NSW Government Spatial Services (2016)

3.5 Tree 8

- 3.5.1 Tree 8 was identified as *Cupressus sempervirens* (Mediterranean Cypress) and is located within the front garden area of 33A George Street East. The tree has moderate Landscape Significance and has a Retention Value of *Consider for Retention*.
- 3.5.2 The supplied plans show Tree 8 is to be removed to accommodate the proposed building footprint. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a medium timeframe.

3.6 Tree 11

- 3.6.1 Tree 11 was identified as *Photinia rubra* (Photinia) and is located within the north-eastern portion of the site. The tree is in fair health as evidenced by its reduced crown density. The tree has low Landscape Significance and has a Retention Value of *Priority for Removal*.
- 3.6.2 The supplied plans show Tree 11 is to be removed to accommodate the proposed building footprint. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a short timeframe.

3.7 Tree 15

- 3.7.1 Tree 15 was identified as *Cedrus deodara* (Atlas Cedar) and is located centrally within the site. The tree has moderate Landscape Significance and has a Retention Value of *Consider for Retention*.
- 3.7.2 The supplied plans show Tree 15 is to be removed to accommodate the proposed building footprint. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a medium timeframe.

3.8 Trees A and B

- 3.8.1 Trees A and B were identified as *Platanus xacerifolius* (London Plane Tree) and are located on the Burwood Road road reserve.
- 3.8.2 The supplied plans show Trees A and B are to be retained as part of the proposed landscape treatment. Works including the demolition of existing walls, kerbs and pavements, installation of new pavements and walls, and soft landscaping are proposed within their TPZ areas and represent *Major Encroachments* as defined by AS-4970.
- 3.8.3 **Recommendations:** Tree sensitive design/demolition/construction methods as outlined within Section 3.1.3 should be used within the TPZ areas of Trees A and B to minimize adverse impacts.

3.9 Trees C and D

- 3.9.1 Trees C and D were identified as *Acer negundo* (Box Elder) and are located on the George Street East road reserve.
- 3.9.2 The supplied plans show Trees C and D are to be removed as part of the proposed landscape treatment. Replacement planting using healthy, advanced-size specimens could replace the loss of amenity from tree removal within a short timeframe.

3.10 Replacement Planting

- 3.10.1 The supplied plans show that ten (10) replacement trees are to be planted as part of the proposed development. Replacement planting should be supplied in accordance with *Australian Standard 2303 (2015) Tree Stock for Landscape Use*.
- 3.10.2 Sufficient soil depth (minimum 750mm) and volumes (species dependent) should be provided for the new tree plantings to support healthy tree growth over a long-time frame. Wherever possible, isolated planting areas should be increased in size or linked below pavement surfaces to adjacent planting areas to maximize the available growing environment.
- 3.10.3 Various products are available which can be used to provide adequate support for the pavement whilst providing a suitable growing environment for tree roots. In addition, research shows that the use of tree friendly paving products can significantly reduce pavement damage and maintenance costs over the long term.

4.0 CONCLUSION

- 4.1 Fifteen (15) trees were assessed in preparation of this Report and consist of Australian native and exotic species. An additional four (4) street trees have also been addressed.
- 4.2 The application is lodged as a 'Concept Development Application' in accordance with *Division 4.4 of the Environmental Planning and Assessment Act 1979*. It includes a concept proposal that outlines the key features of the planned redevelopment of the site (formerly known as a 'Stage 1 DA' and commonly referred to as a 'Masterplan DA').
- 4.3 The supplied plans show that fourteen (14) trees (Trees 2-15) are to be removed as part of the proposed development. Of these, five (5) trees have a Retention Value of *Consider for Retention*, seven (7) trees have a Retention Value of *Consider for Removal* and two (2) trees have a Retention value of *Priority for Removal*. None of the trees proposed for removal have high Landscape Significance or have been allocated a Retention Value of *Priority for Retention*.
- 4.4 Trees C and D located on the George Street East Road Reserve are also to be removed and replaced. These trees are poor quality specimens, and their removal and replacement is considered appropriate.
- 4.5 The supplied plans show that Trees 1, A and B are to be retained as part of the proposed development. Works are proposed within their TPZ areas and tree sensitive design and construction methods should be used (as outlined within Section 3.1.3) to minimise adverse impacts. The trees to be retained should be protected in accordance with the Tree Protection Specification (**Appendix 5**).
- 4.6 The supplied plans show replacement trees are proposed across the site. Replacement planting should be supplied in accordance with *Australian Standard 2303 (2015) Tree Stock for Landscape Use*.

5.0 LIMITATIONS & DISCLAIMER

TreeiQ takes care to obtain information from reliable sources. However, TreeiQ can neither guarantee nor be responsible for the accuracy of information provided by others. Plans, diagrams, graphs and photographs in this Arboricultural Report are visual aids only and are not necessarily to scale. This Report provides recommendations relating to tree management only. Advice should be sought from appropriately qualified consultants regarding design/construction/ecological/heritage etc issues.

This Report has been prepared for exclusive use by the client. This Report shall not be used by others or for any other reason outside its intended target or without the prior written consent of TreeiQ. Unauthorised alteration or separate use of any section of the Report invalidates the Report.

Many factors may contribute to tree failure and cannot always be predicted. TreeiQ takes care to accurately assess tree health and structural condition. However, a tree's internal structural condition may not always correlate to visible external indicators. There is no warranty or guarantee, expressed or implied that problems or deficiencies regarding the trees or site may not arise in the future. Information contained in this report covers only the trees assessed and reflects the condition of the trees at the time of inspection. Additional information regarding the methodology used in the preparation of this Report is attached as Appendix 1. A comprehensive tree risk assessment and management plan for the trees is beyond the scope of this Report.

Reference should be made to any relevant legislation including Tree Management Controls. All recommendations contained within this Report are subject to approval from the relevant Consent Authority.

This Report is based on Standards Australia Ltd copyrighted material that is distributed by SAI Global Ltd on Standards Australia Ltd's behalf. It may be reproduced and modified in accordance with the terms of SAI Global Ltd's Licence 1110-c049 to TreeiQ ('the Licensee'). All amended, marked-up and licensed copies of this document must be obtained from the Licensee. Standards Australia Ltd's copyright material is not for resale, reproduction or distribution in whole or in part without written permission from SAI Global Ltd: tel +61 2 8206 6355 or copyright@saiglobal.com.

6.0 BIBLIOGRAPHY & REFERENCES

Barrell (1995), 'Pre-development Tree Assessments', in *Trees & Building Sites, Proceedings of an International Conference Held in the Interest of Developing a Scientific Basis for Managing Trees in Proximity to Buildings*, International Society of Arboriculture, Illinois, USA, pp. 132-142

Burwood Council (2016), *Burwood Development Control Plan*

Burwood Council (2012), *Burwood Local Environmental Plan*

Department of Primary Industries (2017), *NSW Weedwise*

Harris, Clark & Matheny (1999), *Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines*, Prentice Hall, New Jersey

Mattheck & Breloer (2003), *The Body Language of Trees: A Handbook for Failure Analysis*, The Stationary Office, London

Simon, Dormer & Hartshorne (1973), *Lowson's Botany*, Bell & Hyman, London

Office of Environment and Heritage (2011), *BioNet Atlas of NSW Wildlife*

Standards Australia (2009), *Protection of Trees on Development Sites AS-4970*

Standards Australia (2007), *Pruning of Amenity Trees AS-4373*

Standards Australia (2015), *Tree Stock for Landscape Use AS-2303*

Appendix 1: Methodology

- 1.1 Site Inspection:** This report was determined as a result of a comprehensive site during December 2017. The comments and recommendations in this report are based on findings from this site inspection.
- 1.2 Visual Tree Assessment (VTA):** The subject tree(s) was assessed using the Visual Tree Assessment criteria and notes as described in *The Body Language of Trees – A Handbook for Failure Analysis*.⁷ The inspection was limited to a visual examination of the subject tree(s) from ground level only. No internal diagnostic testing was undertaken as part of this assessment. Trees outside the subject site were assessed from the property boundaries only.
- 1.3 Tree Dimensions:** The dimensions of the subject tree(s) are approximate only.
- 1.4 Tree Locations:** The location of the subject tree(s) was determined from the supplied plans. Trees not shown on the supplied plans have been plotted in their approximate location only.
- 1.5 Trees & Development:** Tree Protection Zones, Tree Protection Measures and Sensitive Construction Methods for the subject tree were based on methods outlined in *Australian Standard 4970-2009 Protection of Trees on Development Sites*.

The *Tree Protection Zone* (TPZ) is described in AS-4970 as a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

The *Structural Root Zone* (SRZ) is described in AS-4970 as the area around the base of a tree required for the tree's stability in the ground. Severance of structural roots within the SRZ is not recommended as it may lead to the destabilisation and/or demise of the tree.

In some cases it may be possible to encroach into or make variations to the theoretical TPZ. A *Minor Encroachment* is less than 10% of the area of the TPZ and is outside the SRZ. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. A *Major Encroachment* is greater than 10% of the TPZ or inside the SRZ. In this situation the Project Arborist must demonstrate that the tree would remain viable. This may require root investigation by non-destructive methods or the use of sensitive construction methods.

- 1.6 Tree Health:** The health of the subject tree(s) was determined by assessing:
- I. Foliage size and colour
 - II. Pest and disease infestation
 - III. Extension growth
 - IV. Crown density
 - V. Deadwood size and volume
 - VI. Presence of epicormic growth
- 1.7 Tree Structural Condition:** The structural condition of the subject tree(s) was assessed by:
- I. Assessment of branching structure
(i.e co-dominant/bark inclusions, crossing branches, branch taper, terminal loading, previous branch failures)
 - II. Visible evidence of structural defects or instability
(i.e root plate movement, wounds, decay, cavities, fungal brackets, adaptive growth)
 - III. Evidence of previous pruning or physical damage
(root severance/damage, lopping, flush-cutting, lions tailing, mechanical damage)
- 1.8 Useful Life Expectancy (ULE):** The ULE is an estimate of the longevity of the subject tree(s) in its growing environment. The ULE is modified where necessary to take in consideration tree(s) health, structural condition and site suitability. The tree(s) has been allocated one of the following ULE categories (Modified from Barrell, 2001):
- I. 40 years +
 - II. 15-40 years
 - III. 5-15 years
 - IV. Less than 5 years

⁷ Mattheck & Breloer (2003)

- 1.9 Landscape Significance:** Landscape Significance was determined by assessing the combination of the cultural, environmental and aesthetic values of the subject tree(s). Whilst these values are subjective, a rating of high, moderate, low or insignificant has been allocated to the tree(s). This provides a relative value of the tree's Landscape Significance which may aid in determining its Retention Value. If the tree(s) can be categorized into more than one value, the higher value has been allocated.

Landscape Significance	Description
Very High	The subject tree is listed as a Heritage Item under the <i>Local Environmental Plan</i> with a local or state level of significance.
	The subject tree is listed on Council's Significant Tree Register or is considered to meet the criteria for significance assessment of trees and/or landscapes by a suitably qualified professional. The criteria are based on general principles outlined in the Burra Charter and on criteria from the Register of the National Estate.
	The subject tree is a remnant tree.
High	The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	The subject tree is of local, cultural or historical importance or is widely known.
	The subject tree has been identified by a suitably qualified professional as a species scheduled as a Threatened or Vulnerable Species or forms part of an Endangered Ecological Community associated with the site, as defined under the provisions of the NSW <i>Biodiversity Conservation Act (2016)</i> or the Commonwealth <i>Environmental Protection and Biodiversity Conservation Act (1999)</i> .
	The subject tree is known to provide habitat to a threatened species.
	The subject tree is an excellent representative of the species in terms of aesthetic value.
	The subject tree is of significant size, scale or makes a significant contribution to the canopy cover of the locality.
	The subject tree forms part of the curtilage of a heritage item with a known or documented association with that item.
Moderate	The subject tree makes a positive contribution to the visual character or amenity of the area.
	The subject tree provides a specific function such as screening or minimising the scale of a building.
	The subject tree has a known habitat value.
	The subject tree is a good representative of the species in terms of aesthetic value.
Low	The subject tree is an environmental pest species or is exempt under the provisions of the local Council's Tree Management Controls
	The subject tree makes little or no contribution to the amenity of the locality.
	The subject tree is a poor representative of the species in terms of aesthetic value.
	The subject tree is a recognised environmental weed species for the area.

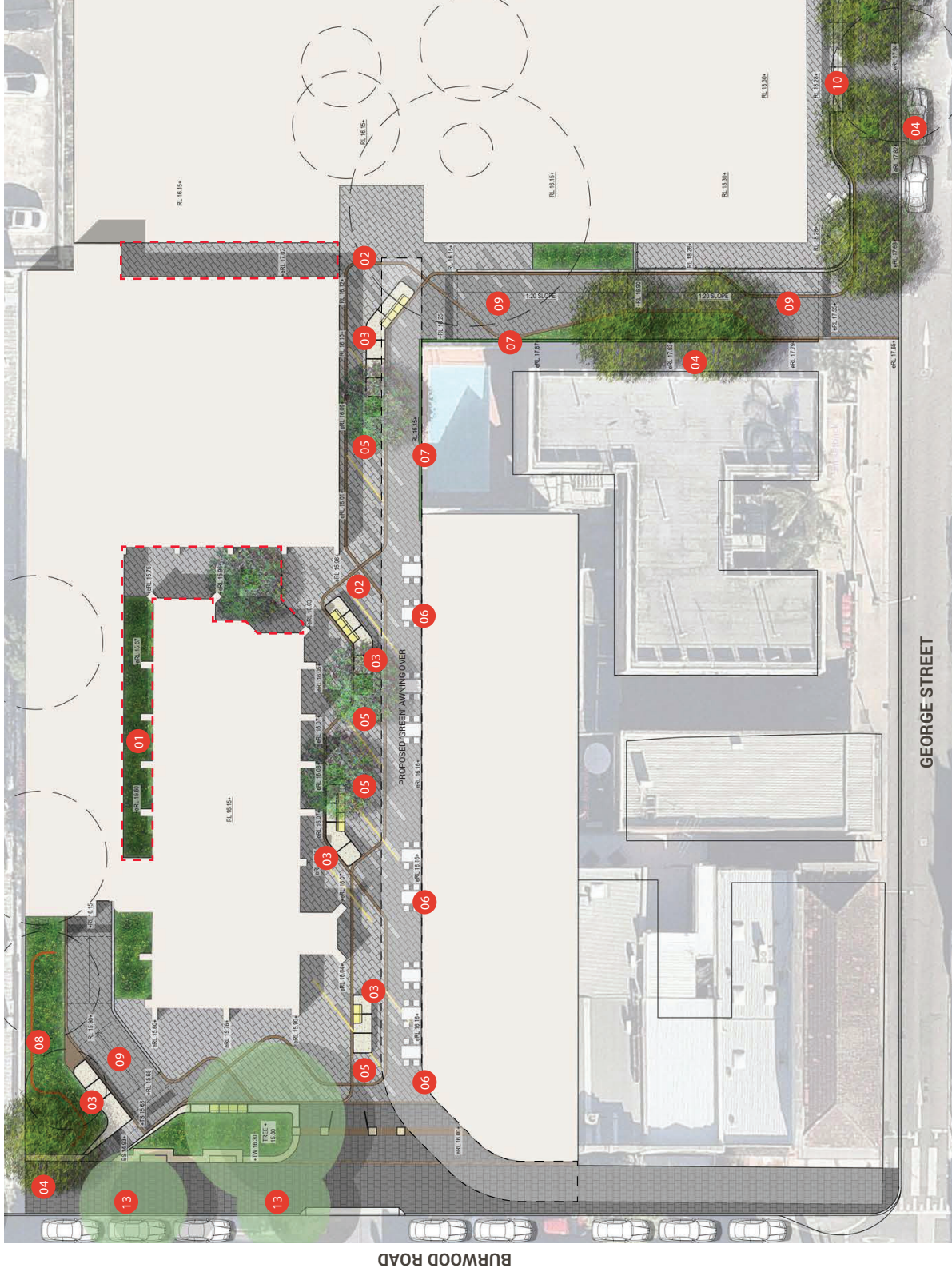
- 1.10 Retention Value:** Retention Value was based on the subject tree's Useful Life Expectancy and Landscape Significance. The Retention Value was modified where necessary to take in consideration the subject tree's health, structural condition and site suitability. The subject tree(s) has been allocated one of the following Retention Values:

- I. Priority for Retention
- II. Consider for Retention
- III. Consider for Removal
- IV. Priority for Removal

ULE		Landscape Significance			
	Very High	High	Moderate	Low	Insignificant
40 years +	Priority for Retention	Priority for Retention		Consider for Removal	Priority for Removal
15-40 years		Priority for Retention	Consider for Retention		
5-15 years		Consider for Retention			
Less than 5 years	Consider for Removal	Priority for Removal			

The above table has been modified from the Footprint Green Tree Significance and Retention Value Matrix.

LANDSCAPE CONCEPT PLAN

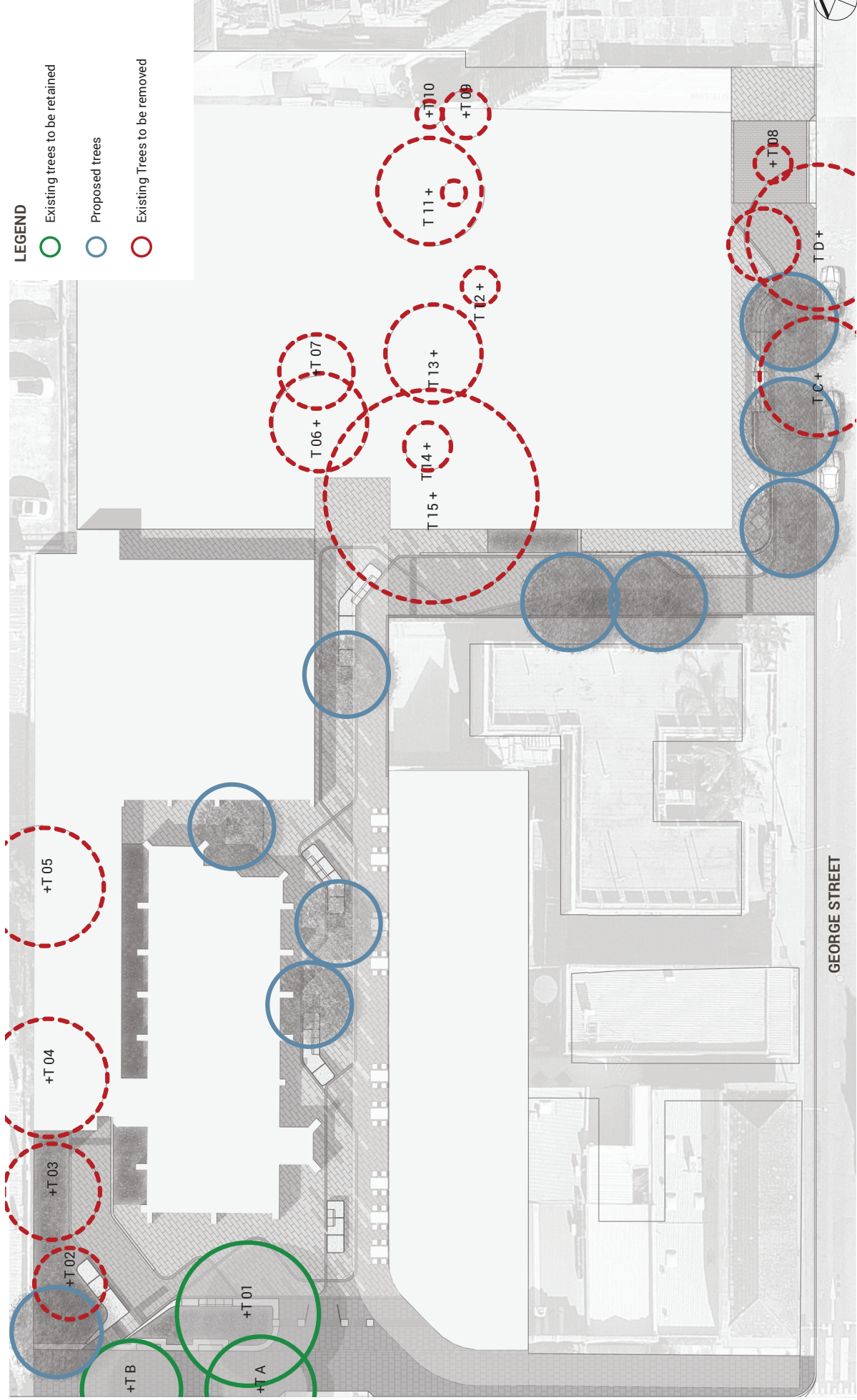


LEGEND

- 01 Atrium garden with up-lighting to the facade of the church and a mass carpet of lush ground covers.
- 02 Bold paving bands assist in providing a cohesive and connected laneway space whilst also create interest on the ground plane.
- 03 In situ concrete bespoke furniture items with folded steel seats, powdercoated with a colour complementary to the church.
- 04 Large feature trees to the streetscape of Burwood Road will assist in enhancing the exiting amenity and proposed public domain.
- 05 Smaller feature trees throughout the proposed laneway will assist in providing scattered shade and an element of greenery.
- 06 Proposed location of outdoor dining areas
- 07 Proposed location of greenwall
- 08 Proposed location of sculptural screen will assist in screening the side of the existing building.
- 09 1:20 gradient accessible ramps
- 10 Entry stairs into residential and commercial lobbies
- 11 Flush accessible entry into residential and commercial lobbies
- 12 Through site link entry to Victoria Street
- 13 Existing Trees to be Retained
- 13 Private open space areas

TREE MANAGEMENT PLAN

- LEGEND**
- Existing trees to be retained
 - Proposed trees
 - Existing Trees to be removed



Appendix 3: Tree Assessment Schedule

Tree No.	Species	DBH (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Rating	Comments	ULE (years)	L/Significance	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
1	<i>Ulmus parvifolia</i> (Chinese Elm)	400	12	12	Good	Good	Small (<25mm) diameter deadwood in low volumes. 75-95% crown density. Wound/s various stages of decay. Structures within SRZ.	15-40	Moderate	Consider for Retention	4.8	2.3	Retain. Use tree sensitive methods.
2	<i>Macadamia ternifolia</i> (Macadamia)	200 200	7	6	Fair	Fair	Small (<25mm) diameter deadwood in low volumes. Small (<25mm) diameter epicormic growth in moderate volumes. Bud and leaf necrosis. Wound/s various stages of decay.	<5	Low	Priority for Removal	3.5	2	Remove.
3	<i>Magnolia grandiflora</i> (Bulls Bay Magnolia)	550	14	8	Good	Good	Partially suppressed. Lopped. Wound/s various stages of decay.	5-15	Moderate	Consider for Retention	6.6	2.6	Remove.
4	<i>Ulmus parvifolia</i> (Chinese Elm)	450	16	10	Fair	Fair	Lions tailed. Small (<25mm) diameter epicormic growth in moderate volumes.	5-15	Moderate	Consider for Retention	5.4	2.4	Remove.
5	<i>Lophostemon confertus</i> (Brush Box)	750	16	10	Good	Poor	Co-dominant inclusion, major. Large 1st order branch removed for building clearance. Wound/s various stages of decay.	5-15	Moderate	Consider for Retention	9	3	Remove.
6	<i>Acer negundo</i> (Box Elder)	250	7	8	Good	Good	Wound/s various stages of decay. Timber seat at base.	15-40	Low	Consider for Removal	3	1.9	Remove.
7	<i>Sapium sebiferum</i> (Chinese Tallowwood)	250	9	6	Good	Good		15-40	Low	Consider for Removal	3	1.9	Remove.
8	<i>Cupressus sempervirens</i> (Mediterranean Cypress)	650	16	3	Good	Fair	Branch inclusions, typical of species.	5-15	Moderate	Consider for Retention	7.8	2.8	Remove.
9	<i>Camellia japonica</i> (Japanese Camellia)	est 250	4	2	Good	No Rating	No access to base.	5-15	Low	Consider for Removal	3	1.9	Remove.

Tree No.	Species	DBH (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Rating	Comments	ULE (years)	L/Significance	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
10	<i>Carica papaya</i> (Papaya Tree)	est 250	4	2	Good	No Rating	No access to base.	5-15	Low	Consider for Removal	3	1.9	Remove.
11	<i>Photinia rubra</i> (Photinia)	250	4	4	Fair	No Rating	50-75% crown density. No access to base.	<5	Low	Priority for Removal	3	1.9	Remove.
12	<i>Syzygium smithii</i> cvs (Lilypilly cvs)	200 200	5	3	Good	Fair	Branch inclusions. Wound/s various stages of decay. Small (<25mm) diameter epicormic growth in moderate volumes.	5-15	Low	Consider for Removal	3.5	2	Remove.
13	<i>Callistemon viminalis</i> (Weeping Bottlebrush)	est 300	8	4	Fair	No Rating	No access to base. 75-95% crown density. Medium (25-50mm) diameter deadwood in moderate volumes. Branch inclusion/s.	5-15	Low	Consider for Removal	3.6	2	Remove.
14	<i>Callistemon viminalis</i> (Weeping Bottlebrush)	est 300	9	5	Fair	No Rating	No access to base. Partially suppressed. 75-95% crown density. Medium (25-50mm) diameter deadwood in moderate volumes. Branch inclusion/s. Lopped.	5-15	Low	Consider for Removal	3.6	2	Remove.
15	<i>Cedrus deodara</i> (Atlas Cedar)	est 650	15	8	Good	No Rating	No access to base. Small (<25mm) and medium (25-50mm) diameter deadwood in low volumes.	15-40	Moderate	Consider for Retention	7.8	2.8	Remove.
A	<i>Platanus xacerifolia</i> (London Plane Tree)	300									3.6	2	Retain. Use tree sensitive methods.
B	<i>Platanus acerifolius</i> (London Plane Tree)	350									4.2	2.2	Retain. Use tree sensitive methods.
C	<i>Acer negundo</i> (Box Elder)	400									4.8	2.3	Remove.
D	<i>Acer negundo</i> (Box Elder)	450									5.4	2.4	Remove.