

ARBORICULTURAL IMPACT ASSESSMENT (AIA) REPORT V4

Prepared For: Hyecorp Property Group

Site Address: 13-19 Canberra Avenue, St Leonards

Inspection Dates: 8 February 2021 (Preliminary Tree Inspection)

& 15 June 2021 (Additional trees added)

Report Date 25 June 2021 Updated 29 June 2021

Plan revision 42 - 13/10/2021



Image 1: Development area (Blue):

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1 Executive Summary

- 1.1.1 Hyecorp Property Group has commissioned this AIA report for development application purposes. A multi-purpose high rise building is proposed occupying lots Nos 13 19 Canberra Avenue St. Leonards.
- 1.1.2 The report' aim was to determine which trees are realistically retainable based on their landscape significance priority, construction impact and post construction suitability.
- 1.1.3 A total of 37 trees has been assessed, being:
 - 23 trees across the four lots. Comprising of exotics and natives; mature to over-mature with some in advanced states of decline. T4 & T23 both Magenta Lilli Pilli were the only locally occurring endemic species. The remaining natives were typical of nursery sourced stock.
 - 3 trees fell outside the property boundary but within neighbouring properties being T8a, T15a and T22a.
 - 11 Council managed trees being a combination of street and park trees.

Results and recommendations

- 1.1.4 As determined, all trees within the site require removal (T1 T23 inclusive) due to a high construction impact (AS4970-2009 *Protection of Trees on Development Sites*) or trees with a low retention value.
- 1.1.5 Street Tree ST1 Bottlebrush: It is recommended this small street tree outside property No 13 Canberra Avenue be removed and replaced upon construction completion. It is anticipated the extent of works, the tree's relatively small size and location, damage is highly likely and unavoidable. Replacement is a viable option.
- 1.1.6 Selective pruning (crown raising) of street trees for road clearances purposes is recommended prior to the commencement of any site works. Branches from a number of trees appear to be lower than the legal height clearance of 4.3m. Pruning to prevent lower branches being torn/broken due to trunk manoeuvring beneath.

Road overhang and crown lifting is required for: ST2, ST3, ST7, ST8 and ST9. All pruning is to be performed in accordance with AS4373-2007 Pruning of amenity trees. Council to be approached for pruning.

- 1.1.7 Rumble boards are required beneath the canopies of ST8, ST9 & ST10 and to be placed between the Newlands Park perimeter railing and the asphalt road surface. It is anticipated trucks turning will require this additional space for manoeuvring purposes (photo 1).
- 1.1.8 Protective fencing should not be required for any street tree located north of Duntroon Avenue or trees behind the timber perimeter fence of Newlands Park.
- 1.1.9 T22a *Jacaranda* located within property 21 Canberra Ave has canopy which extends above No 19 Canberra Ave. At the time of writing it remains unknown if pruning is required.
- 1.1.10 In the event stormwater connection is required to drain within Newlands Park, it is recommended the trench occurs between ST9 and ST10 (Appendix 2).

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1.2 Background

- 1.2.1 Margot Blues Consulting Arborist has been engaged by Hyecorp Property Group to assess trees across four properties identified as 13-19 Canberra Avenue, St Leonards (the site) and publicly owned trees adjacent to the site being street trees and within Newlands Park for development application purposes.
- 1.2.2 Proposed is a multi-storeyed, mixed business/residential complex comprising four (4) basement levels; two terrace levels and 13 residential floors.
- 1.2.3 A Preliminary Tree Assessment was undertaken on 8 February 2021 to determine tree retention values being High, Moderate or Low. A second site visit occurred on 15 June 2021 for AIA reporting purposes inclusive of additional street trees in accordance with Council directives.
- 1.2.4 The report's aim was to:
 - Categorise trees into retention priority based on size, species, health and vigour. Categories are high, moderate and low retention values.
 - Determine the construction impact to trees proximal to the development irrespective of boundaries based on the proposal.
 - Identify trees which are retainable and those that are not.
- 1.2.5 Plans relied upon for the assessment outcome were:-
 - Survey: DSP Surveyor and Engineers dated 18/12/20 and updated 16/6/2021.
 - Architectural suite of plans: Dated 13/10/2021 Revision 42 produced by SJB Architects 490 Crown Street Surry Hills.
- 1.2.6 Plans not received included:
 - Storm water
 - Landscaping

2 Methodology

- 2.1.1 Trees were inspected using the Visual Tree Assessment (VTA) methodology derived by Mattheck and Breloer (1994) consisting of both the biological and mechanical characteristics being:-
 - Biological assessment included leaves (volume and colour); the presence of pests and diseases, canopy dieback, deadwood and epicormic growth.
 - Tree mechanics included assessment of structural stability, previous pruning and any damage/disturbance which may have occurred.
- 2.1.2 No destructive, aerial or root investigations occurred.
- 2.1.3 Measurements were obtained via; builders tape measure; digital measure, estimation (tree height and canopy width) and desktop (architectural and survey documents).
- 2.1.4 Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) have been calculated in accordance with AS4970-2009 *Protection of trees on development sites*. These distances are outlined in Appendix 1 Tree data and Appendix 2 Colour coded. Tree Identification and construction impact where trees are within 5 metres of the development.
- 2.1.5 Photographs are displayed in Appendix 3.
- 2.1.6 Tree retention values have been assessed based on the IACA Significance of a Tree, Assessment Rating System (STARS) methodology Appendix 4.
- 2.1.7 This report is considered limited to what could reasonably be seen from ground level and expresses no commentary on changes which may have, or will, impact the trees or their environment outside the scope of works and supplied and referenced documentation.

2.2 Assumptions Made:

- 2.2.1 Haulage during construction possibly to have multiple access points. Depending on road access, there may be a degree of trunk manoeuvring (reversing) from Duntroon Avenue.
- 2.2.2 Stormwater connection and possible impact on Newlands Park.
- 2.2.3 Future multiple high rise developments within the area given the R4 zoning.
- 2.2.4 The extent of building envelope will require construction materials storage. It is anticipated much of this storage will occur along the rear western boundary during phases of the construction.

3 Results

3.1 Trees

A total of 37 trees have been assessed, being:

- 23 trees across the four lots. Comprising of exotic and natives and an age group of mature to overmature and some in advanced states of decline. T4 & T23 both Magenta Lilli Pilli were the only locally occurring endemic species. The remaining natives were typical of nursery sourced stock.
- 3 trees fell outside the property boundary and within neighbouring properties being T8a, T15a and T22a.
- 11 Council managed trees being a combination of street and park trees.

See Appendix 1 & 2: Tree data and Tree location.

3.2 The Proposal

- 3.2.1 The multi-levelled building occupies the majority of land across lots 13, 15 & 17. The basement area extends closer to the boundaries than the above ground floors. Lot 19 is identified as "Pedestrian Link" designated open space.
- 3.2.2 At the time of writing, insufficient detail had been received to comment on the Pedestrian Link.
- 3.2.3 The vehicular point of entry falls at the front of property No 15 with an assumption made the current road narrowing islands will require either removal or modification (See Photo 1).
- 3.2.4 The proposed child care facility occupies the entire rear (western boundary) of the building (Childcare Level 1 Detail Plan DA-5010). Camphor laurels are the dominant tree species with a very high fruit production and therefore an unsuitable species for the land usage.
- 3.2.5 To the rear of the building (west elevation), the proposed finished ground level is RL 64.50 and will require infilling and excavation to achieve this flat level. Extensive excavation occurs throughout the remaining areas of Site (excepting 3.2.2 above which remains unknown).
- 3.2.6 The area is zoned R4 as per NSW Planning Portal accessed 25/6/2021.
- 3.2.7 Large storm water pit present in Newlands Park. Possible connection required.
- 3.2.8 Crane works street side should not require pruning
- 3.2.9 Scaffolding and or street hoardings do not impact any retained tree.



3.3 Trees for removal

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3.3.1 The following trees require removal as they fall within the footprint of the development (See Appendix 2b)

Tree id	Species	Retenti	on value
		Moderate	Low
T1	Tibouchina sp	Moderate	
T2	Elaeocarpus eumundi	Moderate	
	Eumundi Quandong		
T3	Syzygium paniculata	Moderate	
	Magenta Lilli Pilli		
T9	Syzygium paniculata	Moderate	
	Magenta Lilli Pilli		
T10	Melaleuca bracteata		Low
	Melaleuca Golden Gem		
T11	Syzygium paniculata		Low
	Magenta Lilli Pilli		
T12	Robinia pseudoacacia sp		Low
T13	Robinia pseudoacacia sp		Low
T14	Elaeocarpus reticulatus		Low
	Blueberry Ash		
T16	Magnolia x soulangeana		Low
	Saucer magnolia		

Table 1: Trees falling within the footprint of the building.

3.3.2 Trees requiring removal due to construction impact. Trees fall just outside the building footprint with construction encroachment exceeding 10% of the TPZ as per AS4970-2009.

Tree id	Species	Retention value Moderate/Low	Tree/Building offset distance measured from trunk centre
T4	Ficus benjamina Weeping fig	Moderate	2m
T5	Cinnamomum camphora Camphor laurel	Moderate	5m
Т6	Cinnamomum camphora Camphor laurel	Moderate	5m
Т7	Cinnamomum camphora Camphor laurel	Moderate	5.5m
Т8	Cinnamomum camphora Camphor laurel	Moderate	2.5m
T17	Magnolia x soulangeana	Low	1m
ST1	Callistemon citrinus	Moderate	2.8m

Table 2: Trees outside the building footprint and identified as unretainable due to construction impact.

3.3.3 Trees requiring removal irrespective of the development due to poor health and or condition or low retention value (exempt).

Tree id	Species	Retention value Moderate/Low	Comment
		Wioderate/Low	
T15	Cinnamomum camphora	Low	Very poor
	Camphor laurel		condition
T18	Syzygium sp	Low	
T19	Syzygium sp	Low	
T20	Syzygium sp	Low	
T21	Syzygium sp	Low	
T22	Cocos palm	Low	
T23	Syzygium paniculata	Low	
	Magenta Lilli Pilli		
	1		

Table 3: Trees which should be removed irrespective of the development.

3.3.4 Private trees falling outside the site but within close proximity to site boundaries:

Tree id	Species	Retention value	
		Moderate/Low	
T8A	Archontophoenix cunninghamiana (Bangalow Palm)	Moderate	NIL action
T15a	Cinnamomum camphora (Camphora Laurel)	Very Low	Tree dead.
T22a	Jacaranda mimosifolia (Jacaranda)	Moderate	Pruning of overhang may be required.

3.4 Pruning of Council maintained trees.

The following street tree/park trees (Newlands Park) possibly require pruning due to high civil vehicle movement (Bogies/dog, crane accessing site, piling rigs).

Tree id	Species	Pruning	Comment:
ST1	Callistemon citrinus	Nil	Recommend removal and replaced post construction. Excavation approximately 2.8 metres from trunk centre. Tree within a high volume traffic area.
ST2	Eucalyptus racemosa	Nil	No action required
ST3	Casuarina cunninghamiana	Underprune	Low branch above road
ST4	Casuarina cunninghamiana	Underprune	Low branch above road
ST5	Casuarina cunninghamiana	Nil	No action required

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ST6	Casuarina cunninghamiana	Road overhang	Low branch above road
ST7	Jacaranda mimosifolia	Underprune	Low branch above road
ST8	Jacaranda mimosifolia	Underprune	Low branch above road
ST9	Lophostemon confertus	Nil	No action required
ST10	Lophostemon confertus	Nil	No action required.
ST11	Eucalyptus sp	Nil	No action required.

Table 4: Required pruning of Council managed trees due to construction traffic high vehicles.

4 Conclusion

37 Trees have been assessed for the purpose of this report being a combination of private and publicly managed trees.

- No tree within the site (13 to 19 Canberra Avenue St Leonards) scored a retention value of "High".
- Based on the proposal and the extent of site impact, no tree within the site is retainable.
- Heavy vehicle access points remain unknown at the time of writing however it is assumed a minimum of two points will initially be required given the bulk excavation.
- Pruning of street trees is required particularly road overhang to prevent branches being torn by high vehicles.
- Crane works from street level is not affected by tree canopy.

5 Recommendation

- 5.1.1 All trees within the site are removed being trees T1 T23 inclusive. Their retention is not possible and/or Camphor laurels not suitable for child care centre.
- 5.1.2 ST1: It is recommended this small street tree Bottlebrush located in front of property No 13 Canberra Avenue be removed and replaced upon construction completion. It is anticipated the extent of works, the tree's relatively small size and location, damage is highly likely and unavoidable.
- 5.1.3 Pruning selective street trees for road clearances purposes is recommended prior to the commencement of any site works. Branches from a number of trees appear to be lower than the legal height clearance of 4.3m. Pruning to prevent lower branches being torn/broken due to trunk manoeuvring beneath.

Road overhang and crown lifting is required for: ST2, ST3, ST7, ST8 and ST9.

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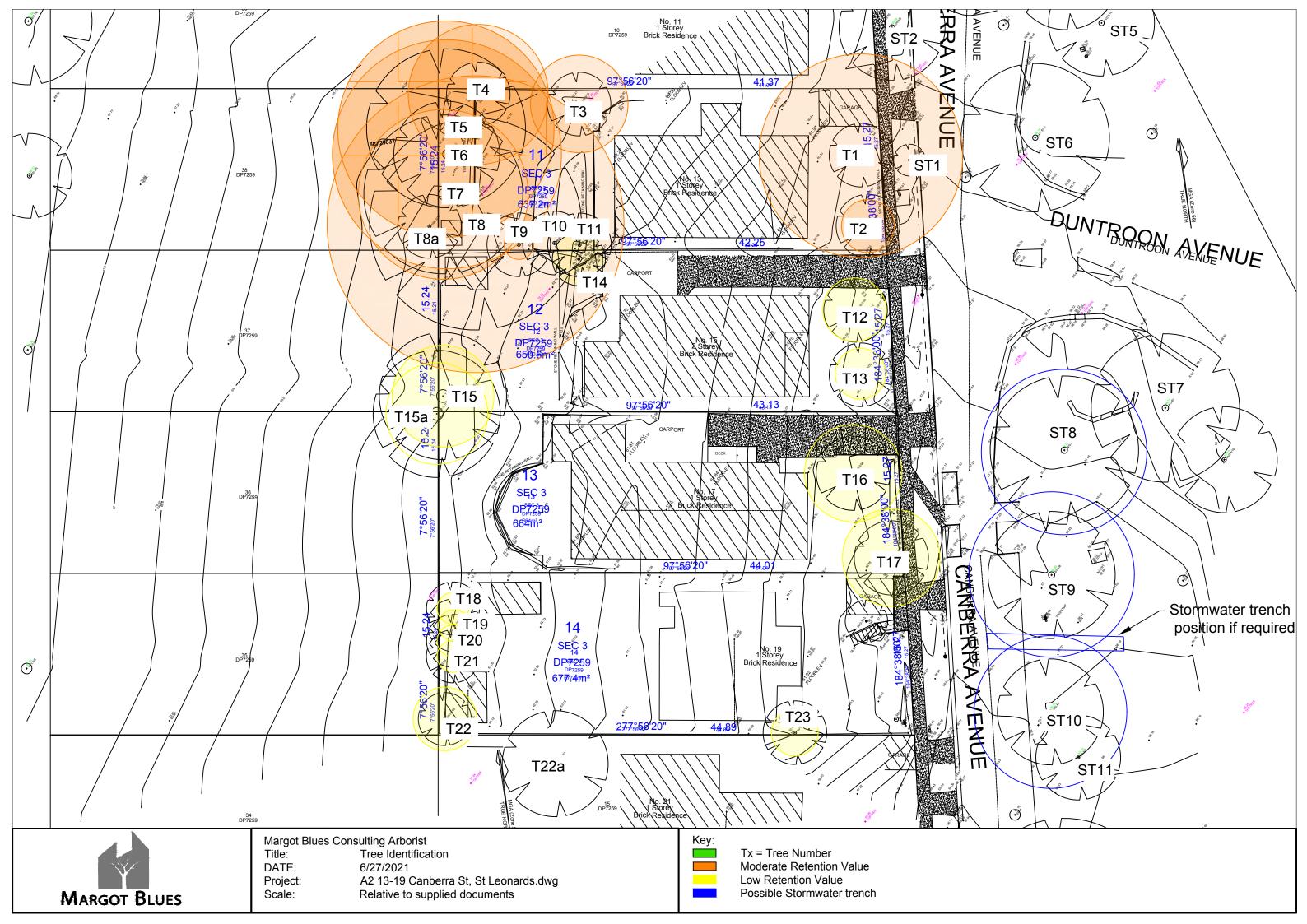
All pruning is to be performed in accordance with AS4373-2007 Pruning of amenity trees. Council to be approached for pruning.

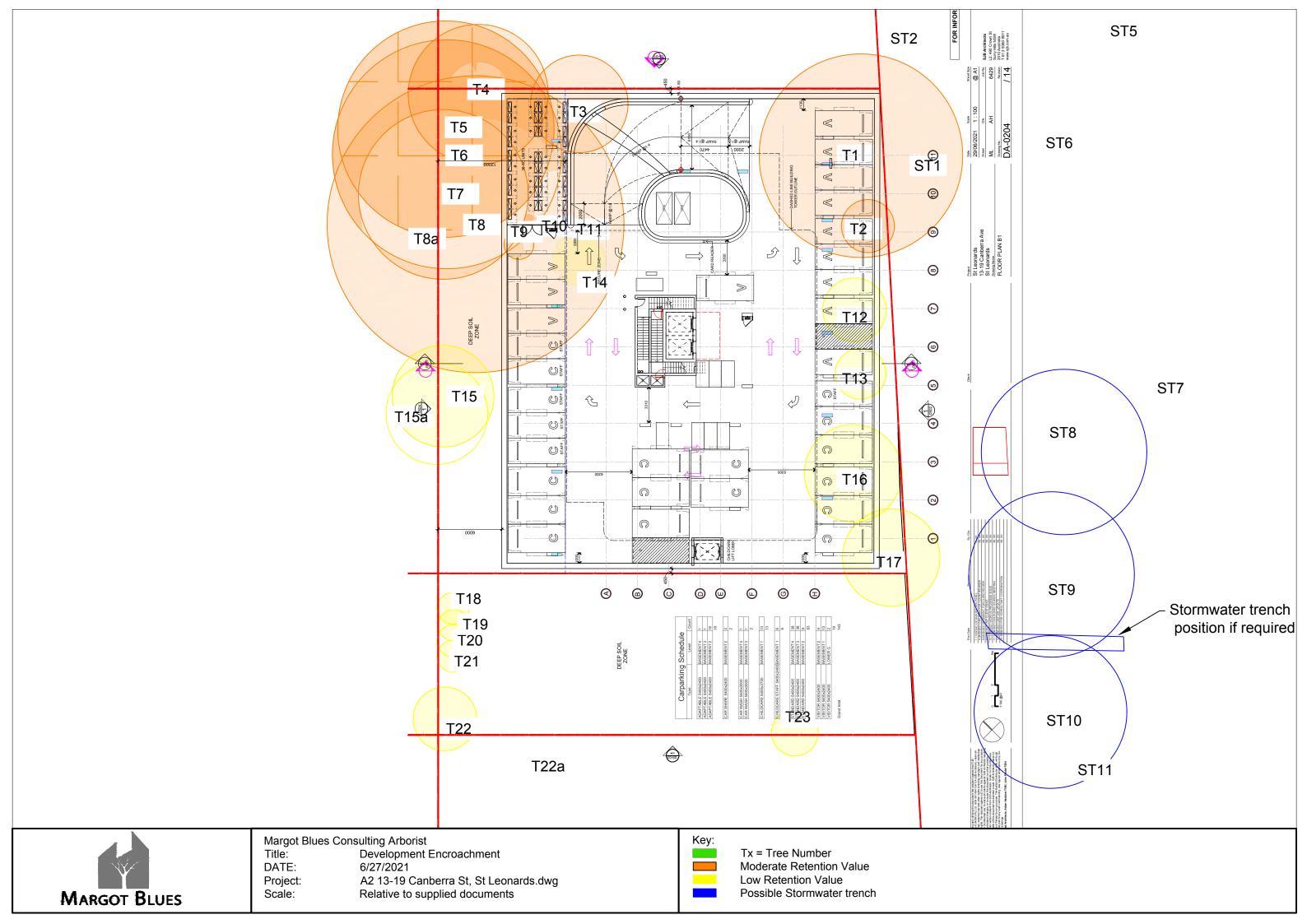
- 5.1.4 Rumble boards are required beneath the canopies of ST8, ST9 & ST10 and to be placed between the Newlands Park perimeter railing and the asphalt road surface. It is anticipated trucks turning will require this additional space for manoeuvring purposes.
- 5.1.5 Protective fencing should not be required for any street tree located north of Duntroon Avenue or trees behind the timber perimeter fence of Newlands Park.
- 5.1.6 T22a *Jacaranda* located within property 21 Canberra Ave has canopy which extends above No 19 Canberra Ave. At the time of writing it remains unknown if pruning is required.
- 5.1.7 In the event stormwater connection is required to drain within Newlands Park, it is recommended the trench occurs between ST9 and ST10.

	Tree Data Summary - 13 - 19 Canberra Avenue St. Leonards - Assessed 8 February 2021												Leonar	ds - A	ssesse	d 8 February 2021		
Tree ID+A 2:Q2 8	Species	Height (m)	Canopy dims n/s in metres	DBH (сm)	DGL (cm)	Foliage condition	Maturity	Trunk type	Trunk lean	Canopy Balanced	Past Pruning	Stability	Vigour	Canopy deadwood	Sign ificance value	Notes F		SRZ (M) Radius
											13 Ca	nberra A	venue					
ST1	Callistemon citrinus Crimson bottlebrush	<4	5	12	16	Fair	Mature	Single	Upright*	Balanced		Appears stable	Fair	<5	Moderate	Street Tree - Slight lean in base of trunk; canopy density a little sparse.	1.4	1.5
T1	Tibouchina sp	5	9	90	100	Good	Mature	Multi	Upright	Balanced	Lower limbs to 1 metre	Appears stable	Good	<5	Moderate	A large feature tree located in the front garden. No significant problems seen.	10.8	3.3
	Elaeocarpus eumundi Eumundi Quandong	7	8	21	28	Excellent	Mature		Upright	Balanced	No evidence	Appears stable	Good	<5	Moderate	A large feature tree located in the front garden. No significant problems seen.	2.5	1.9
	Syzygium paniculata Magenta Lilli Pilli	12	11	38	50	Excellent	Mature	Single	Upright	Slight bias to the east	No evidence	Appears stable	Good	<5	Moderate	Tree locate in rear garden along the side northern boundary fence. Canopy bias to east due to influence of T4. Buttressing of roots occurring with evidence of root orientating towards the dwelling i.e. SE direction and in a Westerly direction.	4.6	2.5
T4	Ficus benjamina Weeping fig	17	13	55	60	Good	Mature	Single	Upright	Majority to the north and east	Lower limbs		Good	<5	Moderate	Tree in good health and condition. Query species suitability to suburban garden. Tree has the potential to double in size.	6.6	2.7
	Cinnamomum camphora Camphor laurel	18	8	85	150	Good	Mature	Multi x	Slight bias to the west	Majority to the west	Historically lopped	Appears stable	Good	5%	Moderate	Tree heavily impacted by English Ivy <i>Hedera helix</i> . Tree has been historically lopped at approximately 5 metres.	10.2	3.9
Т6	Cinnamomum camphora Camphor laurel	18	13	90	120	Good	Mature	Single	Upright	Balanced	Historically lopped	Appears stable	Good	5%	Moderate	Historically lopped at 5 metres. Tree impacted by climbing. Trunk supports climbing <i>Monstera deliciosa</i> (Swiss Cheese Plant). Impact low at this time. Paling fence impact by root flare.	10.8	3.6
T7	Cinnamomum camphora Camphor laurel	18	12	67	120	Good	Mature	single to		Majority to west		Appears stable	Good			Historically lopped at 5 metres. Root flare impacts rear paling fence. <i>Philodendron sp</i> supported by trunk.	8.0	3.6
T0	Cinnamomum camphora	40	4.4	430	200	61		single to			Historically			50/				
	Camphor laurel Syzygium paniculata Magenta Lilli Pilli	8	14	23	35	Good	Mature Mature		Upright Upright	Balanced Balanced	lopped Nil seen	stable Appears stable	Good	5% <5%	Moderate	Historically lopped at 5 metres. Otherwise good. A young mature. Canopy supressed due to surrounding trees and taller dominant	2.8	2.1
	Melaleuca bracteata	Ü		23		5554			Slight bias	Majority to	THI SCOT	Appears	3000	1370	Moderate		2.0	2.1
	Melaleuca Golden Gem	5.5	6	24	35	Fair	Mature	Twin	to the north		Nil seen	stable	Good	<5%	Low		2.9	2.1
T11	Syzygium paniculata Magenta Lilli Pilli	6	4	15	20	Good	Mature		Slight bias to the North	All to the north	Nil seen	Appears stable	Good	<5	Low		1.8	1.7
											15 Ca	nberra A	venue					
T12	Robinia pseudoacacia sp														Very Low	Dead (Exempt)	0.0	0.0

Tree Data Summary - 13 - 19 Canberra Avenue St. Leonards - Assessed 8 February 2021																		
Tree ID+A 2:Q2 8	Species	Height (m)	Canopy dims n/s in metres	DBH (cm)	DGL (cm)	Foliage condition	Maturity	Trunk type	Trunk lean	Canopy Balanced	Past Pruning	Stability	Vigour	Canopy deadwood	Significance value	Notes (M) (SRZ (M) Radius
T13	Robinia pseudoacacia "Frisii"	4	7	20	22										Very Low	Tree in poor form and vigour. Upper half canopy dead.	2.4	1.8
	Elaeocarpus reticulatus Blueberry Ash	4	3	12	16	Fair	Semi mature	Single	Bias lean to the S/E	Majority to the S/E	Lower canopy to 2 metres		Fair	<5%	Low	Tree assessed from within property No 13 Canberra Avenue. Access to rear garden denied due to locked gated	1.4	1.5
	Cinnamomum camphora Camphor laurel	4	7	40	45	Poor	Mature	Single	Upright	Balanced		Unknown	Low	40%	Exempt	Tree assessed from within property No 13 Canberra Avenue. Access to rear garden denied due to locked gated	4.8	2.4
		17 Canberra Avenue																
	<i>Magnolia x soulangeana</i> Saucer magnolia	<4	8	38	40	Good	Mature	Single to 0.5 m	Upright	Balanced	Lower canopy	Appears stable	Fair	<5%	Low	Tree is mature and prominent from the street frontage. Typically of old Magnolias, evidence of some decay at old pruned sited.	4.6	2.3
	<i>Magnolia x soulangeana</i> Saucer magnolia	<4	8	38	40	Fair	Mature	Single to 0.5 m	Upright	Balanced	Lower canopy	Appears stable	Fair	<5%	Low	Tree is mature and prominent from the street frontage. Sparse upper canopy and evidence of extensive possum grazing. Otherwise tree appeared in good condition and prominent from the street frontage.	4.6	2.3
											19 Ca	nberra A	venue					
T18	Syzygium sp	6	2	10	12	Fair	Mature	Single	Upright	Balanced	Nil seen	Appears stable	Fair	<5%	Exempt	Group of 5 trees located along the rear boundary forming a very tall hedge. Trees are unkempt and canopy suppression/impact with neighbouring tree.	1.2	1.4
T19	Syzygium sp	6	2	10	12	Fair	Mature	Single	Upright	Balanced	Nil seen	Appears stable	Fair	<5%	Exempt	As above	1.2	1.4
T20	Syzygium sp	6	2	10	12	Fair	Mature	Single	Upright	Balanced	Nil seen	Appears stable	Fair	<5%	Exempt	As above	1.2	1.4
T21	Syzygium sp	6	2	10	12	Fair	Mature	Single	Upright	Balanced	Nil seen	Appears stable	Fair	<5%	Exempt	As above	1.2	1.4
T22	Syzygium sp	6	2												Exempt	Tree Dead	0.0	0.0
	Syzygium paniculata Magenta Lilli Pilli	8	6	18	23	Good	Mature	Single	Upright						Low	Tree located within neighbouring property No 21 Canberra Ave and very close to the common boundary with property 19 Canberra Avenue. The tree has poor form due to inappropriate pruning (lopping) but good vigour.	2.2	1.8
	Denotes trees within the front gardens																	

	Tree Data Summary - 13 - 19 Canberra Avenue St. Leonards - Assessed 8 February 2021																	
Tree ID+A 2:Q2 8	Snacias	Height (m)	Canopy dims n/s in metres	ОВН (ст)	DGL (cm)	Foliage condition	Maturity	Trunk type	Trunk lean	Canopy Balanced	Past Pruning	Stability	Vigour	Canopy deadwood	Significance value	Notes	TPZ (M) Radius	SRZ (M) Radius
	Denotes tree located outside property boundary.		DBH - Diame Breast heigh above grour	nt 1.4m		em diameter d above root			H Mod	nce Value igh derate ow								





Appendix 3: Photographs:



Photo 1: Approximate location of complex's vehicular access (Red dotted lines). Note road narrowing bays and low foliage ST6 Jacaranda Newlands Park. Ground protection (Blue) required beneath canopies.



Photo 2: Casuraina trees RHS road - pruning of low branches required.



Photo 3: Canopy overhanging Canberra Ave. Photo looking south. Development opposite trees.



Photo 4: Large Camphor laurels along rear western boundary of property No 13 have historically been lopped at 4 metres.

IACA Significance of a Tree, Assessment Rating System (STARS)© (IACA 2010)©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of *High*, *Medium* and *Low* significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined. An example of its use in an Arboricultural report is shown as Appendix A.

Tree Significance - Assessment Criteria



1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa *in situ* tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa *in situ*.

3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa *in situ* tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound.

Environmental Pest / Noxious Weed Species

- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.

Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g. hedge.

Table 1.0 Tree Retention Value - Priority Matrix.

				Significance						
		1. High	2. Medium	Olavelii aasaa ka	3. Low	Ha-andana /				
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline				
Estimated Life Expectancy	1. Long >40 years 2. Medium 15-40 Years 3. Short <1-15 Years									
Lege	end for Matr	ix Assessment			ONSULTIN	A C A				
\prod	protecte prescrib	y for Retention (H d. Design modification ed by the Australian Si es must be implemented	or re-location of build tandard AS4970 <i>Protec</i>	ling/s should be constitution of trees on deve	sidered to accommodatelopment sites. Tree se	te the setbacks as ensitive construction				
	Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.									
		der for Removal (L n modification to be impl	•	•	rtant for retention, nor re	equire special works				
		y for Removal - The dirrespective of developed		ed hazardous, or in ir	reversible decline, or we	eeds and should be				

USE OF THIS DOCUMENT AND REFERENCING

The IACA Significance of a Tree, Assessment Rating System (STARS) is free to use, but only in its entirety and must be cited as follows:

IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, www.iaca.org.au

REFERENCES

Australia ICOMOS Inc. 1999, The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance, International Council of Monuments and Sites, www.icomos.org/australia

Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.

Footprint Green Pty Ltd 2001, Footprint Green Tree Significance & Retention Value Matrix, Avalon, NSW Australia, www.footprintgreen.com.au

Appendix A

The following example shows the IACA **Significance** of a **Tree**, **Assessment Rating System** (STARS) used in an Arboricultural report.

Tree Significance

Determined by using the Tree Significance - Assessment Criteria of the *IACA Significance of a Tree, Assessment Rating System* (STARS)© (IACA, 2010), Appendix B.

Trees 14, 16, 17/3, 19 and 20/4 are of high significance with the remaining majority of medium significance and a few of low significance. Tree 14 is significant as a prominent specimen and a food source for indigenous avian fauna. Tree 16 as a non-locally indigenous planting is of good from and prominent *in situ*; Tree 17/3 as a stand of 6 street trees along the Davey Street frontage screening views to and from the site and contiguous with trees in Victoria Park extending the aesthetic influence of the urban canopy to the site. Similarly for Trees 20/4 as street trees in Long Road and Tree 19 as an extant exotic planting as a senescent component of the original landscaping. The trees of low significance are recent plantings as fruit trees — Avocados, and 1 Cootamundra Wattle as a non-locally indigenous tree in irreversible decline and potentially structurally unsound.

Significance Scale

1 – High

2 - Medium

3 - Low

Significance Scale	1	2	3
Tree No. / Stand No.	14, 16, 17/3, 19, 20/4	1/1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12/2, 15, 18, 21/5	3, 13, 22

Tree Retention Value

Determined by using the Retention Value - Priority Matrix of the *IACA Significance of a Tree, Assessment Rating System* (STARS)© (IACA, 2010), Appendix B.

Retention Value

High – Priority for Retention Medium – Consider for Retention Low – Consider for Removal Remove - Priority for Removal

Retention Value	High Priority for Retention	Medium Consider for Retention	Low Consider for Removal	Remove Priority for Removal
Tree No. / Stand No.	1/1, 5, 17/3*, 19	2, 4, 6, 7, 8, 9, 10, 11, 14, 15, 16, 18, 20/4*, 21/5	3, 12/2, 13,	22

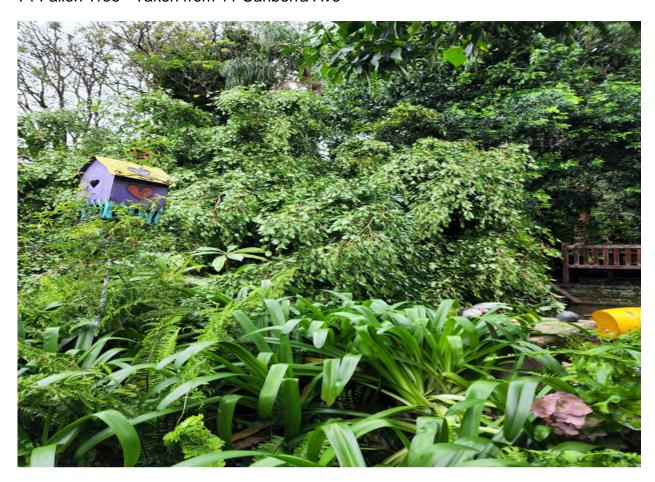
^{*} Trees located within the neighbouring property and should be retained and protected.



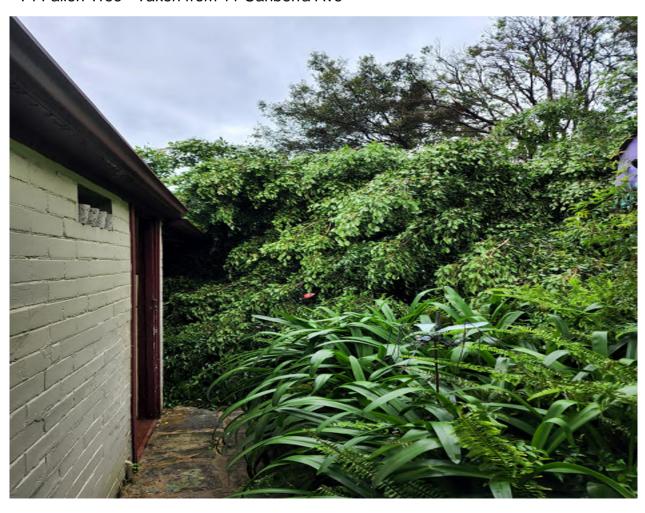
T4 Fallen Tree - Taken from 11 Canberra Ave



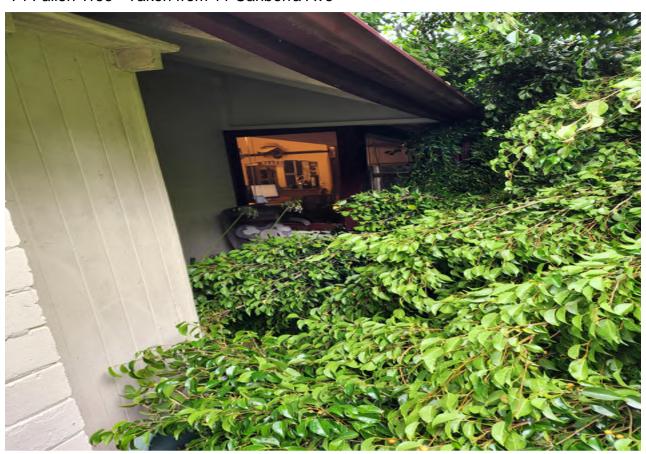
T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 11 Canberra Ave



T4 Fallen Tree - Taken from 13 Canberra Ave



T4 Fallen Tree - Taken from 13 Canberra Ave



T4 Fallen Tree - Taken from 13 Canberra Ave



T4 Fallen Tree - Taken from 13 Canberra Ave



