

# ARBORICULTURAL REPORT 321 LOWER HEIDELBERG ROAD, IVANHOE

**NOVEMBER 2023** 

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> ADVERTISED PLAN Application No. P4/2024

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#### 1 INTRODUCTION

- 1.1 TLC Melbourne Pty Ltd have engaged John Patrick Landscape Architects Arboricultural Consultants to prepare an Arboricultural Report for the subject site known 321 Lower Heidelberg Road, Ivanhoe which incorporates the site at 1 Maltravers Road.
- 1.2 They are proposing to redevelop the site and construct an integrated community centre. The original church will be retrofitted to become a Community Centre/Gallery, with other additional buildings, up to two storeys high, constructed to include services such as Health & Wellbeing, Childcare, Medical Centre and an indoor pool and gym facilities. There is a lower ground floor which sits partially below NGL and two levels of basement parking. This is surrounded by a large expanse of open space for landscaping (VIA Architects, Project No. 1910034, 03/11/2023).

#### 2 OBJECTIVES

- 2.1 The intent of this report is to.
  - I. Assess the condition of trees within and directly neighbouring the subject site, which may be impacted by the proposed redevelopment of the site.
  - II. Identify any trees worthy of retention and provide preliminary arboricultural advice to assist in their protection and retention.
- 2.2 Individual trees identified with a DBH of 100mm or less i.e., shrubs, were not assessed in this report unless rare or of unusual attributes.
- 2.3 The report will include the following.
  - Tree Number
  - Botanic / Common names
  - Origin
  - Tree Size (Height & Width)
  - DBH (Trunk Diameter)
  - Tree Health & Structural Condition
  - ULE (Useful Life Expectancy)
  - TPZ (Tree Protection Zones)
  - Arboricultural Value

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#### 3 METHODOLOGY

- 3.1 The site was visited on the 17<sup>th</sup> October 2023 and 9<sup>th</sup> and 21<sup>st</sup> November 2023, and a Visual Tree Assessment (VTA Claus Mattheck) of the trees undertaken. This included trees within the subject site and those immediately neighbouring that maybe impacted by the proposed redevelopment.
  - The DBH of trees, was measured using a diameter tape, in accordance with AS4970-2209.
  - DBH of neighbouring trees was estimated where access was not directly available to their trunks.
  - Heights of trees were measured using a laser range finder.
  - Widths were calculating by stepping out.
  - Tree Protection Zones (TPZ's) were calculated in accordance with AS4970-2009.
  - TPZ encroachments were calculated utilising Computer Added Design (CAD) software.
- 3.2 The tree assessment was undertaken from the ground by a suitably qualified and experienced arborist, with minimum AQF 5 qualification or equivalent.
- 3.3 No aerial or diagnostic testing was undertaken of the trees or the soil in which they were growing.
- 3.4 Tree numbering was adopted from a previous Arboricultural Report prepared for the site by Tree Dimensions dated 1 July 2019 to avoid confusion. This numbering is denoted in the Tree Data table and on the Tree Impact Assessment Plan. Tree locations are based on the Feature Survey, (Smith, Job No. 2017-0130F, 13/02/2018).

#### 4 OBSERVATIONS

#### **EXISTING CONDITIONS**

- 4.1 The subject site is located in the south-west corner of the intersection of Maltravers Road to the north, Lower Heidelberg Road to the east and King Street to the south. The land slopes naturally from the north to the south and has been terraced over several levels to make the site functional. The land size is 6293m<sup>2</sup>.
- 4.2 The site consists of unoccupied residential dwellings located at 1 Maltravers Road and 8 King Street and a church, hall and other supporting buildings and a tennis court at 321 Lower Heidelberg Road.
- 4.3 Trees are growing around the boundaries in and directly neighbouring the site. Trees at the entrance to 1 Maltravers Road, while on public land, appear to have been planted by a previous owner.

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#### **Aerial Image**



Image 1: Aerial Image – Nearmap September 2023.

#### **VEGETATION CONTROLS**

4.4 A search of VicPlan (mapshare.vic.gov.au/vicplan/) identified the site is covered by Clause 42.02 Vegetation Protection Overlay – Schedule 3 (VPO3) of the Banyule Planning Scheme.

#### Vegetation protection objectives to be achieved.

To retain and enhance the vegetation, and in particular the tall trees in the area, which contributes to the identified character of the area.

To ensure that prior to removal of tall trees all alternatives are considered, including redesign of proposed buildings and associated works.

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To ensure that where a tree to be removed, comprehensive landscape plans are prepared; and provision is made for substantial vegetation and trees elsewhere on the site.

#### Permit Requirement.

To protect and enhance the area as a habitat for local flora and fauna.

A permit is required to remove, destroy or lop any vegetation.

This does not apply:

- To the removal, destruction or lopping of native vegetation which has been planted for garden or horticultural purposes and which is less than 5 metres high and has a single trunk circumference of less than 0.5 metres at a height of 1 metre above ground level.
- To the removal, destruction or lopping of exotic vegetation which is less than 5 metres in height and has a trunk circumference of less than 0.5 metres at a height of 1 metre above ground level.
- To the removal, destruction or lopping of vegetation identified as environmental weed species in Banyule Weed Management Strategy.
- To the removal or pruning of street trees in accordance with the Banyule Street Tree Strategy.
- To the pruning of vegetation to maintain or improve its health, structure or appearance, including regeneration.
- To the pruning, or removal of vegetation to prevent damage to works when damage to a pipeline, electricity or telephone transmission line, cable or other service has occurred or is likely to occur.
- To the removal, destruction or lopping of dead vegetation unless the dead vegetation is a habitat tree containing hollows.
- To the pruning, removal or destruction of any vegetation where an agreement exists between a railway
  carrier and the Department of Sustainability and Environment, or where the pruning, removal or destruction
  of vegetation is the minimum amount necessary to provide for the safe operation of the rail service for the
  safety of the travelling public.

To the removal, destruction or lopping of vegetation carried out in accordance with a management plan prepared to the satisfaction of the responsible authority.

4.5 As the site is greater than 4000m² it is also subject to the provisions of Clause 52.17 Native Vegetation. Under this clause:

A permit is required to remove, destroy or lop native vegetation, including dead native vegetation. This does not apply:

- If the table to Clause 52.17-7 specifically states that a permit is not required.
- If a native vegetation precinct plan corresponding to the land is incorporated into this scheme and listed in the schedule to Clause 52.16.

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- To the removal, destruction or lopping of native vegetation specified in the schedule to this clause.

4.6 A number of exemptions are listed in the table to Clause 52.17-7 of which one is relevant to this site. This is:

Planted Vegetation - Native vegetation that is to be removed, destroyed or lopped that was either planted or grown as a result of direct seeding.

\*Note: Tree removal requirements should be confirmed in writing from the Responsible Authority before any removals occur.

#### TREE INFORMATION

- 4.7 A total of one-hundred trees were assessed including sixty-one trees within the site itself, seventeen trees within neighbouring sites and twenty-two trees located within Council owned land. Information on these trees can be found in the following table.
- 4.8 Trees 76 and 81 were not located during the site inspection. It has therefore been assumed they have been removed since the previous Arboricultural Impacts Assessment was prepared by Tree Dimensions in July 2019.

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Tree No.	Species Name	Common Name	Origin	Height (m)	Spread (m)	DBH (cm)	TPZ (m)	Age	Health	Structure	ULE	Arb Value	Comments	Permit Req. VPO3
1	Allocasuarina torulosa	Forest Oak	Α	11	5	37	4.4	М	Fair	Poor	<5	Medium	Street tree.	
2	Melaleuca styphelioides	Prickly-leaved Paperbark	Α	7	6	30	3.2	М	Good	Fair	15-40	Low	Street tree. Suppressed	Yes
3	Agonis flexuosa	Willow Myrtle	Α	4	4	15	2	М	Fair	Poor	5-15	Low	Street tree. Supressed	Yes
4	Melia azedarach	White Cedar	Α	10	14	80	7.9	М	Fair	Poor	5-15	Medium	Street tree	Yes
5	Callistemon salignus	Willow Bottlebrush	Α	4	3	15	2	S	Fair	Fair	<5	Low	Street tree. Supressed	Yes
6	Sophora microphylla	Kowhai	Е	6	5	26	3.2	М	Good	Fair	<5	Low	Street tree, Supressed.	Yes
7	Ligustrum lucidum	Shining Privet	Е	6	4	26	3.1	М	Good	Poor	<5	Low	Weed species	Exempt
8	Fraxinus oxycarpa 'Raywood'	Claret Ash	E	10	14	68	8.2	M	Poor	Poor	0	Nil	Street tree. Lopped decayed & falling apart. Epicormics only.	Yes
			E			51				Fair				
9	Fraxinus excelsior 'Aurea'	Golden Ash		12	10	_	6.1	M	Poor		5-15	Medium	Street tree. Dieback, stressed and suckering.	Yes
10	Melia azedarach	White Cedar	A	9	12	65	7.2	M	Good	Fair	15-40	High	Street tree	
11	Cedrus deodara	Deodar Cedar	E _	15	10	60	7.2	M	Fair	Fair	15-40	High	Deadwood throughout	
12	Cupressus sempervirens	Italian Cypress	E	16	3	73	8.8	М	Good	Fair	15-40	Medium		
13	Cupressus sempervirens	Italian Cypress	E	16	3	73	8.8	М	Good	Fair	15-40	Medium		
14	Cupressus sempervirens	Italian Cypress	E	17	3	73	8.8	М	Good	Fair	15-40	Medium		
15	Cupressus sempervirens	Italian Cypress	E	14	3	73	8.8	M	Good	Fair	15-40	Medium		
16	Cupressus sempervirens	Italian Cypress	E	14	3	73	8.8	М	Good	Fair	15-40	Medium		
17	Cupressus sempervirens	Italian Cypress	E	17	3	73	8.8	М	Good	Fair	15-40	Medium		Yes
18	Cotoneaster glaucophyllus	Cotoneaster	E	4	6	10	2	М	Good	Fair	<5	Low	Weed species	Exempt
19	Cotoneaster glaucophyllus	Cotoneaster	Е	4	8	23	2.7	М	Good	Fair	<5	Low	Weed species	Exempt
20	Eucalyptus mannifera	Red Spotted Gum	V	12	8	66	7.9	М	Good	Fair	5-15	Medium	Multiple leaders from same union.	Yes
21	Callistemon viminalis	Weeping Bottlebrush	Α	6	7	35	4.6	М	Good	Fair	5-15	Low		Yes
22	Callistemon viminalis	Weeping Bottlebrush	Α	5	4	25	3	М	Fair	Fair	5-15	Low		Yes
23	Fraxinus excelsior 'Aurea'	Golden Ash	Е	7	8	50	6	М	Poor	Poor	<5	Low	Advanced decline	Yes
24	Grevillea sp.	Grevillea	A	4	5	9	2	M	Good	Poor	<5	Low	Includes 2 other small trees/shrubs	Exempt
25	Koelreuteria paniculata	Golden Rain Tree	E	7	10	50	6	M	Fair	Fair	5-15	Medium	Decay in pruning wound on trunk.	
26	Koelreuteria paniculata	Golden Rain Tree	E	5	6	50	6	M	Fair	Fair	5-15	Medium	Description of the state of the	Yes
27	Koelreuteria paniculata	Golden Rain Tree	E	5	5	40	4.8	M	Fair	Fair	5-15	Medium		Yes
28	Koelreuteria paniculata	Golden Rain Tree	E	4	4	20	2.4	M	Good	Poor	5-15	Low	Very asymmetric canopy	Yes
	•	Kowhai	E	6	4					<b>!</b>		<b> </b>	Dead and failed	
29	Sophora microphylla		_	6	-	25	3	M	Poor	Poor	0	Low	Deau and falled	Exempt
30	Sophora microphylla	Kowhai	E	8	5	26	3.1	M	Fair	Fair	5-15	Low		Yes
31	Lophostemon confertus	Brush Box	A	14	10	45	5.4	M	Fair	Fair	15-40	Medium	Ohn A fine -	
32	Koelreuteria paniculata	Golden Rain Tree	E	5	7	17	2.1	S	Fair	Fair	5-15	Medium	Street tree	4
33	Koelreuteria paniculata	Golden Rain Tree	Е	4	4	13	2	S	Poor	Poor	5-15	Medium	Street tree	
34	Koelreuteria paniculata	Golden Rain Tree	E	4	5	15	2	S	Poor	Poor	5-15	Medium	Street tree	
35	Acacia melanoxylon	Blackwood Wattle	- 1	6	6	28	3.4	S	Fair	Fair	5-15	Low		Yes
36	Pittosporum tenuifolium cv.	Kohuhu	E	7	2	10	2	М	Fair	Fair	5-15	Low		
37	Pittosporum tenuifolium cv.	Kohuhu	Е	7	2	10	2	М	Fair	Fair	5-15	Low		
38	Pittosporum tenuifolium cv.	Kohuhu	E	7	2	10	2	М	Fair	Fair	5-15	Low		
39	Ulmus parvifolia	Chinese Elm	Е	9	12	40	4.8	М	Good	Poor	5-15	Medium		
40	Lophostemon confertus	Brush Box	Α	7	4	0	2	М	Good	Poor	<5	Low	Resprouting from lopped stump.	
41	Eucalyptus mannifera	Red Spotted Gum	V	6	4	15	2	S	Fair	Poor	5-15	Low		
42	Eucalyptus cinerea	Argyle Apple	V	7	4	15	2	S	Poor	Poor	<5	Low	Top of tree dead	
43	Ligustrum lucidum	Shining Privet	Е	6	6	38	4.6	М	Fair	Fair	<5	Low	Weed species	Exempt
44	Pittosporum tenuifolium cv.	Kohuhu	Е	6	3	25	3	М	Poor	Fair	0	Low	Dead	Exempt
45	Pittosporum tenuifolium cv.	Kohuhu	E	6	3	25	3	M	Fair	Fair	<5	Low		Yes
46	Pittosporum tenuifolium cv.	Kohuhu	E	6	3	25	3	M	Fair	Fair	<5	Low	AD	VERTISED PL
47	Pittosporum tenuifolium cv.	Kohuhu	E	6	3	25	3	M	Fair	Fair	<5	Low	Арр	Plication No P4 Yes
	Ficus carica	Common Fig	E	5	8		4.2	M	Good	Poor	5-15	Low	Thi	s copiedYesur
48		•		_		35							ava	
49	Pittosporum eugenioides 'Variegatum'	Silver Tarata	E	6	5	20	2.4	M	Good	Fair	5-15	Low	ena	abling its consid
50	Pittosporum tenuifolium cv.	Kohuhu	E	4	2	10	2	M	Fair	Fair	5-15	Low	20.5	part of a planni
51	Callistemon sp.	Bottlebrush	Α	4	2	10	2	М	Fair	Fair	5-15	Low	Pla	inning Environi
52	Acacia pycnantha	Golden Wattle	I	5	4	20	2.4	М	Fair	Fair	5-15	Low	The	
53	Pittosporum tenuifolium cv.	Kohuhu	E	5	3	10	2	М	Fair	Fair	5-15	Low	any	purpose which
54	Pittosporum tenuifolium cv.	Kohuhu	Е	5	2	10	2	М	Fair	Fair	5-15	Low	cop	yright.

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Tree No.	Species Name	Common Name	Origin	Height (m)	Spread (m)	DBH (cm)	TPZ (m)	Age	Health	Structure	ULE	Arb Value	Comments	Permit Req. VPO3
55	Eucalyptus leucoxylon	Yellow Gum	V	5	4	20	2.4	S	Fair	Poor	<5	Low		
56	Ligustrum lucidum	Shining Privet	Е	8	6	39	4.7	М	Good	Poor	<5	Low	Weed species	Exempt
57	Ligustrum lucidum	Shining Privet	Е	8	6	24	2.9	М	Good	Poor	<5	Low	Weed species	Exempt
58	Melaleuca styphelioides	Prickly-leaved Paperbark	Α	8	4	25	3	S	Poor	Fair	5-15	Low	Sooty Mould fungus	Yes
59	Fraxinus angustifolia ssp. angustifolia	Desert Ash	Е	9	5	30	3.6	S	Fair	Fair	5-15	Low	Weed species	Exempt
60	Ligustrum lucidum	Shining Privet	Е	6	6	38	4.6	М	Fair	Poor	<5	Low	Weed species	Exempt
61	Eucalyptus botryoides	Southern Mahogany	V	14	16	60	7.2	М	Fair	Good	15-40	Medium		
62	Sophora microphylla	Kowhai	Е	4	3	10	2	S	Fair	Poor	<5	Low		Exempt
63	Paulownia tomentosa	Empress Tree	Е	4.5	4	12	2	- 1	Good	Poor	5-15	Low		Exempt
64	Paulownia tomentosa	Empress Tree	Е	8	8	30	3.6	S	Good	Fair	5-15	Medium		Yes
65	Acer palmatum	Japanese Maple	Е	3	3	6	2	S	Good	Fair	15-40	Low		Exempt
66	Koelreuteria paniculata	Golden Rain Tree	Е	5	5	25	3	S	Fair	Fair	5-15	Low		Yes
67	Lophostemon confertus	Brush Box	Α	9	6	25	3	S	Good	Fair	15-40	Medium	Adjacent to powerlines – pruned heavily	Yes
68	Lophostemon confertus	Brush Box	Α	5	3	15	2	- 1	Fair	Poor	<5	Low	Overshadowed	Yes
69	Ligustrum lucidum	Shining Privet	Е	4	3	10	2	S	Fair	Poor	<5	Low	Weed species	Exempt
70	Koelreuteria paniculata	Golden Rain Tree	Е	7	9	50	6.6	М	Poor	Fair	15-40	Medium	Possum grazing.	
71	Pittosporum tenuifolium cv. (Hedge)	Kohuhu	Е	7	3	20	2.4	М	Good	Fair	15-40	Low	~10 trees in hedge	Yes
72	Pittosporum tenuifolium cv.	Kohuhu	Е	4	1	20	2.4	М	Fair	Fair	5-15	Low	7 trees in hedge	Yes
73	Ligustrum lucidum	Shining Privet	Е	5	3	8	2	S	Good	Fair	5-15	Low	Weed species	Exempt
74	Camellia sasanqua	Sasanqua Camellia	Е	5	4	13	2	S	Good	Fair	15-40	Low		Exempt
75	Cotoneaster glaucophyllus	Cotoneaster	Е	4	5	12	2	М	Fair	Poor	<5	Low	Weed species	Exempt
76	No Tree													
77	Acer palmatum	Japanese Maple	Е	3	3	7	2	S	Good	Fair	5-15	Low		Exempt
78	Melaleuca armillaris	Bracelet Honey- myrtle	V	6	3	10	1.5	S	Good	Poor	<5	Low	Narrow fork	Yes
79	Acer palmatum	Japanese Maple	Е	3	2	6	1.5	S	Dead	Poor	0	Low	Dead	Exempt
80	Cotoneaster glaucophyllus	Cotoneaster	Е	4	4	10	1.5	М	Fair	Poor	<5	Low	Weed species	Exempt
81	No Tree													1
82	Robinia pseudoacacia 'Umbraculifera'	Mop Top Robinia	Е	4	4	18	1.6	S	Good	Fair	15-40	Low	Suckering.	Yes
83	Robinia pseudoacacia 'Umbraculifera'	Mop Top Robinia	Е	4	4	15	1.5	S	Good	Fair	15-40	Low	Suckering.	Exempt
84	Robinia pseudoacacia 'Umbraculifera'	Mop Top Robinia	Е	4	4	13	1.5	S	Good	Fair	15-40	Low	Suckering.	Exempt
85	Robinia pseudoacacia 'Umbraculifera'	Mop Top Robinia	Е	4	4	12	1.5	S	Good	Fair	15-40	Low	Suckering.	Exempt
86	Melaleuca armillaris	Bracelet Honey- myrtle	V			10	1.5	S	Good	Poor	0	Low	Failed	Exempt
87	Ligustrum lucidum	Shining Privet	Е	4	4	17	1.6	S	Good	Fair	15-40	Low	Weed species	Exempt
88	Viburnum Sp.	Viburnum	Е	4	4	8	1.5	М	Good	Fair	5-15	Low	Includes a number of other small species.	Exempt
89	Photinia serratifolia	Christmas Berry	Е	4	4	12	2	М	Good	Fair	5-15	Low	Street tree.	Yes
90	Photinia serratifolia	Christmas Berry	Е	4	4	15	2	М	Good	Fair	5-15	Low	Street tree.	Yes
91	Photinia serratifolia	Christmas Berry	Е	4	4	15	2	М	Good	Fair	5-15	Low	Street tree.	Yes
92	Photinia serratifolia	Christmas Berry	Е	4	4	15	2	М	Good	Fair	5-15	Low	Street tree.	Yes
93	Cupressus sempervirens	Italian Cypress	Е	5	3	30	3.6	М	Good	Fair	5-15	Low	Street tree	Yes
94	Cupressus sempervirens	Italian Cypress	Е	8	3	30	3.6	М	Good	Fair	5-15	Medium	Street tree	Yes
95	Cupressus sempervirens	Italian Cypress	Е	6	3	35	4.2	М	Good	Fair	5-15	Low	Street tree	Yes
96	Cotoneaster glaucophyllus	Cotoneaster	E	4	5	12	1.5	M	Fair	Poor	<5	Low	Street tree. Weed species	Yes
97	Koelreuteria paniculata	Golden Rain Tree	E	5	9	28	3.4	M	Good	Fair	15-40	Medium	Street tree.	
98	Koelreuteria paniculata	Golden Rain Tree	E	4	7	25	3	M	Good	Fair	15-40	Medium	Street tree	
99	Cupressus torulosa	Bhutan Cypress	E	18	8	40	4.8	M	Good	Fair	15-40	High		
100	Cupressus torulosa	Bhutan Cypress	E	18	10	60	7.2	M	Good	Fair	15-40	High	AD	VERTISED PLAN
101	Melia azederach	White Cedar	E	4	5	20	2.4	S	Good	Poor	0-5	Low	Self-sown. Multi-stemmed from base.	Polication No. P4/202 Yes
102	Pittosporum undulatum	Sweet Pittosporum	V	5	5	20	2.4	S	Good	Poor	0-5	Low	Weed. Self-sown. Multi-stemmed from base	nis copi <b>Exempt</b> nent i
	Street tree to be retained													ailable for the sole pu
	Street tree to be removed												en	abling its consideration
													20	part of a planning pro

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Site tree to be retained

Site tree to be removed

Neighbouring tree to be retained

## Received 19/01/2024

#### **Tree Photos**



31 67 70 65 65

Image 2: Maltravers Rd frontage.

17 16-12 9 20 12 23 25

Image 3: Looking north from inside site.

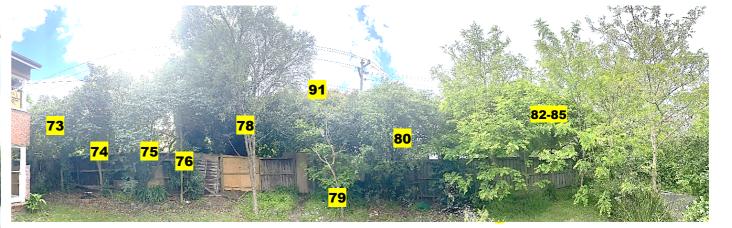


Image 5: Looking at North-east corner from within site.

Image 4: Lower Heidelberg Rd frontage.



Image 6: King St frontage.



Image 7: Looking south at Trees 20 – 22.

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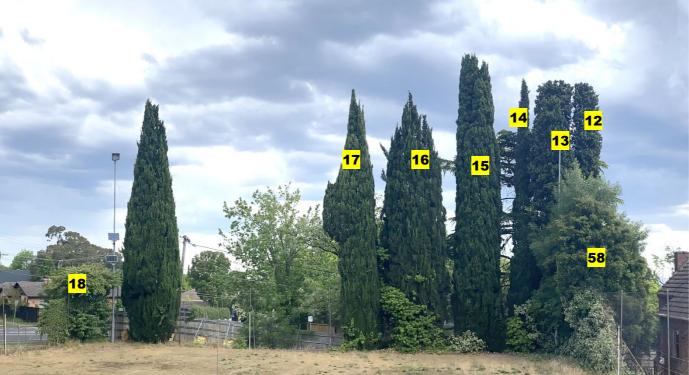




Image 9: Trees 1 - 4

Image 10: Looking south at Trees 12-18 & 58.

Image 11: Trees 8 – 12 from within the site.

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#### 5 DISCUSSION

- 5.1 Trees of low arboricultural value are <u>not</u> worthy of retention either due to their generally poor structure or health, relatively small size for their species, or their propensity to self-germinate and be weedy. They do not have to be removed unless dangerous. Permits may be required for their removal.
- 5.2 Trees of medium arboricultural value are worth considering for retention where possible.
- 5.3 Trees of high arboricultural value are worthy of retention.

#### **SITE TREES**

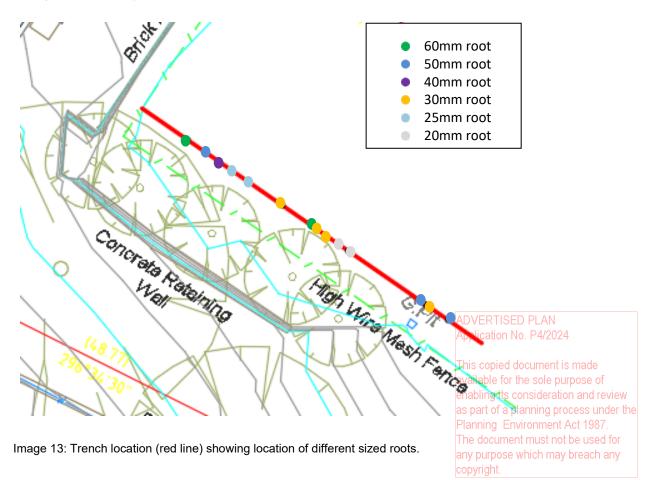
- 5.4 Sixty-one trees were assessed within the site itself. Of these only one tree (Tree 11) was assessed as being of high arboricultural value. This tree is proposed to be retained. A retaining wall and area of fill encroach into its TPZ approximately 3.1%. This complies with AS4970-2009 *Protection of trees on development sites*. Provided existing levels are maintained within the landscape area located in the remainder of its TPZ, the proposed development is not expected to negatively impact the long-term healthy retention of this tree.
- 5.5 Fourteen site trees were assessed as being of medium arboricultural value of which eight are proposed to be retained (Trees 12-16, 25, 31 and 70) and six proposed to be removed (Trees 17, 20, 26, 27, 64 and 67).
- 5.6 A paved walkway and seating area are proposed within the TPZs of Trees 12-16. This is proposed at approximately 800mm lower than existing levels, resulting in encroachments ranging from 15.4% to 33.8%. A non-destructive root investigation (NDRI) was undertaken on the 21<sup>st</sup> November 2023 to determine the impact of this encroachment on these trees. A 1m deep trench was dug using hydro-excavation along the approximate alignment of the proposed cut. The following roots greater than 10mm in diameter were found:

Distance from western fence of tennis court (m)	Depth (cm)	Root diameter (mm)	Likely tree root originates from*
2.30	65	60	14
3.17	64	50	13
3.90	68	40	13
4.55	76	25	14
5.40	40	25	14
7.10	68	30	14
8.60	70	60	15
8.75	70	30	15
9.30	43	30	ADVERTISED PLAN
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14.35	40	30	enabling its consideration and revi
15.50	54	50	as part of a planning process under Planning Environment Act 1987.

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Image 12: Trench adjacent to Trees 12-16



- 5.7 Based on these results and the high tolerance this taxon has to root pruning, provided the roots are pruned during winter while the trees are not actively growing and soil wetter and regular irrigation is applied around the trees for at least two years following the root pruning, the trees are likely to tolerate the level of encroachment. An existing retaining wall located to the south of the trees must either be retained, or carefully replaced and existing soil above the retaining wall maintained.
- 5.8 Soft landscaping is proposed within the TPZ of Tree 25. Provided this area is maintained at existing soil levels, this is not expected to negatively impact the long-term healthy retention of this tree.
- 5.9 A paved pedestrian entry path and visitor bike parking area are located within the TPZ of Tree 31 resulting in a total encroachment of approximately 15.7%. Most of this is located at the outer edge of the TPZ where it is highly unlikely there will be any major roots. Given this and the relatively robust nature of this taxon, I am confident it will tolerate this level of encroachment. Soft landscaping is proposed within the remainder of the TPZ and provided this is maintained at existing soil levels, the proposed development is not expected to negatively impact the longterm healthy retention of this tree.
- 5.10 Soft landscaping is proposed within the TPZ of Tree 70. Provided this area is maintained at existing soil levels, this is not expected to negatively impact the long-term healthy retention of this tree. This tree has a decaying wound on its trunk, (Image 14), however it is still expected to have a ULE of 15-40 years if it is isolated from possums which have partially defoliated its canopy.



Image 14: Tree 70 decaying wound on trunk.

Tree 17 is located close to a pedestrian entry leading from the corner of King Street and Lower Heidelberg Road. Its removal is required to accommodate this walkway.

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5.12 Tree 20 is a prominent eucalypt on the Lower Heidelberg Road frontage and while it is generally in fair condition, its canopy consists of many leaders all originating from the same union. This weakens the union and as the tree increases in size, the increasing diameter of the leaders and weight of the canopy increases the pressure applied at this union, making the leaders more susceptible to splitting in storm events or strong winds. This creates a potential safety concern in a high pedestrian traffic entrance into the site. Its removal and replacement is therefore recommended.



Image 15: Tree 20 showing multiple leaders originating from the same union.

- 5.13 Trees 26 and 27 require removal to accommodate a pedestrian entry from Lower Heidelberg Road and basement.
- 5.14 Trees 64 will require removal to accommodate a pedestrian entry from Maltravers Road.
- 5.15 Tree 67, while assessed as being of medium arboricultural value, has been pruned quite heavily for powerline clearance. Based on this, its removal and replacement has been recommended.
- 5.16 The remaining forty-six site trees have been assessed as being of low arboricultural value and are not worthy of retention. All of these are proposed to be removed and replaced as part of a new landscape plan for the site.
- 5.17 Of the site trees proposed to be removed, twenty-four will require a permit for their removal, this includes the six trees of medium arboricultural value (Trees 17, 20, 26, 27, 64 and 67) and eighteen of the trees of low arboricultural value (Trees 21, 22, 23, 28, 30, 35, 45, 46, 47, 48, 58, 66, 68, 71, 72, 78, 82 and 101). The remaining trees are exempt due to either their size (Trees 24, 62, 63, 65, 74, 77, 86 and 88); weed status (Trees 7, 18, 19, 43, 56, 57, 59, 60, 69, 73, 75, 80, 83, 84, 85, 87 and 102); or they are dead (Trees 29, 44 and 79) tilable for the sole purpose of

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#### **NEIGHBOURING TREES**

- 5.18 A number of trees growing within the road reserves are proposed to be removed. The removal of these trees will need to be negotiated with the Responsible Authority.
- 5.19 Trees 2, 3, 4, 5, 6, 8 and 9, all street trees within the King Street road reserve are proposed to be removed to allow for the basement driveway and clear access to the electrical sub-station. Trees 2, 3, 5 and 6 are supressed and are of low arboricultural value and not worthy of retention. Tree 4 is a large Melia that appears healthy, but on closer inspection it is structurally poor with a fracture down its main trunk and signs of decay, (Images 16 and 17). It is therefore considered of low arboricultural value and not worthy of retention beyond 15 years, if it lasts that long.





Images 16 & 17: Tree 4 Split and decay in main union.

- 5.20 Tree 8 is a Claret Ash which has senesced and is in advanced decline and requires removal regardless of any redevelopment of the site, (Image 6).
- 5.21 Tree 9 is a Golden Ash which is in the initial stages of senescence and is stressed, evident by the sucker growth coming from its base and the canopy being predominantly made up of epicormic growth. It is of medium arboricultural value, (Image 18).



Image 18: Tree 9.

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5.22 Trees 89 – 96 are proposed to be removed from within the road reserve at the intersection of Maltravers Road and Lower Heidelberg Road. While they are on public land, they appear to have been planted by a previous owner of 1 Maltravers Road. Four of these are Christmas Berries, three are Italian Cypress, and one is a self-germinated Cotoneaster weed, (Image 19). The Italian Cypresses appear to be regularly lopped to keep them clear of power lines above. They are all of low arboricultural value.



Image 19: Trees 89 - 96.

- 5.23 The remaining street trees (Trees 1, 10, 32, 33, 34, 97 and 98) are all proposed to be retained. A paved pedestrian path encroaches approximately 6.1% into the TPZ of Tree 97. This complies with AS4970-2009. Soft landscaping is proposed within the remaining sections of TPZs which enter the site. The proposed development is not expected to negatively impact the long-term healthy retention of these trees.
- Trees 32, 33, 34, 97 and 98 are all Golden Rain Trees growing in a narrow-grassed strip facing Maltravers Road.

  They are of varying condition due to possum grazing and suppression from trees within the site but are proposed to be retained to contribute to screening of the development to the streetscape.
- 5.25 Soft landscaping is proposed within the TPZs of trees located within the neighbouring private properties to the west (Trees 36 42, 49 55 and 61), although a proposed retaining wall does encroach approximately 3% into the TPZ of Tree 61. Provided existing soil levels are maintained within the area between the retaining wall and boundary, within the TPZ of these trees, the proposed development is not expected to negatively impact their long-term healthy retention.

#### 6 CONCLUSION

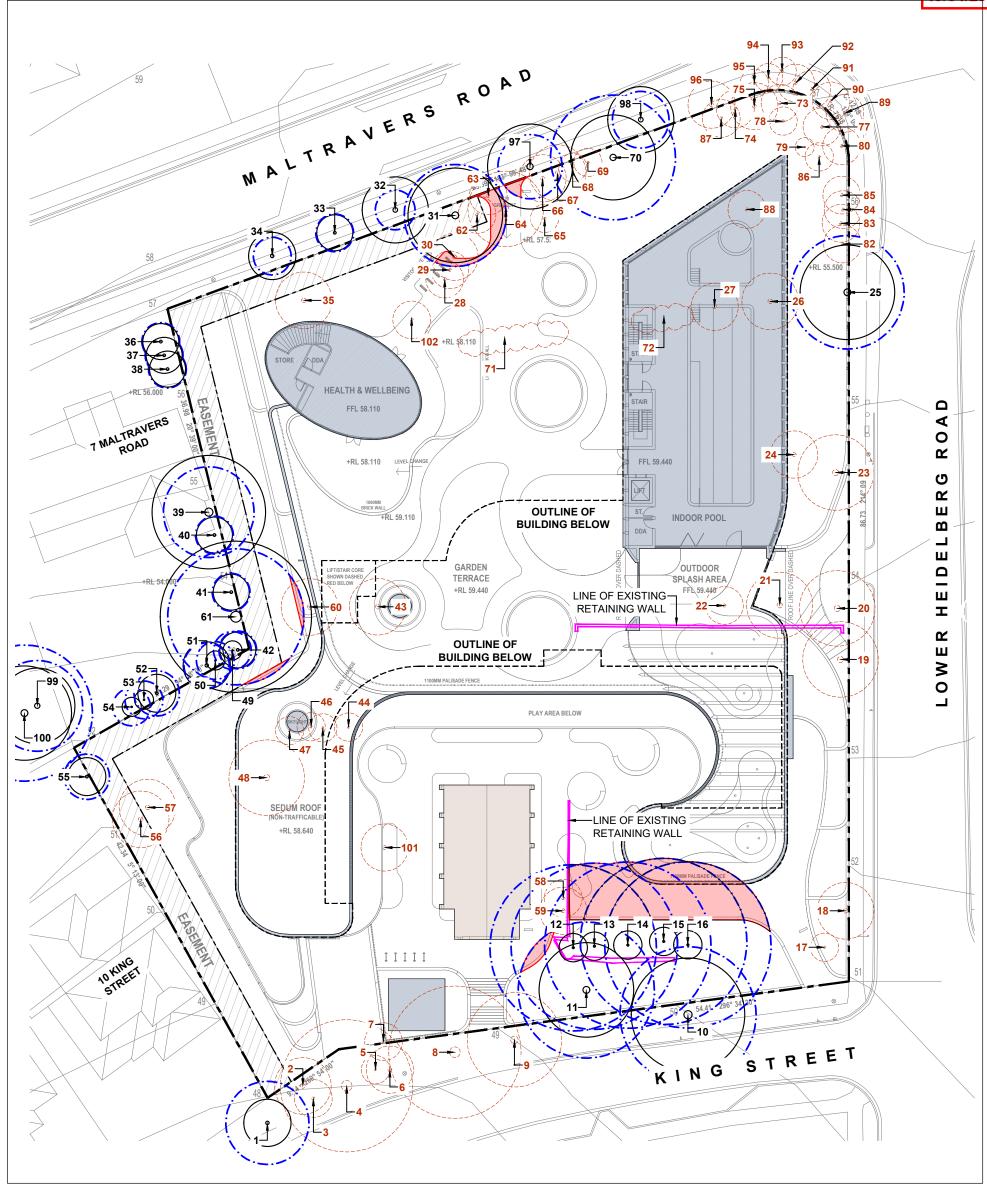
- 6.1 One-hundred trees were assessed were on the 17 October 2023, 9 November 2023 and 21 November 2023. This included sixty-one trees within the site, seventeen trees within neighbouring sites and twenty-two trees within the road reserves.
- 6.2 The majority of the trees within the subject site are of low arboricultural value and not worthy of retention and are proposed to be removed. Many of these are self-germinated and weedy.
- 6.3 The one site tree of high arboricultural value is proposed to be retained, with soft landscaping proposed within the majority of its TPZ.
- 6.4 Eight of the fourteen site trees of medium arboricultural value are proposed to be retained and six removed. Those being retained are unlikely to be negatively impacted by the proposed development.
- 6.5 Of the site trees proposed to be removed, twenty-four will require a permit under VPO3 with the remainder exempt based on either their size, weed status or they are dead.
- 6.6 Fifteen trees located within the road reserves are proposed to be removed. Eight of these are located on the corner of Lower Heidelberg Road and Maltravers Road, with seven of these appearing to have been planted by a previous owner and one a self-germinated weed. They are not standard specimen street trees. The remaining seven trees are located on the King Street frontage. Three of these are likely to be street trees planted by Council, with the remainder potentially planted by a previous owner. This is based on their location and species.
- 6.7 All trees located within the road reserves require approval from the Responsible Authority for their removal regardless of whether they are weedy or covered by VPO3.
- There are no naturally occurring Victorian native trees that would require a permit to remove under Clause 52.17.

  Any Victorian Native trees within the site have been planted and are therefore exempt.
- 6.9 While much of the vegetation will be removed from the site, attempts have been made to keep the trees of higher arboricultural value to minimise the impact of the development on the broader landscape.
- 6.10 Ample open space is provided for landscaping within the site and around the boundaries. A landscape plan has been prepared which proposes 54 new trees to replace the scrubby vegetation proposed to be removed, (John Patrick Landscape Architects, November 2023).

The proposed development is not expected to negatively impact the long-term healthy retention of the street trees being retained nor the neighbouring trees to the west.

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## LEGEND





#### 8 APPENDIX 1: DESCRIPTORS

#### Tree Number:

Refers to the identification number for reference purposes, denoted on the Tree Data and Tree Survey Plan.

#### **Botanical Name:**

Botanical name of species based on nomenclature and spelling used by Spencer in *Horticultural Flora of South-eastern Australia* (vols 1-5). Where *Eucalyptus spp.* are not found in this source, nomenclature is based on *Euclid: Eucalypts of Australia* (2006). Eucalypt subspecies information is also based on this source.

While accurate tree identification is attempted, and uncertainties are indicated, some inaccuracies in tree identification may still be present – especially in certain, difficult to determine, genera (e.g., *Cotoneaster* and *Ulmus*) and with cultivars which can have similar characteristics.

Where a doubt as to exact species is indicated, the common name and origin are based on the listed species and would change if the species were found to be incorrect.

From time-to-time taxonomists revise plant classification, and name changes are assigned. If it is known names have been revised post the publication of the relevant above listed source, the new nomenclature has been used.

#### **Common Name:**

Common names are based primarily on names and spelling used by Spencer in *Horticultural Flora of South-eastern Australia* (vols 1-5). The source of common names is taken in the following order:

- Single name supplied in Horticultural Flora of South-eastern Australia.
- First in list of names supplied in *Horticultural Flora of South-eastern Australia* unless another name in the list is deemed more appropriate.
- As per name supplied in Trees of Victoria and Adjoining Areas.
- Then by best known common name if not available in either source.
- Common names are provided for thoroughness; the botanical name should be used when referring to the tree taxon.

#### Origin:

**Exotic:** Tree origin is from outside the Australian mainland, Tasmania or near islands.

Australian Native: Origin is from within the Australian mainland or near islands, but outside Victoria.

Melbourne: Origin is from within Melbourne, as defined by plants listed in the Flora of Melbourne.

This includes trees also found outside Melbourne, and those only within the area at the far extent of their range.

Indigenous: Tree's range includes the local area.

Type:

Deciduous: Tree seasonally loses its leaves in Victoria.

Evergreen: Tree maintains its leaves throughout the year.

Semi-deciduous: Tree may or may not lose its leaves or may only partially lose them.

Palm: Tree is a monocotyledon Palm (that is Arecaceae).

**Palm Like:** Tree is a monocotyledon but is not a palm (that is not *Arecaceae*).

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**Weed Potential:** Trees known to show tendencies to weediness within Victoria.; refer to the Department of Primary Industries website for further information.

#### Age:

- (J) Juvenile: Tree has recently been planted and is still in its establishment phase. Tree currently makes little contribution to the amenity of the landscape. Trees of this age are possible candidates for relocation during development.
- **(S) Semi-mature:** Tree has established. It still has not developed its mature habit. It is starting to contribute to the landscape. The size of the tree would still be expected to increase considerably given no significant changes to the current situation.
- **(M) Mature:** Tree has or is close to reaching its full potential and expected size. Growth has slowed, and the size of tree is not exhibiting any major signs of health or structural weakness because of age.
- **(OM) Over mature:** Tree is no longer actively putting out extension growth and is starting to show signs of decline in health because of age. Canopy is thinning and signs of die back in the canopy may be present.

#### Height:

The tree's height in metres.

#### Width:

The tree's average canopy width in metres. There may be widths of the canopy that are shorter or longer depending on the dissection of the canopy.

#### DBH:

The tree's trunk Diameter at Breast Height (1.4m above ground) In accordance with AS-4970, unless specified as having been taken lower. This can be either estimated or measured as specified in the report.

Stems of multi-stemmed trees may be listed individually, or a measurement given at a lower point where the tree still has one stem. In some cases, especially where trees are not considered worthy of retention or stems are too numerous the DBH may simply be listed as 'multi-stemmed.'

#### Health:

**Good:** Tree is not stressed and shows no obvious signs of pest or disease. It is free of wounding. Annual growth rate is what would be expected of a healthy specimen in the area. There are no signs of die back and canopy is dense. Tree maybe partially supressed by neighbouring trees.

**Fair:** Tree is showing signs of reduced health. It may be drought stressed or show partial signs of pest or disease. Foliage density is less than ideal and may have minor die back. Tree is typical of its species. Remedial works could improve its health.

**Poor:** Tree is showing signs of stress. Has sparse canopy and possibly stunted growth. Large number of dead branches present or dieback. Likely to have pests or disease. Tree often in decline. Remedial works not expected to improve long-term health.

Dead: Tree shows no signs of life and is not growing.

Note on Deciduous Species: Assessment of deciduous species can be problematic, and results may vary depending on the time of year of assessment. Descriptor comments in relation to foliage density do not apply to deciduous trees sed for any purpose which may breach any

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assessed when dormant or entering or exiting dormancy. Time of leaf drop, or bud burst, and extent of bud swell may be considered in the health rating of these trees.

The ratings indicate that certain characteristics listed have or have not been observed. Inspections do not assess the whole tree in detail for each characteristic. The comments category should be referred to for further information.

#### Structure:

As a rule, the structure rating is based on identified faults in the tree habit that reduce trees structural integrity and may lead to part / all of the tree failing.

However, it must be noted that this is not a full hazard or failure assessment of the tree.

Good: Tree appears to have no obvious structural defects that would diminish the trees structural integrity.

**Fair:** The tree has at least one or more obvious structural defects. E.g., dead branches, bifurcation. However, defects are unlikely to prevent the retention of the tree. Judicious remedial intervention could remove structural defects and improve rating.

**Poor:** Tree has at least one or more structural defects that remedial intervention cannot rectify without significantly reducing the retention value of the tree. These defects reduce the useful life expectancy of the tree.

**Hazardous:** The tree shows one or more structural faults that are prone to failure and present an immediate safety concern. Judicious intervention to remove structural faults and reduce safety risk would leave a tree not worthy of retention. These trees should be removed as a high priority.

#### **Arboricultural Value:**

The Arboricultural Values shown in the table below have been calculated on the ULE of the tree which considers the tree's structure and health rating and its significance in the landscape.

The retention value assists in determining the positioning of structures and infrastructure outside the tree's identified TPZ.

ULE	Arboricultural Value						
	High	Medium	Low	Very Low			
20+ yrs.	High Retention						
10-20 yrs.	Medium Retent						
5-10 yrs.	Wedium Retent	lion					
0-5 yrs.	Low Ret	ention					
0 yrs.							

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#### ULE:

The Useful, Life Expectancy of the tree from a health, structure, amenity, and weediness viewpoint given no significant changes to the current situation. This category is difficult to determine, and should be taken as an estimate only, in addition to this, factors not observed at the time of inspection can lead to tree decline.

- 0 yrs.: Tree should be removed due advanced decline/ dead or hazardous.
- <5 yrs. Tree is in decline and has poor health or structural that intervention cannot resolve. Often overmature</p>
- 5-15 yrs. Tree of fair health or structure
- 15-40 yrs. Juvenile, semi-mature, mature tree of fair to good health and structure

#### TPZ (Tree Protection Zone)

The Tree Protection Zone of the tree measured as a radial distance in metres from the centre of the trunk. The TPZ is calculated using the method specified in *Australian Standard AS4970-2009 Protection of trees on development sites*. 12 x DBH=TPZ

#### Recommendation:

i.e., Further exploratory root investigation, alterations to plan to retain trees successfully.

#### Comments:

Any additional comments specific to individual tree specimens.

#### AS4970-2009

The recognised Australian Standard for the 'Protection of Trees on Development Sites.' It provides guidelines of how to protect trees and provides formulas for calculating Tree Protection Zones (TPZ's), Structural Root Zones (SRZ's) and the Diameter at Breast Height (DBH).

#### AS4373-2007

The recognised Australian Standard for the 'Pruning of Amenity Trees.' It provides guidelines on how to prune a tree to encourage good health and structure.

#### **Ecological Vegetation Class (EVC)**

A type of native vegetation classification that is described through a combination of its floristics, life form and ecological characteristics, and through an inferred fidelity to environment attributes. Each EVC includes a collection of floristic communities (i.e., lower level in the classification that is based solely on groups in the same species) that occur across a biogeographic range, and although differing in species, have similar habitat and ecological processes operating.

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# TREE PROTECTION MANAGEMENT PLAN

## 321 LOWER HEIDELBERG ROAD, IVANHOE

November 2023

PREPARED BY

**Kylie May** 

Consultant Arborist
B.AppSci(RurTech) *UQ*GDipUHort *MELB* 



LANDSCAPE ARCHITECTS

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#### 1 INTRODUCTION

- 1.1 TLC Melbourne Pty Ltd have engaged John Patrick Landscape Architects Arboricultural Consultants to prepare a Tree Protection Management Plan (TPMP) for the subject site known 321 Lower Heidelberg Road, Ivanhoe which incorporates the site at 1 Maltravers Road.
- 1.2 The client is proposing to redevelop the site and construct an integrated community centre. The original church will be retrofitted to become a Community Centre/Gallery, with other additional buildings, up to two storeys high, constructed to include services such as Health & Wellbeing, Childcare, Medical Centre and an indoor pool and gym facilities. There is a lower ground floor which sits partially below NGL and two levels of basement parking. This is surrounded by a large expanse of open space for landscaping.

#### 2 OBJECTIVES

2.1 This TPMP has been prepared to direct works around the protection of trees to be retained on and neighbouring the site.

#### 3 METHODOLOGY

- 3.1 This TPMP is based on the following documentation;
  - Proposed Plans prepared by VIA Architects, Project No. 1910034, 03/11/2023
  - Arboricultural Report prepared by John Patrick Landscape Architects, November 2023
  - Landscape Plan prepared by John Patrick Landscape Architects, November 2023
  - AS4970-2009 'Protection of Trees on Development Sites'.
- 3.2 This TPMP applies to nine trees to be retained within the site, seventeen trees located within neighbouring sites and seven street trees as listed in Table 1 below. All other site trees are to be removed.

Species Name	Common Name	TPZ (m)	SRZ (m)	
Allocasuarina torulosa	Forest Oak	4.4	2.3	
Melia azedarach	White Cedar	7.2	2.9	
Cedrus deodara	Deodar Cedar	7.2	2.9	
Cupressus sempervirens	Italian Cypress	8.8	3.0	
Cupressus sempervirens	Italian Cypress	8.8	3.0	
Cupressus sempervirens	Italian Cypress	8.8	3.0	
Cupressus sempervirens	Italian Cypress	AD8.8RTIS	SED 3.0AN	
Cupressus sempervirens	Italian Cypress	Application 8.8	3.0	4
Koelreuteria paniculata	Golden Rain Tree	This conject	doctment	s made
Lophostemon confertus	Brush Box	ava5able fo	r the <sup>2</sup> s6le pt	irpose of
Koelreuteria paniculata	Golden Rain Tree	ena2ling its	conti <b>d</b> erati	on and review
Koelreuteria paniculata	Golden Rain Tree	as  2a0 of a	plaming pr	ocess under the Act 1987
	Allocasuarina torulosa Melia azedarach Cedrus deodara Cupressus sempervirens Cupressus sempervirens Cupressus sempervirens Cupressus sempervirens Cupressus sempervirens Koelreuteria paniculata Lophostemon confertus Koelreuteria paniculata	Allocasuarina torulosa  Melia azedarach  Cedrus deodara  Cupressus sempervirens  Cupressus sempervirens  Cupressus sempervirens  Italian Cypress  Brush Box  Koelreuteria paniculata  Golden Rain Tree  Lophostemon confertus  Golden Rain Tree	Allocasuarina torulosa Forest Oak Allocasuarina torulosa Allocasuarina torulosa Forest Oak Allocasuarina torulosa Forest Oak Allocasuarina torulosa Forest Oak Allocasuarina torulosa Blain Cypress Blain Cypress Allocasuarina torulosa Blain Cypress Blain Cypress Allocasuarina torulosa Blain Cypress Blain Cypress Allocasuarina Cypress Blain Cypr	Allocasuarina torulosa Forest Oak Melia azedarach White Cedar Cedrus deodara Deodar Cedar Cupressus sempervirens Italian Cypress Bush Box Koelreuteria paniculata Forest Oak Multie Cedar M

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Tree No.	Species Name	Common Name	TPZ (m)	SRZ (m)
34	Koelreuteria paniculata	Golden Rain Tree	2.0	1.5
36	Pittosporum tenuifolium cv.	Kohuhu	2.0	1.5
37	Pittosporum tenuifolium cv.	Kohuhu	2.0	1.5
38	Pittosporum tenuifolium cv.	Kohuhu	2.0	1.5
39	Ulmus parvifolia	Chinese Elm	4.8	2.4
40	Lophostemon confertus	Brush Box	2.0	1.5
41	Eucalyptus mannifera	Red Spotted Gum	2.0	1.5
42	Eucalyptus cinerea	Argyle Apple	2.0	1.5
49	Pittosporum eugenioides 'Variegatum'	Silver Tarata	2.4	1.8
50	Pittosporum tenuifolium cv.	Kohuhu	2.0	1.5
51	Callistemon sp.	Bottlebrush	2.0	1.5
52	Acacia pycnantha	Golden Wattle	2.4	1.8
53	Pittosporum tenuifolium cv.	Kohuhu	2.0	1.5
54	Pittosporum tenuifolium cv.	Kohuhu	2.0	1.5
55	Eucalyptus leucoxylon	Yellow Gum	2.4	1.8
61	Eucalyptus botryoides	Southern Mahogany	7.2	2.9
70	Koelreuteria paniculata	Golden Rain Tree	6.6	2.8
97	Koelreuteria paniculata	Golden Rain Tree	3.4	2.1
98	Koelreuteria paniculata	Golden Rain Tree	3.0	2.0
99	Cupressus torulosa	Bhutan Cypress	4.8	2.4
100	Cupressus torulosa	Bhutan Cypress	7.2	2.9
	Site tree			
	Neighbouring tree			
	Street tree			

#### 4 TREE PROTECTION REQUIREMENTS

### **Project Arborist**

- 4.1 Prior to any works commencing, a Project Arborist must be appointed to oversee all works that may impact on the healthy retention of trees to be retained within and neighbouring the site. This should include, but not be limited to the works prescribed in this TPMP.
- 4.2 Prior to demolition and commencement of any works on the site the Responsible Authority must be provided with evidence that the Project Arborist has been engaged and provided their contact details.
- 4.3 The Project Arborist is to be appropriately experienced and with a minimum AQF Certificate 5 qualification (or equivalent) in Arboriculture or to the satisfaction of the Responsible Authority.

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- 4.4 No changes are to be made that are likely to damage or adversely impact the healthy retention of trees (without the written consent of the Responsible Authority).
- 4.5 The Project Arborist is to oversee all works within the TPZ of the trees to be retained including demolition.

  The Project Arborist is to oversee all works within the TPZ of the trees to be retained including demolition.

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#### Induction

4.6 Prior to the commencement of works on site, <u>all workers</u> are to be inducted into the necessity to protect the trees.

They must be made aware of the existence of the TPMP and sign off as having read and understood the document and their obligations.

#### **Supervision Timetable**

4.7 The Project Arborist will observe and have input into the supervision of the following tasks and decisions as outlined in the following table.

Table 2 – Project Arborist Supervision Schedule							
Task	Timing	Liaison					
Site meeting to discuss TPMP and implementation.	Pre - Demolition	Site Manager / Project Arborist					
Inspect installation of TPZ fencing / ground protection and mulching.	Pre-Demolition	Site Manager / Project Arborist /					
Supervise pruning of Tree 39 (and any other trees if required) in accordance with AS-4373 & Responsible Authority approval.	Pre-Demolition	Site Manager / Project Arborist					
Supervise demolition within TPZs of retained trees including vegetation removal and removal of tennis court fence adjacent Trees 12-16.	Demolition	Site Manager / Project Arborist /Demolition Contractor					
Supervise excavation of trench within TPZs of Trees 12 – 16 and prune roots (this must only occur April – September)	Construction	Site Manager / Project Arborist					
Supervise removal of existing retaining wall adjacent to Trees 12-16 (if applicable)	Construction	Site Manager / Project Arborist					
Monitor installation of any services within TPZs	Construction	Site Manager / Project Arborist					
12-week interval inspections to evaluate tree condition and TPZ maintenance	Construction	Site Manager / Project arborist					
Removal of TPZ fencing for landscaping.	Construction	Site Manager / Project arborist PLAN					
Final sign off for submission to council	Post construction	Site Manager / Project arborist					



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#### Certification

4.8 The Project Arborist is to maintain written and photographic records of all site inspections based on the Supervision timetable and any variations, non-compliances that could detrimentally impact on the healthy retention of trees to be retained and protected. An example of a Project Arborist Certification Checklist is provided below.

Project Arborist - Certification Checklist					
Project Permit No. and Address:					
Commencement Date:					
Project Arborist / Company Name / Qualification:					
Certification Item	Date / Signed	Comments			
Initial site meeting to discuss TPMP.					
Inpect installation of TPZ fencing / ground protection & mulching.					
Supervise tree pruning in accordance with AS-4373 & Responsible Authority approval.					
Supervise tree protection during all demolition within TPZs including removal of vegetation and tennis court fence.					
Supervise excavation of trench within TPZs of Trees 12 – 16 and prune roots					
Supervise removal of existing retaining wall adjacent to Trees 12-16 (if applicable)					
Monitor installation of any services within TPZs					
12-weekly site inspections					
Site Inspection 2					
Site Inspection 3					
Site Inspection 4					
Site Inspection 5					
Site Inspection 6					
Final Inspection					
Certification Report for submission to Responsible Authority		ADVERTISED PLAN Application No. P4/2024			
		This copied document is made			
Completion Date		available for the sole purpose of enabling its consideration and review			
		as part of a planning process under t Planning Environment Act 1987. The document must not be used for			



#### **Pre-Construction**

#### **Pruning**

- 4.9 No pruning of street trees is to occur. If pruning of street trees is required, the Responsible Authority must be contacted to organise the pruning by an approved contractor.
- 4.10 Pruning of low hanging branches from Tree 39 is likely to be required. This pruning is indicated in Image 1 below and includes one lower branch approximately 100mm in diameter and some small tertiary branches. No pruning of any other trees is expected to be required. Should it become apparent that other trees do require pruning, this is to be at the discretion of the Project Arborist and written authorisation of the Responsible Authority.
- 4.11 Pruning of trees within or overhanging the site must only be undertaken by suitably qualified arborists in accordance with AS-4373-2007 *Pruning of amenity trees*.



 $\label{lem:lemmage} \mbox{Image 1: Tree 39 showing likely pruning requirement.}$ 

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#### **Tree Protection Systems**

4.12 A Tree Protection System is to be installed to isolate trees to protect their canopy and more importantly roots from damage and compaction. The tree protection systems are identified in Appendix 1: Tree Protection Plan. These systems are to remain in place until construction of all built forms is complete and soft landscaping is about to commence unless otherwise discussed in this TPMP.

#### **Fencing**

- 4.13 Fencing shall be erected to meet the following criteria:
  - To be constructed of temporary security fencing (or similar) securely fixed to concrete block bases. No holes
    are to be dug for fence construction unless outside the specified TPZ. Fencing is to be of a minimum height of
    1.8m;
  - Fencing is to be secure, so as to deter easy entry;
  - At least one weatherproof sign per side is to be attached to each fenced TPZ and is to clearly state:

## 

4.14 Fencing adjacent to Trees 62, 70 and 97 will require relocating to enable construction of a pedestrian walkway.

Relocation of the fencing is only to occur immediately prior to construction of the walkway commencing. Fencing is to be relocated the minimum amount required to provide a safe working area.

#### **Access to Fenced Protection Zones**

- 4.15 Any access into a fenced protection zone is only to take place with the express approval of the Project Arborist and written consent of the Responsible Authority. Requests for access to the fenced zone are to be made directly to the Project Arborist and Responsible Authority, with access to be in accordance with any conditions the Project Arborist and/or Responsible Authority imposes.
- 4.16 Contractors may request that a refusal to grant access be discussed with the Responsible Authority.

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#### **Ground Protection System**

4.17 Where protective fencing is impractical due to the requirement for scaffolding or access around the site, the TPZ is to be protected by a ground protection system. At a minimum, this is to be located as shown in Appendix 1, Tree Protection Plan.

The system is to consist of a permeable layer such as geotextile fabric beneath a layer of mulch or no-fines crushed rock, topped with rumble boards or ground mats, as per Images 2 and 3.



Image 2: No-fines crushed rock over geotextile



Image 3: Rumble Boards

#### **Mulching and Irrigation**

- 4.18 The fenced TPZ of Trees 11 16, 25, 31 and 70 is to be covered with 150mm layer of vegetative mulch to help retain soil moisture and prevent weeds or grass.
- 4.19 A maintenance program must be implemented to keep mulched areas free of weeds and ground protection affective.
- 4.20 During November March inclusive the trees may require irrigating, which is to be determined by the Project Arborist. It is recommended a dripper system with 4ltr per hour emitters be installed under the mulch in the enclosed fenced areas. The Project Arborist will determine the amount and frequency of irrigation. Soil wetter may be required to ensure irrigation water permeates through the soil to the roots.

#### **Demolition**

- 4.21 All demolition works within the TPZ of the trees is to be under the supervision of the Project Arborist.
- 4.22 All trees located within the TPZs of retained trees that are approved to be removed must be removed by suitably qualified arborists with the stumps ground out. Smaller vegetation within TPZs is to be removed by hand. Trees and vegetation within TPZs of retained trees <a href="MUST NOT">MUST NOT</a> be pulled out be excavators etc due to the risk of damage to the canopies and roots of retained trees.
- 4.23 If the existing retaining wall to the south of Trees 12 16 is to be replaced, it must only be removed immediately prior to the new wall being installed. The existing wall must be carefully removed using small machinery (e.g. 1 tonne excavator) under the supervision and direction of the Project Arborist. Care must be taken to avoid damage to any roots which may be growing along the existing wall. Care must also be taken to prevent soil subsidence once the review retaining wall has been removed. Footings for the new wall must be dug under the supervision of the Project Arborist. The

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- 4.24 Care must be taken during removal of the tennis court fence adjacent to Trees 12 16 to avoid damage to their canopies. Ivy growing into the canopies of these trees is to be cut at ground level and allowed to fully die prior to being removed from the canopies.
- 4.25 Decommissioning of existing services: Any decommissioned service lines within the TPZ of the existing tree are to be retained in situ due to the potential damage for significant root damage by excavation or extraction by machinery, unless the site arborist is satisfied that removal within a TPZ will not result in root damage, for example use of hydro excavation to reveal underground service lines proximal to tree roots.

#### Construction

#### **Excavation in TPZ**

- 4.26 Existing soil levels within the TPZs of trees to be retained, outside approved works, must be maintained devoid of fill and excavation.
- 4.27 No excavations are to occur within the TPZs without the approval of the Project Arborist and Responsible Authority.

  Any excavations within TPZs that are approved as part of the Planning Permit e.g. retaining walls, are to be monitored by the Project Arborist to ensure roots are not indiscriminately damaged.
- 4.28 Prior to excavation for the new retaining wall proposed to the north of Trees 12 16, a trench is to be dug along the alignment of the proposed cut, under the supervision of the Project Arborist, who will cleanly cut any roots in accordance with AS4373-2007. Root pruning must only occur during April September. Soil wetter and regular deep irrigation as required must be applied to the raised bed in which the trees are growing for a minimum of two summers after root pruning.
- 4.29 Should roots within the TPZ become exposed they need to be quickly covered with soil or other material and kept damp. Dehydration of exposed roots can lead to decline in tree health.
- 4.30 Any installation of services e.g. gas, water etc. must, where possible, be avoided within the TPZ of retained trees. If installation of services is required within TPZ, services must be bored or hydro-excavation under the supervision of the Project Arborist to ensure roots are not indiscriminately damaged.

#### Other Restrictions in TPZ

- No drainage or subsurface irrigation lines are to be installed;
- No fuel, oil dumps or chemicals shall be allowed in or stored on the Tree Protection Zone The servicing and
  refuelling of equipment and vehicles must be carried out away from the root zone; ication No. P4/2024
- No storage of materials, equipment or temporary buildings will take place over the root zone; ment is made
- No fixtures of any sort shall be attached to the trees for any reason;



#### **Design Changes**

- 4.31 Any changes to the building/landscaping design which alter surface or below ground works within the fenced protection zones are to be subject to the approval of the Responsible Authority and the Project Arborist prior to proceeding.
- 4.32 If the Project Arborist or Responsible Authority deems that the design changes pose an unacceptable risk to a tree they are to recommend modifications to the proposed design to alleviate this risk, subject to Responsible Authority approval. In certain situations, proposed changes may not be able to proceed.
- 4.33 All design changes within TPZs are to be recorded for inclusion in certification reporting by the Project Arborist in accordance with the endorsed plans.

#### **Post Construction**

- 4.34 At the conclusion of site works the Project Arborist is to carry out a final assessment of the trees.
- 4.35 Once construction of all built forms is complete and landscape works are to take place, tree protection measures may be removed.
- 4.36 All remedial pruning, soil amelioration etc. is to be recorded for the purposes of certification by the Project Arborist. A final certification report can then be issued.
- 4.37 Soil wetter and regular deep irrigation as required must be applied to the raised bed in which the Trees 12 16 are growing for a minimum of two summers after root pruning has occurred.

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