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TREE MANAGEMENT REPORT AND PROTECTION PLAN

Site Address: 8 Louise Street MELBOURNE

Report Prepared for: 8 Louise Street Pty Ltd

Prepared by: Scott Mulholland & Claudine Reynolds Consulting Arborists

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This Tree Management and Protection Plan (TMPP) has been endorsed by the Responsible Authority below (Endorsed Stamp):

Note: Arbor Survey Pty Ltd is not the Project Arborist unless formally engaged by the client.

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1. BACKGROUND

The Tree Management Report and Protection Plan (TMPP) has been prepared to guide protection measures required for the protection of the 7 trees and 1 group of trees that are located within close proximity to the proposed multi-storey development at 8 Louise Street, Melbourne. This Tree Management Report and Protection Plan (TMPP) has been prepared for 8 Louise Street Pty Ltd in accordance with Point 14 of the Request for Further Information from City of Port Phillip (Application No.: PDPL/01019/2021).

The assessment of the trees was undertaken on 05 October 2021 by Scott Mulholland. The trees to be protected have been mapped on the enclosed Tree Protection Plans of which there is a plan for each stage of the development. Of the trees to be assessed, 6 trees (Trees 1, 2, 3, 4, 5, & 6) are located on the Council road reserve, 2 trees/groups (Trees 30 & 40 (Group)) are located on the neighbouring property to the east of the project site. No trees within the project site are proposed for retention.

This Tree Management Report and Protection Plan (TMPP) outlines the requirements for protecting the identified trees in accordance with the Australian Standard AS4970:2009–Protection of Trees on Development Sites and provides an overview of the health, structure, dimensions, and tree protection zones of the tree(s) to be protected.

1.1 REFERENCED STANDARDS

The following Australian Standards are referenced and referred to in this document:

- AS4970-2009 Protection of Trees on Development Sites
- AS4373-2007 Pruning of Amenity Trees
- AS4687-2007 Temporary Fencing and Hoardings
- AS1319-1994 Safety Signs for the Occupational Environment
- AS4454-2012 Composts, Soil conditioners and Mulches

1.2 GUIDANCE NOTES

This Tree Management Report is to be read in conjunction with the attached Tree Protection Plans which show the tree protection zones and tree protection measures required during the development stages. The tree identification numbers referenced on the plans can be cross referenced with the Tree Data in Section 4 and Preliminary Arboricultural Assessment Report Assessment prepared by Arbor Survey Pty Ltd (Ref: R5553, Date: 11/10/2021).

2. PROTECTED TREES AND PROJECT ARBORIST CERTIFICATION

This Tree Management Report and Protection Plan (TMPP) has been developed to guide the implementation of tree protection measures required during the proposed development at 8 Louise Street, Melbourne.

2.1 TREES TO BE PROTECTED

The following trees have been identified for retention and protection. The protection of these trees forms the basis of this Tree Management Report and Protection Plan (TMPP).

Table	1:	Tree(s)	to b	e Protected
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Tree No	Botanical Name	Common Name	Origin	Height (m)	Spread (m)	Health	Structure	Age Class	Ownership
1	Ulmus parvifolia	Chinese Elm	Exotic	4	2.5	Good	Good	Juvenile	Council
2	Ulmus parvifolia	Chinese Elm	Exotic	4	2	Fair	Fair	Juvenile	Council

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Tree Management Report and Protection Plan

Tree No	Botanical Name	Common Name	Origin	Height (m)	Spread (m)	Health	Structure	Age Class	Ownership
3	Ulmus parvifolia	Chinese Elm	Exotic	4	2	Good	Good	Juvenile	Council
4	Ulmus parvifolia	Chinese Elm	Exotic	5	2.5	Good	Good	Juvenile	Council
5	Ulmus parvifolia	Chinese Elm	Exotic	3.5	2	Good	Fair	Juvenile	Council
6	Ulmus parvifolia	Chinese Elm	Exotic	3	2	Good	Fair	Juvenile	Council
30	Phoenix canariensis	Canary Island Date Palm	Exotic	9	7	Good	Fair	Mature	Neighbour
40 (group)	Laurus nobilis	Bay Laurel	Exotic	5	3	Good	Poor	Juvenile	Neighbour

2.2 TREE PROTECTION ZONES OF TREES TO BE PROTECTED

Tree No	Botanical Name	DBH (cm)	Basal Dia (cm)	SRZ (m)	TPZ (m)	TPZ Area (m²)	TPZ10% (m)
1	Ulmus parvifolia	9	11	1.5	2.0	13	1.4
2	Ulmus parvifolia	8.5	10.5	1.5	2.0	13	1.4
3	Ulmus parvifolia	8.5	10	1.5	2.0	13	1.4
4	Ulmus parvifolia	8	11	1.5	2.0	13	1.4
5	Ulmus parvifolia	7	9	1.5	2.0	13	1.4
6	Ulmus parvifolia	6	8	1.5	2.0	13	1.4
30	Phoenix canariensis	Approx. 80	Approx. 90	2.0	4.5	64	3.1
40 (GROUP)	Laurus nobilis	Multi-stem	Approx, 20	1.7	2.4	18	1.7

Table 2: Tree Protection Zones and Tree Protection Areas

Note: DBH (cm) is the diameter at breast height (1.4m from natural ground level), Basal Dia (cm) is the diameter of the trunk above the root flare, SRZ (m) is the structural root zone in metres in a radius from the centre of the trunk, TPZ (m) is the tree protection zone in metres in a radius from the centre of the trunk. TPZArea (m2) is the tree protection zone in square metres around the trunk. TPZ10%(m) identifies the 10% encroachment radial distance into the tree protection zone on **one side of the tree only (Minor Encroachment)**. These measurements and distances are calculated from the Australian Standard AS4970 - 2009 - Protection of Trees on Development sites.

Note: Tree 40 (Group) - The proposed location of the in-ground Rainwater Tank and Wall is within the TPZs/SRZs of Tree 40 (Group) and is considered to be 'Major Encroachment' according to the Australian Standard AS4970-2009 *Protection of Trees on Development Sites.* However, given the existing concrete parking area, root growth of these trees is likely to have been restricted. It is unlikely that significant roots from these juvenile trees have extended into the project site. Refer to the Excavation / Construction Stage in Section 3.1.

2.3 ACTIVITIES TO BE RESTRICTED WITHIN THE TREE PROTECTION ZONE

Unless approved by the Project Arborist/Responsible Authority or as specifically allowed within this Tree Management Report and Protection Plan (TMPP), the following activities are to be restricted within the Tree Protection Zones (TPZ). This list of activities has been adapted from the Australian Standard AS4970–2009–Protection of Trees on Development Sites.

- Machine excavation including trenching
- Excavation for silt fencing
- Soil cultivation
- Storage of wastes or materials (including fuels, oils or chemicals)
- Preparation of any cement products
- Storage and or parking of vehicles or any plant
- Washing down of equipment
- Placement of fill or site spoil or site level changes
- Lighting of fires
- Temporary or permanent installation of signs
- Installation of utilities
- Physical damage of any kind to the tree (including direct attachment of anything into the tree)

2.4 PROJECT ARBORIST SUPERVISION AND CERTIFICATION

The Project Arborist must be on site at these specified times to supervise and certify that the tree protection measures have been undertaken. The certification template (or similar) in Appendix 5.5 must be completed to certify the Tree Management Report and Protection Plan (TMPP).

Stage	Туре	Action Date
Stage 1: Pre-Demolition	Induction Meeting	To be advised
Stage 1: Pre- Demolition	Canopy Pruning of Protected Trees (if required) Pruning of Trees 1-6 To be performed by Qualified Arborist / Council's Tree Care Contractors Pruning of Tree 40 (Group) to be performed by a Qualified Arborist.	To be advised
Stage 1: Pre- Demolition	Certification of Tree Protection Measures	To be advised
Stage 1: Demolition	Supervision of Demolition within TPZ of Tree 40 (Group)	To be advised
Stage 2: Pre-Excavation	Induction Meeting	To be advised
Stage 2: Pre-Excavation	Certification of Tree Protection Measures	To be advised
Stage 2: Excavation	Supervision of Excavation within the TPZ of Tree 40 (group)	To be advised
Stage 2: Construction	Certification of Tree Protection Measures	To be advised
Stage 2: Construction	Supervision of Services installation (if required)	To be advised
Stage 3: Pre-Landscaping	Induction Meeting	To be advised
Stage 3: Landscaping	De-commissioning/Modification of Tree Protection Measures (as required)	To be advised
Stage 3: Landscaping	Supervision of Excavation within TPZs of Protected Trees (if required)	To be advised
Completion of Works	Final Certification	To be advised

Table 3: Certification and Supervision Timetable

Role of the Project Arborist

A Project Arborist must be engaged to supervise and advise on the actions that are required to be undertaken during all stages of development / construction. The Project Arborist must be suitably qualified in Arboriculture and experienced in tree protection on development sites. The Project Arborist must hold a minimum AQF Level 5 (Diploma Level) in Arboriculture or equivalent and or relevant experience in accordance with the Australian Standard AS4970:2009.

The Project Arborist is responsible for monitoring and certification of the Tree Management Report and Protection Plan (TMPP). Only the Project Arborist may vary the requirements of the TMPP under written consent of the local Responsible Authority. Only the Project Arborist may submit any staged reports as required by the TMPP and or local Responsible Authority.

2.5 DAMAGE TO PROTECTED TREES

Minor damage to roots

If any physical damage occurs to any root less than 30mm in dimeter, the root must be pruned using a sharp and sterilised saw or hand shears / loppers. This must be undertaken immediately after the damage to the root has occurred.

Major damage to roots or any damage to the trunk or branches of the tree

Any major damage to the tree which includes severance or damage to any root greater than 30mm, mechanical damage to the trunk or branches or any ripping or tearing of branches must be reported immediately to the Project Arborist via telephone and within 24 hours to the Responsible Authority as per Condition 4.4. The Project Arborist is to attend the site and assess the damage and record the extent and reasons why the damage occurred. The Project Arborist is to advise of best course of action to limit the impact on the health and or structure of the tree. Major damage to the tree which contributes a risk as determined by the Project Arborist, must be reported immediately to the Responsible Authority. Any noticeable or sudden change to the appearance of the tree (such as leaf dieback or wilting, major branch shed, or movement in the ground) must be reported to the Project Arborist.

3. TREE MANAGEMENT AND PROTECTION PLAN

The following specific actions must be undertaken in chronological order. These actions must be adhered to at all times and the Project Arborist must ensure that all actions have been undertaken to ensure compliance with the Tree Management Report and Protection Plan (TMPP). The following actions are shown as 'Required' or 'Not Required'. All '**Required**' actions must be undertaken, and the specific actions must be followed.

3.1 DEMOLITION STAGE

3.1.1 SPECIFIC ACTIONS

1 Site Induction		Required M	Not Required
A site induction meeting is to be organised with the Builder and Den	nolition contr	actors and Project A	rborist to identify the
trees to be protected as part of this Tree Management Report an	d Protection	Plan (TMPP) During	this time the TMPP
must be provided to all parties and this documentation should be p	rovided to all	contractors and for	n part of the contract
documents for the project.			
2 Vegetation Removal within the Tree Protection Zone		Required 🗆	Not Required
All trees/ shrubs identified for removal within the tree protection z	ones of the t	ree(s) to be protecte	d are to be removed
by hand. Stumps to be removed must be overseen by a qualified	Arborist. Car	re must be taken no	ot to disturb the root
system of Protected Trees that may be present within the tree prot	ection zone.		
3 Tree Pruning		Required 🗹	Not Required 🛛
Tree pruning may be required on the trees to be protected. All prur	ing works m	ust be undertaken in	accordance with the
Australian Standard AS4373–2007 – Pruning of Amenity Trees. All pru	ining works a	re to be approved by	y the Project Arborist
during the site induction meeting at the beginning of the project.			
Specific Actions:			
Trees 1-6: Any pruning of Trees 1-6 is to be approved by the		As	
Responsible Authority and performed by their Tree Care			
Contractors.		10 Mar	
<i>Tree 40 (Group):</i> A minor uplift of Tree 40 (Group) over the fence	A AN	At the state	
line is recommended as shown in the photo. All pruning is to be			
performed by a Qualified Arborist in accordance with AS4373-			
2007.			
Trees 30: Tree 30 does not require pruning.			
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			A State and a state of the stat
			Sale Astar
	E Barris		

Pruning of Tree 40 (group)

4 Tree Protection Fencing **Required ☑** Not Required A tree protection fence is to be installed as shown in the Tree Protection Plan-Demolition Stage in Section 3.1.2. The tree protection fence must be rigid (chain link or similar) and must not be less than 1.8 metres in height. Fencing must be firmly attached to a removable concrete base or similar. Star pickets and para-webbing must not be used as a tree protection fence. Fencing must be in accordance with the Australian Standard for Temporary Fencing and Hoardings (AS 4687). Further details of tree protection fencing can be found in Appendix 5.4.1. **Specific Actions:** Trees 1-6: Tree protection fencing is to be erected around all street trees as indicated in the Tree Protection Plan - Demolition Stage (Section 3.1.2) prior to the commencement of any works (including demolition) within the project site. The fencing is to encompass the nature strip / TPZ of the tree and be secured so it cannot be modified. Note: The fencing surrounding Tree 3 may be reduced to the edge of the existing concrete path. Trees 30 & 40 (GROUP): The existing boundary fence within the TPZs of these trees is to act as tree protection fencing. If removed, temporary fencing panels / hoarding is to be established on the boundary. Only the Project Arborist and/or Responsible Authority can authorise the modification of the tree protection fencing. 5 Tree Protection Zone Mulching Required \Box Not Required Mulching may be required within the tree protection zone to reduce water runoff and to reduce competition from weed growth. Mulching may only be required within the fenced area and not within the total tree protection area. **Ground Protection** 6 Required \Box Not Required In cases where the TPZ cannot be entirely fenced, ground protection may be required. Ground protection is used to prevent soil compaction through point loading to the root system. Further details of ground protection can be found in Appendix 5.4.2. Ground protection must be used where noted on the Tree Protection Plan – Demolition Stage (Section 3.1.2) 7 Tree Protection Zone Signage **Required** Not Required Tree Protection zone signage is to be placed on the tree protection fencing within the tree protection zone of any tree to be retained. The signage must detail the tree protection area to be isolated from works. The signage must be clearly visible to all persons on the site and must be in accordance with the Australian Standard AS4970-2009-Protection of Trees on Development Sites. Further details of Tree Protection Signage can be found in Appendix 5.4.3. (Note: Signage is available from Arbor Survey Pty Ltd). **Specific Actions:** It is recommended that signs be placed on the Tree Protection Fencing (temporary fencing panels or existing boundary fence) stating 'Tree Protection Zone – No Access' and provide the Project Arborist name and contact details for further information. Site Access Location and Storage of Materials / Wastes **Required** Not Required 8 Site access must be from outside the tree protection fenced area and must not traverse through the fenced area. In cases where the site access is not practical, only the Project Arborist can modify the tree protection area and fencing requirements. Any modification to the tree protection area (including ground protection requirements) and the revised fencing location, must be shown on an updated Tree Management Report and Protection Plan (TMPP) and submitted with the Certification for the Stage 1 works that is to be completed by the Project Arborist. An area must be designated on site ideally 10 metres distance from any tree protection area of the tree(s) to be retained, where all building materials/ refuse, chemicals, fuel/ oils etc. can be stored throughout the project. Only the Project Arborist can approve the storage location of all building materials and or equipment within close proximity to any tree that is protected. All washing up of equipment including concrete products must be located at a suitable distance from any tree protection zone. **Specific Actions:** Site access is to be through the existing crossover or as approved in the Construction Management Plan, however, must not transverse the TPZs of the Protected Trees. . Storage of plant and materials is to be located in designated area within the project site. The site storage area is to be confirmed during the induction meeting and documented within this TMPP. Additional tree protection measures may be required dependent on the location.

No storage of waste or washing up of equipment is to occur within 10 metres of the Protected Trees.

Not Required

Required

9 Demolition and Site Levelling/Preparation within the TPZs

Care must be undertaken during demolition and site levelling / preparation to not to disturb the root system that may be present within the tree protection zone. Only the Project Arborist and/or Responsible Authority can approve any modification of Tree Protection Measures to allow for works to be performed within the TPZs of Protected Trees.

Specific Actions:

Tree 40 (GROUP): The Project Arborist is to supervise the removal of the concrete within the TPZs of these trees. Heavy machinery may be used to gently lift and pull the infrastructure away from the tree. If significant roots (\geq 30mm diameter) are observed, consideration should be given to relocation of the water tank and root sensitive construction of the wall (i.e. piers with edge beam above grade). Minor roots are to be pruned with sharp, sterile tools.



Project Arborist and/or Responsible Authority.

3.2 EXCAVATION / CONSTRUCTION STAGE

3.2.1 SPECIFIC ACTIONS

10 Site Induction Prior to Excavation / Construction	Required 🗹	Not Required 🛛
A site induction meeting is to be organised with the Builder and Project Arbo	rist to identify the tree	es to be protected as
part of this Tree Management Report and Protection Plan (TMPP). During th	is time, the TMPP mu	st be provided to all
parties and this documentation should be provided to all contractors and for	rm part of the contrac	t documents for the
project.		
11 Maintenance of Site Access and Storage of Materials / Wastes	Required 🗹	Not Required 🛛
The approved Site Access and Site Storage areas are to be maintained during	all construction works	. Any modification of
the site access or storage must be approved by the Project Arborist and may re	equire additional tree p	protection measures.
Any modification to the Site access and storage must be documented within the	is TMPP.	
Strictly no storage of waste or washing up of equipment is to occur within 10	metres of the Protect	ed Trees.
12 Modification / Maintenance of the Tree Protection Area	Required 🗹	Not Required 🛛
During excavation / construction, the Project Supervisor/ Builder must ensur	e that all tree protect	ion measures are in
place in accordance with the requirements in Section 3.1.1 – Specific Actions	4-7. All tree protectior	n requirements must
remain in place until the bulk of the construction has been completed and the la	andscaping stage is to l	be undertaken (Refer
to Section 3.3 – Landscaping Stage).		
Specific Actions:		
Trees 1-6: The tree protection fencing is to remain around the street trees as indica	ted in the Tree Protectio	on Plan – Excavation &
Construction Stages (Section 3.2.2 & 3.2.3) during all excavation / construction w	orks within the project	site. The fencing is to
encompass the nature strip / TPZs of the trees and be secured so they cannot be m	odified.	
Trees 30 & 40 (Group): The existing boundary fence / temporary fencing is to remain	n in place during all exc	avation / construction
works. The fencing around Tree 40 (group) can only be removed after consultation	of the Project Arborist c	once the wall has been
constructed.		
Only the Project Arborist and/or Responsible Authority can authorise the mo	odification/removal o	f the tree protection
fencing		
13 Supplementary Measures	Required	
Develope a subscript of slow constraints (i.e. Constraints a subscript) Opticiants Appli() indicati		Not Required
During periods of dry weather (i.e. Summer period - October to April) Irrigati	on should be supplied	Not Required ☑ d to the tree(s) to be
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15 Excavation

Required ☑ Not Required **□**

All excavation within the TPZs of protected trees is to be supervised and / or inspected by the Project Arborist (as required). Only the Project Arborist or Responsible Authority can authorise the modification of the Tree Protection Measures (Fencing & Ground Protection) for works to take place within the TPZ. Any exposed roots are to be pruned manually with sharp sterile tools upon advice of the Project Arborist/Responsible Authority.

Specific Actions:

Tree 40 (GROUP): A trench is to be dug using root sensitive methods along the proposed alignment of the water tank/ wall under supervision of the Project Arborist prior to soil excavation. If significant roots (\geq 30mm diameter) are observed, consideration should be given to relocation of the water tank and root sensitive construction of the wall (i.e. piers with edge beam above grade). Minor roots are to be pruned with sharp, sterile tools.



Project Arborist and/or Responisble Authority.

Image: state stat		
Phone: 03 8521 4966 3.2.2 TREE PROTECTION PLAN - EXCAVATION Site: 8 Louise Street MELBOURNE VIC 3004 Client: 8 Louise Street Pty Ltd Arbor Survey Ref: R5553 Revision: - Date Drawn: 13 October 2021 Date Drawn: 0 1 2 4 6 8 10 Meters Coordinate System: GDA 1994 MGA Zone 55 Scale: 1:200 at Sheet Size A3 FANCES Protected Tree / Tree Group (8) Protected Tree / Tree Group (8) Protected Tree / Tree Group (8) Tree Protection Measures Fencing Project Arborist Supervision Trench (Root sensitive)		Arbor Survey 37 Arbor Way CARRUM DOWNS VIC 3201
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0 1 2 4 6 8 10 Meters Coordinate System: GDA 1994 MGA Zone 55 Scale: 1:200 at Sheet Size A3 TANCES P2 (m) 2.0 2.4		
TPZ (m) Legend 2.0 Tree Protection 2.0 Protected Tree / Tree Group (8) 2.0 Tree Protection Zone (TPZ) 2.0 Structural Root Zone (SRZ) 2.0 Fencing 2.4 Project Arborist Supervision Trench (Root sensitive)		0 1 2 4 6 8 10 Meters Coordinate System: GDA 1994 MGA Zone 55 Scale: 1:200 at Sheet Size A3
	TPZ (m) 2.0 2.1	Legend Tree Protection Protected Tree / Tree Group (8) Tree Protection Zone (TPZ) Structural Root Zone (SRZ) Tree Protection Measures Fencing Project Arborist Supervision Trench (Root sensitive)



signs are to include the Project Arborist details. <u>The Tree Protection Measures may only be modified upon approval of the</u> <u>Project Arborist and/or Responisble Authority.</u>

Signs stating 'Tree Protection Zone - No Access' are to be placed on all visible sides of the fencing. The

*11'				
1 ¹ ¹	Arbor Survey			
186	37 Arbor Way CARRUM DOWNS VIC 3201 Phone: 03 8521 4966			
	3.2.3 TREE PROTECTION PLAN - CONSTRUCTION			
490 ST KILDA RC 2 STOREY RESIL	Site: 8 Louise Street MELBOURNE VIC 3004			
18.54 RiDGE 18.45 RiDGE	<u>Client:</u> 8 Louise Street Pty Ltd			
J.	Arbor Survey Ref: R5553			
	Revision: -			
sensitive methods along water tank / wall under ist prior to soil excavation.	<u>Date Drawn:</u> 13 October 2021			
re observed, consideration the water tank and root II. Minor roots are to be	Source Plan: Proposed Ground Floor Plan Cera Stribley Pty Ltd Ref: 21089 Dwg: TP.1100 Rev: B Date: 15/10/2021			
r3 ⁶¹ 1196 SPOUT	0 1 2 4 6 8 10 Meters			
TPZ (m) 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.5 2.0 1.7 2.4	Legend Tree Protection Protected Tree / Tree Group (8) Tree Protection Zone (TPZ) Structural Root Zone (SRZ) Tree Protection Measures Fencing Project Arborist Supervision Trench (Root sensitive)			

3.3 LANDSCAPING STAGE

3.3.1 SPECIFIC ACTIONS

16 Site Induction Prior to Landscape Construction	Required 🗹	Not Required				
At the landscape construction phase of the project, the Project Arborist is to meet with the landscape construction						
contractors for the project to advise on the requirements for tree protection	on during any installa	ation of soft or hard				
landscape elements (including irrigation, lighting, paving or areas of potential cu	ıt or fill). All excavatior	n including replanting				
within the tree protection zone must be undertaken by hand and approved by	the Project Arborist.					
The tree protection area must remain watered during this time (See Sectio	n 3.2.1 – Specific Act	ion 13) for watering				
requirements) to limit any stress to tree health during the landscape construction	ion phase of the proje	ct.				
17 Modification / Decommissioning of the Tree Protection Measures	Required 🗹	Not Required				
At the conclusion of the bulk building works the tree protection measure	s may be modified/r	emoved. Before the				
fencing/ground protection is modified/removed, the Project Arborist must visit	the site and approve	the modifications of				
the tree protection measures. The Project Arborist is to advise on any supple	ementary measures t	hat are required (i.e.				
further pruning) to maintain the health of the tree(s).						
Specific Actions:						
Tree 1-6: The tree protection fencing must remain in place until the conclusion of a	ll landscaping works.					
Trees 30 & 40 (Group): The existing boundary fence / temporary fencing is to rema	in in place during all co	onstruction works. The				
fencing around Tree 40 (group) can only be removed after consultation of the Projec	t Arborist once the wall	has been constructed.				
Only the Project Arborist and/or Responsible Authority can authorise the rem	oval of the tree prote	ction fencing				
18 Hard and Soft Landscape Works	Required 🗹	Not Required 🛛				
Any hard infrastructure works including paths, retaining walls, decks, installation	on of irrigation and or	lighting with the tree				
protection zone of a protected tree must be supervised and approved by the Project Arborist. There must be no excavation						
within any tree protection zone unless approved by the Project Arborist.						
All soft landscape works (planting) must be undertaken by hand and damage to the root system below must be minimised.						
Any large roots discovered during planting must be protected and the planting location must be altered.						
Specific Actions:						
Trees 30 & 40 (Group): Any excavation for fencing, irrigation etc within the TPZs of these trees is to be approved and supervised						
(if required) by the Project Arborist. Roots are to be protected as deemed necessary by the Project Arborist						
Only the Project Arborist and/or Responsible Authority can authorise the removal of the tree protection fencing						
19 Installation of Driveway / Crossover within the Tree Protection Zone	Required 🛛					
The proposed driveway within the tree protection zone may only be installed once the construction has been completed						
The proposed driveway warm the tree protection zone may only be instance of	once the construction	has been completed				
and the hard landscaping has been installed. The driveway must be laid above	once the construction ve existing grade. Mo	has been completed dification of the tree				



<u>The Tree Protection Measures may only be removed upon approval of the</u> <u>Project Arborist and/or Responsible Authority.</u>

	Arbor Survey				
1.85	Arbor Survey				
188 O	37 Arbor Way CARRUM DOWNS VIC 3201 Phone: 03 8521 4966				
	3.3.2 TREE PROTECTION PLAN - LANDSCAPING				
490 ST KILDA RC 2 STOREY RESIL	Site: 8 Louise Street MELBOURNE VIC 3004				
18.54 RibGE 18.45 RibGE	<u>Client:</u> 8 Louise Street Pty Ltd				
y	Arbor Survey Ref: R5553				
	<u>Revision:</u> -				
	Date Drawn: 13 October 2021				
ST. KILDA ROAD	Source Plan: Proposed Ground Floor Plan Cera Stribley Pty Ltd Ref: 21089 Dwg: TP.1100 Rev: B Date: 15/10/2021				
r ³⁶¹ 1196 SPOUT	0 1 2 4 6 8 10 Meters				
N DISTANCES	Legend				
Z (m) TPZ (m) 1.5 2.0	Tree Protection				
1.5 2.0	Protected Tree / Tree Group (8)				
1.5 2.0 1.5 2.0	Tree Protection Zone (TPZ)				
1.5 2.0	Structural Root Zone (SRZ)				
1.5 2.0	Tree Protection Measures				
4.5 1.7	Fencing				

4. TREE DATA AND PHOTOGRAPHS

4.1 TREE DATA TABLE

Tree No	Botanical Name	Common Name	Origin	DBH (cm)	Basal Dia (cm)	Height (m)	Spread (m)	Health	Structure	Age Class	Arbor Value	Ownership	SRZ (m)	TPZ (m)	Notes
1	Ulmus parvifolia	Chinese Elm	Exotic	9	11	4	2.5	Good	Good	Juvenile	Low	Council	1.5	2.0	Codominant stems
2	Ulmus parvifolia	Chinese Elm	Exotic	8.5	10.5	4	2	Fair	Fair	Juvenile	Low	Council	1.5	2.0	Codominant stems with included bark, minor deadwood
3	Ulmus parvifolia	Chinese Elm	Exotic	8.5	10	4	2	Good	Good	Juvenile	Low	Council	1.5	2.0	Codominant stem
4	Ulmus parvifolia	Chinese Elm	Exotic	8	11	5	2.5	Good	Good	Juvenile	Low	Council	1.5	2.0	Mechanical damage
5	Ulmus parvifolia	Chinese Elm	Exotic	7	9	3.5	2	Good	Fair	Juvenile	Low	Council	1.5	2.0	Minor root ball movement
6	Ulmus parvifolia	Chinese Elm	Exotic	6	8	3	2	Good	Fair	Juvenile	Low	Council	1.5	2.0	Minor root ball movement
30	Phoenix canariensis	Canary Island Date palm	Exotic	Approx. 80	Approx. 90	9	7	Good	Fair	Mature	High	Neighbour	2.0	4.5	Located 4 metres from boundary
40 (group)	Laurus nobilis	Bay Laurel	Exotic	Multi-stem	Approx.20	5	3	Good	Poor	Semi- Mature	Low	Neighbour	1.7	2.4	Group of 4, concrete parking on project site restricting root growth into site

Note: DBH (cm) is the diameter at breast height (1.4m from natural ground level), Basal Dia (cm) is the diameter of the trunk above the root flare, Arbor Value is the Arboricultural Value, SRZ (m) is the structural root zone in metres in a radius from the centre of the trunk, TPZ (m) is the tree protection zone in metres in a radius from the centre of the trunk. These measurements and distances are calculated from the Australian Standard AS4970 - 2009 - Protection of Trees on Development sites.

4.2 PHOTOGRAPHIC REFERENCES



5. APPENDIX

5.1 SURVEY METHODOLOGY AND DESCRIPTORS

Site observations and tree data was recorded on site at the date noted within Section 2 (Introduction). This report is based upon the condition of the trees and the site conditions noted on the inspection date(s) only. The characteristics of each tree or group of trees of similar characteristics have been undertaken in accordance with the Visual Tree Assessment (VTA) methodology (Mattheck & Breloer, 1998).

The assessment has been undertaken from a visual inspection from ground level only. No individual tree or trees were climbed and no samples of soil, plant material or pest and disease infestation (if present) were taken for analysis. Defects not apparent from this ground-based visual inspection are excluded from the discussion within this report. This report is not a risk assessment and no other assessment methodologies have been used.

This assessment is based on an improved and modified version of current industry best practice. 'Retention Value' is not used as the primary driver for any recommendations. The primary driver for the recommendations within the report is the characteristic of 'Protection Value'. Protection value is derived from a combination of the physical arboricultural characteristics and life expectancy recorded as the 'Arboricultural Value' in conjunction with the landscape significance or amenity value, ownership and relevant regulatory controls.

The following data is recorded on site:

- **Tree Identification Number (Tree No.)** This is a sequential numeric numbering system used to identify each tree on the attached site map. These numbers may also relate to tags placed on each tree in the field if required. Any deviation of the numbering system will be specifically noted within the report.
- Genus/ Species (Botanical Name) Species identification is considered as common and made using species characteristics observed on site or sampled and researched off site. Specific cultivar or subspecies details are omitted unless where known. No samples have been taken to the National Herbarium of Victoria for accurate analysis and identification unless specifically noted within the report.
- **Common Name** This is the typical common name assigned to the tree species. For many trees, there is likely to be numerous common names that could be used. The common name provided should only be seen as a secondary identification tool.
- **Origin** This may be recorded as Native (originates from Australia, outside of the survey area), Indigenous (originates from within the survey area), Exotic (originates from outside of Australia).
- **DBH (cm)** this is the Diameter at Breast Height (DBH) measured using a diameter tape at approximately 1.4 metres from natural ground level. Where the trunk diameter at this point may be affected by natural growth such as a major union point, the DBH will be measured just below this union point. For multiple stemmed trees, the measurements are provided for up to 4 stems (at 1.4 metres from natural ground level). These will be recorded and the combined or total diameter will be calculated in accordance with the Australian Standard AS 4970-2009-Protection of Trees on Development Sites using the formula below:

Total DBH = $\sqrt{(DBH_1)^2 + (DBH_2)^2 + (DBH_3)^2 + (DBH_4)^2}$

This is represented in the tree data as "Stem1/Stem2/Stem3/Stem4 (Calculated DBH)" – i.e. 15/28/34/19 (50.3). The calculated DBH of the stems is used to determine the Tree Protection Zone. For trees with more than 4 stems, the DBH (cm) measurement is recorded as 'Multi-stemmed' or similar. In instances where 'Multi-stemmed' is recorded, the Tree Protection Zone will be based on a basal measurement. For neighbouring property trees and where access is limited, an approximate DBH (cm) will be provided.

- Basal Dia (cm) this is the diameter of the tree at the trunk base (including multiple stemmed trees) at a level above the trunk basal flare. This is used to determine the Structural Root Zone (SRZ). In some cases this will be noted as being 'Multi -stemmed' and the SRZ will be estimated using an approximate basal diameter. For neighbouring property trees and where access is limited, an approximate Basal Diameter (cm) will be provided.
- Height (m) this is the approximate height of the canopy of the tree or the largest canopy height of a group of trees. This is an approximated height based on known landscape reference points. In cases of large significant trees where accurate height measurements are required (as height will directly affect the outcome or recommendations of the report), a Nikon Forestry Pro Laser Range finder will be used. Where measured heights have been used, this will be noted within the report data and detailed within the report.
- **Spread (m)** this is the approximate canopy spread of the tree on the widest axis. This is given as a single measure and is provided as a guide to show overall canopy spread within the landscape. Where multiple canopy dimensions are required (i.e. proximity to buildings and or severely asymmetric canopy growth) as it may affect the outcome of tree protection, these will be noted within the report data and detailed in the Development Impact Assessment.
- **Health** relates to the tree vigour and canopy density. The characteristic assigned to the tree may be represented as a combination of any of these categories (e.g. Fair to Poor or Fair–Poor). In these instances, there may be a combination of the characteristics listed below or the foliage density is at the upper or lower scale of each category. In some cases, 'Health' may be noted as being 'Very Good' which indicates an optimal condition or 'Very Poor' which indicates that the tree is of such poor health and is unlikely to recover. In some cases, the 'Health' condition will be provided as 'Dead'. In this case, there is no observable indication that the tree is alive at the time of inspection. Health is rated according to the following categories:

Category	Description
Good	Foliage density / bud formation (Deciduous) is greater than 75% at optimal growth. There is less than
	10% canopy dieback present and foliage has no or very minor tip dieback. Tree may also have visible
	extension growth if it is in active growth and is showing no signs of nutrient deficiency (i.e. chlorosis) or
	active pest or disease presence. The tree may also have good wound wood development.
Fair	Foliage density / bud formation (Deciduous) is between 50-75% at optimal growth for the species. There
	may be 10-30% canopy dieback present and foliage may have minor tip dieback. Tree maybe showing
	signs of normal growth, but it is not consistent throughout the crown. Some foliage discolouration may
	be present from possible nutrient deficiency or other cause (i.e. pest or disease).
Poor	Canopy may be asymmetrical (not typical for the species and affecting vigour) and or canopy may be
	suppressed. There may be greater than 30% canopy dieback present and foliage density is below 50%.
	Stunted growth through leaf size or petiole extension and discolouration of the leaf may be present.
	Tree may be producing epicormic shoots as a stress response. Nutrient deficiency, lack of resources
	(water, light etc) or pathogens may be the causal agent in the tree's decline.

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Tree Management Report and Protection Plan

• **Structure** - relates to the physical form of the tree, including the trunk(s), main scaffold branches and roots. Structure includes the attributes that may influence the probability of trunk, limb or root plate failure. The characteristic assigned to the tree may be represented as a combination of any of these categories (e.g. Fair to Poor or Fair to Good). In these instances, there may be a combination of the characteristics listed below. In some cases, 'Structure' may be noted as being 'Very Good' which indicates an optimal condition or 'Very Poor' which indicates that the tree has major structural defects and may be of a relatively high risk of failure of the identified tree part. Structure is rated according to the following categories:

Category	Description
Good	The form of the tree is excurrent or decurrent and typical of the species characteristics and exhibits
	good symmetrical form. Major limbs are well formed with acceptable branch taper and unions appear
	to be strong with no signs of major defects. The tree has minimal defects or decay throughout the trunk
	and limbs. There is no signs of root plate heave or damage to the root system (mechanical or other).
	The tree is unlikely to suffer major branch or trunk failure under normal environmental (weather)
	conditions.
Fair	The form of the tree is excurrent or decurrent and typical of the species characteristics and has a fairly
	symmetrical form. Tree may exhibit minor structural defects that may be managed through
	formative/remedial/restorative or structural pruning. Only minor wounds and or areas of decay are
	present that do not affect the overall stability or structural integrity of any major parts of the tree. Minor
	root damage may have occurred in the past. Defects present are likely to cause only minor branch
	failure under normal environmental (weather) conditions.
Poor	Tree has a poorly formed crown that is not symmetrical. Branch and or trunk taper may be unacceptable
	and scaffold limbs may be overextended. Branch unions may exhibit significant defects that cannot be
	managed through formative pruning. There is likely to be decay in parts of the tree that may result in
	branch or trunk failure. Major root damage may have occurred and there may be evidence of root plate
	heave. Defects that are present may result in major failure of branches or trunk under normal
	environmental (weather) conditions.

• **Age Class** - is given as a guide to the current life stage of the tree. Ultimately, the level of maturity that a tree may reach is dependent on the growing environment. The 'Mature' age class may extend for many years and is given only as an indication of the maturity of the tree based on the conditions of the local environment. Age Class is rated according to the following categories:

Category	Description
New Planting	Planted within approximately 2 years
Juvenile	Estimated as between 2 - 10 years old
Semi-mature	Estimated at between 10 – 20 years old, however, this may be species dependant
Mature	Estimated at over 25 years old or in a life stage that is considered at the peak of growth for the species.
Senescent	In the declining phase of the tree's lifespan

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Arboricultural Value - is rated according to the overall health, structure and estimated life expectancy of the tree (often
referred to as 'Useful Life Expectancy -ULE'). Often the life expectancy or ULE of a tree may be difficult to quantify as
there are too many variables and therefore it is not directly recorded as a characteristic in the report. ULE has
traditionally been used to guide future replanting and tree population heuristics.

The 'Arboricultural Value' takes into account the overall condition and life expectancy of the tree however it does not take into account the landscape or environmental status or suitability of the tree in the landscape. This rating is not a 'Retention Value' or 'Protection Value', it is only a rating of the overall condition of the physical characteristics of the tree and its expected longevity (based on growing conditions). For example, a tree of a semi mature or younger age class may be given a medium or high arboricultural value based on its condition, however it may be given no protection value based on its current size and low landscape significance and or amenity value. The arboricultural value is rated based on the following categories:

Category	Description
Low	A tree of low arboricultural value may be considered to be in poor condition overall with a low life
	expectancy (less than 10 years). The tree may be showing signs of poor health and or structure. The
	tree may either have a poor health rating and it is unlikely to recover or a poor structure that cannot be
	remedied though normal arboricultural pruning practices.
Medium	A tree of medium arboricultural value may be considered to be in fair condition overall. This tree may
	be considered as an average tree that provides average benefits to the site and local area with an
	estimated longevity of between 10 – 20 years. The tree may have evidence of fair to poor health that
	may be improved through cultural practices. The tree may have some structural defects that can be
	remedied through normal arboricultural pruning practices.
High	A tree of high arboricultural value may be considered to be of good overall health and structure. The
	tree is considered to have a life expectancy of greater than 20 years. Under normal maintenance
	practices this tree is expected to perform well in the landscape in the long term.

Ownership – the ownership is noted as this may affect the 'Protection Value' of a tree or group of trees. Generally, trees and or vegetation that are located on adjoining lands that are not of the ownership of the project site may be subject to permission for removal and or works within the tree protection zone. Traditionally, this may be referred to as 'Third Party Ownership'. Adjoining lands may be owned by private property owners and this is noted as being in the category 'Neighbours'. Trees located on road reserves, nature strips or adjoining parklands/ open spaces are often owned or managed by the local Responsible Authority and are given the ownership category of 'Council'. Where known, ownership may be noted as being 'Crown' or another regulatory body (e.g. Melbourne Water). In some cases, the ownership will be noted as 'Other' and this will be explained in the 'Site Analysis' section of the report.

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• **Protection Value** - is determined based on a combination of the Arboricultural Value, the ownership/ location of the tree, the landscape/ ecological and or cultural / heritage significance of the tree. The Protection Value also takes into account the suitability of the tree in the current and future landscape and the species status (i.e. identified weed species). The tree may also be protected under any relevant Planning or Local Law regulations which is also taken into account under Protection Value. Protection Value is rated according to the following categories:

Category	Description
None	A tree or group of trees of 'No' protection value may be considered to be in poor condition overall and
	is assigned a low arboricultural value and is within the project site. The tree may be of medium or high
	arboricultural value, however, if it is a known weed species, is doing considerable infrastructure damage
	or is not suitable to the site (based on its physical characteristics) it is considered to be of no protection
	value. The tree may be a juvenile to young specimen that can easily be replaced with new tree planting
	that will provide a greater amenity in the next 5 – 10 years. This tree may have a low landscape
	significance in terms of its height and mass within the landscape (I.e. generally less than 8 metres in
	height and spread)
	Trees that are located on adjoining land may be given a rating of 'None' if they are found to be dead or
	extremely hazardous and do not have any regulatory protection and or habitat value. In such instances
	this will be defined within the report.
	The tree(s) may or may not be subject to any local Planning or other regulatory control (i.e. Local Law).
Moderate	Only trees within the project site may be given a rating of 'Moderate'. Trees that are located on adjoining
	land are not given a rating of 'Moderate'. A tree or group of trees of 'Moderate' protection value may be
	considered to be in fair to good condition overall and is located within the project site. The tree may be
	of medium or high arboricultural value, however, it may or may not be suitable to the site in the long
	term (based on its physical characteristics) for greater than 20 years. The tree may provide a moderate
	level of landscape significance or amenity and be of moderate individual significance. The tree may be
	in a semi mature to early mature life stage.
	Ideally any future development should consider a moderate protection value to be retained and
	incorporated into the design. However, if the retention and or adequate protection of this tree cannot
	be achieved with a reasonable design footprint then consideration should be given to the removal of
	the tree and replacement with a new tree suitable to the landscape and available space.
	The tree(s) may or may not be subject to any local Planning or other regulatory control (i.e. Local Law).
High	A tree or group of trees of 'High' protection value may be considered to be in good condition overall and
	is suitably located within the project site (i.e. within the front setback). The tree (if within the project site)
	will be of high arboricultural value and should have a life expectancy of greater than 20 years if
	protected and managed. The tree may provide a moderate to high level of landscape significance or
	amenity and be of moderate to high individual significance. The tree will be in a mature life stage but
	not beginning senescence.
	Ideally any future development should consider a high protection value to be retained and incorporated
	into the design when the tree is located on the site. The design should have regard to the adequate
	protection of this tree throughout any development on the project site. This tree may have a high
	12 metres in beight and anread)
	Tz metres in height and spread).
	rees located on adjoining lands, not of the ownership of the project site, are given a high protection
	value, regardless of their overall condition (Arboncultural value), the environmental 7 landscape
	significance and or cultural / heritage significance (i.e. historic or remnant old veteran trees) unless they are Dead and do not have any regulatory protection and or habitat value. Use protection wells
	are beau and do not have any regulatory protection and or habitat value. High protection value may
	also be assigned to known weed species; nowever, this will be noted within the report.
	The treets) may or may not be subject to any local Planning or other regulatory control (i.e. Local Law).

- **SRZ (m)** The Structural Root Zone (SRZ) (referenced from *Australian Standard AS4970-2009 Protection of Trees on Development Sites*) is the calculated distance based on Basal Dia (cm). The SRZ identifies the minimum radius at which the root plate should not be disturbed. This measure only relates to the trees' stability and does not take into account the implications of a decline in health. The measurement is given in metres in a radius from the centre of the tree trunk.
- **TPZ (m)** The Tree Protection Zone (TPZ) (referenced from *Australian Standard AS4970-2009 Protection of Trees on Development Sites*) is the calculated distance based on the DBH of the tree. The TPZ addresses the physiological implications by retaining an ideal area around the tree to survive in the landscape on a long-term basis. The measurement is given in metres in a radius from the centre of the trunk.
- **TPZArea (m2)** is the tree protection zone in square metres (m²) around the trunk
- **Notes/ Comments** The general notes/ comments provide additional support where required for the tree data collected in the field.

5.2 GLOSSARY OF COMMONLY USED TERMS

Amenity

Although difficult to quantify, the term as used in this report relates to the contribution given to the landscape or streetscape in terms of visual aesthetics. It may also relate to the contribution in terms of shade or protection from the elements.

Bifurcation

A stem or branch forked or divided into two or more parts or branches. Used to describe a union point. A bifurcation may have different characteristics dependant on the load distribution on the union and the size of the branches or stems that arise from the union point.

Branch Bark Ridge

Swelling of bark tissue on the upper side of the branch junction or union. Considered the normal pattern of development in contrast to included bark (from Matheny & Clark, 1994).

Branch collar

Trunk tissue that forms around the base of a branch between the main stem and the branch. As the branch decreases in vigour or begins to die, the branch collar becomes more pronounced (AS4373).

Chlorotic

Discolouration of the leaves, yellow in colour resulting from a lack of chlorophyll

Codominant

Generally relates to trunks/ stems (although it may relate to scaffold branches within the crown) of two or more and of equal or similar size and relative importance (Matheny & Clark, 1994).

Compartmentalisation

Physiological process which creates the chemical and mechanical boundaries that act to limit the spread of disease and decay organisms (Matheny & Clark, 1994).

Decay

Degeneration and de-lignification of plant tissue, including wood, by pathogens or micro-organisms (AS4373).

Epicormic Shoots

Shoots which arise from adventitious or latent buds (usually dormant). They are generally produced in response to environmental stress.

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Included Bark

The pattern of development at a branch union where bark is turned inward rather than outward or pushed out. Relates to the branch bark ridge and bifurcations. (Matheny & Clark, 1994)

Live Crown Ratio (LCR)

Relative proportion of healthy crown in proportion to overall tree height. Often not used in isolation due to the different natural forms of many species and growing conditions. Generally, a LCR of less than 30% may result in a poor structural rating, however, when this is used and noted within this report, it is based on potential changes to the environment where this condition may have an effect on long term protection value.

Lateral

A branch arising from another branch or stem (AS4373)

Lopping

Cutting back a limb or stem at any point with no regard to natural target pruning. Random cutting of branches or stems between branch unions or at internodes on young trees. Not considered an acceptable practice as part of the *Australian Standard AS4373-2007 - Pruning of Amenity Trees.*

Senescence or Senescent

The organic process of age and the deterioration of tissue within the tree.

Wound wood/ Reaction Wood

Lignified, partially differentiated tissue which develops from the callus associated with wound or pruning cuts.

5.3 **BIBLIOGRAPHY AND CITED REFERENCES**

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Standards Australia 2012, *Australian Standard AS4454-2007, Composts, Soil Conditioners and Mulches*, 29 February 2012.

5.4 COMPANY PROFILE AND QUALIFICATIONS

COMPANY PROFILE

Arbor Survey Pty Ltd is an Arboricultural Consulting company based in Victoria, Australia. The principal consultant, Mark Reynolds has been involved within the Arboricultural Industry for a period of over 20 years, working for both private sector clients and within the public sector at numerous Victorian Local Government Authorities.

Our consultants have vast experience in providing Arboricultural referral within local councils in relation to planning applications and Strategic Planning advice relating to planning scheme amendments. We have extensive experience in Quantified Tree Risk Assessment (QTRA and TRAQ), Health and Structural Condition Assessments, Tree Valuations, Development Impact Assessments and Tree Management and Protection Plans. We also have provided Expert Evidence statements and represented numerous private and public sector clients at the Victorian Civil and Administrative Tribunal (VCAT) and Magistrates Court.

Arbor Survey Pty Ltd is dedicated to best practice within the industry and are committed to ongoing professional development.

PROFESSIONAL MEMBERSHIPS

- Member of the International Society of Arboriculture (ISA)
- Member of Arboriculture Australia
- Member of the Victorian Tree Industry Association (VTIO)
- Member of the Victorian Environment and Planning Law Association (VEPLA)

5.4.1 MARK REYNOLDS

QUALIFICATIONS

- Bachelor of Applied Science (Horticulture) University of Melbourne (Burnley Campus)
- Registered Quantified Tree Risk Assessment (QTRA)
- ISA TRAQ Register User

EXPERIENCE

- Senior Arborist Boroondara Council
- Open Space Coordinator Cardinia Shire Council
- Senior Arborist City of Kingston
- Private arboricultural and vegetation consulting under Tri_dimensional Consulting
- Treescape Consulting Pty Ltd Arboricultural Consultant
- Bayside City Council Vegetation Planner/ Senior Investigations Arborist

5.4.2 SCOTT MULHOLLAND

QUALIFICATIONS

- Diploma in Arboriculture Melbourne Polytechnic
- Registered Quantified Tree Risk Assessment (QTRA)

EXPERIENCE

- Senior Arborist –Cardinia Shire Council
- Arborist Citywide Services
- Horticulturist Fulton Hogan

5.4.3 CLAUDINE REYNOLDS

QUALIFICATIONS

- Graduate Certificate in Arboriculture University of Melbourne (Burnley Campus)
- Diploma of Horticulture Holmesglen Institute (Waverley Campus)
- Bachelor of Science / Commerce Monash University (Clayton Campus)
- Registered Quantified Tree Risk Assessment (QTRA)
- ISA TRAQ Register User
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5.5 EXAMPLES OF TREE PROTECTION MEASURES

5.5.1 EXAMPLES OF TREE PROTECTION



5.5.2 EXAMPLES OF TRUNK AND GROUND PROTECTION



5.5.3 TREE PROTECTION SIGNAGE



5.6 CERTIFICATION TEMPLATE

Site Address						
Project Arborist Name:	Contact Number					
Project Manager/ Builder/						
Owner:	Contact Number					
ST/	AGE 1 - PRE-DEMOLITION					
Site Induction - Demolition Contractors						
Meeting on Site Held?	Yes / No Date/ Time of M	eeting				
Persons Present:						
TMPP copy given to all parties?	Yes / No					
Site Access						
Site Access determined and acceptable?		Yes / No				
Modification Required to Tree Protection Plan	1?	Yes / No				
Pruning and Vegetation/ Infrastructure Clearance	e within the TPZ					
Tree Pruning required?		Yes / No / NA				
Tree Pruning undertaken to AS4373?		Yes / No / NA				
Tree Pruning undertaken in accordance with	TMPP recommendations?	Yes / No / NA				
Vegetation cleared from TPZ in accordance with	ith TMPP recommendations?	Yes / No / NA				
Infrastructure cleared from TPZ in accordance	e with TMPP recommendations?	Yes / No / NA				
Fencing/ Trunk & Branch Protection/ Ground Protection/ Mulching						
Fencing installed in correct location as per TMPP Protection Plan? Yes / No / NA						
Ground protection installed correctly as per TMPP Protection Plan? Yes / No / NA						
Trunk & Branch Protection installed correctly as per TMPP? Yes / No / NA						
Has the Tree Protection Area been mulched to 100mm depth? Yes / No / NA						
Is mulch type in accordance with the TMPP?	Yes / No / NA					
Signage						
Signage present?		Yes / No				
Signage complies with TMPP?		Yes / No				
Signage has Project Arborist contact details?		Yes / No				
Root Pruning						
Has root pruning been undertaken in accorda	nce with TMPP?	Yes / No / NA				
Supplementary Measures (list as needed)						
Has the Tree Protection Area been watered in	accordance with the TMPP?	Yes / No / NA				
Other						
Comments/ Notes re Stage 1 Certification						
Photographs Taken?	Yes / No					
Date(s) Inspected:						
Compliance Date:	Signed:					

STAGE 2 - CONSTRUCTION						
<u>Site Induction - Builders/ Construction Trades</u>						
Meeting on Site Held? Yes / No Date/ Time of Meeting						
Persons Present:						
TMPP copy given to all parties?Yes / No						
<u>Site Access</u>						
Site Access determined and acceptable?	Yes / No					
Modification Required to Tree Protection Plan?	Yes / No					
Storage of Materials						
Has an area been designated on site for the storage of materials/ waste?	Yes / No / NA					
Does the storage area for materials etc. comply with the TMPP?	Yes / No / NA					
Utility Service Locations						
Have all utility services been marked out on site?	Yes / No / NA					
Are all services located outside of the TPZ?	Yes / No / NA					
Are services required to be bored under TPZ?	Yes / No / NA					
Maintenance of Tree Protection Area						
Is all tree protection fencing in the correct location? Yes / No / NA						
Does the tree protection plan need to be modified?	Yes / No / NA					
Is all trunk and branch protection or ground protection in place?	Yes / No / NA					
Has the Tree Protection Area been mulched to 100mm depth?	Yes / No / NA					
Is mulch type in accordance with the TMPP?	Yes / No / NA					
Has the Tree Protection Area been watered in accordance with the TMPP?	Yes / No / NA					
Footings						
Are all footings and installation in accordance with the TMPP?	Yes / No / NA					
Comments/ Notes re Stage 2 Certification						

Photographs Taken? Date(s) Inspected: Compliance Date: Yes / No

Signed:

STAGE 3 - BUILDING COMPLETION AND LA	IDSCAPE CONSTRUCTIO	ON				
Site Induction - Landscape Construction						
Meeting on Site Held? Yes / No Dat	e/ Time of Meeting					
Persons Present:	0					
TMPP copy given to all parties?Yes / No						
Site Access						
Site Access acceptable for landscape construction?	Yes	/ No				
Modification Required to Tree Protection Plan?	Yes	/ No				
Storage of Materials						
Has an area been designated on site for the storage of materials	Yes / Yes / I	No/NA				
Does the storage area for materials etc. comply with the TMPP?	Yes / I	No/NA				
Removal of Tree Protection Fencing						
Can tree protection fencing and or ground protection be remove	d? Yes / I	No/NA				
Are specialised tree protection measures required?	Yes / I	No/NA				
Landscape Construction						
Do all works within the Tree Protection Area comply with the TM	PP? Yes / I	No/NA				
Has the Tree Protection Area been watered in accordance with the TMPP? Yes / No / NA						
Comments/ Notes re Stage 3 Certification						
Photographs Taken? Yes / No						
Date(s) Inspected:						
Compliance Date: :						
STAGE 4 - FINAL CERTIFIC	ATION					
The Draiget Arborist has increased all stages of the project as defined	by the Tree Managemer	at and Protection Plan Any				
action that has not complied has been rectified and approved by t	he Project Arborist All	works as noted within the				
approved Tree Management and Protection Plan have been undertaken and any modifications to the Tree Management						
and Protection Plan have been approved in writing by the local Respo	nsible Authority.					
Final Certification Approved? Yes / No	hotographs Taken?	Yes / No				
Project Arborist: S	igned:					
Date of Final Certification:						