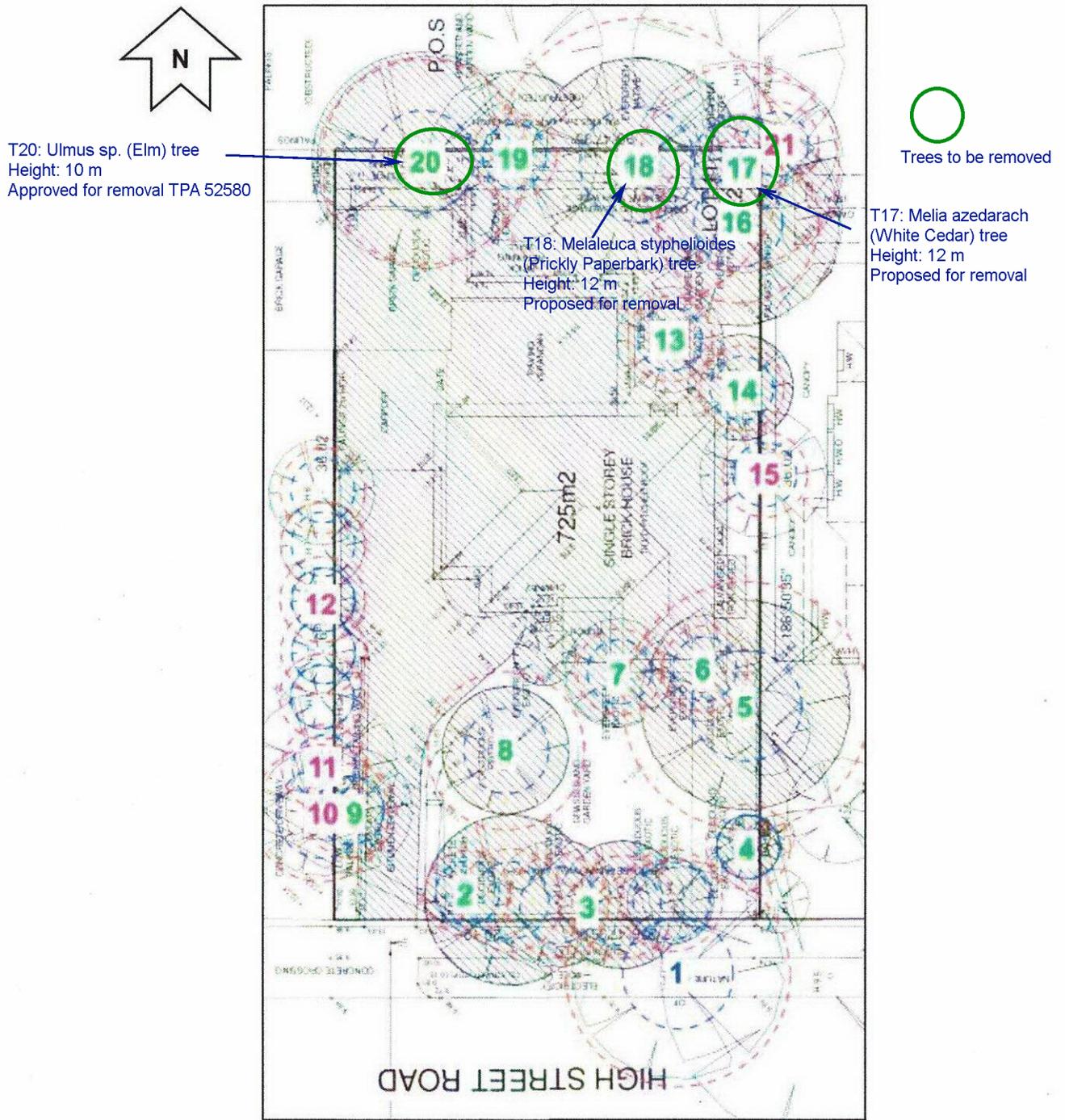


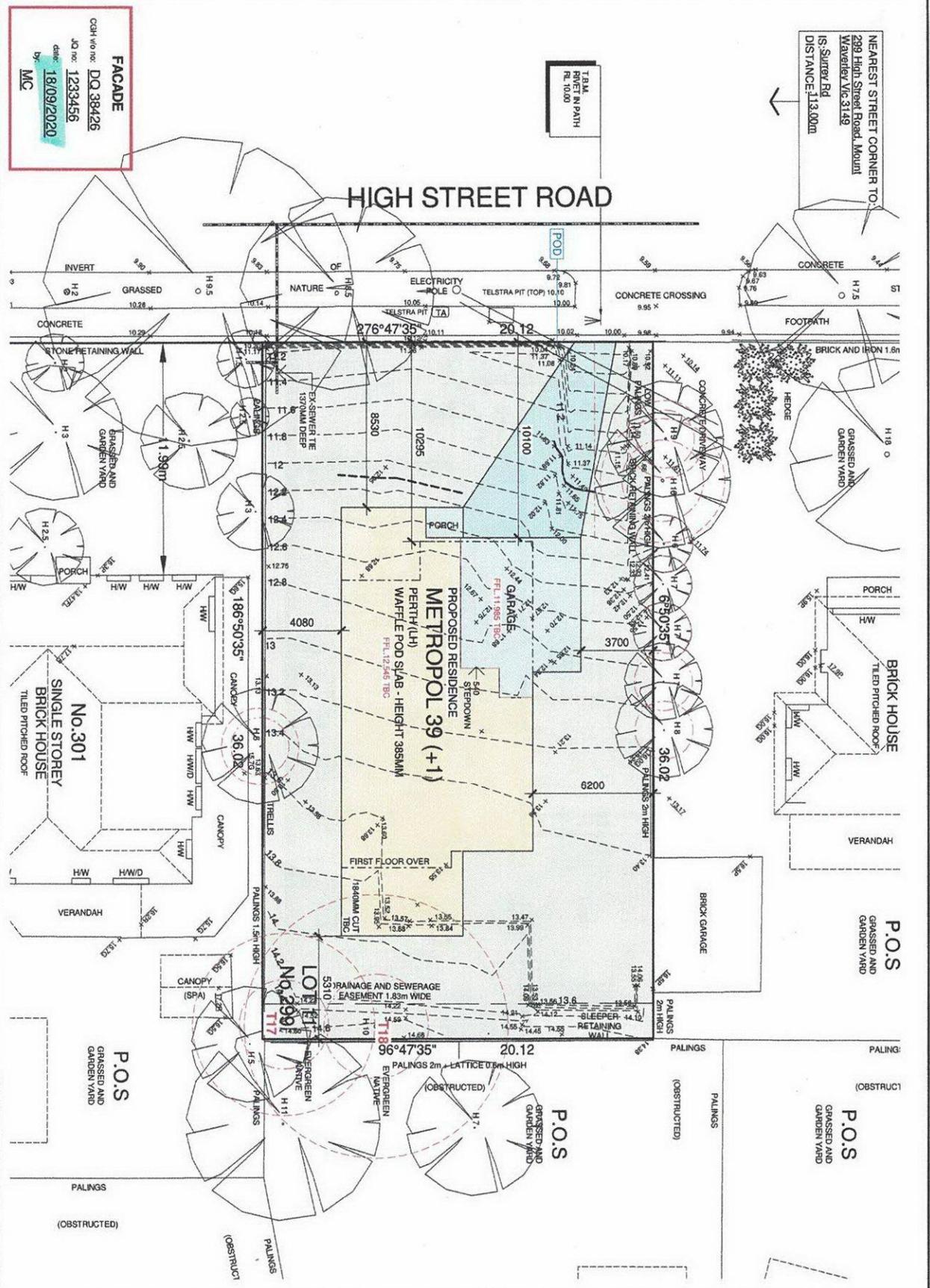
5 Site maps

5.1 Existing conditions

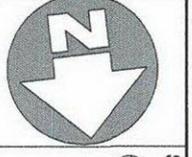
The following map indicates the tree locations in relation to the existing conditions:



29/09/2020



FAÇADE
 CCH v10 no. DO 38426
 JO no. 1233456
 date 18/09/2020
 by MC



SURVEY LEGEND:

- ☐ GAS METER
- ☐ WATER METER
- ☐ WINDOW (NON-HABITABLE)
- ☐ HABITABLE WINDOW
- ☐ TREE APPROX
- ☐ LIGHT POLE
- ☐ TELSTRA PIT
- ☐ T.B.M.

- NOTE:**
- THIS SURVEY REPORT A RE-ESTABLISHMENT SURVEY OF TITLE
 - PROPERTY BOUNDARIES ARE UNDEVELOPED UNLESS NOTED
 - UNDEVELOPED BATTERS ARE UNLESS NOTED
 - ONLY ADAPTED FEATURES TO 9 METERS SHOWN

CLIENT SIGNATURE:

CLIENT SIGNATURE:

BUILDER SIGNATURE:

DATE:

carter grange

carter grange homes pty. ltd.
 ground floor, building a,
 15 compact circuit, mulgrave, 3170, vic
 p.o. box 8328 brandon park, 3150, vic
 www.cartergrange.com.au | 03 8544 4989

DRAWING TITLE:

SITE PLAN

SITE AREA:	72.72 m ²	BUILDING:	24.70 m ² 25.6X
CONCRETE AREA:	45.51 m ² 6.3X	SITE COVERAGE:	26.11 m ² 35.9X
PERMEABILITY:	44.61 m ² 6.1X	HEAVYWEIGHT:	61 B11

CLIENT: **K.KARUNATILAKE & R.WICKRAMARATNE**
 299 High Street Road, Mount Waverley Vic 3149

SCALE:	1 : 200	REVISION #:	DO 38426
DATE:	18/09/2020	REVISION #:	DO 38426

25/09/2020 10:06:19 AM

TERMITE TREATMENT
 PROVIDE TERMITE TREATMENT IN ACCORDANCE WITH AS 3660

SITE SCRAPE
 REMOVE SURFACE VEGETATION & LEAVE BUILDING PLATFORM AREA AND ADDITIONAL 100mm SCRAPE TO PORCH AND 100mm SCRAPE TO OUTDOOR LIVING AREA 45° BATTER ANGLE (TP).

BUILDING PLATFORM R.L. 11.800m

BOUNDARY FENCE(S)
 OWNER TO PROVIDE PERIMETER FENCING TO A MINIMUM HEIGHT OF 1800mm PRIOR TO OBTAINING A CERTIFICATE OF OCCUPANCY PERMIT.

TREE REMOVAL
 IT IS THE RESPONSIBILITY OF THE OWNER TO UNDERTAKE ANY TREE REMOVAL INCLUDING OBTAINING ANY NECESSARY PERMITS AND TO PROVIDE THE SITE CLEAR OF ANY OBSTRUCTIONS TO THE PROPOSED POSITION OF THE BATTER PRIOR TO COMMENCEMENT OF WORKS.

LP0D TBC
 LEGAL POINT OF DISCHARGE TO BE CONFIRMED

SEWER CONNECTION
 SEWER CONNECTION TO BE CONFIRMED, SITE INSPECTION REQUIRED

CONSTRUCTION CHECKLIST REVIEWS - METRO

VERSION #	CHECKED BY	JOB STAGE	DATE

***NOTE**
 A PERMIT IS REQUIRED TO REMOVE T17&T18 UNDER VPO1



Arboricultural Impact Assessment

REPORT COMMISSIONED BY:

Carter Grange Homes

DATE OF ASSESSMENT:

Monday, July 27, 2020

SUBJECT SITE:

299 High St Rd,
Mount Waverley VIC 3149

DATE OF REPORT:

Friday, February 05, 2021

REPORT PREPARED BY:

Nicholas Holian,
Consulting Arborist
Certificate 5 Horticulture (Arboriculture)
&
Ben Thomas
Consulting Arborist
Grad. Cert. Arboriculture (AQF 8)

VERSION 2

TAYLOR'S TREES

ABN

36 119 781 118

CONTACT

Ph. 9720 6025
Fax. 9720 3769
Email. info@taylorstrees.com.au

ADDRESS

194 Canterbury Rd
Bayswater North 3153

WEBSITE

www.taylorstrees.com.au

Contents

1	Assignment.....	2
1.1	Author / Consulting Arborist.....	2
1.2	Client.....	2
1.3	Brief.....	2
2	Data collection.....	3
2.1	Site visit.....	3
2.2	Method of data collection.....	3
2.2.1	Documents viewed.....	3
3	Site description.....	4
4	Tree data.....	5
4.1	Photographic evidence.....	11
5	Site maps.....	15
5.1	Existing conditions.....	15
5.2	Proposed plan.....	16
6	Discussion.....	17
6.1	Tree protection zone.....	17
6.2	Structural root zone.....	17
6.3	Designing around trees.....	17
6.3.1	Minor encroachment.....	17
6.3.2	Major encroachment.....	17
7	Conclusion.....	18
7.1	Tree retention value.....	18
7.1.1	Council owned tree.....	18
7.1.2	Neighbouring trees.....	18
7.1.3	Low retention value.....	18
7.2	Permit requirements.....	18
7.2.1	Vegetation Protection Overlay.....	18
7.2.2	Trees that require a permit.....	19
7.3	Impact assessment.....	19
7.3.1	No encroachment.....	20
7.3.2	Minor encroachment.....	20
7.3.3	Major encroachment.....	20
8	Recommendations.....	25
8.1	Tree retention.....	25
8.2	Tree removal.....	25
8.2.1	Permit requirements for trees that are proposed to be removed.....	25
8.3	Less invasive construction measures.....	26
8.4	Tree protection measures.....	26
8.4.1	Pruning.....	26
8.4.2	Tree protection fencing.....	26
8.4.3	Tree protection signage.....	26
8.4.4	Ground protection.....	27
8.4.5	Scaffolding.....	27
8.4.6	Site storage.....	27
8.4.7	Prohibitions within the TPZ.....	27
8.4.8	Drains and services.....	27
9	Limitation of liability.....	29
10	Definition of terms.....	30
10.1	Tree health.....	30
10.2	Structure.....	30
10.3	Useful life expectancy (ULE).....	31
10.4	Tree retention value.....	31
10.5	Age.....	32
10.6	Amenity value.....	32
10.7	Terms within tree data table.....	32

1 Assignment

1.1 Author / Consulting Arborist

Name

Nicholas Holian – (AQF)
Level 5,
Diploma Horticulture,
Arboriculture
&
Ben Thomas
Consulting Arborist
Grad. Cert. Arboriculture (AQF 8)

Company

Taylor's Trees

Address

194 Canterbury Rd
Bayswater North VIC 3153

Phone

(03) 9720 6025

Mobile

0401 442 604

Email

info@taylorstrees.com.au

1.2 Client

Name

Carter Grange Homes

Site Address

299 High St Rd,
Mount Waverley VIC 3149

Intended Audience

- The property/tree owner(s)
- The development project manager and associated construction staff
- Council Planning Department

1.3 Brief

The purpose of this report is to provide an independent arboricultural assessment of prominent trees that are located within the subject site and within five metres of the site boundary lines.

Detail has been requested in relation to the following instructions:

- To provide an objective assessment of the overall condition of the subject trees.
- To provide an objective assessment of the retention value of the subject trees.
- To determine the Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) of the subject trees.
- To determine if the subject trees are expected to remain viable as a result of the proposed development.
- To propose recommendations that are expected to ensure that the subject trees would remain viable post construction.

2 Data collection

2.1 Site visit

- Nicholas Holian, of Taylors Trees, visited the site for an arboricultural assessment on Monday the 27th of July 2020 at 10:15am.

2.2 Method of data collection

- The subject trees were assessed from observations made as viewed from ground level.
- Access to neighbouring properties was not permitted. Assessment was therefore limited only to parts of the trees that were visible from within the subject site.
- Field notes were documented and stored on a hard drive.
- The height and spread of the trees were estimated.
- A digital camera was used at ground level to gather photographic evidence.
- A circumference tape measure was used to determine the trunk dimensions of trees within the subject site and within the Council nature strip (Trees 1 - 9, 13, 14 & 16 - 20).
- Trunk dimensions of neighbouring trees (Trees 10, 11, 12, 15 & 21) were estimated due to restricted access.
- Encroachment percentages have been calculated via ArborCAD.

2.2.1 Documents viewed

- Proposed plan (20/11/2020)
- Monash City Council Planning Scheme
- Australian Standard AS4970 – 2009 'Protection of Trees on Development Sites'
- Australian Standard AS4373 – 2007 'Pruning of Amenity Trees'

3 Site description

- The subject site is located in a General Residential Zone – Schedule 3 (GRZ3) within the Monash Council.
- The subject site is located in a Vegetation Protection Overlay – Schedule 1 (VPO1) within the Monash Council.
- An existing residential dwelling is currently situated within the site.
- The terrain of the site presented as inclining in a northerly direction.
- The subject trees are located within the subject site, the front nature strip and adjoining properties (297 & 301 High Street Road).
- No additional prominent vegetation was observed within three metres of the site boundary lines.

4 Tree data

The following tables indicates the tree data obtained during the site visit:

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
1	<i>Melaleuca styphelioides</i>	Mature	Native QLD NSW VIC	9 m	N-S 10 m	0.44 m	Fair	Fair/ poor	20 + years	Moderate	Council Owned Tree	5.3 m	2.6 m	Council owned tree located within the front nature strip. Pruned to accommodate LV/HV powerlines. Tree located 1.1m below grade of subject site.
	1.48 m													
	E-W 8 m					0.56 m								
2	<i>Callistemon sp.</i>	Mature	Native	3 m	N-S 3 m	N/A	Fair	Fair/ poor	10-20 years	Low	Low	2.0 m	1.5 m	Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Overshadowed by larger nearby tree. Leaning to the west.
	N/A													
	E-W 3 m					N/A								
3	<i>Robinia pseudoacacia 'Inermis'</i>	Mature	Exotic	5 m	N-S 4 m	0.20 m	Fair	Fair	20 + years	Low	Low	2.4 m	1.8 m	4 trees in a row. Tree dimensions have been averaged. Deciduous species which was defoliated at the time of inspection.
	0.66 m													
	E-W 4 m					0.25 m								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
4	<i>Robinia pseudoacacia</i>	Semi mature	Exotic	7 m	N-S 2 m	0.06 m	Fair	Fair	20 + years	Low	Low	2.0 m	1.5 m	Group of 3 trees. Tree dimensions have been averaged. Deciduous species which was defoliated at the time of inspection.
	0.19 m													
	Black locust				E-W 2 m	0.09 m								
5	<i>Alnus incana</i>	Mature	Exotic	10 m	N-S 8 m	0.48 m	Fair	Fair/ poor	10-20 years	m	Low	5.8 m	2.6 m	Deciduous species which was defoliated at the time of inspection. Vine growing up trunk. Existing dwelling located within TPZ.
	1.57 m													
	Grey alder				E-W 8 m	0.56 m								
6	<i>Cemellia japonica</i>	Semi mature	Exotic	4 m	N-S 3 m	0.13 m	Fair	Fair	20 + years	Low	Low	2.0 m	1.5 m	Multi-stemmed at ground level. DBH & CA1 measured at ground level. Existing dwelling located within TPZ.
	0.41 m													
	Japanese camellia				E-W 3 m	0.13 m								
7	<i>Cemellia japonica</i>	Semi mature	Exotic	5 m	N-S 3 m	0.14 m	Fair	Fair/ poor	10-20 years	Low	Low	2.0 m	1.5 m	Multi-stemmed at ground level. DBH & CA1 measured at ground level. Decay present within trunk. Existing dwelling located within TPZ.
	0.44 m													
	Japanese camellia				E-W 3 m	0.14 m								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
8	<i>Prunus pendula</i>	Mature	Exotic	5 m	N-S 5 m	0.31 m	Fair/ poor	Fair/ poor	5-10 years	Low	Low	3.7 m	2.0 m	Deciduous species which was defoliated at the time of inspection. Large root severed. Fungal fruiting bodies present on trunk. Existing driveway located within TPZ.
	Weeping cherry				E-W 5 m	0.97 m								
9	<i>Acer palmatum</i>	Semi mature	Exotic	3 m	N-S 3 m	0.18 m	Fair/ poor	Fair/ poor	10-20 years	Low	Low	2.2 m	1.6 m	Multi-stemmed at ground level. DBH & CA1 measured at ground level. Deciduous species which was defoliated at the time of inspection. Lopped limbs. Existing driveway located within TPZ. Existing retaining wall 0.4m in height located 0.5m east of the trunk. Existing retaining wall is expected to be restricting root growth to the areas of the subject site which are located beyond the retained wall.
	Japanese maple				E-W 2 m	0.57 m								
10	<i>Cupressus sp.</i>	Semi mature	Exotic	8 m	N-S 4 m	0.27 m	Good	Fair	20 + years	Low	Other Person's Tree	3.2 m	2.1 m	Neighbouring trees located on the western adjoining property (297 High Street Rd). 2 trees. Tree dimensions have been averaged. Existing driveway located within TPZ.
	Cypress				E-W 4 m	0.88 m								
11	<i>Jacaranda mimosifolia</i>	Semi mature	Exotic	6 m	N-S 3 m	N/A	Fair	Fair	20 + years	Low	Other Person's Tree	2.0 m	1.5 m	Neighbouring tree located on the western adjoining property (297 High Street Rd). Restricted view of trunk. Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Existing driveway located within TPZ.
	Jacaranda				E-W 2 m	N/A								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
12	<i>Pyrus calleryana</i>	Semi mature	Exotic	7 m	N-S 1 m	0.07 m	Good	Good	20 + years	Low	Other Person's Tree	2.0 m	1.5 m	Neighbouring trees located on the western adjoining property (297 High Street Rd). 4 trees. Tree dimensions have been averaged. Existing driveway located within TPZ.
	0.25 m													
	Ornamental pear				E-W 1 m	0.11 m								
13	<i>Magnolia sp.</i>	Mature	Exotic	5 m	N-S 4 m	N/A	Fair	Fair	20 + years	Low	Low	2.0 m	1.5 m	Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Deciduous species which was defoliated at the time of inspection. Existing pergola located within TPZ.
	N/A													
	Magnolia				E-W 4 m	N/A								
14	<i>Citrus x limon</i>	Mature	Exotic	7 m	N-S 4 m	0.14 m	Fair	Fair	10-20 years	Low	Low	2.0 m	1.5 m	Multi-stemmed at ground level. DBH & CA1 measured at ground level. Tree infected with lurrp. Existing dwelling located within TPZ.
	0.44 m													
	Lemon				E-W 4 m	0.14 m								
15	<i>Ligustrum lucidum</i>	Semi mature	Exotic	5 m	N-S 3 m	N/A	Fair	Fair	20 + years	Low	Other Person's Tree	2.0 m	1.5 m	Neighbouring tree located on the eastern adjoining property (301 High Street Rd). Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Existing brick paving located within TPZ.
	N/A													
	Chinese privet				E-W 3 m	N/A								

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments	
16	<i>Pittosporum undulatum</i>	Mature	Native QLD NSW VIC	9 m	N-S 8 m	0.17 m 0.26 m 0.09 m (0.32 m)	Good	Fair	20 + years	Moderate	Low	3.8 m	2.1 m	Comprised of 3 stems at 0.7m above ground level.	
	0.57 m 0.82 m 0.28 m (1.67 m)														
	Sweet Pittosporum				E-W 8 m	0.35 m									
17	<i>Melia azedarach</i>	Mature	Native QLD NSW NT WA	12 m	N-S 5 m	0.39 m	Fair	Fair	20 + years	Moderate	Low	4.7 m	2.3 m		
	1.29 m														
	White cedar				E-W 5 m	0.44 m									
18	<i>Melaleuca styphelioides</i>	Mature	Native QLD NSW VIC	12 m	N-S 7 m	0.57 m	Fair	Fair	20 + years	Moderate	Low	6.8 m	2.7 m	DBH measured at 1m above ground level.	
	1.79 m														
	Prickly paperbark				E-W 7 m	0.60 m									

Tree No.	Botanical Name & Common Name	Age	Origin	Height	Canopy Spread N-S E-W	DBH CA1 DAB	Health	Structure	ULE	Amenity Value	Retention Value	TPZ Radius	SRZ Radius	Comments
19	Shrub	Mature	Exotic	6 m	N-S 3 m	N/A	Fair	Fair/ poor	10-20 years	Low	Low	2.0 m	1.5 m	Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Lopped limbs. Crossing branches.
	Shrub				E-W 5 m	N/A								
20	<i>Ulmus sp.</i>	Mature	Exotic	10 m	N-S 9 m	N/A	Fair	Fair/ poor	20 + years	Moderate	Low	4.8 m	2.4 m	Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Deciduous species which was defoliated at the time of inspection. Crossing branches. Existing bungalow located within TPZ. Vine growing in canopy. Existing retaining wall 0.5m in height located 0.8m south of the trunk. Existing retaining wall is expected to be restricting root growth to the areas of the subject site which are located beyond the retained wall.
	Elm				E-W 9 m	N/A								
21	<i>Ligustrum sp.</i>	Semi mature	Exotic	4 m	N-S 3 m	N/A	Fair	Fair/ poor	10-20 years	Low	Other Person's Tree	2.0 m	1.5 m	Neighbouring tree located on the eastern adjoining property (301 High Street Rd). Too many stems to practically measure or estimate. TPZ & SRZ have therefore been estimated. Crossing branches.
	Privet				E-W 3 m	N/A								

4.1 Photographic evidence

The following photographs were obtained during the site visit:



Tree 1



Tree 2



Tree 3



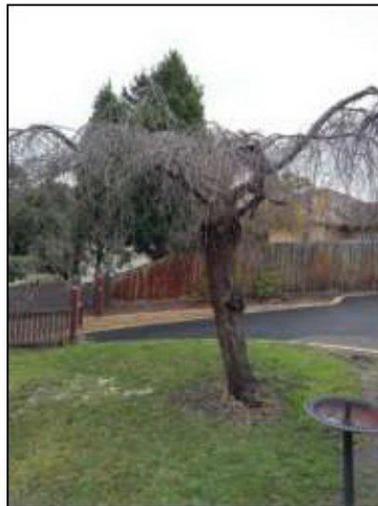
Tree 5



Tree 6



Tree 7



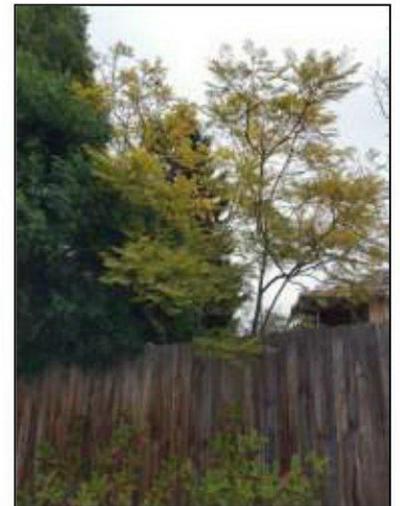
Tree 8



Tree 9



Tree 10



Tree 11





Tree 12



Tree 13



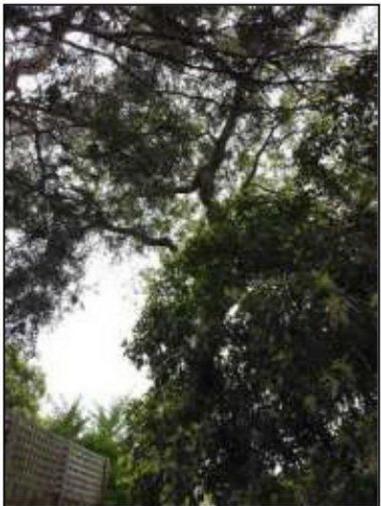
Tree 14



Tree 15



Tree 16



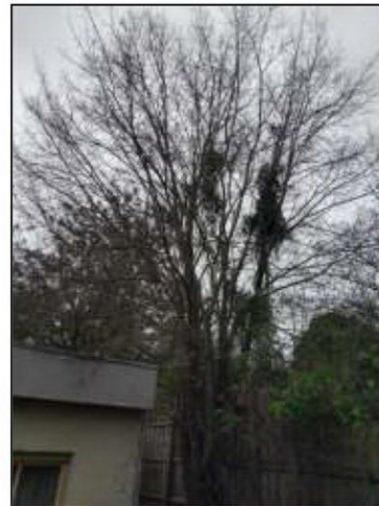
Tree 17



Tree 18



Tree 19



Tree 20



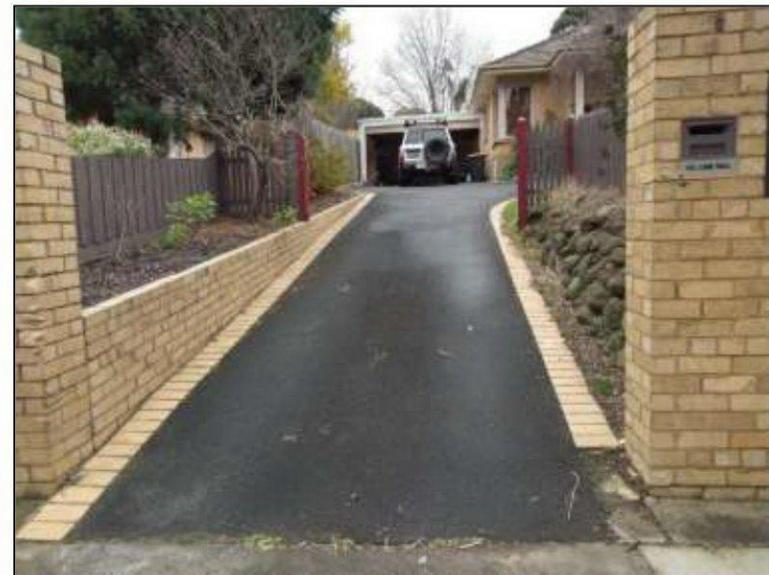
Retaining wall near Tree 20



Tree 21



Subject site as viewed from High Street Road



Existing driveway and Western border



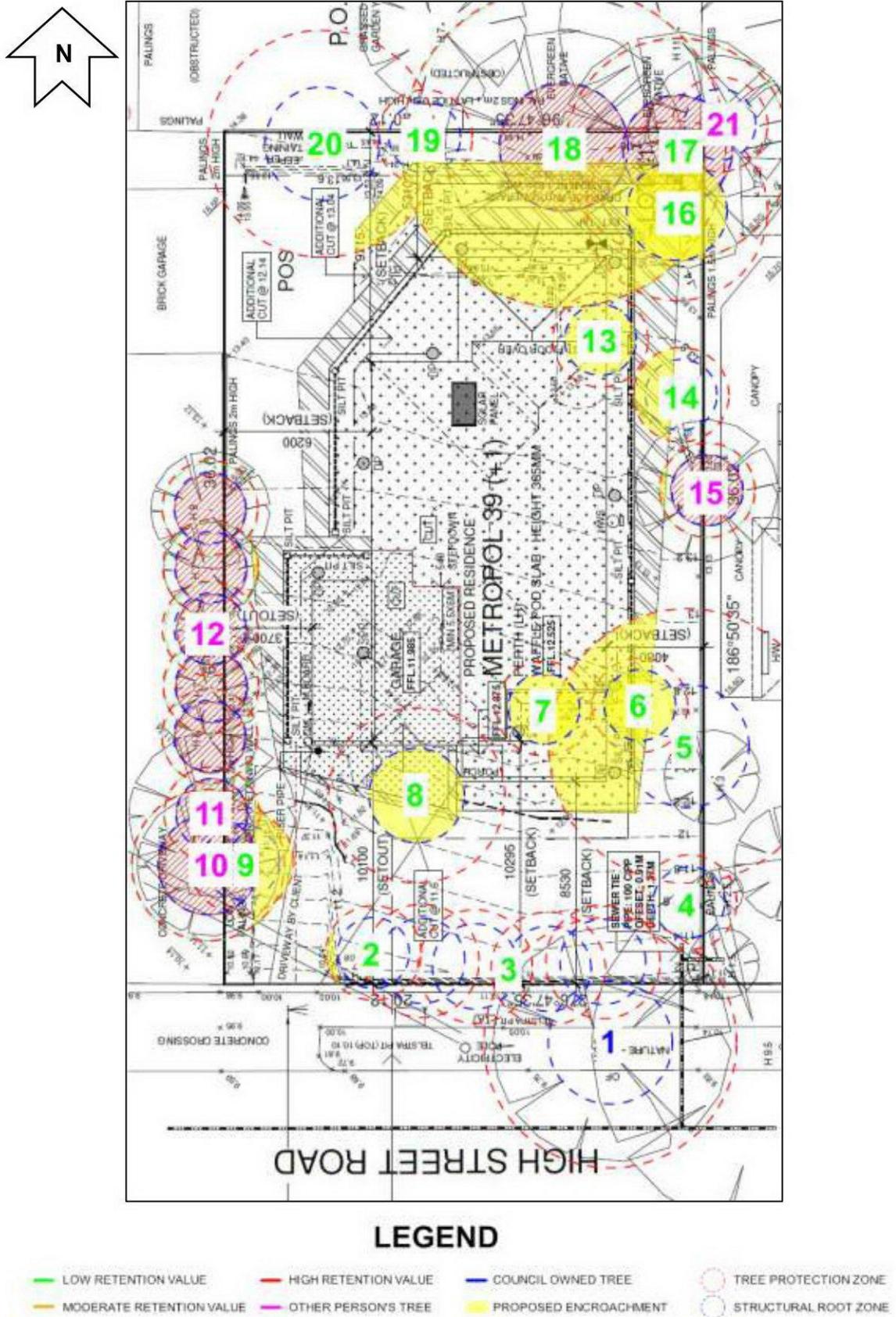
Rear yard as viewed from the East



Rear yard as viewed from the West

5.2 Proposed plan

The following map indicates the tree locations in relation to the proposed plans:



6 Discussion

6.1 Tree protection zone

The tree protection zone (TPZ) is determined by multiplying the trunk diameter of the tree at breast height, 1.4m from ground level, by 12. A 10% encroachment on one side of this zone is acceptable without investigation into root distribution or offset of the lost area.

Section 3.2 of the Australian Standard AS4970 – 2009 Protection of Trees on Development Sites states that the TPZ of Palms, other monocots, cycads and tree ferns should not be less than 1 m outside the crown projection.

6.2 Structural root zone

The structural root zone (SRZ) is the setback required to avoid damage to stabilising structural roots. The loss of roots within the SRZ must be avoided. The SRZ is determined by applying the following formula: $(D \times 50)^{0.42} \times 0.64$ where D = trunk diameter in metres.

6.3 Designing around trees

It may be possible to encroach into or make variations to the TPZ of the trees that must be retained. Encroachment includes excavation, compacted fill and machine trenching.

The following is referenced from section 3.3.3 of the Australian Standards AS4970 – 2009 Protection of Trees on Development Sites:

6.3.1 Minor encroachment

If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

6.3.2 Major encroachment

If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ the project arborist must demonstrate that the trees would remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods.

7 Conclusion

7.1 Tree retention value

7.1.1 Council owned tree

The following tree belongs to Monash City Council:

- Tree 1

7.1.2 Neighbouring trees

The following trees do not belong to the property owner:

- Tree 10
- Tree 11
- Tree 12
- Tree 15
- Tree 21

7.1.3 Low retention value

The following trees are considered to be of low retention value as they are relatively small specimens that are insignificant to the landscape:

- Tree 2
- Tree 3
- Tree 4
- Tree 5
- Tree 6
- Tree 7
- Tree 8
- Tree 9
- Tree 13
- Tree 14
- Tree 16
- Tree 17
- Tree 18
- Tree 19
- Tree 20

7.2 Permit requirements

7.2.1 Vegetation Protection Overlay

The site is subject to the Vegetation Protection Overlay – Schedule 1 (VPO1), which states the following:

A permit is required to remove or destroy any vegetation that:

- Has a trunk circumference greater than 500mm (160mm diameter) at 1200mm above ground level **and** is higher than 10 metres.

or

- Is higher than 7 metres located on 24 Samada Street, Nottinghill. (former Monash Primary School site).

This does not apply to dead vegetation or to the following species:

- All willow trees
- Radiata or monterey pines

- Evergreen alders
- Sweet pittosporums
- Desert ashes

7.2.2 Trees that require a permit

A permit is required to remove or destroy the following trees in accordance with VPO1:

- Tree 17
- Tree 18

The following tree is owned by the Monash City Council and must only be maintained by Council staff or Council contractors:

- Tree 1

7.3 Impact assessment

The following table represents the encroachments of the proposed development:

Tree No.	Encroachment	TPZ encroachment	SRZ encroachment	Encroachment category	Proposed retention
1	N/A	0%	0%	N/A	Retain
2	Driveway	4.7%	0%	Minor	Remove
3	N/A	0%	0%	N/A	Remove
4	N/A	0%	0%	N/A	Remove
5	Site cut	26%	9.7%	Major	Remove
	Dwelling	10.6%	0%	Major	
	TOTAL (accounting for overlap)	26%	9.7%	Major	
6	Site cut	Entire tree	Entire tree	Major	Remove
7	Dwelling	Entire tree	Entire tree	Major	Remove
8	Site cut	Entire tree	Entire tree	Major	Remove
9	Driveway	33.7%	28.5%	Major	Remove
10	Driveway	13.9%	1.3%	Major	Retain
11	Driveway	1.7%	0%	Minor	Retain
12	Site cut	2%	0%	Minor	Retain
13	Dwelling	Entire tree	Entire tree	Major	Remove
14	Site cut	37.2%	34.2%	Major	Remove
15	Site cut	2.5%	0%	Minor	Retain
16	Site cut	Entire tree	Entire tree	Major	Remove
17	Site cut	22.1%	19.4%	Major	Remove
18	Site cut	40.3%	34%	Major	Remove
	Dwelling	7.4%	0%	Minor	
	TOTAL (accounting for overlap)	40.3%	34%	Major	
19	Site cut	13.9%	7.3%	Major	Remove
20	Site cut	7.5%	0%	Minor	Remove
21	N/A	0%	0%	N/A	Retain

Note: Encroachment calculations are approximate and do not consider over excavation.

7.3.1 No encroachment

Development is not proposed to encroach into the TPZ or SRZ of the following trees:

- Tree 1
- Tree 3
- Tree 4
- Tree 21

The proposed development is not expected to compromise the long-term viability of the above-mentioned trees.

Less invasive construction measures or development redesign is therefore not required to ensure that these trees would remain viable post construction.

7.3.2 Minor encroachment

The proposed development is considered to be a minor encroachment according to section 3.3.2 of the Australian Standard AS4970 – 2009 'Protection of Trees on Development Sites' of the following trees:

- Tree 2
- Tree 11
- Tree 12
- Tree 15
- Tree 20

The proposed development is not expected to compromise the health and/or structural integrity of the above-mentioned trees.

Less invasive construction measures or development redesign is therefore not required to ensure that these trees remain viable post construction.

7.3.3 Major encroachment

The proposed development is considered to be a major encroachment according to section 3.3.3 of the Australian Standard AS4970 – 2009 'Protection of Trees on Development Sites' of the following trees:

- Tree 5
- Tree 6
- Tree 7
- Tree 8
- Tree 9
- Tree 10
- Tree 13
- Tree 14
- Tree 16
- Tree 17
- Tree 18
- Tree 19

Tree 5

Site cut

- The site cut is proposed to be a major encroachment (6.3.2) of 26% of the TPZ and 9.7% of the SRZ.
- Individually, the excavation of the proposed site cut has the potential to compromise the tree's long-term viability.

Dwelling

- The dwelling is proposed to be a major encroachment (6.3.2) of 10.6% of the TPZ and 0% of the SRZ.
- Individually, the construction of the proposed dwelling has the potential to compromise the tree's long-term viability.

Overview

- The total encroachment of the dwelling and the site cut is 26% of the TPZ and 9.7% of the SRZ which is considered to be major (6.3.2).
- The construction of the proposed dwelling and excavation for the site cut both have the potential to compromise the tree's long-term viability.
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 6

- The tree is located within the footprint of the site cut.
- The tree is required to be removed in order to excavate for the proposed development.
- This tree is of low retention value.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 7

- The tree is located within the footprint of the dwelling.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 8

- The tree is located within the footprint of the site cut.
- The tree is required to be removed in order to excavate for the proposed development.
- This tree is of low retention value.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 9

- The driveway is proposed to be a major encroachment (6.3.2) of 33.7% of the TPZ and 28.5% of the SRZ.
- The construction of the proposed driveway has the potential to compromise the tree's long-term viability.
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 10

- The estimated footprint of the driveway is proposed to be a major encroachment (6.3.2) of 13.9% of the TPZ and 1.3% of the SRZ.
- This is a neighbouring tree that is proposed to be retained.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- The existing driveway is situated at a lower level (approx. 500mm) than the location of the trees.
- A brick retaining wall separates the level change.
- Although this is considered to be a major encroachment, the tree is expected to remain viable due to the following factors:
 - The encroachment slightly falls into the 'major encroachment' category.
 - The level change and existing brick wall is expected to have restricted root growth to within the area of the proposed encroachment.
- Less invasive construction measures are not required to ensure that this tree would remain viable post construction.

Tree 13

- The tree is located within the footprint of the dwelling.
- The tree is required to be removed in order to construct the proposed development.
- This tree is of low retention value.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 14

- The site cut is proposed to be a major encroachment (6.3.2) of 37.2% of the TPZ and 34.2% of the SRZ.
- The excavation of the proposed site cut has the potential to compromise the tree's long-term viability.
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 16

- The tree is located within the footprint of the site cut.
- The tree is required to be removed in order to excavate for the proposed development.
- This tree is of low retention value.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 17

- The site cut is proposed to be a major encroachment (6.3.2) of 22.1% of the TPZ and 19.4% of the SRZ.
- The excavation of the proposed site cut has the potential to compromise the tree's long-term viability.
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 18

Site cut

- The site cut is proposed to be a major encroachment (6.3.2) of 40.3% of the TPZ and 34% of the SRZ.
- Individually, the excavation of the proposed site cut has the potential to compromise the tree's long-term viability.

Dwelling

- The dwelling is proposed to be a minor encroachment (6.3.1) of 7.4% of the TPZ and 0% of the SRZ.
- Individually, the construction of the dwelling is not expected to compromise the tree's long-term viability.

Overview

- The total encroachment of the dwelling and the site cut is 40.3% of the TPZ and 34% of the SRZ which is considered to be major (6.3.2).
- The excavation for the site cut has the potential to compromise the tree's long-term viability.
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

Tree 19

- The site cut is proposed to be a major encroachment (6.3.2) of 13.9% of the TPZ and 7.3% of the SRZ.
- The excavation of the proposed site cut has the potential to compromise the tree's long-term viability.
- This tree is of low retention value.
- This tree is proposed to be removed.
- A permit is not required to remove or destroy this tree in accordance with VPO1.
- In the event of removal, less invasive construction measures or development redesign is not required.

8 Recommendations

8.1 Tree retention

The following Council owned tree is proposed to be retained:

- Tree 1

The following neighbouring trees are proposed to be retained:

- Tree 10
- Tree 11
- Tree 12
- Tree 15
- Tree 21

The following is recommended in order to ensure that trees that are proposed to be retained would remain viable post construction:

- Comply with less invasive construction measures (8.3)
- Comply with tree protection measures (8.4)

8.2 Tree removal

The following trees of low retention value are proposed to be removed:

- Tree 2
- Tree 3
- Tree 4
- Tree 5
- Tree 6
- Tree 7
- Tree 8
- Tree 9
- Tree 13
- Tree 14
- Tree 16
- Tree 17
- Tree 18
- Tree 19
- Tree 20

In the event of tree removal, the following is recommended:

- Tree removal should be undertaken prior to construction commencing (including demolition).
- Written consent from the responsible authority must be obtained prior to tree removal (if required).

8.2.1 Permit requirements for trees that are proposed to be removed

The following trees that are proposed to be removed require a permit in accordance with VPO1:

- Tree 18
- Tree 19

8.3 Less invasive construction measures

- Less invasive construction measures or development redesign is not required to ensure that trees which are proposed to be retained (8.1) would remain viable post construction.

8.4 Tree protection measures

8.4.1 Pruning

- Pruning of trees that are proposed to be retained (8.1) is not required for clearance purposes and should therefore not be undertaken.

8.4.2 Tree protection fencing

- Tree protection fencing (TPF) should be installed for Trees 1, 10 & 15.
- TPF should be installed as close to the TPZ as practically possible provided that it does not encroach onto the road, footpath, crossover or proposed works.
- The existing site perimeter fencing may be used as TPF for neighbouring trees.
- TPF should be installed prior to machinery being brought onsite for the demolition of the existing dwelling.
- TPF should be a minimum 1.8m high and comprised of wire mesh (or similar) supported by concrete feet (or similar).
- TPF should remain intact for the duration of the project.
- TPF should only be removed or shifted with the approval of the Project Arborist and the Responsible Authority.

8.4.3 Tree protection signage

- The signage on the TPF should be placed on TPZ fencing at regular intervals so that it is visible from any angle outside the TPZ.
- Signage should state 'Tree Protection Zone, No Access' or similar.
- Signage should be greater than 600mm X 400mm in size.
- The contact details of the project arborist and site manager should be written clearly on the sign.



8.4.4 Ground protection

- Ground protection should be installed within the TPZ of Trees 11 & 12 that are located outside of the building footprint.
- Ground protection should be comprised of rumble boards with 100mm of mulch underneath.

8.4.5 Scaffolding

- When scaffolding must be erected within Tree Protection Zones, cover the ground with a 10cm layer of mulch, and then cover this with boards and plywood to prevent soil compaction.

8.4.6 Site storage

- A designated storage area where building materials, chemicals etc. can be stored should be located outside the TPZ of retained trees.

8.4.7 Prohibitions within the TPZ

The following activities are prohibited within the TPZ:

- Machine excavation including trenching (unless approved by the Project Arborist, Arborist supervision may be required)
- Cultivation
- Storage
- Preparation of chemicals, including cement products
- Parking of vehicles
- Refuelling
- Dumping of waste
- Wash down and cleaning of equipment
- Placement of fill
- Lighting of fires
- Physical damage to the tree
- Pruning or damaging of roots greater than 30mm in diameter

8.4.8 Drains and services

In the event that any drains or services are included in a greater than 10% encroachment into the TPZ or encroach into the SRZ of trees that are proposed to be retained, the following should be undertaken:

- Drains or services should be installed by non-root destructive means such as horizontal boring at greater than 1100mm in depth or by low pressure hydro-excavation to ensure that the bark of the roots remain intact, unless a root investigation determines that the tree(s) would remain viable.

Note: Encroachment calculations must consider additional encroachments e.g. site cuts, retaining walls, building footprint.

9 Limitation of liability

Taylor's Trees and their employees are tree specialists who use their qualifications, education, knowledge, training, diagnostic tools and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of this assessment and report.

Taylor's Trees and their employees cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways the arboriculture industry does not fully understand. Conditions are often hidden within trees and below ground. Unless otherwise stated, observations have been made from ground level and limited to accessible components without dissection, excavation or probing.

Taylor's Trees cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments cannot be guaranteed. Treatment, pruning and removal of trees may involve considerations beyond the scope of Taylor's Trees services, such as property boundaries and ownership, disputes between neighbours, sight lines, landlord-tenant matters, and related incidents. Taylor's Trees cannot take such issues into account unless complete and accurate information is given prior to or at the time of site inspection. Likewise, Taylor's Trees cannot accept responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measures undertaken.

In the event that Taylor's Trees recommends retesting or inspection of trees at stated intervals or installs any cable/s, bracing systems and support systems, Taylor's Trees must inspect the system installed at intervals not greater than 12 months unless otherwise specified in written reports. It is the client's responsibility to make arrangements with Taylor's Trees to conduct the re-inspection.

Information contained in this report covers those items that were examined and reflect the condition of those items at the time of inspection. There is no warranty or guarantee expressed or implied that the problems or deficiencies of the trees or property in question may not arise in the future. Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk. The only way to eliminate all risks involved with a tree is to eliminate the tree.

All written reports must be read in their entirety, at no time shall part of the written assessment be referred to unless taken in full context of the whole written report.

If this written report is to be used in a court of law or any legal situation, Taylor's Trees must be advised in writing prior to the written assessment being presented in any form to any other party.

10 Definition of terms

10.1 Tree health

- Good
- Fair
- Poor
- Very poor
- Dead

Good: The tree is demonstrating good or exceptional growth for the species. The tree should exhibit a full canopy of foliage and have only minor pest or disease problems. Foliage colour, size and density should be typical of a healthy specimen of that species.

Fair: The tree is in reasonable condition and growing well for the species. The tree should exhibit an adequate canopy of foliage. There may be some dead wood in the crown, some grazing by insect or animals may be evident, and/or foliage colour, size or density may be atypical for a healthy specimen of that species.

Poor: The tree is not growing to its full capacity. Extension growth of the laterals may be minimal. The canopy may be thinning or sparse. Large amounts of dead wood may be evident throughout the crown, as well as significant pest and disease problems. Other symptoms of stress indicating tree decline may be present.

Very poor: The tree appears to be in a state of decline, and the canopy may be very thin and sparse. A significant volume of dead wood may be present in the canopy, or pest and disease problems may be causing a severe decline in tree health.

Dead: The tree is no longer alive.

10.2 Structure

- Good
- Fair
- Poor
- Very poor
- Failed

The definition of structure is the likelihood of the tree to fail under normal conditions. A tree with good structure is highly unlikely to suffer any significant failure, while a tree with poor to very poor structure is likely or very likely to fail.

Good: The tree has a well-defined and balanced crown. Branch unions appear to be strong, with no defects evident in the trunks or the branches. Major limbs are well defined. The tree would be considered a good example for the species. Probability of significant failure is highly unlikely.

Fair: The tree has some minor problems in the structure of the crown. The crown may be slightly out of balance at some branch unions or branches may be exhibiting minor structural faults. If the tree has a single trunk, this may be on a slight lean, or be exhibiting minor defects. Probability of significant failure is low.

Poor: The tree may have a poorly structured crown, the crown may be unbalanced, or exhibit large gaps. Major limbs may not be well defined; branches may be rubbing or crossing over. Branch unions may be poor or faulty at the point of attachment. The tree may have suffered major root damage. Probability of significant failure is moderate.

Very poor: The tree has a poorly structured crown. The crown is unbalanced, or exhibits large gaps. Major limbs are not well defined. Branch unions may be poor or faulty at the point of attachment. A section of the tree has failed, or is in imminent danger of failure. Active failure may be present, or failure is probably in the immediate future.

Failed: A significant section of the tree or the whole tree has failed.

10.3 Useful life expectancy (ULE)

- Unsafe or 0 years
- Less than 5 years
- 5 to 10 years
- 10 to 20 years
- 20 +

Useful life expectancy is approximately how long a tree can be retained safely and usefully in the landscape providing site conditions remain unchanged and the recommended works are completed.

It is based on the principals of safety and usefulness in the landscape and should not reflect personal opinions on species suitability.

Unsafe or 0 years: The tree is considered dangerous in the location and/or no longer provides any amenity value.

Less Than 5 years: The tree under normal circumstances and without extra stress should be safe and have value of maximum of 5 years. The tree will need to be replaced in the short term. Replacement plants should be established as soon as possible if there is efficient space, or consideration should be given to the removal of the tree to facilitate replanting.

5 to 10 Years: The tree under normal circumstances and without extra stress should be safe and have value of maximum of 10 years. Trees in this category may require regular inspections and maintenance particularly if they are large specimens. Replacement plants should be established in the short term if there is sufficient space, or consideration should be given to the removal of the tree to facilitate replanting.

10 to 20 Years: The tree under normal circumstances and without extra stress should be safe and of value of up to 20 years. During this period, regular inspections and maintenance will be required.

20 + Years: The tree under normal circumstances and without extra stress should be safe and of value of more than years. During this period, regular inspections and maintenance will be required.

10.4 Tree retention value

- High
- Moderate
- Low
- Neighbouring tree
- Council Owned Tree

High: The tree may be significant in the landscape, offer shade and other amenities such as screening. The tree may assist with erosion control, offer a windbreak or perform a vital function in the location (e.g. habitat, shade, flowers or fruit). The tree is free from structural defects and is vigorous. Consider the retention of the tree and designing the development to accommodate the tree.

Moderate: The tree may offer some screening in the landscape or serve a particular function in the location and have minor structural defects. The tree may be entering the mature stage of its life cycle. The tree may be retained if it does not hamper the design intent.

Low: The tree offers very little in the way of screening or amenity and may have significant structural defects. The tree may also be mature and entering the senescent stage of its life cycle. The tree may be removed if necessary.

Neighbouring tree: The tree is located within an adjoining private property/land. The tree is to be protected unless written consent from the tree owner(s) and/or responsible authority is obtained. Consider the retention of the tree unless written consent is obtained from the tree owner and/or responsible authority.

Council Owned Tree: The tree is located within Council owned land. The tree is to be protected unless written consent from the responsible authority is obtained. Consider the retention of the tree unless written consent is obtained from the tree owner and/or responsible authority.

10.5 Age

- Young
- Semi Mature
- Mature
- Senescent

Young:	Juvenile or recently planted approximately 1-7 years.
Semi Mature:	Tree actively growing.
Mature:	Tree has reached expected size in situation.
Senescent:	Tree is over mature and has started to decline.

10.6 Amenity value

- Very low
- Low
- Moderate
- High

Very Low:	Tree makes little or no amenity value to the site or surrounding areas. In some cases the tree might be detrimental to the areas amenity value (e.g. unsightly, risk of weed spread)
Low:	Tree makes some contribution of amenity value to the site but makes no contribution to the amenity value of surrounding areas. The removal of the tree may result in little loss of amenity. Juvenile trees, including street trees are generally included in this category. However, they may have the potential to supply increased amenity in the future.
Moderate:	The tree makes a moderate contribution to the amenity of the site and/or may contribute to the amenity of the surrounding area.
High:	The tree makes a significant contribution to the amenity value of the site, or the tree makes a moderate contribution to the amenity value of the larger landscape.

The amenity value rating considered the impact that the tree has on any neighbouring sites as being equally important to that supplied to the subject site. However, trees that contribute to the general area (e.g. streetscape) are given a greater weight.

10.7 Terms within tree data table

- DBH
- DAB
- CA1
- TPZ
- SRZ

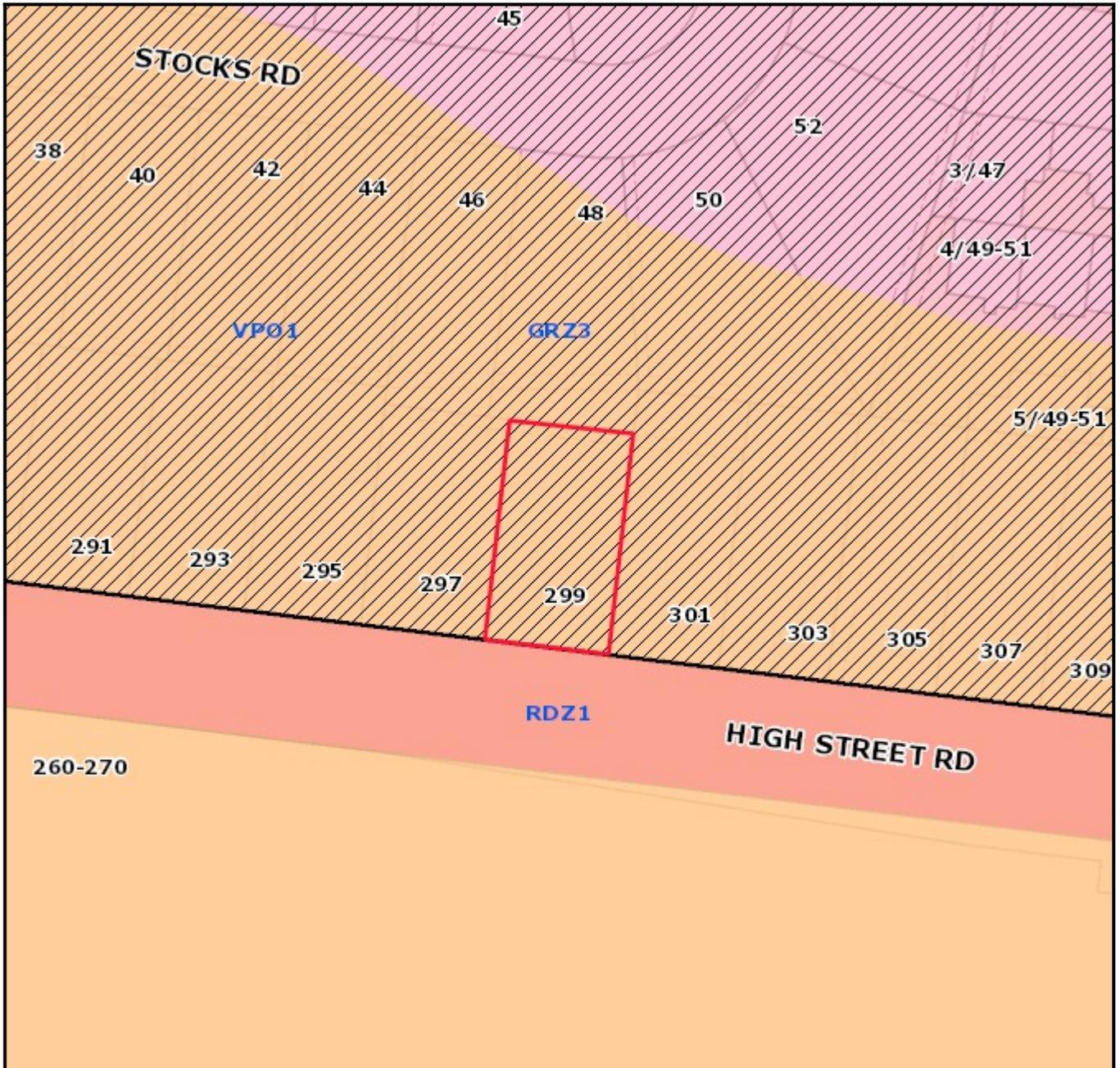
DBH: Diameter at breast height (1.4m from ground level)
 DAB: Diameter at base of tree
 CA1: Circumference of trunk at 1m from ground level
 TPZ: Tree Protection Zone
 SRZ: Structural Root Zone

Attachment 2: 299 High Street Road, Mount Waverley





Planning Overlays and Zones



Legend

Planning Zones

Planning Overlays



Address: 299 High Street Road MOUNT WAVERLEY VIC 3149

Area: 725 sqm

Base data is supplied under Licence from Land Victoria. This map is for general use only and may not be used as proof of ownership, dimensions or any other status. The information must be verified before taking any action which may be affected by a planning scheme requirement. This can be done by visiting the website: <http://services.land.vic.gov.au/landchannel/content/>

The City of Monash endeavours to keep the information current, and welcomes notification of omissions or inaccuracies.