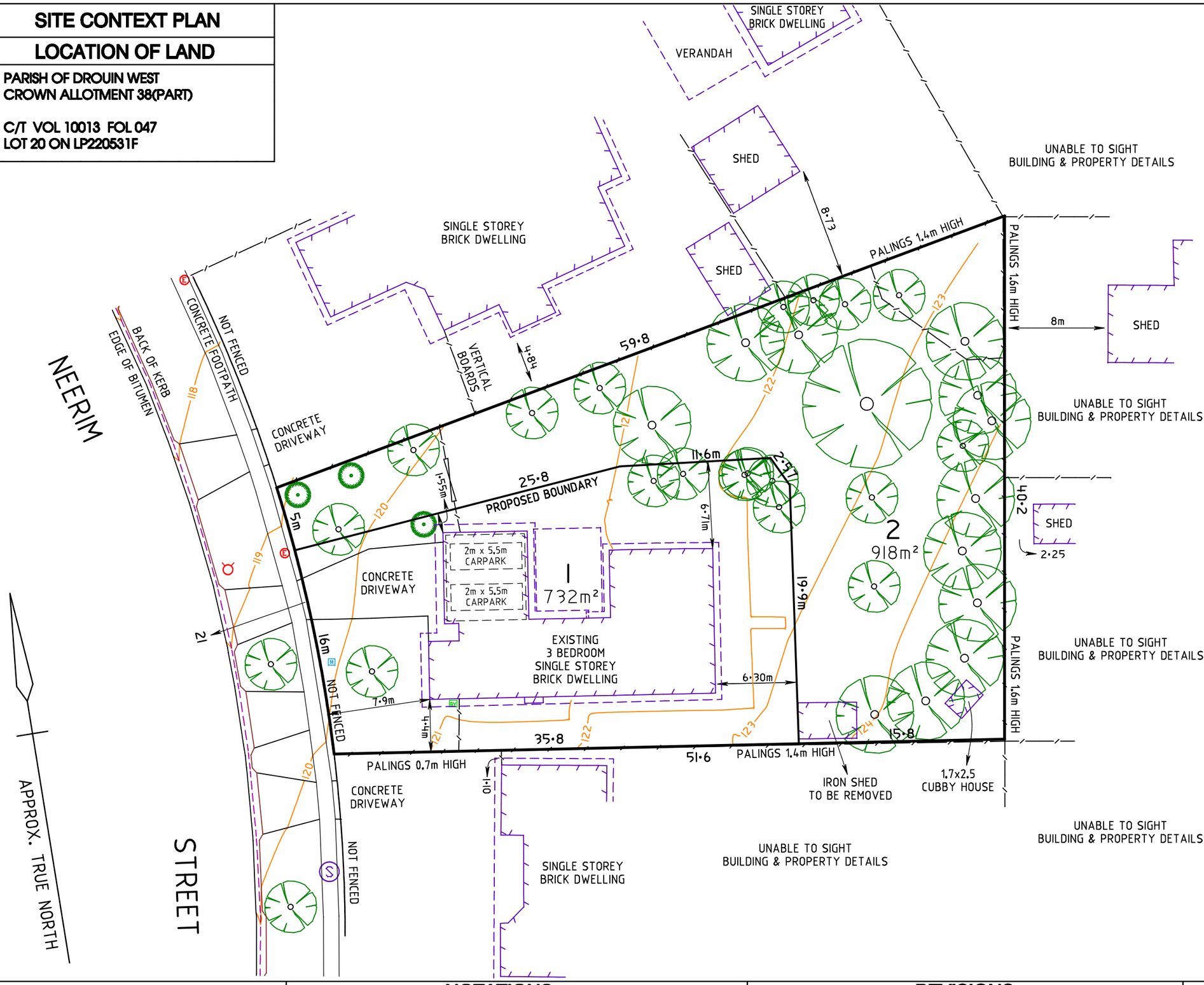
SITE CONTEXT PLAN

LOCATION OF LAND

PARISH OF DROUIN WEST
CROWN ALLOTMENT 38(PART)

C/T VOL 10013 FOL 047
LOT 20 ON LP220531F



SCALE IN METRES AT SHEET SIZE A3
HORIZONTAL: 1:300
6 4·8 3·6 2·4 1·2 0 6 12

LEGEND

- EDGE OF BITUMEN
- EDGE OF FORMATION
- INVERT OF KERB
- BACK OF KERB
- EDGE OF CONCRETE FENCE
- TREE
- VEGETATION CANOPY
- SHRUB
- DRAINAGE PIT / LID
- ROAD SIGN
- ELECTRICTY POLE
- STAY — ELECTRICTY STAY
- ELECTRICITY PIT
- LIGHT POLE
- TELSTRA PIT
- STOP VALVE
- FIRE PLUG
- WATER MARKER POST
- WATER METER
- GATE
- TBM
- SEWER PIT

GIPPSLAND LICENSED SURVEYORS
CHRISTOPHER C MORRIS & ASSOCIATES
48 QUEEN STREET WARRAGUL 3820
PH: (03) 5622 0384

NOTATIONS

AREAS ARE APPROXIMATE ONLY
DIMENSIONS ARE SUBJECT TO SURVEY

REVISIONS

VER	DATE	DESCRIPTION	DFT	APP
3	3/02/2021	ADDED GARAGE DIMENIONS AND ADDTIONAL SETBACKS	MJV	JPN
2	23/11/2020	ORIGINAL DRAWING	MJV	JPN

BALLANTYNE
34 NEERIM STREET, DROUIN, 3818

SURVEYORS REF. 2513-PROP SUB-V3
SCALE 1 : 300
SHEET 1 OF 1 SHEETS
ORIGINAL SHEET SIZE: A3

Christopher C Morris & Associates
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PLANNING APPLICATION REPORT

Two Lot Subdivision

34 Neerim Street,
DROUIN

Prepared by
Gippsland Licensed Surveyors

on behalf of

J. Ballantyne
November 2020

CONTENTS

INTRODUCTION

This Planning Application Report is prepared in support of a proposed two (2) Lot Subdivision located at 34 Neerim Street, Drouin. This report addresses the provisions of the General Residential Zone – Schedule 1 (GRZ1) and Particular Provisions as contained within the *Baw Baw Shire Planning Scheme*. This report was designed to be read in conjunction with the supplied *Proposed Subdivision Plan* and *Preliminary Arboricultural Assessment*.

Map views of subject land and surrounding precinct (Source: LASSI SPEAR)

APPLICATION SUMMARY

Application Details	
Proposal	Two (2) Lot Subdivision
Applicant	Gippsland Licensed Surveyors
Property Details	
Property Address	34 Neerim Street, Drouin
Land Descriptor	Vol 10013 Fol 047 Lot 20 on LP220531F County of Buln Buln, Parish of Drouin West, C.A. 38 (Part)
Land Area	1650m^2
Approximate Land Dimensions	21m x 59.8m x 40.2m x 51.6m
Restrictions & Encumbrances on Title	Nil
Existing Use	Residential – single dwelling with associated structures & landscaping
Planning Provisions	
Zone	General Residential Zone – Schedule 1
Overlays	Development Contributions Plan Overlay – Schedule 1
Cultural Sensitivity	N/A
Bushfire Area	N/A
Particular Provisions	Clause 56 Residential Subdivision
General Provisions	Clause 65 Decision Guidelines
Permit Triggers	Clause 32.08 General Residential Zone

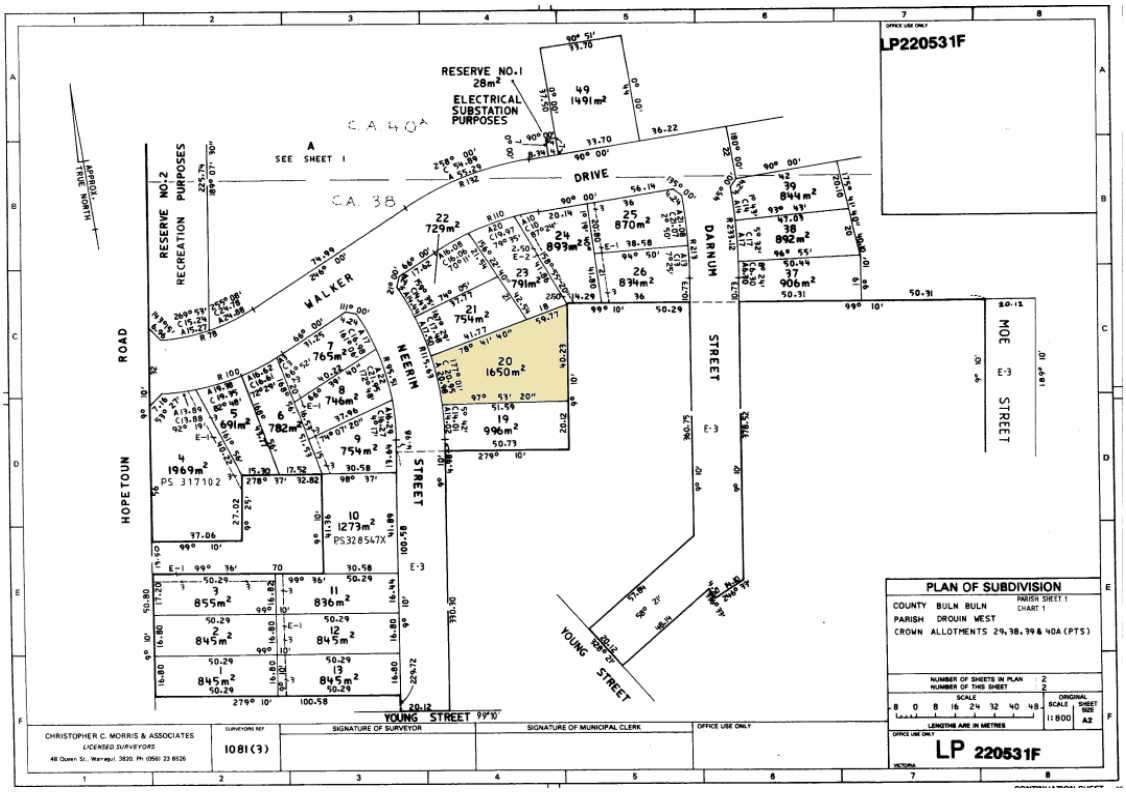
SUBJECT LAND & SURROUNDING AREA

Site Description

The subject site forms as a rhomboidal parcel of land with an area of 1650m^2, located on the eastern alignment of Neerim Street in the town of Drouin. The land is situated approximately 750m north-east of the Drouin CBD, within a well-established high-density precinct. This area has become a popular location within the Drouin Township, whereby affordability, convenience and lifestyle are facilitated. Although limited development has occurred in the immediate area in recent years, land just to the north of the subject site is currently being developed as part of the Drouin Views Estate.

The land has a road frontage of approximately 21m to Neerim Street, where access to the site is provided via a sealed concrete crossover and driveway. The site contains a three bedroom, single-storey dwelling of brick construction, as well as associated structures and extensive gardens. Included within the gardens are a number of trees throughout the site of mixed age, condition and origin. The dwelling is connected to a full suite of reticulated services, including electricity, gas, water, sewer and telephone supply.

The topography slopes gently from the most south-eastern corner to the north-western corner of the site, with a total of approximately 6m of fall diagonally from the south-eastern corner to the north-western corner.



Excerpt of LP220531F showing land subject to this application.

Land subject to this Application was created as part of the first stage of a multi-Lot subdivision facilitated by Planning Permit ref. 142/89, which created what is known as the Drouin Park Estate. Stage one of the development created 26 Lots, and was registered in June 1990.

Land subject to this application is not encumbered by any restriction or caveat known to Title.

Neerim Street is characterised by wide nature strips and single-storey dwellings, mostly of brick construction with tiled roofs. Along Neerim Street to the south of the subject site is the Lyrebird Retirement Village.

Neighbourhood Description & Surrounding Context

The subject area is contained within a large established residential precinct. This area north of the Drouin CBD has undergone many recent subdivisions and is subject to current further development, whereby development patterns reflect the manageable lot size of 500m^2-1400m^2 that has proven extremely in-demand in the current housing market. The housing types of the area are generally reflective of the residential lifestyle allowed by being located within the Drouin township. Given the site's location close to the heart of the township, it is completely surrounded by General Residential Zoned land, with areas of Public Zones and Urban Growth Zoned land in close vicinity. Surrounding the Drouin township in every direction is largely productive agricultural land zone Farming Zone, which careful Planning aims to protect from development.

Diagram of subject site and zoning in surrounding vicinity (Source: VicPlan)

The *Baw Baw Draft Settlement Plan 2013* describes Drouin as a sub-regional centre between Warragul and Longwarry, earmarked for residential, commercial and industrial development, and currently providing educational, recreational and cultural facilities. The precinct contains a number of zones

that allow for a mixture of uses. The Township accommodates a mixture of Residential, Industrial and Public Use Zones, and is surrounded on all sides by high quality agricultural land being Farming Zone and Rural Activity Zones, which allow for tourism activities, broad acre agricultural enterprises, and niche farming enterprises. As aforementioned, parts of the area are covered by a Drouin Precinct Structure Plan, which guides future development and ensures the protection of surrounding agricultural land by limiting the bounds of expansion. The town is well serviced, with planned infrastructure upgrades being rolled out sequentially to coincide with development. Proximity to Melbourne combined with housing affordability and availability within a high amenity location has been credited for the town's 'growth spurt' experienced in recent years. Significant urban expansion is still planned to meet the demands of the projected population growth, however careful urban design approaches are being employed to meet the community expectation to balance the commercial/industrial/residential development with the "country town" feel, distinct identity, and connections to the landscape that characterise the settlement.

The site lies within close proximity to a number of towns and places of interest, including:

- Drouin Recreation Reserve (approx. 500m)
- Bellbird Park (approx. 1.6km)
- Drouin Primary School (approx. 1km)
- Chairo Christian School (approx. 1.6km)
- Drouin Secondary College (approx.. 1.8km)
- Warragul township (approx. 7km)
- Longwarry township (approx. 10km)
- Jindivick township (approx. 15km)
- Neerim South township (approx. 20km)
- Tarago River & Reservoir (approx. 20km)
- Bunyip State Park (approx. 20km)
- Mount Worth State Park (approx. 25km)

PROPOSAL

To be read in conjunction with Proposed Subdivision Plan and *Preliminary Arboricultural Assessment.*

This application seeks to obtain a Planning Permit for a two (2) Lot Subdivision of the site in battleaxe configuration, in accordance with the *Proposed Subdivision Plan*. The application proposes to create two residential Lots at 732m^2 and 919m^2 respectively, in keeping with the surrounding residential properties.

The boundary created by this proposed subdivision has been sympathetically located such to coincide with existing retaining walls surrounding the dwelling, to minimise the need for earthworks.

Vegetation on the site has been assessed by James Lawton of Precision Arboriculture; this *Preliminary Arboricultural Assessment* has been provided to support this Application. Vegetation was found to be of mixed origin, health and retention value. Two trees towards the front of the property were identified to be of high retention value, and will be retained as part of this proposed subdivision. The remaining trees were of lower retention value, and do not require planning approval to remove; however, this subdivision will retain as much vegetation on the site as practical.

Proposed Lot 1 (732m^2)

Forming as an essentially rectangular Lot in the western portion of the site, this Lot has proposed dimensions of 16m x 25.8m x 11.6m x 2.6m x 19.9m x 35.8m.

This Lot is proposed to contain the existing single-storey brick dwelling on the site, along with the associated driveway and the outdoor area immediately surrounding the dwelling, and the second crossover associated with the site. As aforementioned, the dwelling is connected to a full suite of reticulated services, including electricity, gas, water, sewer and telephone supply.

Photos of dwelling & existing two crossovers to be contained within Lot 1.

Proposed Lot 1 has direct frontage to Neerim Street, from which access is provided via a sealed concrete crossover and driveway.

No significant vegetation is anticipated to be impacted by the development of this Lot. Trees 1 & 2 (as identified by the *Preliminary Arboricultural Assessment*) will be retained and protected by this subdivision, and tree 2 will form part of proposed Lot 1. Trees 28 & 32-34 that will be contained

in this Lot have been identified to be of low retention value, and will likely form part of the garden space; however it is noted that they may be removed at the discretion of the landowner, without the requirement for planning approval, as is outlined in the *Preliminary Arboricultural Assessment* provided with this Application.

Proposed Lot 2 (919m²)

Forming as a battleaxe-shaped Lot in the eastern portion of the site, this Lot has proposed dimensions of 5m x 59.8m x 40.2m x 15.8m x 19.9m x 2.6m x 11.6m x 25.8m.

Photos of Proposed Lot 2 from various views, and structures within Lot 2.

This Lot is proposed to contain the shed, cubby house, and a significant portion of the gardens that are on the site. The shed and cubby house in the southern portion of this proposed Lot will be removed. This Lot will be connected to all available reticulated services as part of this development, including electricity, gas, water, sewer and telephone supply.

Proposed Lot 2 will be accessed via a battleaxe driveway to the north of the existing dwelling on proposed Lot 1. A new crossover will be constructed to provide access directly from Neerim Street, to be constructed to the relevant IDM standard and to the satisfaction of the Responsible Authority. It is noted that excellent sight lines are provided from the proposed crossover location.

No significant vegetation is anticipated to be impacted by the development of this Lot. This Lot will contain trees 3-27 & 29-31. Of these trees, none have been identified to be of significant retention value in the *Preliminary Arboricultural Assessment* provided with this Application. Tree 31 has been given a retention value of 'moderate', however it is noted that this tree is of exotic origin. It is acknowledged that a number of trees in proposed Lot 2 will need to be removed to facilitate the development of this Lot; however, as is highlighted in the *Preliminary Arboricultural Assessment* provided with this Application, the removal of these trees may be undertaken without the need for planning approval.

PLANNING OVERLAYS & CONTROLS

Clause 32.08 General Residential Zone – Schedule 1

Land subject to this Application lies within Schedule 1 of the General Residential Zone (GRZ1), as evidenced in the below excerpt from VicPlan.

The purpose of the General Residential Zone (GRZ1) (Clause 32.08) is:

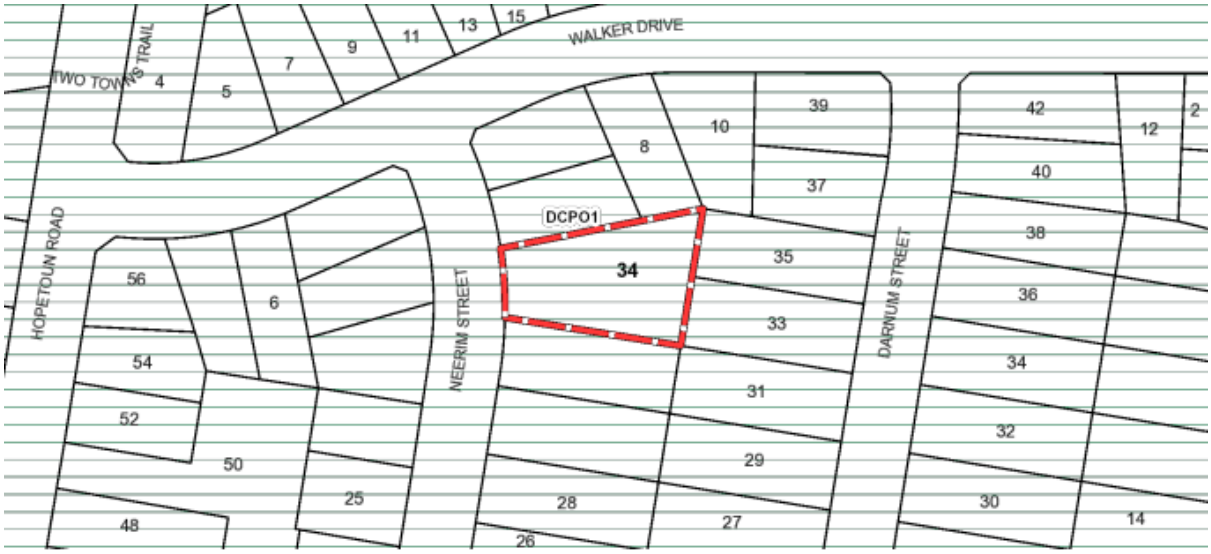
- *To implement the Municipal Planning Strategy and the Panning Policy Framework.*
- *To encourage development that respects the neighbourhood character of the area.*
- *To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.*
- *To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.*

It is submitted that the proposed development is consistent with the purpose of this zone. Specifically, the development provides for residential subdivision that respects and integrates well with the existing neighbourhood character of the area, and encourages housing growth in a location offering good access to services and transport contained within the Drouin township. Further, by acting as an infill subdivision, this development serves to alleviate the pressure to rezone surrounding productive agricultural land.

Clause 32.08-3 states that a permit is required to subdivide land within the GRZ, with no minimum Lot sizes being specified. The Lot sizes proposed within this Application are consistent with the existing pattern of development in the immediate area, with Lots typically being between 500m^2 and 1000m^2. The Lots are reflective of the demand for in-town residential housing supply in the area and can easily accommodate a dwelling with sufficient private recreational and garden area; further, the Lots proposed by this Application are non-offensive and respectful of the existing neighbourhood character, which is firmly established.

Clause 45.06 Development Contributions Plan Overlay – Schedule 1

The entirety of the land in this Application is subject to Schedule 1 of the Development Contributions Plan Overlay (DCPO1), as evidenced in the below excerpt from VicPlan.



The purpose of the Development Contributions Plan Overlay (Clause 45.06) is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To identify areas which require the preparation of a development contributions plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.*

It is acknowledged that the appropriate levy will be required as a Permit Condition in accordance with the requirements of the DCPO1. As such, no further Planning Assessment is required under the provisions of this Clause.

STATE & LOCAL PLANNING POLICY FRAMEWORKS

State and Local Planning Policy are addressed below in support of the proposed development. The application provides a positive response to both State and Local Planning Policy, as follows.

- **Clause 11 *Settlement***

The Settlement objective for Victoria, as described at **Clause 11.01-1S**, is "*to promote the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements*". An important Strategy listed at this Clause is to *"guide the structure, functioning and character of each settlement taking into account municipal and regional contexts and frameworks*". It is submitted that this Application supports the sustainable continuation of the established pattern of development in this area, whilst also supporting and contributing to the established identity of the township.

Specifically, **Clause 11.01-1R** lists strategies to aid in supporting urban growth, settlement and development in Gippsland. The creation of additional residential Lots by capitalising on the opportunity for in-fill redevelopment facilitates and supports the urban growth of Drouin, providing a positive response to the changing population and market conditions whereby Gippsland is experiencing massive growth with people relocating to rural areas that are well-serviced, affordable, and not too far out from Melbourne. Further, directing settlement to already established urban areas and townships aids in alleviating the pressure for expansion to push outwards into productive agricultural land.

- **Clause 16 *Housing***

This Clause is centred around the provision of housing in appropriate locations to meet the diverse needs of the population, whilst ensuring the long-term sustainability of settlements through provision of infrastructure. This Application responds to this Clause by contributing to land supply required to meet demand, in an area identified for residential living and zoned accordingly.

Of particular regard to this Application is **Clause 16.01-1S Integrated Housing**, which outlines the requirement to promote a housing market that meets community needs. This Application is considered consistent with this Clause because it facilitates appropriate development in an existing settlement where infrastructure and services are already available, creating Lots that are proven to be aligned with the wants and needs of the market and will help to support the quickly growing population. This Application makes provision for a suitable Lot on which housing can be developed in the future, thereby supporting this Clause.

Similarly, **Clause 16.01-2S Location of residential development** highlights the requirement '*to locate new housing in designated locations that offer good access to jobs, services and transport*'. As previously mentioned in this report, the subject site is ideally located, being quite close to the Drouin CBD, a number of public bus transport facilities and community amenities.

- **Clause 21 *Municipal Strategic Statement***

Clause 21.03 Settlement outlines that "*Council will consider planning applications and make decisions in accordance with the following vision: To develop a network of integrated, sustainable and resilient communities where people will want to live, work and play, while providing for compatible growth and development*". This Clause then goes on to describe how the rural character and heritage of the towns of the Shire are so highly valued by the community, and ought to be enhanced and protected even in the midst of the significant population growth the Shire is currently experiencing.

The Municipal Strategic Statement has identified Drouin to be a sub-regional centre providing for residential, commercial and industrial development, providing educational, recreational and cultural facilities. **Clause 21.04 Main Towns** lists objectives to guide the balanced and co-ordinated planning and development of these main towns to ensure the efficient provision of infrastructure and services whilst also protecting the character and identity of these settlements, including:

- *To provide the flexibility for development to occur in each town to accommodate the needs of its population as well as to facilitate the Settlement network.*
- *To facilitate development in accordance with the specific town plans attached to this clause.*

It is submitted that this Application is consistent with the objectives of this Clause and the Municipal Strategic Statement, given that it provides a positive response to the specific context of the area that respects the character of the Town whilst contributing to the Settlement network through the provision of land.

This Application also provides a positive response to **Clause 21.04-4 Drouin**, whereby zoning has provided for the long term supply of residential housing lots for the town to meet projected population growth until 2050.

DECISION GUIDELINES

The Decision Guidelines listed at **Clause 32.08-13** outline a number of matters that must be considered as appropriate, including:

Considerations	Assessment
The Municipal Planning Strategy and the Planning Policy Framework.	**COMPLIES** Outcomes of this proposal are consistent with State & Local Planning Policy Framework objectives, as described in the assessment provided above.
The purpose of this zone.	**COMPLIES** The Application is consistent with the purpose of the zone, because it creates an additional residential Lot in a manner that respects the character of the area, and in a location offering good access to services and transport.
The objectives set out in a schedule to this zone.	**NOT APPLICABLE** No additional objectives specified in the schedule.
Any other decision guidelines specified in a schedule to this zone.	**NOT APPLICABLE** No additional decision guidelines specified in the schedule.
The impact of overshadowing on existing rooftop solar energy systems on dwellings on adjoining lots in a General Residential Zone, Mixed Use Zone, Neighbourhood Residential Zone, Residential Growth Zone or Township Zone.	**COMPLIES** No overshadowing anticipated to occur as a result of this development.
The pattern of subdivision and its effect on the spacing of buildings.	**COMPLIES** The pattern of subdivision is respectful of the existing pattern of development surrounding the site.
For subdivision of land for residential development, the objectives and standards of Clause 56.	**COMPLIES** Clause 56 Assessment provided below.

The Decision Guidelines listed at **Clause 65.02** outline a number of additional matters that must be considered as appropriate, including:

Considerations	Assessment
The suitability of the land for subdivision.	**COMPLIES** Capability for residential development is demonstrated by zoning.
The existing use and possible future development of the land and nearby land.	**COMPLIES** Existing use of the land is associated with residential purposes. Use of surrounding land is residential or zoned for public recreational use.
The availability of subdivided land in the locality, and the need for the creation of further lots.	**COMPLIES** Facilitating residential development in existing settlements alleviates the pressure to rezone productive agricultural land to meet the demand of supply of residential Lots. This Application is for an infill subdivision, utilising available land within the locality.
The effect of development on the use or development of other land which has a common means of drainage.	**COMPLIES** No foreseeable adverse impacts.

The subdivision pattern having regard to the physical characteristics of the land including existing vegetation.	**COMPLIES** The proposed Lots are respectful of the existing subdivision pattern in the area.
The density of the proposed development.	**COMPLIES** The Application proposes for a continuation of the density of development already established.
The area and dimensions of each lot in the subdivision.	**COMPLIES** The Application proposes lot sizes that are consistent in size with the neighbourhood pattern already established.
The layout of roads having regard to their function and relationship to existing roads.	**NOT APPLICABLE** No road construction proposed.
The movement of pedestrians and vehicles throughout the subdivision and the ease of access to all lots.	**COMPLIES** The proposed Lots have all been designed to facilitate forward vehicle movements. Both Lots have direct frontage to the proposed road.
The provision and location of reserves for public open space and other community facilities.	**NOT APPLICABLE** No reserves or other community facilities proposed as part of this development. The land is sited in close proximity to existing community facilities, reserves and public open space. Furthermore, subdivision LP220531F (of which this land is a part of) created reserves for recreation purposes.
The staging of the subdivision.	**NOT APPLICABLE** This is not a staged subdivision.
The design and siting of buildings having regard to safety and the risk of spread of fire.	**COMPLIES** The building envelopes have been designed such to prioritise safety and mitigate the risk of spread of fire. It is noted that the subject site does not lie within a Designated Bushfire Prone Area, and is not subject to a Bushfire Management Overlay.
The provision of off-street parking.	**COMPLIES** Both Lots will have provision for off-street parking.
The provision and location of common property.	**NOT APPLICABLE** No common property proposed in this development.
The functions of any body corporate.	**NOT APPLICABLE** No common property proposed in this development.
The availability and provision of utility services, including water, sewerage, drainage, electricity and gas.	**COMPLIES** The subdivision design maximises potential to connect in to existing infrastructure.
If the land is not sewered and no provision has been made for the land to be sewered, the capacity of the land to treat and retain all sewerage and sullage within the boundaries of each lot.	**NOT APPLICABLE** Sewer is available to the area.
Whether, in relation to subdivision plans, native vegetation can be protected through subdivision and siting of open space areas.	**NOT APPLICABLE** No open space areas proposed as part of this subdivision. The *Preliminary Arboricultural Assessment* provided with this Application has identified 5 trees on the site to be of native origin; however four of these trees have been identified to be in poor health and of low retention value. The one native tree identified in the Assessment to be of reasonable health and retention value will be protected and retained as part of this subdivision.

CLAUSE 56 ASSESSMENT

Clause 56.03-5 Neighbourhood character objective	
Objective	To design subdivisions that respond to neighbourhood character.
Standard C5	Subdivision should: • Respect the existing neighbourhood character or achieve a preferred neighbourhood character consistent with any relevant neighbourhood character objective, policy or statement set out in this scheme. • Respond to and integrate with the surrounding urban environment. • Protect significant vegetation and site features.
Assessment	**COMPLIES** This proposal provides for a living environment for future residents that is considered functional, safe and attractive, which respects the existing character and contributes to the established sense of place and cultural identity of the town.

Clause 56.04-2 Lot area and building envelopes objective	
Objective	To provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling, solar access, private open space, vehicle access and parking, water management, easements and the retention of significant vegetation and site features.
Standard C8	An application to subdivide land that creates lots less than 300 square metres should be accompanied by information that shows: • That the lots are consistent or contain building envelope that is consistent with a development approved under this scheme, or • That a dwelling may be constructed on each lot in accordance with the requirements of this scheme. Lots of between 300 square metres and 500 square metres should: • Contain a building envelope that is consistent with a development of the lot approved under this scheme, or • If no development of the lot has been approved under this scheme, contain a building envelope and be able to contain a rectangle measuring 10 metres by 15 metres, or 9 metres by 15 metres if a boundary wall is nominated as part of the building envelope. If lots between 300 square metres and 500 square metres are proposed to contain dwellings that are built to the boundary, the long axis of the lots should be within 30 degrees east and 20 degrees west of north unless there are significant physical constraints that make this difficult to achieve. Lots greater than 500 square metres should be able to contain a rectangle measuring 10 metres by 15 metres, and may contain a building envelope. A building envelope may specify or incorporate any relevant siting and design requirement. Any requirement should meet the relevant standards of Clause 54, unless: • The objectives of the relevant standards are met, and • The building envelope is shown as a restriction on a Plan of Subdivision registered under the *Subdivision Act 1988*, or is specified as a covenant in an agreement under Section 173 of the Act. Where a lot with a building envelope adjoins a lot that is not on the same plan of subdivision or is not subject to the same agreement relating to the relevant building envelope: • The building envelope must meet Standards A10 and A11 of Clause 54 in relation to the adjoining lot, and • The building envelope must not regulate siting matters covered by Standards A12 to A15 (inclusive) of Clause 54 in relation to the adjoining lot. This should be specified in the relevant Plan of Subdivision or agreement. Lot dimensions and building envelopes should protect: • Solar access for future dwellings and support the siting and design of dwellings that achieve the energy rating requirements of the Building Regulations. • Existing or proposed easements on lots. • Significant vegetation and site features.
Assessment	**COMPLIES** The Lots proposed in this subdivision are larger than 500m^2, easily able to accommodate standard residential building envelopes. Envelopes have not been provided, as they are not required.

Clause 56.04-3 Solar orientation of lots objective	
Objective	To provide good solar orientation of lots and solar access for future dwellings.
Standard C9	Unless the site is constrained by topography or other site conditions, at least 70 percent of lots should have appropriate solar orientation. Lots have appropriate solar orientation when: • The long axis of lots are within the range north 20 degrees west to north 30 degrees east, or east 20 degrees north to north east 30 degrees south. • Lots between 300 square metres and 500 square metres are proposed to contain dwellings that are built to the boundary; the long axis of the lots should be within 30 degrees east and 20 degrees west of north. • Dimensions of lots are adequate to protect solar access to the lot, taking into account likely dwelling size and the relationship of each lot to the street.
Assessment	**COMPLIES** Orientation provides for good solar access for the existing and future dwellings.

Clause 56.04-5 Common area objectives	
Objective	To identify common areas and the purpose for which the area is commonly held. To ensure the provisions of common area is appropriate and the necessary management arrangements are in place. To maintain direct public access throughout the neighbourhood street network.
Standard C11	An application to subdivide land that creates common land must be accompanied by a plan and report identifying: • The common area to be owned by the body corporate, including any streets and open space. • The reasons why the area should be commonly held. • Lots participating in the body corporate. • The proposed management arrangements including maintenance standards for streets and open spaces to be commonly held.
Assessment	**NOT APPLICABLE** No common property is proposed to be created as part of this subdivision.

Clause 56.06-8 Lot access objective	
Objective	To provide for safe vehicle access between roads and lots.
Standard C21	Vehicle access to lots abutting arterial roads should be provided from service roads, side or rear access lanes, access places or access streets where appropriate and in accordance with the access management requirements of the relevant roads authority. Vehicle access to lots of 300 square metres or less in area and lots with frontage of 7.5 metres or less should be provided via rear or side access lanes, places or streets. The design and construction of a crossover should meet the requirements of the relevant road authority. Refer to tables of this clause – Table C1.
Assessment	**COMPLIES** Each Lot will have direct access to road created as part of this development, whereby safe vehicular access can be achieved.

Clause 56.07-1 Drinking water supply objectives	
Objective	To reduce the use of drinking water. To provide an adequate, cost-effective supply of drinking water.
Standard C22	The supply of drinking water must be:

	• Designed and constructed in accordance with the requirements and to the satisfaction of the relevant water authority. • Provided to the boundary of all lots in the subdivision to the satisfaction of the relevant water authority.
Assessment	**COMPLIES** Reticulated water supply will be provided as part of this development.

Clause 56.07-2 Reused and recycled water objective	
Objective	To provide for the substitution of drinking water for non-drinking purposes with reused and recycled water.
Standard C23	Reused and recycled water supply systems must be: • Designed, constructed and managed in accordance with the requirements and to the satisfaction of the relevant water authority, Environment Protection Authority and Department of Health and Human Services. • Provided to the boundary of all lots in the subdivision where required by the relevant water authority.
Assessment	**NOT APPLICABLE** Recycled water use does not form part of the Planning Application. Future owners of may wish to incorporate grey water tanks (subject to further approval) or similar systems.

Clause 56.07-3 Wastewater management objective	
Objective	To provide a waste water system that is adequate for the maintenance of public health and the management of effluent in an environmentally friendly manner.
Standard C24	Waste water systems must be: • Designed, constructed and managed in accordance with the requirements and to the satisfaction of the relevant water authority and the Environment Protection Authority. • Consistent with any relevant approved domestic waste water management plan. Reticulated waste water systems must be provided to the boundary of all lots in the subdivision where required by the relevant water authority.
Assessment	**COMPLIES** Reticulated sewer supply will be provided to the new Lot created as part of this development.

Clause 56.07-4 Stormwater management objectives	
Objective	To minimise damage to properties and inconvenience to residents from stormwater. To ensure that the street operates adequately during major storm events and provides for public safety. To minimise increases in stormwater and protect the environmental values and physical characteristics of receiving waters from degradation by stormwater. To encourage stormwater management that maximises the retention and reuse of stormwater. To encourage stormwater management that contributes to cooling, local habitat improvements and provision of attractive and enjoyable spaces.
Standard C25	The stormwater management system must be: • Designed and managed in accordance with the requirements and to the satisfaction of the relevant drainage authority. • Designed and managed in accordance with the requirements and to the satisfaction of the water authority where reuse of stormwater is proposed. • Designed to meet the current best practice performance objectives for stormwater quality as contained in the *Urban Stormwater – Best Practice Environmental Management Guidelines* (Victorian Stormwater Committee 1999). • Designed to ensure that flows downstream of the subdivision site are restricted to pre-development levels unless increased flows are approved by the relevant drainage authority and there are no detrimental downstream impacts.

	• Designed to contribute to cooling, improving local habitat and providing attractive and enjoyable spaces. The stormwater management system should be integrated with the overall development plan including the street and public open space networks and landscape design. For all storm events up to and including the 20% Average Exceedance Probability (AEP) standard: • Stormwater flows should be contained within the drainage system to the requirements of the relevant authority. • Ponding on roads should not occur for longer than 1 hour after the cessation of rainfall. For storm events greater than 20% AEP and up to and including 1% AEP standard: • Provision must be made for the safe and effective passage of stormwater flows. • All new lots should be free from inundation or to a lesser standard of flood protection where agreed by the relevant floodplain management authority. • Ensure that streets, footpaths and cycle paths that are subject to flooding meet the safety riteria da Vave < 0.35 m2/s (where, da = average depth in metres and Vave = average velocity in metres per second). The design of the local drainage network should: • Ensure stormwater is retarded to a standard required by the responsible drainage authority. • Ensure every lot is provided with drainage to a standard acceptable to the relevant drainage authority. Wherever possible, stormwater should be directed to the front of the lot and discharged into the street drainage system or legal point of discharge. • Ensure that inlet and outlet structures take into account the effects of obstructions and debris build up. Any surcharge drainage pit should discharge into an overland flow in a safe and predetermined manner. • Include water sensitive urban design features to manage stormwater in streets and public open space. Where such features are provided, an application must describe maintenance responsibilities, requirements and costs. Any flood mitigation works must be designed and constructed in accordance with the requirements of the relevant floodplain management authority.
Assessment	**COMPLIES** The proposed drainage networks ensure appropriate and necessary water management functions. It is anticipated that Planning Permit conditions will provide compliancy to the objective of this clause. To ensure that pre-development flows are not exceeded, it is anticipated that an on-site stormwater detention system will be required to be designed by a suitably qualified drainage engineer to limit stormwater runoff to up to a 20 year ARI event (as is required under the Baw Baw Planning Scheme) on all proposed Lots at a subsequent time when the land is developed, where future dwelling, outbuildings and hard surfaces can be fully assessed based on appropriate design. It is anticipated that this standard will be adhered to by way of Planning Permit condition, by use of the Standard S173 Agreement.

Clause 56.08-1 Site management objectives	
Objective	To protect drainage infrastructure and receiving waters from sedimentation and contamination. To protect the site and surrounding area from environmental degradation or nuisance prior to and during construction of subdivision works. To encourage the re-use of materials from the site and recycled materials in the construction of subdivisions where practicable.
Standard C26	A subdivision application must describe how the site will be managed prior to and during the construction period and may set out requirements for managing: • Erosion and sediment. • Dust. • Run-off. • Litter, concrete and other construction wastes. • Chemical contamination. • Vegetation and natural features planned for retention. Recycled material should be used for the construction of streets, shared paths and other infrastructure where practicable.

Assessment	**COMPLIES** It is anticipated that a Planning Permit issued for this development will require for the provision of various plans to manage erosion, sediment, dust, run-off, construction wastes, and chemical contamination associated with construction. Additionally, a Permit can stipulate what construction materials are to be used.

Clause 56.09-1 Shared trenching objectives	
Objective	To maximise the opportunities for shared trenching. To minimise constraints on landscaping within street reserves.
Standard C27	Reticulated services for water, gas, electricity and telecommunications should be provided in shared trenching to minimise construction costs and land allocation for underground services.
Assessment	**COMPLIES** The opportunity for shared trenching exists and will be utilised as part of this development where possible.

Clause 56.09-2 Electricity, telecommunications and gas objectives	
Objective	To provide public utilities to each lot in a timely, efficient and cost-effective manner. To reduce greenhouse gas emissions by supporting generation and use of electricity from renewable sources.
Standard C28	The electricity supply system must be designed in accordance with the requirements of the relevant electricity supply agency and be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant electricity authority. Arrangements that support the generation or use of renewable energy at a lot or neighbourhood level are encouraged. The telecommunication system must be designed in accordance with the requirements of the relevant telecommunications servicing agency and should be consistent with any approved strategy, policy or plan for the provision of advanced telecommunications infrastructure, including fibre optic technology. The telecommunications system must be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant telecommunications servicing authority. Where available, the reticulated gas supply system must be designed in accordance with the requirements of the relevant gas supply agency and be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant gas supply agency.
Assessment	**COMPLIES** Each Lot in this subdivision will be connected to electricity, telecommunications and gas services as part of this development, to the satisfaction of the relevant servicing authorities.

PUBLIC OPEN SPACE CONTRIBUTION

Section 18(8)(c) of the Subdivision Act states that public open space is not required if it is considered by council that no further subdivision may occur on each lot created. Additionally, Clause 53.01-1 of the Baw Baw Planning Scheme states that a subdivision is exempt from the requirement to make a public open space contribution if "*It subdivides land into two lots and the council considers it unlikely that each lot will be further subdivided*". Given the physical constraints of the allotment, this proposed two lot subdivision is the development capacity of the land and public open space is not applicable.

Furthermore, land subject to this Application was created by subdivision LP220531F, being a multi Lot staged subdivision created in 1991 as part of the Drouin Park Estate. As part of this subdivision, approximately 7.11% of the land was created as recreation reserve over stages 1 & 2, which equates to 5665m2 of the total original Title. Pursuant to Section 569(8A) of the LGA 1958, a 5% public open space contribution was required as Statutory requirement prior to Council sealing the Plan of Subdivision that created land for residential purposes; in this case, the contribution was provided in the form of land set aside as recreation reserve. Section 569(10) of the LGA 1958 confirms that the sealing of a Plan of Subdivision shall provide conclusive evidence for all purposes that there has been compliance with the LGA with respect to completing all preliminary steps and proceedings required to have been duly and properly undertaken in accordance with the LGA. Under the provisions of Section 18 of the Subdivision Act and Section 569 of the LGA, Council may only receive this contribution once on a parcel of land. Therefore, it is submitted that the Public Open Space Contribution has been previously satisfied and can not be requested again by Council.

CONCLUSION

For reasons stated in this report, the proposed development is considered to accord with all relevant provisions of the General Residential Zone, and Particular Provisions of the Baw Baw Planning Scheme, including Bushfire Management & Development Contributions Plan Overlays. The proposal is considered consistent with State and Local Policy, as is detailed in the relevant sections of this report, and has been designed in conjunction with the character and pattern of development in the area. Further, it is submitted that this application provides a positive outcome given that it acts as an infill subdivision whereby land zoned for residential purposes is better utilised in a manner that respects the surrounding neighbourhood character, and thereby alleviates the pressure to rezone surrounding productive agricultural land. We respectfully request that Council consider the merits of this Application, and resolve to issue a Planning Permit in a timely manner such to facilitate the proposal.

Jonathan Neilson LS
Director, Principal & Licensed Surveyor

PRECISION
Arboriculture

Preliminary Arboricultural Assessment
34 Neerim Street, Drouin

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8-10-2020

Document date :
23-10-2020

Contents

Summary

Precision Arboriculture was engaged by Gippsland Licensed Surveyors to conduct a preliminary arboricultural assessment at 34 Neerim Street, Drouin for a proposed two-lot subdivision.

Thirty-four (34) trees or groups of trees were assessed within the subject site and on public land. Site owned trees accounted for 97% of the total trees assessed with 3% (1 tree) being an asset of Baw Baw Shire Council (Tree 1).

Most trees within the subject site were of exotic origin and of low to moderate retention value, with immediate garden vegetation around the existing house site being exotic shrub species.

Exotic species made up 85% of the total number of trees assessed, with the remaining 15% being Australian native.

No trees recorded on Baw Baw Shire Council's significant tree register were located within the subject site or neighbouring properties. There were no species indigenous to Baw Baw Shire Council located within 34 Neerim Street, Drouin or any indigenous vegetation that was planted as part of a local or state government grant.

Introduction

Precision Arboriculture was engaged by Gippsland Licensed Surveyors to conduct a preliminary arboricultural assessment at 34 Neerim Street, Drouin (figure 1.) for a proposed two-lot subdivision.

The purpose of the assessment was to:

- Provide a Preliminary Arboricultural Assessment in accordance with AS 4970-2009 *Protection of Trees on Development sites,* clause 2.3.2.
- Identify the arboricultural value of the trees within the subject site and on public land based on their health, structure, and visual amenity.
- Identify any significant trees on Baw Baw Shire Council's significant tree register that require retention and a design response that is sympathetic to their ongoing growth and function.
- Identify any planning controls relevant to the management of vegetation within the subject site.

Figure 1: Aerial image of the subject site (NearMap 2020)

Site context

The subject site is a 1593 square metre, north facing residential block with a single storey, brick house.

The immediate neighbourhood, south of Walker Drive is zoned as **General Residential Zone – Schedule 1 (GRZ1).**

There are no planning controls in place specific to the management of trees and vegetation within the immediate neighbourhood.

34 Neerim Street Drouin is not classified as a designated bushfire prone area and is not subject to a Bushfire Management Overlay (BMO).

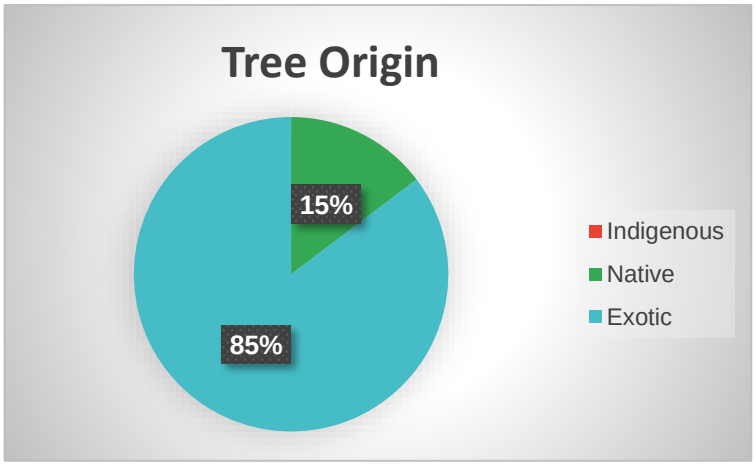
There is a well-established garden to the north and east of the house site, which is predominantly made up of densely planted exotic tree and shrub species, typically available at most retail nurseries (figure 2.)

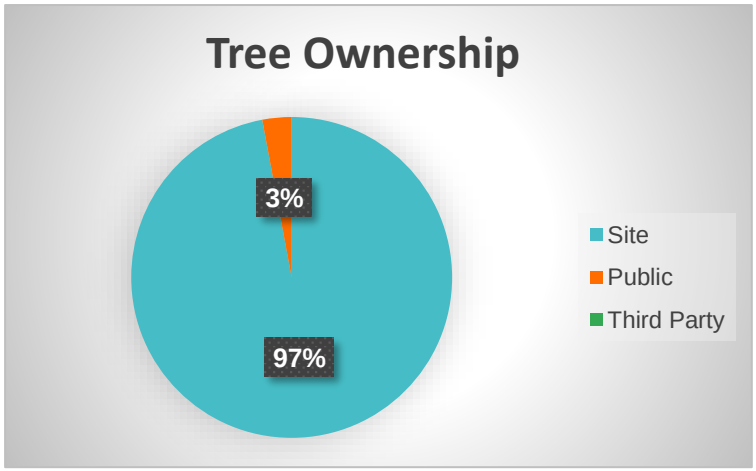
Figure 2: Ground view of the garden looking south with a mixture of semi-mature, exotic species.

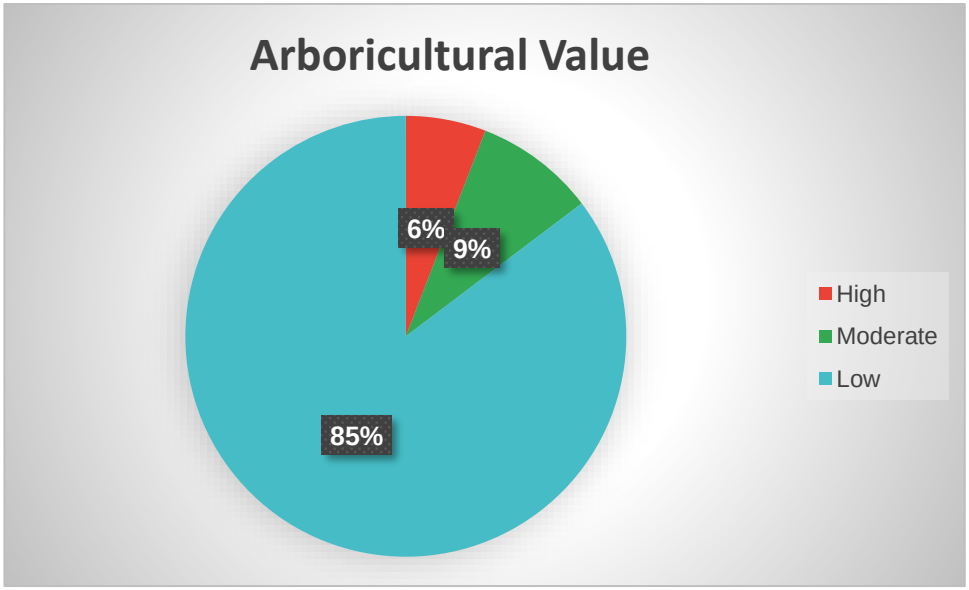
Tree data

Tree ID	Species	Common Name	Height (m)	DBH (mm)	TPZ (m)	D (mm)	SRZ (m)	Health	Structure	U.L.E	Age	Origin	Arb. Value	Ownership
1	*Lophostemon confertus*	Brush Box	4	290	3.48	390	2.23	Fair	Fair	10+	Semi-mature	Native	High	Public
2	*Cercis siliquastrum*	Judas Tree	4	260	3.12	310	2.02	Good	Good	10+	Semi-mature	Exotic	High	Site
3	*Acer rubrum*	Red Maple	6	260	3.12	285	1.95	Good	Poor	10+	Semi-mature	Exotic	Low	Site
4	*Pyrus calleryana*	Callery Pear	4	150	1.80	175	1.59	Good	Fair	3 to 10	Juvenile	Exotic	Low	Site
5	*Callistemon viminalis*	Weeping Bottlebrush	3	100	1.20	125	1.38	Good	Poor	0 to 3	Semi-mature	Native	Low	Site
6	*Acer palmatum*	Japanese Maple	3	100	1.20	120	1.36	Good	Fair	10+	Semi-mature	Exotic	Low	Site
7	*Pittosporum tenuifolium*	Kohuhu	6	320	3.84	380	2.20	Good	Poor	3 to 10	Semi-mature	Exotic	Low	Site
8	*Betula pendula*	Silver Birch	7	245	2.94	290	1.97	Good	Fair	3 to 10	Semi-mature	Exotic	Low	Site
9	*Betula pendula*	Silver Birch	5	150	1.80	165	1.55	Good	Good	10+	Semi-mature	Exotic	Low	Site
10	*Pyrus ussuriensis*	Manchurian Pear	6	350	4.20	440	2.34	Good	Poor	0 to 3	Mature	Exotic	Low	Site
11	*Alnus jorullensis*	Evergreen Alder	8	330	3.96	460	2.39	Good	Fair	10+	Mature	Exotic	Moderate	Site
12	*Alnus jorullensis*	Evergreen Alder	9	270	3.24	350	1.95	Fair	Fair	3 to 10	Mature	Exotic	Low	Site
13	*Acer negundo*	Box Elder Maple	8	190	2.28	220	1.75	Fair	Fair	3 to 10	Semi-mature	Exotic	Low	Site
14	*Callistemon salignus*	Willow Bottlebrush	6	220	2.64	290	1.97	Fair	Poor	3 to 10	Mature	Native	Low	Site
15	*Alnus jorullensis*	Evergreen Alder	7	310	3.72	415	2.29	Good	Fair	3 to 10	Mature	Exotic	Low	Site
16	*Alnus jorullensis*	Evergreen Alder	8	300	3.60	380	2.20	Fair	Fair	3 to 10	Mature	Exotic	Low	Site

17	*Alnus jorullensis*	Evergreen Alder	8	320	3.84	400	2.25	Good	Fair	3 to 10	Mature	Exotic	Low	Site
18	*Alnus jorullensis*	Evergreen Alder	8	265	3.18	320	2.05	Fair	Fair	3 to 10	Mature	Exotic	Low	Site
19	*Corymbia ficifolia*	Red Flowering Gum	6	320	3.84	380	2.20	Fair	Poor	3 to 10	Semi-mature	Native	Low	Site
20	*Alnus jorullensis*	Evergreen Alder	8	320	3.84	375	2.19	Fair	Poor	3 to 10	Mature	Exotic	Low	Site
21	*Alnus jorullensis*	Evergreen Alder	8	320	3.84	400	2.25	Fair	Fair	3 to 10	Mature	Exotic	Low	Site
22	*Alnus jorullensis*	Evergreen Alder	8	330	3.96	410	2.28	Good	Fair	3 to 10	Mature	Exotic	Low	Site
23	*Alnus jorullensis*	Evergreen Alder	8	350	4.20	420	2.30	Good	Fair	3 to 10	Mature	Exotic	Low	Site
24	*Alnus jorullensis*	Evergreen Alder	8	345	4.14	415	2.29	Good	Fair	3 to 10	Mature	Exotic	Low	Site
25	*Alnus jorullensis*	Evergreen Alder	8	350	4.20	400	2.25	Good	Fair	3 to 10	Mature	Exotic	Low	Site
26	*Alnus jorullensis*	Evergreen Alder	8	320	3.84	390	2.23	Good	Fair	3 to 10	Mature	Exotic	Low	Site
27	*Alnus jorullensis*	Evergreen Alder	8	345	4.14	400	2.25	Good	Fair	3 to 10	Mature	Exotic	Low	Site
28	*Photinia robusta*	Japanese Photinia	3	115	1.38	125	1.38	Fair	Poor	0 to 3	Mature	Exotic	Low	Site
29	*Fraxinus excelscior* 'Aurea'	Golden Ash	4	250	3.00	280	1.94	Good	Fair	10+	Semi-mature	Exotic	Moderate	Site
30	*Acer rubrum*	Red Maple	5	175	2.10	220	1.75	Good	Poor	10+	Semi-mature	Exotic	Low	Site
31	*Fraxinus oxycarpa* 'Raywoodii'	Claret Ash	9	415	4.98	440	2.34	Fair	Fair	10+	Semi-mature	Exotic	Moderate	Site
32 (group)	*Betula pendula*	Silver Birch	6	180	2.16	210	1.72	Good	Fair	3 to 10	Semi-mature	Exotic	Low	Site
33	*Laburnum anagyroides*	Golden Chain Tree	3	150	1.80	160	1.53	Fair	Hazardous	0	Mature	Exotic	Low	Site
34	*Syzygium australe*	Brush Cherry	3	150	1.80	180	1.61	Fair	Poor	0 to 3	Semi-mature	Native	Low	Site


Tree Origin
15%
85%
Indigenous
Native
Exotic


Tree Ownership
3%
97%
Site
Public
Third Party


Arboricultural Value
6%
9%
85%
High
Moderate
Low

Site map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Recommendations

Public trees

- Tree number one (1) is to be retained and afforded protection during development as per AS4970 – *Protection of trees on development sites.* Lockable, temporary fencing is to be installed around the tree, covering the nature strip perimeter (grassed area – Figure 3). Tree protection fencing does not have to extend to the measured TPZ radius of tree 1, due to it being surrounded by impervious paving (road wearing course, concrete footpath etc.) which will not compact any further from construction traffic. Tree 1 is also a planted street tree that has grown adaptively into an environment with restricted soil volume for root exploration, therefore it is not assumed to have a symmetrical or widely elliptical root plate similar to a tree within a greenfield site with no previous encroachment.

Figure 3: Example of public tree protection zone fencing

Private trees

- Due to the species origin, their overall size and their location within a GRZ-1 site, there is no local law or planning control that regulates the pruning or removal of the vegetation within 34 Neerim Street Drouin. Many of the trees inside the boundary vegetation are poorly structured, contain multiple scaffold branch failures (figure 4 & 5) and are semi-mature, meaning that advanced replacement plantings within a ten-year period could replace what is lost. Depending on the design of the proposed built form, the retention of the outermost trees along the boundary fence could be considered as a means of maintaining the sites privacy and "value adding" the proposed development. However, there is no mandate to enforce this.

Figure 4 & 5: Tree 10 - P.usseriensis

Methodology

On 8-10-2020, James Lawton from Precision Arboriculture assessed the trees within the subject site. Trees in question were tagged and given an identification number, which corresponds to the data table within the report.

Data was captured on a Samsung Galaxy tablet and recorded in Microsoft Excel. The latitude and longitude of the trees was captured on “GPS Essentials” and their unique identification number were added into the most recent aerial imagery layer on NearMap.

Single trees were assessed as a single tree, where groups of more than one tree of the same species existed near one another these trees were assessed as a group. The largest tree from each group was used for the dimensions.

Tree health and structure was assessed from ground level using Visual Tree Assessment – VTA (Mattheck and Breloer 1994).
Explanatory notes for tree assessment descriptors can be found in appendix 1.

The following data was captured for each assessed tree:

- Tree identification number
- Species
- Common name
- Height (m)
- Diameter at breast height - DBH (mm) measured at 1.4m above ground level
- Tree protection zone – TPZ (m) measured at a radius from the center of the stem
- Diameter at base – D (mm) measured at just above the root collar
- Structural root zone – SRZ (m) measured at a radius from the center of the stem
- Health
- Structure
- Useful life expectancy – ULE, measured in years
- Age
- Origin
- Retention value and.
- Tree ownership

References

- Mattheck, C, & Breloer, H, 1994, *The Body Language of trees; A handbook for failure analysis,* HMSO Publications, London, England.

- NearMap, 2020, Aerial Imagery, accessed 23-10-2020, < http://maps.au.nearmap.com/ >

- SAI Global, 2009, *Protection of trees on development sites - 2009,* Australian Standards.

Appendix 1: Tree assessment descriptors

Origin

Indigenous: The species occurs naturally within the bioregion and is characteristic of the pre-1750 Ecological Vegetation Class (EVC) of that area.

Native: The species is native to Australia but does not occur naturally within the bioregion.

Exotic: The species does not occur naturally within any part of Australia.

For the descriptors of both tree health and structure, ratings may be given if one or more of the following criteria are found.

Health

Good

- The tree displays near optimal foliage characteristics and density for its species in size, colour, and density.

- Recent and/or historic pruning cuts or damaged surfaces are being occluded by wound wood, indicative of continued growth after trauma.

- The tree may display low levels of pest or pathogen infestation that is known to be a normal species trait and of little to no consequence to the tree in question.

- Evidence of heartwood decay exists, however, growth responses to increased mechanical stresses are present in the form of adaptive growth. The species may also be known to have a strong CODIT response to the causal agent (e.g. *E.cladocalyx* – *Phellinus* spp.

- Expansion cracks may be present in the trunk/stem and scaffold branches during Spring and Summer. These are only to the depth of the cambium, have no effect on the trees structure and are indicative of accelerated growth when growing conditions are optimal.

- The tree displays approximately 71-100% live canopy mass.

Fair

- Foliage may be chlorotic or stunted.

- The tree may display medium levels of pest or pathogen infestation that could impact on growth and function but will recover without any outside intervention.

- Signs of a highly virulent pathogen in its incipient stage may be evident within the tree in question (e.g. 5-10% flagging from "Cypress Canker" – *Serridium* spp.)

- The tree displays 51-70% live canopy mass.

Poor

- The tree displays extensive patches of missing foliage.

- The tree has extensive pest or pathogen infestation and is not likely to recover without outside intervention.

- Pruning wounds and/or damaged surfaces show no signs of attempted wound wood formation.

- Heartwood decay exists and there is no evidence of adaptive growth to provide a uniform distribution of mechanical stress on the area of disfunction. There may be multiple fruiting bodies along the same column of decay. The species may also be known to have a poor CODIT response to the causal agent (e.g. *Pinus radiata* – *Phaeolus schweinitzii*)

- Dead wood extends into the scaffold branches that make up the trees main structure.

- The tree has a complex of primary and secondary pests or pathogens that are contributing to its decline, in which it will not recover even with outside intervention.

- The tree exhibits <50% live canopy mass.

Dead

- The tree has no live vascular tissue.

Structure

Good

- The tree contains well-formed branch unions that have the required space for overlapping layers of wood to be laid down over the branch and then the parent trunk/stem, or lower order branch to higher order branch. Successive overlapping layers eventually form a well-defined branch collar.

- Supportive tissue is evident in the form of either compression wood or tension wood in response to mechanical loading on the trees structure. This may be found on the trunk/stem, root collar and /or scaffold branches.

- Natural leaning is evident, but the lean is in response to available light resources (phototrophic) or progressive wind loading over time. The tree has grown in response to this and laid down supportive tissue to compensate for the shift in mechanical loading.

- Scaffold branches that are attached to the main trunk/stem are smaller in diameter than the parent structure they are attached to, allowing successive overlapping layers of wood to provide a strong point of attachment (relative branch size or aspect ratio). Generally, an aspect ratio of 1:3 is considered optimal.

- Stem and scaffold branch taper are evident, indicative of active cambium growth and adequate supportive tissue.

- The tree could have poor tertiary branch taper.

- There is no evidence of major disturbance or damage to the trees structural (woody) roots.

- There is no history of major branch or stem failure within the trees canopy.

- Major structural failure or complete tree failure under normal environmental conditions is highly unlikely.

Fair

- The tree may have two competing stems or leaders (co-dominance); however, a stem bark ridge is present between the two and there is no evidence of included bark.

- A low proportion of scaffold branches may be crossing and/or rubbing within the canopy, indicative of a lack of formative pruning when young.

- The tree may exhibit a lack of scaffold branch and/or stem taper (progressive change in diameter)

- Scaffold branches that are attached to the main trunk/stem are similar in diameter to the parent structure they are attached to, making successive overlapping layers of wood to provide a strong point of attachment more difficult to achieve (relative branch size or aspect ratio). The aspect ratio is closer to 1:2. Generally, an aspect ratio of 1:3 is considered optimal.

- There is evidence of repeated, minor injury to the tree's structural roots (i.e. scalping by mower/slasher blades) but no evidence to suggest that any structural roots have been severed or removed.

- A low proportion of scaffold branches have a narrow angle of attachment to their parent structure, indicating a low level of included bark. Where these inclusions occur, there is no evidence of progressive failure in the form of sharp “ribs” of reaction wood, or active splits.

- The tree could have structural defects on tertiary branches such as unions with included bark, crossing/rubbing branches, de-laminated branches, or active splits but present a low risk of harm to people and property due to their size.

- The tree may have a history of multiple, lower order branch failures or a scaffold branch failure that has not adversely affected the rest of the trees structure. The canopy is not left severely asymmetrical as a result.

- Most structural defects could be managed through recognized arboricultural practices such as formative and structural pruning.

Poor

- There is evidence of structural root damage on the compressive side of the tree’s natural lean.

- Most, if not all scaffold branches have acute angles of attachment to their parent structure with little or no room for overlapping layers of wood to be laid down, there is no formed branch collar or branch bark ridge. It is highly likely that bark is included.

- The tree has a history of multiple, major branch failures that result in large areas of damaged tissue, canopy asymmetry and a reduction in photosynthetic capacity.

- The tree has been extensively “lopped” or “topped” live, not done in the context of creating a habitat tree.

- The tree exhibits co-dominance from an early point in the tree’s growth and/or no stem bark ridge can be seen between the two stems/leaders. It is highly likely that bark is included.

- Most, if not all scaffold branches are of equal diameter to their parent structure, making it difficult for the tree to lay down overlapping layers of wood to form a strong branch union. Aspect ratio would likely be 1:1.

- If juvenile or semi-mature, the tree may be able to have most structural defects resolved with an accepted arboricultural practice such as formative or structural

pruning. If mature or senescent, formative, or structural pruning is not likely to be able to remove the structural defects without adversely affecting the trees health or stability.

Hazardous

- The tree has an active point of failure because of one or more of the traits in the "Poor" classification. This could be in the form of an active split between two stems, a diametric split through the main stem, radial cracking in the soil from dynamic root plate movement or a hanging scaffold branch (to name a few).

- There is evidence of major structural root severance on the tensile side of the tree's natural lean.

- Complete and/or major tree failure is imminent.

Useful life expectancy (ULE)

10+ Years: Tree is likely a mature tree that is in Good health and/or structure and is expected to maintain current levels of amenity for a minimum of 10 years.

3-10 Years: Tree is likely a mature tree that is in fair health and/or structure and is likely declining. It is expected that the tree is not likely to maintain current levels of amenity for more than 10 years.

0-3 Years: Tree is likely a mature tree that is in poor health and/or structure and is likely declining. It is expected that the tree is not likely to maintain current levels of amenity for more than 3 years.

0 Years: Tree is considered dead and/or hazardous and should be actioned within a 12-month period.

Arboricultural value

Significant: The tree is an exceptional example of its species in both health and structure and/or is a large for its species and the environmental conditions it is growing in. It may provide a combination of environmental and ecological benefits such as extensive canopy cover, hollows for aerial fauna and stabilization of friable soil (to name a few). The tree may lend itself to the character of the area and/or be known as a landmark in the local community. Significant trees can also be known to have cultural significance such as “scar” or “birthing” trees or form part of a larger avenue that makes the entire stand of trees significant. Trees such as this must have all reasonable action taken to retain them in the landscape and incorporate them into a design that is sympathetic to their continued growth and function.

High: The tree is generally in good health and structure, provides high levels of amenity and is likely to do so for more than 10 years. Tree may have historic or cultural significance.

Medium: The tree is generally in fair to good health and structure, provides medium levels of amenity and is likely to do so for up to 10 years.

Low: The tree is generally in fair health and structure, provides low levels of amenity and/or high risk to people and property which may do so for up to 10 years. The tree may be juvenile or otherwise small and easily replaced by advanced plantings or plantings that will provide similar value in a reasonable timeframe.

Appendix 2: Arboricultural terms

Diameter at breast height (DBH): Trunk diameter measured at 1.4 m above ground level. Where there is more than one trunk the quadratic mean value is used.

Diameter at base (D): Basal trunk diameter measured at ground level, used in conjunction with DBH to obtain the radial measurement for the structural root zone.

Tree protection zone (TPZ): An area above and below ground set aside for the protection of tree roots and canopy. The TPZ is a circle calculated from the Diameter at Breast Height (DBH) expressed in metres (m) and multiplied by 12, a radial measurement in metres is given. The TPZ is the minimum amount of space the tree in question requires to maintain normal growth and function. Where practicable it is always best practice to endeavour to give an area greater

than the TPZ for protection. **The TPZ is often greater than the canopy width or "drip line" of the tree.**

Structural root zone (SRZ): The SRZ of a tree is an indicative area containing a trees large structural roots that are important for stability of the tree within the soil. The SRZ is calculated using a formula set out in AS4970-2009. The formula is as follows.

SRZ radius = (D × 50) ^0.42 × 0.64 where D is the basal trunk diameter in metres. The minimum SRZ radius is 1.5 m. Generally, no excavation or intrusion is allowed within the SRZ.

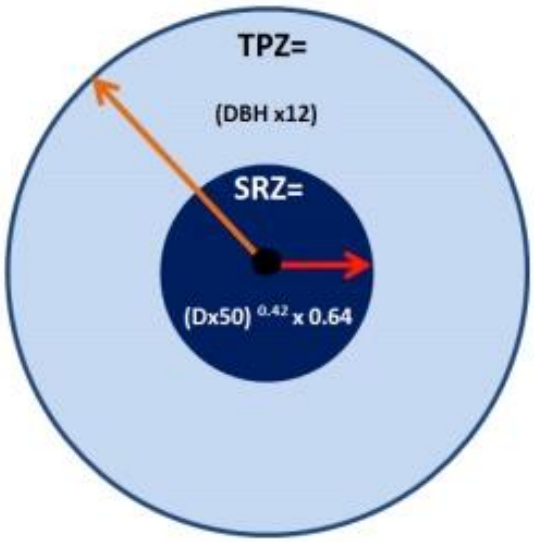

Figure 5: TPZ and SRZ representation

Appendix 3: Assumptions & limiting conditions of arboricultural consultancy

1. Any legal description provided to Precision Arboriculture is assumed to be correct. Any titles and ownerships to any property are assumed to be correct. No responsibility is assumed for matters outside the consultant's control.

2. Precision Arboriculture assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other local, state, or federal government regulations.

3. Precision Arboriculture has taken care to obtain all information from reliable sources. All data has been verified insofar as possible; however, Precision Arboriculture can neither guarantee nor be responsible for the accuracy of the information provided by others not directly under Precision Arboriculture's control.

4. No Precision Arboriculture employee shall be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

5. Loss of this report or alteration of any part of this report not undertaken by Precision Arboriculture invalidates the entire report.

6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the client or their directed representatives, without the prior consent of the Precision Arboriculture.

7. This report and any values expressed herein represent the opinion of the Precision Arboriculture consultant and the Precision Arboriculture fee is in no way conditional upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

8. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural drawings, reports, or surveys.

9. Unless expressed otherwise: 1) Information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and 2) The inspection is limited to visual examination of accessible components without dissection, excavation or probing unless otherwise stipulated.

10. There is no warranty or guarantee, expressed or implied by Precision Arboriculture, that the problems or deficiencies of the plants or site in question may not arise in the future.

11. All instructions (verbal or written) that define the scope of the report have been included in the report and all documents and other materials that the Precision Arboriculture consultant has been instructed to consider or to take into account in preparing this report have been included or listed within the report.

12. To the writer's knowledge all facts, matter and all assumptions upon which the report proceeds have been stated within the body of the report and all opinion

contained within the report have been fully researched and referenced and any such opinion not duly researched is based upon the writers experience and observations.

James Lawton

Director/Arborist – Precision Arboriculture