



Arboricultural Impact Assessment



1 Highview Avenue, Queenscliff
NSW, 2100
B/-/DP330244
DA2024/0629 – PAN-436241
20/06/2024

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DISCLAIMER and LIMITATIONS

This report has been prepared for the Property Owner(s) of 1 Highview Avenue and the Project Designer (*Rapid Plans*) to assess the impact associated with a proposed development on thirteen trees positioned inside and within 5 metres of the property boundary of the subject site.

The author of this report is *Temporal Tree Management Pty Ltd*. This report is not designed for any other purpose. The author accepts no responsibility for the use of this report for purposes other than as an Arboricultural Impact Assessment or if used by any other person / party.

All observations, recommendations and advice expressed in this report are based on the measured tree dimensions and ground-based visual assessment data collected during the site inspection on 22/04/2024. Recommendations provided in this report are made in relation to *the Australian Standard for the Protection of Trees on Development Sites (AS 4970 2009)*.

Trees are dynamically growing organisms that change over time. All recommendations are provided based on the ground-based data collected on the day of assessment. No root mapping or advanced testing was undertaken as part of this assessment. No guarantee is implied with respect to future tree condition or safety beyond the advice and recommendations within the report.



William Dunlop of *Temporal Tree Management Pty Ltd*.

Consulting Arborist

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20th June 2024



1. Executive Summary

The purpose of this report is to provide an Arboricultural Impact Assessment for thirteen trees associated with a proposed development within the property boundaries of 1 Highview Avenue, Queenscliff. An assessment of thirteen trees was undertaken by William Dunlop of *Temporal Tree Management Pty Ltd* on 18/06/2024.

Trees 1, 2, 3, 4, 5, 10, 11 and 12 were determined to be of High Retention Value within the surrounding landscape. The retention of these eight trees should be prioritised for the proposed development. Tree 9 was determined to be of Moderate retention value. Trees 6, 7, 8 and 13 were determined to be of Low retention value. The retention of these four trees should not obstruct the proposed development.

The proposed development will not expand beyond the footprint of the existing dwelling and ancillary structures. The existing driveway and boundary paved pathways will be retained under the proposed design. The retention of these external walls and structures will significantly mitigate the potential impact of the proposed development on the assessed trees. Tree 8 will sustain a major TPZ encroachments under the proposed design that may have a Moderate impact on its viability. Trees 5 and 7 will sustain minor TPZ encroachments that will have a Low impact on their viability. The retained external walls of the dwelling will significantly mitigate the potential impact of these three TPZ encroachments.

No tree removal or pruning is required to facilitate the proposed development.

A Project Arborist must be engaged prior to the commencement of practical works. Trees 2-5 and 9-11 can be suitably retained for the duration of the proposed development without the installation of protection measures due to their position outside the subject site and the retention of the existing driveway and boundaries pathways, which will provide suitable ground protection for these trees. Tree 12 can be suitably retained for the duration of the proposed development due to its sunken position on an exposed rock ledge within the northern boundary of the subject site. This tree's canopy has been suitably pruned in the past to maintain clearance from the adjacent deck. Three fenced protection zones compliant with the specifications outlined in Section 4.3 of *AS4970 (2009)* must be installed around Tree 1, Tree 2, Tree 6, Tree 7, Tree 8 and Tree 13.



2. Location

2.1. Site Location

The subject site for this Arboricultural Impact Assessment is 1 Highview Avenue, Queenscliff (B/-/DP330244). The subject site is approximately 640 square metres in area (Planning NSW 2024). This report has relied upon the following plans and documents:

- Architectural Plans prepared by *Rapid Plans* (Project Number: RP0523NES, Issue: -, drawn 15/04/2024).
- Request for Further Information pursuant to Development Application DA2024/0629 – PAN436241 (Issued by Northern Beaches Council 20/05/2024).
- The Australian Standard for the Protection of Trees on Development Sites (AS4970 – 2009).

2.2. Relevant Legislation and Policy Controls

This property is located within the Northern Beaches Council local government area. The property is within an R2 Low-density Residential zone (Planning NSW 2024) (**Appendix A**). The environmental policy regulations relevant to the trees within the subject site are outlined in *the NSW State Environmental Planning Policy (SEPP) (Biodiversity and Conservation) 2021*. Policy controls governing the management of trees within the subject site are issued under the provisions of the provision of *the Environmental Planning and Assessment Regulations 2021, Division 2 Development control plans*.

The policy controls governing the management of the trees are outlined in *Part 5 – The Natural Environment, Chapter 1 – Preservation of Trees or Bushland Vegetation* of the Warringah Development Control Plan (WDCP 2011) (Northern Beaches Council 2024). This policy control draws from *the Australian Standard for the Protection of Trees on Development Sites* (AS4970 2009) and *the Australian Standard for Pruning Amenity Trees* (AS4373 2007).

The subject site does not contain a Heritage Item and is not within a Heritage Conservation Area (Planning NSW 2024) (**Appendix A**). The subject site is does not contain any threatened ecological communities or species (SEED NSW 2024). The subject site does not contain identified Biodiversity Values Mapped area (Planning NSW 2024).



2.3. Tree Locations

An assessment of the surveyed trees within and adjacent to the subject site was undertaken by William Dunlop of *Temporal Tree Management P/L* on 18/06/2024. All trees inside and within 5 metres of the property boundaries of the subject site were assessed. As stipulated in *Part 5 – The Natural Environment, Chapter 1 – Preservation of Trees or Bushland Vegetation* of the Warringah Development Control Plan (WDCP 2011), perennial woody vegetation is classified as a tree if it has a height of or greater than 5 metres (Northern Beaches Council 2024). Thirteen trees were assessed and are included in this report (Figure 1). Ownership of the assessed trees varied. Tree 1 is a street tree positioned outside the southern boundary of the subject site. Trees 2, 3, 4, 5, 10 and 11 are externally owned trees positioned outside the eastern boundary of the subject site within the property of 1A Highview Avenue. Tree 9 is also an externally owned tree that is positioned outside the western boundary of the subject site within the property of 3 Highview Avenue. All other trees are within the property boundaries of the subject site (Figure 1). Trees 6, 7 and 8 are positioned on the southern side of the existing dwelling while Trees 12 and 13 are positioned on the northern side. Photographs of each tree are provided in **Appendix F**.

3. Development Plans and Impact on Assessed Trees

Minor alterations and additions are proposed within the subject site (Figure 2). The footprint of the existing dwelling and ancillary structure will remain unchanged. Internal demolition and renovation of the dwelling is proposed. Existing structural walls, retained garden beds and paved areas surrounding the dwelling will be retained. The retention of the existing dwelling and ancillary structure within the southern boundary will significantly mitigate the potential impact on the assessed trees.



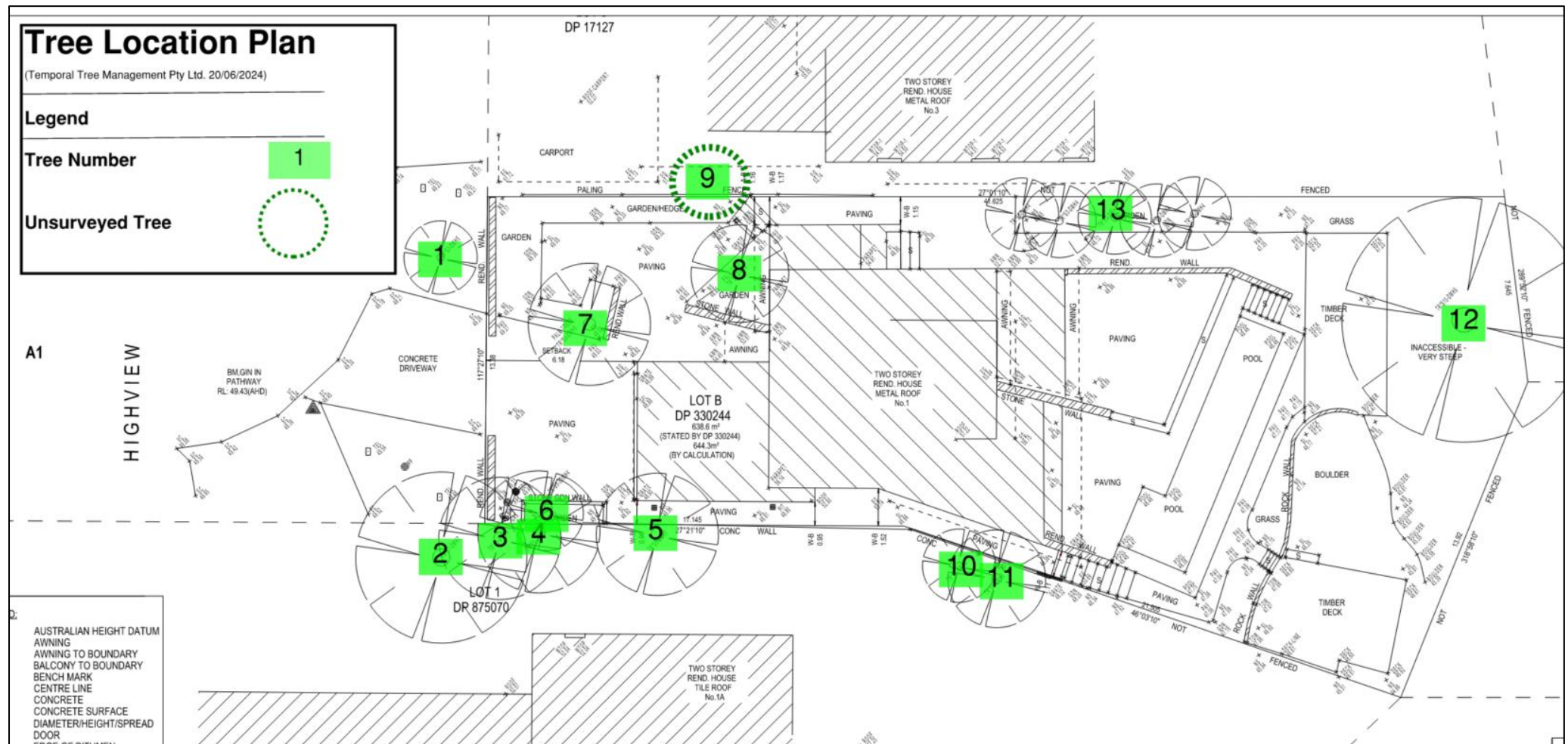


Figure 1. Location of thirteen assessed trees in relation to existing dwelling and structures. Site Plan prepared by *Rapid Plans* (Project Number: RP0523NES, Drawing No: DA1002, Issue: -, drawn 15/04/2024).

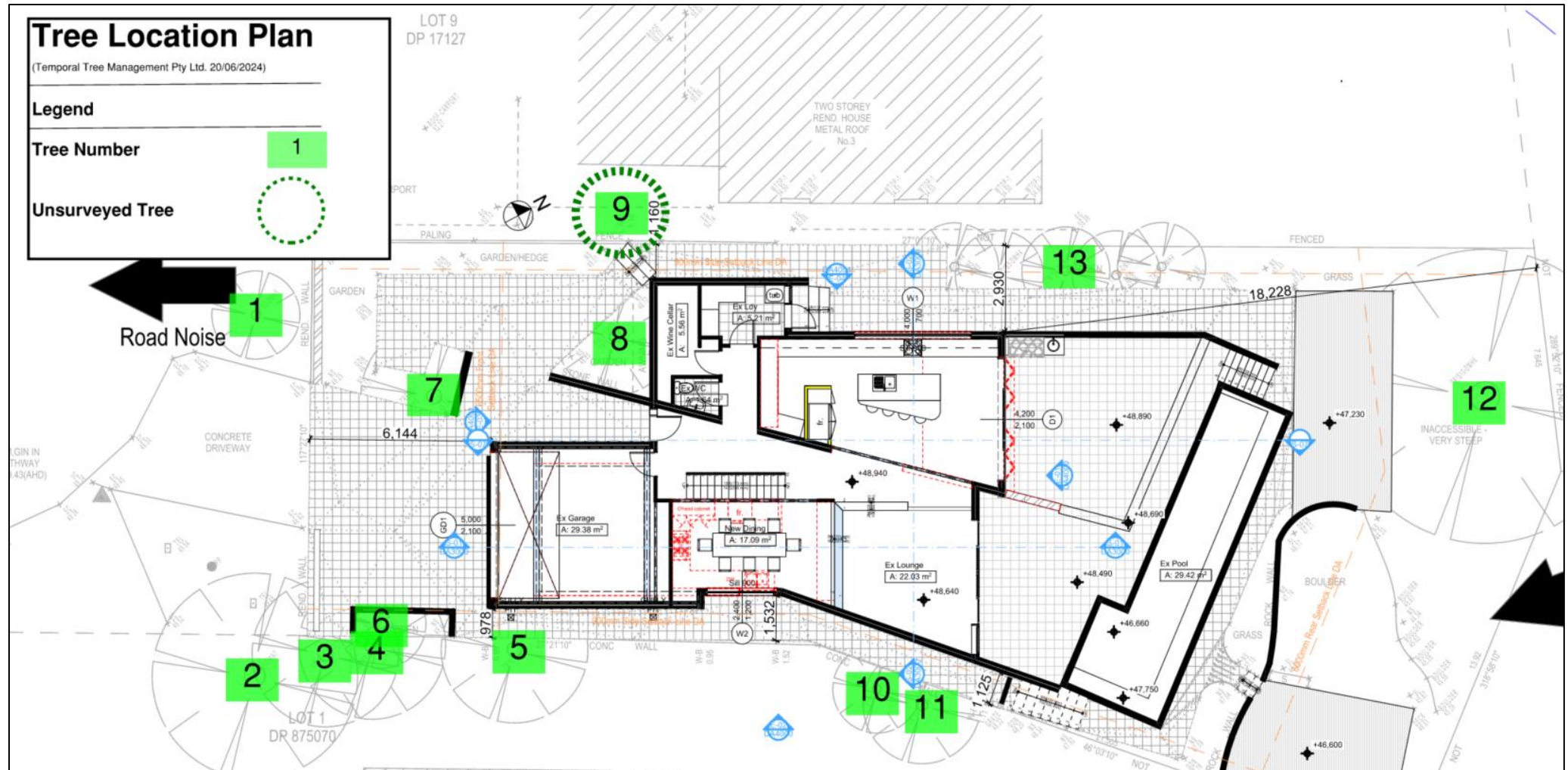


Figure 2. Location of thirteen assessed trees in relation to proposed development. Site Plan prepared by *Rapid Plans* (Project Number: RP0523NES, Drawing No: DA1002, Issue: -, drawn 15/04/2024)

4. Preliminary Assessment

4.1 Assessment Methodology

A ground-based visual assessment of Trees 1-13 was undertaken by William Dunlop of *Temporal Tree Management Pty Ltd* on 20/06/2024. The data collected includes:

Ø Tree Number: Tree schedule determined in Figure 1 and Figure 2. Closely positioned trees of the same size and same / similar species were grouped where collective management is appropriate.

Two Groups of closely positioned palms were included in this assessment (Trees 9 and 13).

Ø Scientific Name: Vegetation was identified and described using botanical names.

Ø Common Name: One common is provided.

Ø Maturity: **Juvenile, Semi – mature, Mature or Over Mature**. Judgement on these four categories was determined by professional knowledge and research on the species present.

Ø Canopy Width: Diameter of canopy Estimated in **metres** as an average in metres of two directional planes (north-south and east-west).

Ø Height: Estimated in **metres**.

Ø Diameter at Breast Height (DBH): DBH was measured at 1.4 metres height in **centimetres** using a diameter tape at the height of the trees' root flare and is described in centimetres. DBH was estimated for Trees 2, 3, 4, 5, 10 and 11 due to restricted access into the neighbouring property.

Ø Diameter at Root Flare (DRF): DRF was measured in **centimetres** using a diameter tape at the height of the trees' root flare and is described in centimetres. DRF was estimated for Tree 10 due to restricted access into the neighbouring property.

Ø Health: **Dead, Poor, Fair, Good or Excellent**. Professional experience along with the visual vitality index established by Johnston et al. (2012) was used to underpin this category (**Appendix B**).



Ø Structure: **Failed, Very Poor, Poor, Fair, Good or Excellent**. Professional experience along with Visual Tree Assessment methodology established by Mattheck and Breloar (1994) was used.

Ø Useful Life Expectancy (ULE): This estimate provides an important estimate of a tree's remaining safe life span within a landscape (Barrell 1996). Estimates are based on species knowledge and an individual's structure, health and position within the landscape. ULE estimate categories used were: **Long** (>40 years), **Medium** (between 15 and 40 years), **Short** (between 5 and 15 years), **Negligible** (Less than 5 years) or **Dead** (less than 12 months). A framework for the ULE determination methodology is provided in **Appendix E** (Barrell 1996).

Ø Landscape Value: **Significant** (1), **Very High** (2), **High** (3), **Moderate** (4), **Low** (5), **Very Low** (6), **Insignificant** (7). These categories account for each tree's size, ecological significance as a food or habitat resource, structural integrity, visual prominence within the landscape and any additional heritage or protection controls that may be relevant to it. A framework for the Landscape Significance determination methodology is provided in **Appendix D** (Morton 2011).

Ø Retention Value: **High, Moderate, Low and Very Low**. ULE and Landscape Significance categories were used for each tree to determine their retention value (Figure 5). The retention and protection of trees determined to be of **High** retention value should be prioritised for any proposed development within the subject site. Trees determined to be of **Moderate** retention value should be retained and protected if feasible. The retention of trees determined to be of **Low** retention value should not obstruct any proposed development within the subject site. Tree determined to be of **Very Low** retention value should be removed as part of any development within the site. A framework and Matrix for the Retention Value priorities is provided in **Appendix C** (Morton 2011).

Ø Tree Protection Zone Radius (R_{TPZ}): This measure provides the principle means of protecting trees on construction sites. The area within a calculated TPZ is considered to be fundamentally important for a tree's physiological function (Mattheck and Breloer 1994). A TPZ radius (R_{TPZ}) may be calculated using the equation from the Australian Standard for the Protection of Trees on Development Sites (AS 4970 2009):

$$R_{(TPZ)} = DBH \times 12.$$



The TPZ radius for palms was calculated using the following equation as per AS4970 (2009):

$$R_{(TPZ)} = \text{Canopy radius} + 1 \text{ metre}$$

A minimum R_{TPZ} measure of 2 metres and maximum R_{TPZ} measure of 15 metres were calculated for this assessment as per Section 3 of AS4970 (2009).

The TPZ radius for palms was calculated using the following equation as per AS4970 (2009):

$$R_{(TPZ)} = \text{Canopy radius} + 1 \text{ metre}$$

Ø Structural Root Zone Radius (R_{SRZ}): This measure provides an indication of the portion of a tree's root plate that is considered fundamentally important for the maintenance of structural integrity. It is important to note that SRZ area is not an absolute figure. Rather, it is an estimate based on a line of best fit drawn from research relating to observation of tree failures within forested areas. The SRZ area must therefore be viewed as an approximation that may be smaller or greater in size depending on site conditions and the vitality of individual assessed trees.

No SRZ radius was calculated for assessed palm specimens as per *AS470 (2009)*. A Structural Root Zone (SRZ) radius (R_{SRZ}) may be calculated using the equation from the *Australian Standard for the Protection of Trees on Development Sites* (AS 4970 2009):

$$R_{(SRZ)} = (DRF \times 50)^{0.42} \times 0.64$$



4.1 Tree Data

Table 1. Data collected on 18/06/2024 for thirteen assessed trees.

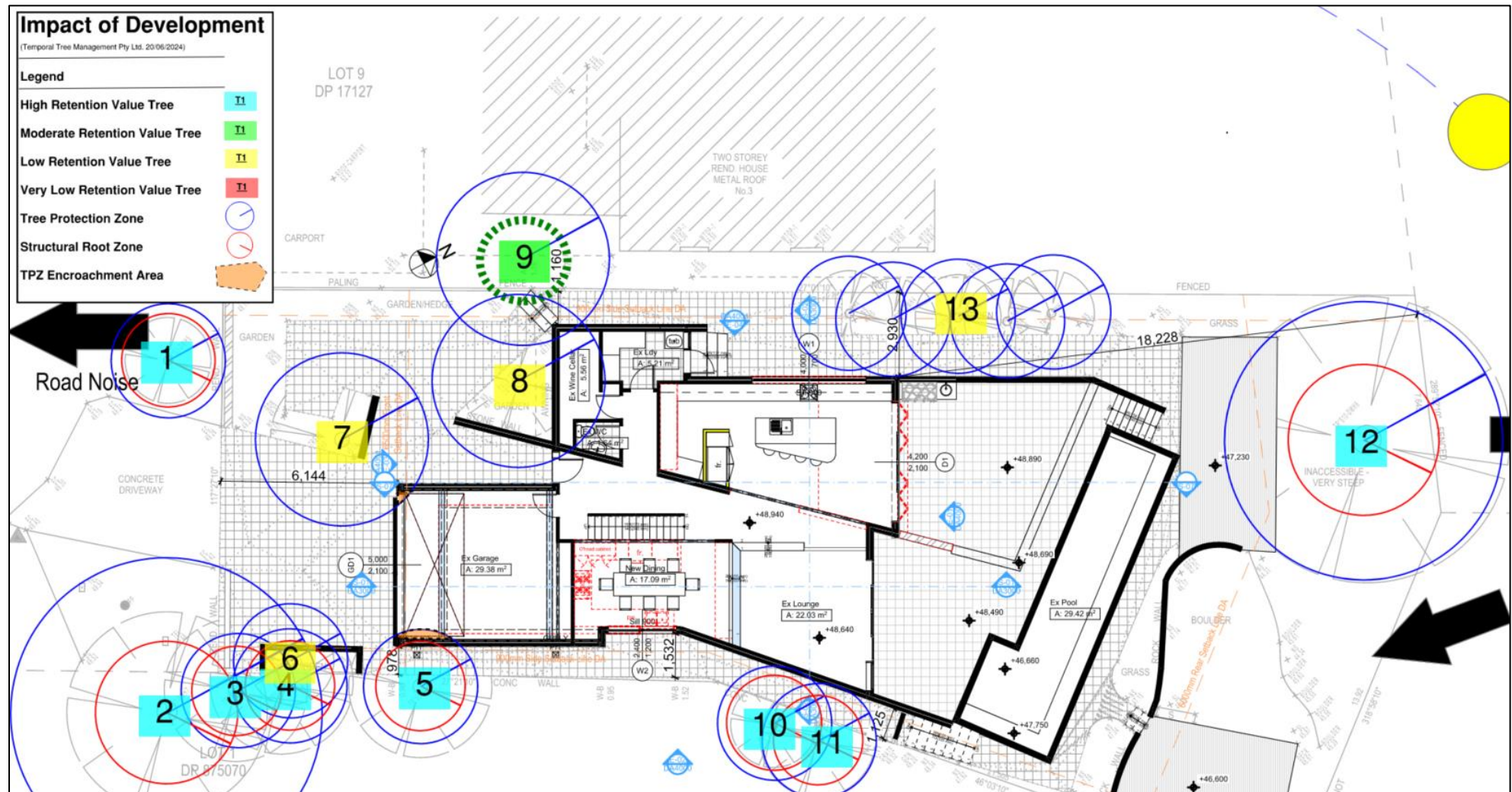
Tree	Scientific Name	Common Name	Maturity	Height (m)	Width (m)	DBH (cm)	DRF (cm)	Health	Structure	ULE	Landscape Significance	Retention Value	R _{TPZ} (m)	R _{SRZ} (m)	Comments
1	<i>Magnolia grandiflora</i>	Bull Bay	Semi mature	4	3	15	19	Good	Good	Long	High	High	2.0	1.6	Maturing street tree positioned outside southern boundary of the subject site observed to be in good condition.
2	<i>Hibiscus tiliaceus</i>	Sea Hibiscus	Mature	10	10	45	50	Good	Fair	Long	High	High	5.4	2.5	Larger tree positioned approximately 3 metres outside the south-eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Existing concrete vehicle crossing and driveway will mitigate the potential impact of works within the subject site on this tree.
3	<i>Elaeocarpus reticulatus</i>	Blueberry Ash	Mature	5	2	10	15	Fair	Fair	Medium	High	High	2.0	1.5	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and concrete pathway will mitigate the potential impact of works within the subject site on this tree.
4	<i>Elaeocarpus reticulatus</i>	Blueberry Ash	Mature	5	2	10	15	Fair	Fair	Medium	High	High	2.0	1.5	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and concrete pathway will mitigate the potential impact of works within the subject site on this tree.
5	<i>Elaeocarpus reticulatus</i>	Blueberry Ash	Mature	5	2	10	15	Fair	Fair	Medium	High	High	2.0	1.5	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and concrete pathway will mitigate the potential impact of works within the subject site on this tree.
6	<i>Dypsis lutescens</i>	Golden Cane	Mature	5	2	15	40	Good	Fair	Medium	Low	Low	2.0	N/A	Small palm of low species significance in suppressed position within eastern boundary.
7	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	Mature	12	4	26	40	Good	Fair	Medium	Low	Low	3.0	N/A	Large palm of low species significance positioned within southern boundary of subject site.
8	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	Mature	12	4	26	40	Good	Fair	Medium	Low	Low	3.0	N/A	Large palm of low species significance positioned less than 2 metres from southern wall of existing dwelling. Stem trifurcates at ground level.
9	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	Mature	12	4	26	40	Good	Fair	Medium	High	Moderate	3.0	N/A	GROUP of 5 closely positioned specimens of the same size and species positioned approximately 1 metre outside the western boundary. Existing stone retaining wall and paved pathway within western boundary of subject site will mitigate impact of proposed works on these externally owned palms



Table 1. Data collected on 18/06/2024 for thirteen assessed trees.

Tree	Scientific Name	Common Name	Maturity	Height (m)	Width (m)	DBH (cm)	DRF (cm)	Health	Structure	ULE	Landscape Significance	Retention Value	R _{TPZ} (m)	R _{SRZ} (m)	Comments
10	<i>Elaeocarpus reticulatus</i>	Blueberry Ash	Mature	7	3	13	17	Fair	Fair	Medium	High	High	2.0	1.6	Small tree positioned approximately 1.5 metres outside the eastern boundary within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and paved pathway will mitigate the potential impact of works within the subject site on this tree.
11	<i>Elaeocarpus reticulatus</i>	Blueberry Ash	Mature	5	3	10	15	Fair	Fair	Medium	High	High	2.0	1.5	Small tree positioned approximately 1.5 metres outside the eastern boundary within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and paved pathway will mitigate the potential impact of works within the subject site on this tree.
12	<i>Ficus rubiginosa</i>	Port Jackson Fig	Mature	8	12	40	55	Good	Fair	Medium	High	High	4.8	2.6	Large tree positioned on exposed rock ledge within northern boundary. Sunken positioned below existing deck will suitably isolate trees root growth from proposed works. Canopy has been suitably pruned to provide clearance from deck.
13	<i>Dypsis lutescens</i>	Golden Cane	Mature	3	2	10	15	Good	Fair	Medium	Low	Low	2.0	N/A	GROUP of approximately 10 closely positioned specimen of the same size and species. Palms of low species significance in raised garden within western boundary. Existing retaining wall and paved area will suitably mitigate impact of proposed works in palms.





5. Tree Data Summary

Table 2. Summarised retention value data for thirteen trees assessed on 20/06/2024 within the subject site.

Retention Values Determined for Thirteen Assessed Trees			
Very Low	Low	Moderate	High
N/A	Trees 6, 7, 8 and 13	Tree 9	Trees 1, 2, 3, 4, 5, 10, 11 and 12

Trees 1, 2, 3, 4, 5, 10, 11 and 12 were determined to be of High retention value within the surrounding landscape. The external ownership of these eight trees was the primary factor underpinning the High Landscape Significance. All eight trees were observed to be in mostly good condition and with Long ULE estimates. The retention of Trees 1, 2, 3, 4, 5, 10, 11 and 12 should be prioritised as part of the proposed development. Protection measures compliant with *the Australian Standard for the Protection of Trees on Development Sites (AS4970 2009)* must be established for this tree.

Tree 9 was determined to be of Moderate retention value. Despite the low species significance of this small group of Bangalow Palms, its external ownership underpinned the High Landscape Significance determined for Tree 9. The confined location of this group of palms shortened the ULE estimate determined for it, which underpinned the reduced retention rating.

Trees 6, 7, 8 and 13 were determined to be of Low retention value. All four trees positioned within the subject site and are palm specimens that are of low species significance within the Northern Beaches Council LGA. This underpinned the Low retention value rating determined for these four trees. The retention of these four trees should not obstruct or require alteration of the proposed development. All five trees are suitable for removal and replacement if required.



6. Tree Protection Zones (TPZs)

6.1. Tree Protection Zones

Tree Protection Zones aim to prevent soil compaction, contamination and physical damage to trees above and below ground through the exclusion of all development activity from within the specified radius (Matheny and Clark 1994). The tree protection zone radius (R_{TPZs}) and structural root zone radius (R_{SRZs}) were calculated as *per Section 3 of AS4970 (2009)* (Figure 4). TPZ and SRZ radii for Trees 1-13 are provided in Table 1 and Figure 3.

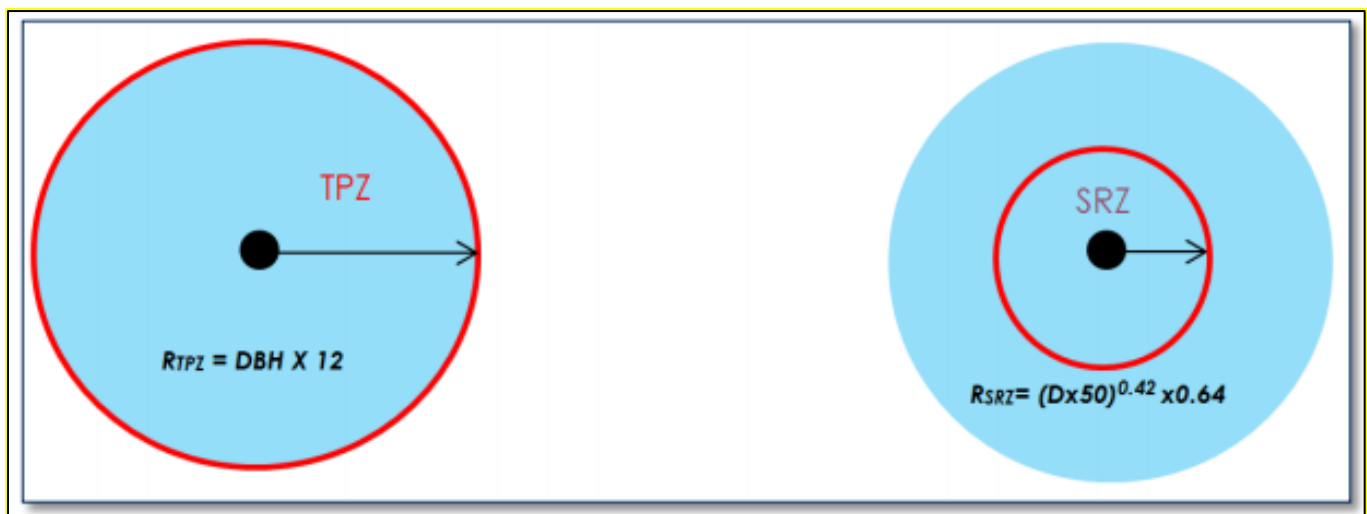


Figure 4. TPZ and SRZ radial measurement equations.

6.2. TPZ Encroachments

TPZ encroachments are relevant only to trees that are positioned outside the proposed development or bulk works footprint but are within proximity such that they may be impacted. A TPZ encroachment is the proportional area of a tree's TPZ that will be absorbed, disturbed or exposed as part of a development. As defined in *Sections 3.3.2 and 3.3.3 of AS4970 (2009)*, minor TPZ encroachments are less than 10% of a trees' TPZ area while major TPZ encroachments exceed 10%.

Minor encroachments of less than 10% of the total TPZ area may occur without the site presence of the Project Arborist providing there is an equal compensation of protected area elsewhere adjacent to the TPZ. The potential impact on the viability of tree with a TPZ encroachment that is less than 10% is defined as Low in this assessment.

Major encroachments of more than 10% of the total TPZ area may occur if it can be demonstrated that the impact of the encroachment is mitigated or won't impact the viability of the affected tree. The



impact of a major TPZ encroachment that is between 10-20% is defined as Moderate in this assessment and is generally considered to be acceptable providing the tree's condition is shown to be Good/Fair, it can be shown that the affected tree will remain viable. The impact on the viability of tree with a major TPZ encroachment that is between 20-30% is defined as High in this assessment. The impact of a major encroachment within this range may compromise the viability of an impacted tree. Retention under a High impact major TPZ encroachment must demonstrate mitigation of impact from existing infrastructure and / or demonstrate it by through a Root Mapping Assessment to show that the affected tree will remain viable. Modification of the design plan may be required to mitigate the impact of the encroaching structure. There must also be an equal compensation of protected area elsewhere adjacent to the TPZ.

Major encroachments of greater than 30%, or any encroachment that breaches a tree's SRZ, are likely to impact a tree's health and the structural integrity of their root plate. Retention under such encroachments is unacceptable unless that trees viability can be shown through a Root Mapping Assessment and significant mitigation of the impact. The impact on the viability of tree with a major TPZ encroachment that is between greater than 30% is defined as Severe in this assessment. Instances where a tree's stem is positioned within the footprint of a proposed structure is in this assessment determined to be a 100% TPZ encroachment that will have a Severe impact.



6.3. Impact of Proposed Works on Assessed Trees

Table 3. Summarized impacts of TPZ encroachments associated with the proposed development calculated for Trees 1-13. Existing structures within the TPZs of assessed trees that will not be altered under the proposed design plans were not included in the encroachment calculations determined for each tree.

Tree	SRZ Encroachment	Encroachment (%)	Impact	Mitigation	Proposed Management
1	No	0	N/A	Tree will not be directly impacted by proposed development.	Retain. Install tree protection measures compliant with AS4970 (2009).
2	No	0	N/A	Tree will not be directly impacted by proposed development. Retention of existing driveway will provide suitable ground protection for duration of works.	Retain. Tree can me suitably retained without the installation of tree protection measures.
3	No	0	N/A	Tree will not be directly impacted by proposed development. Retention of existing driveway will provide suitable ground protection for duration of works.	Retain. Tree can me suitably retained without the installation of tree protection measures.
4	No	0	N/A	Tree will not be directly impacted by proposed development. Retention of existing driveway will provide suitable ground protection for duration of works.	Retain. Tree can me suitably retained without the installation of tree protection measures.
5	No	3	Low	Existing boundary retaining wall and pathway are likely to have restricted western root growth from this tree into the subject site. These structures will mitigate the Low impact of this minor TPZ encroachment.	Retain. Tree can me suitably retained without the installation of tree protection measures.
6	No	0	N/A	Tree will not be directly impacted by proposed development. Retention of existing driveway and garden retaining wall will provide suitable ground protection for duration of works.	Retain. Install tree protection measures compliant with AS4970 (2009).
7	No	1	Low	Retention of existing external wall and driveway and garden retaining wall will mitigate impact of Low impact minor TPZ encroachment.	Retain. Install tree protection measures compliant with AS4970 (2009).
8	No	19	Moderate	Retention of existing external wall and driveway and garden retaining wall will mitigate impact of Moderate impact major TPZ encroachment.	Retain. Install tree protection measures compliant with AS4970 (2009).
9	No	0	N/A	Existing boundary retaining wall and pathway are likely to have restricted eastern root growth from this tree into the subject site. These structures will mitigate the Low impact of this minor TPZ encroachment.	Retain. Tree can me suitably retained without the installation of tree protection measures.
10	No	0	N/A	Existing boundary retaining wall and pathway are likely to have restricted western root growth from this tree into the subject site. These structures will mitigate the Low impact of this minor TPZ encroachment.	Retain. Tree can me suitably retained without the installation of tree protection measures.
11	No	0	N/A	Existing boundary retaining wall and pathway are likely to have restricted western root growth from this tree into the subject site. These structures will mitigate the Low impact of this minor TPZ encroachment.	Retain. Tree can me suitably retained without the installation of tree protection measures.
12	No	0	N/A	Tree will not be directly impacted by proposed development. Sunken position on exposed rock ledge below existing deck will suitably isolate tree from proposed works areas	Retain. Tree can me suitably retained without the installation of tree protection measures.
13	No	0	N/A	Tree will not be directly impacted by proposed development. Retention of existing pathway and garden retaining wall will provide suitable ground protection for duration of works.	Retain. Install tree protection measures compliant with AS4970 (2009).



7. Tree Protection / Removal Plan

7.1. Proposed Tree Removal / Pruning

No tree removal or pruning work is required to facilitate the proposed development. The Project Arborist must be notified if any tree removal or pruning work is required at any stage of the project. Consent must be issued for required works by the Northern Beaches Council.

7.2. Tree Protection Measures

Fenced protection zones must be established where possible to delineate construction activities from the TPZs and SRZs of retained trees. Fenced protection zones must be enclosed by 1.8 metre steel fencing that is securely fixed to the ground as stated in *Section 4.3 of AS4970 (2009)* (Figure 5). Shade cloth must be securely fastened to the steel fencing to reduce transport of dust and debris into tree protection areas. Plywood may be used as an alternative if steel fencing cannot be suitably installed.

Signage stating the purpose of these exclusion zones should be fixed to the fencing so that it is visible from all points within the site. Coarse-grained wood-chip mulch may be required within a fenced protection zone if specified. Bracing is permissible within the fenced protection zone providing supports avoid any damage to surface roots.

As per *Section 4.2 of AS4970 (2009)*, the following activities are not permitted inside delineated protection zones:

- (a) Machine excavation including trenching;
- (b) Excavation for silt fencing;
- (c) cultivation;
- (d) storage;
- (e) preparation of chemicals, including preparation of cement products;
- (f) parking of vehicles and plant;
- (g) refuelling;
- (h) dumping of waste;
- (i) wash down and cleaning of equipment;
- (j) placement of fill
- (k) lighting of fires;



- (l) soil level changes;
- (m) temporary or permanent installation of utilities and signs, and
- (n) physical damage to the tree.”

Once installed, fenced tree protection zones must remain undisturbed for the duration of proposed development works. No services either temporary or permanent are to be located within a specified fenced protection zone. If services are to be located within a Tree Protection Zone, special details will need to be provided by the Project Arborist for tree protection regarding the location of services.



Figure 5. Protection fencing should be erected around the specified perimeter of TPZs in accordance with Section 4.3 of *AS4970 (2009)*. Figure 11 a. depicts correctly installed steel or plywood fence panelling (1 and 2) with mulch inside the protection area (3). Figure 11 b. shows depicts protection fencing signage.



Where specified, stem protection measures must be installed on retained trees in situations where the establishment of protection fencing is not feasible. Stem protection measures compliant with *Section 4.5.2 of AS4970 (2009)* may be installed using hessian or carpet underlay padding wrapped around the trees' stems and fixed in place using duct tape. Timber battens (20mm x 100mm) must then be spaced no greater than 150 mm around the stems and fixed to one another using steel strapping. Timber battens must not be fixed directly to the trees' stems (Figure 6).

Temporary access within a fenced protection zone may only occur under the supervision of the Project Arborist. The installation of ground protection measures compliant with *Section 4.5.3 of AS4970 (2009)* is required if any vehicles or machinery is required to temporarily access a specified fenced protection zone. In such cases, a geotextile membrane must be installed over the specified ground protection area. Coarse-grained wood-chip mulch must be installed to a depth of no less than 70mm and no more than 100 mm over the geotextile membrane. Timber rumble boards or heavy vehicle protection plates/mats must then be installed over the mulch (Figure 6). Ground protection measures must remain in place for the entire duration of required vehicle or machinery access within a fenced protection zone. Protection fencing must be reinstalled to its original shape immediately after the completion of required works within the fenced protection zone.



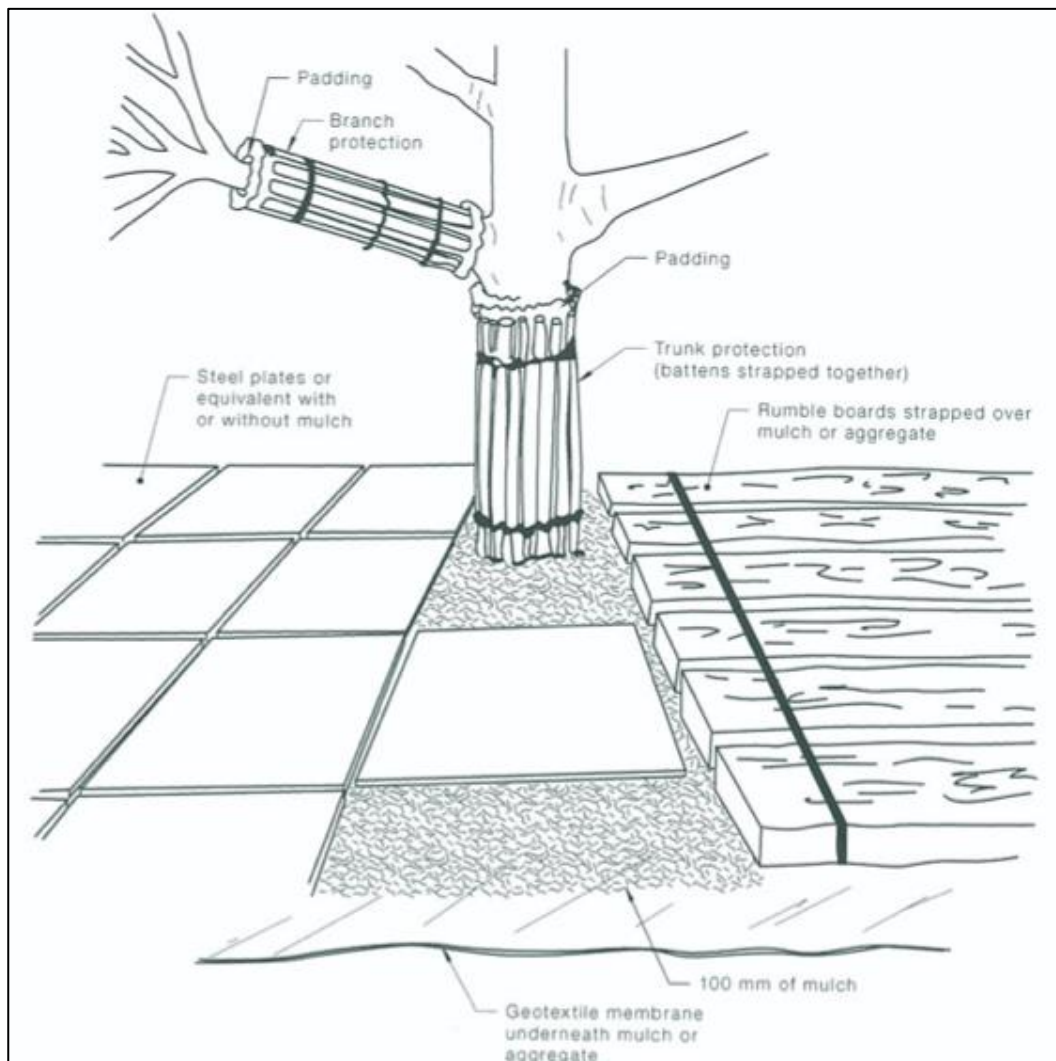


Figure 6. Stem and ground protection measures specified in Section 4.5.3 of *AS4970 (2009)* for temporary access within a fenced protection zone. Steel plates or rumble boards are shown to be suitable for ground protection over mulch and geotextile fabric.

Ground below the scaffolding should be protected by boarding (scaffolding board or plywood sheeting) (Figure 7). Scaffold boarding or plywood sheeting is not required in situations where existing hard surfacing within the retained tree's TPZ can be used for scaffold / hoarding footings. Where access is required, existing impermeable surfacing or scaffold boarding must be retained or installed to minimise soil compaction. Ground protection must be left in place until the scaffolding is removed (Figure 7).



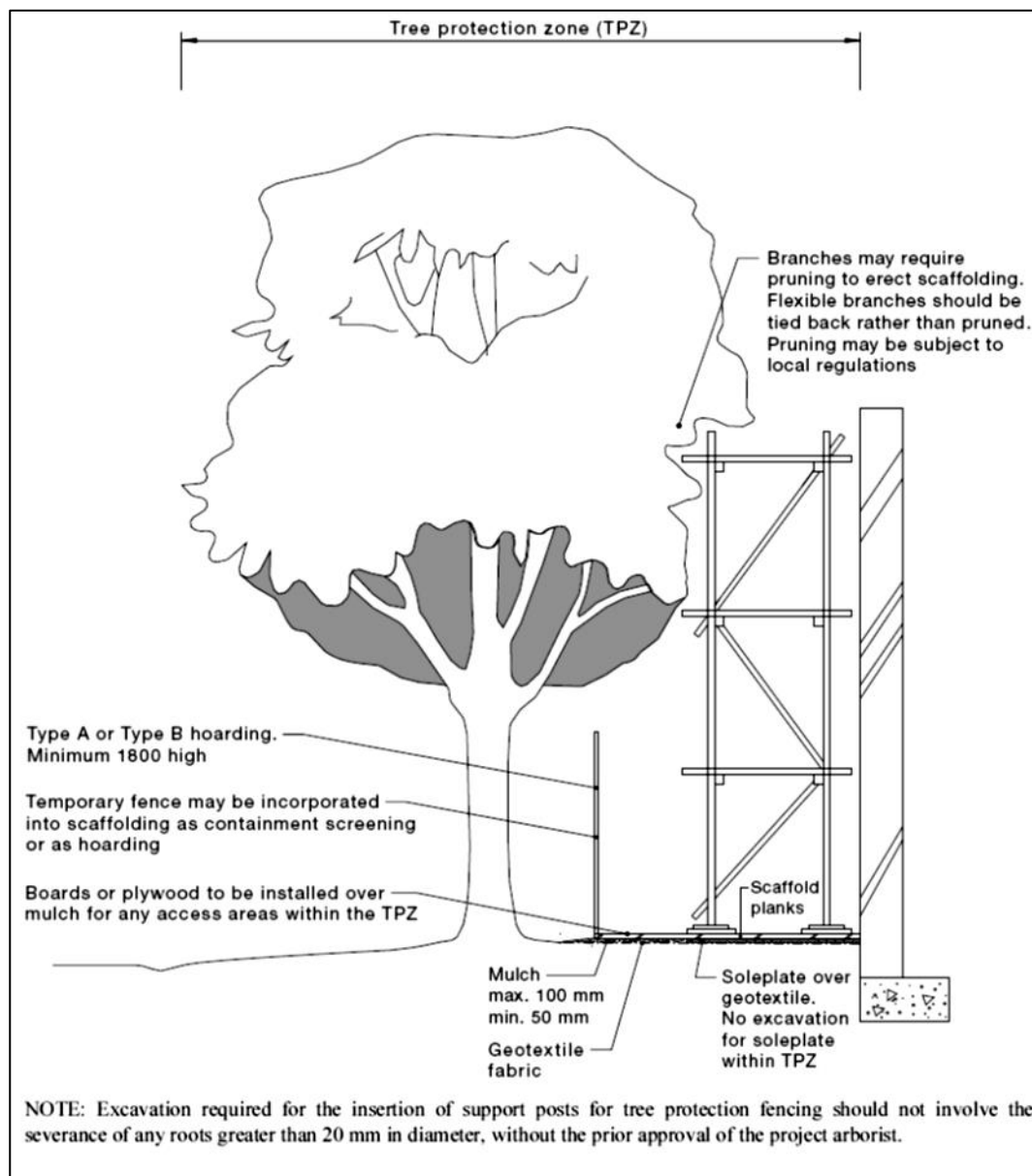


Figure 7. Mitigation measures required for scaffolding / hoarding within a retained tree's TPZ as per AS4970 (2009).



7.3. Tree Protection Plan

Trees 1-13 are proposed for retention. Trees 1-4, 6 and 9-13 will not be directly impacted by the proposed works. The impact of the encroachments sustained by Trees 5, 7 and 8 were determined to be acceptable due to the retention of adjacent structures that will significantly the potential for root damage or disturbance (Table 3). The retention of these thirteen trees as part of the development is supported providing the following protection measures are in implemented:

7.3.1. Prior to Commencement of Practical Works

- A Project Arborist must be engaged prior to the commencement of practical works and remain in place for the duration of this development to ensure ongoing compliance with the requirements outlined in Section 7 of this report.
- Trees 2-5 and 9-11 can be suitably retained for the duration of the proposed development without the installation of protection measures due to their position outside the subject site and the retention of the existing driveway and boundaries pathways, which will provide suitable ground protection for these trees.
- Tree 12 can be suitably retained for the duration of the proposed development due to its sunken position on an exposed rock ledge within the northern boundary of the subject site. This tree's canopy has been suitably pruned in the past to maintain clearance from the adjacent deck.
- Three fenced protection zones compliant with the specifications outlined in Section 4.3 of *AS4970 (2009)* must be installed around Tree 1, Tree 2, Tree 6, Tree 7, Tree 8 and Tree 13 (Figure 5 and Figure 8).
- TPZ signage compliant with *Section 4.4 of AS4970 (2009)* must be installed on the fenced protection zones for Trees 6-7, Trees 8-9, and Trees 12-13.

7.3.2. During Construction Works

- Fenced protection zones must be installed prior to the commencement of practical works and remain in place for the duration of the development. Any required access within one of the fenced protection zones must be approved by the Project Arborist prior to entry.
- Existing paving within the TPZs of Trees 2-11 and 13 must be retained for the duration of the proposed works to provide suitable ground protection.
- There must be no major root (diameter of 40mm or greater) damage or disturbance during the hand excavation within the R_{TPZs} of Trees 12 and 15.



- If required, the installation of scaffolding within the R_{TPZs} of Trees 5, 7, 8, 9, 10 and 11 must be undertaken in compliance with *Section 4.5.6 of AS4970 (2009)* (Figure 8)
- New utility services are to be located outside the R_{TPZs} of retained trees. Any additional excavation required for service installation within a retained tree's R_{TPZ} must be assessed and certified by the Project Arborist.

7.3.3. Post Construction - Landscaping

- Where required, excavation for landscape planting within a retained Tree's TPZ must be undertaken using hand tools only.



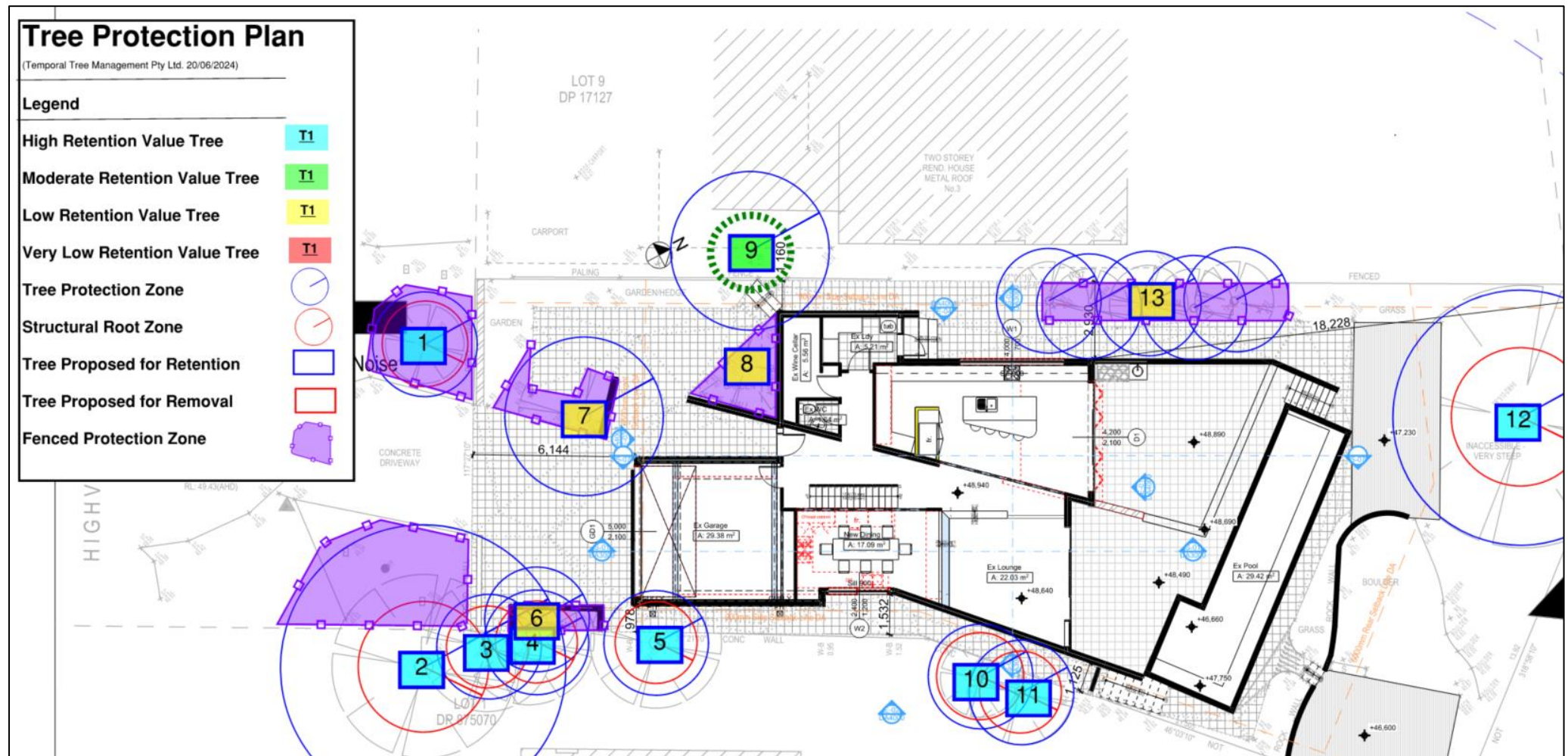


Figure 9. Tree Protection / Removal Plan for proposed development. Site Plan prepared by *Rapid Plans* (Project Number: RP0523NES, Drawing No: DA1002, Issue: -, drawn 15/04/2024).



7.4. Certifications

To ensure the proposed development meets the objectives of the Tree Removal/Protection Plan, monitoring and certification process will be undertaken at the following hold points in line with *AS4970 (2009)*.

- Installation of Tree Protection Measures – Inspection and certification by the Project Arborist of the three fenced protection zones as specified in the Tree Protection Plan (Section 7.3 of this report) (Figure 9). This hold point must be complete prior to the commencement of any practical works.
- Monitoring of Retained Trees– Regular inspection and certification by the Project Arborist of tree protection measures and condition of retained trees. Any required maintenance of the tree protection measures or retained trees must be undertaken by the Project Arborist at this time.
- Final Project Arborist Inspection– Final inspection by Project Arborist and certification of compliance with the Tree Protection Plan as specified in Section 7.3 of this report. All specified protection measures outlined in Section 7.3. must remain in place until this final inspection.



References:

Australian Standard AS 4970 (2009) Protection of trees on development sites. Standards Australia.

Barrell, J. (1996) Pre-Development Tree Assessment. Proceedings of the International Conference on Trees and Building Sites. ISA, Illinois.

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Mattheck, C. and Breloer, H. (1994) A practical guide for tree inspection (Chapter 14). The Body Language of Trees, HMSO, London.

Morton, A. (2011) Tree Retention Values Assessment Methodolgy. Accessed via Leichardt Council Tree Technical Manual:
file:///C:/Users/WD/Downloads/Tree%20Management%20Technical%20Manual.pdf (22/04/2024)

Northern Beaches Council (2024) *Part 5 – The Natural Environment, Chapter 1 – Preservation of Trees or Bushland Vegetation* of the Warringah Development Control Plan (2011). Accessed via:
<https://www.northernbeaches.nsw.gov.au/planning-and-development/planning-controls>
(20/06/2024).

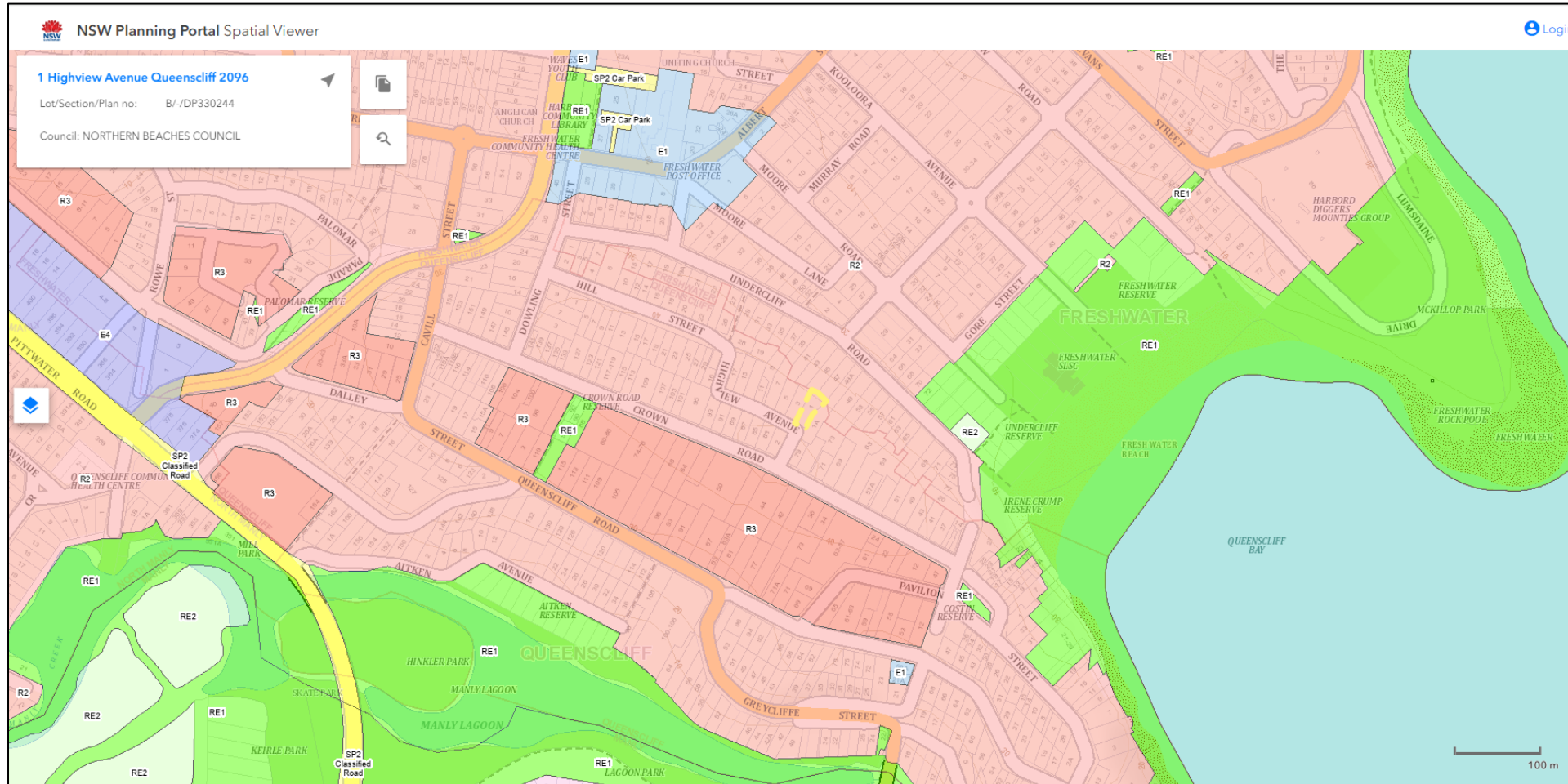
Northern Beaches Council (2024) Warringah Local Environmental Plan (2011). Accessed via:
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(04/04/2024).

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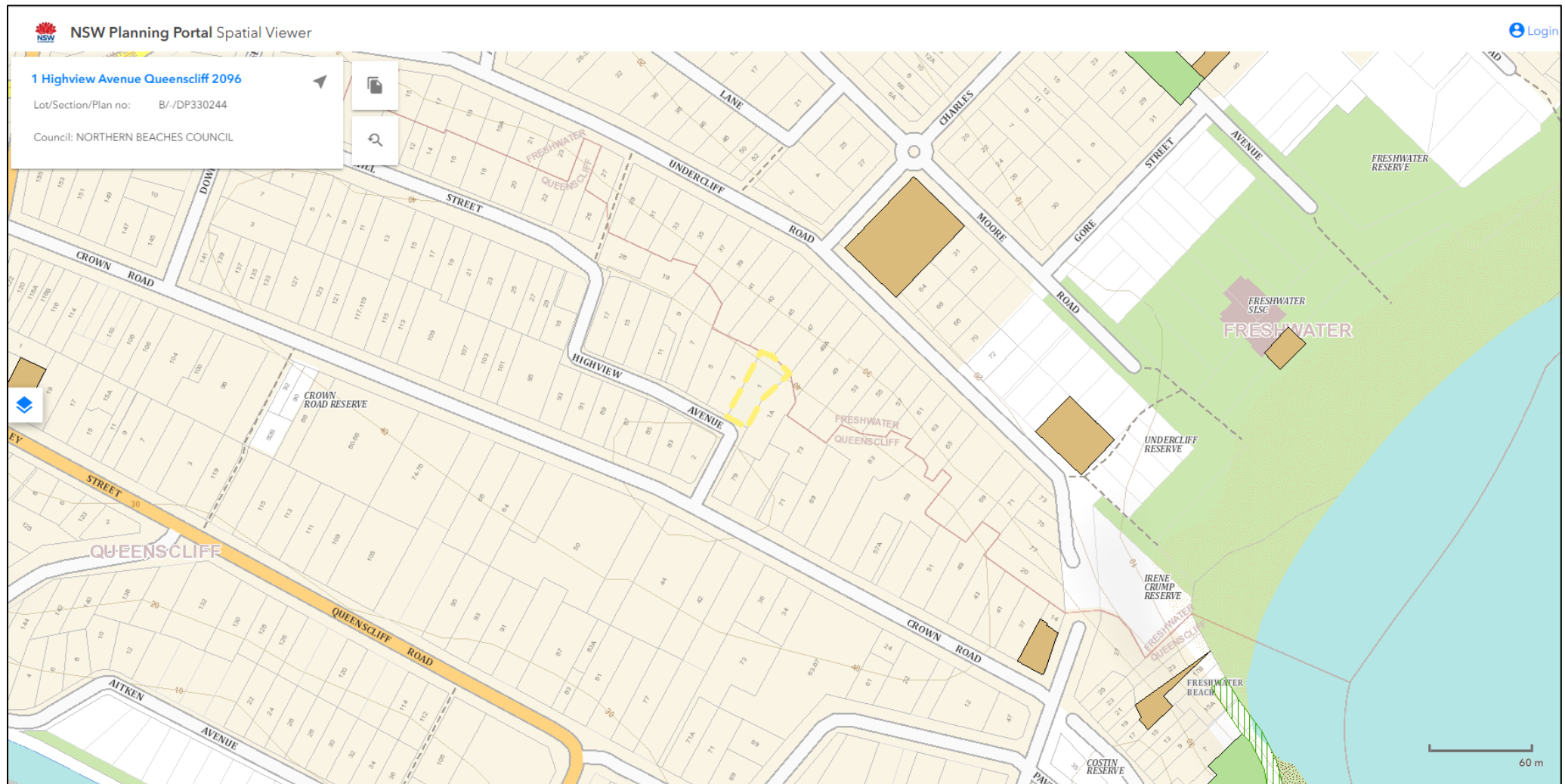


Appendix A: Site Location Maps



Subject site (Yellow boundary) positioned within R2 Low-density Residential zone. Image sourced from Planning NSW (2024).





Subject site (Yellow boundary) does not contain a Heritage Item (annotated as a Brown polygon). The subject site is not positioned within a Heritage Conservation Area (Red hashed polygon). Image sourced from Planning NSW (2024).





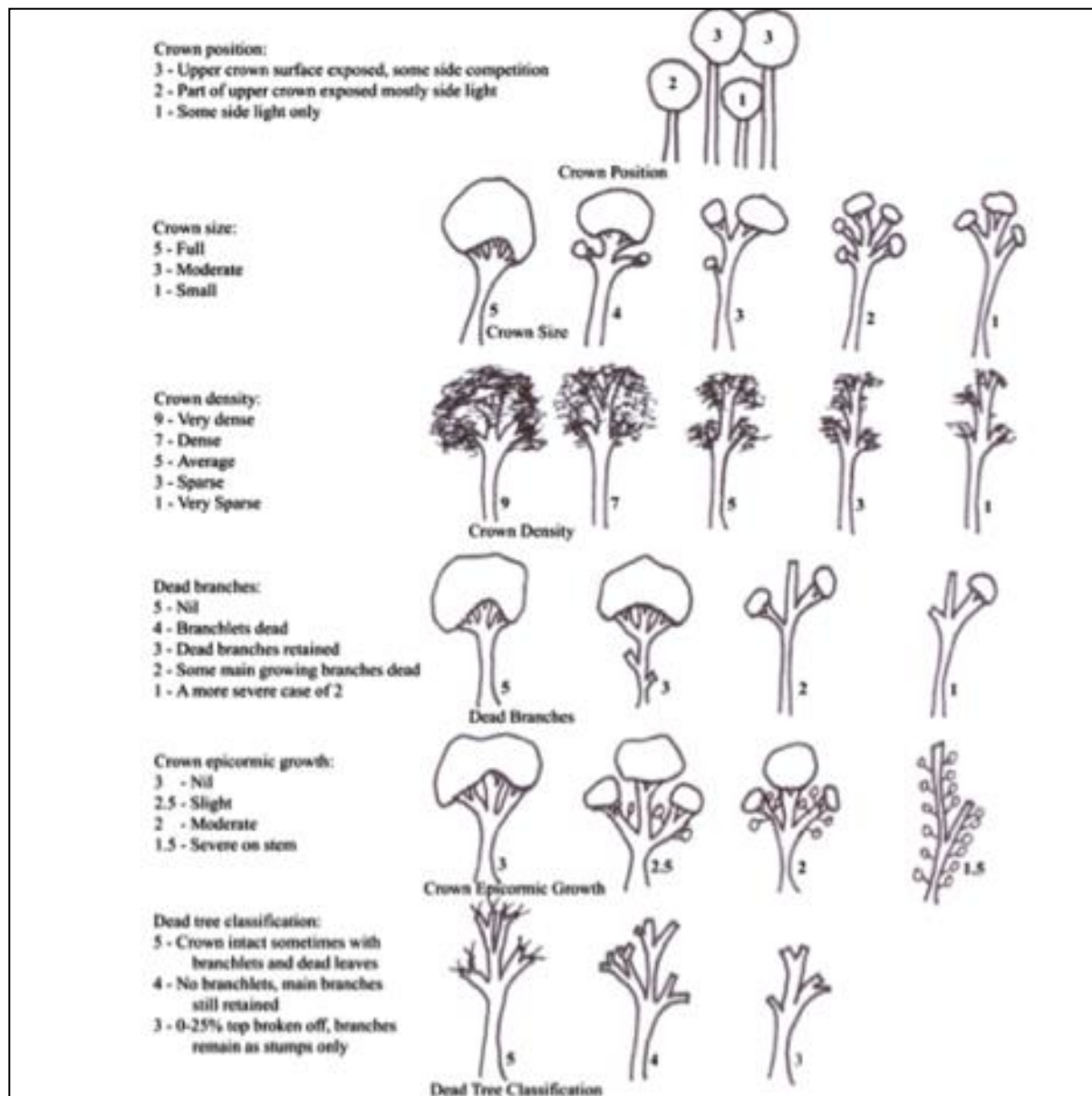
Southern portion of Subject site (purple dot) does not contain any threatened ecological communities or species (annotated as Green polygon). Image sourced from NSW Govt. SEED Mapping Tool (2024).



Appendix B: Vitality using Visual Vitality Index (Johnstone et al. 2012).

VVI = 3/3 (Upper crown exposed) + 5/5 (Good crown size) + 8/9 (Good crown density) + 4/5 (Very little deadwood) + 2/3 (Moderate epicormic growth) + 5/5 (Crown in tact).

=26/30.



Appendix C: Tree Retention Values Priority Requirements

From Morton (2011). Accessed via the Leichardt Council Tree Technical Manual.

Retention value	Recommended action
"High"	- These trees are considered worthy of preservation; as such careful consideration should be given to their retention as a priority. - Proposed site design and placement of buildings and infrastructure should consider the Tree Protection Zones as discussed in the following sections to minimise any adverse impact. - In addition to Tree Protection Zones, the extent of the canopy (canopy drip-line) should also be considered, particularly in relation to high rise developments. Significant pruning of the trees to accommodate the building envelope or temporary scaffolding is generally not acceptable.
"Moderate"	- The retention of these trees is desirable. - These trees should be retained as part of any proposed development if possible, however these trees are considered less critical for retention. - If these trees must be removed, replacement planting should be considered in accordance with Council's Tree Replacement Policy to compensate for loss of amenity.
"Low"	These trees are not considered to worthy of any special measures to ensure their preservation, due to current health, condition or suitability. They do not have any special ecological, heritage or amenity value, or these values are substantially
	diminished due to their SULE. These trees should not be considered as a constraint to the future development of the site.
"Very Low"	- These trees are considered potentially hazardous or very poor specimens, or may be environmental or noxious weeds. - The removal of these trees is therefore recommended regardless of the implications of any proposed development.



Appendix C: Tree Retention Values Methodology

From Morton (2011)

	Landscape Significance Reading						
Tree Sustainability	1	2	3	4	5	6	7
Greater than 40 years	High Retention Value						
15 to 40 years				Moderate			
5 to 15 years				Low			
Less than 5 years					Very Low Retention Value		
Dead or hazardous							



Appendix D: Landscape Significance Definitions

From Morton (2011). Accessed via the Leichardt Council Tree Technical Manual.

Rating	Heritage value	Ecological value	Amenity value
1. SIGNIFICANT	The subject site is listed as a Heritage Item under the Local Environment Plan (LEP) with a local, state or national level of significance or is listed as a Significant Tree.	The subject tree is scheduled as a Threatened Species as defined under the <i>Threatened Species Conservation Act 1995 (NSW)</i> or the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> .	The subject tree has a very large live crown size exceeding 100m ² with normal to dense foliage cover, is located in a visually prominent position in the landscape, exhibits very good form and habit typical of the species.
	The subject tree forms part of the curtilage of a Heritage Item (building /structure /artefact as defined under the LEP) and has important association with that item.	The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter or nesting tree for endangered or threatened fauna species.	The subject tree makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity.
	The subject tree is a Commemorative Planting having been planted by an important historical person (s) or to commemorate an important historical event.	The subject tree is a Remnant Tree, being a tree in existence prior to development of the area.	The tree is visually prominent in view from surrounding areas, being a landmark or visible from a considerable distance.
2. VERY HIGH	The tree has a strong historical association with a Heritage Item (building/structure/artefact/garden etc) within or adjacent the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site.	The tree is a locally-indigenous species, representative of the original vegetation of the area and is a dominant or associated canopy species of an Endangered Ecological Community (EEC) formerly occurring in the area occupied by the site.	The subject tree has a very large live crown size exceeding 60m ² ; a crown density exceeding 70% (normal-dense), is a very good representative of the species in terms of its form and branching habit or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area.



Rating	Heritage value	Ecological value	Amenity value
3. HIGH	The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence.	The tree is a locally-indigenous species and representative of the original vegetation of the area and the tree is located within a defined Vegetation Link / Wildlife Corridor or has known wildlife habitat value.	The tree is a good representative of the species in terms of its form and branching habit with minor deviations from normal (e.g. crown distortion/suppression) with a crown density of at least 70% (normal); the subject tree is visible from the street and/or surrounding properties and makes a positive contribution to the visual character and the amenity of the area.
4. MODERATE	The tree has no known or suspected historical association, but does not detract or diminish the value of the item and is sympathetic to the original era of planting.	The subject tree is a non-local native or exotic species that is protected under the provisions of this Development Control Plan.	The subject tree has a medium live crown size exceeding 25m ² ; the tree is a fair representative of the species, exhibiting moderate deviations from typical form (distortion/suppression etc) with a crown density of more than 50% (thinning to normal); and
			The tree is visible from surrounding properties, but is not visually prominent – view may be partially obscured by other vegetation or built forms. The tree makes a fair contribution to the visual character and amenity of the area.
5. LOW	The subject tree detracts from heritage values or diminishes the value of a Heritage Item.	The subject tree is scheduled as exempt (not protected) under the provisions of this Development Control Plan due to its species, nuisance or position relative to buildings or other structures.	The subject tree has a small live crown size of less than 25m ² and can be replaced within the short term (5-10 years) with new tree planting.
6. VERY LOW	The subject tree is causing damage to a Heritage Item.	The subject tree is listed as an Environment Weed Species in the Leichhardt Local Government Area, being invasive, or is a known nuisance species.	The subject tree is not visible from surrounding properties (visibility obscured) and makes a negligible contribution or has a negative impact on the amenity and visual character of the area. The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less than 50% (sparse).



Appendix E: Useful Life Expectancy Definitions

From Barrell (1996). Accessed via the Leichardt Council Tree Technical Manual.

	1. Long	2. Medium	3. Short	4. Removal	5. Moved or replaced
	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 15 - 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 5 - 15 years with an acceptable level of risk.	Trees that should be removed within the next 5 years	Trees which can be reliably moved or replaced.
A	Structurally sound trees located in positions that can accommodate future growth.	Trees that may only live between 15 and 40 years.	Trees that may only live between 5 and 15 more years.	Dead, dying, suppressed or declining trees through disease or inhospitable conditions.	Small trees less than 5m in height.
B	Trees that could be made suitable for retention in the long term by remedial tree care.	Trees that may live for more than 40 years but would be removed for safety or nuisance reasons.	Trees that may live for more than 15 years but would be removed for safety or nuisance reasons.	Dangerous trees through instability or recent loss of adjacent trees.	Young trees less than 15 years old but over 5m in height.
C	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.	Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting.	Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting.	Damaged trees through structural defects including cavities, decay, included bark, wounds or poor form.	Trees that have been pruned to artificially control growth.
D		Trees that could be made suitable for retention in the medium term by remedial tree care.	Trees that require substantial remedial tree care and are only suitable for retention in the short term.	Damaged trees that are clearly not safe to retain.	
				Trees that may live for more than 5 years but should be	



Appendix F: Tree Data Sheets and Photographs for Trees 1-13

*******(See Over)*******





Tree Summary Report

June 20, 2024 |
Total Tree Count: 13

Filters Applied
Client Site Filter: (Client Site=WD-2024.06.17)

Bull Bay Primary ID #1061477

1 Highview Avenue

Tree Details

Tree Id:	1
Scientific Name:	Magnolia grandiflora
Common Name:	Bull Bay
Health:	Good
DBH [cm]:	15
Tree Height (Estimated) [m]:	4
Risk Rating:	
Priority:	None
Canopy Width (m):	3
Useful Life Expectancy:	40+ years
Maturity:	Semi mature
Structure:	Good
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Maturing street tree positioned outside southern boundary of the subject site observed to be in good condition.

Tree Location

Longitude:	151.286553
Latitude:	-33.781554
Address:	1 Highview Avenue
City:	Queenscliff

Photos Street View Map View



image.jpg
16/06/2024

Sea Hibiscus Primary ID #1061478

1A Highview Avenue

Tree Details

Tree Id:	2
Scientific Name:	Hibiscus tiliaceus
Common Name:	Sea Hibiscus
Health:	Good
DBH [cm]:	45
Tree Height (Estimated) [m]:	10
Risk Rating:	
Priority:	None
Canopy Width (m):	10
Useful Life Expectancy:	40+ years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Larger tree positioned approximately 3 metres outside the south-eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Existing concrete vehicle crossing and driveway will mitigate the potential impact of works within the subject site on this tree.

Tree Location

Longitude:	151.286681
Latitude:	-33.781585
Address:	1A Highview Avenue
City:	Queenscliff

Photos Street View Map View



image.jpg
16/06/2024

Blueberry Ash Primary ID #1061479

1 Highview Avenue

Tree Details	
Tree Id:	3
Scientific Name:	Elaeocarpus reticulatus
Common Name:	Blueberry Ash
Health:	Fair
DBH [cm]:	10
Tree Height (Estimated) [m]:	5
Risk Rating:	
Priority:	None
Canopy Width (m):	2
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and concrete pathway will mitigate the potential impact of works within the subject site on this tree.

Tree Location

Longitude:

151.286707

Latitude:

-33.781542

Address:

1 Highview Avenue

City:

Queenscliff

Photos

Street View

Map View



image.jpg
16/06/2024

Blueberry Ash Primary ID #1061480

73 Crown Road

Tree Details	
Tree Id:	4
Scientific Name:	Elaeocarpus reticulatus
Common Name:	Blueberry Ash
Health:	Fair
DBH [cm]:	10
Tree Height (Estimated) [m]:	5
Risk Rating:	
Priority:	None
Canopy Width (m):	2
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and concrete pathway will mitigate the potential impact of works within the subject site on this tree.

Tree Location

Longitude:

151.286731

Latitude:

-33.781525

Address:

73 Crown Road

City:

Queenscliff

Photos

Street View

Map View



image.jpg
16/06/2024

Blueberry Ash Primary ID #1061481

73 Crown Road

Tree Details	
Tree Id:	5
Scientific Name:	Elaeocarpus reticulatus
Common Name:	Blueberry Ash
Health:	Fair
DBH [cm]:	10
Tree Height (Estimated) [m]:	5
Risk Rating:	
Priority:	None
Canopy Width (m):	2
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and concrete pathway will mitigate the potential impact of works within the subject site on this tree.

Tree Location	
Longitude:	151.286758
Latitude:	-33.781504
Address:	73 Crown Road
City:	Queenscliff
Photos Street View Map View	
	
image.jpg 16/06/2024	

Golden Cane Primary ID #1061482

1 Highview Avenue

Tree Details	
Tree Id:	6
Scientific Name:	Dypsis lutescens
Common Name:	Golden Cane
Health:	Good
DBH [cm]:	15
Tree Height (Estimated) [m]:	5
Risk Rating:	
Priority:	None
Canopy Width (m):	2
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	Low
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Small palm of low species significance in suppressed position within eastern boundary.

Tree Location	
Longitude:	151.286675
Latitude:	-33.781548
Address:	1 Highview Avenue
City:	Queenscliff

Photos Street View Map View



image.jpg
16/06/2024

Bangalow Palm Primary ID #1061483

1 Highview Avenue

Tree Details		Tree Location	
Tree Id:	7	Longitude:	151.286598
Scientific Name:	Archontophoenix cunninghamiana	Latitude:	-33.781536
Common Name:	Bangalow Palm	Address:	1 Highview Avenue
Health:	Good	City:	Queenscliff
DBH [cm]:	25.98	PhotosStreet ViewMap View  image.jpg 16/06/2024	
Tree Height (Estimated) [m]:	12		
Risk Rating:			
Priority:	None		
Canopy Width (m):	4		
Useful Life Expectancy:	20-40 years		
Maturity:	Mature		
Structure:	Fair		
Retention Value:	Low		
Tree Work:			
Last Modified:	20/06/2024		
Observations:			
Tree Comments:	Large palm of low species significance positioned within southern boundary of subject site.		

Bangalow Palm Primary ID #1061484

1 Highview Avenue

Tree Details	
Tree Id:	8
Scientific Name:	Archontophoenix cunninghamiana
Common Name:	Bangalow Palm
Health:	Good
DBH [cm]:	25.98
Tree Height (Estimated) [m]:	12
Risk Rating:	
Priority:	None
Canopy Width (m):	4
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	Low
Tree Work:	
Last Modified:	20/06/2024
Observations:	
Tree Comments:	Large palm of low species significance positioned less than 2 metres from southern wall of existing dwelling. Stem trifurcates at ground level.

Tree Location	
Longitude:	151.286629
Latitude:	-33.781488
Address:	1 Highview Avenue
City:	Queenscliff

Photos Street View Map View



image.jpg
16/06/2024

Bangalow Palm Primary ID #1061485

1 Highview Avenue

Tree Details		Tree Location	
Tree Id:	9	Longitude:	151.286602
Scientific Name:	Archontophoenix cunninghamiana	Latitude:	-33.781472
Common Name:	Bangalow Palm	Address:	1 Highview Avenue
Health:	Good	City:	Queenscliff
DBH [cm]:	25.98	Photos Street View Map View  image.jpg 16/06/2024	
Tree Height (Estimated) [m]:	12		
Risk Rating:			
Priority:	None		
Canopy Width (m):	4		
Useful Life Expectancy:	10-20 years		
Maturity:	Mature		
Structure:	Fair		
Retention Value:	Medium		
Tree Work:			
Last Modified:	20/06/2024		
Observations:			
Tree Comments:	GROUP of 5 closely positioned specimens of the same size and species positioned approximately 1 metre outside the western boundary. Existing stone retaining wall and paved pathway within western boundary of subject site will mitigate impact of proposed works on these externally owned palms		

Blueberry Ash Primary ID #1061486

1 Highview Avenue

Tree Details

Tree Id:	10
Scientific Name:	Elaeocarpus reticulatus
Common Name:	Blueberry Ash
Health:	Fair
DBH [cm]:	13
Tree Height (Estimated) [m]:	7
Risk Rating:	
Priority:	None
Canopy Width (m):	3
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and paved pathway will mitigate the potential impact of works within the subject site on this tree.

Tree Location

Longitude:	151.286751
Latitude:	-33.781474
Address:	1 Highview Avenue
City:	Queenscliff

Photos Street View Map View



image.jpg
16/06/2024

Blueberry Ash Primary ID #1061487

73 Crown Road

Tree Details	
Tree Id:	11
Scientific Name:	Elaeocarpus reticulatus
Common Name:	Blueberry Ash
Health:	Fair
DBH [cm]:	10
Tree Height (Estimated) [m]:	5
Risk Rating:	
Priority:	None
Canopy Width (m):	3
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Small tree positioned approximately 1.5 metres outside the eastern boundary within within the property of 1a Highview Ave. External ownership renders tree of High landscape significance. Canopy thin. Has been heavily pruned. Existing boundary retaining wall and paved pathway will mitigate the potential impact of works within the subject site on this tree.

Tree Location

Longitude:

151.286774

Latitude:

-33.781472

Address:

73 Crown Road

City:

Queenscliff

Photos

Street View

Map View



image.jpg
16/06/2024

Port Jackson Fig Primary ID #1061488

1 Highview Avenue

Tree Details	
Tree Id:	12
Scientific Name:	Ficus rubiginosa
Common Name:	Port Jackson Fig
Health:	Good
DBH [cm]:	40
Tree Height (Estimated) [m]:	8
Risk Rating:	
Priority:	None
Canopy Width (m):	12
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	High
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	Large tree positioned on exposed rock ledge within northern boundary. Sunken positioned below existing deck will suitably isolate trees root growth from proposed works. Canopy has been suitably pruned to provide clearance from deck.

Tree Location

Longitude:	151.286812
Latitude:	-33.781202
Address:	1 Highview Avenue
City:	Queenscliff

Photos

Street View

Map View



image.jpg
16/06/2024

Golden Cane Primary ID #1061489

1 Highview Avenue

Tree Details	
Tree Id:	13
Scientific Name:	Dypsis lutescens
Common Name:	Golden Cane
Health:	Good
DBH [cm]:	10
Tree Height (Estimated) [m]:	3
Risk Rating:	
Priority:	None
Canopy Width (m):	2
Useful Life Expectancy:	20-40 years
Maturity:	Mature
Structure:	Fair
Retention Value:	Low
Tree Work:	
Last Modified:	16/06/2024
Observations:	
Tree Comments:	GROUP of approximately 10 closely positioned specimen of the same size and species. Palms of low species significance in raised garden within western boundary. Existing retaining wall and paved area will suitably mitigate impact of proposed works in palms.

Tree Location	
Longitude:	151.286707
Latitude:	-33.781314
Address:	1 Highview Avenue
City:	Queenscliff

Photos	Street View	Map View
		
image.jpg 16/06/2024		