
rainTree consulting

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15 December 2015

1156 BARRENJOEY ROAD

PALM BEACH, NSW

ARBORICULTURAL ASSESSMENT & DEVELOPMENT IMPACT REPORT

Prepared for

Mr R & I Benn

C/- Benn & Penna Architecture

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PYRMONT, NSW 2009

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Prepared by

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AQF Level 5 Consulting arborist



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INTRODUCTION

This report has been commissioned by Mr R & I Benn C/- Benn & Penna Architecture to assess the remaining Useful Life Expectancy (ULE) and potential impacts that may occur to significant trees in relation to a new development proposal. The new development proposal consists of constructing a new dwelling within the property identified as Lot 15 in DP 6746 known as 1156 Barrenjoey Road, PALM BEACH NSW 2108.

Recommendations for retention or removal of trees is based on their accorded ULE category, the current design proposal and potential impacts to the trees under this development application.

To retain specific trees and ensure their viability development must take into consideration protection of the Tree Protection Zone (TPZ) radius, see Notes p14 - AS4970 TPZ diagram, or as detailed to within this report.

Each tree has been accorded a temporary identification number and is referred to by number throughout this report. For additional trees not plotted on provided documentation their location has been estimated by taking offsets from existing trees and structures. The trees may be referenced within the Tree Assessment Schedule and Tree Location Plan Appendices C and D.

Care has been taken to obtain information from reliable sources. All data has been verified as far as possible, however, I can neither guarantee nor be responsible for the accuracy of information provided by others.

DISCLAIMER & LIMITATION ON THE USE OF THIS REPORT

This report is to be utilized in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or copy) is referenced in, and directly to that submission, report or presentation.

Unless stated otherwise: Information contained in this report covers only the tree/s that were examined and reflects the condition of the trees at the time of inspection: and the inspection was limited to visual examination of the subject tree without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject tree/s may not arise in the future. Arborist cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specific period of time.

Trees are a living entity and change continuously, they can be managed but not controlled and to be associated near one involves some degree of risk.

METHODOLOGY

- i In preparation for this report a site consultation and limited ground level Visual Tree Assessment (VTA) was conducted by the author on Friday 27th November 2015. The principles of VTA were primarily adopted from components of Mattheck & Breloer 1994 '*The Body Language of Trees*' & the ISA TRA manual 2013. The inspection included assessment of the overall health and vigour of the trees, tree form, structure and structural condition commencing from near the lower trunk to the upper first order branch division as best as site conditions would allow. On completion of the VTA the retention value of the tree was summarised utilizing the tree assessment Checklist provided within Appendix- B.
- ii The inspection was limited to visual assessment from within the subject site where if required the retention value, condition and diameters of neighbouring trees was estimated. Tree height and canopy spread was estimated and expressed in metres with trunk diameters measured at approximately 1.4 metres above ground level, rounded off to the nearest 50mm and expressed as DBH (Diameter at Breast Height).
- iii This report utilizes the current Australian Standards 'Protection of Trees on Development Sites' AS 4970 – 2009 as explained within Notes of Appendix- A. Unless specified otherwise all distances and development offsets within this report are taken from the centre of the tree.
- iv Plans and/or documentation received to assist in preparation of this assessment include:
 - Benn & Penna Architecture
 - Proposed Roof Plan No. 1501-P-05 Rev B dated 1.12.2015
 - Proposed Ground Floor Plan No. 1501-P-03 Rev A dated 3.11.2015
 - Proposed Western Elevation Plan No. 1501-P-06 Rev A dated 3.11.2015
 - Proposed North Elevation Plan No. 1501-P-07 Rev A dated 3.11.2015
 - Proposed Eastern Elevation Plan No. 1501-P-08 Rev A dated 3.11.2015
 - Proposed Southern Elevation Plan No. 1501-P-09 Rev A dated 3.11.2015
 - Bee & Lethbridge Pty Limited
 - Survey Plan Sheet 2 of Dwg No 16288-2 ref No. 16288, dated October 2007

1. DISCUSSIONS OF OBSERVATIONS

1.1 General tree assessment

1.1.1 Six (6) trees have been requested to be assessed for the purpose of this development application. Of the trees assessed one (1) tree contains a low retention value and three (3) trees are exempt tree species noted under Pittwater Councils DCP Preservation of Trees or Bushland Vegetation management order.

Exempt trees are identified as trees 2, 5 & 6. They are permitted to be removed without a Council Tree & Vegetation Removal Permit or Development Consent. Of the exempt trees Jacaranda tree 2 has been requested for retention with protection measures discussed throughout this report. Should additional exempt species require retention the principles of tree protection as outlined within Attachment- A the generic Tree Management Plan (TMP) apply. The appointed site arborist is to detail and certify protection measures to the development site superintendent prior to works commencing.

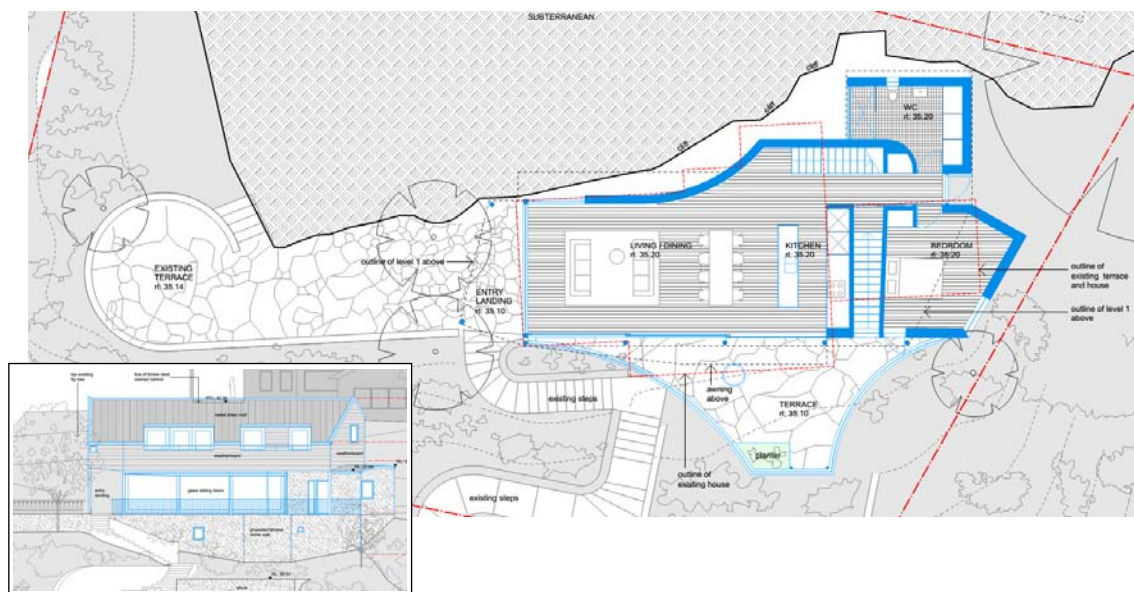
Low retention value tree is identified as tree 1. The tree has been accorded a low retention value due to being structurally damaged at the anchoring root zone attached to the rock face. The condition of the tree indicates the tree is not viable for lengthy periods of retention and considered a tree which should not restrict this development proposal.

Neighbouring trees located above the development area have not been assessed as they are located above the steep rock escarpment where development impacts are expected to be negligible. The trees are likely to require Tree Protection Fencing (TPF) as directed by an appointed site arborist prior to works commencing.

1.2 The development proposal

1.2.1 The development proposal consist of demolishing the existing building to make way for a new dwelling and associated infrastructure.

Figure 1, showing proposed development footprint



1.3 Tree removal to accommodate proposal

- 1.3.1 Trees 1, 3 & 4 require removal under the current proposal with part of Fig tree No 1 requested to be retained and managed as a canopy tree.

The removal of exempt trees 5 & 6 may be conducted to make space for new plantings with exempt T2 requested for retention.

Discussion of tree impact and potential removal by design is outlined within the following sections

1.4 Discussion of development impacts

- 1.4.1 Tree 1. A Fig tree containing a low retention value has been requested to be partly retained for design principles with significant reduction pruning. The removal of the main stem at near 400mm(Ø) has been proposed to accommodate the new building footprint extending towards the existing terrace area. The secondary stem at 100mm(Ø) protruding from near ground level has been identified for retention to allow for development of a new canopy tree. Such pruning requires Local Government Authority (LGA) approval and is to be conducted in accordance with AS4373 pruning standards.

Tree protection is to be in accordance with TMP Figure B p10 *trunk protection* with the existing terraced area to remain as existing acting as root protection during development works.

- 1.4.2 Exempt tree 2. The exempt tree has been requested for retention for design principles. Visually the tree appears to be located on very shallow soils, on rock where root development is expected to be very shallow. A single support post for the second level is located at or near to the Structural Root Zone (SRZ), the area required for tree stability. To ensure minimal impact to the tree the following recommendations are provided:

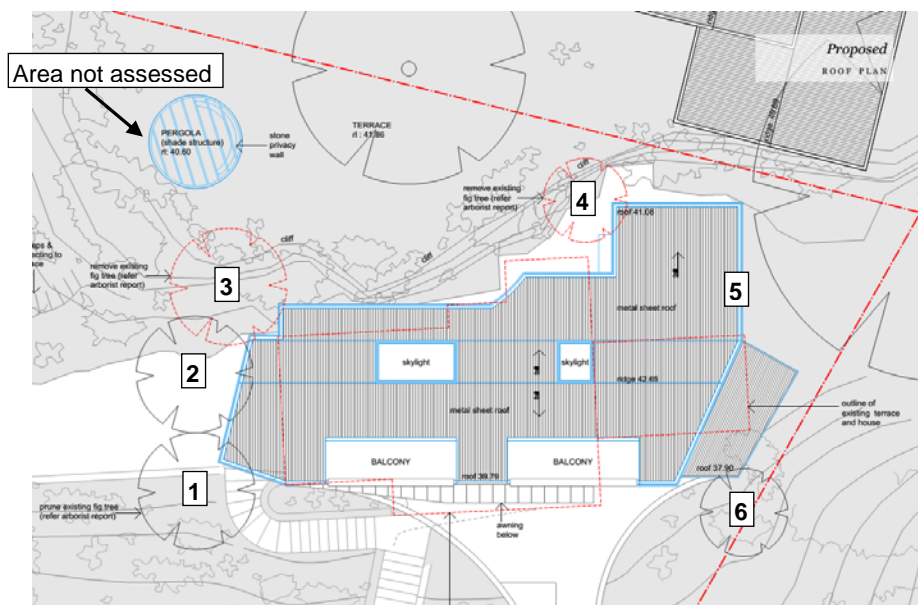
- a) Canopy pruning is likely to accommodate construction activities and is to be conducted in accordance with the generic Tree Management Plan (TMP) section 11 *Canopy pruning*
- b) The trunk of the tree is to be protected with timber beam trunk protection as identified within TMP Figure B with the existing paved area to remain as a root protection area
- c) Hand excavation to accommodate the post footing is required to ensure no tree rot at or >30mm(Ø) is damaged by works
- d) An appointed site arborist shall certify that the excavation for the post hole footing has not compromised the anchorage of the tree
- e) Should any change in ground levels or site conditions within 5m of the tree be required the appointed site arborist is to be notified to consult on potential impacts by works

- 1.4.3 Tree 3, the tree has been identified for removal to accommodate the current proposal. Tree impacts occur by the rear elevation and extension towards the tree where the majority of the canopy exists.

Although root impacts are difficult to determine as the tree is attached to the steep rock face protection of the root zone may be achievable provided no alterations of existing conditions occur within 2.4m of the tree.

- 1.4.4 Tree 4, is structurally defective, located on shallow soils where the trees location is likely to become problematic in the future. Tree removal has been identified for design principles where tree removal or significant canopy pruning would be required for the purpose of construction access. Given the tree is slightly structurally damaged the tree is considered a tree which should not restrict this development proposal.
- 1.4.5 Trees 5 & 6 are exempt Broad Leaved Privet trees recommended to be removed to accommodate works and make space for new native plantings.

Figure 2, showing tree impact area



- 1.4.6 Neighbouring trees located above the development area are protected from development impacts by the steep sandstone escarpment.
- Should works be required for land clearing or development site access within 6m of trees not assessed within this report the appointed site arborist is to be notified and tree protection fencing constructed in accordance with topography and to act as a visual barrier identifying restriction areas.

2. CONCLUSIONS & RECOMMENDATIONS

2.1 Tree removal

- 2.1.1 With the consent of Council the removal of three (3) trees, trees 1, 3 & 4 is required to accommodate the current development proposal.
- Tree 1 has been requested for main stem removal only with the retention of the smaller adjacent stem such that the section can be maintained to develop into a canopy tree.
- 2.1.2 Exempt trees permitted to be removed without a Council approved tree or vegetation removal permit are identified as trees 2, 5 & 6, with the retention of T2 required for design principles. Tree 2 is to be protected in accordance with this report and specific to the generic Tree Management Plan (TMP) Attachment- A.

2.2 Recommended tree management & protection principles

- 2.2.1 *General.* Trees to be retained require the construction of Tree Protection Zones (TPZ), fences (F) or specific protection methodology such as timber beam trunk and root protection areas, see Attachment- A section 1 of the generic Tree Management Plan (TMP). Prior to construction arborist consultation in TPZ design is recommended with the arborist certifying the construction of TPF prior to start of works.
- 2.2.2 Tree 1, removal of the 400mm(Ø) main stem is to be approved by the LGA. Given the tree contains a damaged anchoring root zone and short retention value the pruning proposal should not restrict this development application
- 2.2.3 Tree 2, protection of the tree and anchoring root zone is to be in accordance with section 1.4.2 to ensure the anchorage of the tree is not compromised by works.
- 2.2.4 The following general recommendations apply for the protection of trees on development sites
- For all trees near works, prior to works commencing specific tree protection requirements being modified or reduced locations of tree protection fencing is to be made clear by an appointed site arborist to the development site superintendent at a pre-construction site meeting
 - Attachment- A, the generic Tree Management Plan (TMP) outlines general protection methodology which is to be adopted with any tree specific recommendation provided within this report
 - The development site superintendent is responsible for ensuring that all tree protection measures are conducted accordingly and that all site contractors are aware of tree protection requirements
 - *Additional inground services within TPZ's*, such as sewer, stormwater and electrical services, design and impact to trees shall be reviewed and endorsed by the project arborist prior to works commencing
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Should you require further liaisons in this matter please contact me direct on 0419 250 248

Yours sincerely



Mark A Kokot

AQF Level 5 consulting arborist

Diploma of Hort/Arboriculture (AQF5), Associate Diploma Parks Management (AQF4),
Certified Arborist / Tree Surgeon (AQF3), ISA Tree Risk Assessment Qualified 6/2014,
Member: Arboriculture Australia No.1292

ATTACHMENT- A: Generic Tree Management Plan

1. **Tree Protection Fencing (TPF)** unless specified otherwise TPF is to be constructed prior to any works commencing to ensure no impact occurs to trees requiring retention. If required TPZ fencing is to consist of 1.8m high chain link fencing secured to the ground by 50 x 50mm steel posts. Generally the location of the TPZ is to be constructed outside of the canopy drip line or extent of the TPZ, refer Appendix- C, SRZ & TPZ distance column.

If development site constraints exist the location of the TPZ fence may be reduced or altered to timber beam trunk protection (TMP Figure B).

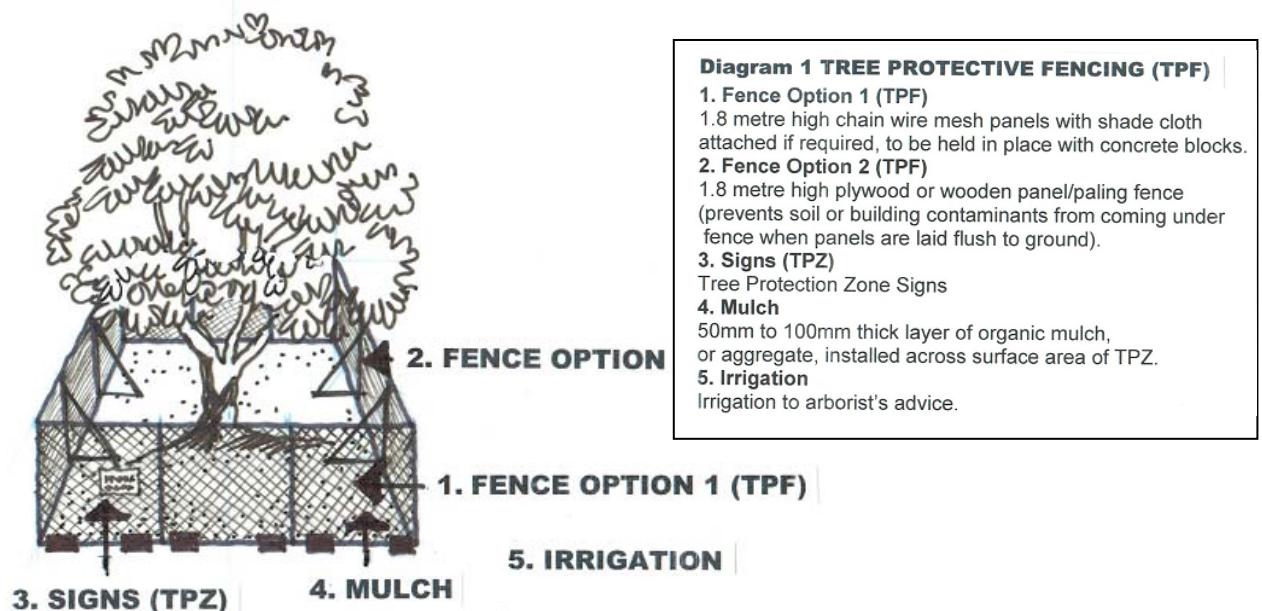
If reduced TPZ fencing or timber beam protection is required the arborist may request that the extent of the TPZ / root zone be protected by ground mats and native leaf mulch during site works.

The location of the TPZ is to be constructed as to allow for best tree management practices while providing adequate development work access to finalise the development proposal.

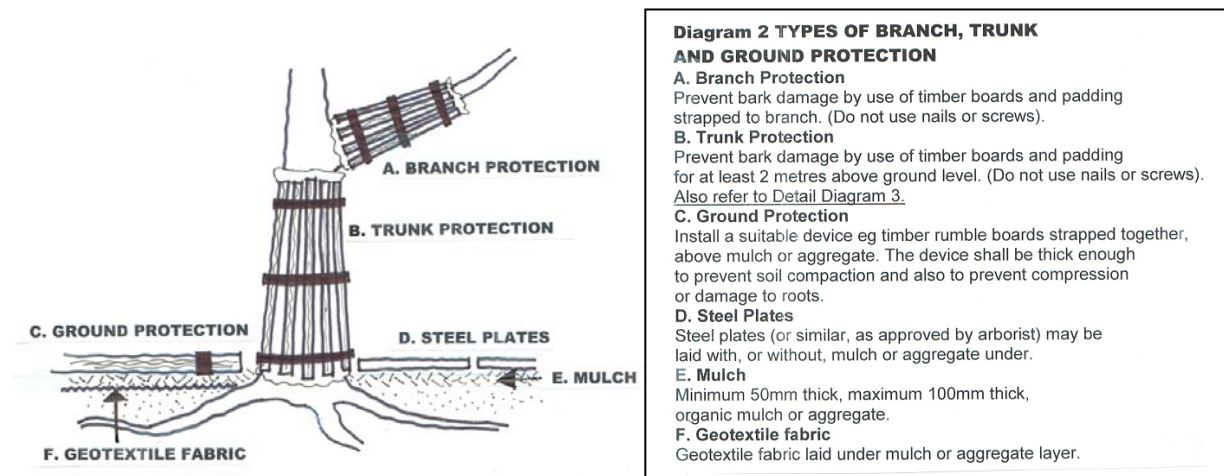
- 1.2 The TPZ is a development exclusion zone, it is an area isolated from construction disturbance so that the tree remains viable. No works or storage of materials are permitted within the TPZ without prior consultation and written approval from the appointed site arborist.

Appropriate signage shall be erected on TPZ fencing identifying the prevention of any unauthorised activity and/or access. Certification of TPZ modifications are to be provided by the site arborist to the development site superintendent for Principal Certifying Authority (PCA) compliance matters.

TMP Figure A, showing fence construction detail



TMP Figure B, showing trunk & root protection detail



2. **Appointing a Site Arborist.** Prior to works commencing a qualified arborist with a minimum AQF Level 5 qualification is to be appointed as the Site Arborist to address any development impacts that may occur to trees that require retention including any neighbouring tree.
The development site superintendent is responsible for enforcing all tree protection methodology, contacting and liaising with the appoint site arborist. The appointed site arborist must be consulted at all times when working within the TPZ and specifically be on site if development activities are required within the SRZ to discuss root impact management techniques, refer Appendix C for SRZ & TPZ setbacks. The appointed Site Arborist is to certify to the Principal Certifying Authority (PCA) that all tree protection methodology has been conducted accordingly as specified within this report.
3. **Hold Points.** unless specified otherwise no works are permitted within the SRZ radius of any tree without prior onsite arborist consultation or direct site involvement. The SRZ setback is a development exclusion zone. Where works are proposed within the SRZ an air spade or water jetting root investigation is required to identify the potential impact which is to be assessed by the site arborist.
Hand tools are to be used when working within both the SRZ & TPZ with cantilevering or bridging over the SRZ under pier & beam construction recommended.
4. **Demolition within the Tree Protection Zone (TPZ)** is to be supervised by the site arborist. Rubber tracked excavators are recommended to work within the footprint of any hard surface such as pathways and pavements to minimise the radial impact to the TPZ and/or SRZ. No tree roots at or exceeding 30mm(Ø) are to be damaged during works. Where larger woody roots are located the appointed site arborist is to be notified.
5. **Excavation within the TPZ,** is to be avoided where possible. Any excavation for footings, foundations or grading (site leveling) is to be approved and supervised by the appointed arborist.

- 5.2 To appropriately protect the root zone air spade or water jetting excavation is recommended to locate and expose any tree roots which may be affected and to avoid ripping by site machinery.

Tree roots <30mm(Ø) in diameter shall be clean cut with sharp clean root pruning tools. Further advice from the site arborist is required where larger woody tree roots have been located.

6. **Landscaping or development within the TPZ** is to complement the long term needs to retain the subject trees. Pervious paving materials are recommended within the TPZ to maintain soil moisture availability.

Unless approved within this report no grade changes being cut or fill is to occur within 10% of the TPZ radius. Greater than ten (10%) percent of the TPZ may be affected by development encroachment given prior arborist consultation and appropriate tree management.

Maintaining the existing soil levels, moisture and aeration is the key to significant tree preservation. All efforts are to be made in maintaining the TPZ, soil moisture content and soil microorganism activity essential for maintaining good tree vigour.

7. **Fill material within the Tree Protection Zone**, fill material within the Tree Protection Zone shall be avoided.

8. **Site machinery**, demolition, excavations and site construction machinery must ensure that no direct conflicts occur to protected trees which may include canopy overhang towards development areas.

- 8.2 In the event of tree damage the appointed site arborist is to be notified immediately. The site arborist is to immediately undertake action to minimise any impact.

9. **Underground services**, no trenching for underground services is permitted within the radial SRZ setback without prior arborist approval. Where underground services are required within the SRZ or in line cutting through the TPZ, underboring or directional drilling is recommended.

10. **Root pruning**, where approved by the arborist tree roots are to be correctly treated, clean cut by the appointed arborist abiding to the Australian Standards Pruning of Amenity Trees AS 4373 2007 section 9 *Root pruning* at all times. At no stage are tree roots greater than 30mm(Ø) (in diameter) allowed to be cut by site contractors without prior arborist consultation. Where significant woody tree roots are located bridging over or tunneling beneath the root system may be required to ensure the vigour of the tree is not adversely affected by proposed works.

11. **Canopy pruning**, where required tree removal and canopy reductions are to be approved by the Local Government Authority and conducted by a suitably qualified AQF Level 3 arborist abiding to the Australian Standards Pruning of Amenity Trees AS 4373 2007 at all times.

Pruning of significant or neighbouring tree overhang is to be supervised by a minimum AQF level 4 arborist. The extent of pruning for neighbouring trees is to be approved and clearly identified such that no over pruning occurs.

12. **Regular site inspections**, the appointed site arborist shall undertake regular site inspections of Tree Protection Zones (TPZ) & Tree Protection Fencing (TPF). Site inspections are recommended at the following stages.
- Prior to commencement of demolition activities
 - At eight (8) week intervals during construction
 - At completion of works prior at handover - Occupation Certificate (OC) to ensure no detrimental impact to trees has occurred
13. **Certifications**, obtaining relevant arborist certifications is the responsibility of the development site superintendent. Certifications are to be provided to the Principal Certifying Authority (PCA) stating that all tree protection fencing and/or methodology has been installed to adequately protect any tree requiring retention which includes neighbouring trees. Arborist Certification is to consist of timing of events, discussions of attendance, tree roots encountered and mitigation works conducted to minimise development impacts on protected trees during the course of development activities.

Yours sincerely

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Level 5 consulting arborist

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APPENDIX- A: Terminology & references

Acceptable Risk: Exposure to or reject risk of varying degrees. The acceptable risk is defined as 'The person who accepts some degree of risk in return for a benefit being exposed to some risk of varying degree.'

Age classes: (I) Immature refers to a well established but juvenile tree. (ESM) refers to an early semi mature tree not of juvenile appearance. (SM) Semi-mature refers to a tree at growth stages advancing into maturity and full size. (LSM) Late Semi-Mature, refers to a tree between semi-mature and close to mature. (EM) refers to a tree at the first stages of maturity. (M) Mature refers to a full size tree with some capacity for future growth. **Health:** Refers to a trees vigor exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion and the degree of dieback. **Condition:** Refers to the tree's form and growth habit, as modified by its environment (aspect, suppression by other trees, soils) and the state of the scaffold (i.e. Trunk and major branches), including structural defects such as cavities, crooked trunks or weak trunk / branch junctions. These are not directly connected with health and it is possible for a tree to be healthy but in poor condition. **Decay:** (N) – an area of wood that is undergoing decomposition. (V) – decomposition of an area of wood by fungi or bacteria. **Decline:** Is the response of a tree to a reduction of energy levels resulting from stress. Recovery from decline is difficult and slow; is usually irreversible. **Defect:** A identifiable fault in a tree. **Epicormic Shoots:** Shoots that arise from latent or adventitious buds that occur on stems and branches and on suckers produced from the base of the tree. A symptom / result of stress related factors. **Footprint:** The area occupied by site structures, including the dwelling driveways and hard surfaces. **Included Bark:** (Inclusion) a genetic weak fault, pattern of development at branch junctions where the bark is turned inwards rather than pushed out, can pose a potential hazard. **Order of branches:** First order being those that are the first to extend from the main trunk or codominant limbs, second order branches extend from the first order and third order branches extend from the second order. **Probability:** The likelihood of some event happening. **Risk:** Is the probability of something adverse happening. **Suppression:** Restrained growth pattern from competition of other trees or structures. **Wound:** Damage inflicted upon a tree through injury to its living cells, may continue to develop further weakening of the structure compromising structural integrity.

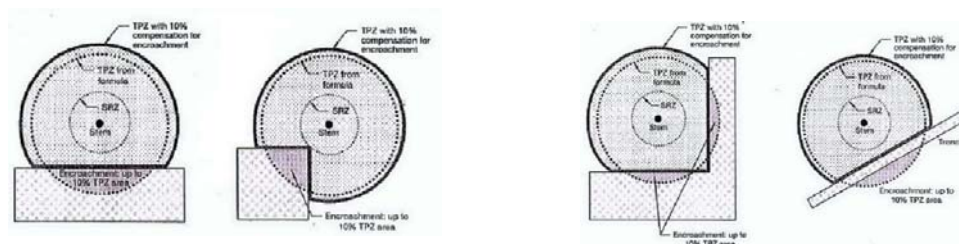
NOTES: No aerial (climbing) inspections, woody tissue testing or tree root investigation was undertaken as part of this tree assessment

This report acknowledges the current **Australian Standards 'Protection of Trees on Development Sites'** AS 4970 – 2009 with reference to the Tree Protection Zone (TPZ): being a combination of the root and crown area requiring protection. The TPZ takes into consideration the Structural Root Zone (SRZ): The area required for tree stability. Determined by AS4970 - 2009 Figure 1, Table of determining the SRZ, section 3.3.5 of the standards. The standard states where a greater than 10% encroachment occurs the arborist is to take into consideration the schedule of determining impacts as set within AS4970 s. 3.3.4. Encroachments are referred to within this report as major or minor encroachments (AS4970 s. 3.3.2 & 3.3.3). Below is the terminology used for estimated percentage of development incursion used within this report. To retain specific trees and ensure their viability development must take into consideration protection of the TPZ radius.

The extent of inclusion within the TPZ radius has been categorised within this report as follows:

<10% - negligible incursion >10 - <15% - low to moderate level of incursion / >15 - <20% - moderate level of incursion / >20 - <25% - moderate to high level of incursion / >25 - <35% - high level of incursion / >35% - significant inclusion within the TPZ

Showing acceptable incursion within the TPZ (AS4970)



SELECTED REFERENCES:

- Barrell J. 1993, 'Preplanning Tree Surveys: Safe useful Life expectancy (SULE) is the Natural Progression', Arboricultural Journal 17: 1, February 1993, pp. 33-46.
- International Society of Arboriculture (ISA) 2013, Tree Risk Assessment Manual, Martin Graphics, Champaign Illinois U.S.
- Mattheck, C. & Breloer, H.(1994) *The Body Language of Trees*. Research for Amenity Trees No.4 the Stationary Office, London.
- Matheny N. & Clark J. 1998, *Trees & Development 'A Technical Guide to Preservation of Trees During Land Development'* International Society of Arboriculture, Champaign USA.
- Standards Australia 2009, *Australian Standards 4970 Protection of Trees on Development Sites* - Standards Australia, Sydney, Australia.
- Standards Australia 2007, *Australian Standards 4373 Pruning of Amenity Trees* - Standards Australia, Sydney, Australia.

APPENDIX- B: Tree Retention Value *Check list* @rainTree consulting

VTA i) Landscape Significance (LS): The significance of a tree in the landscape is a combination of its amenity, environmental and heritage values.

Values may be subjective however, offer a visual understanding of the relative importance of the tree to the environment. The Landscape Significance of a tree is described in seven categories to assist in determining the retention value of trees.

1	Significant	2	Very High	3	High	4	Moderate	5	Low	6	Very Low	7	Insignificant
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ii) Visual Tree Assessment (VTA)

0	If appropriate to VTA - <i>*exempt</i> trees from Local Government Authority (LGA) Tree Management or Preservation Orders (TPO)	2E	Trees location may become or is problematic to infrastructure where risk mitigation or rectification works may likely compromise tree anchorage
1	Trees that are dead, significantly declining >75% volume or <i>obviously hazardous</i>	3	This rating incorporates trees that may require further investigation of defects such as cavities or symptoms indicating internal decay of an extent that cannot be quantified under visual examination. Further inspections may be in the way of arborist climbing inspection within the canopy, root crown investigation and/or drill penetrating or Picus Sonic Tomograph ultrasound testing procedures to determine percentage of internal decay.
2	Trees that are structurally damaged. Have poor structure or weak & detrimental large stem inclusions capable of failure opposed to 2B. Tree also may be affected by fungal pathogens (wood rot) or viruses. Some symptoms may be reversible, remediated or controlled give appropriate management.		
2A	Tree damage specific to basal and/or root plate damage where condition may become problematic in near future / may include trees with included bark splits to ground level	4	Trees which appear specifically environmentally stressed by drought, poor soil or site conditions. Symptoms may be reversible given appropriate management
2B	Defect specific to developing stem inclusions (weak branch attachments) where the condition may not be immediately detrimental however, requires annual to biannual monitoring or control to prevent stem failure by slings, cable or bracing. Tree may also contain multi stems or codominant twin stems	5	Trees that would benefit from crown maintenance pruning as identified within the Australian Standards AS 4373 – 2007 Pruning of Amenity Trees
		5A	Trees that require little or no maintenance at time of inspection other than close monitoring
2C	Tree may contain minor wounds or altered canopies from storm or minor pruning damaged to an extent that is not considered immediately detrimental. May also display average form. Likely to require close annual monitoring or minor corrective pruning	6	Trees may be typical for species type, of good form and visual condition for age class May have suppressed one sided canopies or are low risk trees
2D	Trees significantly altered by recent storm or over pruning events reducing retention value	7	VTA restricted by canopy or plant material vine or ivy covering tree parts, or site conditions which do not allow access- fences or neighbouring sites

iii) Retention Value (RV): Determined by [1] tree free of visual defects and viable for retention, [2] viable for retention with minor faults which may reduce ULE, [3] trees which should not restrict development applications containing faults that are likely to become problematic in the short term, [4] trees to be considered for removal due to average condition.

1	High retention	2	Medium retention	3	Low retention	4	Consider removal
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iv) U.L.E. categories Useful Life Expectancy (after Barrell 1996, modified by the author). A trees U.L.E. category is the life expectancy of the tree modified first by its age, health, condition, safety and location. U.L.E. assessments are not static but may be modified as dictated by changes in trees health and environment.

1. Long U.L.E. - Appear retainable at the time of assessment for over 40 years with an acceptable degree of risk assuming reasonable maintenance.
2. Medium U.L.E. - Appear to be retainable at the time of assessment for 15 to 40 years with an acceptable degree of risk assuming reasonable maintenance.
3. Short U.L.E. - Trees appear to be retainable at the time of assessment for 5 to 15 years with an acceptable degree of risk assuming reasonable maintenance.
4. Very short - Removal- Trees which should be scheduled for removal within the very short term or as specified within this report.
5. Small, young or regularly pruned – Trees under 5m in height that can be easily moved or replaced, includes screen plantings or hedge lines.

APPENDIX- C: Tree Assessment Schedule

Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification							Trees with low retention values: senescence, developing defects or being *exempt trees from the LGA Tree Preservation Order (TPO)					
Tree No	Botanical Name COMMON NAME	Height x spread (m)	DBH (mm)	SRZ TPZ	Age	Health	Condition	Significance	VTA	RV	ULE	Comments
1	<i>Ficus rubiginosa</i> Port Jackson Fig	7 x 6	400	2.4 4.8	ESM	Fair / Good	Fair / Poor	3	2A	3	<3	Past root damage at base may become problematic in future = low retention value
*2	<i>Jacaranda mimosifolia</i> Jacaranda	7 x 8	350	2.3 4.2	ESM	Fair	Fair	4	0/4	2	<3	Exempt tree species. Located on rock, likely shallow root anchorage, decline in canopy with part structural decline evident = low retention value
3	<i>Ficus rubiginosa</i> Port Jackson Fig	6 x 8	200+	1.8? 2.4?	ESM	Fair / Good	Good	3	4	1	2	Slight decline in canopy, root attachment to rock escarpment = SRZ & TPZ likely to be greater, broad canopy form to STH
4	<i>Pittosporum undulatum</i> Native Daphne	5 x 5	300at base	2.1 3.6	ESM	Fair / Good	Fair / Good	4/3	2C	3	3	Central; tem in structural decline with typical Pittosporum borer throughout canopy – located on rock
*5	<i>Ligustrum lucidum</i> Broad Leaved Privet	5 x 6	200at base	1.6 2.4	ESM	Good	Fair / Good	4	0	2B	3	Exempt tree species, Slight developing stem inclusion on lower trunk attachments
*6 x2	<i>Ligustrum lucidum</i> Broad Leaved Privet	6 x 6	200	1.8 2.4	ESM	Good	Fair / Good	4	0	2C	3	Exempt tree species

