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18 January 2020

THOMPSON HEALTH HORNSBY
65 – 71 BURDETTE STREET
HORNSBY, NSW

PROPOSED AGED CARE FACILITY DEVELOPMENT PROPOSAL

ARBORICULTURAL IMPACT ASSESSMENT REPORT
Report Ref No- RTC-1520

Prepared for
Thompson Health Care
C/- Gartener Trovato Architects
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AQF Level 5 Consulting arborist

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INTRODUCTION

This report has been commissioned by Thompson Health Care C/- Gartner Trovato Architects 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 an Aged Care Facility within sites formally identified as Lots 1, 2 & 3 in DP 379371 and Lot 1 in DP 6345 known as No's 65, 67, 69 & 71 Burdette Street HORNSBY NSW.

Recommendations for retention or removal of trees is based on the trees condition, accorded ULE category and potential impacts that may occur to trees under this development application.

Within a notional root zone radius development encroachments and occupancy within tree protection zones are referred to as Major (>10%) or Minor (<10%) incursions explained as No impact (0%) incursion, Low impact (<10%) of minor consequence, Medium or moderate impact (<20%) incursion where the project arborist is to demonstrate the tree(s) remain viable by tree sensitive construction techniques, and High level impact (>20%) where design changes or further information is required to manage tree vitality. Where site restrictions within notional root zone radiuses exists development impacts or occupancy disturbances within tree protection zones are determined based on authors experience, observations of site conditions, soil type and topography.

The trees assessed have been identified by their accorded tree number corresponding with tree numbers provided within Survey Plan ref No.2908, and are referenced by number throughout this report. For additional prescribed trees not plotted on provided documentation their location has been estimated by taking offsets from existing trees and structures. The trees and their location may be referenced within the Tree Assessment Schedule and Tree Location Plan Appendices C and D, where a full sized Survey Plan is recommended to be used in conjunction with this report.

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.

METHODOLOGY

i In preparation for this report a limited site and ground level Visual Tree Assessment (VTA) was conducted on Monday 21st October 2019 by the author of this report. The principles of VTA were primarily adopted from components of Mattheck *& Breloer* 1994 '*The Body Language of Trees*' with very basic risk values determined by criteria explained within the ISA TRAQ 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 shown within Appendix- B.

ii The inspection was limited to a visual assessment from within the subject site where 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). The height of palms was taken from ground level to the top of the crown shaft only, and excludes the central apical spear projection.

iii This report utilizes the current Australian Standards 'Protection of Trees on Development Sites' AS 4970 – 2009 as explained within Notes of Appendix- A. To retain specific trees and ensure their viability development must take into consideration protection of the Tree Protection Zone (TPZ) radius as identified within Appendix- A Notes: *acceptable incursions*. As a guide to determining impacts the Structural Root Zone (SRZ) & Tree Protection Zone (TPZ) setbacks have been provided within Appendix- C the SRZ & TPZ distance column.

Unless specified otherwise all distances and development offsets within this report are taken from the centre of the tree.

iv Plans and documentation received to assist in preparation of this report include:

Gartner Trovato Architects Project No: 1814 (Preliminary WIP)

- Site Demolition Plan Dwg No. DA01 rev -- dated March 2019
- Site / Roof Plan Dwg No. DA05 rev 08 WIP dated 17.12.19
- Basement – Car Park level Dwg No. DA06 rev 08 WIP dated 17.12.19
- Lower Ground Floor Plan Dwg No. DA07 rev 08 WIP dated 17.12.19
- Ground Floor Plan Dwg No. DA08 rev 08 WIP dated 17.12.19
- Sections Dwg No. DA13 & 14 rev -- dated March 2019
- Elevations Dwg No. DA10 & 11 rev 08 WIP dated 17.12.19

Mepstead & Associates

- Survey Plan Drawing ref No. 2908 rev A dated 12.12.2016

1. SUMMARY OF ASSESSMENT

1.1 General tree assessment

1.1.1 One hundred and six (106) trees or clumps of have been assessed under this development proposal with smaller shrubs at or <3m in height located within the assessment area. Of the trees surveyed nine (9) trees are not located. Of the remaining trees six (6) are Council managed trees, sixteen (16) are neighbouring trees, twelve (12) trees contain low retention values, sixteen (16) are non-prescribed exempt trees and one (1) tree is dead having likely high habitat values.

Trees not located are identified as trees: 28, 33, 37, 43, 44, 45, 46, 47 & 53.

Dead and potentially high risk tree is identified as tree: 71. The tree contains likely high habitat values with a bee hive located at near 6m above ground level on the NE side.

Exempt trees are identified as trees: 3, 4, 5, 6, 7, 8, 9, 13, 15, 29, 32, 40, 41, 42, 65 & 95.1. Being non-prescribed trees and exempt from protection the trees are permitted to be managed (pruned, removed or relocated) without Council consent. Should an exempt specimen require retention prior to works occurring within specified Tree Protection Zone (TPZ) setbacks further advice from an appointed project arborist is required.

Low retention value trees are identified as trees: 9.1, 10, 11, 20, 34, 57, 59, 63, 68, 78, 88 & 98. The trees have been assessed as containing structural decline having low remaining safe site usefulness. The trees are considered trees which should not restrict development applications due to their short remaining life expectancies.

Neighbouring trees are identified as trees: 22, 23, 24, 25, 26, 27, 35, 36, 38, 39, 54, 55, 56, 97, 99 & 100. The majority of trees are located at setbacks where the building footprint is likely to have negligible encroachments within their tree protection zones

Council verge or managed trees are identified as trees: 17, 48, 49, 50, 51 & 52. Similar to neighbouring trees the majority of trees are located at setbacks where the building footprint is likely to have negligible encroachments within their tree protection zones. With the exception of T48 tree sensate design works are required to ensure underlying tree roots are not disrupted within the trees Structural Root Zone (SRZ).

1.1.2 With exception of high risk or hazardous trees the trees assessed are considered viable for retention without change in existing site conditions or modification within their Tree Protection Zone (TPZ) radiuses, refer Appendix- C the SRZ & TPZ distance column.

1.2 Prescribed tree removal to accommodate design

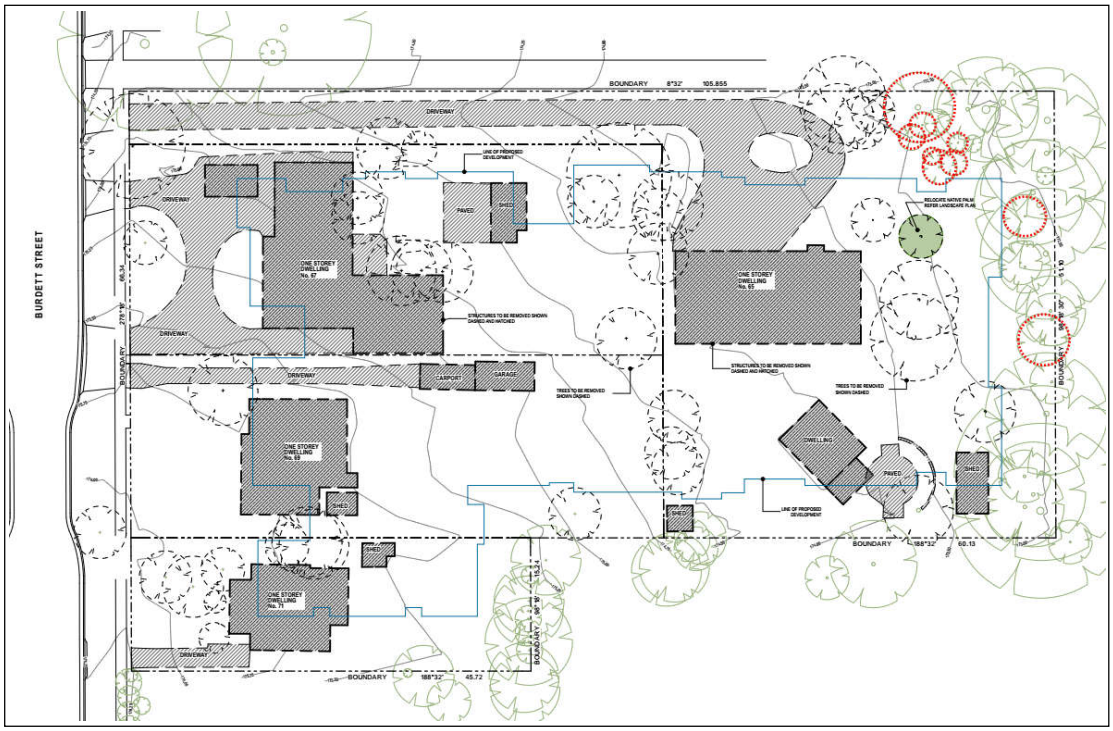
1.2.1 In summary, the following thirty three (33) prescribed trees require or are recommended for removal to accommodate design.

- T1, 2, 9.1, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 57, 58, 59, 60, 60.1, 61, 62, 63, 66, 67, 68, 71, 78, 82, 83, 84, 85, 88, 91 & 98

Of the above trees those with low retention values are trees

- 9.1, 10, 11, 20, 34, 57, 59, 63, 68, 71, 78, 88 & 98, with T17being a Council verge tree.

Figure 1, showing proposed demolition & tree removal plan



1.3 Discussions of development impacts – *prescribed trees*

Tree removal

1.3.1 Trees which fall within the proposed building footprint or receive high level encroachments within Structural & Tree Root Zone areas requiring removal to accommodate design are identified as follows:

- Trees which fall within proposed building and road infrastructure footprints, or receive high level SRZ impacts by the designed footprint are identified as trees 1, 9.1, 10, 11, 12, 14, 16, 19, 20, 21, 82, 83, 84, 85, 91 & 98.
- Trees receiving high level TPZ encroachments where design footprints (driveway & minor infrastructure) requires the removal of trees due to TPZ occupancy that will likely disrupt tree vitality are identified as trees 2, 17 & 18. Of these trees Council verge T17 will be affected by the proposed driveway crossover servicing the main entrance area.
- Trees specified for removal where deep driveway excavation for basement level access will likely disrupt tree anchorage, result in sudden exposure or to make space for new plantings are identified as trees 57, 58, 59, 60, 60.1, 61, 62, 63, 66, 67 & 68. Of these trees T57, 59, 63 & 68 contain low retention values having structural faults that are likely to become problematic in the future.
- Additional structurally defective trees recommended for removal are trees 78 & 88.

Neighbouring & Council verge tree discussions

1.3.2 In summary of the documentation reviewed the following discussions and recommendations are provided:

- Trees 22, 23, 24, 25, 26, 97 & 100: being palm trees with adventitious root systems the footprint of design is located outside of tree protection zones radiuses indicating a negligible impact by the proposal.
- Tree 27: a negligible occupancy within the trees 2.4m TPZ is proposed.
- Tree 99: a Minor and manageable (10 -15%) encroachment within the trees 7.2m TPZ occurs where the building footprint is located near 5.6m from the tree. Excavation impact is considered negligible where no over excavation within the TPZ should occur to accommodate basement cut and lower ground floor level at RL173.10.
- Trees 35, 36, 38 & 39: a negligible occupancy within tree protection zones is proposed with building setbacks located at or outside of TPZ radiuses.
- Trees 48 to 52: Tree 48 requires tree sensitive boundary fence construction methodology to ensure anchoring tree roots are not disrupted with the trees 2m tree protection zone. Clearer more detailed civil design plans are recommended to be reviewed and endorsed by an appointed project arborist prior to works commencing.

  Remaining trees 49 – 52 are located outside of the development area.
- Trees 54, 55 & 56: the trees are located at setbacks where adjacent road infrastructure has likely restricted root encroachments with driveway cut (ramp) located outside of the 6m TPZ of T55.
- Within a notional TPZ radius of T54 & 56 new works propose a Major (>10%) TPZ disturbance where root encroachment has likely been restricted by existing neighbouring and site infrastructure. The proposed driveway and excavation cut for ramp access is mostly located within the footprint of the existing driveway where new placed on existing footprints is unlikely to cause further disruption. Within a notional TPZ radius new works occupy less than 20% of tree protection zones having likely moderate and manageable impact. Appropriate tree protection methodology should occur by direct on site arborist supervision and root management during demolition and excavation activities. The extent of over excavation towards the boundary is to be limited to 300mm beyond the line of cut to avoid additional disturbance within notional TPZ's.

Trees within the site

1.3.3 Encroachment by the proposed development on those trees located within the development site is summarised as follow:

- T30 & 31: a negligible building footprint impact is proposed by design with the building setback located outside of tree protection zone radiuses. Associated infrastructure such as stairs and pathways are to be construed utilizing tree sensitive design to ensure underlying tree roots are not damaged or disrupted by works.
- T34: a Minor (<10%) TPZ occupancy by the corner of the building footprint occurs where the encroachment is likely to have a negligible impact to the already partially defective tree.

Northern boundary trees

1.3.4 A specific tree protection and management area has been provided for trees located along the northern boundary where an 8m building setback is proposed. The 8m setback is to be considered a tree protection area (TPA) where direct project arborist advice including site supervision for tree protection, fence & ground management (irrigation & mulching) is to be installed and certified prior to demolition and basement excavation.

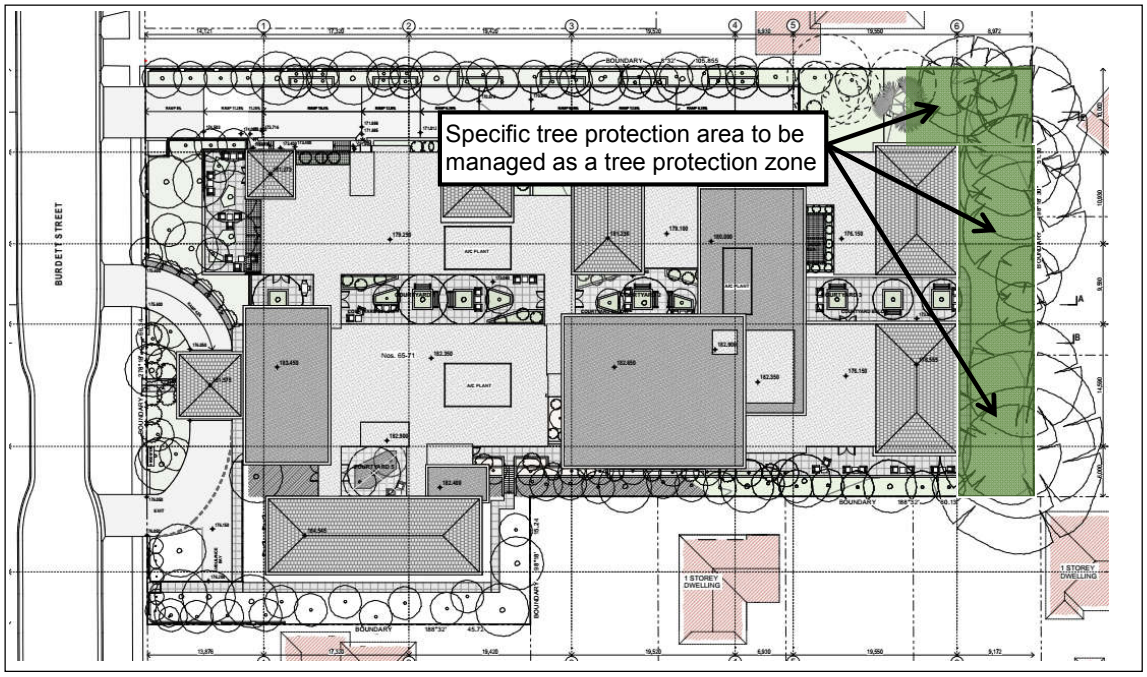
There is to be no disturbance, soil level change or access within the fenced tree protection area without prior project arborist certification and advice.

1.3.5 Those trees identified as having low level impacts where the 8m building setback is located outside of tree protection zones are identified as trees 64, 69, 70, 71, 72, 73, 74, 75, 76, 78.1, 80, 81, 86, 87, 89, 92.1, 92.2 & 95. Of these trees T71 is recommended for removal as exposure by loss of adjacent trees and degrading (dead & decaying) anchoring root zone will eventually result in collapse of the dead tree.

Excluding minor above ground pathways and infrastructure trees receiving Minor and manageable (10% to <15%) building encroachment within TPZ's are identified trees 77, 79, 92, 90, 93, 94 & 95.

Tree 96 encounters the highest TPZ disturbance which includes coverage by minor pathway infrastructure. The overall TPZ disturbance is still considered somewhat minor and manageable (<10%) as an existing garage is located within the trees 12m TPZ. The hard surface and garage foundations may have restricted radial root development towards the building footprint having the ability to minimise the overall TPZ disturbance.

Figure 2, showing development footprint & specific tree protection area



2. CONCLUSIONS & RECOMMENDATIONS

2.1 Tree Removal

2.1.1 Under the current proposal and with the consent of Council thirty two (32) trees require or are recommended for removal to accommodate design. The thirty two trees are identified as trees: 1, 2, 9.1, 10, 11, 12, 14, 16, 17, 18, 19, 20, 21, 57, 58, 59, 60, 60.1, 61, 62, 63, 66, 67, 68, 71, 78, 82, 83, 84, 85, 88, 91 & 98.

Exempt non-prescribed trees permitted to be managed (pruned, removed or relocated) without the consent of Council are trees 3, 4, 5, 6, 7, 8, 9, 13, 15, 29, 32, 40, 41, 42, 65 & 95.1.

2.2 Recommended tree management & protection principles

2.2.1 In addition to the recommendations provided within this report and Australian Standard AS4970 – 2009 Protection of Trees on Development Sites the following summary and/or additional recommendations are provided as a guide for tree protection during works:

Specific recommendations

1. Northern boundary trees 64 to 95
    - To minimise encroachments within TPZ's there is to be no additional excavation beyond the proposed building footprint as detailed within construction drawings.
    - All excavations are to be supervised and certified by an appointed project arborist ensuring all encountered tree roots are appropriately managed.
    - Prior to demolition and basement cut a fenced tree protection zone is to be constructed at or near the extremity of TPZ radiuses as identified within Appendix- C, the SRZ & TPZ column.
    - Where reduced tree protection fencing is required the location of tree protection fencing is to be installed under the guidance and certification of an appointed project arborist.
    - For the purpose of upper level construction tree protection fencing should be reduced and located no less than 6m from the rear boundary. The fence is to be secured in place to prevent unauthorized alteration and access within the protection area.
    - With reduced tree protection fencing ground protection mats placed between the building and fenced TPA is to be constructed as indicated within Figure 3 – *ground protection*.
    - Within the fenced tree protection area irrigation and mulching of the entire protection zone shown in Figure 2 is recommended.
    - The fenced tree protection area is to be considered a development exclusion zone where no site access or modification of site conditions are to occur without prior arborist advice.
2. Trees 54 & 56
    - Within tree protection zones excavation to accommodate the driveway cut is to be supervised and certified by an appointed project arborist managing all encountered tree roots.

2.2.2 *General requirements & guidelines*

1. Prior to demolition works Tree Protection Fencing (TPF) and/or zones as identified within Figure 3 are recommended to be located under the guidance of an appointed site arborist. Unless specified otherwise the location of tree protection fencing is to be positioned to allow for adequate work access and/or be located at the extremity of the TPZ radius, see SRZ & TPZ distance column Appendix- C.

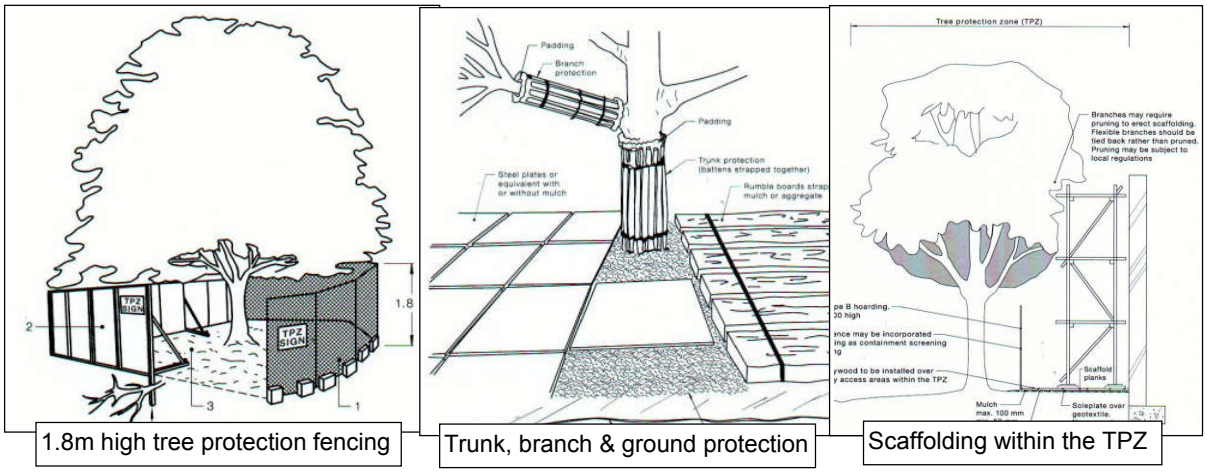
   Where design & construction access may be restrictive timber beam trunk protection is recommended to be installed, with ground protection mats provided to protect underlying tree roots within tree protection zones or specified tree protection area (TPA).

2. In accordance with AS4970 - 2009 (1.4.4) a Project Arborist is to be engaged to monitor, supervise excavation within TPZ setbacks, advise and provide certification of protection works conducted. The project arborist is recommended to be suitably qualified having a minimum Australian Qualification Framework (AQF) Level 4 certification and be competent in methodology of protecting trees on development sites.

3. The project arborist is to provide final certification outlining tree protection measures with photographic evidence of ongoing works retained for certification purposes (AS4970 S/5.5.2 *Final certification*).

4. The project arborist is to be familiar with protection measures specific to Australian Standard AS4970 'Protection of Trees on Development Sites' – 2009 requirements with any modification in Tree Protection Fencing (TPF) or Zones (Z) to be compliant with AS4970 Section 4.5 *Other Tree Protection Measures.*

Figure 3: tree protection fencing, ground and trunk protection detail



1.8m high tree protection fencing | Trunk, branch & ground protection | Scaffolding within the TPZ

All tree protection fencing requires appropriate signage clearly stating *a TPZ restriction area* being a designated Tree Protection Zone.

5. ***Hold points***: Hold points specific to *no works are to commence without arborist advice, inspections & certifications*: 1) No works shall occur within the SRZ without prior arborist advice and certification. 2) No excavation shall occur within the TPZ without prior project arborist notification and/or site supervision.

   It is the responsibility of the principle contractor to complete each task identified within Table 1 to ensure trees are appropriately managed in accordance with Australian Standard AS 4970 – 2009 Protection of Trees on Development Sites.

Table 1, certification requirements & hold points

1	Pre-construction	Clearly tag and number all trees for removal & retention
		Prior to works install tree protection fencing & zones as specified or as directed by the site arborist
2	During construction	Project arborist to supervise & certify approved works within the tree protection zones
		Engage project arborist to undertake routine site inspections at six (6) week intervals
3	Post construction	Prior to handover project arborist to provide final inspection & certification of tree health & vitality

6. Unless specified otherwise during approved excavation within TPZ setbacks excavation is to be conducted manually (by hand) under the supervision of an appointed project arborist. Where approved by the arborist the pruning of roots at or <30mm(Ø) is to be conducted in accordance with AS4970 – 2009 Section 4.5.4 *Root protection during works within the TPZ*, such that tree roots are not damaged or ripped beyond the point of excavation by site machinery. Where larger roots have been encountered they are to be referred to an independent Level 5 arborist for further advice. For deep excavations exposed roots at the excavated cut face are to be protected with jute mesh, geotextile fabric or similar being secured in place to avoid drying of roots and the exposed soil profile.
7. The storage of materials and fill within tree protection zones or areas is to be avoided. Should storage be required further advice and certification from the appointed project arborist is recommended.
8. *Canopy pruning / tree removal:* where required tree removal and canopy reductions are to be approved by the Local Government Authority. Works are to be conducted by a suitably qualified AQF Level 3 arborist in accordance with AS4373 Pruning Standards, and specifically be conducted in accordance with Safe Work Australia – Guide to managing risks of tree trimming and removal works 2016 (www.swa.gov.au).
9. *Boundary fence and minor retaining wall construction*: to avoid disturbance to underlying tree roots boundary fences and landscape retaining walls should span across the SRZ being suspended above ground level supported by pier and beam construction within the TPZ.

10. *Additional inground services* which may include landscape works, sewer, stormwater, water and electrical services, final design and impact to trees shall be reviewed and endorsed by the project arborist prior to their installment.
11. To ensure tree(s) are appropriately protected the development site superintendent is recommended to be familiar with all tree protection requirements as outlined within this report. The superintendent is responsible for informing all subcontractors of the responsibilities and requirements of tree protection prior to their engagement.

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: ISA, Arboriculture Australia & IACA, Working With Children No: WWC0144637E

APPENDICES

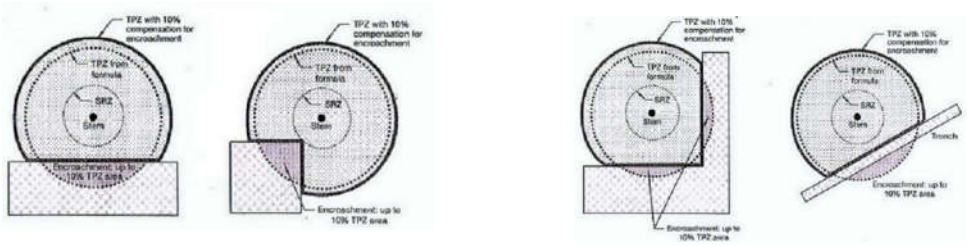
APPENDIX- A: Terminology, notes & references

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. (LM) Late mature refers to a tree entering into over maturity (OM) and likely first stages of senescence. **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 week 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.

NOTE 1: 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.

NOTE 2: The extent of inclusion within the TPZ radius has been categorised as follows:
Development encroachments are referred to as No impact (0%) incursion, Low impact (<10%) of minor consequence, Medium impact (<20%) incursion where the project arborist is to demonstrate the tree/s remain viable by tree sensitive construction techniques, and High level impact (>20%) where design changes or further information is required to manage tree vitality.

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.
Hornsby Council DCP 2013 – General / Revision 22 dated February 2018

APPENDIX- B: Tree Retention Value *Checklist* ©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, are based after IACA Sustainable Retention Index Value (SRVI) which offer a visual understanding of the relative importance of the tree to the environment. The Landscape Significance for this assessment 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

ii) Visual Tree Assessment (VTA)

0	If appropriate to VTA - **exempt* trees from Local Government Authority (LGA) Tree Management or Preservation Orders (TPO)	2E	Trees location likely to be affected by infrastructure restricting root growth potential, or tree has potential to cause infrastructure damage where risk mitigation or rectification works may likely compromise tree, trees may be contained within a vault having restricted root development / anchorage
0A	Noxious or invasive species located within heritage conservation area		
1	Trees that are dead, significantly declining >75% volume or obviously hazardous	3	This rating incorporates trees that may require further investigation of defects such as cavities or symptoms indicating internal decay to 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 or failure opposed to 2B. Tree also may be affected by extensive borer damage, 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, very shallow soils or steep topography resulting in poor anchorage 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 stem inclusions development (weak branch attachments) where the condition may not be immediately detrimental however, require annual to biannual monitoring with control to prevent stem failure by installing 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, pest or minor pathogen activity, altered from storm 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 which may reduce retention values due to average form- or tree extensively pruned for power line clearance	7	VTA restricted by canopy or plant material vine or ivy covering tree parts, or site conditions which do not allow access- fences to neighbouring sites

iii) Retention Value (RV): Determined by [1] tree fee 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

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 to15 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	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
1	*Jacaranda mimosifolia* Jacaranda	11 x 12	3x 300	3.1m / 10.8	ESM	Good	Fair / Good	3	2B	2	2	Deciduous at time of inspection, 3x stems, central junction with stub end decline S side, low broad form
2	*Malus sp* Crabapple tree	5 x 6	350at base	2.1 / 4.2	M	Good	Fair / Good	4/3	2B/C	2	3	Multi stems at 0.7m with minor stem inclusion development & stub end decay sections at 0.5m E
*3	*Syagrus romanzoffiana* Cocos Palm	10 x 7	350	2.3 / 4.2	SM	Good	Good	4	0/6	1	2	Exempt palm species
*4	*Hyophorbe lagenicaulis* Bottle Palm	2.5 x 3	250	- / 2.5	ESM	Fair / Good	Good	4	6	1	2/5	Exempt palm species height class <3m tall
*5	*Phoenix canariensis* Phoenix Palm	1.5 x 3	750	- / 2.5	I	Good	Good	5	6	1	2/5	Exempt palm species height class <3m tall
*6	*Plumeria sp* Frangipani	4 x 3	250at base	1.8 / 3	ESM	Good	Fair / Good	5	6	1	2/5	Exempt tree species within 3m of dwelling, deciduous at time of inspection
*7	*Syagrus romanzoffiana* Cocos Palm	7 x 6	250	- / 4	ESM	Good	Good	4	0/6	1	2	Exempt palm species
*8	*Syagrus romanzoffiana* Cocos Palm	8 x 6	300	- / 4	ESM	Good	Good	4	0/6	1	2	Exempt palm species
*9	*Syagrus romanzoffiana* Cocos Palm	10 x 7	300	- / 4.5	ESM	Good	Good	4	0/6	1	2	Exempt palm species
9.1	Ulmus glabra 'Lutescens' Golden Elm	6 x 4	250at base	1.8 / 3	ESM	Good	Fair / Good	4	2A	3	4	Deciduous at time of inspection, main twin stems included to ground level = low retention value
10	*Macadamia integrifolia* Macadamia	7 x 4	300at base	2 / 3.6	ESM	Fair	Fair	4	2/4	3	3	Environmentally stressed, structurally defective tree N side = low retention value
11	*Fraxinus sp* Ash tree	11 x 14	450	2.5 / 5.4	SM	Good	Fair / Poor	4/3	2/3	3	3?	Large & deep cavity at 0.5m N, basal swelling reaction wood, slight lean S with open seam wound at 6m S & W stem = low retention value

	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	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
12	*Brachychiton acerifolius* Illawarra Flame Tree	12 x 5	500	2.6 / 6	ESM	Good	Fair / Good	4	2B	2	2	Near fully deciduous at time of inspection, suppressed canopy form biomass NE, twin stems at 1.5m with minor stem inclusion development
*13	*Syagrus romanzoffiana* Cocos Palm	11 x 6	250	- / 4	SM	Good	Good	4	0/6	1	2	Exempt palm species
14 x3	*Archontophoenix cunninghamiana* Bangalow Palm	av 10 x 5	av 250	- / 3.5	SM	Good	Fair / Good	4	2A	2	3	3x stems at ground level displaying average and restricted anchoring root development
*15	*Morus sp* Mulberry	6 x 6	550	2.7 / 6.6	SM	Good	Poor	5	0/2	3	<3	Exempt tree species in structural decline
16	*Phoenix canariensis* Phoenix Palm	6 x 6	600	- / 4	SM	Good	Good	3	6	1	2	Palm with no significant defects noted
17 CV	*Sapium sebiferum* Chinese tallow	8 x 6	350	2.3 / 4.2	ESM	Fair / Good	Fair / Good	3	2C	2	2	Slightly environmentally stressed with slight decline in canopy E side
18	*Araucaria heterphylla* Norfolk Island Pine	11 x 6	400	2.4 / 4.8	ESM	Good	Fair / Good	4	6	1	1	Suppressed canopy form & low foliage volume S side to 6m with minor trunk sweep from suppression
19	*Hymenosporum Flavum* Native Frangipani	9 x 5	400	2.4 / 4.8	EM	Poor	Fair	4	4	3	3	Environmentally stressed with significant decline throughout canopy
20	*Syzygium luehmannii* Small leaved Lillypilly	7 x 5	150, 200	2.1 / 4.2	ESM	Good	Fair	3	2A	3	3	Twin stems at ground level with stem inclusion development = low mid to long term retention value
21	*Macadamia integrifolia* Macadamia	6 x 5	150, 200	2.1 / 4.2	SM	Fair / Good	Fair / Good	4/3	2B	2	2	Twin stems at 0.5m with minor stem inclusion development , slightly low foliage volume evident
22 NT	*Archontophoenix cunninghamiana* Bangalow Palm	8 x 3	150	- / 2.5	SM	Good	Good	4	7	1	2	Above ground visual parts appear in good order
23 NT	*Archontophoenix cunninghamiana* Bangalow Palm	7 x 3	150	- / 2.5	SM	Good	Good	4	7	1	2	Above ground visual parts appear in good order

	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	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
24 NT	*Archontophoenix cunninghamiana* Bangalow Palm	6 x 3	150	- / 2.5	SM	Good	Good	4	7	1	2	Above ground visual parts appear in good order
25 NT	*Syagrus romanzoffiana* Cocos Palm	13 x 6	300	- / 4	SM	Good	Good	4	7	1	2	Above ground visual parts appear in good order
26 NT	*Syagrus romanzoffiana* Cocos Palm	10 x 6	300	- / 4	SM	Good	Good	4	7	1	2	Above ground visual parts appear in good order
27 NT	*Michelia champaca* Champak Magnolia	8 x 6	200	1.8 / 2.4	ESM	Good	Good	4/3	7	1	2	Above ground visual parts appear in good order
28	Not located – removed tree	-	-	/ -	-	-	-	-	-	-	-	Tree not located
*29	*Schefflera actinophylla* Umbrella Tree	7 x 7	600	2.7 / 7.2	ESM	Good	Fair / Good	4	0/2B	2	2	Exempt tree species. Multi stemmed at base, with typical stem inclusion development
30	*Jacaranda mimosifolia* Jacaranda	15 x 11	400	2.4 / 4.8	ESM	Good	Good	4/3	6	1	2	Deciduous at time of inspection, slight lean and suppressed canopy form E
31	*Jacaranda mimosifolia* Jacaranda	15 x 13	250, 350	2.7 / 7.2	ESM	Good	Fair / Good	4/3	2C	2	2	Deciduous at time of inspection, E stem with minor wound at 1.4m NW, W stem with torsion loaded reaction wood
*32	*Phoenix canariensis* Phoenix Palm	1 x 5	750	- / 3.5	I	Good	Good	5	0/6	1	2/5	Exempt tree species height class <3m
33	Not located – removed tree	-	-	/ -	-	-	-	-	-	-	-	Tree not located
34	*Jacaranda mimosifolia* Jacaranda	14 x 14	750at base	2.8 / 9	SM	Good	Fair / Good	4/3	2C	3	3	Deciduous at time of inspection, multi stemmed at base, with evidence of potential fungal activity = low retention value
35 NT	*Eriobotrya japonica* Loquat	8 x 5	200	1.8 / 2.4	ESM	Good	Good	5	2B	2	2	Twin stems at 2.2m with minor stem inclusion development
36 NT	*Eriobotrya japonica* Loquat	6 x 7	200	1.8 / 2.4	ESM	Good	Fair	5	2D	2	3	Central stem failure at 3m modifying canopy form

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Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ	Age	Health	Condition	Signifi -cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
37 NT	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
38 NT	*Annona atemoya* Custard Apple Tree	6 x 5	200	1.8 / 2.4	ESM	Good	Good	4	7	1	2	Above ground visual parts appear in good order
39 NT	*Pittosporum undulatum* Native Daphne	3 x 3	250	2 / 3	ESM	Fair / Poor	Poor	6	2	3	4	Lopped at 2.2m, epicormic shoot development throughout with decay at main junction
*40	*Ligustrum sinense* Small Leaved Privet	4 x 4	200at base	1.6 / 2.4	ESM	Good	Good	6	0/6	1	2	Exempt tree species
*41	*Syagrus romanzoffiana* Cocos Palm	7 x 6	300	- / 4	ESM	Good	Fair	4	0/2A	3	3	Exempt palm species, average anchoring root development
*42	*Ligustrum lucidum* Broad Leaved Privet	8 x 5	250	2 / 3	ESM	Fair / Good	Fair / Good	6	0/2	3	3	Exempt tree species
43	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
44	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
45	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
46	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
47	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
48 CV	*Cupressus sempervirens* 'Totem' Column Cypress	8 x 1.5	150	1.6 / 2	ESM	Good	Fair	4	2D	3	3	Pruned for driveway clearance with suppressed canopy form = canopy of poor form, where location to infrastructure likely to become problematic in the future

	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	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
49 CV	*Cupressus leylandii* Leyland Green Cypress	7 x 5	300	2.1 / 3.6	ESM	Good	Fair / Good	4/3	2E	2	3	Location to infrastructure likely to become problematic in the future, with stem inclusion development throughout lower branch scaffolds
50 CV	*Cupressus leylandii* Leyland Green Cypress	7 x 3	200	1.8 / 2.4	ESM	Good	Fair / Good	4/3	2C	2	2	Location to infrastructure likely to become problematic in the future, minor wound at 0.3m, potentially past topped tree at 2.2m
51 CV	*Cupressus leylandii* Leyland Green Cypress	6 x 4	200	1.8 / 2.4	ESM	Good	Fair / Good	4/3	2B	2	2	Multi stemmed at 2m with minor stem inclusion development
52 CV	*Cupressus leylandii* Leyland Green Cypress	7 x 4	250	2 / 3	ESM	Good	Fair / Good	4/3	2B/C	2	2	Minor stem inclusion development at 2m where location to infrastructure likely to become problematic in the future
53 NT	Not located – removed tree	-	-	-	-	-	-	-	-	-	-	Tree not located
54 NT	*Pinus radiata* Monterey Pine	24 x 26	1000	3.4 / 12	LM	Fair / Good	Fair / Good	3	4	2	3	Environmentally stressed, decline in canopy with large diameter deadwood evident
55 NT	*Eucalyptus haemastoma* Scribbly Gum	7 x 4	500	2.6 / 6	SM	Fair / Good	Poor	5	2	4	4	Structurally defective tree throughout
56 NT	*Cinnamomum camphora* Camphor Laurel	17 x 16	950at base	3.3 / 11.4	EM	Fair	Fair	4/3	4	2	3	Environmentally stressed, significant decline in canopy with low foliage volume
57	*Syncarpia glomulifera* Turpentine	16 x 11	650	2.8 / 7.8	SM	Good	Fair	2	2	3	<3	Defined stem inclusion development at 8m with large reaction wood development – likely to become problematic in the future, torsion twisted lower trunk with part stub end wound at 3m N = low mid term retention value
58	*Callistmon salignus* Willow Bottlebrush	13 x 9	3x 300	3.1 / 10.8	M	Good	Fair	3	2	3	3	3x stems at 0.4m, S stem with stem inclusion development, remaining 2x stems W with minor stem inclusion development, past upper branch scaffolds failures evident

	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	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
59	*Callistmon salignus* Willow Bottlebrush	9 x 7	400	2.4 / 4.8	M	Fair / Good	Fair / Poor	3	2/4	3	<3	suppressed canopy form biomass E, twin stems at 1.8m with stem inclusion development, S stem cavity at 3m S side with decline in canopy evident = low retention value
60	*Acmena smithii* Lilly Pilly	9 x 5	200	1.8 / 2.4	ESM	Good	Good	3	6	1	2	Tree with no significant defects noted
60.1	*Hymenosporum Flavum* Native Frangipani	6 x 3	150at base	1.6 / 2	ESM	Fair	Fair / Good	4	4	2	3	Environmentally stressed, low foliage volume with borer wounds at 0.3m & 1.8m E
61 x2	*Archontophoenix cunninghamiana* Bangalow Palm	7 x 3	200	- / 1.5	ESM	Good	Good	4/3	6	1	2	Palm with no significant defects noted
62	*Archontophoenix cunninghamiana* Bangalow Palm	6 x 3	200	- / 1.5	ESM	Good	Good	4/3	6	1	2	Palm with no significant defects noted
63	*Corymbia maculata* Spotted Gum	23 x 11	600	2.7 / 7.2	SM	Good	Fair / Poor	3	2/2A	3	3	Slight lean + weight loaded to S, base with decay damage on N, S & E sides = developing high risk tree of low retention value
64	*Archontophoenix cunninghamiana* Bangalow Palm	10 x 3	200	- / 2.5	ESM	Good	Good	4/3	6	1	2	Palm with no significant defects noted
*65	*Archontophoenix cunninghamiana* Bangalow Palm	3 x 3	150	- / 2.5	ESM	Good	Good	4/3	6	1	2	Exempt palm species height class <3m tall
66 x2	*Archontophoenix cunninghamiana* Bangalow Palm	7 x 4	200	- / 3	SM	Good	Fair	4/3	2A	3	3	Twin stems at ground level with restricted and average anchoring root development
67	*Archontophoenix cunninghamiana* Bangalow Palm	7 x 4	200	- / 3	SM	Good	Good	4/3	6	1	2	Palm with no significant defects noted

	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**	**Signifi -cance**	**VTA**	**RV**	**U. L.E.**	**Comments** CV = Council verge tree NT= Neighbouring tree
68	*Callistmon salignus* Willow Bottlebrush	6 x 3	300at base	2 / 3.6	EM	Fair / Poor	Poor	4	2	3	4	Environmentally stressed low foliage volume, Structurally defective tree throughout with large open cavity at 0.4m S = low retention value
69	*Archontophoenix cunninghamiana* Bangalow Palm	5 x 3	150	- / 2.5	SM	Good	Good	4/3	6	1	2	Palm with no significant defects noted
70	*Syncarpia glomulifera* Turpentine	16 x 9	500	2.6 / 6	ESM	Good	Good	2	6	1	2	Tree with no significant defects noted
71	Eucalyptus sp DEAD TREE	16 x 9	1000	3.3 / -	-	-	-	4	1	4	4	Dead tree with likely habitat values, Structurally defective, weight loaded lean N with Bee Hive 6m NE. Advanced Level 3 risk assessment recommended
72	*Syncarpia glomulifera* Turpentine	20 x 13	550	2.7 / 6.6	EM	Good	Fair / Good	2	2	2	3	Twin stems with stem inclusion development at 7m
73	*Corymbia maculata* Spotted Gum	28 x 14	750	3 / 9	SM	Good	Good	2	6	1	2	Suppressed canopy form biomass – E
74	*Syncarpia glomulifera* Turpentine	22 x 12	450, 400	2.6 / 6.6	SM	Good	Fair	2	2	3	3	Twin stems near ground level with defined stem inclusion development & reaction wood on both sides of junction – likely to become problematic in the future, with weight loaded & suppressed canopy form biomass E
75	*Pittosporum undulatum* Native Daphne	5 x 3	200at base	1.6 / 2.4	ESM	Fair / Good	Fair / Good	4	4	2	3	Upper branch scaffolds with structural failures & past damaged limbs evident
76	*Syncarpia glomulifera* Turpentine	20 x 12	550	2.7 / 6.6	SM	Good	Fair / Good	2	2B	2	2	Twin stems at 7m with minor stem inclusion development
77	*Corymbia maculata* Spotted Gum	23 x 15	700	2.8 / 8.4	SM	Good	Fair / Good	2	2C/3	2	3	Ground level wounds with open wound wood faces on S & E side = potential pathogen infection + likely to become problematic in the future, upper branch scaffolds with very slight decline

	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	Signifi -cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
78	*Leptospermun petersonii* Lemon Scented Tea Tree	8 x 5	450at base	2.4 / 5.4	M	Good	Poor	4/3	1	4	4	Structurally defective tree with past failures and fungal conks evident = low retention value
78.1	*Leptospermun petersonii* Lemon Scented Tea Tree	9 x 7	300at base	2 / 3.6	M	Good	Good	4/3	6	1	2	Tree with no significant defects noted
79	*Corymbia maculata* Spotted Gum	22 x 15	700	2.8 / 8.4	EM	Good	Good	2	6	1	2	Suppressed canopy form biomass – S with no significant defects noted
80	*Callistmon salignus* Willow Bottlebrush	9 x 5	250	2 / 3	ESM	Good	Fair / Good	4/3	2C	2	3	Suppressed canopy form, slight sweeping trunk bow S with minor wounds at base NE
81	*Pittosporum undulatum* Native Daphne	6 x 4	200	1.8 / 2.4	ESM	Fair / Good	Fair / Good	4	2C/4	2	3	Structural failures in upper branch scaffolds with slight decline in canopy
82	*Livistona australis* Cabbage Palm	6 x 4	300	- / 3	ESM	Good	Good	3	6	1	2	Palm with no significant defects noted
83	*Nyssa sylvatica* Tupelo	5 x 6	200	1.8 / 2.4	ESM	Good	Good	4	6	1	2	Tree with no significant defects noted
84	*Malus sp* Crabapple tree	8 x 9	500at base	2.5 / 6	LM	Good	Fair / Good	4	2C	2	2	Open wound & cavity at 2m S, with minor stub end decay sections evident
85	*Melia azedarach* White Cedar	15 x 12	800at base	3 / 9.6	OM	Good	Fair / Good	4	2C	2	3	Open cavity at 2.2m S, structural wound at 2.2m N = aging specimen tree with hollow at 1.6m S having likely column of decay to ground level
86	*Syncarpia glomulifera* Turpentine	14 x 9	350	2.3 / 4.2	ESM	Good	Good	2	6	1	2	Tree with no significant defects noted
87	*Brachychiton acerifolius* Illawarra Flame Tree	13 x 9	300	2.1 / 3.6	ESM	Good	Good	4/3	6	1	2	Suppressed canopy form with no significant defects noted
88	*Leptospermun petersonii* Lemon Scented Tea Tree	10 x 7	350	2.3 / 4.2	M	Fair / Good	Poor	4	1	4	4	Structurally defective tree with cavity and fungal conks at 0.8m S side = low retention value

	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	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
89	*Pittosporum undulatum* Native Daphne	6 x 6	350at base	2.1 / 4.2	ESM	Fair / Good	Fair	4/3	2C	2	3	Upper branch scaffold wounds & past failures evident
90	*Syncarpia glomulifera* Turpentine	16 x 13	800	3 / 9.6	SM	Good	Fair / Good	2	2B	2	2	Minor stem inclusion development at 3 & 5m S
91	*Carya illnoinensis* Pecan Tree	12 x 10	200, 200	2.3 / 4.8	ESM	Good	Good	4	6	1	2	Twin stems with S stem containing slight lean, suppressed canopy form & no significant defects noted
92	*Corymbia maculata* Spotted Gum	25 x 17	700	2.8 / 8.4	EM	Good	Good	2	6	1	2	Tree with no significant defects noted
92.1	*Leptospermun petersonii* Lemon Scented Tea Tree	7 x 6	250at base	1.8 / 3	SM	Good	Fair / Good	4/3	2C	2	3	Low bowing sweeping trunk to SE with no significant defects noted
92.2	*Pittosporum undulatum* Native Daphne	9 x 7	200, 150	2.1 / 4.2	SM	Good	Fair / Good	4/3	2C	2	3	One sided canopy biomass E, with past upper branch scaffold failures
93	*Syncarpia glomulifera* Turpentine	14 x 11	350	2.3 / 4.2	ESM	Good	Good	2	6	1	1	Tree with no significant defects noted
94	*Corymbia maculata* Spotted Gum	24 x 11	500	2.6 / 6	ESM	Good	Fair / Good	2	2B/C	2	2	Codominant twin stems at 5m, suppressed canopy form with no significant defects noted
95	*Syncarpia glomulifera* Turpentine	15 x 9	450	2.5 / 5.4	ESM	Good	Good	2	6	1	1	Tree with no significant defects noted
*95.1 x5	*Archontophoenix cunninghamiana* Bangalow Palm	av 3 x 3	av 150	- / 2.5	ESM	Good	Good	5	0/6	1	2	Exempt palm species height class <3m
96	*Corymbia maculata* Spotted Gum	24 x 17	1000	3.4 / 12	M	Good	Fair / Good	2	2C	2	2	Crossed branch wound at 8m SW, with no significant defects noted
97 NT	*Syagrus romanzoffiana* Cocos Palm	10 x 6	250	- / 4	SM	Good	Good	4	6/7	1	2	Above ground visual parts appear in good order
98	*Callistmon salignus* Willow Bottlebrush	9 x 8	500	2.6 / 6	M	Poor	Fair / Poor	5	4	3	<3	Tree in structural decline, twin stems with minor stem inclusion development at 1m = low retention value

	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**	**Signifi -cance**	**VTA**	**RV**	**U. L.E.**	**Comments** CV = Council verge tree NT= Neighbouring tree
99 NT	*Jacaranda mimosifolia* Jacaranda	11 x 14	600	2.7 / 7.2	EM	Good	Good	4/3	2C/7	1	2	Above ground visual parts appear in good order
100 NT	*Archontophoenix cunninghamiana* Bangalow Palm	13 x 4	250	- / 3	M	Good	Good	4	7	1	2	Above ground visual parts appear in good order

APPENDIX- D: Tree Location Plan