



# Independent Arboricultural Services



## Arboricultural Impact Assessment

Prepared For: School Infrastructure NSW

Narrabeen Education Precinct

Narrabeen Sports High School  
Narrabeen NSW 2101

18th July 2022

IAS8602



## Independent Arboricultural Services - Disclaimer

The material contained in this document has been prepared on an independent basis free of any bias and represents the honest opinion of the consulting arborist.

Tissue or soil samples have not been collected nor submitted for testing unless otherwise stated. Excavation is limited to minor earthworks and we submit this assessment on the basis that all data is based on visual inspection of the tree/s and its/their location, species, health and condition at the time of writing unless otherwise stated. Measurements and tree locations noted in this report are approximate and have not been determined by survey unless information and analysis has been provided by the consultant or such information is otherwise noted. Please request a more detailed arborist report if further information and analysis is required. Depending on site requirements, specific alternate specialist advice including engineering consultancy and certification maybe required in combination with this assessment. This assessment contains arborist advice and associated general information only and does not purport to provide other site-specific specialist advice such as engineering certification unless arrangement to source such advice for inclusion in this assessment has been requested and authorised.

This report containing opinions, advice and recommendations based on information and data gathered from site inspections carried out by personnel from Independent Arboricultural Services as well as information provided by the client and/or its representatives, is to be relied on by the client in that context. It is assumed that all such information provided to Independent Arboricultural Services is correct. All recommended arboricultural works detailed in this assessment including pruning of tree canopy or roots, tree removal, tree transplantation or other associated works including stump grinding or the application of any prescribed treatment shall be carried out in accordance with applicable standards including Australian Standards AS 4373-2007 Pruning of amenity trees and AS 4970-2009 Protection of trees on development sites.

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The invoice for this report will be issued to the person or entity as per the address advised at the time of confirmation of appointment. Assessment in this report is based on plans provided at the time of confirmation of engagement and report preparation. Additional time required for re-assessment of report detail due to subsequent re-issue of plans after report preparation will be subject to an additional fee which will be charged at our hourly rate. This report shall not be conveyed to any third party including regulatory authority/s until full payment of this invoice is received by Independent Arboricultural Services and a finalised report has been issued unless agreement to do so has been granted.

Factors including the absence of historical records or local knowledge, recognition of the variability of the integrity of a tree as a naturally living organism as well as the impact of conditions within its surrounds to which it maybe subject including the impacts of mechanical force and the occurrence of weather events, do not allow an arborist to guarantee the age of a tree, or the length of time a tree/s may live or such time as it /they may fail. There is no warranty or guarantee, expressed or implied that the problems or deficiencies of the plants or property in question may not arise in the future.

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## Abbreviations

<b>NBC</b>	Northern Beaches Council	<b>RPA</b>	Root Protection Area
<b>DA</b>	Development Application	<b>TMP</b>	Tree Management Plan
<b>VPO</b>	Vegetation Protection Order	<b>CMP</b>	Construction Management Plan
<b>ULE</b>	Useful Life Expectancy	<b>VMP</b>	Vegetation Management Plan
<b>BLF</b>	Building Location Footprint	<b>AS</b>	Australian Standard
<b>BLE</b>	Building Location Envelope	<b>AS 4373: 2007</b>	Pruning of amenity trees
<b>TPZ</b>	Tree Protection Zone	<b>AS 4970: 2009</b>	Protection of trees on development sites
<b>SRZ</b>	Structural Root Zone	<b>DBH</b>	Diameter at Breast Height

All comments and recommendations in this report have been determined in accordance with Australian Standards AS 4373-2007 Pruning of amenity trees and AS 4970-2009 Protection of trees on development sites. All recommended tree work should be carried out in accordance with these standards.



**Roger Rankine**  
Consulting Arborist

## Map



Figure 1: Subject Site (Nearmap 2021)

## Introduction

This report is based on a visual inspection carried out from the ground on 24<sup>th</sup> November 2021 & 21<sup>st</sup> June 2022. No soil or tissue sampling has been conducted. Tree assessment and Qualitative Visual Tree Analysis has been carried out in accordance with TRAQ ISA guidelines. Data and information provided to the client by others has been incorporated into this report as appropriate.

All Arboricultural recommendations contained in this report have been determined in accordance with Australian Standards AS 4373-2007 Pruning of amenity trees and AS 4970-2009 Protection of trees on development sites.

For the purposes of this report reference to a Consulting or Project Arborist is held to mean an Arboricultural specialist who holds minimum Arboricultural qualifications of Dip Arb/AQF 5, appropriate professional insurances and has appropriate experience in the protection of trees on construction sites. Where tree work is specified, all recommended tree work is to be carried out in accordance with the above-mentioned standards by an appropriately trained and AQF qualified arborist practitioner/s with an up-to-date record of training and membership of a recognised Australian Arboricultural association, e.g. NSW Arboricultural Association, Arboriculture Australia (AA), or a recognised international Arboricultural association. No climbing spikes are to be used if pruning is to be carried out on live trees except in the instance of an emergency.

Qualifications of the report authors include Diploma of Arboriculture/AQF Level 5 and ISA Certified Arborist accreditation. Report authors hold current insurances and memberships including qualified memberships of Queensland Arboricultural Association (QAA), and Arboriculture Australia (AA) as well as current accreditation and membership of International Society of Arboriculture (ISA).

Independent Arboricultural Services is a qualified registrant on the QAA Register of Consulting Arborists.

## Executive Summary

Independent Arboricultural Services have been engaged by School Infrastructure NSW to assess potential impacts to the nominated vegetation resulting from the proposed Narrabeen Education Precinct development which includes the redevelopment of the Narrabeen North Public School (NNPS) and Narrabeen Sports High School (NSHS). The public school and the High School have been identified by the NSW Department of Education (DoE) as requiring upgrade works.

The proposed Narrabeen Education Precinct development includes redevelopment of Narrabeen North Public School (NNPS) and Narrabeen Sports High School (NSHS). The Public School and High School have been identified by the NSW Department of Education (DoE) as requiring upgrade works.

The works at NSHS upgrade the school including addition of new two (2) storey extension to Building A, construction of new single storey amenities building and refurbishment of four (4) existing buildings (Buildings A, B, C and K).

This Development Application (DA) will seek consent for tree removal to facilitate works proposed under other planning pathways including Part 4 development application (DA), development without consent (REF) and exempt development. The proposed development does not seek to increase staff or student numbers.

Advice on both specific and general tree protection measures and Project Arborist Requirements have been detailed in this report. It is important as the design is refined, further reviews are undertaken by the Project Arborist and protection measures are further specified as required.

Chantalle Hughes (AQF Level 5) attended site on 24<sup>th</sup> November 2022 to undertake the assessment of the impact of the works. Roger Rankine (AQF Level 5) attended site on the 21<sup>st</sup> June 2022 to further review the impact of the proposed works. Advice on both specific and general tree protection measures and Project Arborist Requirements have been detailed in this report. It is important as the design is refined, further reviews are undertaken by the Project Arborist and protection measures are further specified as required.

Further detailed designed will be assessed as available during the project including civil works (cut / fill) services layouts and building footprints. Protection measures and assessment of incursion has been based on the available information provided. Based on the current designs, two (2) individual trees have major incursion and the long-term health and structural viability will be affected by the works. An additional group of trees (noted as Tree 99) will be affected, and it is recommended that the Project Arborist (AQF level 5) assesses the final set out to determine trees within the group that are to be removed and trees within the group are to be retained. A further six (6) trees have been requested to be removed by Schools Infrastructure (SI) for future maintenance requirements. The remaining trees are noted for retention subject to a review of the finalised earthworks and service layout plans along with a review of the site set out and pruning requirements.

As part of the design process and operational works it is recommended that the following is undertaken,

- The Project Arborist is to be consulted during the detailed design phase to minimise impacts to retainable vegetation.
- Current retention/removal recommendations are based on plans provided. Detailed assessment of final design plans and bulk earthworks are required prior to final retention/removal recommendations.
- Ensure all approvals and permits are in place before works commence.
- Undertake a pre-start meeting with contractors before works commence.



- Tree Protection Fencing is to be erected before works commence and audited by the Project Arborist (Min AQF Level 5).
- Supervision by a Project Arborist (Min AQF Level 5) and Fauna Spotter/Catcher of the approved tree removals.
- Any works proposed within the TPZ of retained trees requires supervision of a minimum AQF5 Project Arborist.
- Tree Pruning is to be undertaken by a minimum AQF Level 3 Arborist.
- Laydown areas and site shed/office locations are to be identified/finalised and excluded from the Tree Protection Zones of retained trees and minimise public impact.
- Route vehicles and equipment outside of TPZs. If access is required within TPZ, mulch to a depth of 100mm and tree padding needs to be installed with the option of track mats as determined and signed off by a minimum AQF5 Project Arborist.
- Construction materials, spoil, stockpiles, tools and equipment are not permitted within the TPZs of retained trees.

### Site Description

The subject sites are located at 6 and 10 Namona Street, North Narrabeen (referred to as the Narrabeen Education Precinct) and falls within the local government area of Northern Beaches Council. The Narrabeen Education Precinct has a total area of 9.84 hectares.

Narrabeen North Primary School (NNPS) is located on the northern side of Namona Street, North Narrabeen and is legally described as Lot 3 Deposited Plan (DP) 1018621. NNPS is surrounded by residential dwellings to the east, grassed sporting fields (Warriewood Valley Sportsground) to the north and Northern Beaches Indoor Sports Centre to the west. NNPS contains two (2) Binishell domes (Block A and Block B) which are identified as a local heritage item under the Pittwater Local Environmental Plan 2014. The two (2) Binishell Domes are listed as State significant on DoE's Section 170 Heritage and Conservation Register. The Double Binishell Dome (Block B) is listed on the State Heritage Register (SHR).

Narrabeen Sports High School (NSHS) is located on the southern side of Namona Street and is legally described as Lot 12 DP 1119562. NSHS is surrounded by Pittwater Road to the east, Pittwater Sports Centre to the south and Mullet Creek to the west.



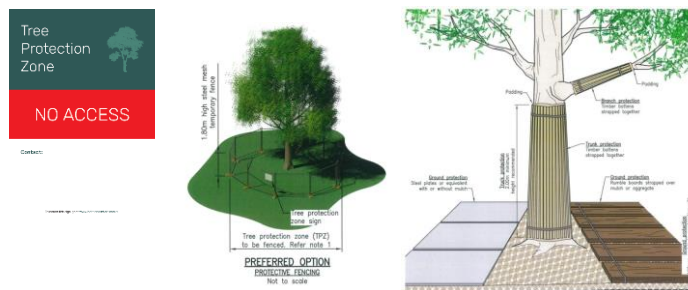
Figure – Site Aerial Map, Source: Nearmap

## Arborist Comment

- Protection of retained trees during construction works
- Impact of the proposed works on nominated trees

### Protection of Retained Trees During Construction Works

An exclusion zone is to be established along the perimeters of retained trees surrounding the development site and cordoned off with a physical barrier of wire mesh fence, 1.8m in height, which is securely anchored (as indicated on the Tree Protection Plan). The role of these fences is to prevent any damage to the complete tree including root system (SRZ & TPZ), stem and branch structure as well as the crown or canopy. Alternatively, and on approval of a minimum AQF5 Project Arborist, plastic mesh fencing, 1.2m in height, secured with star pickets and caps with straining wire can be utilised. All TPZ fencing will require appropriate signage to signify the relevant protection zones. This will require audit and sign off prior to operational works onsite.



Tree Protection Fencing to be utilised. Where works will be undertaken close to and within Tree Protection Zones specific tree protection measures to be utilised as directed by the project Arborist.

## Project Hold Points





Engage an AQF5 minimum Project Arborist during the project life;

- Once tree protection fencing and signage has been established and finalised. Project Arborist (minimum AQF Level 5) to audit and sign off.
- Supervision of approved tree removals in conjunction with a fauna spotter.
- Any works within the TPZ of retained trees is required.
- If tree roots are encountered over 50mm in diameter outside of TPZs of retained trees.
- Changes to the plans occur.
- On completion of the project to conduct a final audit and summary.

(Site audits/summary reports will be conducted at each hold point interval by the Project Arborist)

Project Arborist Requirements	
1.	Pre-Start Inspection and Audit of Tree Protection Fencing Before Works Commence
2.	Any required Tree Works to be undertaken by a minimum AQF Level 3 Arborist under the Supervision of the Project Arborist (Min AQF Level 5). Tree Services Company to be a member of Queensland Arboricultural Association or Arboriculture Australia.
3.	All works within the Tree Protection Zones of the retained vegetation to be supervised by the Project Arborist (Min AQF Level 5). Audit Reports to be completed and submitted by the Project Arborist. Any below ground incursion to be water excavated under low pressure, under the supervision of the Project Arborist.
4.	All works to be excluded from the Structural Root Zone (SRZ) and supervised if located within Tree Protection Zone.
5.	The Project Arborist to be consulted if changes to plans are made that affect any retained vegetation.
6.	At the Completion of works, Project Arborist to undertake a site assessment and an audit report compile of any further remedial actions required.

## Examples of Amended Protection Measures

Examples	Photos
<p>Example of the use low pressure water excavation for the installation of conduits</p>	
<p>Example of the use of black plastic to line pier holes</p>	
<p>Example of the use of black plastic to line concrete</p>	
<p>Example of the use of Structural Soil. Structural Soils – (Source: Cornell University)</p>	 <p>Fig. 1.7 Conceptual diagram of CU-Structural Soil™ including stone-on-stone compaction and soil in interstitial spaces used as a base course for pavements.</p>

## Conclusion

For all retained trees, with due care, implementation of appropriate work methodology as noted in this report and isolation of all TPZs of retained trees from construction works, the potential for ill-effect to retained/affected trees can be minimised in accordance with guidelines of AS4970:2009 – Protection of trees on development sites.

### The following must occur:

NBC approvals must be in place prior to the commencement of any tree work for future construction work. Approvals are required should the Project Arborist prescribe pruning such as crown clean, canopy lift and/or directional pruning.

- Project Arborist must be appointed and engaged to guide the protection of protected trees from project commencement, i.e. during Design Planning and during the construction period until its completion.
- **All Arboricultural reports, TMPs, VMPs & approvals must be included in the CMP**
- Design Plans must be drafted to incorporate raised foundations supported by sleeved pier design or similar low impact design to bridge the roots zone of any development within TPZ's. Exploratory low pressure water excavation is to be undertaken as specified.
- Arborist briefing of all engaged persons on their commencement as well as diligent work practice must occur during all approved future construction work.
- Root disturbance must be minimised to prevent accidental injury, compression and the creation of exposure points to allow future entry of pests and pathogens.
- **All work within any TPZ must be supervised by the Project Arborist.**

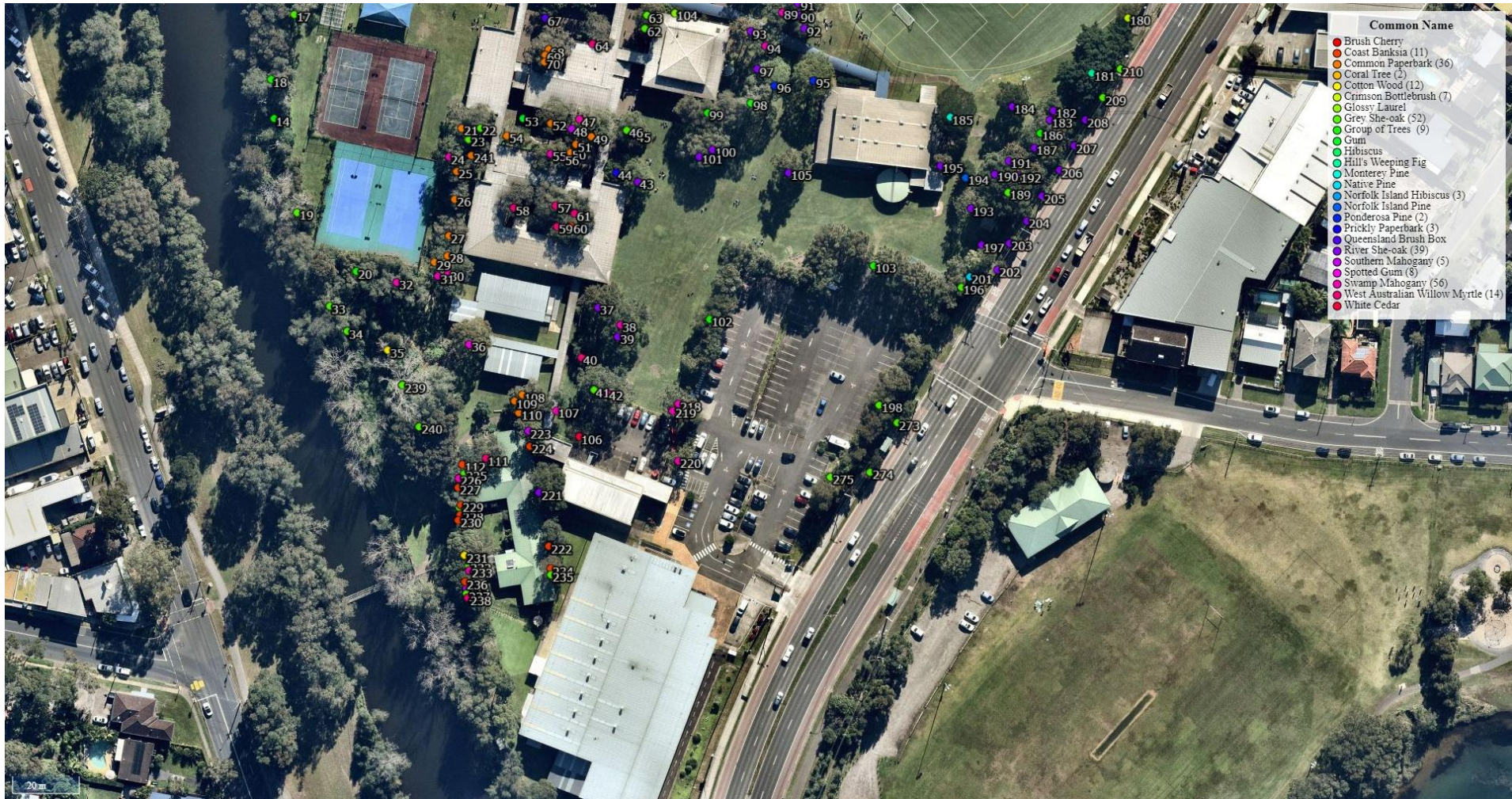
All work within TPZs must be carried out with due care to avoid mechanical impact with retained tree/s during the construction phase. Where present existing strip footings or installed pier locations are to be utilised for any replacement of existing fence structures; alternatively, any removal of existing fence structures and new replacement work is to be carried out as detailed above, i.e. new fence foundations should utilise post and rail design with no concreted footing unless authorised by the Project Arborist. Sleeving should be installed to provide an impervious barrier between exposed TPZ perimeter/s and new concreted areas to prevent chemical leeching into the surrounding soil of retained trees.

Reactionary processes, such as the emergence of deadwood, dieback etc. are likely to occur as a result of disturbance and/or injury to any retained tree on a construction site. Amended design plans and construction methodology can serve to avoid or minimise the likely emergence of such issues and therefore their associated future OH&S issues to the future occupants of the new dwellings and or pedestrian or vehicular traffic within the vicinity of retained tree/s. Any required pruning is to be undertaken by a minimum AQF Level 3 Arborist under the supervision of the Project Arborist (AQF Level 5).

## Tree Locations



Please Note: Tree Locations are an approximate only



## Tree Locations with TPZ





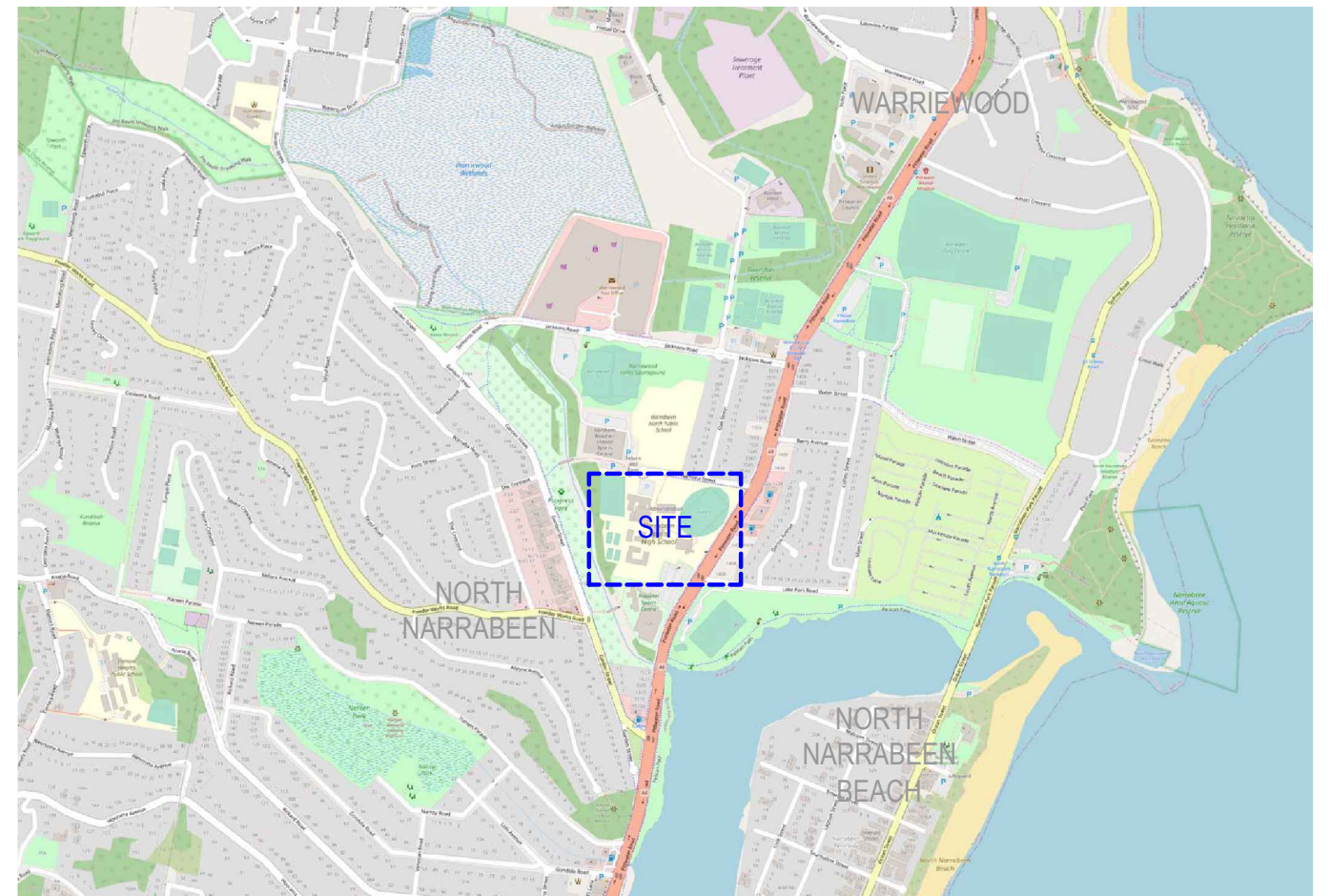
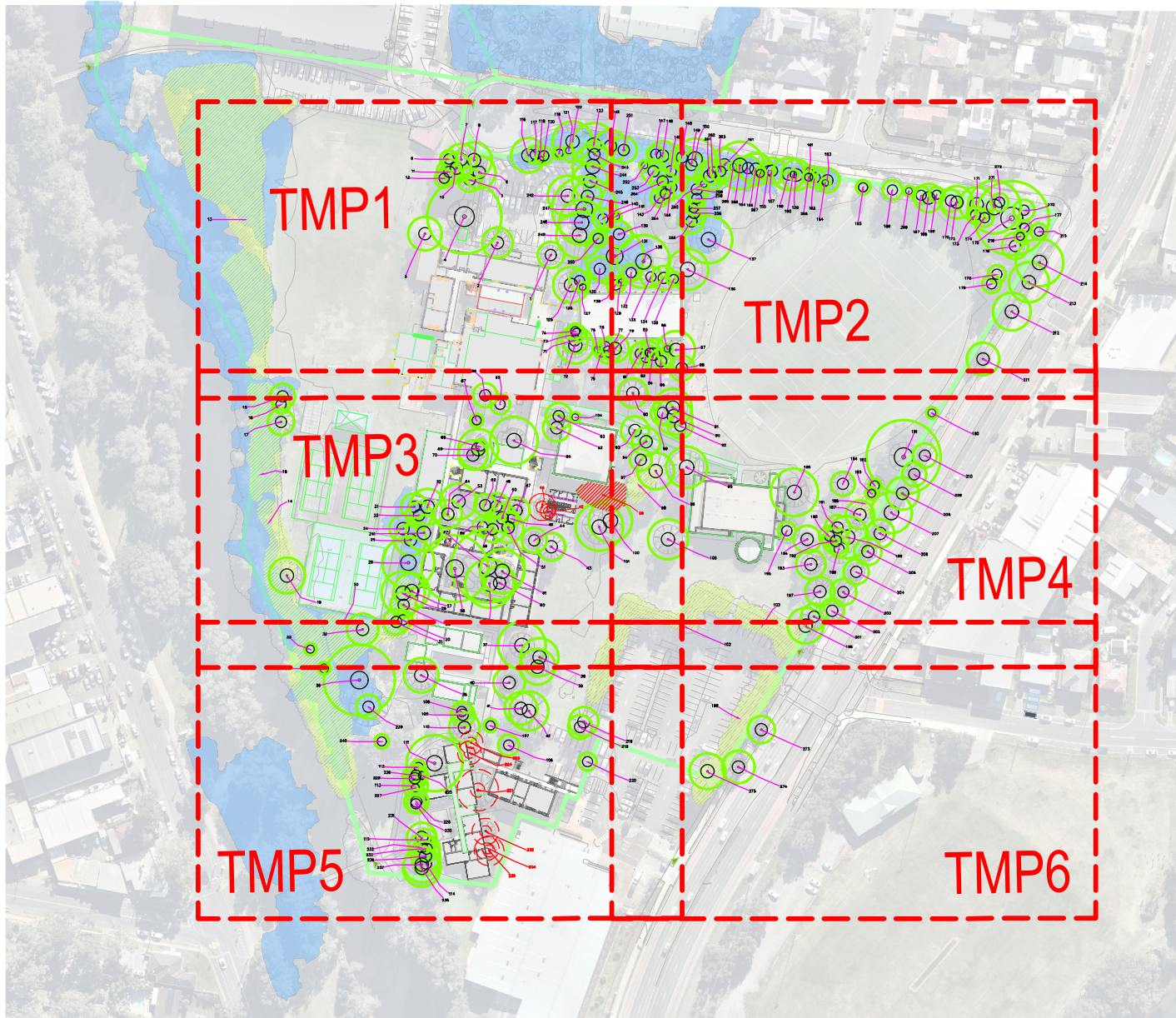


Sheet List Table	
Sheet Number	Sheet Title
CO1	COVER SHEET
TMP1	TREE MANAGEMENT PLAN 1
TMP2	TREE MANAGEMENT PLAN 2
TMP3	TREE MANAGEMENT PLAN 3
TMP4	TREE MANAGEMENT PLAN 4
TMP5	TREE MANAGEMENT PLAN 5
TMP6	TREE MANAGEMENT PLAN 6

# NARRABEEN SPORTS HIGH SCHOOL

10 NAMONA STREET NORTH NARRABEEN NSW 2101

## TREE MANAGEMENT PLAN



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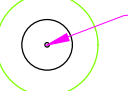

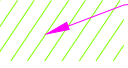
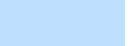
ISSUE	DESCRIPTION	DATE	DRAWN	AUTH.	NOTES
PR1	PRELIMINARY	6/07/2022	JA	RR	NARRABEEN NORTH HIGH SCHOOL, 6 NAMONA ST, NORTH NARRABEEN NSW 2101
PR2	UPDATE VEG AREAS, AERIAL	7/07/2022	JA	RR	--
PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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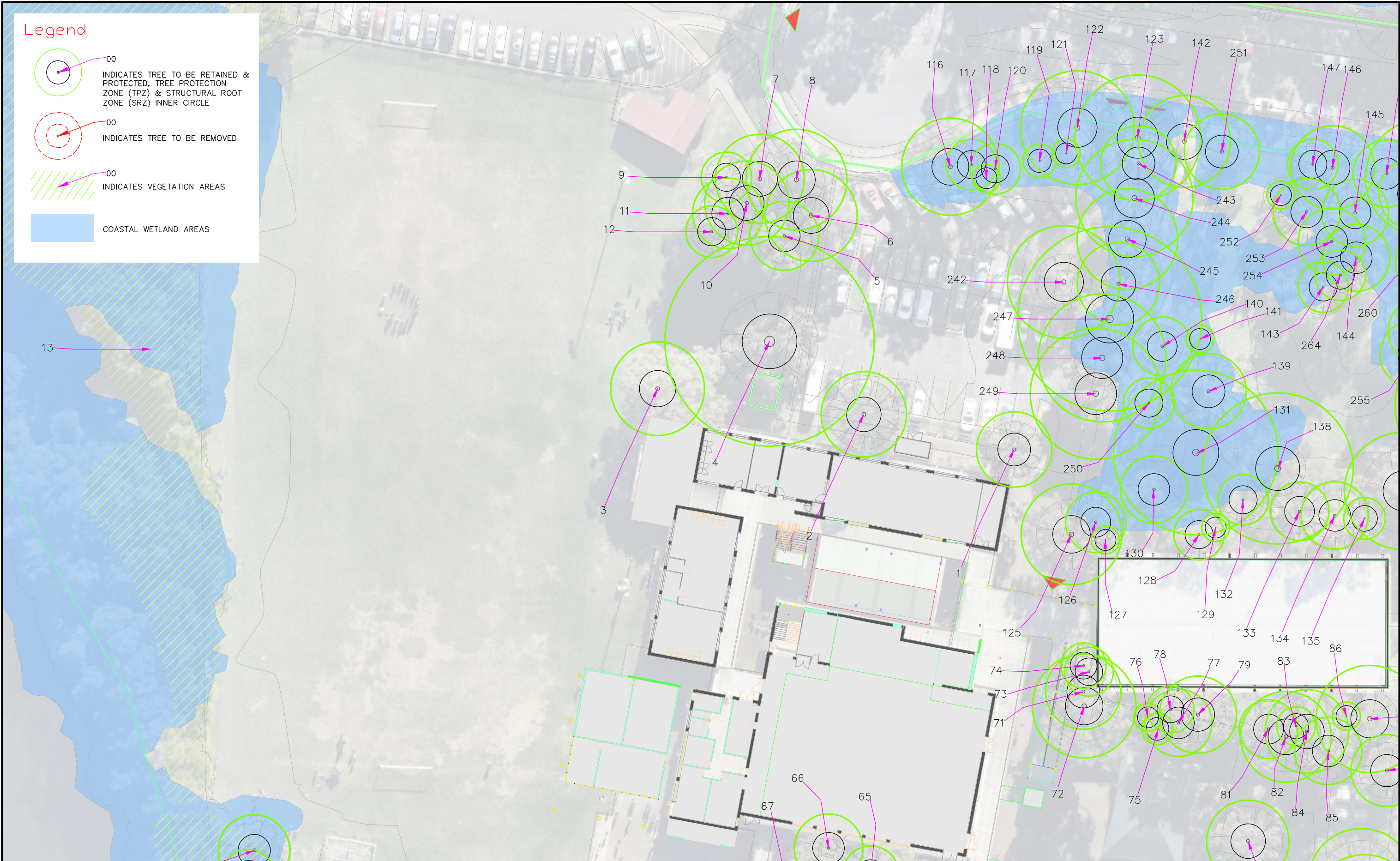
PROJECT	NARRABEEN EDUCATION PRECINCT- NARRABEEN SPORTS HIGH SCHOOL
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TITLE	TREE MANAGEMENT PLAN COVER SHEET
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DESIGN	DESIGNING	DESIGN CHECK	CM
DRAWN	JA	DATE	15/07/2022
DRAWING CHECK	RR	DATE	15/07/2022
AUTHORISED FOR ISSUE	RR	REFERENCE NO.	--
PROJECT NUMBER / SHEET	0000 / CO1	SCALE	N/A
ISSUE	PR3	ORIG. SIZE	A3

**Legend**

-  00 INDICATES TREE TO BE RETAINED & PROTECTED, TREE PROTECTION ZONE (TPZ) & STRUCTURAL ROOT ZONE (SRZ) INNER CIRCLE
-  00 INDICATES TREE TO BE REMOVED
-  00 INDICATES VEGETATION AREAS
-  COASTAL WETLAND AREAS



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ISSUE	DESCRIPTION	DATE	DRAWN	AUTH.	NOTES
PR1	PRELIMINARY	6/07/2022	JA	RR	NARRABEEN NORTH HIGH SCHOOL, 6 NAMONA ST, NORTH NARRABEEN NSW 2101
PR2	UPDATE VEG AREAS, AERIAL	7/07/2022	JA	RR	--
PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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PROJECT  
**NARRABEEN EDUCATION  
 PRECINCT-  
 NARRABEEN SPORTS HIGH  
 SCHOOL**

TITLE  
**TREE MANAGEMENT PLAN  
 SHEET 1**

DESIGN	DESIGNINIC	DESIGN CHECK	CM
DRAWN	JA	DRAWING CHECK	RR
DATE	15/07/2022	DATE	15/07/2022
AUTHORISED FOR ISSUE	RR	REFERENCE NO.	--
PROJECT NUMBER / SHEET	0000 / TMP1	SCALE	1:500
		ORIG. SIZE	A3
		ISSUE	PR3



**Legend**

- 00 INDICATES TREE TO BE RETAINED & PROTECTED, TREE PROTECTION ZONE (TPZ) & STRUCTURAL ROOT ZONE (SRZ) INNER CIRCLE
- 00 INDICATES TREE TO BE REMOVED
- 00 INDICATES VEGETATION AREAS
- COASTAL WETLAND AREAS



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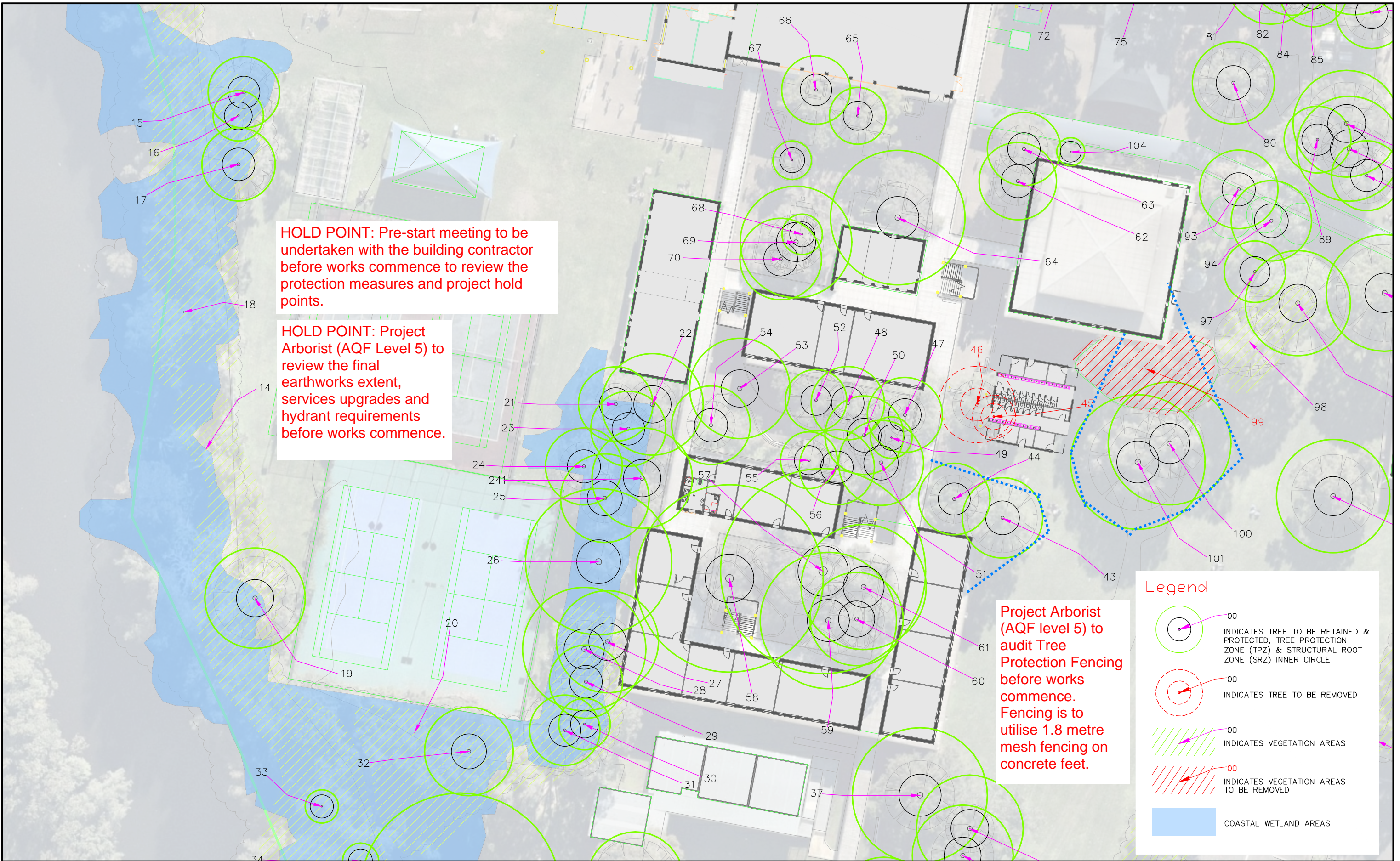
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ISSUE	DESCRIPTION	DATE	DRAWN	AUTH.	NOTES
PR1	PRELIMINARY	6/07/2022	JA	RR	NARRABEEN NORTH HIGH SCHOOL, 6 NAMONA ST, NORTH NARRABEEN NSW 2101
PR2	UPDATE VEG AREAS, AERIAL	7/07/2022	JA	RR	--
PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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PROJECT  
**NARRABEEN EDUCATION  
 PRECINCT-  
 NARRABEEN SPORTS HIGH  
 SCHOOL**

TITLE  
**TREE MANAGEMENT PLAN  
 SHEET 2**

DESIGN DESIGNINC	DESIGN CHECK CM
DRAWN JA	DATE 15/07/2022
AUTHORISED FOR ISSUE RR	DRAWING CHECK RR
PROJECT NUMBER / SHEET 0000 / TMP2	ISSUE PR3



**HOLD POINT:** Pre-start meeting to be undertaken with the building contractor before works commence to review the protection measures and project hold points.

**HOLD POINT:** Project Arborist (AQF Level 5) to review the final earthworks extent, services upgrades and hydrant requirements before works commence.

**Project Arborist (AQF level 5) to audit Tree Protection Fencing before works commence. Fencing is to utilise 1.8 metre mesh fencing on concrete feet.**

**Legend**

- 00 INDICATES TREE TO BE RETAINED & PROTECTED, TREE PROTECTION ZONE (TPZ) & STRUCTURAL ROOT ZONE (SRZ) INNER CIRCLE
- 00 INDICATES TREE TO BE REMOVED
- 00 INDICATES VEGETATION AREAS
- 00 INDICATES VEGETATION AREAS TO BE REMOVED
- COASTAL WETLAND AREAS



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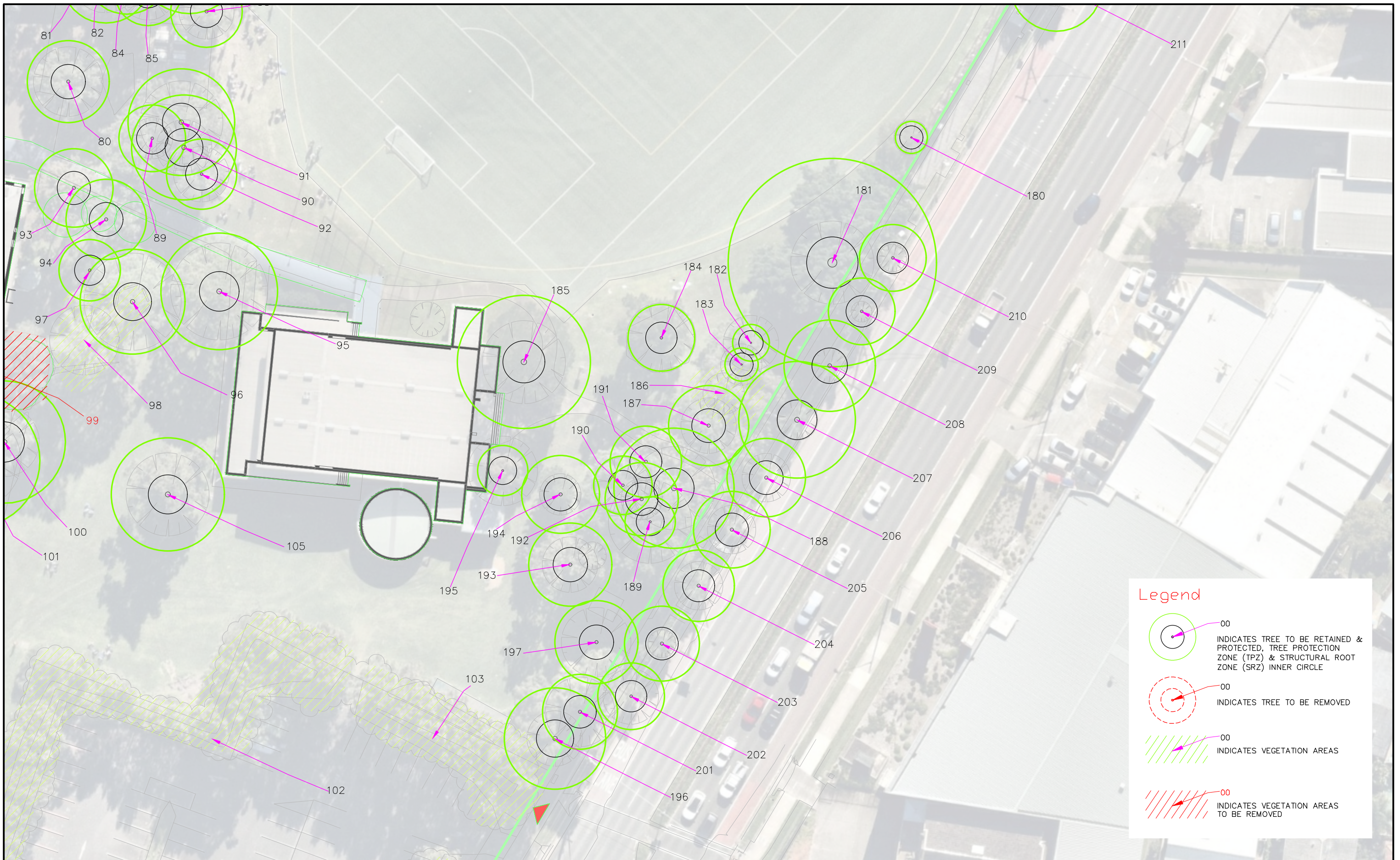
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PR2	UPDATE VEG AREAS, AERIAL	7/07/2022	JA	RR	--
PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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PROJECT  
**NARRABEEN EDUCATION PRECINCT- NARRABEEN SPORTS HIGH SCHOOL**

TITLE  
**TREE MANAGEMENT PLAN SHEET 3**

DESIGN	DESIGN CHECK		
DESIGNINC	CM		
DRAWN	DATE	DRAWING CHECK	DATE
JA	15/07/2022	RR	15/07/2022
AUTHORISED FOR ISSUE	REFERENCE NO.	SCALE	ORIG. SIZE
RR	--	1:500	A3
PROJECT NUMBER / SHEET	ISSUE		
0000 / TMP3	PR3		



**Legend**

- 00 INDICATES TREE TO BE RETAINED & PROTECTED, TREE PROTECTION ZONE (TPZ) & STRUCTURAL ROOT ZONE (SRZ) INNER CIRCLE
- 00 INDICATES TREE TO BE REMOVED
- 00 INDICATES VEGETATION AREAS
- 00 INDICATES VEGETATION AREAS TO BE REMOVED

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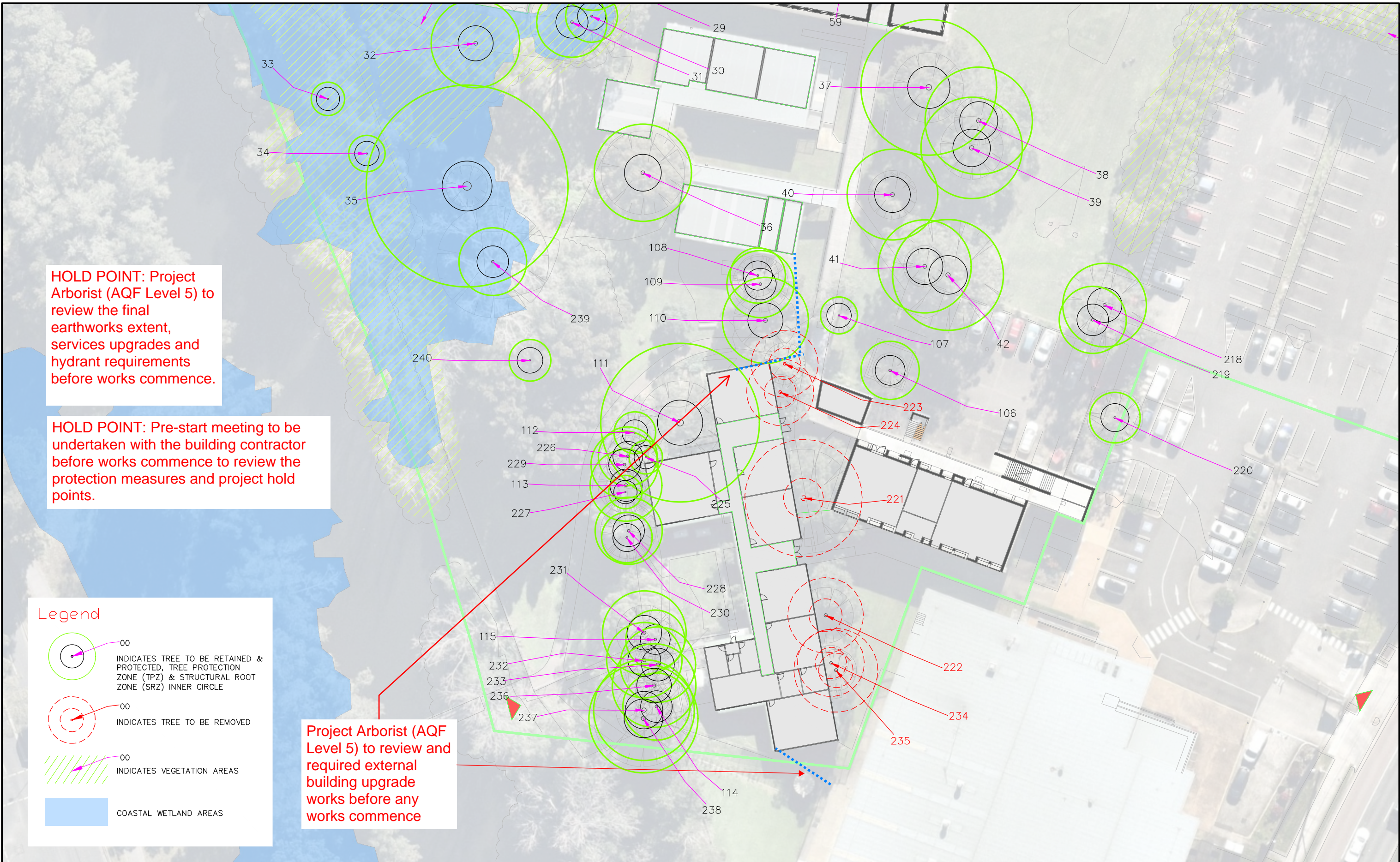
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PR2	UPDATE VEG AREAS, AERIAL	7/07/2022	JA	RR	--
PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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PROJECT  
**NARRABEEN EDUCATION PRECINCT-  
 NARRABEEN SPORTS HIGH SCHOOL**

TITLE  
**TREE MANAGEMENT PLAN  
 SHEET 4**

DESIGN	DESIGN CHECK		
DESIGNINC	CM		
DRAWN	DATE	DRAWING CHECK	DATE
JA	15/07/2022	RR	15/07/2022
AUTHORISED FOR ISSUE	REFERENCE NO.	SCALE	ORIG. SIZE
RR	--	1:500	A3
PROJECT NUMBER / SHEET	ISSUE		
0000 / TMP4	PR3		

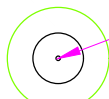

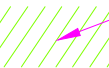
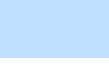


**HOLD POINT: Project Arborist (AQF Level 5) to review the final earthworks extent, services upgrades and hydrant requirements before works commence.**

**HOLD POINT: Pre-start meeting to be undertaken with the building contractor before works commence to review the protection measures and project hold points.**

**Project Arborist (AQF Level 5) to review and required external building upgrade works before any works commence**

**Legend**

-  00 INDICATES TREE TO BE RETAINED & PROTECTED, TREE PROTECTION ZONE (TPZ) & STRUCTURAL ROOT ZONE (SRZ) INNER CIRCLE
-  00 INDICATES TREE TO BE REMOVED
-  00 INDICATES VEGETATION AREAS
-  00 COASTAL WETLAND AREAS

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PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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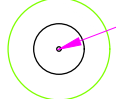


PROJECT  
**NARRABEEN EDUCATION PRECINCT- NARRABEEN SPORTS HIGH SCHOOL**

TITLE  
**TREE MANAGEMENT PLAN SHEET 5**

DESIGN	DESIGN CHECK		
DESIGNINC	CM		
DRAWN	DATE	DRAWING CHECK	DATE
JA	15/07/2022	RR	15/07/2022
AUTHORISED FOR ISSUE	REFERENCE NO.	SCALE	ORIG. SIZE
RR	--	1:500	A3
PROJECT NUMBER / SHEET	ISSUE		
0000 / TMP5	PR3		



**Legend**

-  00  
 INDICATES TREE TO BE RETAINED & PROTECTED, TREE PROTECTION ZONE (TPZ) & STRUCTURAL ROOT ZONE (SRZ) INNER CIRCLE
-  00  
 INDICATES TREE TO BE REMOVED
-  00  
 INDICATES VEGETATION AREAS



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PR2	UPDATE VEG AREAS, AERIAL	7/07/2022	JA	RR	--
PR3	UPDATE ARCH BASE	15/7/2022	JA	RR	--
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PROJECT  
**NARRABEEN EDUCATION  
 PRECINCT-  
 NARRABEEN SPORTS HIGH  
 SCHOOL**

TITLE  
**TREE MANAGEMENT PLAN  
 SHEET 6**

DESIGN	DESIGN CHECK		
DESIGNINC	CM		
DRAWN	DATE	DRAWING CHECK	DATE
JA	15/07/2022	RR	15/07/2022
AUTHORISED FOR ISSUE	REFERENCE NO.	SCALE	ORIG. SIZE
RR	--	1:500	A3
PROJECT NUMBER / SHEET	ISSUE		
0000 / TMP6	PR3		

## Tree Detail

Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
1	<i>Eucalyptus robusta</i>	Swamp Mahogany	45	5.4	2.6	14	8	9	Fair	Typical	High Significance	High	2A-2D	Deadwood under 50mm, epicormic growth, wound
2	<i>Eucalyptus robusta</i>	Swamp Mahogany	51	6.1	2.9	16	14	5	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm, epicormic growth
3	<i>Corymbia maculata</i>	Spotted Gum	56	6.7	2.8	15	16	6	Excellent	Typical	High Significance	High	2A-2D	Deadwood, epicormic growth
4	<i>Melaleuca quinquenervia</i>	Common Paperbark	148	15.0	3.9	10	19	3	Good	Typical	High Significance	High	2A-2D	Cavity, decay, included bark, decay on upper side stem.
5	<i>Eucalyptus robusta</i>	Swamp Mahogany	41	4.9	2.7	14	12	6	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood over 50mm, dieback, epicormic growth
6	<i>Casuarina glauca</i>	Grey She-oak	55	6.6	2.8	16	18	2	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , epicormic growth
7	<i>Casuarina glauca</i>	Grey She-oak	53	6.4	2.8	16	14	2	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , epicormic growth
8	<i>Casuarina glauca</i>	Grey She-oak	60	7.2	2.9	18	14	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
9	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	2.0	13	10	8	Poor	Poor	Medium Significance	Medium	2A-2D	Deadwood over 50mm, dieback, epicormic growth
10	<i>Casuarina glauca</i>	Grey She-oak	50	6.0	2.9	16	8	4	Good	Poor	Medium Significance	Medium	2A-2D	Included bark
11	<i>Casuarina glauca</i>	Grey She-oak	42	5.0	2.6	15	10	5	Good	Typical	High Significance	High	2A-2D	
12	<i>Casuarina glauca</i>	Grey She-oak	31	3.7	2.2	15	7	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
13	<i>Various spp.</i>	Group of Trees							Good	Typical	High Significance	High	1A-1D	Group/grove, diameters vary from 10 to 50cm.
14	<i>Various spp.</i>	Group of Trees							Good	Typical	High Significance	High	1A-1D	Group along creek. Vary diameter from 7.5-60cm.
15	<i>Casuarina glauca</i>	Grey She-oak	43	5.2	2.5	15	10	3	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, deadwood under 50mm
16	<i>Casuarina glauca</i>	Grey She-oak	30	3.6	2.1	7	6	3	Fair	Poor	Medium Significance	Medium	2A-2D	One sided, phototropic, 45 degree lean.
17	<i>Casuarina glauca</i>	Grey She-oak	44	5.3	2.5	18	9	6	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
18	<i>Various spp.</i>	Group of Trees							Good	Typical	Medium Significance	Medium	2A-2D	Sucking growth from trees in creek.
19	<i>Casuarina glauca</i>	Grey She-oak	60	7.2	2.9	20	16	6	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
20	<i>Various spp.</i>	Group of Trees				18	14		Good	Typical	High Significance	High	2A-2D	Group or grove inaccessible. All around 20cm in diameter



Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
21	<i>Melaleuca quinquenervia</i>	Common Paperbark	45	5.3	2.6	14	8	2.5	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
22	<i>Casuarina glauca</i>	Grey She-oak	61	7.3	2.9	18	12	6	Good	Typical	High Significance	High	2A-2D	
23	<i>Casuarina glauca</i>	Grey She-oak	45	5.4	2.7	18	11	6	Good	Typical	High Significance	High	2A-2D	
24	<i>Eucalyptus robusta</i>	Swamp Mahogany	46	5.5	2.6	17	14	10	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, epicormic growth
25	<i>Melaleuca quinquenervia</i>	Common Paperbark	53	6.4	2.9	12	12	5	Good	Typical	High Significance	High	2A-2D	
26	<i>Melaleuca quinquenervia</i>	Common Paperbark	88	10.5	3.2	12	12	4	Good	Typical	High Significance	High	2A-2D	
27	<i>Melaleuca quinquenervia</i>	Common Paperbark	61	7.3	2.7	13	12	6	Good	Typical	High Significance	High	2A-2D	
28	<i>Melaleuca quinquenervia</i>	Common Paperbark	74	8.9	2.7	13	7	4	Good	Poor	High Significance	High	2A-2D	Included bark, been set on fire.
29	<i>Melaleuca quinquenervia</i>	Common Paperbark	44	5.3	2.4	9	14	1.5	Good	Typical	High Significance	High	2A-2D	Phototropic
30	<i>Eucalyptus robusta</i>	Swamp Mahogany	31	3.7	2.2	9	10	7	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , epicormic growth
31	<i>Eucalyptus robusta</i>	Swamp Mahogany	42	5.0	2.5	12	10	6	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , epicormic growth, phototropic
32	<i>Eucalyptus robusta</i>	Swamp Mahogany	53	6.4	2.8	17	16	4	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , dieback, epicormic growth
33	<i>Casuarina glauca</i>	Grey She-oak	20	2.4	1.7	16	14	2	Fair	Typical	Medium Significance	Medium	2A-2D	Previously lopped
34	<i>Casuarina glauca</i>	Grey She-oak	22	2.6	1.8	10	10	1	Good	Typical	High Significance	High	2A-2D	Included bark
35	<i>Populus deltoides</i>	Cotton Wood	120	14.5	3.8	18	22	5	Fair	Poor	Medium Significance	Medium	2A-2D	Deadwood over 50mm, decay, dieback, epicormic growth
36	<i>Corymbia maculata</i>	Spotted Gum	58	7.0	2.7	12	18	6	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , epicormic growth
37	<i>Casuarina cunninghamiana</i>	River She-oak	81	9.7	3.1	16	18	2	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm
38	<i>Eucalyptus robusta</i>	Swamp Mahogany	64	7.7	2.9	14	13	3	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, epicormic growth, phototropic
39	<i>Casuarina cunninghamiana</i>	River She-oak	61	7.3	2.8	18	14	2.5	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm
40	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	54	6.5	2.9	7	12	0.5	Fair	Poor	Low Significance	Medium	3A-3D	Decay, epicormic growth, included bark
41	<i>Casuarina glauca</i>	Grey She-oak	56	6.7	2.7	18	12	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , unattached branches
42	<i>Eucalyptus robusta</i>	Swamp Mahogany	66	7.9	2.8	15	20	1	Good	Typical	High Significance	High	2A-2D	

Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
43	<i>Casuarina cunninghamiana</i>	River She-oak	48	5.8	2.7	14	10	6	Good	Typical	High Significance	High	2A-2D	Co-dominant limbs
44	<i>Melaleuca styphelioides</i>	Prickly Paperbark	43	5.2	2.4	10	12	8	Good	Typical	High Significance	High	2A-2D	Co-dominant limbs, deadwood under 50mm
45	<i>Melaleuca styphelioides</i>	Prickly Paperbark	26	3.1	2.1	7	7	4	Good	Typical	High Significance	High	2A-2D	
46	<i>Casuarina glauca</i>	Grey She-oak	46	5.5	2.7	16	14	4	Good	Typical	High Significance	High	2A-2D	
47	<i>Eucalyptus robusta</i>	Swamp Mahogany	45	5.4	2.4	16	16	8	Good	Typical	High Significance	High	2A-2D	Crown raised, shells noted at base.
48	<i>Eucalyptus botryoides</i>	Southern Mahogany	44	5.3	2.5	18	17	11	Good	Typical	High Significance	High	2A-2D	Heavily crown raised.
49	<i>Melaleuca quinquenervia</i>	Common Paperbark	25	3.0	2.0	10	8	8	Fair	Typical	Medium Significance	Medium	2A-2D	Co-dominant limbs, phototropic, suppressed.
50	<i>Melaleuca quinquenervia</i>	Common Paperbark	47	5.7	2.4	9	7	7	Good	Typical	Medium Significance	Medium	2A-2D	
51	<i>Melaleuca quinquenervia</i>	Common Paperbark	51	6.1	2.6	14	12	9	Good	Typical	High Significance	High	2A-2D	
52	<i>Melaleuca quinquenervia</i>	Common Paperbark	37	4.4	2.3	14	10	10	Good	Typical	High Significance	High	2A-2D	Co-dominant limbs
53	<i>Eucalyptus spp.</i>	Juvenile Eucalyptus	60	7.2	2.9	16	12	10	Good	Typical	High Significance	High	2A-2D	Epicormic growth
54	<i>Melaleuca quinquenervia</i>	Common Paperbark	47	5.6	2.6	10	9	1	Good	Typical	High Significance	High	2A-2D	
55	<i>Eucalyptus robusta</i>	Swamp Mahogany	34	4.1	2.3	17	6	15	Good	Typical	High Significance	High	2A-2D	Epicormic growth
56	<i>Eucalyptus botryoides</i>	Southern Mahogany	45	5.4	2.6	17	8	8	Good	Typical	High Significance	High	2A-2D	Epicormic growth
57	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	123	14.8	3.6	14	20	8	Fair	Typical	High Significance	High	2A-2D	Co-dominant limbs, decay, included bark , large significant tree planting/
58	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	112	13.5	3.5	14	18	10	Fair	Typical	High Significance	High	2A-2D	Epicormic growth, large burl growths.
59	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	82	9.8	3.5	10	18	4	Good	Typical	High Significance	High	2A-2D	Decay, dieback, epicormic growth, previously lopped
60	<i>Banksia integrifolia</i>	Coast Banksia	56	6.7	2.8	16	16	4	Excellent	Typical	High Significance	High	2A-2D	
61	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	750	15.0	3.2	14	18	1	Good	Typical	High Significance	High	2A-2D	Dieback, epicormic growth
62	<i>Casuarina glauca</i>	Grey She-oak	47	5.6	2.6	16	10	6	Good	Typical	High Significance	High	2A-2D	
63	<i>Casuarina glauca</i>	Grey She-oak	44	5.3	2.6	14	14	10	Fair	Typical	Medium Significance	Medium	2A-2D	

Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
64	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	81	9.7	3.0	13	12	2	Good	Typical	High Significance	High	2A-2D	Previously lopped, lopped limbs off walkway
65	<i>Eucalyptus robusta</i>	Swamp Mahogany	34	4.1	2.1	14	8	4	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood over 50mm, dieback, epicormic growth
66	<i>Eucalyptus robusta</i>	Swamp Mahogany	41	4.9	2.6	14	12	8	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood under 50mm , dieback, epicormic growth
67	<i>Lophostemon confertus</i>	Queensland Brush Box	23	2.8	1.9	8	6	3	Fair	Typical	Medium Significance	Medium	2A-2D	Dieback
68	<i>Melaleuca quinquenervia</i>	Common Paperbark	24	2.9	2.0	10	8	6	Fair	Poor	Medium Significance	Medium	2A-2D	Phototropic, strong lean
69	<i>Melaleuca quinquenervia</i>	Common Paperbark	67	8.0	3.2	15	14	9	Good	Poor	Medium Significance	Medium	2A-2D	Included bark
70	<i>Melaleuca quinquenervia</i>	Common Paperbark	49	5.9	2.7	16	14	10	Good	Typical	High Significance	High	2A-2D	
71	<i>Casuarina glauca</i>	Grey She-oak	45	5.4	2.6	17	10	12	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, deadwood under 50mm
72	<i>Eucalyptus robusta</i>	Swamp Mahogany	62	7.4	3.1	17	15	2	Fair	Typical	High Significance	High	2A-2D	Deadwood over 50mm, epicormic growth, large deadwood poses high risk.
73	<i>Melaleuca quinquenervia</i>	Common Paperbark	29	3.5	2.2	15	8	13	Good	Typical	High Significance	High	2A-2D	
74	<i>Melaleuca quinquenervia</i>	Common Paperbark	27	3.2	2.1	11	6	9	Good	Typical	Medium Significance	Medium	2A-2D	Suppressed
75	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	19	2.3	1.8	12	5	4	Poor	Poor	Medium Significance , Low Significance	Low	2A-2D	Suppressed
76	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	13	2.0	1.7	4	2	2	Poor	Poor	Low Significance	Low	2A-2D	Deadwood under 50mm , dieback, wound
77	<i>Casuarina glauca</i>	Grey She-oak	40	4.8	2.3	17	12	6	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm
78	<i>Melaleuca quinquenervia</i>	Common Paperbark	28	3.4	2.3	15	10	7	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
79	<i>Melaleuca quinquenervia</i>	Common Paperbark	46	5.5	2.6	17	8	6	Fair	Typical	High Significance	High	2A-2D	Co-dominant limbs
80	<i>Eucalyptus robusta</i>	Swamp Mahogany	49	5.9	2.6	16	18	4	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, dieback, epicormic growth
81	<i>Melaleuca quinquenervia</i>	Common Paperbark	35	4.2	2.4	14	12	4	Good	Typical	High Significance	High	2A-2D	Co-dominant limbs,
82	<i>Casuarina cunninghamiana</i>	River She-oak	54	6.5	2.6	18	12	4	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , one low sprawling limb.
83	<i>Melaleuca quinquenervia</i>	Common Paperbark	23	2.8	2.4	15	10	6	Good	Poor	Medium Significance	Medium	2A-2D	Deadwood under 50mm.

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84	<i>Melaleuca quinquenervia</i>	Common Paperbark	50	6.0	2.8	16	14	6	Fair	Typical	High Significance	High	2A-2D	Deadwood under 50mm
85	<i>Casuarina glauca</i>	Grey She-oak	40	4.8	2.5	18	14	6	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
86	<i>Melaleuca quinquenervia</i>	Common Paperbark	14	2.0	1.7	7	6	3	Good	Typical	Medium Significance	Medium	2A-2D	Suppressed
87	<i>Melaleuca quinquenervia</i>	Common Paperbark	64	7.7	3.1	17	14	4	Fair	Typical	High Significance	High	2A-2D	Included bark
88	<i>Casuarina glauca</i>	Grey She-oak	43	5.2	2.7	19	8	6	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
89	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	2.5	16	9	4	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, epicormic growth, wound
90	<i>Casuarina cunninghamiana</i>	River She-oak	63	7.6	2.8	18	14	6	Good	Typical	Medium Significance	Medium	2A-2D	Deadwood under 50mm
91	<i>Casuarina cunninghamiana</i>	River She-oak	64	7.7	3.0	18	14	5	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm
92	<i>Casuarina cunninghamiana</i>	River She-oak	42	5.0	2.6	16	12	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
93	<i>Casuarina cunninghamiana</i>	River She-oak	47	5.6	2.5	18	16	10	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
94	<i>Eucalyptus robusta</i>	Swamp Mahogany	48	5.8	2.6	14	16	3	Good	Typical	High Significance	High	2A-2D	Dieback, epicormic growth
95	<i>Pinus ponderosa</i>	Ponderosa Pine	70	8.4	3.2	16	22	8	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm, dieback
96	<i>Pinus ponderosa</i>	Ponderosa Pine	63	7.6	3.0	16	14	7	Fair	Typical	High Significance	High	2A-2D	Deadwood over 50mm
97	<i>Casuarina cunninghamiana</i>	River She-oak	37	4.4	2.5	13	8	5	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood under 50mm , suppressed
98	<i>Various spp.</i>	Group of Trees							Fair	Typical	Medium Significance	Medium	2A-2D	
99	<i>Various spp.</i>	Group of Trees	29	3.5	2.1	14	14	1	Good	Typical	High Significance	High	2A-2D	Spread is for whole grove/group.
100	<i>Casuarina cunninghamiana</i>	River She-oak	73	8.8	3.2	14	10	5	Good	Poor	High Significance	High	2A-2D	Included bark, multiple stems at base
101	<i>Casuarina cunninghamiana</i>	River She-oak	81	9.7	3.2	12	10	2	Good	Poor	High Significance	High	2A-2D	Included bark, wound
102	<i>Various spp.</i>	Group of Trees	20	2.4	1.8	7			Good	Typical	Medium Significance	Medium	2A-2D	Dieback, epicormic growth, planted in mound. No access.
103	<i>Various spp.</i>	Group of Trees	20	2.4	1.8	12	8	2	Good	Typical	Medium Significance	Medium	2A-2D	Group planting or self sown on bank around carpark.
104	<i>Cryptocarya laevigata</i>	Glossy Laurel	14	2.0	1.5	4	2	1	Fair	Typical	Low Significance	Low	2A-2D	
105	<i>Casuarina cunninghamiana</i>	River She-oak	68	8.2	2.9	18	20	4	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm

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106	<i>Melia azedarach</i>	White Cedar	35	4.2	2.2	8	8	2	Fair	Typical	Low Significance	Low	2A-2D	
107	<i>Eucalyptus robusta</i>	Swamp Mahogany	22	2.6	1.8	8	10	4	Fair	Typical	Medium Significance	Medium	2A-2D	Broken limbs, deadwood over 50mm, dieback, epicormic growth
108	<i>Melaleuca quinquenervia</i>	Common Paperbark	33	4.0	2.1	12	10	5	Good	Typical	High Significance	High	2A-2D	
109	<i>Melaleuca quinquenervia</i>	Common Paperbark	40	4.8	2.3	13	8	7	Good	Typical	High Significance	High	2A-2D	
110	<i>Melaleuca quinquenervia</i>	Common Paperbark	51	6.2	2.6	12	14	5	Good	Typical	High Significance	High	2A-2D	
111	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	95	11.4	3.2	17	15	1	Fair	Poor	Medium Significance	Medium	2A-2D	
112	<i>Banksia integrifolia</i>	Coast Banksia	25	3.0	2.0	14	9	8	Good	Typical	High Significance	High	2A-2D	
113	<i>Casuarina glauca</i>	Grey She-oak	43	5.2	2.4	14	22	1	Good	Typical	High Significance	High	2A-2D	Grove of trees with suckers under.
114	<i>Eucalyptus botryoides</i>	Southern Mahogany	40	4.8	2.4	18	14	7	Good	Typical	High Significance	High	2A-2D	
115	<i>Banksia integrifolia</i>	Coast Banksia	35	4.2	2.3	15	14	14	Good	Typical	High Significance	High	2A-2D	Several mature trees in group.
116	<i>Eucalyptus robusta</i>	Swamp Mahogany	58	7.0	2.7	18	16	3	Good	Typical	High Significance	High	2A-2D	
117	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	2.1	12	8	3	Good	Typical	High Significance	High	2A-2D	
118	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	10	2.0	1.5	4	6	1	Good	Typical	Medium Significance	Medium	2A-2D	Co-dominant limbs
119	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	20	2.4	1.5	6	6	1	Fair	Typical	Medium Significance	Medium	2A-2D	
120	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	2.0	8	5	10	Good	Typical	Medium Significance	Medium	2A-2D	
121	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	10	2.0	1.4	6	6	2	Good	Typical	Medium Significance	Medium	2A-2D	Group of four trees.
122	<i>Populus deltoides</i>	Cotton Wood	68	8.2	3.0	18	16	5	Fair	Typical	Low Significance	High	3A-3D	Broken limbs, dieback, epicormic growth, wound
123	<i>Populus deltoides</i>	Cotton Wood	75	9.0	3.1	18	12	4	Fair	Poor	Low Significance	High	3A-3D	Broken limbs, cavity, dieback, epicormic growth, wound
124	<i>Melaleuca quinquenervia</i>	Common Paperbark	85	10.2	3.2	17	12	2	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm , included bark , wound , seven trees in row along pathway and driveway.
125	<i>Melaleuca quinquenervia</i>	Common Paperbark	60	7.2	2.9	19	12	10	Good	Typical	High Significance	High	2A-2D	Included bark
126	<i>Eucalyptus robusta</i>	Swamp Mahogany	36	4.3	2.3	16	14	6	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood over 50mm

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127	<i>Eucalyptus robusta</i>	Swamp Mahogany	12	2.0	1.5	14	14	9	Fair	Poor	Medium Significance	Medium	3A-3D	Deadwood, dieback, epicormic growth,
128	<i>Casuarina glauca</i>	Grey She-oak	30	3.6	2.1	16	12	8	Good	Typical	High Significance	High	2A-2D	
129	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	10	2.0	1.4	6	4	4	Fair	Typical	Medium Significance	Medium	2A-2D	
130	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	2.3	14	11	8	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood under 50mm , dieback, epicormic growth
131	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	98	11.8	3.4	10	14	1	Fair	Typical	High Significance	High	2A-2D	
132	<i>Corymbia maculata</i>	Spotted Gum	30	3.6	2.1	15	12	8	Good	Typical	Medium Significance	Medium	2A-2D	
133	<i>Eucalyptus robusta</i>	Swamp Mahogany	35	4.2	2.1	15	16	1	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
134	<i>Corymbia maculata</i>	Spotted Gum	40	4.8	2.3	16	4	3	Good	Typical	Medium Significance	Medium	2A-2D	Deadwood over 50mm, epicormic growth, previously lopped
135	<i>Eucalyptus robusta</i>	Swamp Mahogany	25	3.0	1.9	16	12	8	Good	Typical	High Significance	High	2A-2D	
136	<i>Eucalyptus robusta</i>	Swamp Mahogany	70	8.4	3.0	16	16	2	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm
137	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	80	9.6	3.2	14	16	1	Good	Typical	Medium Significance	Medium	2A-2D	Deadwood under 50mm , decay, epicormic growth
138	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	90	10.8	3.4	10	14	1	Fair	Typical	Medium Significance	Medium	2A-2D	Co-dominant limbs, deadwood under 50mm , decay, dieback, epicormic growth
139	<i>Eucalyptus robusta</i>	Swamp Mahogany	45	5.4	2.5	14	10	2	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
140	<i>Eucalyptus robusta</i>	Swamp Mahogany	35	4.2	2.2	14	12	1	Fair	Typical	High Significance	High	2A-2D	Deadwood over 50mm, deadwood needs removing over path.
141	<i>Syzygium australe</i>	Brush Cherry				7	4	1	Good	Typical	High Significance	High	1A-1D	Memorial tree.
142	<i>Populus deltoides</i>	Cotton Wood	55	6.6	2.8	25	12	4	Fair	Poor	Low Significance	High	3A-3D	
143	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	5.4	14	12	3	Good	Typical	High Significance	High	2A-2D	
144	<i>Casuarina cunninghamiana</i>	River She-oak	40	4.8	2.3	14	14	4	Good	Typical	High Significance	High	2A-2D	
145	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	2.3	12	10	4	Fair	Typical	High Significance	High	2A-2D	Deadwood under 50mm , group on top of hill
146	<i>Populus deltoides</i>	Cotton Wood	50	6.0	2.7	18	12	4	Fair	Poor	Low Significance	High	3A-3D	Broken limbs, decay, dieback, epicormic growth
147	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	2.1	15	12	6	Good	Typical	High Significance	High	2A-2D	

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148	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	2.3	16	14	8	Fair	Poor	Medium Significance	Medium	2A-2D	
149	<i>Eucalyptus botryoides</i>	Southern Mahogany	42	5.0	2.4	16	14	3	Good	Typical	High Significance	High	2A-2D	
150	<i>Populus deltoides</i>	Cotton Wood	70	8.4	3.0	22	14	3	Fair	Poor	Low Significance	High	3A-3D	Cavity, decay, dieback, epicormic growth
151	<i>Populus deltoides</i>	Cotton Wood	55	6.6	2.6	18	14	8	Fair	Poor	Low Significance	Medium	3A-3D	
152	<i>Corymbia maculata</i>	Spotted Gum	20	2.4	1.8	14	8	5	Good	Typical	Medium Significance	Medium	2A-2D	
153	<i>Various spp.</i>	Group of Trees						3	Good	Typical	High Significance	High	2A-2D	5x
154	<i>Populus deltoides</i>	Cotton Wood	40	4.8	2.4	8	4	4	Poor	Poor	Low Significance	Low	3A-3D	Broken limbs, head died out
155	<i>Eucalyptus robusta</i>	Swamp Mahogany	24	2.9	1.9	17	14	2	Good	Typical	High Significance	High	2A-2D	
156	<i>Populus deltoides</i>	Cotton Wood	55	6.6	2.6	18	12	3	Poor	Poor	Low Significance	High	3A-3D	Cavity, dieback, epicormic growth
157	<i>Populus deltoides</i>	Cotton Wood	45	5.4	2.4	17	13	8	Fair	Poor	Medium Significance	Medium	2A-2D	Broken limbs, decay, epicormic growth
158	<i>Populus deltoides</i>	Cotton Wood	55	6.6	2.6	20	16	8	Fair	Poor	Low Significance	High	3A-3D	Broken limbs, dieback, epicormic growth
159	<i>Eucalyptus robusta</i>	Swamp Mahogany	52	6.2	2.6	16	14	4	Good	Typical	High Significance	High	2A-2D	
160	<i>Casuarina glauca</i>	Grey She-oak	10	2.0	1.4	7	4	2	Good	Typical	Medium Significance	Medium	2A-2D	
161	<i>Casuarina glauca</i>	Grey She-oak				8	4	2	Good	Typical	Medium Significance	Medium	2A-2D	Suppressed
162	<i>Eucalyptus robusta</i>	Swamp Mahogany	36	4.3	2.2	16	12	3	Good	Typical	High Significance	High	2A-2D	
163	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	2.4	17	13	2	Good	Typical	High Significance	High	2A-2D	Co-dominant limbs
164	<i>Eucalyptus robusta</i>	Swamp Mahogany	15	2.0	1.6	5	4	3	Good	Typical	Medium Significance	Medium	2A-2D	Suppressed
165	<i>Eucalyptus robusta</i>	Swamp Mahogany	25	3.0	1.9	7	5	4	Good	Typical	Medium Significance	Medium	2A-2D	
166	<i>Eucalyptus robusta</i>	Swamp Mahogany	34	4.1	2.2	17	14	4	Good	Typical	High Significance	High	2A-2D	
167	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	2.1	10	8	4	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood over 50mm, suppressed
168	<i>Eucalyptus robusta</i>	Swamp Mahogany	48	5.8	2.5	18	14	2	Good	Typical	High Significance	High	2A-2D	
169	<i>Lagunaria patersonia</i>	Norfolk Island Hibiscus	27	3.2	2.0	16	12	1	Good	Typical	Medium Significance	Medium	2A-2D	

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170	<i>Lagunaria patersonia</i>	Norfolk Island Hibiscus	38	4.5	2.3	17	15	3	Good	Typical	Medium Significance	Medium	2A-2D	Included bark
171	<i>Casuarina glauca</i>	Grey She-oak	58	7.0	2.7	18	16	2	Good	Typical	High Significance	High	2A-2D	
172	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	56	6.7	2.9	10	20	1	Fair	Poor	Low Significance	Medium	3A-3D	Cavity, co-dominant limbs, decay
173	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	2.1	16	12	5	Good	Typical	High Significance	High	2A-2D	Broken limbs, deadwood over 50mm, unattached branches
174	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	2.1	18	14	4	Fair	Poor	Medium Significance	Medium	2A-2D	Broken limbs, cavity, deadwood, deadwood over 50mm, decay, epicormic growth
175	<i>Erythrina Xsykesii</i>	Coral Tree	200	15.0	4.6	18	26	1	Good	Typical	High Significance	High	2A-2D	
176	<i>Casuarina cunninghamiana</i>	River She-oak	44	5.3	2.4	18	20	3	Good	Typical	High Significance	High	2A-2D	
177	<i>Casuarina cunninghamiana</i>	River She-oak	25	3.0	2.0	18	14	5	Good	Typical	High Significance	High	2A-2D	
178	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	2.1	16	14	3	Good	Typical	High Significance	High	2A-2D	Deadwood over 50mm
179	<i>Casuarina cunninghamiana</i>	River She-oak	32	3.8	2.2	16	14	3	Good	Typical	High Significance	High	2A-2D	
180	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	19	2.3	1.7	4	1	2	Fair	Typical	Medium Significance	Medium	2A-2D	
181	<i>Ficus microcarpa var. hillii</i>	Hill's Weeping Fig	132	15.0	3.8	20	3	1	Good	Typical	High Significance	High	2A-2D	
182	<i>Casuarina cunninghamiana</i>	River She-oak	22	2.6	1.9	14	8	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
183	<i>Casuarina cunninghamiana</i>	River She-oak	20	2.4	1.7	15	12	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
184	<i>Casuarina cunninghamiana</i>	River She-oak	40	4.8	2.3	14	10	4	Good	Typical	High Significance	High	2A-2D	
185	<i>Pinus radiata</i>	Monterey Pine	80	9.6	3.1	18	18	3	Good	Typical	High Significance	High	2A-2D	
186	<i>Casuarina cunninghamiana</i>	River She-oak	32	3.8	2.2	6	4	2	Fair	Typical	High Significance	High	2A-2D	Deadwood over 50mm
187	<i>Casuarina cunninghamiana</i>	River She-oak	48	5.8	2.4	16	12	2	Good	Typical	High Significance	High	2A-2D	Stake into stem. Never removed.
188	<i>Casuarina cunninghamiana</i>	River She-oak	72	8.7	3.1	20	22	3	Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
189	<i>Casuarina glauca</i>	Grey She-oak	30	3.6	2.1	16	14	3	Good	Typical	High Significance	High	2A-2D	
190	<i>Casuarina cunninghamiana</i>	River She-oak	35	4.2	2.2	9	8	2	Fair	Typical	Medium Significance	Medium	2A-2D	Deadwood over 50mm



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191	<i>Casuarina cunninghamiana</i>	River She-oak	43	5.2	2.6	17	14	2	Good	Typical	High Significance	High	2A-2D	Kino flow , wound
192	<i>Casuarina cunninghamiana</i>	River She-oak	44	5.3	2.5	16	14	4	Good	Typical	High Significance	High	2A-2D	
193	<i>Casuarina cunninghamiana</i>	River She-oak	50	6.0	2.6	17	16	5	Good	Typical	High Significance	High	2A-2D	
194	<i>Araucaria heterophylla</i>	Norfolk Island Pine	47	5.6	2.4			1	Good	Typical	Medium Significance	Medium	2A-2D	Co-dominant limbs
195	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	2.1	12	10	3	Fair	Typical	Medium Significance	Medium	2A-2D	
196	<i>Casuarina glauca</i>	Grey She-oak	61	7.3	2.9	20	20	3	Good	Typical	High Significance	High	2A-2D	
197	<i>Casuarina cunninghamiana</i>	River She-oak	50	6.0	2.6	20	16	3	Good	Poor	Medium Significance	Medium	2A-2D	Broken limbs, deadwood, previously lopped, lopped to east for power lines.
198	<i>Various spp.</i>	Group of Trees				10	8	1	Good	Typical	Medium Significance	Medium	2A-2D	Planted rows of tree.
201	Callitris sp.	Native Pine	45	5.4	2.37	14	10		Good	Typical	High Significance	High	2A-2D	
202	<i>Casuarina cunninghamiana</i>	River She-oak	40	4.8	2.47	15	12		Good	Typical	Medium Significance	Medium	2A-2D	
203	<i>Casuarina cunninghamiana</i>	River She-oak	45	5.4	2.37	6	12		Good	Poor	Medium Significance	Medium	2A-2D	
204	<i>Casuarina cunninghamiana</i>	River She-oak	43.01	5.16	2.76	12	14		Good	Poor	Medium Significance	Medium	2A-2D	
205	<i>Casuarina cunninghamiana</i>	River She-oak	46.1	5.53	2.67	12	16		Good	Poor	Medium Significance	Medium	2A-2D	Broken Limbs, Deadwood, Deadwood over 50mm
206	<i>Casuarina cunninghamiana</i>	River She-oak	47.17	5.66	2.57	11	14		Good	Poor	Medium Significance	Medium	2A-2D	Deadwood
207	<i>Casuarina cunninghamiana</i>	River She-oak	70.18	8.42	3.01	12	16		Good	Poor	Medium Significance	Medium	2A-2D	Deadwood over 50mm
208	<i>Casuarina cunninghamiana</i>	River She-oak	55	6.6	2.76	13	16		Good	Poor	Medium Significance	Medium	2A-2D	Deadwood over 50mm
209	<i>Casuarina glauca</i>	Grey She-oak	40	4.8	2.37	6	6		Good	Poor	Medium Significance	Medium	2A-2D	Previously Lopped
210	<i>Casuarina glauca</i>	Grey She-oak	40	4.8	2.37	6	6		Good	Poor	Medium Significance	Medium	2A-2D	
211	<i>Casuarina glauca</i>	Grey She-oak	55	6.6	2.76	9	12		Good	Poor	Medium Significance	Medium	2A-2D	
212	<i>Casuarina glauca</i>	Grey She-oak	64.03	7.68	2.67	10	14		Good	Poor	Medium Significance	Medium	2A-2D	
213	<i>Casuarina glauca</i>	Grey She-oak	68.01	8.16	3.01	12	16		Good	Poor				

Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
214	Casuarina cunninghamiana	River She-oak	80	9.6	3.24	12	16		Good	Poor	Medium Significance	Medium	2A-2D	
215	Hibiscus syriacus	Hibiscus	28.28	3.39	1.94	6	12		Good	Typical	Medium Significance	Medium	2A-2D	
216	Casuarina glauca	Grey She-oak	20	2.4	1.94	8	6		Good	Typical	High Significance	High	2A-2D	
218	Eucalyptus robusta	Swamp Mahogany	50	6	2.67	14	12		Good	Typical	High Significance	High	2A-2D	Deadwood
219	Eucalyptus robusta	Swamp Mahogany	40	4.8	2.47	10	8		Good	Typical	High Significance	High	2A-2D	
220	Eucalyptus robusta	Swamp Mahogany	30	3.6	2.25	10	12		Good	Typical	High Significance	High	2A-2D	
221	Casuarina cunninghamiana	River She-oak	70	8.4	3.17	14	20		Good	Typical	High Significance	High	2A-2D	Broken Limbs, Deadwood under 50mm
222	Banksia integrifolia	Coast Banksia	45	5.4	2.57	14	8		Good	Typical	High Significance	High	2A-2D	
223	Eucalyptus botryoides	Southern Mahogany	40	4.8	2.57	14	12		Good	Typical	High Significance	High	2A-2D	
224	Banksia integrifolia	Coast Banksia	40	4.8	2.37	12	12		Good	Typical	High Significance	High	2A-2D	
225	Casuarina glauca	Grey She-oak	20	2.4	2	14	6		Good	Typical	High Significance	High	2A-2D	
226	Eucalyptus robusta	Swamp Mahogany	35	4.2	2.37	14	6		Good	Typical	High Significance	High	2A-2D	
227	Banksia integrifolia	Coast Banksia	20	2.4	1.85	7	4		Good	Typical	Medium Significance	Medium	2A-2D	
228	Banksia integrifolia	Coast Banksia	40	4.8	2.57	14	12		Good	Typical	High Significance	Medium	2A-2D	Deadwood under 50mm
229	Banksia integrifolia	Coast Banksia	40	4.8	2.57	14	12		Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
230	Banksia integrifolia	Coast Banksia	30	3.6	2.25	10	14		Good	Typical	Medium Significance	Medium	2A-2D	
231	Populus deltoides	Cotton Wood	50	6	2.57	16	12		Good	Typical	High Significance	High	2A-2D	
232	Casuarina glauca	Grey She-oak	45	5.4	2.57	14	16		Good	Typical	High Significance	High	2A-2D	
233	Eucalyptus robusta	Swamp Mahogany	45	5.4	2.57	15	16		Good	Poor	Medium Significance	Medium	2A-2D	
234	Banksia integrifolia	Coast Banksia	40	4.8	2.47	14	16		Good	Typical	High Significance	High	2A-2D	
235	Casuarina glauca	Grey She-oak	50	6	2.67	18	14		Good	Typical	High Significance	High	2A-2D	
236	Banksia integrifolia	Coast Banksia	50	6	2.67	12	8		Good	Typical	High Significance	High	2A-2D	Phototropic

Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
237	Casuarina glauca	Grey She-oak	60	7.2	3.09	18	20		Good	Typical	High Significance	High	2A-2D	
238	Agonis flexuosa	West Australian Willow Myrtle	65	7.8	3.01	12	20		Good	Poor	Medium Significance	Medium	2A-2D	Phototropic
239	Casuarina glauca	Grey She-oak	40.31	4.84	2.25	16	14		Good	Typical	High Significance	High	2A-2D	
240	Casuarina glauca	Grey She-oak	25	3	2.13	12	10		Good	Typical	High Significance	High	2A-2D	
241	Melaleuca quinquenervia	Common Paperbark	60	7.2	2.85	14	12		Good	Typical	High Significance	High	2A-2D	
242	Agonis flexuosa	West Australian Willow Myrtle	67.27	8.07	2.67	10	12		Good	Typical	High Significance	High	2A-2D	
243	Melaleuca quinquenervia	Common Paperbark	45	5.4	2.67	15	12		Good	Typical	High Significance	High	2A-2D	
244	Melaleuca quinquenervia	Common Paperbark	70	8.4	3.01	17	14		Good	Typical	High Significance	High	2A-2D	
245	Melaleuca quinquenervia	Common Paperbark	60	7.2	2.85	17	9		Good	Typical	High Significance	High	2A-2D	
246	Melaleuca quinquenervia	Common Paperbark	49.24	5.91	2.47	16	7		Good	Typical	High Significance	High	2A-2D	
247	Melaleuca quinquenervia	Common Paperbark	110	13.2	3.44	18	14		Good	Typical	High Significance	High	2A-2D	
248	Melaleuca quinquenervia	Common Paperbark	76.32	9.16	3.01	18	14		Good	Typical	High Significance	High	2A-2D	
249	Melaleuca quinquenervia	Common Paperbark	78.1	9.37	3.01	18	12		Good	Typical	High Significance	High	2A-2D	Co-dominant Limbs
250	Eucalyptus robusta	Swamp Mahogany	30	3.6	2.25	17	11		Fair	Typical	High Significance	High	2A-2D	Deadwood over 50mm
251	Eucalyptus robusta	Swamp Mahogany	45	5.4	2.57	18	10		Good	Typical	High Significance	High	2A-2D	Deadwood under 50mm
252	Melaleuca styphelioides	Prickly Paperbark	10	2	1.36	5	3		Good	Typical	Medium Significance	Medium	2A-2D	
253	Casuarina glauca	Grey She-oak	40	4.8	2.47	14	9		Good	Typical	High Significance	High	2A-2D	
254	Casuarina glauca	Grey She-oak	40	4.8	2.57	14	9		Good	Typical	High Significance	High	2A-2D	
255	Corymbia maculata	Spotted Gum	40	4.8	2.51	10	6		Good	Typical	High Significance	High	2A-2D	
256	Corymbia maculata	Spotted Gum	40	4.8	2.67	16	12		Good	Typical	High Significance	High	2A-2D	
257	Corymbia maculata	Spotted Gum	25	3	2	13	8		Good	Typical	High Significance	High	2A-2D	
258	Corymbia maculata	Spotted Gum	30	3.6	2.13	14	9		Fair	Typical	High Significance	High	2A-2D	Dieback

Tree Id	Botanical Name	Common Name	DBH [cm]	Tree Protection Zone (TPZ) [m]	Structural Root Zone (SRZ) [m]	Tree Height (Estimated) [m]	Canopy Spread [m]	Est. Height to Lowest Branch	Health	Form	STARS - Tree Significance	Tree Retention Value	SULE	Observations
259	Eucalyptus robusta	Swamp Mahogany	40	4.8	2.47	18	14		Good	Typical	High Significance	High	2A-2D	Broken Limbs
260	Eucalyptus robusta	Swamp Mahogany	12	2	1.49	7	6		Good	Typical	High Significance	High	2A-2D	
261	Eucalyptus robusta	Swamp Mahogany	50	6	2.67	18	16		Good	Typical	High Significance	High	2A-2D	Broken Limbs
262	Casuarina glauca	Grey She-oak	40	4.8	2.47	14	8		Good	Typical	High Significance	High	2A-2D	
263	Eucalyptus robusta	Swamp Mahogany	35	4.2	2.43	9	7		Good	Typical	High Significance	High	2A-2D	
264	Eucalyptus robusta	Swamp Mahogany	30	3.6	2.25	14	8		Good	Typical	High Significance	High	2A-2D	
265	Casuarina glauca	Grey She-oak	18	2.16	1.75	9	6		Good	Typical	High Significance	High	2A-2D	
266	Casuarina glauca	Grey She-oak	80	9.6	1.36	6	4		Good	Typical	Medium Significance	Medium	2A-2D	
267	Casuarina glauca	Grey She-oak	20	2.4	2	12	6		Good	Typical	Medium Significance	High	2A-2D	
268	Casuarina glauca	Grey She-oak	20	2.4	2	9	6		Good	Typical	High Significance	High	2A-2D	
269	Eucalyptus robusta	Swamp Mahogany			1.26	3	3		Good	Typical	Medium Significance	Medium	2A-2D	
270	Lagunaria patersonia	Norfolk Island Hibiscus	35	4.2	2.25	10	12		Good	Typical	Low Significance	Low	2A-2D	
271	Agonis flexuosa	West Australian Willow Myrtle	90	10.8	3.44	8	12		Good	Typical	Medium Significance	Medium	2A-2D	
272	Erythrina indica	Coral Tree	30	3.6	2.25	12	6		Good	Typical	Low Significance	Low	2A-2D	
273	Casuarina glauca	Grey She-oak	46.1	5.53	2.57	7	6		Good	Poor	Medium Significance	Medium	2A-2D	Co-dominant Limbs, Previously Lopped
274	Casuarina glauca	Grey She-oak	55	6.6	2.76	7	6		Good	Poor	Medium Significance	Medium	2A-2D	Previously Lopped
275	Casuarina glauca	Grey She-oak	60.21	7.23	2.67	16	12		Good	Typical	High Significance	High	2A-2D	

Table Legend:			
Health	Form	Aged Class	Further Detail
Good: Trees foliage is in exceptional condition and can be considered an excellent specimen of its species. No pests or diseases are present.	Good: Trees structure is exceptional and can be considered an excellent specimen of its species. No visible defects are present.	Juvenile: Tree will generally grow rapidly in this phase of its life cycle.	Diameter at Breast Height (DBH) measured at 1.4m above ground level. Diameter at Root Flare (DRF) measured at the base of the tree, at the trunk / root system transition zone. Diameter = circumference divided by $\pi$
Fair: Trees foliar condition is satisfactory but may be exhibiting some signs of stress such as tip dieback or chlorosis, pests or diseases may be present but not adversely affecting the tree.	Typical: Trees structure is normal for the species; some minor structural constraints may be present.	Mature: Tree has reached maturity and is producing flowers, fruits and seeds. Tree continues to grow.	Tree Protection Zone (TPZ) defined as metres radius. Calculated being $DBH \times 12$ (minimum 2.0m and no greater than 15m).
Poor: Foliage density is sparse or largely discoloured, tree health is at or approaching a critical value which may be irreversible, pests or diseases are highly prevalent throughout the crown.	Poor: Structure is a poor example of its species and exhibits a combination of structural issues.	Full to Late Maturity: Tree has reached the maximum height for its species, elongation has stopped but the trunk continues to thicken, overall growth rate is starting to slow, foliar density may be starting to thin.	Structural Root Zone (SRZ) displaced as metres radius. Calculation being $(DRF \times 50)^{0.42} \times 0.64$ (never less than 1.5m or greater than 15m).
Dead: Tree is in advanced decline or completely dead.	Dead: Tree is in advanced decline or completely dead.	Senescent: Tree has / is starting to retract in size through dieback and shedding of limbs. Trees in this age class may be ecologically valuable, as their structure contains habitat necessary for native fauna.	

## Tree Recommendations

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
1	<i>Eucalyptus robusta</i>	Swamp Mahogany	45	5.4	Nil	Retain and protect
2	<i>Eucalyptus robusta</i>	Swamp Mahogany	51	6.1	Nil	Retain and protect
3	<i>Corymbia maculata</i>	Spotted Gum	56	6.7	Nil	Retain and protect
4	<i>Melaleuca quinquenervia</i>	Common Paperbark	148	15.0	Nil	Retain and protect
5	<i>Eucalyptus robusta</i>	Swamp Mahogany	41	4.9	Nil	Retain and protect
6	<i>Casuarina glauca</i>	Grey She-oak	55	6.6	Nil	Retain and protect
7	<i>Casuarina glauca</i>	Grey She-oak	53	6.4	Nil	Retain and protect
8	<i>Casuarina glauca</i>	Grey She-oak	60	7.2	Nil	Retain and protect
9	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	Nil	Retain and protect
10	<i>Casuarina glauca</i>	Grey She-oak	50	6.0	Nil	Retain and protect
11	<i>Casuarina glauca</i>	Grey She-oak	42	5.0	Nil	Retain and protect
12	<i>Casuarina glauca</i>	Grey She-oak	31	3.7	Nil	Retain and protect
13	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
14	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
15	<i>Casuarina glauca</i>	Grey She-oak	43	5.2	Nil	Retain and protect
16	<i>Casuarina glauca</i>	Grey She-oak	30	3.6	Nil	Retain and protect
17	<i>Casuarina glauca</i>	Grey She-oak	44	5.3	Nil	Retain and protect
18	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
19	<i>Casuarina glauca</i>	Grey She-oak	60	7.2	Nil	Retain and protect
20	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
21	<i>Melaleuca quinquenervia</i>	Common Paperbark	45	5.3	Nil	Retain and protect
22	<i>Casuarina glauca</i>	Grey She-oak	61	7.3	Nil	Retain and protect
23	<i>Casuarina glauca</i>	Grey She-oak	45	5.4	Nil	Retain and protect
24	<i>Eucalyptus robusta</i>	Swamp Mahogany	46	5.5	Nil	Retain and protect
25	<i>Melaleuca quinquenervia</i>	Common Paperbark	53	6.4	Nil	Retain and protect
26	<i>Melaleuca quinquenervia</i>	Common Paperbark	88	10.5	Nil	Retain and protect
27	<i>Melaleuca quinquenervia</i>	Common Paperbark	61	7.3	Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
28	<i>Melaleuca quinquenervia</i>	Common Paperbark	74	8.9	Nil	Retain and protect
29	<i>Melaleuca quinquenervia</i>	Common Paperbark	44	5.3	Nil	Retain and protect
30	<i>Eucalyptus robusta</i>	Swamp Mahogany	31	3.7	Nil	Retain and protect
31	<i>Eucalyptus robusta</i>	Swamp Mahogany	42	5.0	Nil	Retain and protect
32	<i>Eucalyptus robusta</i>	Swamp Mahogany	53	6.4	Nil	Retain and protect
33	<i>Casuarina glauca</i>	Grey She-oak	20	2.4	Nil	Retain and protect
34	<i>Casuarina glauca</i>	Grey She-oak	22	2.6	Nil	Retain and protect
35	<i>Populus deltoides</i>	Cotton Wood	120	14.5	Nil	Retain and protect
36	<i>Corymbia maculata</i>	Spotted Gum	58	7.0	Nil	Retain and protect
37	<i>Casuarina cunninghamiana</i>	River She-oak	81	9.7	Nil	Retain and protect
38	<i>Eucalyptus robusta</i>	Swamp Mahogany	64	7.7	Nil	Retain and protect
39	<i>Casuarina cunninghamiana</i>	River She-oak	61	7.3	Nil	Retain and protect
40	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	54	6.5	Nil	Retain and protect
41	<i>Casuarina glauca</i>	Grey She-oak	56	6.7	Nil	Retain and protect
42	<i>Eucalyptus robusta</i>	Swamp Mahogany	66	7.9	Nil	Retain and protect
43	<i>Casuarina cunninghamiana</i>	River She-oak	48	5.8	Minor**	Retain and protect
44	<i>Melaleuca styphelioides</i>	Prickly Paperbark	43	5.2	Minor**	Retain and protect
45	<i>Melaleuca styphelioides</i>	Prickly Paperbark	26	3.1	Major (complete incursion)	Remove and replace in accordance with landscaping plans.
46	<i>Casuarina glauca</i>	Grey She-oak	46	5.5	Major (complete incursion)	Remove and replace in accordance with landscaping plans.
47	<i>Eucalyptus robusta</i>	Swamp Mahogany	45	5.4	Nil	Retain and protect
48	<i>Eucalyptus botryoides</i>	Southern Mahogany	44	5.3	Nil	Retain and protect
49	<i>Melaleuca quinquenervia</i>	Common Paperbark	25	3.0	Nil	Retain and protect
50	<i>Melaleuca quinquenervia</i>	Common Paperbark	47	5.7	Nil	Retain and protect
51	<i>Melaleuca quinquenervia</i>	Common Paperbark	51	6.1	Nil	Retain and protect
52	<i>Melaleuca quinquenervia</i>	Common Paperbark	37	4.4	Nil	Retain and protect
53	<i>Eucalyptus spp.</i>	Juvenile Eucalyptus	60	7.2	Nil	Retain and protect
54	<i>Melaleuca quinquenervia</i>	Common Paperbark	47	5.6	Nil	Retain and protect
55	<i>Eucalyptus robusta</i>	Swamp Mahogany	34	4.1	Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
56	<i>Eucalyptus botryoides</i>	Southern Mahogany	45	5.4	Nil	Retain and protect
57	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	123	14.8	Nil	Retain and protect
58	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	112	13.5	Nil	Retain and protect
59	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	82	9.8	Nil	Retain and protect
60	<i>Banksia integrifolia</i>	Coast Banksia	56	6.7	Nil	Retain and protect
61	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	750	15.0	Nil	Retain and protect
62	<i>Casuarina glauca</i>	Grey She-oak	47	5.6	Nil	Retain and protect
63	<i>Casuarina glauca</i>	Grey She-oak	44	5.3	Nil	Retain and protect
64	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	81	9.7	Nil	Retain and protect
65	<i>Eucalyptus robusta</i>	Swamp Mahogany	34	4.1	Nil	Retain and protect
66	<i>Eucalyptus robusta</i>	Swamp Mahogany	41	4.9	Nil	Retain and protect
67	<i>Lophostemon confertus</i>	Queensland Brush Box	23	2.8	Nil	Retain and protect
68	<i>Melaleuca quinquenervia</i>	Common Paperbark	24	2.9	Nil	Retain and protect
69	<i>Melaleuca quinquenervia</i>	Common Paperbark	67	8.0	Nil	Retain and protect
70	<i>Melaleuca quinquenervia</i>	Common Paperbark	49	5.9	Nil	Retain and protect
71	<i>Casuarina glauca</i>	Grey She-oak	45	5.4	Nil	Retain and protect
72	<i>Eucalyptus robusta</i>	Swamp Mahogany	62	7.4	Nil	Retain and protect
73	<i>Melaleuca quinquenervia</i>	Common Paperbark	29	3.5	Nil	Retain and protect
74	<i>Melaleuca quinquenervia</i>	Common Paperbark	27	3.2	Nil	Retain and protect
75	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	19	2.3	Nil	Retain and protect
76	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	13	2.0	Nil	Retain and protect
77	<i>Casuarina glauca</i>	Grey She-oak	40	4.8	Nil	Retain and protect
78	<i>Melaleuca quinquenervia</i>	Common Paperbark	28	3.4	Nil	Retain and protect
79	<i>Melaleuca quinquenervia</i>	Common Paperbark	46	5.5	Nil	Retain and protect
80	<i>Eucalyptus robusta</i>	Swamp Mahogany	49	5.9	Nil	Retain and protect
81	<i>Melaleuca quinquenervia</i>	Common Paperbark	35	4.2	Nil	Retain and protect
82	<i>Casuarina cunninghamiana</i>	River She-oak	54	6.5	Nil	Retain and protect
83	<i>Melaleuca quinquenervia</i>	Common Paperbark	23	2.8	Nil	Retain and protect
84	<i>Melaleuca quinquenervia</i>	Common Paperbark	50	6.0	Nil	Retain and protect



Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
85	<i>Casuarina glauca</i>	Grey She-oak	40	4.8	Nil	Retain and protect
86	<i>Melaleuca quinquenervia</i>	Common Paperbark	14	2.0	Nil	Retain and protect
87	<i>Melaleuca quinquenervia</i>	Common Paperbark	64	7.7	Nil	Retain and protect
88	<i>Casuarina glauca</i>	Grey She-oak	43	5.2	Nil	Retain and protect
89	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	Nil	Retain and protect
90	<i>Casuarina cunninghamiana</i>	River She-oak	63	7.6	Nil	Retain and protect
91	<i>Casuarina cunninghamiana</i>	River She-oak	64	7.7	Nil	Retain and protect
92	<i>Casuarina cunninghamiana</i>	River She-oak	42	5.0	Nil	Retain and protect
93	<i>Casuarina cunninghamiana</i>	River She-oak	47	5.6	Nil	Retain and protect
94	<i>Eucalyptus robusta</i>	Swamp Mahogany	48	5.8	Nil	Retain and protect
95	<i>Pinus ponderosa</i>	Ponderosa Pine	70	8.4	Nil	Retain and protect
96	<i>Pinus ponderosa</i>	Ponderosa Pine	63	7.6	Nil	Retain and protect
97	<i>Casuarina cunninghamiana</i>	River She-oak	37	4.4	Nil	Retain and protect
98	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
99	<i>Various spp.</i>	Group of Trees	29	3.5	Major	Remove and replace in accordance with landscaping plans**
100	<i>Casuarina cunninghamiana</i>	River She-oak	73	8.8	Nil	Retain and protect
101	<i>Casuarina cunninghamiana</i>	River She-oak	81	9.7	Minor**	Retain and protect
102	<i>Various spp.</i>	Group of Trees	20	2.4	Minor**	Retain and protect
103	<i>Various spp.</i>	Group of Trees	20	2.4	Nil	Retain and protect
104	<i>Cryptocarya laevigata</i>	Glossy Laurel	14	2.0	Nil	Retain and protect
105	<i>Casuarina cunninghamiana</i>	River She-oak	68	8.2	Nil	Retain and protect
106	<i>Melia azedarach</i>	White Cedar	35	4.2	Nil	Retain and protect
107	<i>Eucalyptus robusta</i>	Swamp Mahogany	22	2.6	Nil	Retain and protect
108	<i>Melaleuca quinquenervia</i>	Common Paperbark	33	4.0	Nil	Retain and protect
109	<i>Melaleuca quinquenervia</i>	Common Paperbark	40	4.8	Nil	Retain and protect
110	<i>Melaleuca quinquenervia</i>	Common Paperbark	51	6.2	Nil	Retain and protect
111	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	95	11.4	Minor**	Retain and protect
112	<i>Banksia integrifolia</i>	Coast Banksia	25	3.0	Minor**	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
113	<i>Casuarina glauca</i>	Grey She-oak	43	5.2	Minor**	Retain and protect
114	<i>Eucalyptus botryoides</i>	Southern Mahogany	40	4.8	Minor**	Retain and protect
115	<i>Banksia integrifolia</i>	Coast Banksia	35	4.2	Minor**	Retain and protect
116	<i>Eucalyptus robusta</i>	Swamp Mahogany	58	7.0	Nil	Retain and protect
117	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	Nil	Retain and protect
118	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	10	2.0	Nil	Retain and protect
119	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	20	2.4	Nil	Retain and protect
120	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	Nil	Retain and protect
121	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	10	2.0	Nil	Retain and protect
122	<i>Populus deltoides</i>	Cotton Wood	68	8.2	Nil	Retain and protect
123	<i>Populus deltoides</i>	Cotton Wood	75	9.0	Nil	Retain and protect
124	<i>Melaleuca quinquenervia</i>	Common Paperbark	85	10.2	Nil	Retain and protect
125	<i>Melaleuca quinquenervia</i>	Common Paperbark	60	7.2	Nil	Retain and protect
126	<i>Eucalyptus robusta</i>	Swamp Mahogany	36	4.3	Nil	Retain and protect
127	<i>Eucalyptus robusta</i>	Swamp Mahogany	12	2.0	Nil	Retain and protect
128	<i>Casuarina glauca</i>	Grey She-oak	30	3.6	Nil	Retain and protect
129	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	10	2.0	Nil	Retain and protect
130	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	Nil	Retain and protect
131	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	98	11.8	Nil	Retain and protect
132	<i>Corymbia maculata</i>	Spotted Gum	30	3.6	Nil	Retain and protect
133	<i>Eucalyptus robusta</i>	Swamp Mahogany	35	4.2	Nil	Retain and protect
134	<i>Corymbia maculata</i>	Spotted Gum	40	4.8	Nil	Retain and protect
135	<i>Eucalyptus robusta</i>	Swamp Mahogany	25	3.0	Nil	Retain and protect
136	<i>Eucalyptus robusta</i>	Swamp Mahogany	70	8.4	Nil	Retain and protect
137	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	80	9.6	Nil	Retain and protect
138	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	90	10.8	Nil	Retain and protect
139	<i>Eucalyptus robusta</i>	Swamp Mahogany	45	5.4	Nil	Retain and protect
140	<i>Eucalyptus robusta</i>	Swamp Mahogany	35	4.2	Nil	Retain and protect
141	<i>Syzygium australe</i>	Brush Cherry			Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
142	<i>Populus deltoides</i>	Cotton Wood	55	6.6	Nil	Retain and protect
143	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	Nil	Retain and protect
144	<i>Casuarina cunninghamiana</i>	River She-oak	40	4.8	Nil	Retain and protect
145	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	Nil	Retain and protect
146	<i>Populus deltoides</i>	Cotton Wood	50	6.0	Nil	Retain and protect
147	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	Nil	Retain and protect
148	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	Nil	Retain and protect
149	<i>Eucalyptus botryoides</i>	Southern Mahogany	42	5.0	Nil	Retain and protect
150	<i>Populus deltoides</i>	Cotton Wood	70	8.4	Nil	Retain and protect
151	<i>Populus deltoides</i>	Cotton Wood	55	6.6	Nil	Retain and protect
152	<i>Corymbia maculata</i>	Spotted Gum	20	2.4	Nil	Retain and protect
153	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
154	<i>Populus deltoides</i>	Cotton Wood	40	4.8	Nil	Retain and protect
155	<i>Eucalyptus robusta</i>	Swamp Mahogany	24	2.9	Nil	Retain and protect
156	<i>Populus deltoides</i>	Cotton Wood	55	6.6	Nil	Retain and protect
157	<i>Populus deltoides</i>	Cotton Wood	45	5.4	Nil	Retain and protect
158	<i>Populus deltoides</i>	Cotton Wood	55	6.6	Nil	Retain and protect
159	<i>Eucalyptus robusta</i>	Swamp Mahogany	52	6.2	Nil	Retain and protect
160	<i>Casuarina glauca</i>	Grey She-oak	10	2.0	Nil	Retain and protect
161	<i>Casuarina glauca</i>	Grey She-oak			Nil	Retain and protect
162	<i>Eucalyptus robusta</i>	Swamp Mahogany	36	4.3	Nil	Retain and protect
163	<i>Eucalyptus robusta</i>	Swamp Mahogany	40	4.8	Nil	Retain and protect
164	<i>Eucalyptus robusta</i>	Swamp Mahogany	15	2.0	Nil	Retain and protect
165	<i>Eucalyptus robusta</i>	Swamp Mahogany	25	3.0	Nil	Retain and protect
166	<i>Eucalyptus robusta</i>	Swamp Mahogany	34	4.1	Nil	Retain and protect
167	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	Nil	Retain and protect
168	<i>Eucalyptus robusta</i>	Swamp Mahogany	48	5.8	Nil	Retain and protect
169	<i>Lagunaria patersonia</i>	Norfolk Island Hibiscus	27	3.2	Nil	Retain and protect
170	<i>Lagunaria patersonia</i>	Norfolk Island Hibiscus	38	4.5	Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
171	<i>Casuarina glauca</i>	Grey She-oak	58	7.0	Nil	Retain and protect
172	<i>Agonis flexuosa</i>	West Australian Willow Myrtle	56	6.7	Nil	Retain and protect
173	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	Nil	Retain and protect
174	<i>Eucalyptus robusta</i>	Swamp Mahogany	30	3.6	Nil	Retain and protect
175	<i>Erythrina Xsykesii</i>	Coral Tree	200	15.0	Nil	Retain and protect
176	<i>Casuarina cunninghamiana</i>	River She-oak	44	5.3	Nil	Retain and protect
177	<i>Casuarina cunninghamiana</i>	River She-oak	25	3.0	Nil	Retain and protect
178	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	Nil	Retain and protect
179	<i>Casuarina cunninghamiana</i>	River She-oak	32	3.8	Nil	Retain and protect
180	<i>Callistemon 'Kings Park Special'</i>	Crimson Bottlebrush	19	2.3	Nil	Retain and protect
181	<i>Ficus microcarpa var. hillii</i>	Hill's Weeping Fig	132	15.0	Nil	Retain and protect
182	<i>Casuarina cunninghamiana</i>	River She-oak	22	2.6	Nil	Retain and protect
183	<i>Casuarina cunninghamiana</i>	River She-oak	20	2.4	Nil	Retain and protect
184	<i>Casuarina cunninghamiana</i>	River She-oak	40	4.8	Nil	Retain and protect
185	<i>Pinus radiata</i>	Monterey Pine	80	9.6	Nil	Retain and protect
186	<i>Casuarina cunninghamiana</i>	River She-oak	32	3.8	Nil	Retain and protect
187	<i>Casuarina cunninghamiana</i>	River She-oak	48	5.8	Nil	Retain and protect
188	<i>Casuarina cunninghamiana</i>	River She-oak	72	8.7	Nil	Retain and protect
189	<i>Casuarina glauca</i>	Grey She-oak	30	3.6	Nil	Retain and protect
190	<i>Casuarina cunninghamiana</i>	River She-oak	35	4.2	Nil	Retain and protect
191	<i>Casuarina cunninghamiana</i>	River She-oak	43	5.2	Nil	Retain and protect
192	<i>Casuarina cunninghamiana</i>	River She-oak	44	5.3	Nil	Retain and protect
193	<i>Casuarina cunninghamiana</i>	River She-oak	50	6.0	Nil	Retain and protect
194	<i>Araucaria heterophylla</i>	Norfolk Island Pine	47	5.6	Nil	Retain and protect
195	<i>Casuarina cunninghamiana</i>	River She-oak	30	3.6	Nil	Retain and protect
196	<i>Casuarina glauca</i>	Grey She-oak	61	7.3	Nil	Retain and protect
197	<i>Casuarina cunninghamiana</i>	River She-oak	50	6.0	Nil	Retain and protect
198	<i>Various spp.</i>	Group of Trees			Nil	Retain and protect
201	<i>Callitris sp.</i>	Native Pine	45	5.4	Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
202	Casuarina cunninghamiana	River She-oak	40	4.8	Nil	Retain and protect
203	Casuarina cunninghamiana	River She-oak	45	5.4	Nil	Retain and protect
204	Casuarina cunninghamiana	River She-oak	43.01	5.16	Nil	Retain and protect
205	Casuarina cunninghamiana	River She-oak	46.1	5.53	Nil	Retain and protect
206	Casuarina cunninghamiana	River She-oak	47.17	5.66	Nil	Retain and protect
207	Casuarina cunninghamiana	River She-oak	70.18	8.42	Nil	Retain and protect
208	Casuarina cunninghamiana	River She-oak	55	6.6	Nil	Retain and protect
209	Casuarina glauca	Grey She-oak	40	4.8	Nil	Retain and protect
210	Casuarina glauca	Grey She-oak	40	4.8	Nil	Retain and protect
211	Casuarina glauca	Grey She-oak	55	6.6	Nil	Retain and protect
212	Casuarina glauca	Grey She-oak	64.03	7.68	Nil	Retain and protect
213	Casuarina glauca	Grey She-oak	68.01	8.16	Nil	Retain and protect
214	Casuarina cunninghamiana	River She-oak	80	9.6	Nil	Retain and protect
215	Hibiscus syriacus	Hibiscus	28.28	3.39	Nil	Retain and protect
216	Casuarina glauca	Grey She-oak	20	2.4	Nil	Retain and protect
218	Eucalyptus robusta	Swamp Mahogany	50	6	Nil	Retain and protect
219	Eucalyptus robusta	Swamp Mahogany	40	4.8	Nil	Retain and protect
220	Eucalyptus robusta	Swamp Mahogany	30	3.6	Nil	Retain and protect
221	Casuarina cunninghamiana	River She-oak	70	8.4	At the request of School Infrastructure NSW due to maintenance requirements	Remove
222	Banksia integrifolia	Coast Banksia	45	5.4	At the request of School Infrastructure NSW due to maintenance requirements	Remove
223	Eucalyptus botryoides	Southern Mahogany	40	4.8	At the request of School Infrastructure NSW due to maintenance requirements	Remove
224	Banksia integrifolia	Coast Banksia	40	4.8	At the request of School Infrastructure NSW due to maintenance requirements	Remove
225	Casuarina glauca	Grey She-oak	20	2.4	Nil	Retain and protect
226	Eucalyptus robusta	Swamp Mahogany	35	4.2	Nil	Retain and protect
227	Banksia integrifolia	Coast Banksia	20	2.4	Nil	Retain and protect
228	Banksia integrifolia	Coast Banksia	40	4.8	Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
229	Banksia integrifolia	Coast Banksia	40	4.8	Nil	Retain and protect
230	Banksia integrifolia	Coast Banksia	30	3.6	Nil	Retain and protect
231	Populus deltoides	Cotton Wood	50	6	Nil	Retain and protect
232	Casuarina glauca	Grey She-oak	45	5.4	Nil	Retain and protect
233	Eucalyptus robusta	Swamp Mahogany	45	5.4	Nil	Retain and protect
234	Banksia integrifolia	Coast Banksia	40	4.8	At the request of School Infrastructure NSW due to maintenance requirements	Remove
235	Casuarina glauca	Grey She-oak	50	6	At the request of School Infrastructure NSW due to maintenance requirements	Remove
236	Banksia integrifolia	Coast Banksia	50	6	Nil	Retain and protect
237	Casuarina glauca	Grey She-oak	60	7.2	Nil	Retain and protect
238	Agonis flexuosa	West Australian Willow Myrtle	65	7.8	Nil	Retain and protect
239	Casuarina glauca	Grey She-oak	40.31	4.84	Nil	Retain and protect
240	Casuarina glauca	Grey She-oak	25	3	Nil	Retain and protect
241	Melaleuca quinquenervia	Common Paperbark	60	7.2	Nil	Retain and protect
242	Agonis flexuosa	West Australian Willow Myrtle	67.27	8.07	Nil	Retain and protect
243	Melaleuca quinquenervia	Common Paperbark	45	5.4	Nil	Retain and protect
244	Melaleuca quinquenervia	Common Paperbark	70	8.4	Nil	Retain and protect
245	Melaleuca quinquenervia	Common Paperbark	60	7.2	Nil	Retain and protect
246	Melaleuca quinquenervia	Common Paperbark	49.24	5.91	Nil	Retain and protect
247	Melaleuca quinquenervia	Common Paperbark	110	13.2	Nil	Retain and protect
248	Melaleuca quinquenervia	Common Paperbark	76.32	9.16	Nil	Retain and protect
249	Melaleuca quinquenervia	Common Paperbark	78.1	9.37	Nil	Retain and protect
250	Eucalyptus robusta	Swamp Mahogany	30	3.6	Nil	Retain and protect
251	Eucalyptus robusta	Swamp Mahogany	45	5.4	Nil	Retain and protect
252	Melaleuca styphelioides	Prickly Paperbark	10	2	Nil	Retain and protect
253	Casuarina glauca	Grey She-oak	40	4.8	Nil	Retain and protect
254	Casuarina glauca	Grey She-oak	40	4.8	Nil	Retain and protect
255	Corymbia maculata	Spotted Gum	40	4.8	Nil	Retain and protect
256	Corymbia maculata	Spotted Gum	40	4.8	Nil	Retain and protect

Tree Id	Botanical Name	Common Name	DBH [cm]	TPZ [m]	Impact	Recommendations*
257	Corymbia maculata	Spotted Gum	25	3	Nil	Retain and protect
258	Corymbia maculata	Spotted Gum	30	3.6	Nil	Retain and protect
259	Eucalyptus robusta	Swamp Mahogany	40	4.8	Nil	Retain and protect
260	Eucalyptus robusta	Swamp Mahogany	12	2	Nil	Retain and protect
261	Eucalyptus robusta	Swamp Mahogany	50	6	Nil	Retain and protect
262	Casuarina glauca	Grey She-oak	40	4.8	Nil	Retain and protect
263	Eucalyptus robusta	Swamp Mahogany	35	4.2	Nil	Retain and protect
264	Eucalyptus robusta	Swamp Mahogany	30	3.6	Nil	Retain and protect
265	Casuarina glauca	Grey She-oak	18	2.16	Nil	Retain and protect
266	Casuarina glauca	Grey She-oak	80	9.6	Nil	Retain and protect
267	Casuarina glauca	Grey She-oak	20	2.4	Nil	Retain and protect
268	Casuarina glauca	Grey She-oak	20	2.4	Nil	Retain and protect
269	Eucalyptus robusta	Swamp Mahogany			Nil	Retain and protect
270	Lagunaria patersonia	Norfolk Island Hibiscus	35	4.2	Nil	Retain and protect
271	Agonis flexuosa	West Australian Willow Myrtle	90	10.8	Nil	Retain and protect
272	Erythrina indica	Coral Tree	30	3.6	Nil	Retain and protect
273	Casuarina glauca	Grey She-oak	46.1	5.53	Nil	Retain and protect
274	Casuarina glauca	Grey She-oak	55	6.6	Nil	Retain and protect
275	Casuarina glauca	Grey She-oak	60.21	7.23	Nil	Retain and protect

\*Project Arborist (AQF Level 5) to be engaged during construction works and review the final footprint of building works including cut / fill, building and services layout.

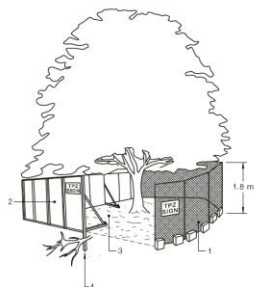
\*\*Further review of construction management plan including earthworks, services layout and any required scaffolding etc to be undertaken by the Project Arborist (AQF Level 5) before works commence. Project arborist to review the number of trees within group 99 to be removed based on final set out.

# Tree Protection Measures and Guidelines

**Note 1:** TPZ perimeter fencing should be grouped where perimeters overlap and appropriate.

**Note 2:** Signage is to be installed in accordance with Australian Standard AS 4970-2009 Protection of trees on development sites as illustrated below.

**Protective Fencing**



**LEGEND:**  
 1. Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.  
 2. Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.  
 3. Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.  
 4. Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

Figure 2

**Examples of Trunk, Branch & Ground Protection**

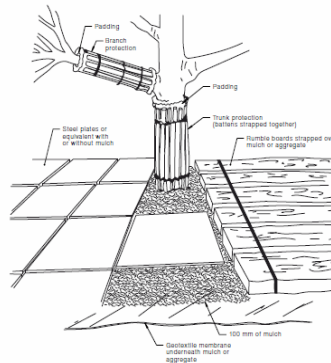


Figure 3

**Tree Protection Zone Signage**

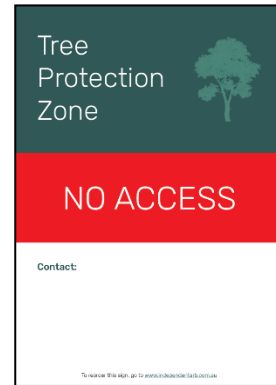


Figure 4

## Low pressure Ground Excavation & Water Cutting



Figure 5



Figure 6



Figure 7



Figure 8

## Example of Fauna Friendly Rigid Style Temporary Fencing



Figure 9



Figure 10

Source: AS4970-2009 Protection of Trees on Development Sites



## Tree Management Plan (TMP) – Works Progress: Development Phase

Stage	Tasks	Specific Outcomes
<b>Pre-construction Phase</b>		
Prepare and finalise Arboricultural Impact Assessments for submission to Council	Project Arborist to be appointed Review tree details in all approved Arboricultural reports following any new issue of plans	Submit Arboricultural reports including Arboricultural Impact Assessment for final Council Approval
Project Arborist to conduct Prestart Meeting with all representatives involved in construction	Prior to meeting: TPZ temporary protection/fencing installed <b><u>Arboricultural Report, TMP &amp; Council approval copies to be included in CMP</u></b> and made available to onsite crews	Prestart Certification and approvals in place & available onsite with CMP
<b>Commencement - Construction Phase</b>		
Initial Site Preparation	Project Arborist to supervise all tree work. <b>Construction crew or others are not to remove any part of a tree.</b> Arborist prestart site inspection.	Compliance Certification of Arboricultural works for lodgement to Council  Arborist certification of TPZ measures.
Prestart Toolbox Meeting	All relevant onsite crews to be briefed by Project Arborist prior to commencement of <u>each</u> work phase. Project Arborist <u>must</u> be notified and onsite at all times when construction works are within or close to TPZ. Note: Onsite attendance of Project Arborist is a condition for issue of Arboricultural Site Audit Statement/s.	Arborist Site Audit Reporting system to be in place. Copies of Arboricultural Report to be retained onsite.  <u>Arboricultural Site Audit Statement/s will not be issued retrospectively</u>
<b>Construction Phase</b>		
Site Establishment	Project Arborist to monitor tree health during establishment phase including bulk earthworks, changes in hydrology etc.	Instigate remedial tree care measures if required
Construction work	Site Manager to liaise with and ensure Project Arborist is advised in time to allow them to be present for all work carried out within TPZ area including any work likely to affect identified tree/s. Any deviation/s from approved plans to be approved by Project Arborist. <b>Project Arborist to provide ongoing Site Audit Certification of all work within TPZ</b>	Any remedial tree works to be carried out by qualified arborists under supervision of Project Arborist.  Project Arborist is responsible for issue of Arborist Site Audit Reports.
Practical Completion	Project Arborist to carryout review of tree health and vigour and advise on TPZ fencing.	On Project Arborist approval, carryout removal of remaining temporary tree protection measures
<b>Post Construction Phase</b>		
Final Arborist inspection	Carryout tree health review and provide recommendations for required tree care.	Issue of final Arborist Site Audit Compliance Statement for inclusion in final DA documentation and sealing.

ARCHITECTURE:

- 0000 GENERAL & SITE INFORMATION
- 1000 GENERAL ARRANGEMENT PLANS
- 2000 GA RCPS
- 3000 GA SECTIONS & ELEVATIONS
- 4000 REFERENCE PLANS
- 5000 STRUCTURAL SET-OUT
- 6000 VERTICAL CIRCULATION
- 7000 INTERIOR DESIGN DETAILS
- 8000 EXTERIOR & FAÇADE DETAILS
- 9000 DRAWN SCHEDULES
- 9000 SCHEDULES & SPECIFICATIONS



**LEGEND**

- - - DEMOLISHED/ REMOVED
- / / / BIODIVERSITY PROTECTED LAND

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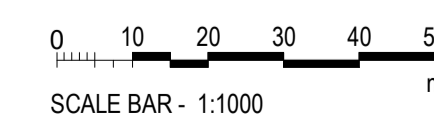
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CHECKED	Checker	
APPROVED	Approver	1 : 1000 @ A1



TITLE  
**DEMOLITION SITE PLAN - SCHOOL -  
 GROUND FLOOR**

DRAWING NUMBER	REVISION
AR-H-0512	3



1 DEMOLITION SITE PLAN - GROUND FLOOR

ARCHITECTURE:

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- 2000 GA RCPs
- 3000 GA SECTIONS & ELEVATIONS
- 4000 REFERENCE PLANS
- 5000 STRUCTURAL SET-OUT
- 6000 VERTICAL CIRCULATION
- 7000 INTERIOR DESIGN DETAILS
- 8000 EXTERIOR & FACADE DETAILS
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DEMOLITION SITE PLAN - LEVEL 1  
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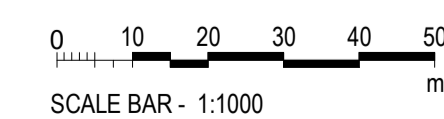


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**DEMOLITION SITE PLAN - SCHOOL - LEVEL 1**

DRAWING NUMBER	REVISION
AR-H-0513	3



**LEGEND**

[Grey Box]	EXISTING
[Red Box]	REFURBISHMENT
[Blue Box]	NEW BUILDING
[Green Box]	CIRCULATION

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3000	GA SECTIONS & ELEVATIONS
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6000	VERTICAL CIRCULATION
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8000	EXTERIOR & FACADE DETAILS
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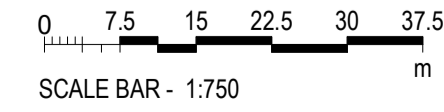
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TITLE  
**SITE PLAN - SCHOOL - GROUND FLOOR**

DRAWING NUMBER	REVISION
AR-H-0521	7

NSHS - GROUND FLOOR  
 SCALE 1 : 750



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REFURBISHMENT
NEW BUILDING
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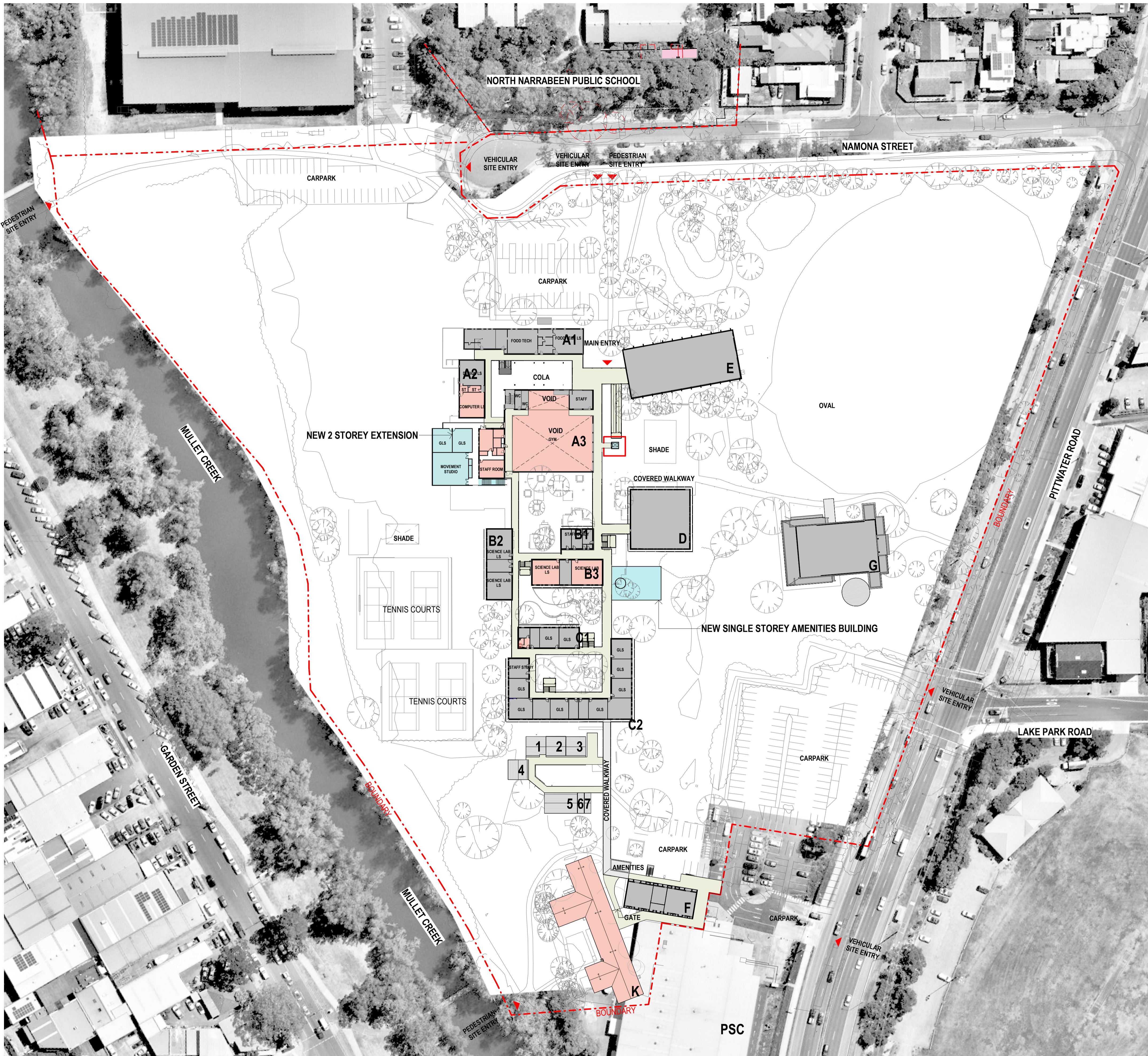
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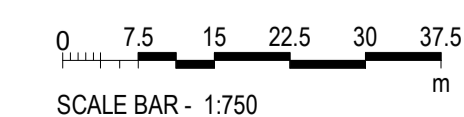


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**SITE PLAN - SCHOOL - LEVEL 1**



<b>DRAWING NUMBER</b>	<b>REVISION</b>
AR-H-0522	4

NSHS - LEVEL 1  
 SCALE 1:750

## Photos



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Tree 2



Tree 3



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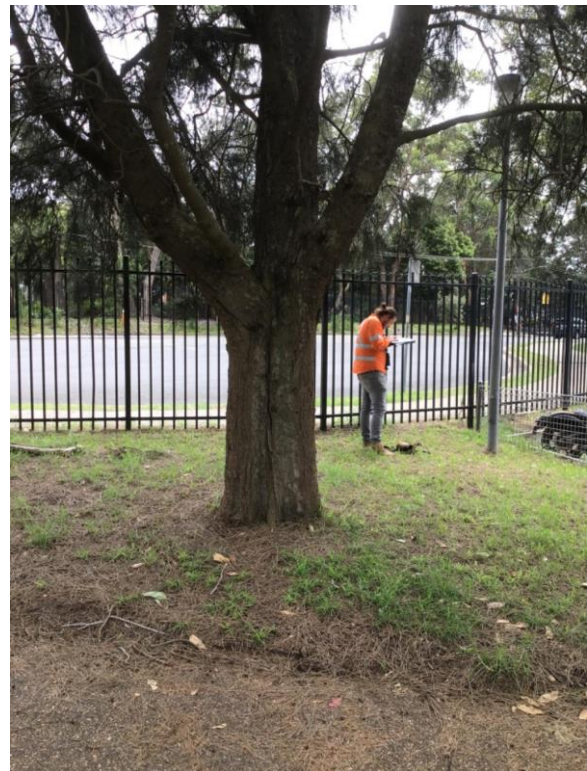
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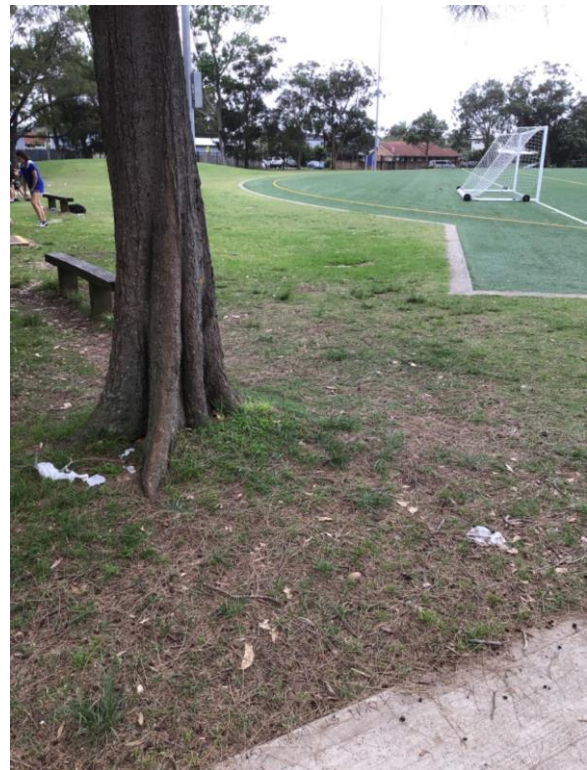
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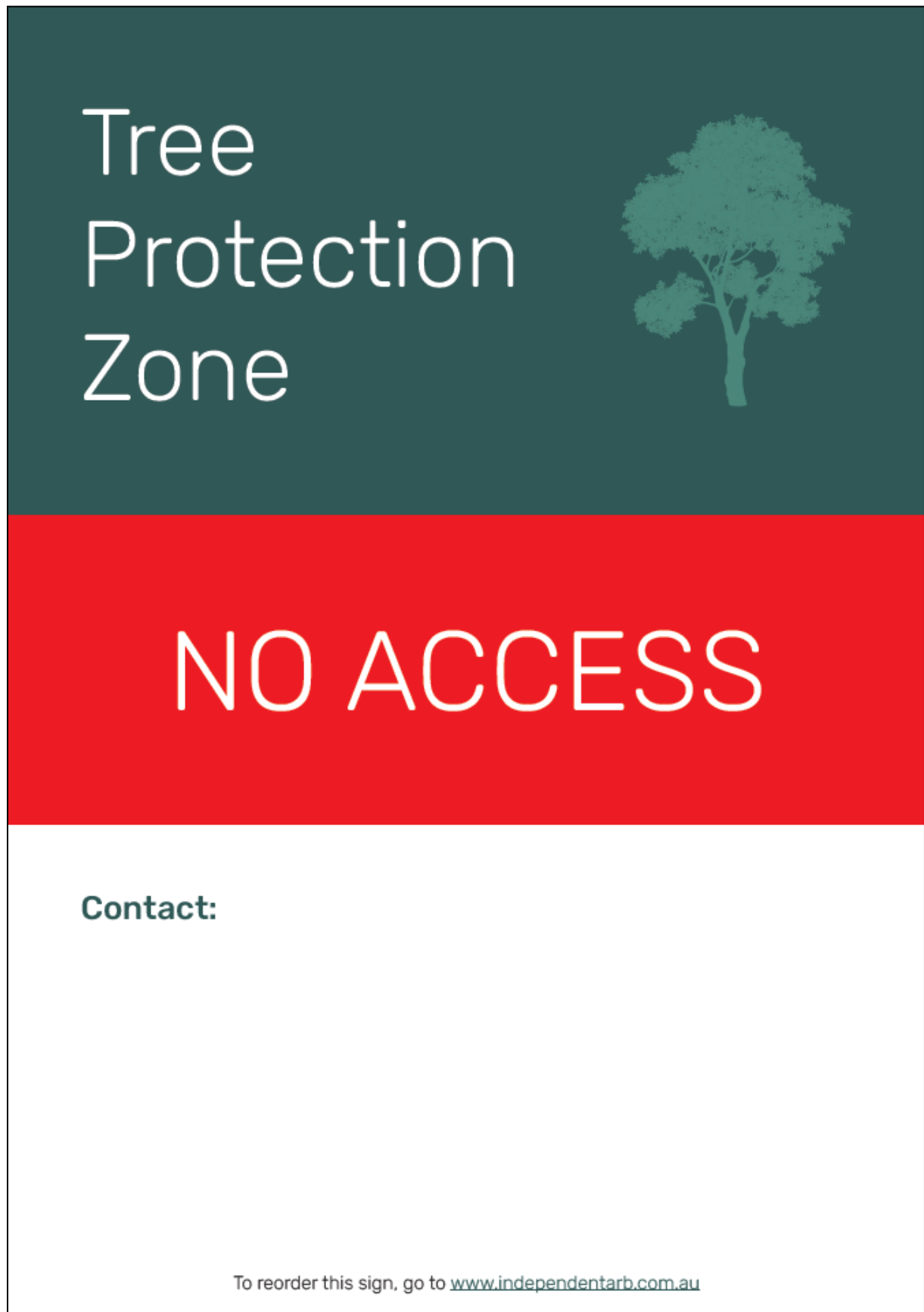
Tree 198

## Reference Page

1. Australian Standards 2009, AS 4970-2009 Protection of trees on development sites
2. Australian Standards 2007, AS 4737-2007 Pruning of Amenity Trees
3. Mattheck K, Breloer H. 1994. The body language of trees, a handbook for failure analysis, London, England
4. Shigo, A.L. 1986. A New Tree Biology. Shigo & Trees, Associates, Durham, New Hampshire
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## Appendix 1



## Appendix 2: Explanation of Terminology

Definition	Process Description
<b>Removal</b>	Complete tree removal leaving stump as close as possible to ground level. Recommended process will include chipping of all foliage limbs and timber and reinstatement of work site. Recommendation typically based on tree being assessed as representing a health and safety concern [Dead, dying, structurally unsound, unstable, poor form]
<b>Remove and grind</b>	Complete tree removal to include grinding of stump to a depth of 75 millimetres unless otherwise specified. Recommended process will include chipping of all foliage limbs and timber and reinstatement of work site. Stump site will be cleaned of all grinding debris and sawdust and backfilled with premium topsoil free from weeds.
<b>Crown Clean (Deadwood)</b>	Removal of all major/significant deadwood and dead branches up to [and including] 30 millimetres in diameter in trees overhanging pedestrian or vehicular areas or removal of dead branches > 50mm diameter in canopy of trees located in parkland or similar area unless otherwise specified.
<b>Crown Clean (General pruning)</b>	Recommended pruning process will include removal of broken, crossing, rubbing, diseased, stressed or dying branches or limbs with poor attachment. Additional work process may include pruning to define leaders, balance the crown, reduce weight load, or clear the tree from obstructions. In summary, to rectify, as far as is possible, any structural defects and eliminate undesirable growth or deadwood.
<b>Crown Reduction (Canopy reduction)</b>	Recommended pruning process may include light and general pruning typically to encompass removal of up to 15% but no more than 20% of the leaf-bearing crown. By definition the unique shape and form of the tree will not be altered or compromised by the pruning process. Typically, the consulting arborist will nominate the reduction percentage [%] appropriate to species, condition and assessment.
<b>Crown Raising (Canopy lift)</b>	Pruning processes maybe involve the raising of the tree's lower canopy to a height specified in metres. Typically, the process is performed to provide for pedestrian and or vehicular clearance and unless otherwise specified the default parameters will be to provide 2 metres clearance from ground level or as specified by local or state government regulation. From time to time pruning requirements may be altered to accommodate various site-specific requirements as advised by the consulting arborist accordingly.
<b>Crown Restoration</b>	Pruning process will encompass crown restoration and remedial works where the tree has been previously lopped or otherwise damaged. Not feasible when tree has extensive decay and should only be considered when there is evidence of healthy re- growth. When performed correctly the process of remedial pruning will most likely take several years to complete.
<b>Hanger Limb / Unattached branch</b>	Pruning process may be restricted to the removal of any hanger/s or dangerous/dead/dying limbs and will typically involve the removal of a single limb. In some instances, removal of an individual limb may be necessary to accommodate an obstruction and the consulting arborist will advise accordingly.
<b>Directional Pruning</b>	Pruning process will be restricted to pruning canopy away from buildings/service wires/property boundary and will typically be performed to avoid future growth in these areas. Where appropriate future growth will be directed away from obstruction by selected pruning so as to encourage the development of the growth of new leaders.

<p><b>Habitat Pruning</b></p>	<p>When pruning deadwood from trees, simple techniques and methods can be employed to achieve hazard reduction whilst leaving food and habitat for tree dwelling fauna. Long pieces of deadwood can be reduced in length to limit potential hazard but still retain food for the insects and microorganisms. Stubs that have been left by old pruning or previous branch failure can be retained, and with the use of a hole-saw or chainsaw they may also be bored out to create a nesting hollow for native birds or small mammals. Source: Mosman Council</p>
<p><b>Deadwood</b></p>	<p>Dead branches within canopy of tree<sup>59F</sup>. Deadwood is a naturally occurring feature of most tree species and comprises dead or decaying branches within the canopy of a tree. Deadwood may have habitat value and require removal only according to the considered risk of its location, i.e. high use pedestrian area or damage to adjacent infrastructure.</p>
<p><b>Decay</b></p>	<p>The process of degradation of woody tissues by micro-organisms<sup>61F</sup></p>
<p><b>Compaction</b></p>	<p>Results from loads or stress forces applied to the soil as well as shear forces. Both foot traffic and vehicle traffic exert both forces on soils. Vehicle traffic may cause significant compaction at depths of 150–200 mm (the area in which most absorbing roots are located). The degree of compaction will depend on weight of vehicles, number of movements, soil moisture levels and clay content. Soil handling, stockpiling and transporting also tend to lead to the breakdown of soil structure and thus to compaction. Vibration as a result of frequent traffic or adjacent construction activities will also compact soils<sup>55F</sup></p>
<p><b>Codominant Structure:</b></p>	<p>Stems or trunks of about the same size originating from the same position from the main stem<sup>52F</sup>. When the stem bark ridge turns upward the union is strong; when the ridge turns inward the union is weak, a likely point of failure in storm or windy weather conditions or where increasing weight causes undue stress on the defective union<sup>53F</sup></p>

Source: AS4373-2003 Pruning of Amenity Trees & AS 4970-2009 Protection of Tree on Development Sites & Habitat Creation By Kieran O'Neill, Mosman Council.

## Appendix 3: Normal Function of a Tree

**Background Note:** The following diagrams and explanatory notes are useful to illustrate the structure of a tree in a normal growing environment. This information is taken from AS4970-2009 Protection of trees on development sites which has been released subsequently to AS4373-2007 Pruning of amenity trees.

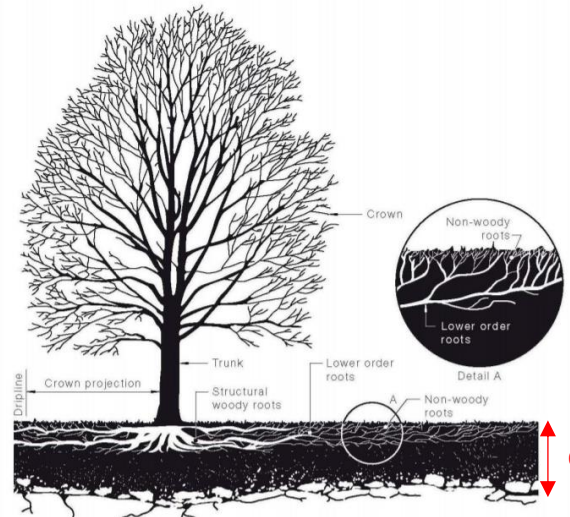


Figure 11: Structure of a tree in a normal growing environment

### Leaves

The main function of leaves is photosynthesis, that is, the production of sugars. The sugars produced by the leaves (and any other green tissue) are the source of chemical energy for all living cells in the entire plant and as such are essential for the normal functioning and survival of the tree. Anything that directly or indirectly damages the leaves will interfere with photosynthesis.

### Trunks and branches

Branches and trunks are composed of many tissues with specialized functions including the bark (protection), phloem (transport of sugars from the leaves), vascular cambium (growth of new transport tissues), sapwood (transport of water and nutrients from the roots), heartwood (strength and structural support) and rays (internal transport and storage of sugars). Damage to branches or trunks may allow infection by plant pathogens (disease causing organisms), disrupt the movement of vital materials and structurally weaken the tree.

### Roots

The main functions of roots include the uptake of water and nutrients, anchorage, storage of sugar reserves and the production of some plant hormones required by the shoots. For roots to function, they must be supplied with oxygen from the soil. The root system of trees consists of several 'types' of roots found in different parts of the soil and is generally much more extensive than commonly thought. The importance of roots is easily overlooked because they are not visible, that is 'out of sight, out of mind'. Damage to the root system is a common cause of tree decline and death and is the most common form of damage associated with development sites.

Root systems consist of three main parts:

1. The structural woody roots (anchorage, storage and transport);
2. Lower order roots (anchorage, storage and transport); and
3. Non-woody roots (absorption of water and nutrients, extension, synthesis of amino acids and growth regulators) (see Figure).

In addition to lateral root spread being underestimated, root depth in trees has also been grossly exaggerated. Deep root systems or taproots are the exception rather than the rule. Most roots of most trees are found in the very top of the soil. The vast majority of these roots are small non-woody absorbing roots which grow upward into the very surface layers of the soil and leaf litter. This delicate, non-woody system, because of its proximity to the surface, is very vulnerable to injury.”

**Explanatory Note: The importance of gas exchange in soils**

The fact that tree roots require oxygen to function is often misunderstood. Accessibility to available oxygen and water within the soil structure is dependent on the integrity of soil structure within their surrounds; when soils are compacted there is little space between soil aggregates with soil volume and total pore space, especially macropore space diminished. In turn, good soil oxygenation and gas exchange (Lonsdale) levels allow for successful function of tree roots. Oxygen levels in soils will typically decrease as soil depth increases and /or soils are heavily compacted.

Macropore is the term used to describe the relatively large space between soil particles that is usually air filled and allows for water movement and root penetration. Micropore is the term used to describe the space between soil particles that is relatively small and likely to be water filled.

Compaction results from loads or stress forces applied to the soil as well as shear forces. When soil within the root zone of a plant, including a tree, is compacted through either pedestrian or vehicular traffic, or by the heavy weight of stored materials or machinery, the ability of water and oxygen to penetrate the soil around the roots of living plants is compromised. Whilst tree roots are typically found in the top 600mm of the soil horizon, vehicle traffic, in particular may cause significant compaction at depths of 150–200 mm (the area in which most absorbing roots are located). (Refer Tree Function Note above).

The degree of soil compaction will depend on weight of vehicles, number of movements, soil moisture levels and clay content. Soil handling, stockpiling and transporting also tend to lead to the breakdown of soil structure and thus to soil compaction. Vibration, as a result of frequent traffic or adjacent construction activities, will also cause compaction of soil.

Contrary to the commonly held myth that all trees have tap roots, tree roots are typically located within the top 600mm of soil. Just as leaves perform the vital function of photosynthesis, tree roots are vital for the primary functions of anchorage, storage, absorption and conduction. Larger tree roots fulfil the main functions of anchorage, storage and conduction and smaller more fibrous tree roots, which grow primarily at the end of the main woody roots, fulfil a vital role in absorbing oxygen, essential mineral elements and moisture from the soil, often through a symbiotic relationship with soil borne fungi referred to as Mycorrhizae; the extent of root loss has the potential to jeopardise any or all of these main functions and most importantly may compromise the structural integrity of an established tree and its associated potential OH&S risk of failure occurring; any OH&S risk of potential failure in a high use area such as public roads, is noteworthy for all the wrong reasons and should be of major concern and avoided at all times. (Refer Appendix 2, Tree Function Note).

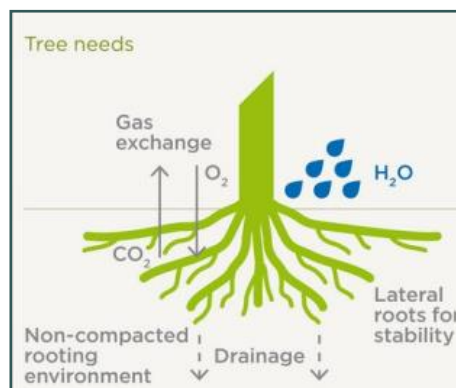


Figure 12: Gas exchange in woody tissues: the diffusion of gases into and out of a particular region (Jaluzot)

## Reference Page

1. Australian Standards 2009, AS 4970-2009 Protection of trees on development sites.
2. Australian Standards 2007, AS 4737-2007 Pruning of Amenity Trees.
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# Company Details

## Independent Arboricultural Services

Independent Arboricultural Services, incorporated in May 2007, offers a completely independent arborist consulting and reporting service. Its directors and associated consultants bring extensive arboricultural knowledge gained over many years to this company. All consulting staff hold AQF Level 5 (Diploma of Arboriculture). Specialised advice when required, such as provision of survey mapping or engineering advice and certification is sourced from reputable professional providers according to site requirements as per Australian Standard 4970-2009.

## Statement of Goal

To deliver continual improvement through the use of world's best arboricultural practices, supported by ongoing education and exposure to leading industry experts and research throughout the world.

## Mission Statement

To provide timely, relevant and actionable consulting advice and practice based on the latest available and best scientific arboricultural knowledge.

## Environmental Statement

Independent Arboricultural Services supports long term environmental sustainability sustainable sourced paper and ensuring all inks cartridges are recycled where possible.

Independent Arboricultural Services actively seeks to maintain a positive carbon footprint status and to that end is committed to protecting and preserving the environment, continuing to carry out tree planting, transplanting and replacement planting where practical, having planted in excess of 4000 trees in the first 2 years after its inception in May 2007 alone. Arboricultural recommendations involving the removal of tree/s will include replanting at a minimum ratio of 2 trees for any tree removed where possible. All arboricultural recommendations are made in accordance with world's best arboricultural practice and within the Australian Standards AS 4373-2007 Pruning of amenity trees and AS 4970-2009 – Protection of trees on development sites so as to ensure optimal outcomes for all living trees.

Independent Arboricultural Services acknowledges the benefits of healthy trees with good vigour and vitality and actively promotes better understanding in the general community of the contribution that trees make to reducing greenhouse gasses, the contribution of trees to better water retention and the prevention of soil erosion, the ability of trees to provide protection to infrastructure by diffusing strong winds in weather events and the contribution of trees to general liveability within the urban environment.

It is an acknowledged fact that air temperature beneath a tree canopy can be in excess of 5° Celsius lower than the surrounding ambient air temperature thereby reducing reliance on greenhouse gas producing air conditioners and coal fired power sources.