



Construction Biodiversity Management Sub-Plan

N228
Moore Park Precinct Village and Carpark
25 March 2026



Project overview

Project Site Address: Driver Avenue Moore Park NSW 2021	BESIX Watpac State Division Address: Level 15, 210 George Street SYDNEY NSW 2000
Project Commencement Date: 4 March 2024	BESIX Watpac ABN: 71 010 462 816

Document Control

Client:	VenuesNSW
Title:	Construction Biodiversity Management Sub-Plan
Subtitle:	Moore Park Precinct Village and Carpark
Owner / Approver:	Project Manager
TB Document Reference:	PVC-WTP-04-RP-EN00XX03
TB Revision:	05

Revision history

Version	Date	Revision Description	Release Sign off
00	15/02/24	Submission for Review	Nicholas Papanikolaou
01	09/04/24	Revised as per Savills Comments on CEMP	Nicholas Papanikolaou
02	07/05/24	Revised as per Savills Comments received 5/05/24	Nicholas Papanikolaou
03	24/06/24	Updated Appendices and Revised as per DPHI Comments	Nicholas Papanikolaou
04	22/04/2025	Updated as per SSD Compliance and Revised MOD	Nicholas Papanikolaou
05	25/03/2026	Six Monthly Review	Amr Mohamed

BESIX Watpac Approvals

Name	Role & Title	Signature	Date
Nicholas Papanikolaou	Reviewer/ Project Manager	 Nicholas Papanikolaou	22/04/2025
Amr Mohamed	Project Manager		25/03/2026

Construction Biodiversity Management Sub-Plan

N228 | Moore Park Precinct Village and Carpark

Note: A controlled copy of the Biodiversity Sub-Plan will be distributed to the VenuesNSW Principal's Representative, Independent Certifier (IC) and other nominated stakeholders, and it will be made available to all BESIX Watpac employees and subcontractors in soft copy format through the project document control system.

This plan, when printed, will be uncontrolled and it will be the responsibility of each user to confirm the currency of the plan through the project document control system.

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1.1 Compliance Matrix

The following compliance matrix demonstrates the alignment of the BESIX Watpac Construction Biodiversity Management Sub-Plan (CBMSP) with condition B27 (Table 1) of the SSD 9835, approved on 6 December 2019 and modified thereafter.

Table 1 Compliance Matrix

Construction Waste Management Sub-Plan Requirements		Reference
B27	The Biodiversity Management Sub-Plan (CBMSP) must be prepared in consultation with the Project Arborist nominated in condition B22 and a suitably qualified ecologist and address, but not be limited to, the following:	This Plan
a)	details of all trees (with tree nos.) within the site, Moore Park Road and the adjoining properties (if applicable) that are required to be protected during construction works;	Appendix A
b)	describe strategies and measures to protect trees and other vegetation that is proposed to be retained during construction in accordance with the recommendations in the Arboricultural Impact Assessment prepared by Tree IQ dated 30/05/2019 including (but not limited to) T125 and T231;	Appendix B
c)	methods to avoid any impacts to street trees on both sides of Moore Park Road and vegetation in the centre median of Moore Park Road in the vicinity of the site wherever practical;	Section 1.6
d)	assessment of the degree of impact, if works are proposed within the nominated tree protection zones (TPZ) of trees that are proposed to be retained in condition B27(b);	Appendix B
e)	strategies and mitigation measures for minimising or mitigating the impacts identified in B27(d);	Appendix B
f)	measures to check for and allow any fauna (mammals, birds, reptiles and amphibians) found within the site to be dispersed to neighbouring habitats	Section 1.6.2
g)	measures to communicate to the construction workforce the biodiversity values that are to be retained and protected.	Section 1.6.5
h)	a Pruning Specification Report in accordance with Schedule 8 of City of Sydney DCP 2012 for any tree (including street trees) that may require pruning for site access, construction, hoarding / scaffolding or any other reason.	Section 1.8

1.2 Document Purpose & Development

The purpose of the Biodiversity Management Sub-Plan is to minimise the impacts of construction activities related to the Moore Park Precinct Village and Carpark to flora and fauna. The document has been developed by BESIX Watpac professionals, in consultation Senior Consultant Anthony Richard, Curriculum Vitae attached as Appendix C and Ann Hopwood from TreeIQ, Curriculum Vitae attached as Appendix D & E.

1.3 Project Overview

Stage 2 of the Sydney Football Stadium (SFS) Redevelopment (SSD 9835) was approved by the Minister for Planning and Public Spaces on 6 December 2019. SSD 9835 has been modified on eight previous occasions as summarised in Table 2.

Table 2 Modifications to SSD 9835

Modification	Approved	Description
Modification 1	3 April 2020	Amend Conditions B14 and B15 to enable the condition to be satisfied in accordance with the principles and framework prescribed by the Contaminated Land Management Act 1997.
Modification 2	14 December 2020	Reinstate fitness facilities that were previously available within the former SFS.
Modification 3	7 December 2020	Alter the approved mezzanine slabs at the eastern and western stands and relocate the approved administration facilities. Design amendments to the southwestern glazed façade. Inclusion of an additional stadium signage condition.
Modification 4	22 April 2021	Relocate the photovoltaic (PV) cells from the stadium’s roof to Level 5 (above the eastern and western plant rooms) and a reduction in the amount of kilowatts peak (kWp) generated.
Modification 5	8 June 2021	Minor modification to correct plan revisions and dates.
Modification 6	29 September 2021	Fit-out, use and operation of the eastern mezzanine of the stadium for the purpose of a dedicated training and administration facility for the Sydney Roosters NRL football club, known as the Sydney Roosters Centre of Excellence.
Modification 7	18 July 2022	Construction of a Precinct Village and 1,500 space multi-level carpark adjacent to the new stadium, incorporating a single storey retail pavilion, four tennis courts, landscaping and the reconfiguration of stadium pedestrian and vehicular access.
Modification 8	15 December 2023	This modification aims to achieve the following: <ul style="list-style-type: none"> - Increase concert events within Sydney Football Stadium from 6 to 20 per year. - Increase concert lengths from 5 hours to 10 hours (twice per year).

		<ul style="list-style-type: none"> - Alter rehearsal and sound test finish time from 7pm to 10pm. - Curfew exemption from Mardi Gras.
Modification 9	21 May 2024	Modified Precinct Village and multi-level carpark staging
Modification 10	17 March 2024	Changes to multi-level carpark and design refinements

SSD 9835 MOD 10 was determined by the Department of Planning, Housing and Infrastructure on 17 March 2025 which provided approval to:

- reconfigure the basement car park structure by increasing the depth of excavation on the western side and constructing an additional level on the eastern side of the car park, resulting in an increase in the depth of excavation by 3m from existing level
- revise Level B4 of the basement to partially accommodate retention of the rock section of the shaft
- remove car parking spaces from the mezzanine level on the east to provide a double height ‘boneyard’ space to facilitate on site bump in and bump out requirements for events
- reconfigure the Plaza to facilitate interpretation of the newly discovered shaft
- reconfigure the Plaza to satisfy conditions of consent requiring compliance with the Everyone Can Play Guidelines and approved tree retention and planting regime
- incorporate a suite of detailed design refinements across the site reflecting the design development process. such as fire stair and plant room rationalisation.

In accordance with Condition B27 of the consent (as modified), the CBSMP must be prepared by a suitably qualified and experienced person(s) and in consultation with the Project Arborist. The CBSMP must be approved by the Certifying Authority prior to the commencement of any works. In addition, all mitigation and management measures identified in the CBSMP, must be installed or implemented where reasonable and practical on the site prior to commencement of works on site.

This development will transform the Moore Park Precinct, offering visitors year-round access to quality food and beverage offerings linked with adjacent open spaces for gatherings and organised events. The development will enhance the Moore Park Precinct amenity, creating greater vibrancy and patronage year-round.

1.4 Biodiversity Management Objectives

Under Condition B27 condition BESIX Watpac are required to ensure the following environmental performance outcome during construction:

- Avoid any impacts to street trees on both sides of Moore Park Road and vegetation in the centre median of Moore Park Road in the vicinity of the site wherever practical
- Complete the BESIX Watpac Environmental Checklist to check for and allow any fauna (mammals, birds, reptiles and amphibians) found within the site to be dispersed to neighbouring habitats
- Through site inductions and toolbox talks communicate to the construction workforce the biodiversity values that are to be retained and protected

1.5 Roles and Responsibilities

An overview of the specific responsibilities for biodiversity management as they relate to each role on the project are outlined in Table 3 below:

Table 3 Roles and Responsibilities

Activity	Responsibility
Responsibility for the implementation of the CEMP and this CBMSP	Project Manager
Implementation of mitigation measures Recording and reporting on effectiveness of mitigation measures Visual inspection for weeds on site	Project Manager
Visual inspection for weeds on site Implementation of mitigation measures Disposal of weeds	Supervisor
The management, action and discharge of any complaints received in accordance with the process as outlined in the CCS and BMP	Stakeholder & Community Relations Manager

1.6 Mitigation Measures

The following mitigation measures and methods in line with Australian Standard 4790 (2009) Protection of Trees on Development Sites (AS 4970) and Tree Protection Briefing prepared by TreelQ will be implemented during construction to avoid impacts to the street trees on both sides of Moore Park Road and vegetation in the centre of Moore Park Road in the vicinity of the site:

- Erect sturdy fencing to separate tree protected areas from the site.
- Engage the project Arborist to provide advice for best practice in tree protection of trees.
- Designate clear and separate access routes for construction vehicles, avoiding areas with vulnerable vegetation.
- Regularly monitor condition of street trees on both sides of Moore Park Road and vegetation in the centre of Moore Park Road.
- Ensure regular irrigation to maintain plant health.
- Tree protection measures to be monitored daily by BESIX Watpac and issues to be addressed as required.

1.6.1 Monthly inspections by the Project Arborist Tree Management

Majority of trees located on the southern side of Moore Park Road are to be retained and protected using strategies outlined in Appendix B and AS 4970. No works is expected to occur in the vicinity of the centre median of Moore Park Road, the condition of this flora will be monitored throughout the duration of construction. The Arborist has not identified the trees on the northern side of Moore Park Road to be protected and are not located near construction works. This flora will also be monitored through the duration of construction. Note that the Project Arborist manages the trees while the Ecologist manages mitigations for Flora, Fauna & Biodiversity. The Project Arborist must have a minimum qualification of AQF Level 5 in Arboriculture.

1.6.2 Fauna Mitigation

The BESIX Watpac Environmental Checklist that is completed monthly, checks for and allows any fauna (mammals, birds, reptiles and amphibians) found within the site to be dispersed to neighbouring habitats. Should fauna be identified during the inspection an initial assessment is conducted to assess the immediate risk.

Table 4 Assessment of Present Fauna

Assessment of Present Fauna
Initial Assessment: <ul style="list-style-type: none">- When fauna is discovered, cease construction activities in the affected area.- Identify the type of fauna.- Assess the immediate risk the fauna.
Contact Relevant Authorities: <ul style="list-style-type: none">- If fauna fails to move from site notify local wildlife agency.- Upon instruction from wildlife agency, remove fauna into neighbouring habitat.
Monitoring: <ul style="list-style-type: none">- Continue to monitor for any signs of fauna returning

1.6.3 Flora Mitigation

Weed management will be undertaken in areas affected by construction prior to any clearing works in accordance with the *Biosecurity Act 2015*.

1.6.4 Biodiversity impact mitigation

Due to the already highly modified nature of the site, construction activities will have little to no measurable impacts to local biodiversity in most areas of the site. An impact to biodiversity will result from the removal of those trees nominated for removal in the Arboricultural Impact Assessment (6th September 2021) prepared for Venues NSW. This will be mitigated by these trees being replaced. The size of the replacement trees will be determined in consultation with Venues NSW and the City of Sydney Council.

1.6.5 Biodiversity Values

BESIX Watpac will communicate to the construction workforce the biodiversity values that are to be retained and protected through the induction process.

1.7 Records Management

Records will be maintained by the Project Arborist, as follows:

- Records of any pre-clearing weed management inspections undertaken
- Records of ecological inspections undertaken
- Records of any fauna removed from site
- Photographic record of trees contemplated for removal in the Tree Report
- Record of trees removed from the site
- Record of trees pruned on site

1.8 Pruning Specification Report

In the event that any tree (including street trees) that may require pruning for site access, construction, hoarding/scaffolding or any other reason, BESIX Watpac will conduct the below Pruning Specification Report in accordance with Schedule 8 of City of Sydney DCP 2012 and AS4373. Should pruning be deemed acceptable by the Project Arborist (TreeIQ), all pruning shall be undertaken in accordance with AS4373.

Section 1: Tree Assessment	Report Number:
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Tree Identification: - Botanical Name: - Common Name:	Tree ID:
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Species:	Tree Condition: Note: <i>If the tree is identified as being poor condition or high risk by the Project Arborist, a report must be prepared and provided to VNSW and DPE justifying its removal.</i>
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Reason for Pruning:

Extent of Pruning Based on the Pruning Class within AS 4373:	
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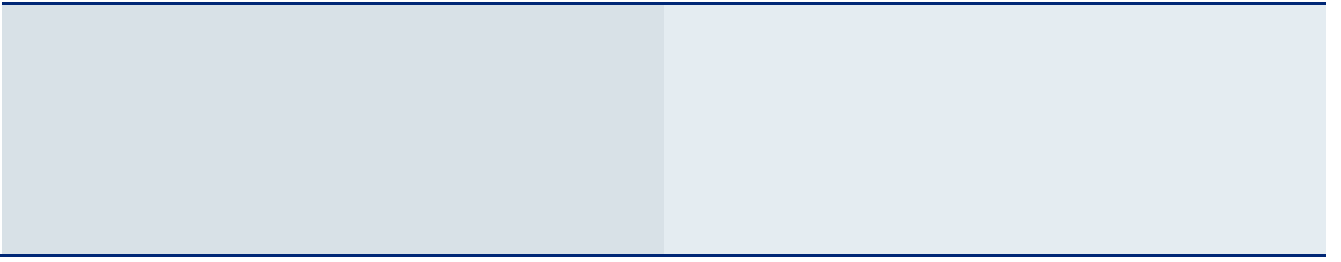
Photographs:	
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Note: Pruning must be undertaken by Tree Contractors with a minimum qualification of AQF Level 3 in Arboriculture and Australian Standard 4273: Pruning of Amenity Trees (2007) and Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)

Section 2: Pruning Recommendations	Report Number:
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Outline the determination of the Project Arborist (TreeIQ):	Tree ID:
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Applicable sections of AS4273:	Evidence of Prune:
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Appendix A - Arboricultural Impact Assessment



Project No: SYD/FOOT/18 Report No: SFS/VP&C/AIA/B

ARBORICULTURAL IMPACT ASSESSMENT

Sydney Football Stadium Village Precinct & Carpark

Prepared for: BESIXWatpac

25th June 2024
Revision B

Authors:

Anna Hopwood

Grad. Cert (Arboriculture)
Dip. Horticulture (Arboriculture)
Dip. Horticulture (Landscape Design)

Martin Peacock

BSc (hons.) Arboriculture
Dip. Horticulture (Landscape Design)
N Dip. Horticulture

p. 0404 424 264 | f. 02 9012 0924
po box 146 summer hill 2130
info@treeiQ.com.au

abn 62 139 088 832

treeiQ.com.au



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1.0 INTRODUCTION

1.1 Background

1.1.1 This Arboricultural Impact Assessment & Tree Protection Specification (AIA) is in relation to Stage 2 of the Sydney Football Stadium (SFS) Redevelopment (SSD 9835) that was approved by the Minister for Planning and Public Spaces on 6 December 2019. SSD 9835 has been modified on nine (9) previous occasions as summarised in Table 1.

1.1.2 Table 1: Modifications to SSD 9835

Modification	Approved	Description
Modification 1	3 April 2020	Amend Conditions B14 and B15 to enable the condition to be satisfied in accordance with the principles and framework prescribed by the Contaminated Land Management Act 1997.
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Modification 9	21 May 2024	Modified Precinct Village and multilevel carpark staging

1.2 Purpose

1.2.1 The purpose of this AIA is to determine the impact of the proposed works on the trees, and where appropriate, recommend the use of tree sensitive construction methods and tree protection measures to minimise adverse impacts. A Visual Tree Assessment¹ (VTA) was undertaken on the trees to be retained as part of the commencement of the main works and has been updated as appropriate.

¹ Mattheck & Breloer (2003)

1.2.2 In preparing this AIA, the authors are aware of and have considered the following documents:

- *Sydney Development Control Plan - Section 3.5 Urban Ecology (2012)*
- *City of Sydney Register of Significant Trees (2013)*
- *Australian Standard 4970 Protection of Trees on Development Sites (2009)*
- *Australian Standard 4373 Pruning of Amenity Trees (2007)*
- *Australian Standard 2303 Tree Stock for Landscape Use (2015)*
- *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)*

Refer to Methodology (**Appendix 1**)

1.2.3 This AIA is based on an assessment of the following supplied documentation/plans only:

- Tree Removal & Retention Plan LA-101/3– prepared by Aspect Studios
- Landscape Masterplan PVC-ASP-04-DR-LS11XX01– prepared by Aspect Studios, dated 17.12.2022

1.3 The Proposal

1.3.1 BESIXWatpac has been appointed by Venues NSW as Principal Contractor for the Precinct Village and Car Park (PV&C), which represents the next stage of development. The PV&C was approved via modification to SSD 9835 on 18 July 2022 by the Minister for Planning and Public Spaces' delegate. In approving the modification, approval was granted for:

- Up to a maximum of 1,500 space multilevel carpark below ground level with the following access arrangements:
 - 1 x egress point onto Moore Park Road to be used on event days only;
 - 1 x two-lane access point from Driver Ave to be used on event and non-event days; and
 - dedicated area within the car park for operation/servicing vehicles.
- Reconfiguration of the currently approved drop off requirements for the elderly and mobility impaired;
- Free flow level pedestrian access to and from the SFS concourse from Driver Ave and Moore Park Road;
- Electric car charging provision;
- A versatile and community public domain, comprising:
 - provision for 4 x north-south orientated tennis courts on non-event days with the potential to become an event platform on event days;
 - children's playground;
 - 1,500 m2 cafe / retail / restaurants with associated amenities in a single storey pavilion (6 metre) low level;
 - customer service office and ticket window; and
 - vertical transport provisions.
- Utilities provision augmentation.

Refer to Figure 1 (**Precinct Village and Car Park Development**)



Figure 1 – Precinct Village and Car Park Development

2.0 RESULTS

2.1 The Site

- 2.1.1 The PV&C is to be located on the land west of the SFS, currently approved under SSD 9835. It will extend to Moore Park and Driver Avenue and will adjoin the existing UTS, Rugby Australia and NRL Central buildings, all of which are to be retained and do not form part of the project site.

Refer to Figure 2 (**Precinct Village and Car Park Site Location**)



Figure 2 – Precinct Village and Car Park Site Location

2.2 The Trees

- 2.2.1 Ninety-two (92) trees were addressed within this AIA. The trees comprise of a mix of locally indigenous and Australian-native species including *Corymbia maculata* (Spotted Gum), *Cupaniopsis anacardiodes* (Tuckeroo), *Eucalyptus* spp. (Eucalypt species), *Ficus rubiginosa* (Port Jackson Fig) and *Lophostemon confertus* (Brush Box) which are mainly located in the mounded garden bed which surrounds the existing carpark off Driver Avenue.
- 2.2.2 Several of the trees are in fair or poor health and/or structural condition as evidenced by a reduced crown density, moderate and high volumes of deadwood, wounds in various stages of decay and bark inclusions. In particular, previous damage from maintenance equipment (not associated with the development of the site) has created wounds on the exposed surface roots of numerous trees. Wounds provide an entry point for wood decay pathogens which can potentially reduce tree health and structural condition. In addition, the removal of several trees as part of the stormwater infrastructure works has exposed the asymmetrical crown form of adjacent trees.
- 2.2.3 The trees are not listed on the *City of Sydney Register of Significant Trees (2013)*, *Sydney Local Environmental Plan (Schedule 5) Environmental Heritage (2012)* or are visible in 1943 aerial photographs of the site.²
- 2.2.4 As required by Clause 2.3.2 of *Australian Standard 4970 Protection of Trees on Development Sites (2009)*, each tree has been allocated a Retention Value. TreeiQ allocates one of four Retention Value categories based on a combination of Landscape Significance and Useful Life Expectancy (ULE). The assessment of Landscape Significance and ULE involves a degree of subjectivity and there will be a range of tree quality and value within each of the Retention Value categories. The Retention Values do not consider any proposed development works and are not a schedule for tree retention or removal. The trees have been allocated one of the following Retention Values:
- Priority for Retention
 - Consider for Retention
 - Consider for Removal
 - Priority for Removal

Refer to Tree Assessment Schedule (**Appendix 3**)

3.0 ARBORICULTURAL IMPACT ASSESSMENT

3.1 Tree Removal

- 3.1.1 The supplied plans show that thirty-three (33) trees and tree groups are to be removed as part of the proposed development. This includes four (4) trees with a Retention Value of *Consider for Retention* and twenty-nine (29) trees with a Retention Value of *Consider for Removal*. All of these trees were previously proposed for removal in the AIA (dated 06.09.21) and Addendum (16.12.21).

² City of Sydney (2013); City of Sydney (2012); NSW Government Spatial Services (2016)

3.1.2 Table 2: Tree Removal Summary

	Priority for Retention	Consider for Retention	Consider for Removal	Priority for Removal
Podium = 29			197, 245-1, 245-2, 245-3, 245-4, 245-5, 246-1, 246-2, 246-3, 246-4, 246-5, 246-6, 246-7, 246-8, 246-9, 246-10, 246-11, 246-12, 247-1, 247-2, 247-3, 247-4, 247-5, 247-6, 248-3, 248-4, 248-5, 248-6, & 301	
OSD Tank = 3		193, 194 & 195		
Stairs = 1		305		
TOTAL = 33		4	29	

3.2 Additional Tree Removals

3.2.1 Tree 155

Tree 155 had been removed prior to the development of the new SFS.

3.2.2 Trees 173 & 175

It is understood a tree removal application is pending for Trees 173 and 175. Tree 173 is in poor health and Tree 175 is in fair health. Both trees have a reduced crown density of 50-75% and the presence of extensive deadwood within their crowns. The crown of Tree 173 has also been recently exposed by the removal of Tree 147 in 2023. Both trees are in poor structural condition. Tree 173 has a significant trunk wound from ground level to approximately 2m in height. This wound is extensively decayed and is developing into a trunk cavity. Tree 175 has a trunk/basal cavity with significant decay developing in the root crown and structural roots. These defects are considered significant, and as a result, the trees have an increased likelihood of failure, particularly during rain, wind or severed weather.

3.2.3 Tree 174

Tree 174 was removed during the excavation for stormwater infrastructure works in June 2023. Although roots had been retained, at a depth of approximately 700mm, soil slumping was occurring with the potential to undermine the root plate of the tree. TreeiQ determined that the tree posed an unacceptable risk and recommended immediate removal. Emergency consent for tree removal was issued by the City of Sydney on the same day.

3.2.4 Tree 302

Tree 302 *Eucalyptus* sp. (Eucalypt) was removed in June 2022 in accordance with Clause 40 of the Biodiversity Management Sub-Plan prepared by John Holland. The tree was in poor health with a crown density of less than 5% and the presence of small, medium and large deadwood in high volumes. It was poor structural condition with a number of wounds in various stages of decay.

3.2.5 Trees 136, 137, 147, 148, 151, 172, 181, 183, 184, 187, 188, 190, 192 & 303

These trees were removed as part of the stormwater infrastructure works during 2022-2023.

3.3 Tree Retention

3.3.1 The supplied plans show that forty (40) trees and tree groups are to be retained as part of the proposed development. This includes two (2) trees with a Retention Value of *Priority for Retention*, twenty-three (23) trees with a Retention Value of *Consider for Retention* and fifteen (15) trees with a Retention Value of *Consider for Removal*.

3.3.2 Table 3: Tree Retention Summary

	Priority for Retention	Consider for Retention	Consider for Removal	Priority for Removal
No works within TPZ = 21	143	142, 156, 163, 164, 167, 170 & 189	140, 141, 146A, 157, 159, 160, 165, 166, 168, 169, 177, 185 & 191	
Minor Encroachment = 9	158	139, 146, 154, 176, 179, 180 & 182	171	
Major Encroachment = 10		133, 138, 145, 149, 163A, 178, 186, 304 & 306	161	
TOTAL = 31	2	23	15	

3.4 Minor Encroachment

3.4.1 The supplied plans show that works are proposed within the Tree Protection Zone (TPZ) areas of Trees 139, 146, 154, 158, 171, 176, 179, 180 and 182. As the encroachments into each TPZ is less than 10% and outside of the Structural Root Zone (SRZ), the extent of work represents *Minor Encroachments* as defined by *Australian Standard 4970-2009 Protection of Trees on Development Sites (AS-4970)*. A *Minor Encroachment* is considered acceptable by AS-4970 when it is compensated for elsewhere and contiguous within the TPZ. The encroachments into TPZ areas should be compensated for by extending the TPZ in areas not subject to encroachment.

3.5 Major Encroachment

3.5.1 The supplied plans show works are proposed with the TPZ areas of Trees 133, 138, 145, 149, 161, 163A, 178, 186, 304 and 306. The extent of work represents *Major Encroachments* as defined by AS-4970.

3.5.2 Entrance Paths

The supplied plans show that entrance paths are proposed within the TPZ areas of Trees 133, 138, 145, 149, 161, 163A, 186, 304 and 306. These entrance paths/stairs should be designed and constructed using tree sensitive methods including designing and constructing all new structures to accommodate the trees.

3.5.3 New pavements (including sub-base layers) within the TPZ areas should be installed above existing grade to minimise the potential for root damage. Pavements may be installed at existing grade only where replacing existing paving and utilising existing sub-base layers. Roots (>25mm ϕ) identified within sub-base layers should be retained, and surfaces and sub-base layers should be thinned/modified as required.

3.5.4 Elevated entrance paths and stairs within the TPZ areas should be supported on isolated pier footings (with all other parts of the structure positioned above existing ground levels). Excavation for the pier holes should be undertaken using tree sensitive methods (hand/hydrovac/airspade etc). Pier hole locations should be flexible to enable the retention of roots (>25mm \varnothing) as required by the Project Arborist. The structures should be designed to provide adequate setback from the trunks and branches and sufficient clearance should be provided for tree growth and movement in wind.

3.5.5 Terraces

The supplied plans show that terraces are proposed within the TPZ of Tree 178. The terraces within the TPZ should be supported on isolated footings (with all other parts of the structures positioned above existing ground levels). Excavation for footings within the TPZ should be undertaken using tree sensitive methods. Footing locations should be flexible and/or the footing design modified to enable the retention of roots (>25mm \varnothing) as required by the Project Arborist.

3.6 Other Works within TPZ Areas

3.6.1 Tree Removal

Trees which cannot be removed without significant ground disturbance should either be cut to ground level or stump ground. Stump grinding should not be undertaken in the SRZ of existing trees to be retained.

3.6.2 Basement Excavation

No over-excavation, benching or battering should be undertaken beyond the line of the basement footprint adjacent to or within TPZ areas.

3.6.3 Pavement Demolition

Pavement demolition within TPZ areas should retain existing sub-base layers. If sections of the sub-base layer require removal, the sub-base materials should be lifted in thin (20mm) layers using an excavator (<2T) fitted with a flat bladed bucket. The excavator operator should be guided by a spotter at all times to identify and expose tree roots which may be present in/under the sub-base layer. Roots (>25mm \varnothing) should be exposed by localised hand excavation and protected from damage. The existing kerb between the mounded garden bed and proposed basement should be cut to ground level and all underground sections retained in-situ as required by the Project Arborist.

3.6.4 Underground Services

The installation of new underground services should be routed outside of TPZ areas. Where this is not possible, trenches will need to be excavated using tree sensitive methods (i.e. hand/compact excavator or hydrovac excavation) which can be both time consuming and costly. The use of tree sensitive methods is achievable where pipe/conduit diameters are not overly large (<300mm dia.) and trench depths do not require benching, battering or the use of shoring boxes.

3.6.5 Alternatively, boring methods may be used for underground service installation where the obvert level (highest interior level of pipe) is greater than 1200mm below existing grade. Excavations for starting and receiving pits for boring equipment should be located outside of the TPZ areas or located to avoid roots (>25mm \varnothing) as deemed necessary by the Project Arborist.

3.6.6 Fencing, Seating & Other Landscape Fixtures

The fencing, seating and other landscape fixtures within the TPZ areas should be supported on isolated footings (with all other parts of the structures positioned above existing ground levels). Excavation for footings within the TPZ areas should be undertaken using tree sensitive methods. Footing locations should be flexible and/or the footing design modified to enable the retention of roots (>25mm \emptyset) as required by the Project Arborist. Sufficient clearance should be provided between the structures and the trunks and lower branches of the trees to accommodate future tree growth and movement.

3.6.7 Landscape Levels

Existing levels should be maintained wherever possible. Where minor regrading is required, these works should be undertaken using tree sensitive methods to enable the retention of roots (>25mm \emptyset) as required by the Project Arborist.

3.6.8 Other than the installation of soil conditioners to a maximum depth of 100mm above the existing soil profile, the installation of imported soil mixes should be excluded from the TPZ areas. Soil conditioners must not be not raise levels within 1m of the base of any tree.

3.6.9 Landscape Planting

The installation of plants should be undertaken using hand tools and roots (>25mm \emptyset) should be protected. No mechanical cultivation/ripping of soils should be undertaken.

3.7 Pruning

3.7.1 Pruning may be required to provide clearance over the entrance paths and terraces. The pruning works must be approved by the Project Arborist should not significantly impact the Useful Life Expectancy (ULE) of the trees.

3.7.2 Pruning work should be undertaken in accordance with *Australian Standard 4373: Pruning of Amenity Trees (2007)*, *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)* and other applicable legislation and codes. Deadwood greater 30mm \emptyset should be removed from the crowns of the trees in areas with high value targets or a moderate to high occupancy rate (i.e. footpaths).

3.8 Replacement Planting

3.8.1 Replacement planting should be provided to help off-set the loss of canopy cover and amenity resultant from the tree removals. Trees should be supplied as advanced size specimens (i.e. \geq 75L) and in accordance with *Australian Standard 2303 (2015) Tree Stock for Landscape Use*.

3.8.2 New tree plantings should be supervised by Horticulturalists (AQF Level 3 or above in Horticulture) to ensure correct planting methods.

4.0 SUMMARY & CONCLUSIONS

4.1.1 Ninety-two (92) trees were addressed within this AIA. The trees comprise of a mix of locally indigenous and Australian-native species The trees are not listed in *City of Sydney Register of Significant Trees (2013)*, *Sydney Local Environmental Plan (Schedule 5) Environmental Heritage (2012)* or are visible in 1943 aerial photographs of the site.³

³ City of Sydney (2013); City of Sydney (2012); NSW Government Spatial Services (2016)

- 4.1.2 BESIXWatpac has been appointed by Venues NSW as Principal Contractor for the PV&C main works which represents the next stage of development. The PV&C was approved via modification to SSD 9835 on 18 July 2022 by the Minister for Planning and Public Spaces' delegate.
- 4.1.3 The supplied plans show that thirty-three (33) trees and tree groups (Trees 193-197, 245-1-5, 246-1-12, 247-1-6, 248-3-6, 301 & 305) are to be removed as part of the proposed development. This includes four (4) trees with a Retention Value of *Consider for Retention* and twenty-nine (29) trees with a Retention Value of *Consider for Removal*. An additional eighteen (18) trees are pending removal or have been removed.
- 4.1.4 The supplied plans show that forty (40) trees and tree groups (Trees 133, 138-143, 145, 146, 146A, 149, 154, 156-161, 163, 163A, 164-171, 176-180, 182, 185, 186, 189, 191, 304 & 306) are to be retained as part of the proposed development. This includes two (2) trees with a Retention Value of *Priority for Retention*, twenty-three (23) trees with a Retention Value of *Consider for Retention* and fifteen (15) trees with a Retention Value of *Consider for Removal*.
- 4.1.5 For Trees 133, 138, 145, 149, 161, 163A, 178, 186, 304 and 306, tree sensitive methods as outlined within Section 3.4 should be used within the TPZ areas to minimise adverse impacts. Existing ground levels should be maintained, and all new structures should be designed to accommodate the trees. In particular, the design and construction should consider the existing landform (i.e mounded garden bed) and roots (including large surface roots) and provide sufficient clearance from the trunks and lower branches of the trees to accommodate future tree growth and movement. The trees should be protected in accordance with the Tree Protection Breiding (dated 21.05.24).
- 4.1.6 Replacement planting should be supplied in accordance with *Australian Standard 2303 (2015) Tree Stock for Landscape Use*. Replacement planting should be supplied in accordance with *Australian Standard 2303 (2015) Tree Stock for Landscape Use*.
- 4.1.7 Pruning may be required to provide clearance over the entrance paths and terraces. The pruning works must be approved by the Project Arborist and should not significantly impact the Useful Life Expectancy (ULE) of the trees. Pruning work should be undertaken in accordance with *Australian Standard 4373: Pruning of Amenity Trees (2007)*, *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)*

5.0 LIMITATIONS & DISCLAIMER

TreeiQ takes care to obtain information from reliable sources. However, TreeiQ can neither guarantee nor be responsible for the accuracy of information provided by others. Plans, diagrams, graphs and photographs in this Arboricultural Report are visual aids only and are not necessarily to scale. This Report provides recommendations relating to tree management only. Advice should be sought from appropriately qualified consultants regarding design/construction/ecological/heritage etc issues.

This Report has been prepared for exclusive use by the client. This Report shall not be used by others or for any other reason outside its intended target or without the prior written consent of TreeiQ. Unauthorised alteration or separate use of any section of the Report invalidates the Report.

Many factors may contribute to tree failure and cannot always be predicted. TreeiQ takes care to accurately assess tree health and structural condition. However, a tree's internal structural condition may not always correlate to visible external indicators. There is no warranty or guarantee, expressed or implied that problems or deficiencies regarding the trees or site may not arise in the future. Information contained in this report covers only the trees assessed and reflects the condition of the trees at the time of inspection. Additional information regarding the methodology used in the preparation of this Report is attached as Appendix 1. A comprehensive tree risk assessment and management plan for the trees is beyond the scope of this Report.

Reference should be made to any relevant legislation including Tree Management Controls. All recommendations contained within this Report are subject to approval from the relevant Consent Authority.

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6.0 BIBLIOGRAPHY & REFERENCES

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Appendix 1: Methodology

- 1.1 Site Inspection:** This report was determined as a result of several comprehensive site inspections during 2019-2023. Minor updates to the Tree Assessment Schedule were undertaken if a change in health or structural condition was observed at any additional site inspections.
- 1.2 Visual Tree Assessment (VTA):** The subject tree(s) was assessed using the Visual Tree Assessment criteria and notes as described in *The Body Language of Trees – A Handbook for Failure Analysis*.⁴ The inspection was limited to a visual examination of the subject tree(s) from ground level only. No internal diagnostic testing was undertaken as part of this assessment. Trees outside the subject site were assessed from the property boundaries only.
- 1.4 Tree Dimensions:** The dimensions of the subject tree(s) are approximate only.
- 1.5 Tree Locations:** The location of the subject tree(s) was determined from the supplied plans.
- 1.5 Trees & Development:** Tree Protection Zones, Tree Protection Measures and Sensitive Construction Methods for the subject tree were based on methods outlined in *Australian Standard 4970-2009 Protection of Trees on Development Sites*.

The *Tree Protection Zone* (TPZ) is described in AS-4970 as a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

The *Structural Root Zone* (SRZ) is described in AS-4970 as the area around the base of a tree required for the tree's stability in the ground. Severance of structural roots within the SRZ is not recommended as it may lead to the destabilisation and/or demise of the tree.

In some cases it may be possible to encroach into or make variations to the theoretical TPZ. A *Minor Encroachment* is less than 10% of the area of the TPZ and is outside the SRZ. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. A *Major Encroachment* is greater than 10% of the TPZ or inside the SRZ. In this situation the Project Arborist must demonstrate that the tree would remain viable. This may require root investigation by non-destructive methods or the use of sensitive construction methods.

- 1.6 Tree Health:** The health of the subject tree(s) was determined by assessing:
- I. Foliage size and colour
 - II. Pest and disease infestation
 - III. Extension growth
 - IV. Crown density
 - V. Deadwood size and volume
 - VI. Presence of epicormic growth
- 1.7 Tree Structural Condition:** The structural condition of the subject tree(s) was assessed by:
- I. Assessment of branching structure
(i.e co-dominant/bark inclusions, crossing branches, branch taper, terminal loading, previous branch failures)
 - II. Visible evidence of structural defects or instability
(i.e root plate movement, wounds, decay, cavities, fungal brackets, adaptive growth)
 - III. Evidence of previous pruning or physical damage
(root severance/damage, lopping, flush-cutting, lions tailing, mechanical damage)
- 1.8 Useful Life Expectancy (ULE):** The ULE is an estimate of the longevity of the subject tree(s) in its growing environment. The ULE is modified where necessary to take in consideration tree(s) health, structural condition and site suitability. The tree(s) has been allocated one of the following ULE categories (Modified from Barrell, 2001):
- I. 40 years +
 - II. 15-40 years
 - III. 5-15 years
 - IV. Less than 5 years

⁴ Mattheck & Breloer (2003)

1.9 Landscape Significance: Landscape Significance was determined by assessing the combination of the cultural, environmental and aesthetic values of the subject tree(s). Whilst these values are subjective, a rating of high, moderate, low or insignificant has been allocated to the tree(s). This provides a relative value of the tree's Landscape Significance which may aid in determining its Retention Value. If the tree(s) can be categorized into more than one value, the higher value has been allocated.

Landscape Significance	Description
Very High	The subject tree is listed as a Heritage Item under the <i>Local Environmental Plan</i> with a local or state level of significance.
	The subject tree is listed on Council's Significant Tree Register or meets the criteria for significance assessment of trees and/or landscapes by a suitably qualified professional. The criteria are based on general principles outlined in the Burra Charter and on criteria from the Register of the National Estate.
High	The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	The subject tree is of cultural or historical importance or is widely known.
	The subject tree is a prominent specimen which forms part of the curtilage of a heritage item with a known or documented association with that item.
	The subject tree has been identified by a suitably qualified professional as a species scheduled as a Threatened or Vulnerable Species for the site defined under the provisions of the NSW <i>Biodiversity Conservation Act (2016)</i> or the Commonwealth <i>Environmental Protection and Biodiversity Conservation Act (1999)</i> .
	The subject tree is known to contain nesting hollows to a species scheduled as a Threatened or Vulnerable Species for the site as defined under the provisions of the NSW <i>Biodiversity Conservation Act (2016)</i> or the Commonwealth <i>Environmental Protection and Biodiversity Conservation Act (1999)</i> .
	The subject tree is an excellent representative of the species in terms of aesthetic value.
Moderate	The subject tree is of significant size, scale or makes a significant contribution to the canopy cover of the locality.
	The subject tree makes a positive contribution to the visual character or amenity of the area.
	The subject tree provides a specific function such as screening or minimising the scale of a building.
Low	The subject tree is a good representative of the species in terms of aesthetic value.
	The subject tree is a known environmental weed species or is exempt under the provisions of the local Council's Tree Management Controls
	The subject tree makes little or no contribution to the amenity of the locality.
	The subject tree is a poor representative of the species in terms of aesthetic value.

1.10 Retention Value: Retention Value was based on the subject tree's Useful Life Expectancy and Landscape Significance. The Retention Value was modified where necessary to take in consideration the subject tree's health, structural condition and site suitability. The subject tree(s) has been allocated one of the following Retention Values:

- I. Priority for Retention
- II. Consider for Retention
- III. Consider for Removal
- IV. Priority for Removal

ULE	Landscape Significance				
	Very High	High	Moderate	Low	Insignificant
40 years +	Priority for Retention	Priority for Retention			Priority for Removal
15-40 years		Priority for Retention	Consider for Retention	Consider for Removal	
5-15 years		Consider for Retention			
Less than 5 years	Consider for Removal	Priority for Removal			

The above table has been modified from the Footprint Green Tree Significance and Retention Value Matrix.

Appendix 3: Tree Assessment Schedule

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
133	<i>Ficus rubiginosa</i> (Port Jackson Fig)	7	6	450 @ 800mm above grade	Fair	Fair	Mature	5-15	Moderate	Crown density 75-95%. Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Heavily suppressed. Wound(s), various stages of decay. Fungal bracket on stump. Mechanical damage to exposed surface roots.	Consider for Retention	5.4	2.4	Retain. Major encroachment, entrance.
136														Removed - stormwater installation
137														Removed - stormwater installation
138	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	23	10	300 350	Good	Good	Mature	15-40	Moderate	Large (>75mmØ) deadwood in low volumes. Partially suppressed. Co-dominant inclusions, major. Wound(s), early signs of decay. Trunk protection limits inspection.	Consider for Retention	5.4	2.4	Retain. Major encroachment, entrance.
139	<i>Ficus rubiginosa</i> (Port Jackson Fig)	8	7	700 @ grade	Fair	Poor	Mature	5-15	Moderate	Crown density 50-75%. Small (<25mmØ), medium (25-75mmØ) & large (>75mmØ) deadwood in moderate volumes. Small (<25mmØ) epicormic growth in moderate volumes. Partially suppressed. Co-dominant inclusions, minor. Wound(s), various stages of decay. Previous branch failure(s). Crossing branches with abrasion wounding. Mechanical damage to exposed surface roots.	Consider for Retention	8.4	2.9	Retain. Minor encroachment, entrance.
140	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	8	6	200	Good	Good	Mature	15-40	Low	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Small (<25mmØ) epicormic growth in low volumes. Partially suppressed. Grade alteration, fill.	Consider for Removal	2.4	1.7	Retain. No works within TPZ.
141	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	8	5	200	Good	Fair	Mature	5-15	Low	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Small (<25mmØ) epicormic growth in low volumes. Heavily suppressed. Wound(s), various stages of decay. Trunk cavity(s), major. Trunk protection limits inspection.	Consider for Removal	2.4	1.7	Retain. No works within TPZ.

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
142	<i>Ficus rubiginosa</i> (Port Jackson Fig)	8	6	500 @ grade	Fair	Fair	Mature	5-15	Moderate	Crown density 50-75%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in moderate volumes. Partially suppressed. Wound(s), various stages of decay. Girdled roots. Crossing branches. Recently pruned branch. Mechanical damage to exposed surface roots.	Consider for Retention	6	2.5	Retain. No works within TPZ.
143	<i>Corymbia maculata</i> (Spotted Gum)	24	10	400	Good	Good	Mature	15-40	High	Medium (25-75mm \emptyset) deadwood in low volumes. Structures within SRZ. Trunk protection limits inspection.	Priority for Retention	4.8	2.3	Retain. No works within TPZ.
145	<i>Ficus rubiginosa</i> (Port Jackson Fig)	7	7	500 @ grade	Fair	Poor	Mature	5-15	Moderate	Crown density 50-75%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in moderate volumes. Partially suppressed. Bark inclusion(s), major. Wound(s), various stages of decay. Lopped branch. Mechanical damage to exposed surface roots.	Consider for Retention	6	2.5	Retain. Major encroachment, entrance.
146	<i>Ficus rubiginosa</i> (Port Jackson Fig)	7	7	350 @ grade	Fair	Poor	Mature	5-15	Moderate	Crown density 50-75%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in moderate volumes. Partially suppressed. Co-dominant inclusion(s), major. Wound(s), various stages of decay. Mechanical damage to exposed surface roots.	Consider for Retention	4.2	2.2	Retain. Minor encroachment, entrance.
146A	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	15	5	350	Good	Good	Mature	15-40	Low	Crown density 75-95%. Upper crown not visible.	Consider for Removal	4.2	2.2	Retain. No works within TPZ.
147														Removed - stormwater installation
148														Removed - stormwater installation
149	<i>Ficus rubiginosa</i> (Port Jackson Fig)	7	7	400 @ grade	Fair	Poor	Mature	5-15	Moderate	Crown density 50-75%. Small (<25mm \emptyset), medium (25-75mm \emptyset) & large (>75mm \emptyset) deadwood in moderate volumes. Small (<25mm \emptyset) epicormic growth in low volumes. Partially suppressed. Wound(s), various stages of decay. Trunk cavity(s), minor. Mechanical damage to exposed surface roots.	Consider for Retention	4.8	2.3	Retain. Major encroachment, entrance.
151														Removed - stormwater installation

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
154	<i>Ficus rubiginosa</i> (Port Jackson Fig)	10	9	400 @ grade	Fair	Poor	Mature	5-15	Moderate	Small (<25mm \emptyset), medium (25-75mm \emptyset) & large (>75mm \emptyset) deadwood in moderate volumes. Partially suppressed. Co-dominant inclusions, major. Bark inclusion(s), minor. Wound(s). Mechanical damage to exposed surface roots.	Consider for Retention	4.8	2.3	Retain. Minor encroachment, entrance.
155														No tree present.
156	<i>Ficus rubiginosa</i> (Port Jackson Fig)	6	7	400 @ grade	Fair	Fair	Mature	5-15	Moderate	Crown density 50-75%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in low volumes. Small (<25mm \emptyset) epicormic growth in moderate volumes. Partially suppressed. Bark inclusion(s), minor. Rubbing branches. Wound(s), various stages of decay. Mechanical damage to exposed surface roots.	Consider for Retention	4.8	2.3	Retain. No works within TPZ.
157	<i>Eucalyptus microcorys</i> (Tallowwood)	8	5	250	Good	Good	Mature	15-40	Low	Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in low volumes. Small (<25mm \emptyset) epicormic growth in low volumes. Partially suppressed.	Consider for Removal	3	1.9	Retain. No works within TPZ.
158	<i>Eucalyptus microcorys</i> (Tallowwood)	22	8	550	Good	Good	Mature	15-40	High	Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in low volumes. Mechanical damage to exposed surface roots. Girdled root(s).	Priority for Retention	6.6	2.6	Retain. Minor encroachment, entrance.
159	<i>Eucalyptus microcorys</i> (Tallowwood)	7	7	250	Good	Fair	Mature	5-15	Low	Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in moderate volumes. Heavily suppressed. Mechanical damage to exposed surface roots.	Consider for Removal	3	1.9	Retain. No works within TPZ.
160	<i>Ficus rubiginosa</i> (Port Jackson Fig)	6	5	300	Fair	Poor	Mature	5-15	Low	Crown density 75-95%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in moderate volumes. Heavily suppressed. Branch cavity, major. Flush cuts. Mechanical damage to exposed surface roots.	Consider for Removal	3.6	2	Retain. No works within TPZ.
161	<i>Corymbia maculata</i> (Spotted Gum)	12	5	300	Fair	Good	Mature	5-15	Low	Crown density 50-75%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in moderate volumes. Partially suppressed.	Consider for Removal	3.6	2	Retain. Major encroachment, entrance.
163	<i>Ficus rubiginosa</i> (Port Jackson Fig)	12	10	600 @ grade	Good	Fair	Mature	5-15	Moderate	Small (<25mm \emptyset), medium (25-75mm \emptyset) & large (>75mm \emptyset) deadwood in moderate volumes. Co-dominant inclusions, minor. Wound(s). Flush cuts. Lopped. Mechanical damage to exposed surface roots.	Consider for Retention	7.2	2.7	Retain. No works within TPZ.

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
163A	<i>Corymbia maculata</i> (Spotted Gum)	18	10	600	Good	Good	Mature	15-40	Moderate	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes.	Consider for Retention	7.2	2.7	Retain. Major encroachment, entrance.
164	<i>Lophostemon confertus</i> (Brush Box)	10	3	200	Good	Good	Mature	15-40	Moderate	Small (<25mmØ) deadwood in low volumes. Heavily suppressed.	Consider for Retention	2.4	1.7	Retain. No works within TPZ.
165	<i>Lophostemon confertus</i> (Brush Box)	9	3	150	Fair	Fair	Mature	5-15	Low	Small (<25mmØ) & medium (25-75mmØ) deadwood in moderate volumes. Heavily suppressed.	Consider for Removal	2	1.5	Retain. No works within TPZ.
166	<i>Lophostemon confertus</i> (Brush Box)	9	4	300	Good	Fair	Mature	5-15	Low	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Small (<25mmØ) epicormic growth in low volumes. Partially suppressed. Previously lopped with resultant epicormic growth.	Consider for Removal	3.6	2	Retain. No works within TPZ.
167	<i>Ficus rubiginosa</i> (Port Jackson Fig)	11	10	500 @ grade	Good	Fair	Mature	15-40	Moderate	Small (<25mmØ), medium (25-75mmØ) & large (>75mmØ) deadwood in moderate volumes. Partially suppressed. Co-dominant inclusions, minor. Bark inclusion(s), major. Wound(s), various stages of decay. Root severance within SRZ. Flush cuts. Mechanical damage to exposed surface roots.	Consider for Retention	6	2.5	Retain. No works within TPZ.
168	<i>Lophostemon confertus</i> (Brush Box)	9	4	200	Good	Good	Mature	15-40	Low	Partially suppressed. Flush cuts.	Consider for Removal	2.4	1.7	Retain. No works within TPZ.
169	<i>Lophostemon confertus</i> (Brush Box)	9	4	250	Fair	Good	Mature	5-15	Low	Small (<25mmØ) & medium (25-75mmØ) deadwood in moderate volumes. Bark inclusion(s), minor.	Consider for Removal	3	1.9	Retain. No works within TPZ.
170	<i>Ficus rubiginosa</i> (Port Jackson Fig)	8	10	650@ grade	Fair	Good	Mature	15-40	Moderate	Crown density 75-95%. Small (<25mmØ) & medium (25-75mmØ) deadwood in moderate volumes. Small (<25mmØ) epicormic growth in low volumes. Wound(s), various stages of decay. Mechanical damage to exposed surface roots.	Consider for Retention			Retain. No works within TPZ.
171	<i>Ficus rubiginosa</i> (Port Jackson Fig)	7	6	250 250 250	Good	Fair	Mature	5-15	Low	Partially suppressed. Phototropic lean, severe. Wound(s). Flush cuts. Mechanical damage to exposed surface roots.	Consider for Removal	5.4	2.4	Retain. Minor encroachment, entrance.
172														Removed - stormwater installation

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
173	<i>Lophostemon confertus</i> (Brush Box)	8	4	300	Poor	Poor	Mature	<5	Low	Crown density 50-75%. Small (<25mmØ), medium (25-75mmØ) & large (>75mmØ) deadwood in moderate volumes. Bark inclusion(s), minor. Trunk cavity(s), major. Exposed crown. Mechanical damage to exposed surface roots.	Priority for Removal	3.6	2	Application for removal pending.
174														Removed - Arb Assessment 26.06.23
175	<i>Lophostemon confertus</i> (Brush Box)	5	3	250	Good	Poor	Mature	<5	Low	Crown density 50-75%. Small (<25mmØ) deadwood in low volumes. Heavily suppressed. Phototropic lean, moderate. Trunk cavity(s), major. Mechanical damage to exposed surface roots.	Priority for Removal	3	1.9	Application for removal pending.
176	<i>Lophostemon confertus</i> (Brush Box)	9	4	250	Good	Good	Mature	15-40	Moderate	Crown density 50-75%. Small (<25mmØ) deadwood in moderate volumes. Partially suppressed.	Consider for Retention	3	1.9	Retain. Minor encroachment, terracing.
177	<i>Ficus rubiginosa</i> (Port Jackson Fig)	4	3	200	Good	Fair	Mature	15-40	Low	Crown density 75-95%. Small (<25mmØ) deadwood in low volumes. Small (<25mmØ) epicormic growth in moderate volumes. Heavily suppressed. Wound(s), advanced stages of decay. Flush cuts. Mechanical damage to exposed surface roots.	Consider for Removal	2.4	1.7	Retain. No works within TPZ.
178	<i>Corymbia maculata</i> (Spotted Gum)	16	8	550	Good	Good	Mature	15-40	Moderate	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes.	Consider for Retention	6.6	2.6	Retain. Major encroachment, terracing.
179	<i>Ficus rubiginosa</i> (Port Jackson Fig)	6	8	400	Fair	Fair	Mature	5-15	Moderate	Crown density 75-95%. Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Partially suppressed. Co-dominant inclusions, minor. Wound(s), early signs of decay. Flush cuts. Mechanical damage to exposed surface roots.	Consider for Retention	4.8	2.3	Retain. Minor encroachment, entrance.
180	<i>Corymbia maculata</i> (Spotted Gum)	10	5	250	Good	Good	Mature	15-40	Moderate	Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Mechanical damage to exposed surface roots.	Consider for Retention	3	1.9	Retain. Minor encroachment, entrance.
181														Removed - stormwater installation

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
182	<i>Ficus rubiginosa</i> (Port Jackson Fig)	5	6	300	Fair	Fair	Mature	15-40	Moderate	Crown density 75-95%. Small (<25mmØ), medium (25-75mmØ) & large (>75mmØ) deadwood in moderate volumes. Partially suppressed. Flush cuts. Exposed crown. Mechanical damage to exposed surface roots.	Consider for Retention	3.6	2	Retain. Minor encroachment, entrance.
183														Removed - stormwater installation
184														Removed - stormwater installation
185	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	10	4	200	Good	Good	Mature	15-40	Low		Consider for Removal	2.4	1.7	Retain. No works within TPZ.
186	<i>Ficus rubiginosa</i> (Port Jackson Fig)	5	6	300	Good	Good	Mature	15-40	Moderate	Partially suppressed. Flush cuts. Mechanical damage to exposed surface roots.	Consider for Retention	3.6	2	Retain. Major encroachment, entrance.
187														Removed - stormwater installation
188														Removed - stormwater installation
189	<i>Ficus rubiginosa</i> (Port Jackson Fig)	6	7	300	Fair	Good	Mature	15-40	Moderate	Crown density 75-95%. Small (<25mmØ) & medium (25-75mmØ) deadwood in low volumes. Bark inclusion(s), minor. Flush cuts. Exposed crown. Mechanical damage to exposed surface roots.	Consider for Retention	3.6	2	Retain. No works within TPZ.
190														Removed - stormwater installation
191	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	10	4	200	Good	Good	Mature	15-40	Low	Mature epicormic at base.	Consider for Removal	2.4	1.7	Retain. No works within TPZ.
192														Removed - stormwater installation

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
193	<i>Lophostemon confertus</i> (Brush Box)	7	4	300	Good	Good	Mature	15-40	Moderate	Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in low volumes. Partially suppressed. Mechanical damage to exposed surface roots.	Consider for Retention	3.6	2	Remove. OSD tank.
194	<i>Lophostemon confertus</i> (Brush Box)	7	4	350	Fair	Good	Mature	15-40	Moderate	Crown density 75-95%. Small (<25mm \emptyset) & medium (25-75mm \emptyset) deadwood in low volumes. Small (<25mm \emptyset) epicormic growth in low volumes.	Consider for Retention	4.2	2.2	Remove. OSD tank.
195	<i>Lophostemon confertus</i> (Brush Box)	7	4	300	Good	Good	Mature	15-40	Moderate	Small (<25mm \emptyset) deadwood in low volumes.	Consider for Retention	3.6	2	Remove. OSD tank.
197	<i>Lophostemon confertus</i> (Brush Box)	4	2	100	Good	Good	Semi-mature	5-15	Low	Crown density 75-95%. Buried root collar.	Consider for Removal	2	1.5	Remove. Podium footprint.
245-1	<i>Lophostemon confertus</i> (Brush Box)	4	2	100	Good	Good	Semi-mature	5-15	Low	Crown density 75-95%. Buried root collar.	Consider for Removal	2	1.5	Remove. Podium footprint.
245-2	<i>Lophostemon confertus</i> (Brush Box)	4	2	100	Good	Good	Semi-mature	5-15	Low	Crown density 75-95%. Buried root collar.	Consider for Removal	2	1.5	Remove. Podium footprint.
245-3	<i>Lophostemon confertus</i> (Brush Box)	4	2	100	Good	Fair	Semi-mature	5-15	Low	Crown density 75-95%. Buried root collar.	Consider for Removal	2	1.5	Remove. Podium footprint.
245-4	<i>Lophostemon confertus</i> (Brush Box)	4	2	100	Good	Good	Semi-mature	5-15	Low	Crown density 75-95%. Buried root collar.	Consider for Removal	2	1.5	Remove. Podium footprint.
245-5	<i>Lophostemon confertus</i> (Brush Box)	4	2	100	Good	Good	Semi-mature	5-15	Low	Crown density 75-95%. Buried root collar.	Consider for Removal	2	1.5	Remove. Podium footprint.
246-1	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-2	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-3	<i>Cupaniopsis anacardioides</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
246-4	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-5	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-6	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-7	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-8	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-9	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-10	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-11	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
246-12	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	6	3	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
247-1	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	5-15	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
247-2	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
247-3	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Poor	Semi-mature	5-15	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
247-4	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
247-5	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
247-6	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
248-3	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
248-4	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
248-5	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
248-6	<i>Cupaniopsis anacardiodes</i> (Tuckeroo)	4	2	150	Good	Good	Semi-mature	15-40	Low		Consider for Removal	2.0	1.6	Remove. Podium footprint.
301	<i>Lophostemon confertus</i> (Brush Box)	5	2	150	Good	Good	Mature	15-40	Low	Crown density 75-95%. Small (<25mm) diameter deadwood in low volumes.	Consider for Removal	2	1.5	Remove. Podium footprint.
302														Removed - Arb Assessment 20.05.22
303														Removed - stormwater installation
304	<i>Lophostemon confertus</i> (Brush Box)	16	5	650	Good	Good	Mature	15-40	Moderate	Small (<25mm \emptyset) and medium (25-75mm \emptyset) deadwood in low volumes.	Consider for Retention	7.8	2.9	Retain. Major encroachment, entrance.
305	<i>Ficus rubiginosa</i> (Port Jackson Fig)	16	8	425 500 300 550	Good	Good	Mature	15-40	Moderate	Medium (25-75mm \emptyset) deadwood in low volumes. Wound(s), early stages of decay. Mechanical damage to exposed surface roots.	Consider for Retention	10.9	3.3	Remove. Stair footprint.

Tree No.	Species	Height (m)	Crown Spread (m)	DBH (mm)	Health Rating	Structural Condition Rating	Age Class	ULE (years)	Landscape Significance	Comments	Retention Value	Radial TPZ (m)	Radial SRZ (m)	Implication
306	<i>Ficus rubiginosa</i> (Port Jackson Fig)	16	7	600 400 400	Good	Good	Mature	15-40	Moderate	Crown density 75-95%. Medium (25-75mm \emptyset) deadwood in low volumes. Wound(s), various stages of decay. Exposed crown. Mechanical damage to exposed surface roots.	Consider for Retention	9.9	3.2	Retain. Major encroachment, entrance.

Appendix B - Tree Protection Briefing

21st May 2024

Attn: Samantha Hamilton
Watpac Construction
25 Hickson Road, Barangaroo
Sydney NSW 2000

RE: Sydney Football Stadium - Precinct Village & Carpark (Main Works)
Tree Protection Briefing

This document was prepared for Watpac Construction in relation to the trees at Sydney Football Stadium development site. The purpose of this document is to provide a high-level briefing of the tree protection requirements for the Precinct Village & Carpark (Main Works) project.

Project Arborist

TreeiQ has been engaged by Watpac Construction to monitor the tree protection requirements, supervise works within the Tree Protection Zone (TPZ) areas and provide arboricultural advice as necessary. TreeiQ will undertake monthly inspections of the site and provide a short report to Watpac outlining any non-compliances and works requiring remedial action.

Tree Retention

The trees to be retained and protected are outlined within the LANDSCAPE SERVICES - TREE RETENTION & REMOVAL PLAN (Rev B, 07.12.2022). It should be noted that Tree 174 was removed in June 2023 and no longer exists.

Tree removal works are to be undertaken in accordance with the *Construction Biodiversity Management Subplan (N228) Moore Park Precinct Village and Carpark* and the *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)* and other applicable legislation and codes. Tree removal works are not to damage the trees to be retained.

Pruning

Any tree pruning works must be approved by treeiQ. **Only minor pruning works will be approved.** Tree pruning works are to be undertaken in accordance with the *Construction Biodiversity Management Subplan (N228) Moore Park Precinct Village and Carpark*, *Australian Standard 4373: Pruning of Amenity Trees (2007)*, *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)* and other applicable legislation and codes. Tree pruning works are not to damage the trees to be retained.

Trunk Protection

Trunk protection is to be installed onto Trees 133, 138, 141, 143, 161 and 304 prior to works commencing with their TPZ areas. Trunk protection is to be installed by wrapping padding (either carpet underlay or 10mm thick jute geotextile mat) around the trunk and first order branches to a minimum height of 2m. Timber battens (90 x 45mm) spaced at 150mm centres are to be strapped together and placed over the padding. Timber battens are not to be fixed to the trees.

TPZ Fencing

TPZ fencing is to be installed along the kerb between the existing garden bed and the existing carpark. The exact location of the fencing can be confirmed on site by treeiQ prior to the commencement of works. As a minimum, the TPZ fencing is to consist of 1.8m high wire mesh panels supported by concrete feet. **Crowd barrier fencing or hazard mesh/bunting will not be accepted.** TPZ fencing may only be setback to allow for the construction of works within the TPZ areas with prior approval from treeiQ.

Excavation within TPZ Areas

Excavations within the TPZ areas are to be supervised by treeiQ and require a minimum of 3 days notice. Excavation is to be undertaken using a **combination of hand and hydro vacuum excavation methods** ensuring roots (>25mm \emptyset) are retained and protected. Excavation using compact machinery (<2t) fitted with a flat bladed bucket is permissible with prior approval from treeiQ. If there is any delay between excavation works and backfilling, exposed roots are to be protected from direct sunlight, drying out and extremes of temperature by covering with a damp 10mm thick jute mat. Roots (>25mm \emptyset) are to be pruned by treeiQ only. Roots (<25mm \emptyset) may be pruned by the Contractor.

Underground services

Underground services within the TPZ areas are to be excavated using tree sensitive methods (hand/hydrovac – refer above) with the services installed around/below roots (>25mm \emptyset) or as required by treeiQ. Boring methods may be used for underground service installation where the services are installed a minimum of 1200mm below existing grade. Excavations for starting and receiving pits for boring equipment are to be located outside of the TPZ areas or located to avoid roots (>25mm \emptyset) as required by treeiQ.

Ramps & Other Structures within TPZ Areas

Ramps and other structures within the TPZ areas are to be supported on isolated piers with all other parts of the structure constructed above grade. Excavation for footings within the TPZ areas are to be undertaken using tree sensitive methods (hand/hydrovac – refer above). Footing locations are to be flexible and/or the footing design modified to enable the retention of roots (>25mm \emptyset) as required by treeiQ. Sufficient clearance is to be provided between the trees and the structures to allow for branch/trunk movement and future growth.

Drilling/piling machinery is to be excluded from the TPZ areas unless operating from areas of ground protection or from the existing slabs or pavements. Drilling/piling machinery is to be of a suitable size to not damage the trees' roots, trunk, branches and crown. Machinery is to work in conjunction with a spotter to ensure that adequate clearance from trees is maintained at all times.

Landscaping

Planting of new trees, shrubs and ground covers within the TPZ areas is to be undertaken using hand tools with roots (>25mm \emptyset) retained and protected. No mechanical cultivation/ripping of soils is to be undertaken within TPZ areas. Landscape planting is to be completed in the final stage of the development works and TPZ fencing and trunk protection is to remain in place until these works are due to commence.

Please do not hesitate to contact me if require any additional information or have any questions.



Anna Hopwood – Director
Grad Cert. (Arboriculture)
Dip. Hort (Arboriculture)
Dip. Hort (Landscape Design)
ISA TRAQ

Appendix C – Anthony Richard CV

Anthony Richard

Senior Consultant

Anthony Richard is a Certified Environmental Practitioner (Registration number 1579) with ten years' experience working as a contaminated land consultant and an additional six years' experience in environmental education. Being involved with both large and small scale assessment and remediation projects, Anthony has worked alongside a diverse group of stakeholders and clients to bring about the best possible outcomes for the project in question. Notably, Anthony has been involved in the assessment of both largescale housing estate redevelopments and brownfield developments with ongoing work in greater metropolitan growth areas. Anthony has directed detailed environmental assessment across hundreds of hectares of mixed use land areas; in particular, the Landcom/UrbanGrowth Western Sydney portfolio and town centre redevelopments. Anthony has used this environmental data and research to develop dynamic and efficient remediation responses which are tailored to the constraints of each site and ensure compliance with regulatory requirements. As a Licensed Asbestos Assessor Anthony has produced numerous asbestos clearance certificates for Sites impacted by both bonded and friable asbestos, in both soils and building materials along with airborne asbestos monitoring and experience with the production of asbestos registers.

Experience: Ten years' experience in contaminated site management

LinkedIn:

Email: anthony.richard@erm.com

Education

- Masters in Sustainable Development – Graduate School of the Environment, Macquarie University, Australia, 2011
- Post Graduate Diploma of Environmental Education – Graduate School of the Environment, Macquarie University, Australia, 2005
- Bachelor of Environmental Management – Macquarie University, Australia, 2003

Professional Affiliations and Registrations

- Certified Environmental Practitioner – General Practice. No. 1579
- WorkCover NSW Licenses Asbestos Assessor – License Number LAA000181

- Bonded Asbestos Nominated Supervisor – NSW TAFE
- Australian Institute of Occupational Hygienists – Associate Member
- Environment Institute of Australia and New Zealand – Full Member

Languages

- English, native speaker

Fields of Competence

- Client relations
- Report and proposal writing
- Contaminated Land Assessment
- Asbestos assessment and Clearance Reporting
- Data interpretation and analysis

Key Industry Sectors

- Infrastructure & Property
- Government

Example Key Projects

Sydney Metro Central Tunnelling Package

Works including review of existing site documentation, site inspection and investigation assessment, groundwater monitoring well program and asbestos works across The Bays, Burwood and Sydney Olympic Park station box zones.

Menangle Park Release Area

Works including Site assessment, and preparation of Detailed Site Assessments, Remediation Action Plans and Asbestos Human Health Risk Assessment. 140ha primarily rural Site including former fireworks manufacturing facility.

Minto Urban Renewal Project – Stages 10, 11, 12 and 13

Works including Site assessment and preparation of Detailed Site Assessments, Salinity and Aggressivity Assessments, Remediation Action Plans, Asbestos Clearance Certificates, Airborne Asbestos Monitoring Reports and Validation Reports for a Site Audit Statement. 36ha former housing estate Site.

Airds/Bradbury Urban Renewal Project – Stages 1 and 2

Works including Site assessment and preparation of Detailed Site Assessment, Salinity and Aggressivity Assessments, Remediation Action Plans and Validation Reports for a Site Audit Statement. 20ha former housing estate Site.

Bonnyrigg Living Communities Project – Stages 4, 5, 6 and 7

Works including Site assessment, Hazardous Material Surveys and preparation of Detailed Site Investigations, Remediation Action Plans and Validation Reports for a Site Audit Statements. 15ha former housing estate Site.

Riverstone Scheduled Lands Project – Stage A

Works including Site Assessment, Hazardous Material Inspections, Clandestine Drug Lab Inspections, Assessment of dumped rubbish and preparation of Remediation Action Plans and Validation Reports for a

Site Audit Statement. 10ha former residential and undeveloped lots.

Pitt Town – Fernadell, Bona Vista, Riverlands and Blighton Developments

Works including Site assessment and preparation of Detailed Site Assessments, Remediation Action Plans, Validation Reports, Airborne Asbestos Monitoring reports and Asbestos Clearance Certificates. One development subject to a Site Audit Statement. 85ha former rural residential properties.

DNSDC Moorebank

Supervision of materials handling and provision of Airborne Asbestos Monitoring Reports and Asbestos Clearance Certificates for former military storage site for warehouse development.

Perry Park

Works including the revision of previously existing and outdated Remediation Action Plan, supervision of remediation works, imported material reviews and preparation of waste classification and Validation Reports and a Long Term Environmental Management Plan for a Site Audit Statement. 0.85 inner city open space and sporting facility development.




Dyuralya Square

Works including the development of Remediation Action Plan, Asbestos Management Plan, supervision of remediation works, imported material reviews, preparation of waste classification and Validation Reports and a Long Term Environmental Management Plan for a Site Audit Statement. 0.25ha inner city open space area.

Caltex – Service Station Demolition

ERM were commissioned as primary contractor for the demolition and remediation works for multiple former service station sites within the greater Sydney region to be sold. Works included the supervision of the demolition and remediation works, including UST removal, and validation reporting required for the issue of Site Audit Statements for each Site.

Appendix D – Tree IQ CV

Consultant	Position + Qualifications	Experience
 <p data-bbox="338 571 539 604">Anna Hopwood</p>	<p data-bbox="562 464 656 491">Director</p> <p data-bbox="562 531 853 558">Grad Cert. (Arboriculture)</p> <p data-bbox="562 564 837 592">Dip. Hort (Arboriculture)</p> <p data-bbox="562 598 889 625">Dip. Hort (Landscape Design)</p> <p data-bbox="562 632 674 659">ISA TRAQ</p>	<p data-bbox="936 368 2181 448">Anna Hopwood is the Director of TreeiQ, bringing extensive expertise as an AQF Level 5 & AQF Level 8 Consultant Arborist and Urban Forester. She served as the Vice President of the Institute of Australian Consulting Arboriculturists (IACA) from 2017 to 2019. Currently, Anna actively contributes to the IACA as a member of the Sub Committee for Professional Standards.</p> <p data-bbox="936 483 2181 563">Anna was a member of the expert panel for Sustainable Sydney 2050. She is also a long-standing member of the current and previous City of Sydney arboricultural consultancy panel and serves as a mentor in various crucial areas including tree assessment, impact assessment, and Project Arborist responsibilities for new staff.</p> <p data-bbox="936 598 2181 678">Anna has received recognition through several awards including the Australian Institute of Landscape Architects (AUST) Climate Positive Award in 2023, achieved in collaboration with the City of Sydney and the Australian Institute of Landscape Architects (NSW) ShadeSmart Award in 2022, earned in partnership with Oculus.</p> <p data-bbox="936 713 2181 793">Anna's dedication to education is evident in her receipt of the Scott Sharpe Award from the University of Melbourne in 2015. Furthermore, her early accomplishments include the TAFE NSW State Medal (Arboriculture) in 2006 and the Local Government Tree Resources Award in the same year.</p>
 <p data-bbox="338 946 539 979">Martin Peacock</p>	<p data-bbox="562 842 927 869">Senior Arboricultural Consultant</p> <p data-bbox="562 909 846 936">BSc (hons.) Arboriculture</p> <p data-bbox="562 943 808 970">HN Dip. Arboriculture</p> <p data-bbox="562 976 777 1003">N Dip. Horticulture</p> <p data-bbox="562 1010 889 1037">Dip. Hort (Landscape Design)</p>	<p data-bbox="936 904 2181 1016">Martin Peacock has 30 years of experience in the arboricultural industry and has been an integral part of TreeiQ since 2007. His expertise extends beyond consultancy roles as he has actively participated in tree climbing throughout his career. Before making the move to Australia in 2003, Martin successfully managed his own arboricultural company and was a teacher at Houghall College of Agriculture and Horticulture in the UK.</p>
 <p data-bbox="338 1249 539 1283">Nicole O'Connell</p>	<p data-bbox="562 1198 913 1225">Landscape Heritage Consultant</p> <p data-bbox="562 1265 860 1292">Grad. Cert (Heritage Cons)</p> <p data-bbox="562 1299 889 1326">Dip. Hort (Landscape Design)</p>	<p data-bbox="936 1224 2181 1303">Nicole O'Connell a Landscape Heritage Consultant with specialist skills and experience in landscape assessment, landscape heritage conservation and impact assessment. Nicole has worked with TreeiQ since 2007 and has provides invaluable advice on the identification, recording, assessment and management of significant trees.</p>

Appendix E – Anna Hopwood CV



Dear Anna,

Congrats! The International Society of Arboriculture (ISA) would like to notify you that you have passed the Tree Risk Assessment Qualification examination you recently took. You have received 98% on the written exam (passing score is 75%) and you passed the performance-based exam.

MAINTAIN YOUR CREDENTIAL

You are encouraged to maintain the level of professional competency you have demonstrated on the examination. For valuable information about your credential, please visit the ISA website at any time to manage your credential or view your status:

<http://www.isa-arbor.com/myaccount/mycertification/certificationstatus.aspx>:

Login Username:

GROW YOUR BUSINESS WITH ISA BRANDING

Learn to properly market your credential through the online ISA Style Guide LTE at <https://www.isa-arbor.com/styleguide/>. Complete this simple four-step training on how to properly use the logos and titles, download the logos you are eligible to use, and begin your personal marketing efforts!

Once again, congratulations on acquiring your credential. As an ISA credential holder, your dedication to your profession and your community helps to make the world a better place, one tree at a time. If you have any questions or need additional information, please feel free to contact us by email at isa@isa-arbor.com or by phone at +1 217.355.9411.

Sincerely,

Jim Skiera
Executive Director
International Society of Arboriculture



International Society of **Arboriculture**
www.isa-arbor.com • p. +1 217.355.9411 • isa@isa-arbor.com

Student Number: 737647

10 May 2016

Ms Anna Hopwood
1/9 Venus Street
Gladesville NSW 2111



ACADEMIC TRANSCRIPT

Completion and Conferral Summary:

Graduate Certificate in Arboriculture

Completed 2 Mar 2016. Conferred 19 Mar 2016.

Graduate Certificate in Arboriculture

Year	Code	Title	Points	Mark	Grade
2015	HORT90041	Urban Tree Growth and Function	12.50	084	H1
	HORT90042	Managing Urban Trees	12.50	096	H1
	HORT90043	Tree Identification and Selection	12.50	082	H1
	HORT90044	Urban Tree Health	12.50	085	H1

Weighted Average Mark for this course 86.750

Graduate Certificate in Arboriculture

Year	Code	Title	Points	Mark	Grade
Credit Granted for Studies at the University of Melbourne					
	HORT90041	Urban Tree Growth and Function	12.50	084	H1
	HORT90042	Managing Urban Trees	12.50	096	H1
	HORT90043	Tree Identification and Selection	12.50	082	H1

Weighted Average Mark for this course 87.333

End Of Transcript

Neil Robinson
Academic Registrar



NORTHERN SYDNEY INSTITUTE

RTO Provider No. 90011

Student No.: 268256903

Student Name: ANNA HOPWOOD



ANNA HOPWOOD
1/9 VENUS STREET
GLADESVILLE NSW 2111

RYDE COLLEGE
250 BLAXLAND ROAD
RYDE 2112
Telephone: (02) 131 674
Fax: (02) 9448 6291

TRANSCRIPT OF ACADEMIC RECORD as at 20-DEC-2006

Having been assessed in accordance with the requirements of the
RTF03 Amenity Horticulture Training Package
you are eligible to receive

**RTF50203 Diploma of Horticulture
(Arboriculture)
with Distinction**

YEAR CODE	UNIT	RESULT
2006 1600U	Assess trees	Distinction
2006 1607G	Manage plant health	Distinction
2006 1708K	Develop & implement a streetscape plan	Distinction
2006 2195AP	Contracts/commercial agreements	Distinction
2006 3428A	Collect and classify plants	Distinction
2006 3428C	Develop a mgt plan for a designated area	Distinction
2006 3428K	Provide specialist advice to clients	Distinction
2006 3560D	Establish & maintain enterprise OHS prog	Distinction
2006 3560F	Prepare reports	Distinction
2006 9728G	Manage environmental performance	Pass (Ungraded)

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END OF TRANSCRIPT

The above results were achieved through enrolment in TAFE NSW course
1605 Diploma of Horticulture
(Arboriculture)

This is a certified copy.

*Caroline Hopwood, Teacher / Civil Marriage
Celebrant A 7585
Agwood 19.10.14*

This statement is issued without
alteration or erasure of any kind

*Andrew
Cappie-wood*

MANAGING DIRECTOR