GROUPGSA

MACQUARIE UNIVERSITY - CENTRAL ANIMAL FACILITY

Prepared for Macquaire University | GroupGSA | 23 October 2024

We acknowledge First Nations peoples and their continuing connection to land, waters and culture, because we strongly believe in reconciliation and collaborative engagement for a better future.

We pay our respects to Elders past, present and emerging, whose knowledge, traditions and stories guide custodianship on what will always be their ancestral lands.

CONTENTS

COUNTRY

We acknowledge the traditional custodians of the land upon which the site is located, the Wallumedegal and Tugagal people of the Dharug nation; their connection to Country, land, water, community and spirit.

We pay respect to Elders past, present and emerging.

The word Wallumedegal comes from the Dharug word 'wallumai' for the Australasian Snapper Fish, a major local food source found in the nearby Parramatta River.

The Wallumedegal people maintained a strong cultural connection to the surrounding Dharug and Eora clans with which they shared a common language and belief system.

The Dharug people of Sydney's west would meet with neighbouring clans throughout the year to trade, negotiate, and to undertake ceremonial enactments of their common culture.

These clans comprised of a family group who inhabited a region of which they had a vast and intimate knowledge of, utilising local flora and fauna resources to support every aspect of their life.

This intimate relationship with their traditional lands which they knew as Wallumetta extended into their cultural beliefs, weaving dreamtime into the very fabric of their daily lives.

Many extant relics of Dharug culture still exist throughout the City of Ryde, with evidence of daily habitation existing all throughout the region including grinding grooves, fireplaces, and shell middens.

Examples of art and engravings are also common, hidden within the valleys and rock shelters of the surrounding native bushland Many such engravings depict cultural heros, mythical stories, and the flora and fauna which these people would depend on daily..

The Wallumedegal venerated the Angophora tree, also known as the Sydney Red Gum, as a totem and inherent symbol of their culture, believing it to be a place of spiritual ascension according to the dreamtime stories.

At moments of life and of death, the Angophora tree acted as a mediator between the spiritual and the earthy plane, its bark used in funerary rituals to ensure safe departure.

Australasian Snapper Fish, the namesake of the Wallumedegal people, Source: Hunters Hill Museum

Wallumatta Nature Reserve, named in honour of its traditional owners, Source: National Parks and Wildlife Service

ECOLOGY

Lane Cove National Park is home to one of metropolitan Sydney's last extant examples of a robust riverine ecological community, containing remnants of Turpentine-Ironbark forests.

Though much of Sydney's native bushland has deteriorated since settlement, key reserves, remnant planting, and tracts of bushland ensure that the region's natural environment remains interconnected and resilient.

Urban planting contributes to this network, linking Lane Cove National Park to the peripheral reserves which are home to the region's most at-risk native flora and fauna, including Wallumatta Nature Reserve and Yurrah Reserve.

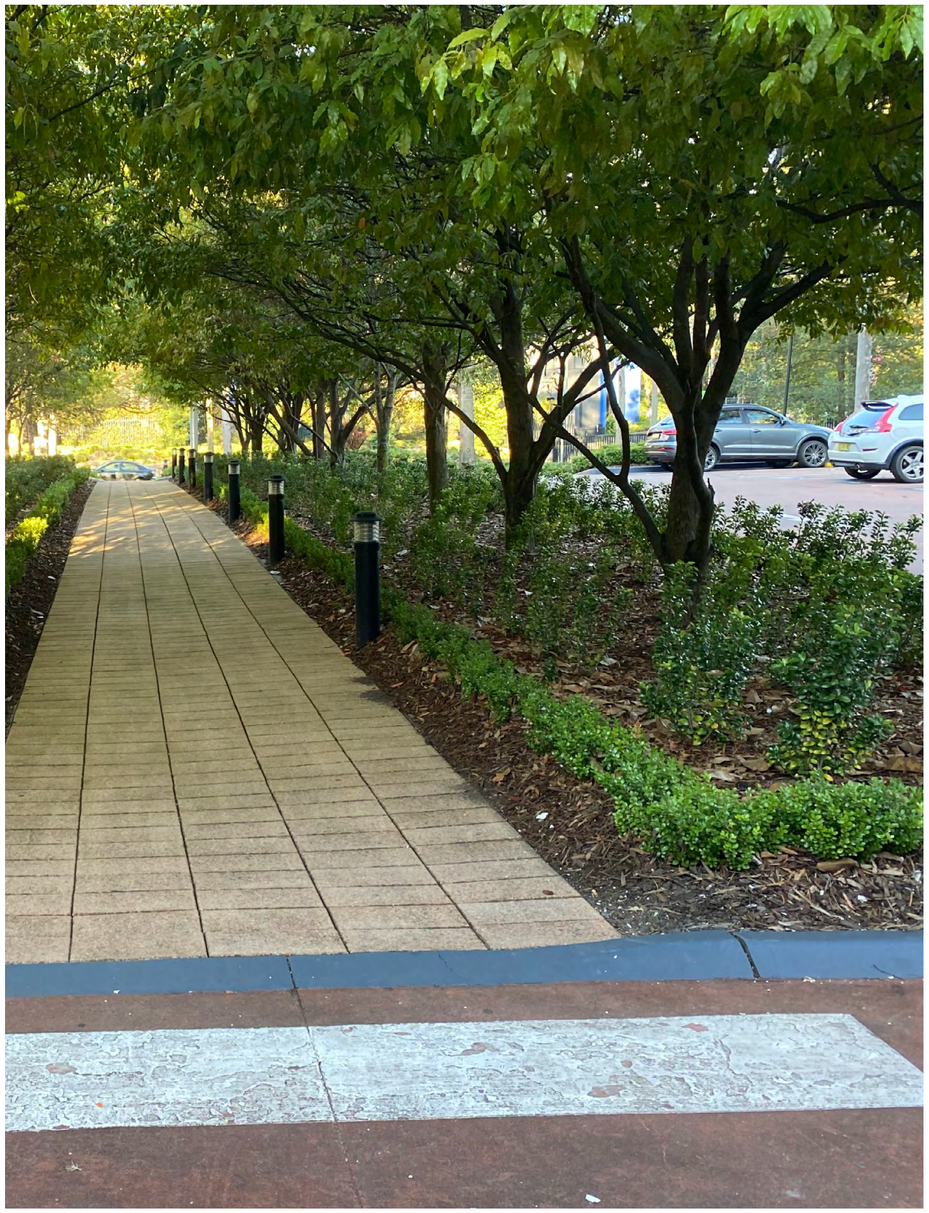
Yarrah Reserve to the sites immediate north displays features typical of Macquarie Park's natural environment prior to settlement. It features a Coastal Enriched Sandstone Dry Forest, characterised by a tall open eucalypt canopy, and an understorey of dry sclerophyll shrubs. This ecological community is widespread throughout the Hornsby Plateau.

Urban landscaping connects pockets of remnant bushland to ensure a consistent canopy between key habitation areas, whilst providing nesting spots for possums and birds.

Macquarie Park's urban canopy is well developed and mature, both in the public domain, along major roads, and within private properties. These consist primarily of native species, though introduced species have been planting variously.

Yurrah Reserve to the site's north, primarily a Coastal Enriched Sandstone Dry Forest type.

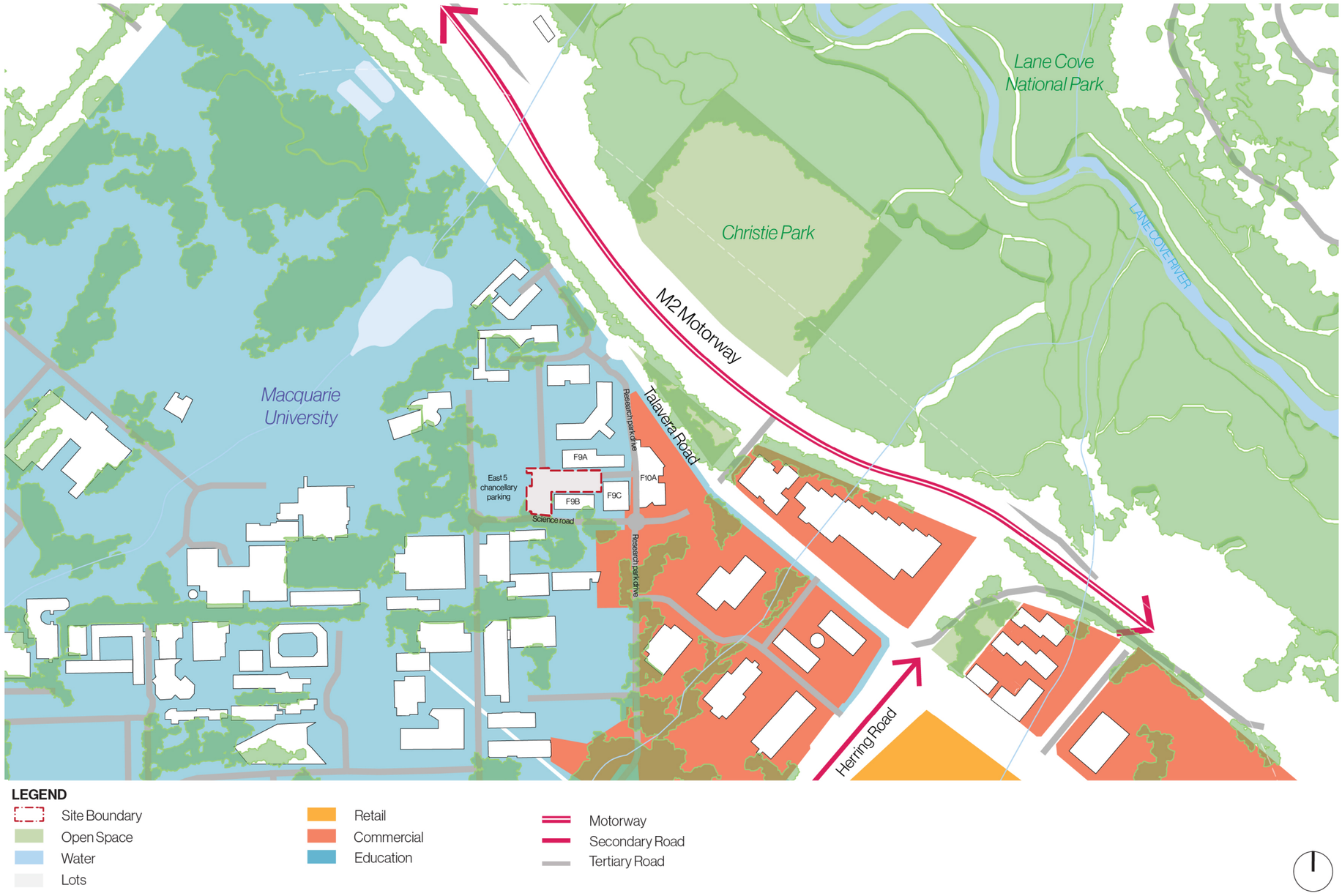
Lane Cove River



Mature planting located on-site, indicative of Macquarie Park's extensive landscape network

CONTEXT ANALYSIS

Situated within Macquarie Park's productive economic precinct in Sydney's north, the site is immersed within Macquarie University.



THE SITE

The site is located within the Science and Medicine precinct, situated 11km north of Sydney's CBD.

This report accompanies a Development Application that seeks approval for the redevelopment of the Macquarie University Central Animal Facility (MQU Central Animal Facility).

The site is located at 13A Research Park Drive within the Macquarie University Campus, which is legally described as Lot 2000 in DP1305792.

Biomedical research at Macquarie University is supported by two animal facilities - the Central Animal Facility and the Zebrafish Facility.

The existing MQU Central Animal Facility is a research rodent facility currently located at 15 Research Park Drive adjacent to the site. The building is 20 years old and was subject to a refurbishment in 2012 and extension in 2019. The building has reached its capacity as a rodent research facility and can no longer support the research activities it is required to accommodate at present nor future growth.

The existing Zebrafish facility was constructed in 2010 and is part of a larger research facility within the Macquarie University Private Hospital. It is also currently at capacity and in need of redevelopment.

The proposed development comprises the construction of a new purpose-built facility that will accommodate the MQU Central Animal Facility (inclusive of a new Zebrafish facility) to support the growth in biomedical research at Macquarie University.

The Development Application seeks approval for the following components:

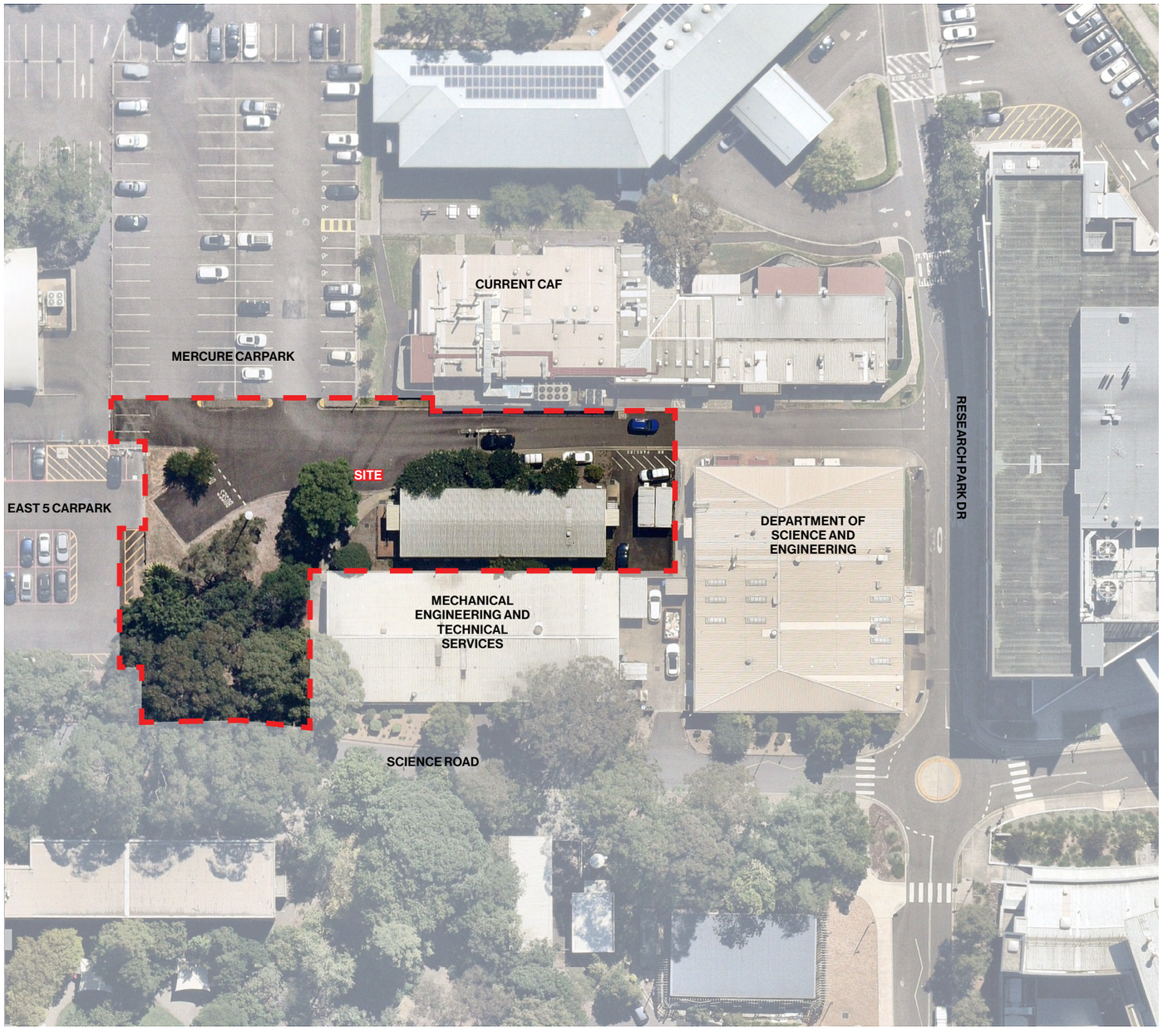
- Site preparation works including tree removal, earthworks and the relocation of existing demountable and storage containers located on the site;
- Construction and use of a three storey (including plant) building with a gross floor area of approximately 3,000m2 for the purposes of a biomedical research facility; and
- Associated landscaping and public domain works.

For a detailed project description refer to the Statement of Environmental Effects prepared by Ethos Urban.

2765.1sqm

Approx. square metres

TOTAL SITE AREA



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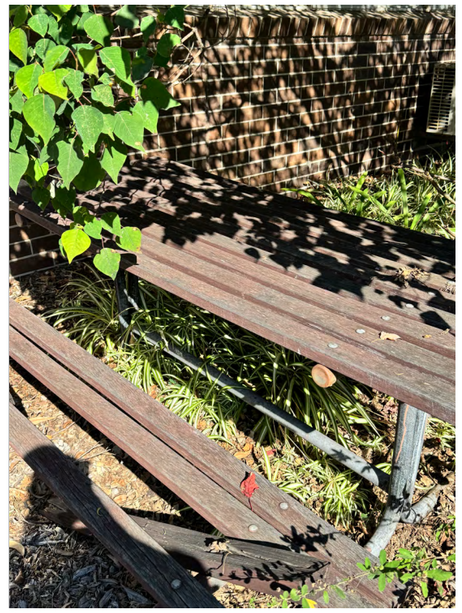
SITE PHOTOGRAPHS

1. Site viewed from west

2. Site viewed from North

3. Corridor between proposed CAF and existing building 3 (F9B)



3. Existing furniture

4. Site viewed from East

5. Existing access from South

6. Existing Eucalyptus canopy

6. Existing Eucalyptus canopy

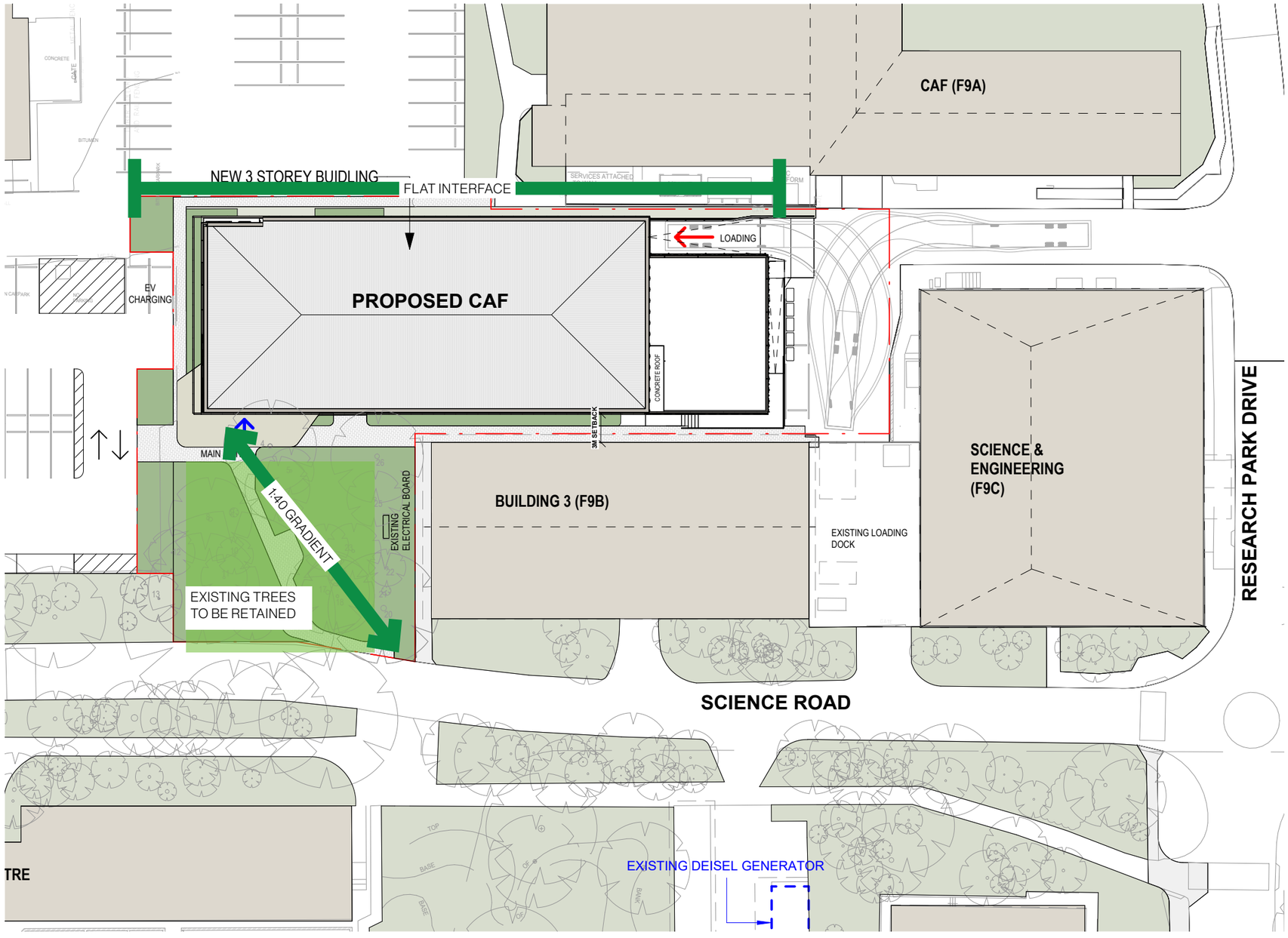
LEVELS AND GRADIENTS

Existing trees

– Retain existing levels near retained trees

Gradients

– The site is quite flat with an overall grade of 1:40



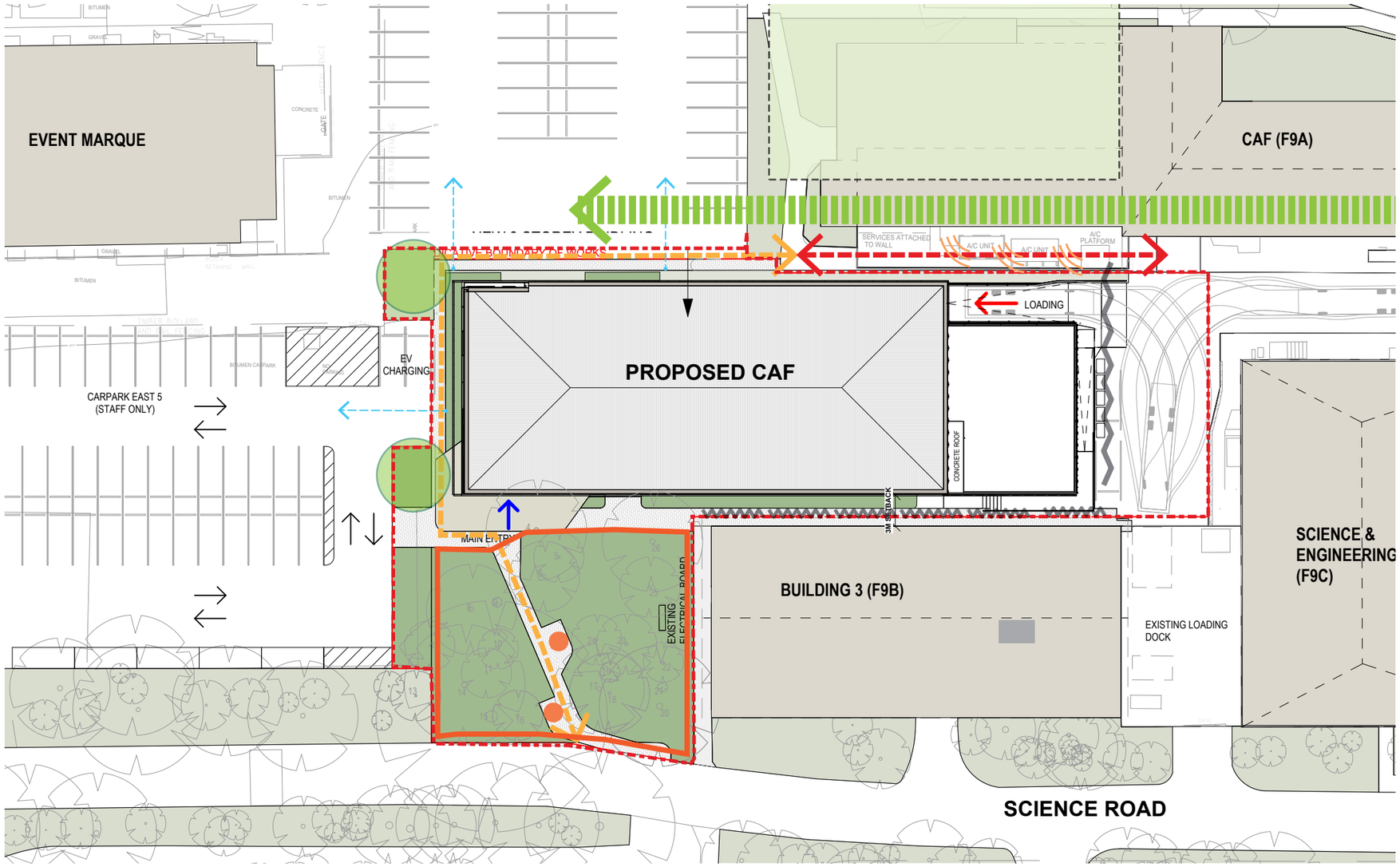
OPPORTUNITIES AND CONSTRAINTS

Opportunities

- Create a layering landscape around the building
- Planting beds and New trees at the North-West corner to existing car park
- Emphasize the building main entry
- Retain the existing trees and improve understorey landscape
- Create a pedestrian entry from Science Road

Constraints

- Limited solar access in some portions of the outdoors
- Limited interface between Proposed building and existing building along the south-east side



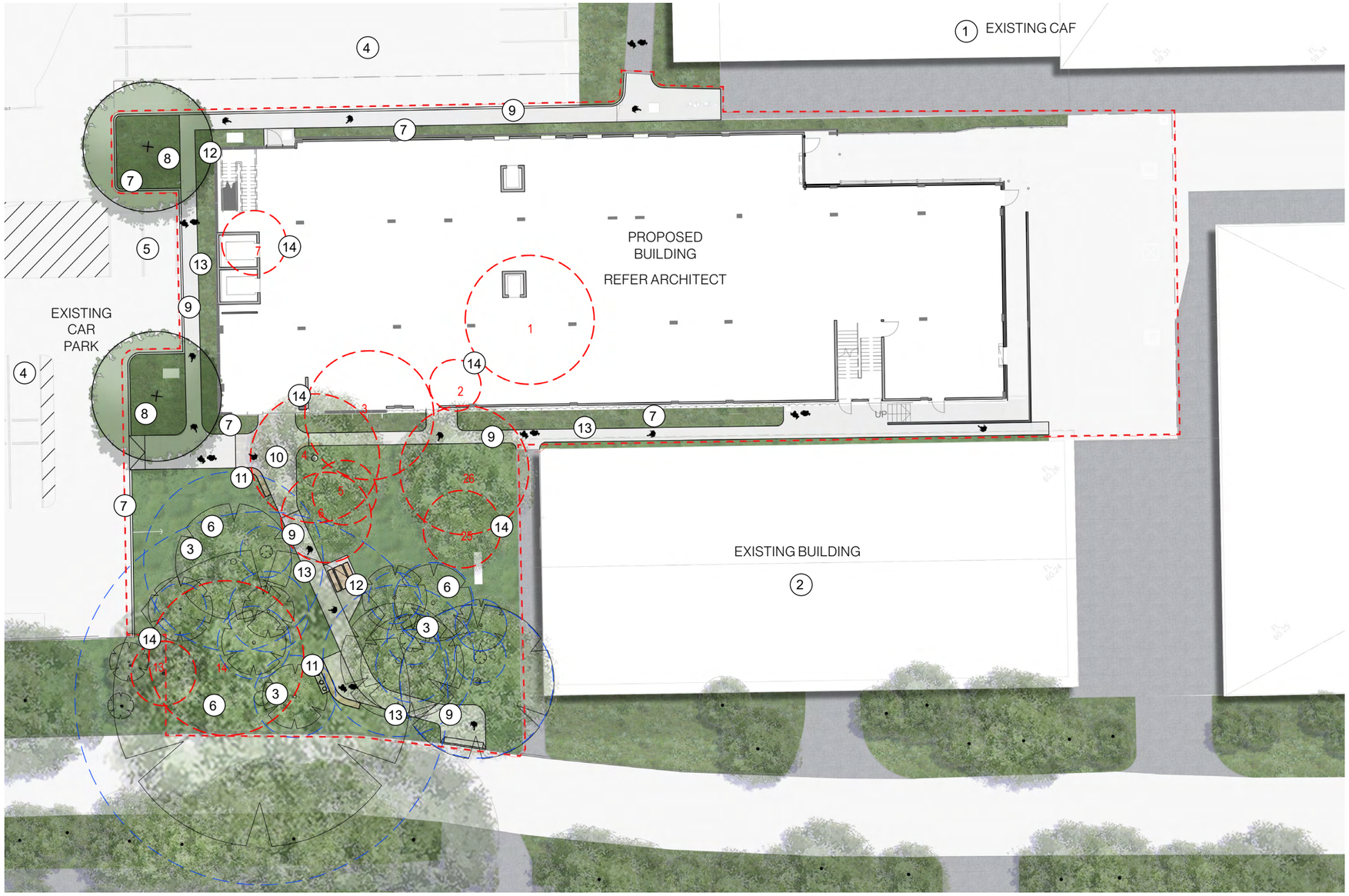
LEGEND

- Site
- Proposed verge extension
- Future open space
- Understorey planting
- Pedestrian path access
- Poor Views
- Future streetscape opportunity
- Opportunity for nooks
- Poor Interface
- Opportunity for trees
- Noise Impact
- Poor connection

LANDSCAPE PLAN

1. Existing Centre Animal Facility building (CAF)
2. Existing building to be retianed
3. Existing trees to be retained and protected
4. Existing car parking to be retained
5. Existing Electric charging point to be retained
6. Make good with top up mulch under existign trees
7. Proposed planting
8. Proposed trees
9. Proposed concrete footpath as per Maquarie University guideline
10. Proposed feature entry paving
11. Proposed seating area
12. Proposed picnic tables
13. External lighting will be provided along footpaths and seating area
14. Existing trees to be removed - refer to arborist report:

- Tree removed to accomodate proposed development:
  - Tree 1: Jacaranda mimosifolia | Jacaranda
  - Tree 2: Callistemon viminalis | Weeping Bottlebrush
  - Tree 3: Agonis flexuosa | Willow Myrtle/Peppermint
  - Tree 4: Agonis flexuosa | Willow Myrtle/Peppermint
  - Tree 7: Hibiscus sp. | Hibiscus
  - Tree 26: Acacia decurrens | Green Wattle
- Trees are recommended for removal due to having poor health and structure:
  - Tree 5: Syzygium australe | Bush Cherry
  - Tree 6 : Syzygium australe | Bush Cherry
  - Tree 13: Leptospermum petersonii | Lemon-scented Tea Tree
  - Tree 14: Eucalyptus pilularis | Blackbutt
  - Tree 25: Leptospermum grandifolium | Mountain Tea Tree

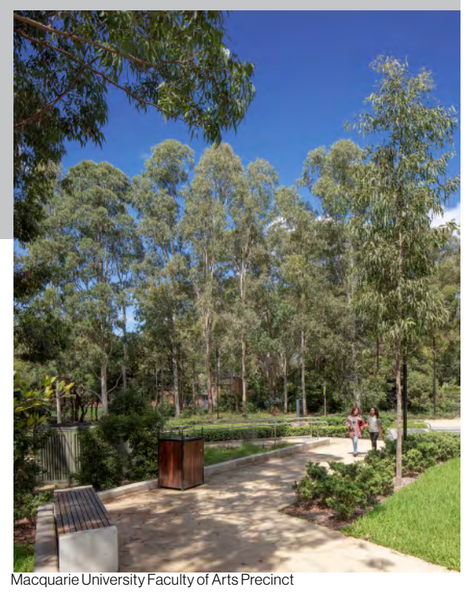


LANDSCAPE LOOK AND FEEL

The landscape strategy focuses on creating accessible pedestrian pathways around the building, seamlessly reconnecting it with its surrounding environment. Additionally, a flexible meeting point will be established at the entrance, enhancing usability and convenience. New trees will be planted along the western and southern facade and the car park and Science Rd. to improve aesthetics and a soft interface.

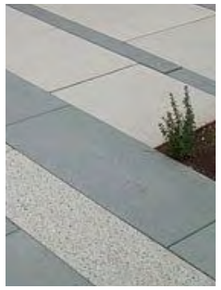
Macquarie University Faculty of Arts Precinct
Project by GroupGSA
Photography by Simon Wood

Macquarie University Campus
Project by Architectus



Macquarie University Faculty of Arts Precinct
Project by GroupGSA
Photography by Simon Wood

MATERIAL AND FURNITURE PALETTE

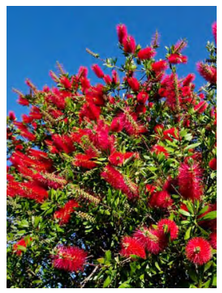
Paving material		Furniture		Furniture	
Image	**Name**	**Image**	**Name**	**Image**	**Name**
	**Insitu Concrete** Insitu concrete with broom finish.		**Oxley Bin or similar approved** – Supplier: Mos Urban – Colour: Satin black, powder coated, timber clad		**Timber top bench with concrete base** – Supplier: Contractor
	**Concrete pavers** Feature paving to building entry.				**Pic Nic settings** – Supplier: Botton + Gardiner – Colour: Powder coated

PLANTING PALETTE

Tree Planting

Image	Name
	Pistacia chinensis **Chinese Pistachio**

Native shrubs

Image	Name
	Banksia ericifolia **Heath Banksia**
	Callistemon citrinus **Crimson Bottlebrush**

Planting

Image	Name
	Themada australis **Kangaroo Grass**
	Hardenbergia violacea **Native Sarsparilla**
	Lomandra longifolia **Mat Rush**

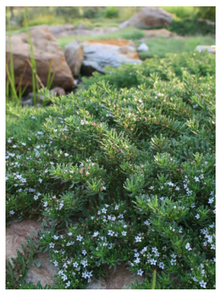
Image	Name
	Dianella caerulea “Little Jess” **Little Jess**
	Grevillea lanigera “Mount Tamboritha” **Spider flower**
	Myoporum parvifolium **Creeping Boobialla**

Image	Name
	Westringia fruticosa “Mundii” **Westringia**
	Pachisandra terminalis **Japanese Spurge**

TREE PLANTING OFFSET

Provide new trees at a replacement ratio of 2:1

Image	Name
	Angohpora costata **Sydney Redgum**
	Allocasuarina torulosa **Forest Oak**
	Eucalyptus paniculata **Grey Ironbark**
	Waterhousia floribunda **Weeping Lilly Pilly**
	Syncarpia glomulifera **Turpentine**
	Angophora bakeri **Narrow-Leafed Apple**
	Ficus microcarpa var. hillii **Hill's Weeping Fig**
	Eucalyptus pilularis **Blackbutt**
	Callicoma serratifolia **Black Wattle**
	Quercus canariensis **Algerian Oak**

GROUPGSA

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