

CONTEXT
LANDSCAPE ARCHITECTURE

NEW HIGH SCHOOL IN BUNGENDORE

State Significant Application
(SSD-14394209)

Landscape Design Report

NSW GOVERNMENT & SCHOOLS
INFRASTRUCTURE NSW

New High School in Bungendore

State Significant Application (SSD-14394209) Landscape Design Report

by
CONTEXT Landscape Architecture
in collaboration with TKD Architects

Prepared for

NSW Government | Education
School Infrastructure

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Context and our design team collaborators acknowledge the Traditional Custodians of the land, and recognise Elders past and present.

Through authentic engagement with Aboriginal people and the landscapes within which we work, we strive to deepen our understanding of Country and our relationship with its People.

Document Control

Rev	Date	Description	By	Approved
A	03.09.21	SSDA Issue	CK	HD
B	08.09.21	SSDA Issue	CK	HD
C	09.09.21	SSDA Issue	CK	HD

Contents

A Introduction	03	D Landscape Design	11
Introduction		Landscape Structure Plan	
Proposal		Connection with Country	
Site Description		Circulation and Access	
Design Report		Green Amenity	
B Project Background	08	Diverse Spaces	
Project Background		Landscape Site Plan	
Project Brief		Detail Plans	
C Design Guidelines and Principles	9	Planting Plan	
Design Standards and Principles		Tree Plan	
Landscape Principles		Existing Tree Retention and Removal Plan	
		Planting Palettes	
		Fencing Plan	

A Introduction

1. Introduction

This Landscape Design Report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of an application for a State Significant Development (SSD No 14394209). The SSDA is for a new high school located at Bungendore.

This report addresses the Secretary's Environmental Assessment Requirements (SEARs), notably:

Item	Report Section
GENERAL REQUIREMENTS	
- likely interactions between the development and existing, approved and proposed operations in the vicinity of the site	A, D also refer to Architecture Design Report
- a description of any proposed building work	A
- a description of proposed operations, including staff and student numbers, hours of operation, and details of any proposed before/after school care services and/or community use of school facilities.	A, B
- a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development.	Architecture Design Report
- plans, elevations and sections of the proposed development	D also refer to Architecture Design Report
- cladding, window and floor details, including external materials.	Architecture Design Report
- plans and details of any advertising/business identification signs to be installed, including size, location and finishes.	Architecture Design Report
KEY ISSUES	
The EIS must address the following specific matters:	
1. Statutory Context, Strategic Context and Policies Address the statutory provisions contained in all relevant legislated and draft environmental planning instruments, including but not limited to: - State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017, Schedule 4 - Schools - Design Quality Principles	C, D also refer to Architecture Design Report

Item	Report Section
Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following: - Crime Prevention through Environmental Design (CPTED) Principles. - Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017). - Draft Greener Places Design Guide (GANSW).	C, D also refer to Architecture Design Report
2. Built Form and Urban Design	Architecture Design Report
3. Trees and Landscaping Provide: - a detailed site-wide landscape strategy, that: - details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage. - provides evidence that opportunities to retain significant trees have been explored and/or informs the plan. - considers equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation. - demonstrates how the proposed development would: - contribute to long term landscape setting in respect of the site and the streetscape. - mitigate the urban heat island effect and ensure appropriate comfort levels on-site. - contribute to objectives to increase urban tree canopy cover. - a detailed landscape plan prepared by a suitably qualified person.	C, D
4. Environmental Amenity	Architecture Design Report

A Introduction

Item	Report Section
5. Transport and Accessibility - details of the proposed development, including: - a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways. - pedestrian site access and vehicular access arrangements, including for service and emergency vehicles and loading/unloading, including swept path analysis demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections along the proposed transport routes. - car and motorcycle parking, bicycle parking and end-of-trip facilities. - drop-off / pick-zone(s) and arrival/departure bus bay(s). - pedestrian, public transport or road infrastructure improvements or safety measures.	D also refer to Architecture Design Report
6. Ecologically Sustainable Development (ESD)	Architecture Design Report
18. Waste	Architecture Design Report
PLANS AND DOCUMENTS	
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.	
In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following: - Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including: - architectural design statement. - diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal. - detailed site and context analysis. - analysis of options considered to justify the proposed site planning and design approach - summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice. - summary report of consultation with the community and response to any feedback provided.	ALL Architecture Design Report D Architecture Design Report Architecture Design Report Architecture Design Report Architecture Design Report
CONSULTATION	
The EIS must describe and include evidence of the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided. - Government Architect NSW (through the NSW SDRP process).	Architecture Design Report

A Introduction

2. Proposal

The proposed development is for the construction of a new high school in Bungendore. The proposal has been designed as a stream 3 high school to initially provide for approximately 450 students with core 4 facilities aimed to future proof demand forecasted to 2036.

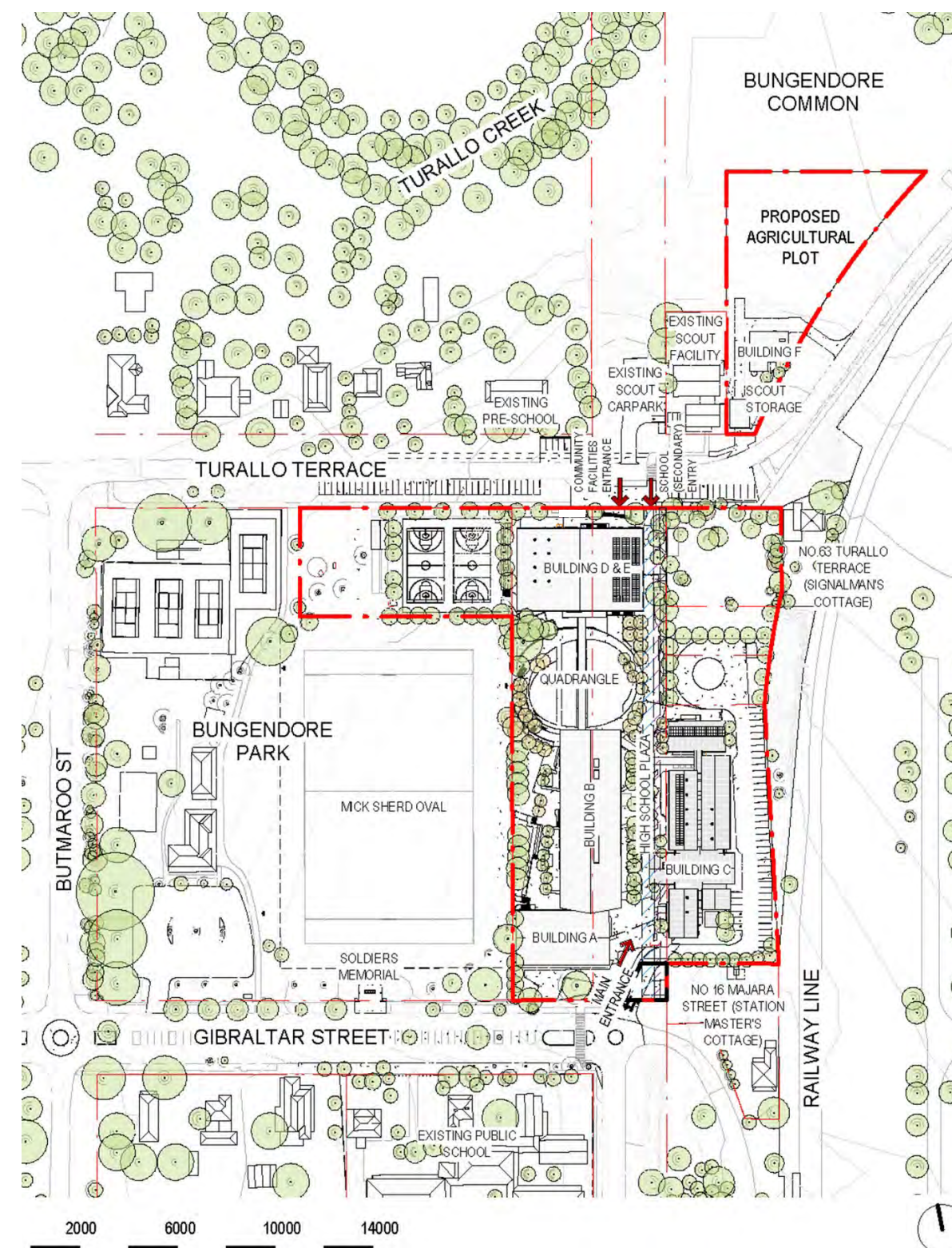
The site is located adjacent to the existing Bungendore Public School to the south enabling the creation of an education style precinct that will enable a cohesive connection between the two schools as well as the wider Bungendore community.

The proposal will include the demolition of the Bungendore Swimming Pool (to be relocated to Queanbeyan-Palerang Regional Council's proposed new Bungendore Sports Hub) and the Bungendore Community Centre; repurposing of existing council buildings; and the construction of new school buildings. New facilities for the high school will comprise of 24 general learning spaces; dedicated science and technology spaces; a gymnasium; library; canteen; outdoor learning and play areas that include two games courts.

A new agricultural plot is also proposed to the north of the main school site including a new agricultural building and scout storage shed, adjacent to the existing scout hall.

The proposal will also provide for shared administration and staff facilities between the high school and existing primary school and construction of a warm shell for community facilities including a community library, council shopfront and community health hub.

Additionally, miscellaneous off-site works, including upgrades to nearby road intersections and infrastructure, crossings, footpaths and the like will be provided to encourage active transport opportunities and respond to changing traffic conditions.



Proposed Landscape Site Plan
Source: TKD Architects

A Introduction

3. Site Description

The proposed development is located within the Bungendore Town Centre within the local government area of Queanbeyan-Palerang Regional Council. The proposal involves the use of land which includes Bungendore Park bounded by Gibraltar Street, Majara Street, Turallo Terrace and Butmaroo Street, the existing former Palerang Council site at 10 Majara Street, the Majara Street road reserve bounded by Turallo Terrace and Gibraltar Streets and Nos. 2, 4 and 6 Majara Street (Refer to Table 1 below).

The site is approximately 29,205m² in area and consists of a relatively flat topography. It contains part of Bungendore Park, existing Council buildings and maintained public open space areas. The land is mostly cleared of vegetation with some mature trees intersperse throughout subject lots.

The surrounding area generally includes low density residential developments to the north and west, an existing rail line to the east and Bungendore Public School and the Bungendore train station to the south and south west respectively.

New High School in Bungendore legal descriptions	
Property Address	Lot Numbers
6-14 Butmaroo Street	Part Lot 701 DP1027107
2 Majara Street	Lot 12 DP1139067
4-6 Majara Street	Lot 13 DP1139067 Lot 14 DP1139067
10 Majara Street	Lot 3 DP830878
Butmaroo Street	Part Lot 701 DP96240
Portion of Majara Street (between Turallo Terrace and Gibraltar Street)	N/A



Site aerial depicting the land subject to the proposed High School.
Source: TKD Architects



A Introduction

4. Design Report

This Design Report provides an analysis of the site’s current constraints and opportunities for the school’s development. The report has also been developed to establish design guidelines and development parameters to clarify the design intent of the proposal and demonstrate how design quality will be achieved in accordance with the Design Guide for Schools and the Design Quality Principles outlined in Schedule 4 of the Education SEPP 2017:

Principle 1 Context, Built Form and Landscape

Principle 2 Sustainable, Efficient and Durable

Principle 3 Accessible and Inclusive

Principle 4 Health and Safety

Principle 5 Amenity

Principle 6 Whole of Life, Flexible and Adaptive

Principle 7 Aesthetics

Each of the Design Quality Principles relevant to the Landscape Design are discussed in detail in the following sectionsmns of this report.

<div>1</div> <div>Context, built form and landscape</div> <div>New school development should:</div> <div>Respect and respond to its physical context, neighbourhood character, streetscape quality and heritage</div> <div>Consider interpretation of Aboriginal cultural heritage within the design of buildings and open spaces in consultation with local Aboriginal community</div> <div>Respond to its natural environment including scenic value, local landscape setting and orientation</div> <div>Retain existing built form and vegetation where significant</div> <div>Include tree planting and other planting that enhances opportunities for play and learning</div> <div>Ensure landscaping improves the amenity within school grounds and for uses adjacent to the school</div> <div>Be informed by a current Conservation Management Plan (CMP) and consider local heritage items both on the school site and in the local neighbourhood</div> <div>Take advantage of its context by optimising access to nearby transport, public facilities and local centres</div> <div>Consider height and scale of school development in relationship to neighbouring properties.</div>	<div>2</div> <div>Sustainable, efficient and durable</div> <div>New school development should:</div> <div>Be responsive to local climate including sun, wind and aspect</div> <div>Select materials and approaches to detailing that are robust and durable</div> <div>Integrate landscape, planting and Water Sensitive Urban Design (WSUD) principles to enhance amenity and building performance</div> <div>Include deep soil zones for ground water recharge and planting</div> <div>Minimise reliance on mechanical systems</div> <div>Include initiatives to reduce waste, embodied energy and emissions, through passive design principles and the use of advanced energy production systems where possible</div> <div>Maximise opportunities for safe walking, cycling and public transport access to and from the school.</div>	<div>3</div> <div>Accessible and inclusive</div> <div>New school development should:</div> <div>Establish security requirements early to ensure any required secure lines can be designed and integrated with built form</div> <div>Balance security with accessibility and inclusiveness by minimising the use of fencing particularly along street frontages</div> <div>Engage students, educators and the community in development of the vision and design brief for the school</div> <div>Allow for passive and dynamic play of different age groups</div> <div>Provide school frontages and entrances that are visible, engaging and welcoming</div> <div>Encourage access for members of the community to shared facilities after hours</div> <div>Ensure clear and logical wayfinding across the school site and between buildings for all users including after hours community users</div> <div>Ensure accessibility for all users of the site</div> <div>High rise schools should consider the impact of circulation times on timetables and pedagogical models, particularly when accessing core learning spaces. This may have design implications for spatial planning, lift and circulation requirements.</div>	<div>4</div> <div>Health and safety</div> <div>New school development should:</div> <div>Locate buildings and design facades that optimise fresh air intake and access to daylight</div> <div>Prioritise pedestrians and avoid conflicts between vehicles and people</div> <div>Provide covered areas for protection from sun and rain</div> <div>Support safe walking and cycling to and from school through connections to local bike and foot paths and the provision of bike parking and end of journey facilities</div> <div>Support passive surveillance, including through the location of toilets and areas for communal use outside of school hours</div> <div>Incorporate Crime Prevention Through Environmental Design (CPTED) principles</div> <div>Clearly define access arrangements for after school hours</div> <div>Consider location and number of toilet facilities to allow safe use by different age groups and genders.</div>	<div>5</div> <div>Amenity</div> <div>New school development should:</div> <div>Be integrated into, and maximise the use of the natural environment for learning and play</div> <div>Ensure access to sunlight, natural ventilation and visual outlook wherever possible</div> <div>Facilitate flexible learning by providing access to technology</div> <div>Seek opportunities for buildings and outdoor spaces to be learning tools in themselves</div> <div>Provide a diversity of indoor and outdoor spaces to facilitate informal and formal uses</div> <div>Provide buffer planting in setbacks where appropriate to reduce the impact of new development</div> <div>High rise schools should consider and seek to minimise the negative impacts of overshadowing and wind on surrounding built form and open space, and on school grounds.</div> <div>Ensure outdoor play ground space is sufficient to accommodate the student population including future growth.</div>	<div>6</div> <div>Whole of life, flexible and adaptive</div> <div>New school development should:</div> <div>Allow for future adaptation to accommodate demographic changes, new teaching and learning approaches and the integration of new technologies</div> <div>Be based on a masterplan of the school site that includes the testing of options for future potential growth</div> <div>Take a whole-of-lifecycle approach when considering cost and consider wider public benefits over time</div> <div>Provide capacity for multiple uses, flexibility and change of use over time</div> <div>Respond to the findings of a site appraisal including in-ground conditions, contamination, flora and fauna, flooding, drainage and erosion, noise and traffic generation</div> <div>Understand the potential impacts of future local projected growth</div> <div>Design learning spaces to cater for a range of learning styles and group sizes</div> <div>Consider providing areas for collaboration, group learning, presentations, specialised focus labs, project space and wet areas, display areas, student breakout, teacher meetings, and reflective / quiet spaces.</div>	<div>7</div> <div>Aesthetics</div> <div>New school development should:</div> <div>Reflect a commitment to and investment in design excellence</div> <div>Create engaging and attractive environments</div> <div>Achieve a purposeful composition of materials and elements through a rigorous design process</div> <div>Provide an engaging environment for pedestrians visually and materially along public street frontages</div> <div>Seek opportunities to enhance public facing areas with landscaping and ensure landscape and building design are integrated</div> <div>Integrate service elements with the building design</div> <div>Balance internal spatial requirements with an external mass and scale that responds to its environment</div> <div>Avoid long stretches of security fencing to public facing areas through arrangement of building edges, landscaping, gates and other openings</div> <div>Look for opportunities to include public art.</div>
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Extract | Design Guide for Schools
Source: GANSW

B Project Background

1. Project Background

The new High School in Bungendore is part of the 'Monaro Cluster Program'. The proposed new high school will respond to the increased learning demand created by the rapid growth in the new residential development areas in Bungendore, addressing the service needs of the Queanbeyen-Palerang local government area (LGA). It will also respond to a 2019 Election Commitment to establish a new high school with initial capacity of 450 students in Bungendore.

The increase in learning demand also stems from the newly introduced 'NSW Pathway Zones' seven-year phasing plan which seeks to reallocate NSW-residing student enrolment back to the NSW live-in catchments from the ACT.

The new schools within the Monaro Cluster of Schools program will address this increased need whilst also considering projected expansions in the future. The schools are predicted to be operational by 'Day 1 Term 1' 2023.

2. Project Brief

The school buildings are predominantly new-build, with a degree of refurbishment works to the existing council chambers building which is to become part of the school's assets. The school will accommodate facilities that serve the adjacent primary school which include staff and administration functions. The school facilities are required to be developed in accordance with the Department of Education's (DoE), Education Facilities Standards and Guidelines (EFSG).

2.1 Required School Facilities:

- 24 general learning spaces including 3 support learning spaces.
- An agricultural plot and support building
- Outdoor learning and play areas including 2x sports courts and a batting net

The core facilities that are designed to meet Stream 4 requirements are as follows:

- Staff
- Administration
- Library
- Hall
- Canteen

2.2 Community Facilities

In addition to the high school facilities, the project includes the proposal of new facilities dedicated for community use that consist of:

- A Community Library
- A Community Health Hub to relocate facilities from the existing Bungendore Community Centre
- A QPRC Council Shopfront

2.3 Ancillary works in support of the high school

- new roundabout to the corner of Majara and Gibraltar Street
- new roundabout to the corner of Gibraltar and Butmaroo Street
- pick up and set down bays on Gibraltar Street, Turallo Terrace
- relocated school bus zone to Gibraltar Street
- pedestrian crossing to Gibraltar Street
- pedestrian crossing to Turallo Terrace
- shared path to Bungendore Park
- shared path to Turallo Terrace
- public 90 degree parking to Turallo Terrace
- new vehicular access way to staff car park from Majara Street
- new vehicle crossover to scout storage shed
- new vehicle crossover to agricultural plot
- new pedestrian path to agricultural plot

2.4 Shared Use of High School Facilities

The application contemplates the use of the hall and school library for community use, whether for one-off or periodic events. This will be subject to reaching a shared use agreement in the future.

2.5 Hours of Usage

Refer to the Architectural Design Report

2.6 Ecologically Sustainable Development (ESD)

The project has been developed using the principles of ESD to create a site wide strategy, and has been assessed against a suitable accredited rating framework - Greenstar. The project is expected to achieve a high level of environmental sustainability and is targeting a 4 Star rating, which is deemed to represent an Australian Best Practice development.





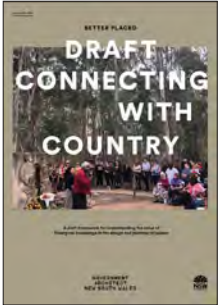
These ESD principles adopted for the project will contribute to the conservation of resources and future resilience across the whole life cycle of the project; from construction, through to the operational phase and provide opportunities for inherent pedagogy.

An ESD Report has been prepared as part of the EIS submission. Refer to the ESD Report for further information. relevant to the landscape design such as effective water management, rainwater harvesting and plant selection. It should be noted that the majority of the selected plants are drought-tolerant endemic or native species with low water requirements.

C Design Guidelines and Principles

1. Design Standards and Guidelines

The design standards and Guidelines presented herein outline the relevant standards shaping our design approach the school.

				
EFSG Design Guidelines Department of Education & Communities	Better Placed Design Guide For Schools Government Architect NSW, 2018	Better Placed Environmental Design In Schools Government Architect NSW, 2018	Everyone Can Play A Guideline To Create Inclusive Playspaces Department of Planning and Environment, 2019	Connecting with Country A Framework to understand the importance of Aboriginal knowledge in designing Government Architects, 2020
The EFSG provides information to assist those responsible for or with an interest in, the management, planning, design, construction and maintenance of school facilities	Is an integrated design policy for the built environment of NSW, developed by the Government Architect. It establishes the value of good design and identifies key concepts, good process, and objectives for good design outcomes.	The document explains how reducing environmental impact can help schools to optimise their value as social, environmental, and economic assets for new or established communities	Everyone Can Play is best practise guideline for local councils and community groups to make playspaces across NSW more inclusive	A draft framework for understanding the value of Aboriginal knowledge in the design and planning of places.

C Design Guidelines and Principles

2. Landscape Design Principles

Through the detailed site analysis and masterplan development, the following Landscape Design Principles have been developed for the project and have informed the landscape design of this project.

1



Identity

Establish a strong sense of identity for the new campus by providing strong connections to the landscape character of the site. The landscape design incorporates Connection with Country design opportunities, this strong identity will help to instill pride in the school, its grounds and in the community.

2



Access

Provide spaces that are inclusive, accessible and well defined through the use of sight-lines, materiality and the establishment of strong visual axes. Include a range of level change transitions, from the direct to the meandering links. All places will be well connected and encourage both recreation and rest, to foster exploration and curiosity through using biophilic design principles.

3



Green Amenity

Create spaces that are soft, greener and have a strong connection to nature. Implement sustainable water and energy practices in the design and embrace natural systems. Utilize the natural water course of the land and landscape patterns.

4



Diverse Spaces

Provide diverse spaces on the campus to encourage a range of activities for the students. Provide areas of respite and foster moments of curiosity. This is executed through a variety of spaces designated for individual study, small groups and large classes as well as passive and active recreation.

D Landscape Design

1. Landscape Structure Plan

EASTERN CAMPUS

- Central Walk
- Flexible Open Spaces
- Car Park and Turning Circle

WESTERN CAMPUS

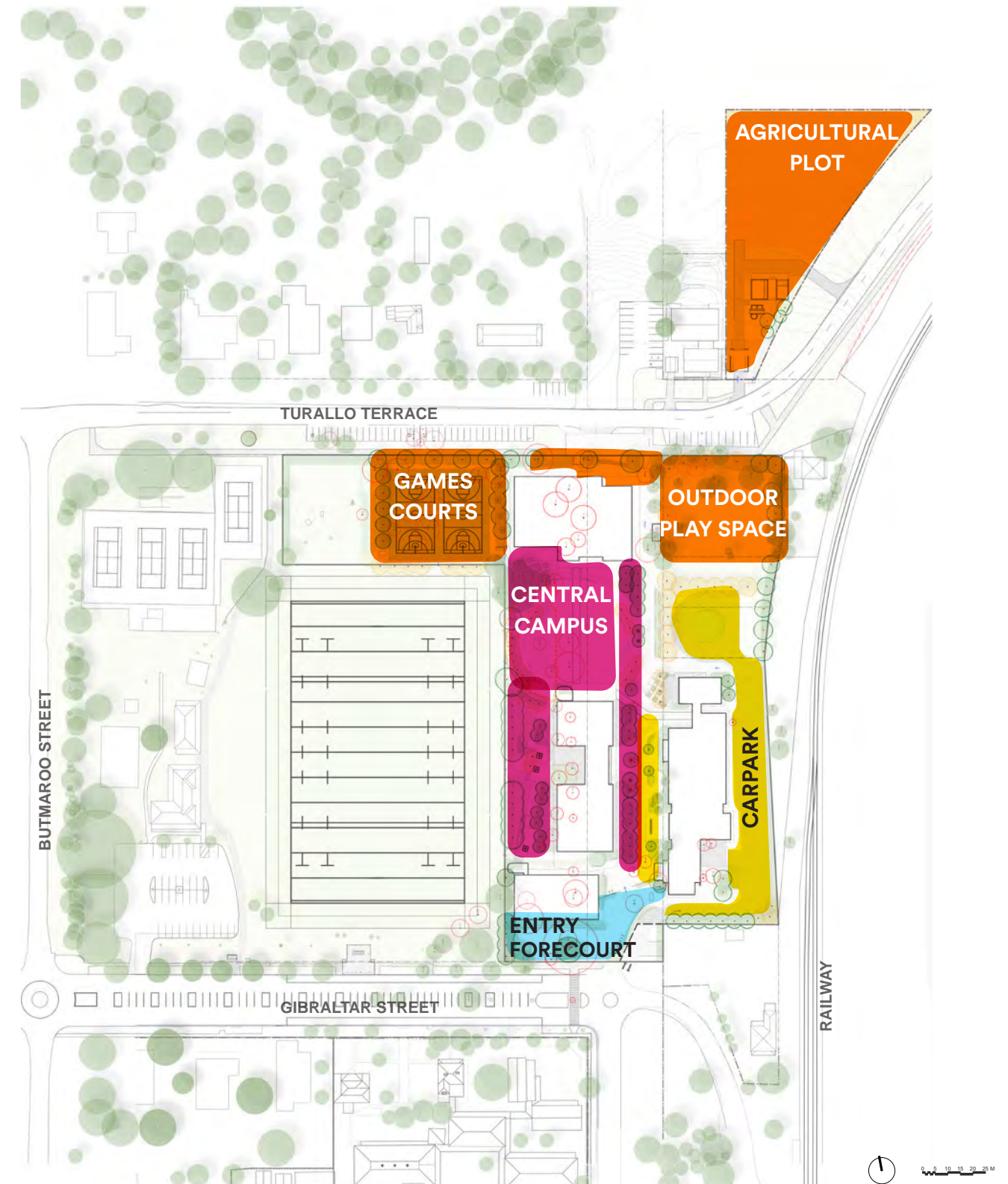
- Central Campus
- High School Plaza
- Oval Address
- Outdoor Learning Spaces
- Support Courtyard

GIBRALTAR FRONTAGE

- Gibraltar Street Link
- Gibraltar Street Landscape
- Entry Forecourt

TURALLO FRONTAGE

- Community Facilities
- Outdoor Play Space
- Games Courts
- Green Buffer
- Agricultural Plot



D Landscape Design

2. Connection with Country

Overview

The new High School in Bungendore has been developed to respond to the Draft Connecting to Country Framework and through consultation with Aboriginal Educational Consultative Group (AECG) and Ngambri Elder Woman, Dr Matilda House, to create a strong, place driven identity that will help instill pride in the school and community.

A Connection with Country has further been developed through the the architectural principles of Purpose, Place and People and the landscape principles of Identity, Access, Green Amenity and Diversity. Refer to Section 3 of the Architectural Design Report which discusses the implementation of Connection with Country into the architectural principles and the architecural design.

The siting of the school in the midst of an open space provides an inherent connection with the exterior expanse, sky, creek, landscape, which would not otherwise be easily achieved from a more urban site.

Country has been embedded within the campus design and explored within the landscape through the concept of water, responding to the adjacent creek and flood prone lands to the north. Spatially, this concept has been developed through providing welcoming, inclusive entry spaces and gathering spaces throughout the campus which lend the opportunity for indigenous learning, the ability to gain nourishment from the land and to learn to manage the land. Endemic planting, indigenous foods and medicinal plants further strengthen these opportunities.

The project seeks to further consider Connection with Country through a number of opportunities which include collaboration with traditional custodians and indigenous artists to develop integration of interpretive signage, artwork and place names; consider opportunities for shared use agreements of school facilities; the holding of a smoking ceremonies; and possibilities to learn from cultural practices and cultural land management.

1.2 Identity

The key outcomes from the Walk on Country were the connection to the water and local fauna and flora. This connection has been expressed through idea of a radiating ripple which permeates the site to provide gathering spaces, and the campus thoroughfare explored through the concept of a dried creek bed which follows the fall of the land, connecting a series of diverse programmed spaces.

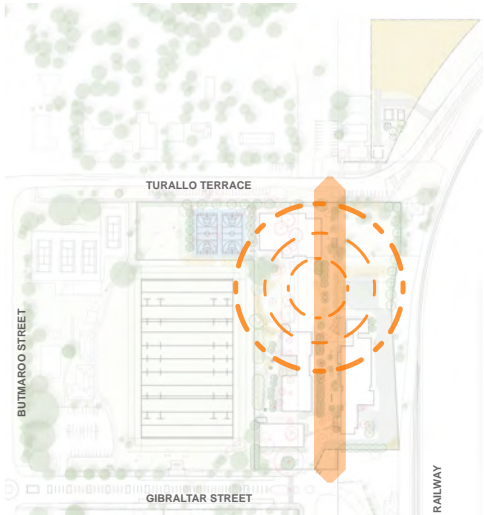
The connecion to endemic flora is reinforced in the development through Nourishment from the Land, providing connections to local indigenous foods and medicinal plants that have significance to the local community.

Further opportunities through a Learning from Country overlay that will reference the narrative of the Black Cockatoo, Wedge tail Eagle, Black Crow and the Eucalyptus sideroxylon (Mugga Ironbark or “Tirriwirri”) are to be explored.

1.3 Access

Spaces have been provided that are inclusive, accessible and well defined through the use of sight-lines, materiality and the establishment of strong visual axes and vistas. The design includes a range of level change transitions, from the direct to the meandering links. All places will be well connected and encourage both recreation and rest, to foster exploration and curiosity through using biophilic design principles.

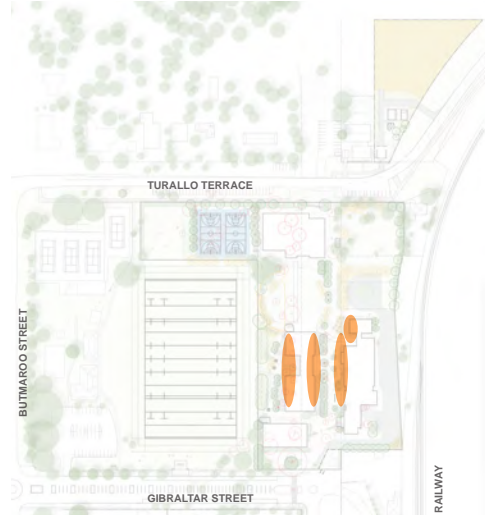
Connection to Water



The design responds to the natural water course story of the landscape and how it influences the surrounding landscape. The design of the circular main quadrangle radiates outwards influencing the pavement materiality & the generation of programable spaces. The main thoroughfare through the existing Majara Street is also a reflection of the sites connection to the existing watercourse to the North.



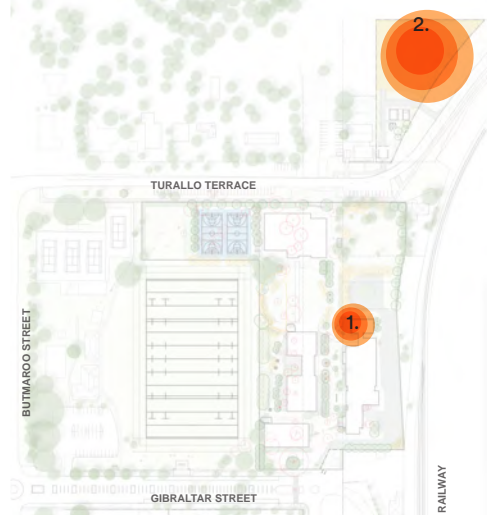
Learning from Country



There are a number of outdoor learning spaces bounded by planter beds with native species which lend the opportunity of indigenous learning. These outdoor spaces also provide opportunities for local Aboriginal people to come and teach the students about important aspects about the local landscape.



Nourishment from the Land



1. Raised planters provide opportunity for productive gardens, with the opportunity to include local indigenous foods and medicinal plants.
2. The Agricultural Plot provides opportunities to grow and learn about native food and medicinal plant species.



1.4 Green Amenity

The creation of spaces that are soft, greener and have a strong connection to nature, which implement sustainable water and energy practices in the design, embrace natural systems and utilise the natural water course of the land and landscape patterns. All outdoor learning spaces are enclosed by endemic, local and native planting that will highlight native species and provide learning opportunities. A kitchen herb garden adjacent to the cafe and productive gardens in the new Agricultural Plot which will include native and exotic species will provide fresh produce for use in the food tech classes andfor use in the school cafe.

The perimeter buffer planting provides native planting along the school boundaries to strengthen the schools interface with the surrounding landscape. This planting will provide additional biodiversity and habitat for local fauna.

1.5 Diverse Spaces

A variety of diverse spaces has been provided on the campus to encourage and enable a range of activities for the students. Provide areas of respite and foster moments of curiosity. This is executed through spaces designated for individual study, small groups and large classes as well as passive and active recreation, each offering an opportunity for Connection with Country.

D Landscape Design

3. Circulation + Access

Accessible Campus

The urban design response to the site provides two key entry spaces. A new school entry forecourt to the southern boundary facing Gibraltar Street provides a welcoming shaded public space. To the northern boundary facing Turallo Terrace a community forecourt provides a more civic entry to community facilities and also provides pedestrian access to the school.

Where possible fence lines are setback from the street facing boundaries, located behind the building line to soften the main campus entries and provide high quality streetscape and public space.

The new high school campus is proposed with a central spine in the form of the school plaza, replacing the existing northern portion of Majara Street. Its location, which generally reflects the existing thoroughfare provides legibility to the campus, connecting all buildings and the campus entries which connect the campus to the neighbouring suburbs beyond.

The new school plaza is to act as a circulation, breakout and play space for the school and is easily navigated due to the gentle fall of the site. The new administration building which contains the public reception will activate Gibraltar Street and the entry plaza, creating an entrance that is visible, engaging and welcoming.

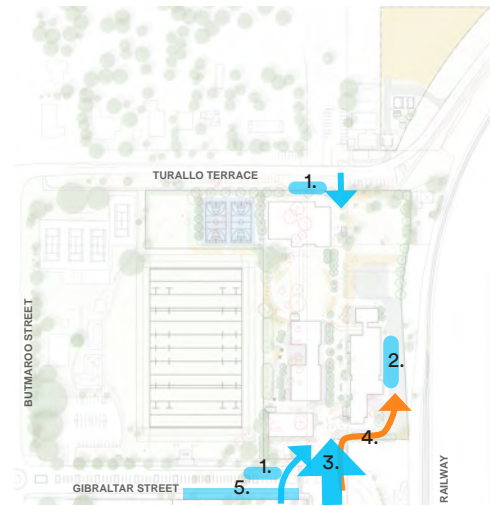
Community facilities and school facilities are designed to facilitate community use outside of school hours, accessible via the new community forecourt from TuralloTerrace to the north. Entrances to the facilities face the street to provide good wayfinding and a clear separationfrom the school campus.

Large openings and level thresholds to ground floor general learning spaces, hall and library will be provided to encourage equitable outdoor learning opportunities.

A series of ramps and landscape batters address level differences between the raised paving areas to the west and the existing levels of the Mick Sherd Oval, while providing equality of amenity for all capabilities.

Compliant access to the agricultural plot is provided by a series of 1 in 14 ramps to navigate the steeply sloping site.

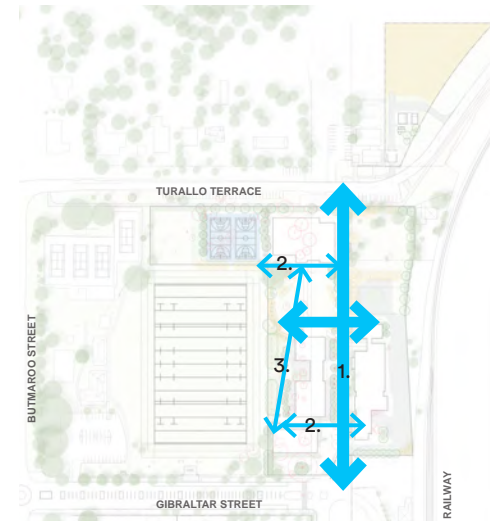
Entries



Opportunities

- 1. Kiss & drop located at the northern and southern edges of the campus
- 2. Bus bay is provided at the eastern boundary of the school for support busses
- 3. The main entrance is adjacent to the administration building
- 4. Emergency vehicle access is provided from Gibraltar Street
- 5. The main bus bay is proposed along Gibraltar Street

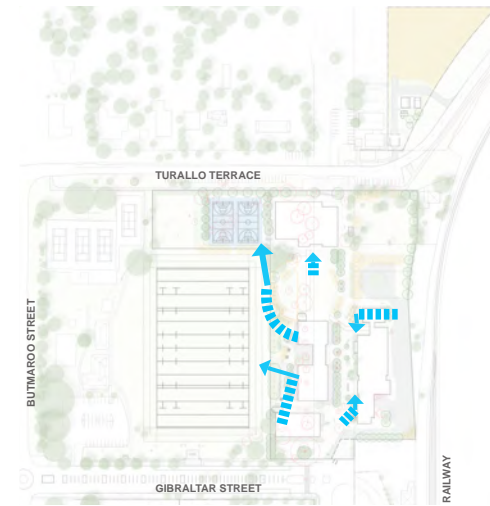
Circulation



Opportunities

- 1. The main circulation runs North-South through the main thoroughfare of the school campus
- 2. There are two main East West axes which link the eastern and western sides of the campus
- 3. The other key circulation runs diagonally from the administration building to the main quad

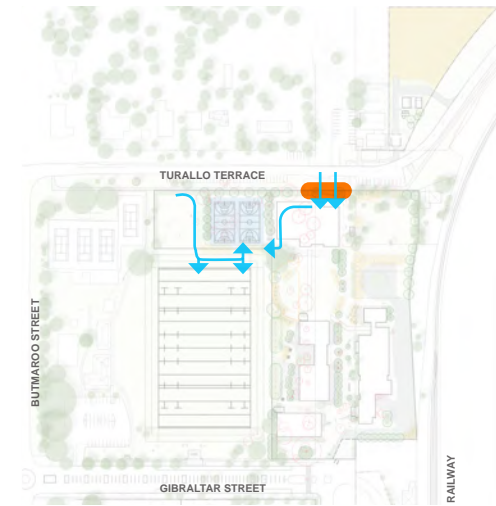
Access



Opportunities

- There are a number of accessible paths with ramps bridging the level differences through the campus to provide access to all outdoor spaces and building entrances for all abilities on campus.
- The new high school campus will provide access for people with a disability and provide a continuous accessible path of travel, clear way finding guidance and the equitable provision of accessible facilities.

Community Entries



Opportunities

- Community entries are confined to the northern end where the Community Facilities are located as well as the school gym and library.
- This community entry is also associated with a public plaza space.
- Access to the Games Courts is provided via the re-aligned footpath from Turallo Terrace and from the northern community entrance along the school gym via stairs adjacent to the seating steps



D Landscape Design

4. Green Amenity

Overview

The provision of generous and diverse landscaped outdoor spaces that provide a strong connection to the surrounding nature and its cultural landscape is one of the key objectives of the landscape design for the new High School in Bungendore.

Tree plantings are one of the most important landscape elements that provide green amenity. The landscape design aims to maximise the overall tree cover throughout the school campus to provide summer shade and protect from winter winds. The tree species and overall plant species selection focuses on endemic and native species. The selection is complemented by selected non-native deciduous species proven to be resilient in the tough school settings to provide the balance between summer shade and winter sun.

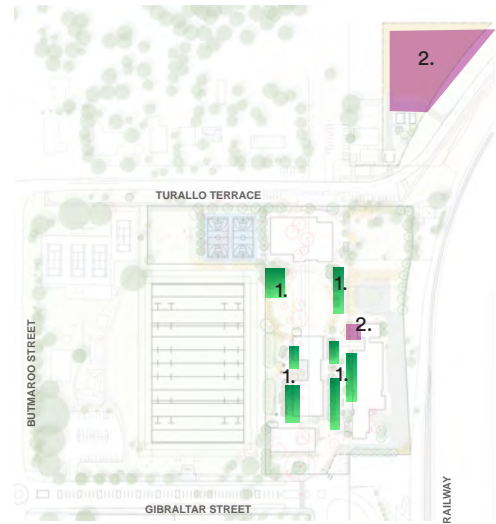
The other important landscape elements of green amenity are large open lawn areas for active play and to accommodate large outdoor gatherings. Two large outdoor areas have been provided, the main turfed quadrangle to the heart of the campus and the second outdoor play space, consisting of a large lawn area bounded by informal rows and groups of trees.

All outdoor learning spaces are enclosed by endemic and native planting that will highlight indigenous food and medicinal species. A perfect opportunity to directly experience and learn from nature and study the natural systems.

The kitchen herb garden adjacent to the Food Technology area and VET (Vocational Education and Training) cafe and productive gardens in the new Agricultural Plot is another important opportunity to learn from nature, to use sustainable water and energy practices and embrace natural systems. This includes growing native and exotic species which will provide fresh produce to be used in the food technology classes and the VET cafe.

The native perimeter buffer planting strengthens the school's interface with the surrounding landscape and will also provide additional biodiversity and habitat for local fauna.

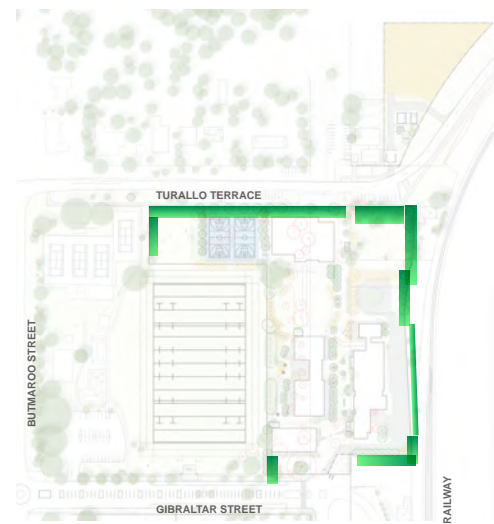
Educational Gardens



Opportunities

- 1. Endemic, local and native planting to be used to highlight native species and provide learning opportunities.
- 2. Productive gardens and orchards including native and exotic species will provide fresh produce for use in the food tech classes and the VET cafe.

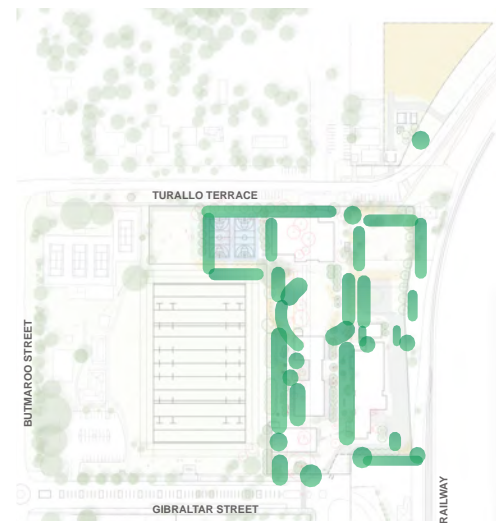
Native Perimeter Planting



Opportunities

Opportunity to provide native planting to the perimeter to strengthen the schools interface with the surrounding landscape. This planting will provide additional biodiversity and habitat for local fauna.

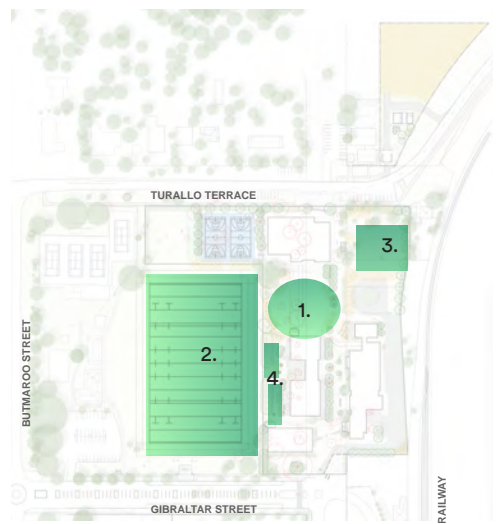
Canopy Cover



Opportunities

Opportunity to provide structured tree planting throughout the campus. The structure responds to the character of the town, urban street grid, the architectural structure and the circular/ ripple motif of the central quadrangle space.

Active Green Spaces



Opportunities

- 1. The main quadrangle is the largest of the active green spaces for the students within the school grounds.
- 2. The large community sports oval is located outside the school's perimeter fence, but can be used by the school during school hours.
- 3. The Outdoor Play Space, a second less formal active green space will provide opportunity for active play and space for activities.
- 4. Smaller lawn areas with sloped areas down to the oval provide additional space for active play and informal seating to watch games at the oval.



D Landscape Design

5. Diverse Spaces

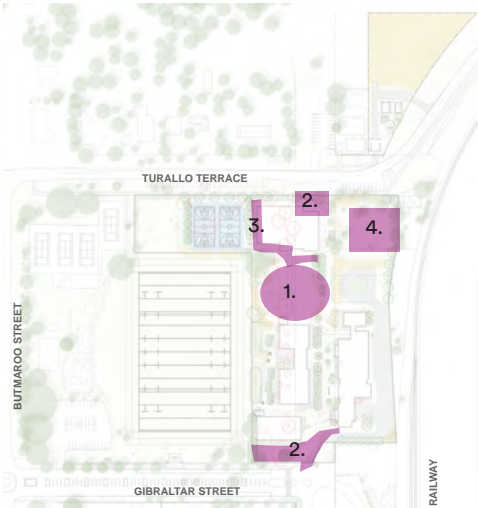
Campus Amenity

The new high school in Bungendore has been developed to provide a high quality landscape setting throughout the campus, designed to respond to the Design Guidelines and Principles and the site’s context within the landscape, local plant communities and connections with Country.

Site planning and layout provide legible, pragmatic connections throughout the site that connect each of the buildings as well as the campus to the oval, surrounding suburbs, creek and country beyond.

Landscape principles of Identity, Access, Green Amenity and Diverse Spaces have been developed to provide an overall, site wide vision for the campus, which will provide a campus with a strong sense of identity that is inclusive and accessible that greatly enhances the green amenity of the site and provides diverse spaces that encourage a range of activities for students.

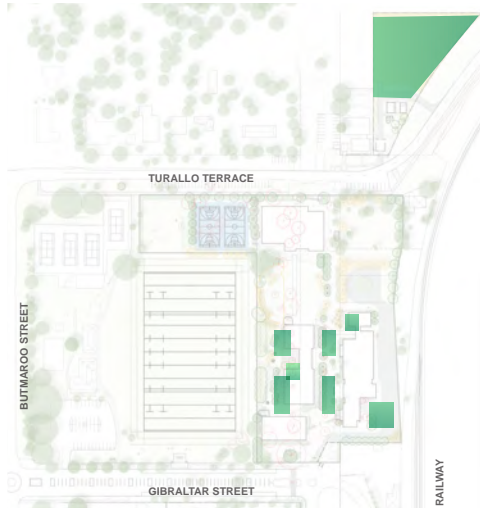
Large Gathering



Opportunities

- 1. Main Quadrangle for outdoor school assemblies and gatherings
- 2. Plaza spaces which connect the school and community facilities to the town
- 3. Areas adjacent to the school hall to provide large areas for seating at lunch times adjacent to the canteen.
- 4. The large Outdoor Play Space at the north-eastern corner of the side provides further space for more informal large gatherings

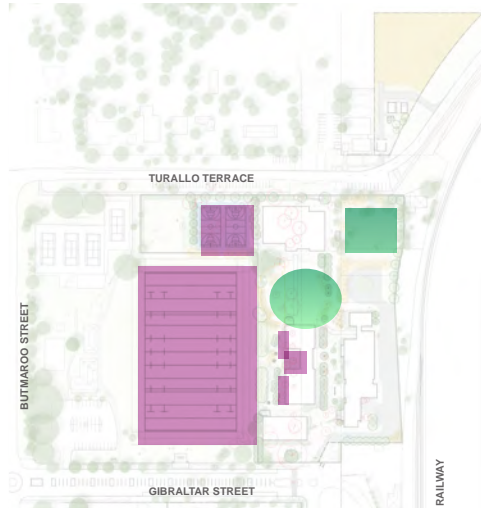
Outdoor Learning



Opportunities

There are a number of outdoor learning spaces in the campus which allow for different types of learning. Some of these include outdoor workshop spaces, a productive garden, the agricultural plot and open outdoor learning spaces.

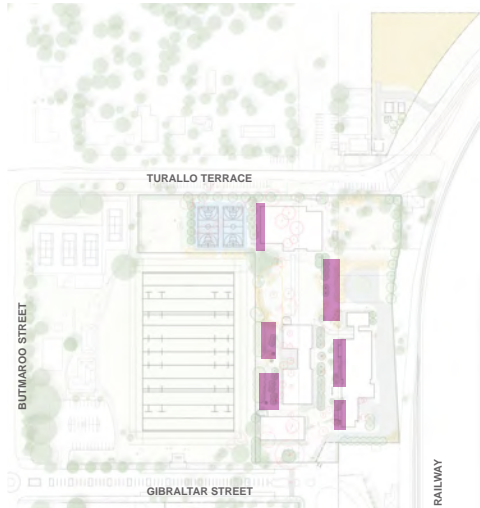
Sports/ Active



Opportunities

- 1. Active spaces in the campus include sports courts, the existing oval and other opportunities for active play adjacent to gathering spaces.
- 2. The turfed quadrangle space and the Outdoor Play Space at the north-eastern corner of the side provide further space for informal active play

Social/ Passive Gathering



Opportunities

A number of break out spaces are designed for passive outdoor activities and encourage social interactions. These will include seating under shade trees, spectator seating for the sports field and courts and opportunities for outdoor study.



D Landscape Design

6. Landscape Site Plan

The high school campus is proposed to be a pedestrian friendly campus where priority is given to pedestrians.

The new high school campus is proposed with a central spine in the form of the school plaza, replacing the existing northern portion of Majara Street. Its location, which generally reflects the existing thoroughfare provides legibility to the campus, connecting all buildings and the campus entries which connect the campus to the neighbouring suburbs beyond.

Generous pedestrian entries into the proposed high school connect the new school plaza and each of the buildings to create a safe, legible, attractive pedestrian network for the school.

The new landscaped spaces are designed to respond to the 4 landscape principles of identity, access, green amenity and diverse spaces. Key features include avenue planting, low height walls for informal seating, semi enclosed outdoor learning areas, vegetated garden beds, shade trees, open play space, turfed embankments and tiered seating.

The new school plaza is to act as a circulation, breakout and play space for the school.

Covered walkways, covered outdoor learning spaces and canopy tree's throughout the campus provide protection from the sun and rain.

Bicycle parking enclosures are provided at each end of the school plaza for students and hoops adjacent to the administration building for staff. End of trip facilities are provided for staff within the staff unit and for the students within hall changing amenities.

External to the campus two new pedestrian crossings are proposed, providing a safe connection to the public school and bus drop off to the south and to the agricultural plot to the north.



- Legend**
- 1. High School Plaza
 - 2. Programmed breakout spaces along the main walk, including outdoor learning spaces
 - 3. Main quadrangle (natural turf / synthetic turf)
 - 4. Turfed embankments with seating to the oval
 - 5. Outdoor Learning
 - 6. Flag Poles
 - 7. Feature Tree and Entry Forecourt
 - 8. Community Entry Forecourt
 - 9. Games Courts
 - 10. Hall Plaza
 - 11. Existing Tree Grove
 - 12. Social seating
 - 13. Amphitheatre seating
 - 14. Raised threshold with planting and bicycle parking
 - 15. 1:14 access ramps
 - 16. Planter boxes on Level 1
 - 17. Cricket Batting Net
 - 18. Agricultural Plot
 - 19. Car Park
 - 20. Vehicular Access to Agricultural Plot
 - 21. New Pedestrian Crossing
 - 22. Outdoor Play Space
 - 23. Vocational Education and Training (VET) cafe with kitchen garden
 - 24. Bike Parking



D Landscape Design

7. Detail Plans: Southern Campus



DETAIL PLAN - SOUTHERN CAMPUS

The southern campus comprises the new administration building A, the new building B and the existing former Council building (building C).

The main school entry with the public accessible Entry Forecourt is located at the southern boundary of the school, adjacent to the adminstration building. The existing tree in the centre of the fourecourt is at the end of its lifespan and will be replaced with a new tree. The

species of this prominent tree should be selected in consultation with the indigenous community.

The main entry leads to the tree-lined High School Plaza which takes its shape from the former Majara Road and maintains the town's historic street grid.

The school accessroad on the southern school boundary connects to the staff car park and to support bus and delivery bay, utilising the existing car park of the former Council building.

The ground floor class rooms of building B open directly to outdoor learning spaces bound by native and indigenous planting, providing opportunities for the student's to learn from Country and nature.



PRECEDENT IMAGERY
*Note - imagery display design intent only.



TURF EMBANKMENTS TO SPORTS FIELD



BANDED INSITU CONCRETE PAVING



QUIET LEARNING SPACES IN NATIVE PLANTING



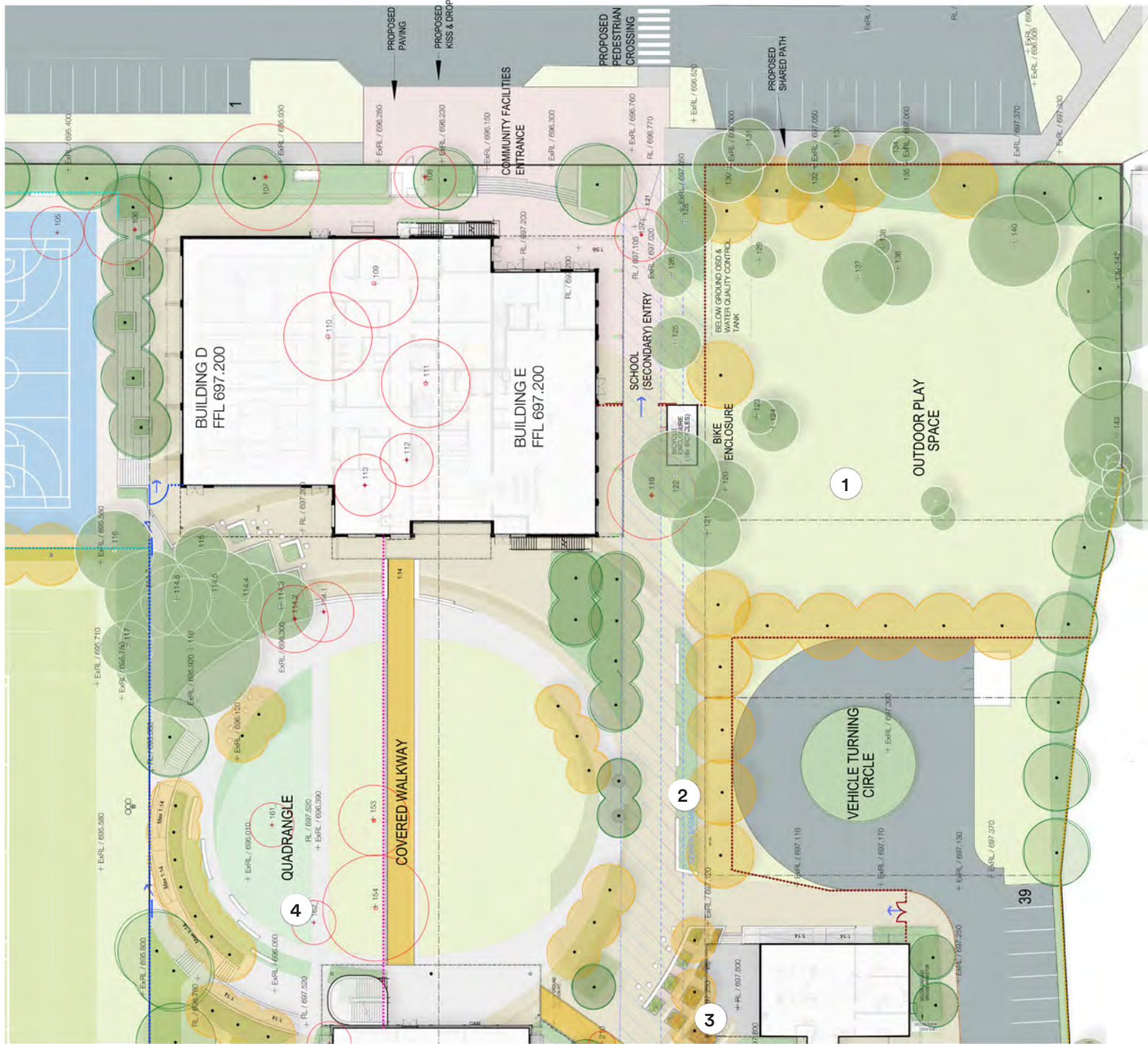
FEATURE TREE

An accessible ramp and stairs connect the higher lying campus to the lower lying oval which the school can use during school hours. Turfed embankments under shade trees provide ample seating opportunities for spectators overlooking the oval.

Smaller, more intimate seating ares within native planting under shade trees are provided at the western side of building C.

D Landscape Design

7. Detail Plans: Northern Campus



DETAIL PLAN - NORTHERN CAMPUS

The northern campus comprises the main quadrangle space in the heart of the school campus between building B and buildings D, containing the school's library and gymnasium, which are designed to consider use by the community after school hours.

The second publicly accessible plaza is located north of buildings D and E, incorporating public access to the community facilities and opportunity for shared use of

the school's facilities, and the secondary northern school entry. The school's drop-off area is located north of the plaza space.

The main quadrangle comprises a large natural lawn area, intersected by a covered walkway, connecting buildings B, C and D. The western part of the quadrangle includes a semi-circular multifunctional synthetic grass area bounded by seating benches under shade trees.

The quadrangle space is bordered by lines of trees within native shrub and grass planting to the east and west and school building to the north and south. Accessible ramps and stairs connect the quadrangle space to the lower lying sports oval and provide also an accessible path to the new lower-lying games court, north of the oval.

The school's herb and kitchen garden is located adjacent to the north-western corner of building C in

close proximity to the school's kitchen learning area and VET (Vocational Education and Training) cafe where the kitchen garden's produce will be used.

The north-eastern corner of the campus comprises the extensive Outdoor Play Space, a large lawn area bounded by existing and proposed trees on all four sides, enabling and animating to informal active play.



OUTDOOR PLAY SPACE (LAWN AREA UNDER TREES)



NATIVE SHRUB PLANTING



PRODUCTIVE GARDEN



SYNTHETIC TURF WITH SEATING WALLS IN QUADRANGLE

PRECEDENT IMAGERY
*Note - imagery display design intent only.

D Landscape Design

7. Detail Plans: Games Court & Agricultural Plot



DETAIL PLAN - NEW GAMES COURTS



DETAIL PLAN - AGRICULTURAL PLOT

LEGEND

PROJECT BOUNDARY

LOT BOUNDARIES

PROPOSED NATIVE TREE

PROPOSED EXOTIC TREE

EXISTING TREE to be removed

EXISTING TREE to be retained

HARDWORKS

- COLOURED INSITU CONCRETE PAVING Publicly accessible areas
- COLOURED INSITU CONCRETE PAVING Main Campus Paving
- COLOURED INSITU CONCRETE PAVING Central Area Paving
- EXPOSED AGGREGATE BANDING with different grades of abrasion or oxides
- INSITU CONCRETE PAVING Pedestrian paths / ramps
- PLEXIPAVE / COLOURED CONCRETE Games Courts
- COLOURED INSITU CONCRETE PAVING with sawcuts / stencils
- SYNTHETIC TURF with short / medium long piles
- ASPHALT Carpark

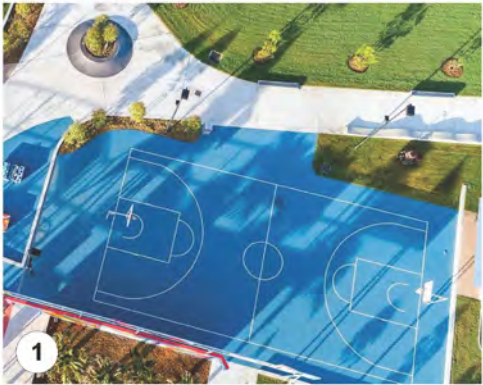
SOFTWORKS

- NATURAL TURF
- NATURAL TURF EMBANKMENTS
- PROPOSED PLANTING Shrubs, Grasses, Groundcover
- FURNITURE + FIXTURES
 - INSITU CONCRETE SEATING
 - INSITU CONCRETE SLEEPERS for tiered seating
 - INSITU CONCRETE STAIRS
 - INFORMAL MOBILE SEATS
 - SHADE STRUCTURE by Architects
 - BICYCLE HOOPS
 - DIGITAL SCHOOL SIGN
 - SCHOOL FLAG POLES
 - SPORTS FIELD FLOOD LIGHTS

FENCING

- 1.2M HIGH MESH FENCE AND GATES
- TINW COMPLIANT 2.4M HIGH PALISADE FENCE
- CRICKET PITCH NETTING
- EPSC COMPLIANT 2.1M HIGH PALISADE FENCE
- LOW ROAD SAFETY FENCE
- GATED ACCESS
- PROPOSED INTERMITTENT TIMBER POST AND TOP RAIL SPORTS FIELD DELINEATION
- 2.1M HIGH CHAINWIRE FENCE (DOG PROOF)
- 2.4M HIGH CHAINWIRE FENCE (FOR BALL CONTROL)
- 2.1M HIGH PALISADE FENCE

PRECEDENT IMAGERY
*Note - imagery display design intent only.



NEW GAMES COURTS



TIERED SEATING STEPS



NEW AG PLOT

Games Court

A new hard-paved games courts have been provided to the west of the gymnasium at the lower sports field level. Seating steps utilising the level difference between building D and the games court and provide seating opportunities under shade trees for spectators. The games court is also designed to facilitate use by the public after school hours. An accessible pathway has been provided from the main quadrangle area.

The games courts are bounded by proposed rows of trees to all four sides, providing shade to players and spectators and complementing the existing street trees.

A new public shared path is to replace the existing path to the eastern and northern side of the oval, connecting Gibraltar Street with Turallo Terrace.

Agricultural Plot

The Agricultural Plot is located north of the main high school campus, separated by Turallo Terrace. A new pedestrian crossing and a footpath between the main school campus and the Agricultural Plot connect the two areas.

The Plot comprises the proposed building F as well as

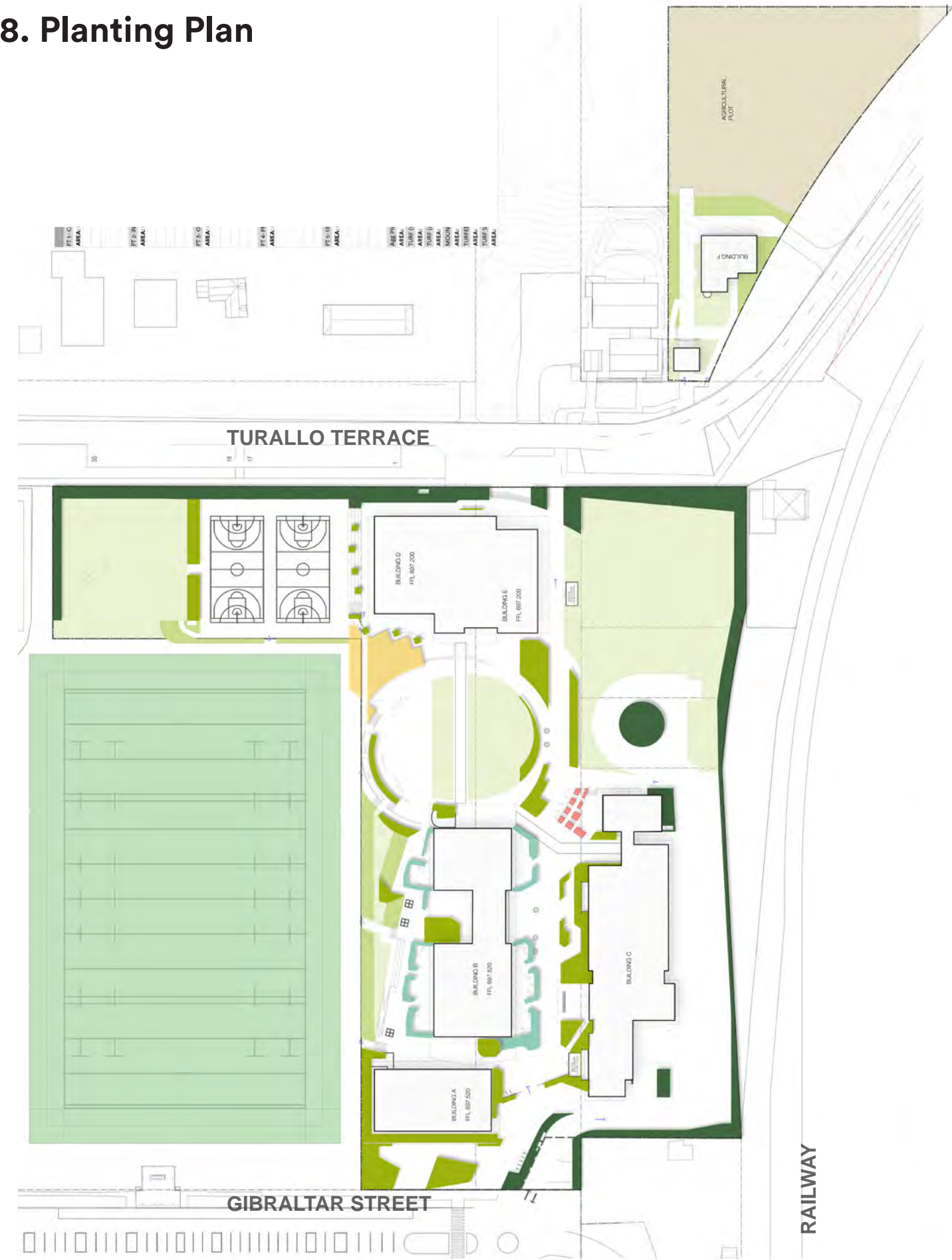
a new Scout Storage space. A vehicular access from Turallo Terrace through the site has been established.

The Agricultural Plot provides opportunities to implement cultural land management as part of the agricultural curriculum and to grow and learn about native food and medicinal plant species.

The Agricultural Plot is fenced by a dog-proof fence.

D Landscape Design

8. Planting Plan



PLANT TYPE	POT SIZE	RATE / SPACING	RATIO
PT 1 - CAMPUS PERIMETER PLANTING			
AREA: (m ²) 1702			
Grasses	Tube	6 Plants / m ²	40%
Large Shrubs	200mm	2 Plants / m ²	10%
Medium Shrubs	150mm	4 Plants / m ²	20%
Small Shrubs / Groundcovers	Tube	6 Plants / m ²	30%
			100%
PT 2 - INNER CAMPUS PLANTING			
AREA: (m ²) 1312			
Grasses	Tube	6 Plants / m ²	50%
Large Shrubs	200mm	2 Plants / m ²	10%
Medium Shrubs	150mm	4 Plants / m ²	20%
Small Shrubs / Groundcovers	Tube	6 Plants / m ²	20%
			100%
PT 3 - OUTDOOR LEARNING PLANTING			
AREA: (m ²) 219			
Grasses	Tube	6 Plants / m ²	30%
Large Shrubs	200mm	2 Plants / m ²	10%
Medium Shrubs	150mm	4 Plants / m ²	30%
Small Shrubs / Groundcovers	Tube	6 Plants / m ²	30%
			100%
PT 4 - PRODUCTIVE GARDEN PLANTING			
AREA: (m ²) 25			
Grasses	Tube	6 Plants / m ²	30%
Large Shrubs	200mm	2 Plants / m ²	10%
Medium Shrubs	150mm	4 Plants / m ²	30%
Small Shrubs / Groundcovers	Tube	6 Plants / m ²	30%
			100%
PT 5 - UNDERPLANTING UNDER EXISTING TREES			
AREA: (m ²) 262			
Grasses	Tube	6 Plants / m ²	60%
Large Shrubs	200mm	2 Plants / m ²	0%
Medium Shrubs	150mm	4 Plants / m ²	0%
Small Shrubs / Groundcovers	Tube	6 Plants / m ²	40%
			100%
Agg Plot Productive Land			
AREA: 3233m ²			
TURF (within School Grounds)			
AREA: 4967m ²			
TURF (Agg Plot)			
AREA: 207m ²			
MOUNDED TURF (within School Grounds)			
AREA: 451m ²			
TURFED EMBANKMENTS (Agg Plot)			
AREA: 327m ²			
TURF SPORTS FIELD (excludes turf around sports field)			
AREA: 12460m ²			

LEGEND

PLANTING

- 1702m² PT1 - CAMPUS PERIMETER PLANTING
- 1312m² PT 2 - INNER CAMPUS PLANTING
- 219m² PT 3 - OUTDOOR LEARNING PLANTING
- 25m² PT 4 - PRODUCTIVE GARDEN PLANTING
- 262m² PT 5 - UNDERPLANTING UNDER EXISTING TREE GROVE
- 4967m² + 210m² Ag Plot TURF (WITHIN SCHOOL GROUNDS)
- 451m² + 327m² Ag Plot MOUNDED TURF (WITHIN SCHOOL GROUNDS)
- 12460m² TURF SPORTS FIELD (EXCLUDES TURF AROUND SPORTS FIELD)

0 10 20 30 M

The planting design focuses on endemic and native plant species, providing a strong connection to the surrounding landscape and to provide habitat to native fauna and increase the biodiversity.

Input from the local indigenous community on the final species selection should be sought. It will also utilise hardy, low maintenance native and non-native plant species with a proven performance record in school environments.

All outdoor learning plant species and the perimeter planting will use exclusively endemic and native plant species.

D Landscape Design

9. Tree Plan



TREE TYPE	POT SIZE	QTY
Feature Tree - Exotic	100L	25
Canopy Tree - Exotic	25L	24
Feature Tree - Native	100L	35
Canopy Tree - Native	25L	58
Agg Plot Shade / Screening Tree	25L	4
Total		146

Feature Canopy Tree species	Mature Height
Eucalyptus pauciflora 'Little Snowman'	15m
Eucalyptus sideroxylon*	20m+

Canopy Tree species (exotic)	Mature Height
Cedrus deodara	20m+
Juglans nigra	12m
Lagerstroemia indica	8m
Nyssa sylvatica	10m
Pistacia chinensis	8m
Populus simonii	12m
Quercus palustris 'Freefall'	20m+
Zelkova serrata 'Green Vase'	14m

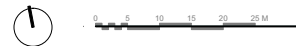
Canopy Tree species (native)	Mature Height
Angophora hispida	7m
Banksia serrata	9m
Callitris endlicheri	15m
Eucalyptus cinerea	15m
Eucalyptus dives	15m
Eucalyptus pauciflora 'Little Snowman'	15m
Eucalyptus mannifera	15m
Eucalyptus mannifera 'Little Spotty'	8m
Eucalyptus viminalis	20m+

*Cultural significant tree species: Mugga Ironbark

LEGEND

- EXISTING TREE to be removed
- EXISTING TREE to be retained
- PROPOSED TREE FEATURE TREE 75L EXOTIC
- PROPOSED TREE FEATURE TREE 75L NATIVE
- PROPOSED CANOPY TREE 25L EXOTIC
- PROPOSED CANOPY / SCREENING TREE 25L NATIVE

APPROXIMATE AREA (WITHOUT AG PLOT): 24,698 m²
 APPROXIMATE MATURE CANOPY AREA: 5,727 m²
 APPROXIMATE MATURE CANOPY COVER: 23.2 %



As outlined in the Design Guidelines and Landscape Design Principles, one of the key objectives of the landscape design is the maximisation of the overall tree canopy area to maximise shade in summer, protection against winter winds and to reduce the heat island effect. Trees are also a main landscape element that defines the character, identity and amenity of the site.

The ratio between evergreen native and deciduous non-native trees aims to achieve a balance between the need to maximise the summer shade and still enable winter sun.

Most of the existing significant trees in the north-eastern corner of the site and south-west of building D have been retained and have been incorporated into the landscape design.

The orientation of the north south school plaza, which replaces the existing section of Majara Street is strengthened by a row of native trees on its western side, while tree plantings along the eastern side are restricted by proposed services.

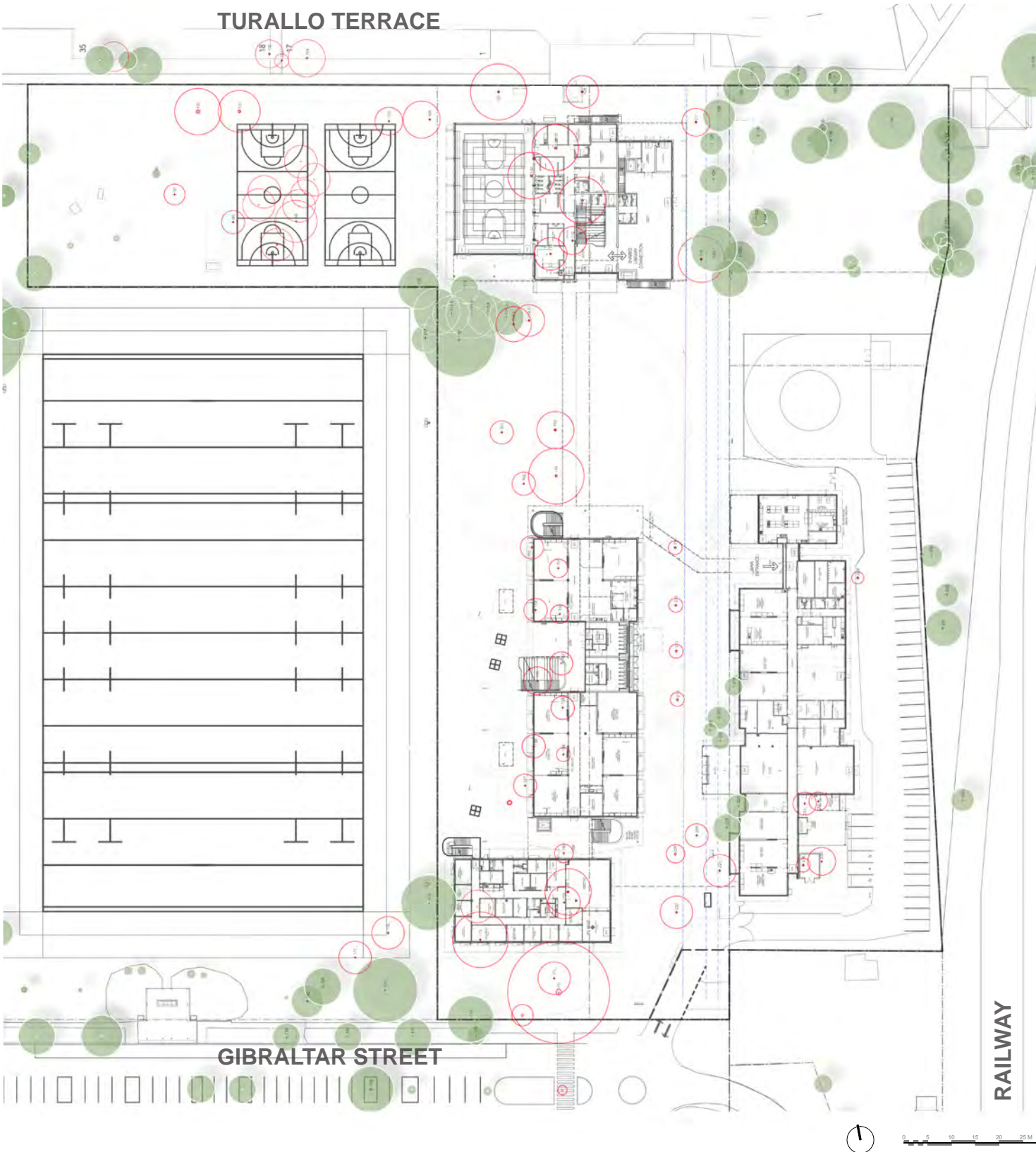
A row of native trees also marks the western boundary between the school and the existing sports oval and provides shade for spectators of sports games.

The main quadrangle space and the extensive outdoor play space are both framed by rows of trees, spatially enclosing these spaces and providing shade.

The proposed games courts is also framed by shade providing trees.

D Landscape Design

10. Existing Tree Retention and Removal Plan



The landscape design has been developed to maximise the retention of existing trees and and incorporate them into the designv where possible.

Due to the limited size of the site and its topography, several trees are proposed to be removed to accommodate the required building masses.

However, most of the significant trees in the north-eastern corner of the site and south-west of building D have been retained.

LEGEND

- EXISTING TREE to be removed
- EXISTING TREE to be retained
- + 153 EXISTING TREE NUMBER surveyed location as per Arboricultural Impact Assessment
- + 161_ EXISTING TREE NUMBER indicative location as per Arboricultural Impact Assessment

Tree no.	Botanical name	Action	Reason
96	Deciduous unknown sp.	Retain	
97	Deciduous unknown sp.	Remove	within Cricket Betting Net enclosure
98	Deciduous unknown sp.	Remove	within footprint of Games Court
99	Cupressus x leylandii	Remove	within footprint of Games Court
100	Pinus radiata	Remove	within Cricket Betting Net enclosure
101	Pinus radiata	Remove	within footprint of Games Court Runoff
102	Acacia sp.	Remove	within new Turallo Terrace parking zone
103	Acacia sp.	Remove	within new Turallo Terrace parking zone
104	Melaleuca lanceolata	Remove	within new Turallo Terrace parking zone
105	Acacia sp.	Remove	within footprint of Games Court
106	Fraxinus raywood	Remove	due to level change, seating steps to Games Courts
107	Deciduous unknown sp.	Remove	due to level change, proposed Grease Arrestor
108	Ulmus sp.	Remove	due to level change, proposed A/C enclosure
109	Prunus sp.	Remove	Within building footprint
110	Fraxinus raywood	Remove	Within building footprint
111	Fraxinus raywood	Remove	Within building footprint
112	Fraxinus raywood	Remove	Within building footprint
113	Fraxinus raywood	Remove	Within building footprint
114.1	Casuarina sp.	Remove	within main Quadrangle, due to level change
114.2	Casuarina sp.	Remove	within main Quadrangle, due to level change
114.3	Casuarina sp.	Retain	
114.4	Casuarina sp.	Retain	
114.5	Casuarina sp.	Retain	
114.6	Casuarina sp.	Retain	
114.7	Casuarina sp.	Retain	
114.8	Casuarina sp.	Retain	
115	Fraxinus raywood	Retain	
116	Deciduous unknown sp.	Retain	
117	Fraxinus raywood	Retain	
118	Pinus radiata	Retain	
119	Quercus robur	Retain	
120	Quercus robur	Retain	
121	Quercus robur	Retain	
122	Quercus robur	Retain	
123	Betula alba	Retain	
124	Betula alba	Retain	
125	Malus sp.	Retain	
126	Fraxinus raywood	Retain	
127	Fraxinus raywood	Remove	within main path of travel of northern entrance
128	Fraxinus raywood	Retain	
129	Prunus sp.	Retain	
130	Castanospermum australe	Retain	
131	Castanospermum australe	Retain	
132	Castanospermum australe	Retain	
133	Prunus sp.	Retain	
134	Prunus sp.	Retain	
135	Prunus sp.	Retain	
136	Fraxinus raywood	Retain	
137	Eucalyptus sp.	Retain	
138	Eucalyptus sp.	Retain	
139	Eucalyptus sp.	Retain	
140	Eucalyptus sp.	Retain	
141	Eucalyptus sp.	Retain	

Tree no.	Botanical name	Action	Reason
142	Eucalyptus sp.	Retain	
143	Eucalyptus sp.	Retain	
153	Platanus orientalis	Remove	within main Quadrangle, due to level change
154	Platanus orientalis	Remove	within main Quadrangle, due to level change
155	Platanus orientalis	Remove	Within building footprint
156	Platanus orientalis	Remove	Within building footprint
157	Platanus orientalis	Remove	Within building footprint
158	Platanus orientalis	Remove	Within building footprint
159	Platanus orientalis	Remove	Within building footprint
160	Platanus orientalis	Remove	Within building footprint
161	Platanus orientalis	Remove	within main Quadrangle, due to level change
162	Platanus orientalis	Remove	within main Quadrangle, due to level change
163	Ulmus sp.	Remove	Within building footprint
164	Ulmus sp.	Remove	Within building footprint
165	Ulmus sp.	Remove	Within building footprint
166	Ulmus sp.	Remove	Within building footprint
167	Ulmus sp.	Remove	Within building footprint
168	Eucalyptus sp.	Remove	Within building footprint
169	Deciduous unknown sp.	Remove	Within building footprint
170	Pinus radiata	Remove	end of life
171	Eucalyptus sp.	Remove	in plaza pavement, affected by 170 removal
172	Eucalyptus sp.	Retain	
173	Eucalyptus sp.	Remove	Within building footprint
174	Pinus radiata	Retain	
175	Pinus radiata	Retain	
176	Ulmus sp.	Retain	
177	Ulmus sp.	Retain	
178	Fraxinus raywood	Remove	
179	Fraxinus sp.	Retain	
180	Fraxinus sp.	Retain	
181	Deciduous unknown sp.	Retain	
182	Ulmus sp.	Retain	
183	Fraxinus raywood	Retain	
210	Deciduous unknown sp.	Remove	Low retention value
213	Deciduous unknown sp.	Remove	within main path of travel of High School Plaza
214	Group of 10 mix native spp.	Remove	Low retention value
215	unknown sp.	Remove	within main path of travel of High School Plaza
218	Deciduous unknown sp.	Retain	
219	Deciduous unknown sp.	Remove	within main path of travel of High School Plaza
220	Deciduous unknown sp.	Retain	
221	Deciduous unknown sp.	Retain	
222	Deciduous unknown sp.	Retain	
223	Deciduous unknown sp.	Retain	
224	Deciduous unknown sp.	Retain	
225	Deciduous unknown sp.	Remove	within main path of travel of High School Plaza
226	Deciduous unknown sp.	Remove	within main path of travel of High School Plaza
227	Deciduous unknown sp.	Remove	within main path of travel of High School Plaza
228	Acacia sp.	Retain	
229	Deciduous unknown sp.	Remove	within extended bus bay
231	Eucalyptus sp.	Retain	
233	Deciduous unknown sp.	Remove	Within building footprint / outdoor workshop
234	Acacia sp.	Remove	Within building footprint / outdoor workshop
235	Deciduous unknown sp.	Remove	Within building footprint / outdoor workshop
236	Deciduous unknown sp.	Remove	Within building footprint / outdoor workshop

D Landscape Design

11. Planting Palettes

PT1 - Campus Perimeter Planting



Eucalyptus cinerea



Correa alba



Callistemon mauve mist



Jugland nigra



Leptorhynchos squamatus



Poa labillardieri

PT2 - Inner Campus Planting



Eucalyptus mannifera



Kunzea baxteri



Stypandra glauca



Melaleuca thymifolia



Carex forted curl



Callistemon pityoides

PT3 - Outdoor Learning



Lomandra confertifolia



Hibbertia scandens



Rhagodia spinescens



Banksia serrata



Dianella revoluta



Carex forted curl

D Landscape Design

11. Planting Palettes

PT4 - Productive Garden



Rosmarinus officinalis



Micoseris lanceolata



Laurus nobilis



Thymus citriodorus



Citrus australasica



Bulbine bulbosa

PT5 - Underplanting Under Existing Tree Grove



Goodenia ovata



Lomandra filiformis



Juniperus horizontalis



Lomandra coriacea



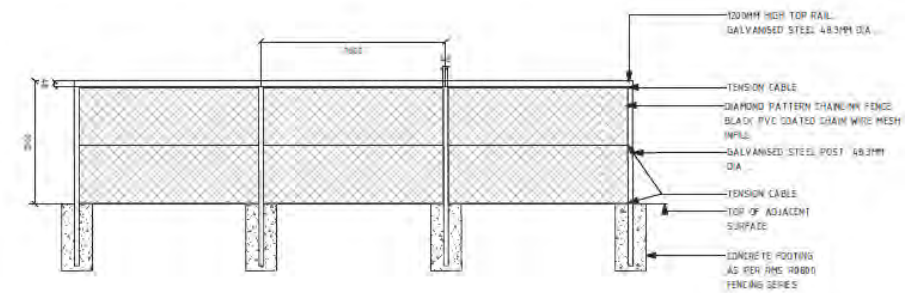
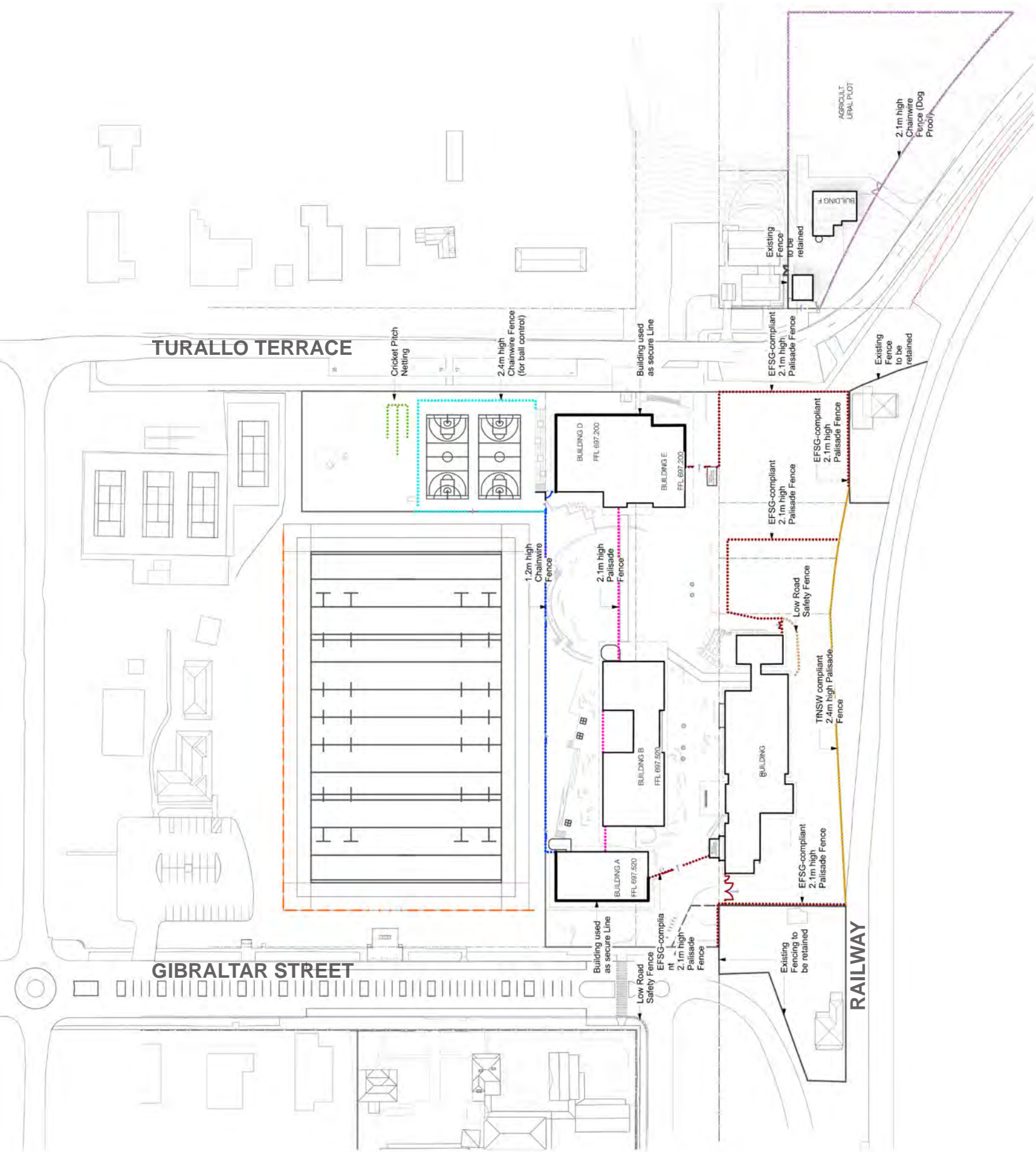
Wurmbea dioica



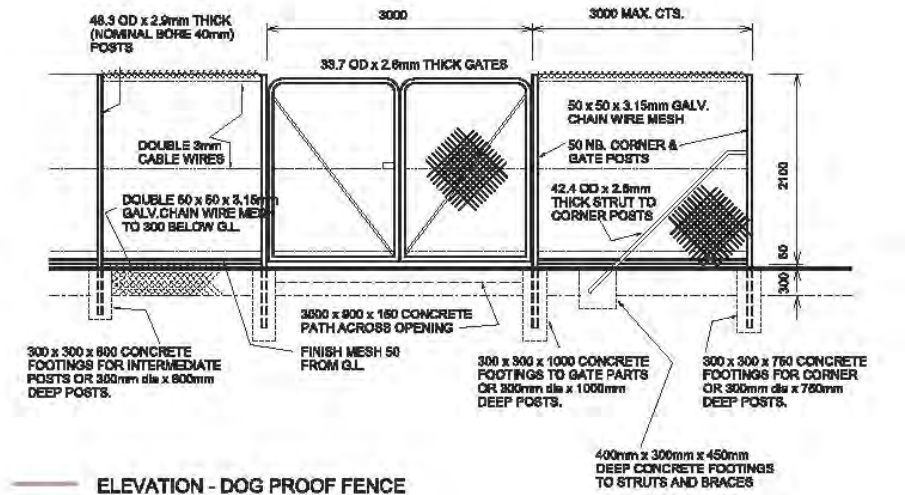
Microlaena stipoides

D Landscape Design

12. Fencing Plan



SECTION - 1200MM MESH FENCE WITH TOP RAIL



ELEVATION - DOG PROOF FENCE

LEGEND

- 1.2M HIGH MESH FENCE AND GATES
- TNSW COMPLIANT 2.4M HIGH PALISADE FENCE
- CRICKET PITCH NETTING
- EFSG COMPLIANT 2.1M HIGH PALISADE FENCE
- LOW ROAD SAFETY FENCE
- GATED ACCESS
- PROPOSED INTERMITTENT TIMBER POST AND TOP RAIL SPORTS FIELD DELINEATION
- 2.1M HIGH CHAINWIRE FENCE (DOG PROOF)
- 2.4M HIGH CHAINWIRE FENCE (FOR BALL CONTROL)
- 2.1M HIGH PALISADE FENCE

