

NEW PRIMARY SCHOOL IN MURRUMBATEMAN

DESIGN ANALYSIS REPORT

09.06.21



Education
School Infrastructure

PEDAVOLI
ARCHITECTS

HANSEN YUNCKEN

DOCUMENT DETAILS

DOCUMENT/STATUS REGISTER

Issue	Date	Purpose	Written	Approved
01	03.05.21	Draft	KLC/SJ	
02	06.05.21	Draft	KLC/SJ	
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04	21.05.21	Draft for Test of Adequacy	KLC/SJ	SR
05	27.05.21	Issue for SSDA	KLC/SJ	SR
06	09.06.21	SSDA Submission	KLC/SJ	SR

LIST OF ABBREVIATIONS

BCA – Building Code of Australia
COLA – Covered Outdoor Learning Area
CDR – Concept Design Report
DDA – Disability Discrimination Act
DoE – Department of Education
EFSG – Education Facilities Standards and Guidelines
GBA – Gross Building Area
GEA – Gross Envelope Area
GFA – Gross Floor Area (Planning)
HB – Homebase
PA – Pedavoli Architects
SINSW – School Infrastructure NSW
UFA – Usable Floor Area

PROJECT DETAILS

Site Address	Fairley Street, Murrumbateman, NSW, 2582
Site Area	15,434.92m ²
Land Use & Zoning	RU5 Village
Local Authority	Yass Valley Council
Building FSR & Height	Assessed on a merit basis
Traditional Custodians	The traditional custodians of the land in which the site is located are the Ngunnawal people (it is likely there other people groups that lived on this land, we will continue to add to our understanding of the Indigenous narrative of the site through the consultations that we have begun).
Heritage Status	The ACHA Report by ECO LOGICAL determined that there are no heritage listed items or Aboriginal Archaeology sites on the site. The Murrumbateman School and School House (Former) directly south of the site has a local heritage listing (Item No. I111 under schedule 5 of Yass Valley Council's 2013 LEP)

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1 INTRODUCTION

INTRODUCTION

This design Analysis 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-11233241).

The development is for a new primary school located at 2 Fairley Street, Murrumbateman.

This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs), as outlined in pages 5-6 of this report.

THE PROPOSAL

The proposed development is for construction and operation of a new primary school with Core 21 facilities in Murrumbateman that will accommodate up to 368 students.

The proposed development includes:

- A collection of 1-2 storey buildings containing 14 home base units, 2 special education learning units, hall, administration facilities and library.
- On-site parking lot with 40 spaces and kiss-and-ride area.
- Outdoor sports court and play area.
- Integrated landscaping, fencing and signage.

PROJECT FRAMEWORK

This report builds on the work completed by SHAC who completed the Masterplan and Concept Design. The latter accompanied the request for SEARs on this project. From SHAC's Concept Design we have proceeded into a design validation process followed by design development for this submission in collaboration with the following parties:

- SINSW
- Mecone
- The New Primary School in Murrumbateman PRG
- Hansen Yuncken
- Pedavoli Architects
- Specialist Consultants

This report documents the design approach for the proposed school, which brings together the inputs of the above stakeholders and the entire consultant team.

The refinements to the concept design through the validation process are outlined in this report and are the result of consultation with stakeholders.

ACKNOWLEDGEMENT OF COUNTRY

Pedavoli Architects acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

1 INTRODUCTION

SEARS

The proposed scope of work on the new primary School in Murrumbateman is for a Core 21 school as per the EFSG with 14 homebases for a capacity of 368 students.

This project is a State Significant Development (SSD). The SSD Application for this project is identified as SSD-11233241. This design report is to be read in conjunction with the Environmental Impact Statement (EIS) by Mecone. This Design Analysis Report is responding to the Planning Secretary’s Environmental Assessment Requirements issued to the applicant, the Department of Education on the 8th of December 2020 (Application number SSD-11233241).

SEARS Requirements - Index (Issued 08/12/20)	Pertinent
General Requirements	Refer to p4
Executive Summary	Refer to p4
A complete description of the development including:	
- A detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development. - Plans, elevations, and sections of the proposed development. - Cladding, window, and floor details, including external materials. - A site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process). - Plans and details of any advertising/business identification signs to be installed, including size, location, and finishes. - Any staging of the development. - Details of construction and decommissioning including timing. - An estimate of the retained and new jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided	Refer to: - Site Analysis p8-15 - Material Palette p35 - Wayfinding and Signage p36 - Architectural Documentation SSDA-000[B] through to SSDA-501[B] - Environmental Impact Statement (EIS) by Mecone
Key Issues 1. Statutory and Strategic Context	
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. - Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities). - Yass Valley Local Environmental Plan 2013.	Refer to: - Key Consultations p16 - EIS - Design Verification council plans and strategies p40

SEARS Requirements - Index (Issued 09/12/20)		Pertinent
Key Issues 2. Built Form and Urban Design		
Address:		
- The height, density, bulk and scale, setbacks and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces. - Design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette. - How Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development. - How good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility. - How design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018). - How services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	- Design Statement p30 - Site Planning and Massing p31 - Architectural Documentation SSDA-000[B] through to SSDA-501[B] - CPTED p22 - ESD p21 - Design Quality Principles p41-42 - EIS	
Provide:		
- A detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development. - A visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.	- Site Analysis p8-15 - Visualisation and Streetscapes p37-38 - EIS	
4. Environmental Amenity		
Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.		
Provide:		
- Shadow diagrams - A view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photo-montages or perspectives showing the proposed and likely future development. - An analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts. - Details of the nature and extent of the intensification of use associated with the proposed development.	- Shadow diagrams on DWG SSDA-301[B] - SSDA-303[B] - Design Principles p17-23 - EIS	

6. Ecologically Sustainable Development (ESD)
Identify:
- How ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development. - Proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy. - How the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy, and water efficient design (including water sensitive urban design) and technology and use of renewable energy. - How environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual (GANSW, 2018).
Plans and Documents
In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following: - Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and Planning Certificate). - 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 & 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.
Consultation
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with: - The relevant Council. - Government Architect NSW (through the NSW SDRP process). - Transport for NSW.

1 INTRODUCTION

EDUCATION RATIONALE

An education rationale has been developed by School Learning Environments and Change, SINSW (Dated: 5/8/2020). The five EFSG General Education Principles are noted and have been integrated into the design process from the outset. Below some key elements of the education rationale are noted with our response following:

Responsive (Active) Learning

The following spaces/zones are required to support Responsive (Active) Learning:

- Whole Class Presentation or instruction
- Small group (max. 4 students) targeted instruction (the engine room)
- Quiet, focused, independent work
- Small group collaboration and discussion
- Hands-on experiential learning
- Retreat – a quiet place for a sensory break
- Play/outdoor learning

The proposed homebase modules addresses these above requirements, providing a range of different

learning environments and the necessary flexibility in spatial arrangement to suite different needs.

The collaboration with Taylor Brammer and Pedavoli Architects has provided a strong integration between the interior and exterior spaces.

Universal Design

The seven principles of universal design (Ref: Figure 3.7 Principles of Universal Design – The Centre for Universal Design (1997)) are integrated into the spaces both exterior and interior, in collaboration with the relevant consults.

Design Recommendations

The recommendation to cluster the spaces in “Hubs” (between 60-180 students) and “Neighbourhoods” (a cluster of hubs) has been taken on board in the site planning of this proposal. The two home base buildings form “neighbourhoods” with each level being an established “hub”.

These neighbourhoods (home base buildings) have equal access to the open play space that is accessed directly from the respective buildings. There are covered walkways provided to ensure all students from both homebase buildings have equal ease of access to the school’s facilities.

Programmatic Recommendations

The Library, Staff Spaces, Outdoor learning environment and Hall have been developed and will continue to be refined in light of the recommendations of the education rationale. Noting particularly our consultations underway with the relevant Aboriginal Education Consultative Group.

2 SITE ANALYSIS

LOCATION AND CONTEXT

The new primary school in Murrumbateman is a 1.5 hectare site located 300m north of Murrumbateman Town Centre, which is 21km south-east of Yass and 30km north-west of Canberra between the Yass and Murrumbidgee Rivers.

The address of the site is No.2 Fairley Street, Murrumbateman, 2582 (Lot 302, D.P. 1228766. See more information on the site survey by Clarke & Di Pauli Surveyors DWG: 13107_DC01).

Legend

Subject Site	
Surrounding Schools	
Recreation/Open Space	
Services Infrastructure	
Main Roads	



2 SITE ANALYSIS

LOCATION AND CONTEXT

SERVICES INFRASTRUCTURE

1. Abode Murrumbateman
2. Health Centre
3. Future Development Site
4. Murrumbateman Country Inn
5. BP Service Station
6. Murrumbateman Village Market
7. Murrumbateman Veterinary Clinic
8. Old Murrumbateman School and Schoolhouse (former) now functioning as a public library.

SCHOOLS AND EDUCATIONAL FACILITIES

9. Childcare Centre
10. Murrumbateman Early Childhood

SPORTS, RECREATION AND NEARBY OPEN SPACE

11. Equestrian Facilities
12. Murrumbateman Showground
13. Murrumbateman Village Grassy Woodland



2 SITE ANALYSIS

SITE ANALYSIS PLAN

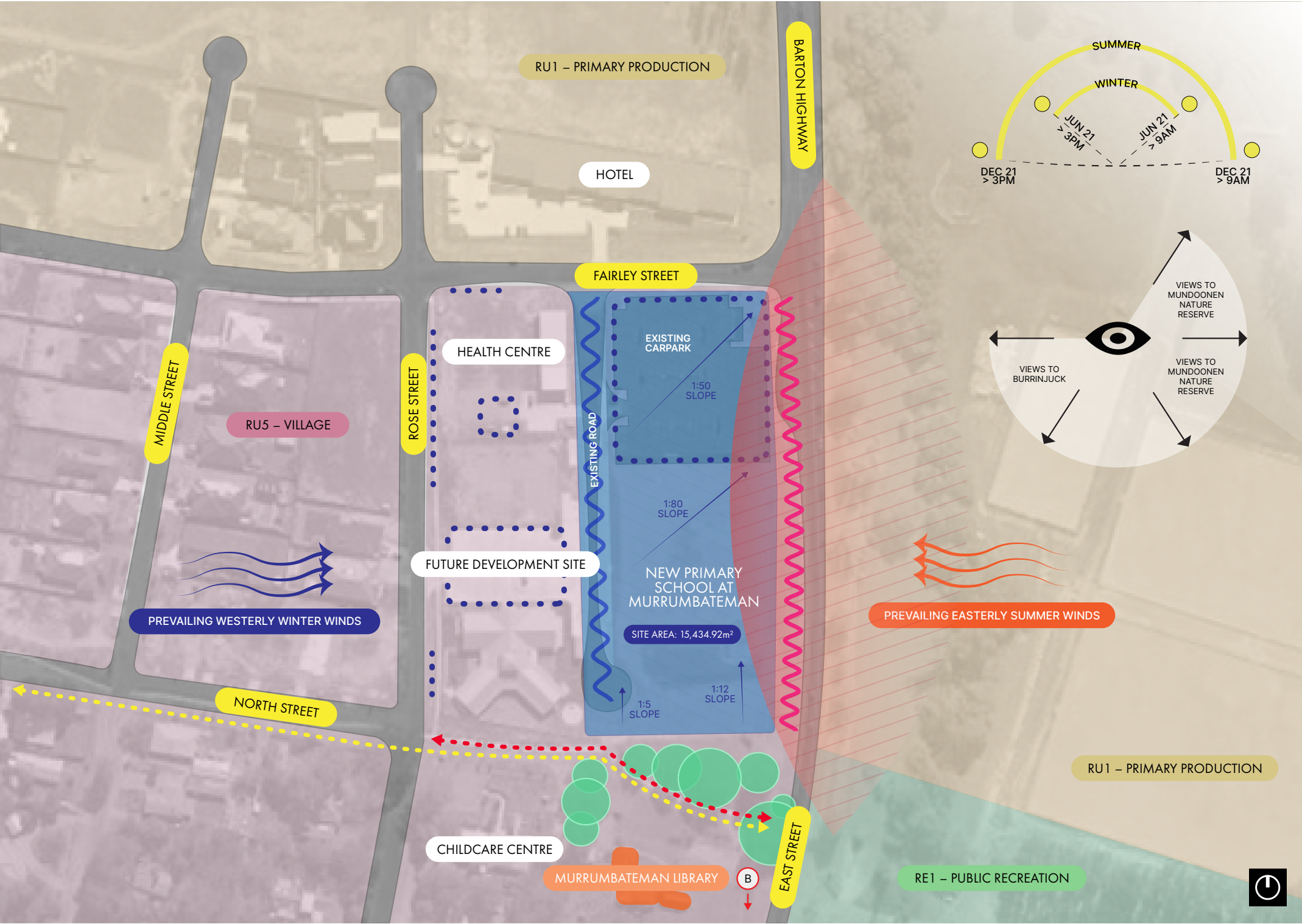
The site currently has an internal road that passes down the western edge of the site, with a cul-de-sac at the end. The internal roadway is providing access to an existing carpark that takes up the northern portion of the site. The site has a net fall of approximately 5 metres from the south-west to the north-east. There is an existing large carpark on site with 89 car spaces, 4 accessible spaces and 4 spaces for buses.

The site for the school has a natural connection with the commercial facilities to the west, the pedestrian corridor and public library (previously Murrumbateman Public School) to the south. These existing connections provide opportunities for shared vehicular and pedestrian pathways. Additionally, positive relationships between the built forms will help to establish a 'hub' of community facilities that benefit from clear pedestrian access.

Legend

Subject Site	
Subject to Bushfire Attack Level 12.5	
I111 Local Heritage Item	
Carparking	
Existing Bus Stop 150m South on Hwy	
Zoning RU5 - Village	
Zoning RU1 - Primary Production	
Zoning RE1 - Public Recreation	
Privacy Concerns (Overlooking/Noise)	
Traffic and Noise Issues	
Desirable Views	
Walking Pathway	
Equestrian Path	
Trees	

For more bushfire information, please see Bushfire Assessment (REF: 21052)



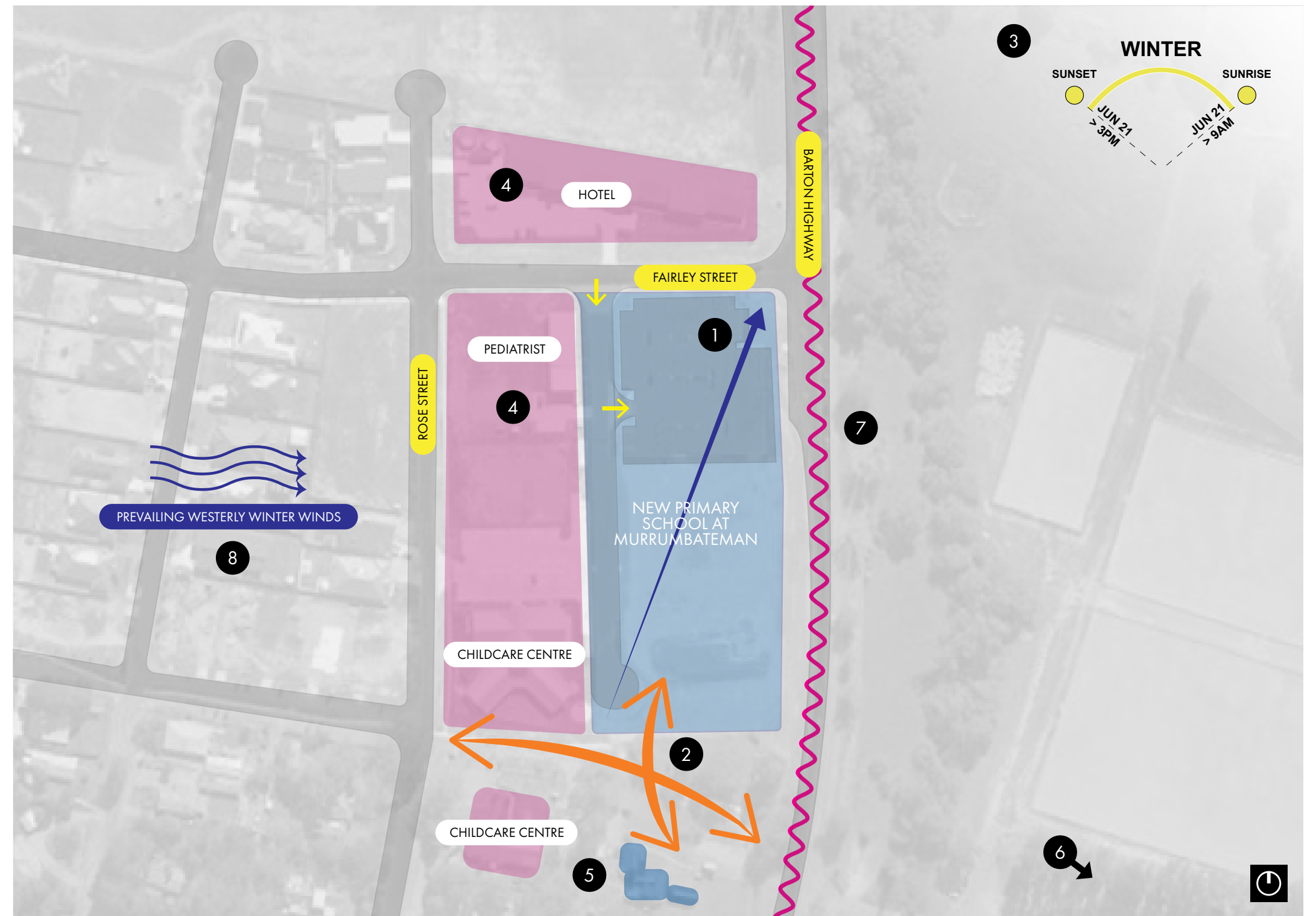
2 SITE ANALYSIS

OPPORTUNITIES

1. Site has a very gradual fall from south west to north east. The almost flat site will allow for equitable access from entry points and throughout the school site.
2. Site has connection to pedestrian/equestrian corridor.
4. Commercial facilities adjacent to site pose opportunity for increased community amenity through the development of the school in the area.
5. Old Murrumbateman Public School building, now used as a Public Library, is located south of the site, connected by the landscaped pedestrian corridor.
6. Murrumbateman Field Days near to school site.

CONSTRAINTS

3. Site is elongated north to south, this poses a challenge to achieve good solar access to play space and internal environments.
7. The Barton Highway passes by the eastern boundary of the site. This poses challenges including pedestrian safety and acoustic privacy.
8. Strong westerly winter winds will impact the long edge of the site.



2 SITE ANALYSIS

SITE PHOTOGRAPHS

The site photographs were taken by Pedavoli Architects during a site visit on the 23rd of March 2021. The site is bounded by Fairley Street to the North; commercial developments to the western boundary, with an empty site still to be developed; A landscape and pedestrian corridor to the south (beyond the corridor is the Murrumbateman Library, previously Murrumbateman Public School; and on the Eastern boundary is The Barton Highway.



1 View facing west towards Fairley Street



2 View facing south-east towards Carpark



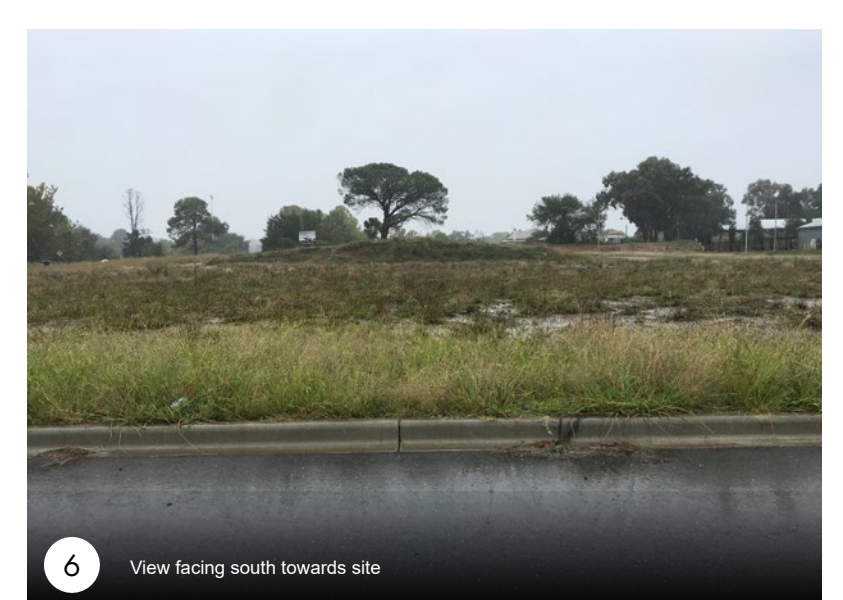
3 View facing south along Barton Highway



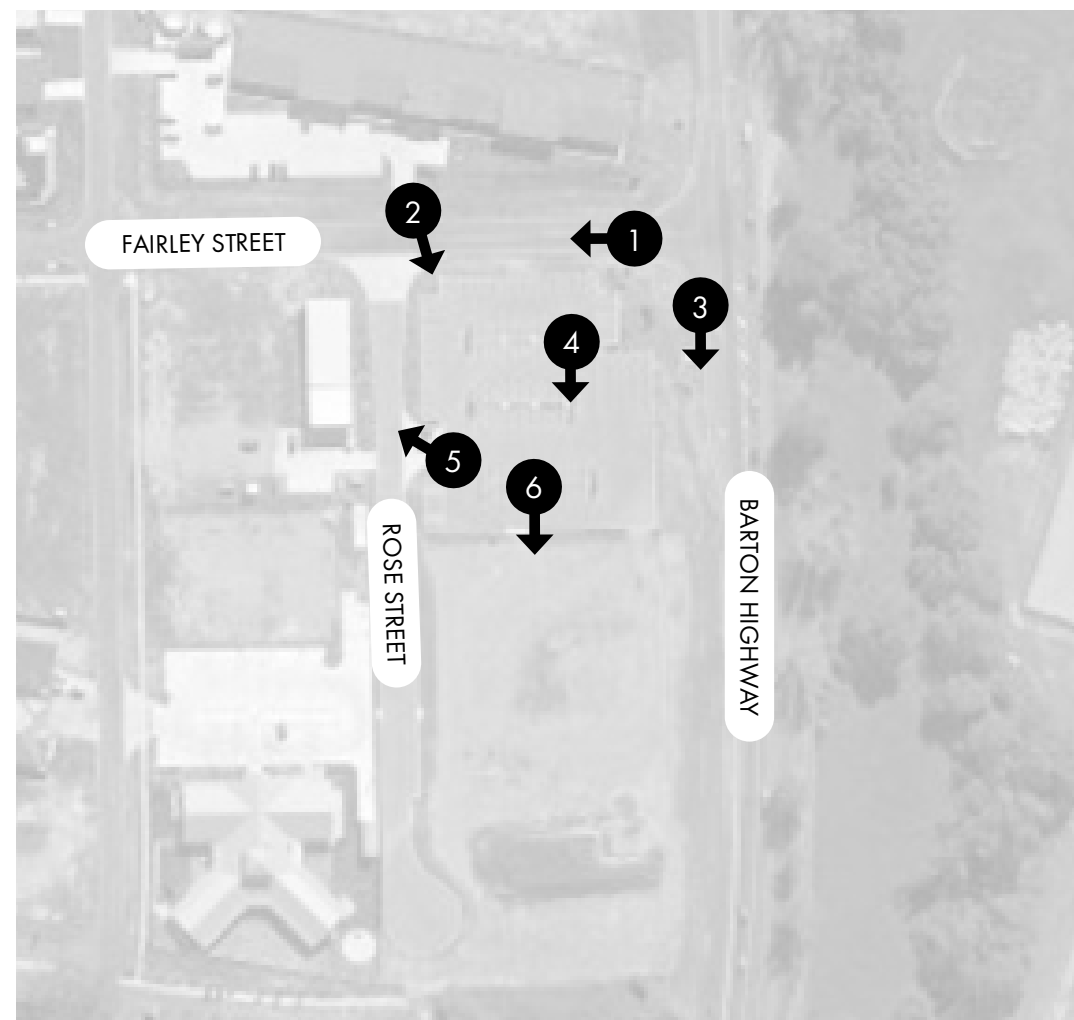
4 View facing south towards site beyond carpark



5 View facing west towards commercial facilities



6 View facing south towards site

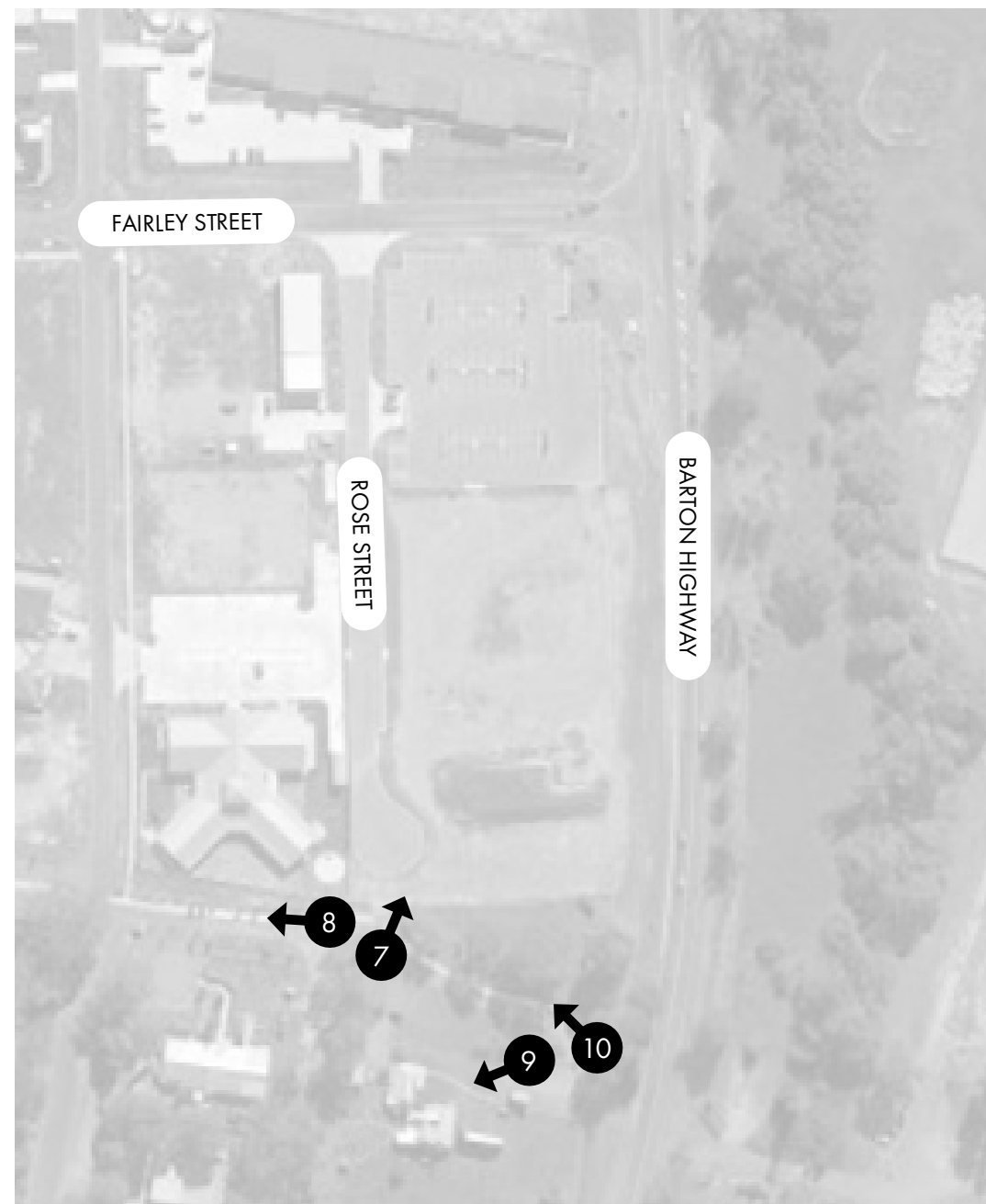


Source: Google Maps (2021)

2 SITE ANALYSIS

SITE PHOTOGRAPHS

The site photographs were taken by Pedavoli Architects during a site visit on the 23rd of March 2021.



Source: Google Maps (2021)



HERITAGE

Murrumbateman School & Schoolhouse (former) Background

The land for the public school was appropriated within a conditional land deal with David Webster on the 4th of February 1969. A 2 acre portion of his 110 acres. 22nd May 1871 David Howell's tender of 109 pounds was agreed on with council paying 2/3s of the cost. The building was completed on the 21st of December 1871.

Heritage Listing

It is noted in the Yass Valley Council 2013 LEP (Schedule 5 Environmental Heritage) as "Murrumbateman School and schoolhouse (former)."

- It is a local heritage listing.
- Item number I111
- Address: 32 East Street. Lot 55 DP 754900

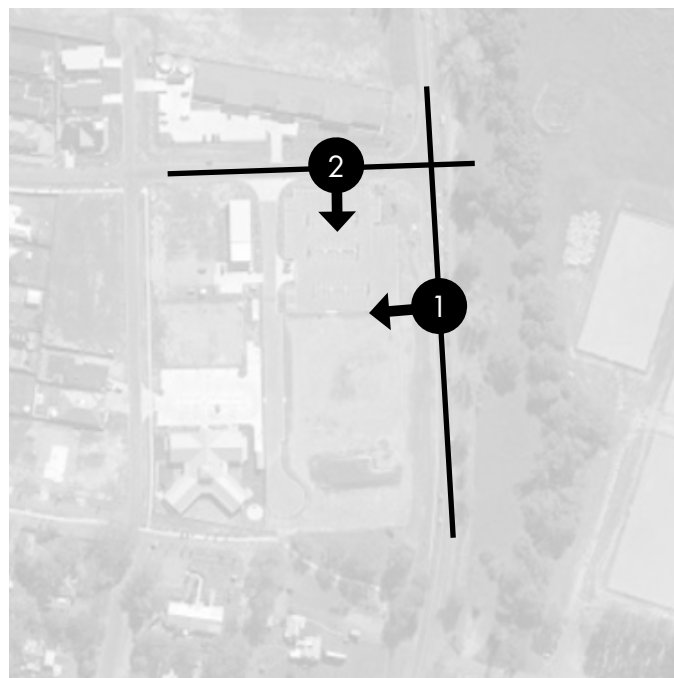
Current Uses

Currently on the site is a local library open on Saturdays from 10-1pm. The site is maintained by a local community (Murrumbateman Old School Grounds Committee).

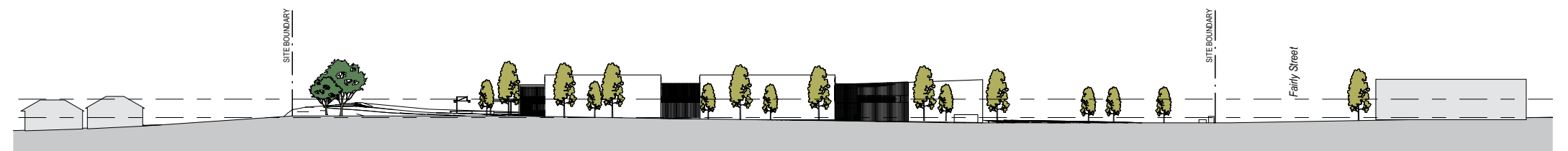
REF: <https://museum.hall.act.au/school/1566/murrumbateman-school.html>

2 SITE ANALYSIS

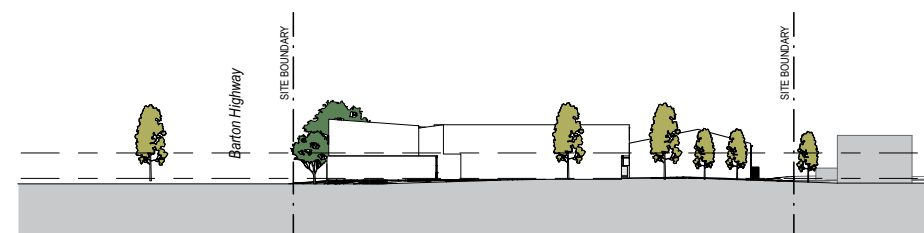
SITE SECTIONS



SITE PLAN: KEY



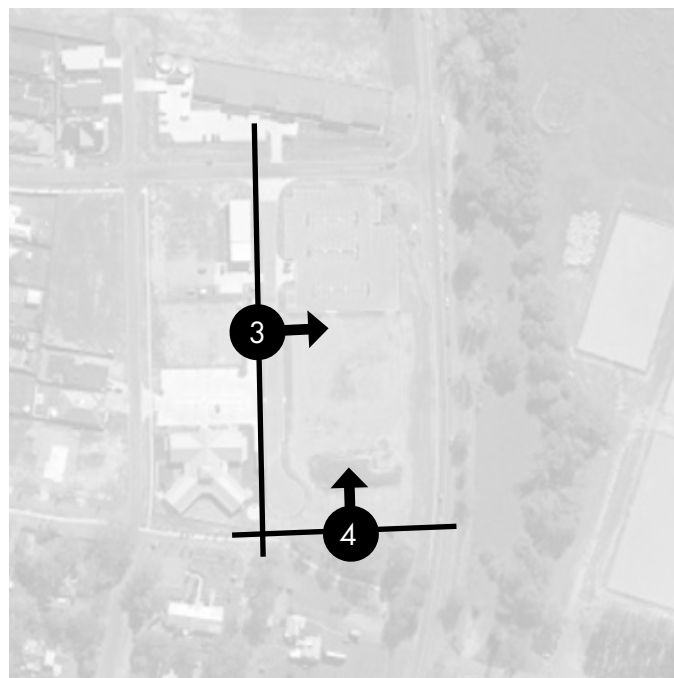
1. Eastern Section : Barton Highway



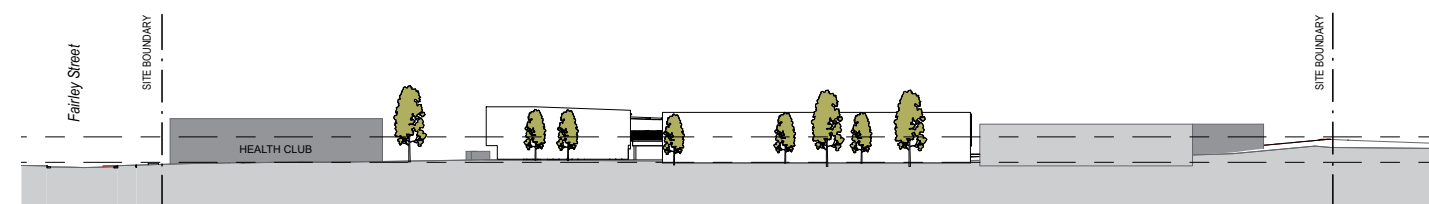
2. Northern Section : Fairley Street

2 SITE ANALYSIS

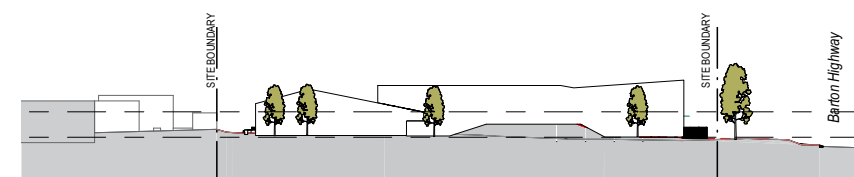
SITE SECTIONS



SITE PLAN: KEY



3. Western Section



4. Southern Section

3 KEY CONSULTATIONS

STAKEHOLDERS

PROJECT REFERENCE GROUP (PRG)

Meetings have been held on the 17th of December 2020; the 21st of March 2021; and 21st of April 2021. In these meetings the project was presented to date and feedback was recorded for discussion with the project team for implementation into the proposed design.

STATE DESIGN REVIEW PANEL (SDRP)

A presentation to the State Design Review Panel occurred on the 28 April 2021. Their feedback and our responses are outlined in Section 7 (Design Verification) within this report.

YASS VALLEY COUNCIL AND TFNSW

The minutes from the meeting between Yass Valley Council, SINSW, TFNSW and Savills on the 17th of December 2020 have been read and all comments noted for consideration during the design development. Of note:

- Pedestrian access from the southern edge of the site. This has been developed into the design. See

architectural and landscape documentation for more detail.

- Potential shared use agreements between the community and the school are yet to be determined.

SINSW TECHNICAL STAKEHOLDERS (TSG)

Technical stakeholder meetings have taken place throughout the current phase of work ensuring the project development is considering the operational factors. The feedback from the TSG will be continually implemented into the design as it progresses.

CONNECTING TO COUNTRY

CONSULTATION WITH A SCHOOL INFRASTRUCTURE REPRESENTATIVE (16 April 2021) Key Points:

- Recommends further consultation with other Indigenous Stakeholders for a more in depth understanding of the site and it's context.
- The eagle-hawk is the animal totem.
- Recommended the implementation of a yarning space near the SELU unit for equitable access.
- The use of native flora on the site will bring native fauna back to the site. Food gardens, gathering spaces and protected outdoor spaces for students were recommended.

CONSULTATION WITH THE CEO OF THE ONERWAL LAND COUNCIL (21 May 2021) Key Points:

- We had a meeting on site with the CEO of the Onerwal Land Council to get an in depth understanding of the country and ways that the school could develop a site narrative that connects the school to country. The following page discusses this further.

DESIGN PRINCIPLES

3

CONNECTING TO COUNTRY

STRATEGY FOR INTEGRATION

Two meetings have occurred on the proposed school site to develop the design of the school with an integrated connecting to country principle.

The first initiation meeting was with a Schools Infrastructure Representative on the 16th of April 2021. The second meeting was on the 19th of May 2021 with the CEO of the Onerwal Land Council.

Through these meetings, we have been able to gather valuable connecting to country principles that are being integrated into the design process. Through the distribution of information that is shared through these meetings we are able to design across the relevant disciplines (Architecture, Landscape, wayfinding, signage, planning etc).

STRATEGY FOR DESIGN INTERGRATION

From the meeting with the CEO of the Onerwal Land Council the key points that are being developed as strategies are (which are shown in further detail in the appendix):

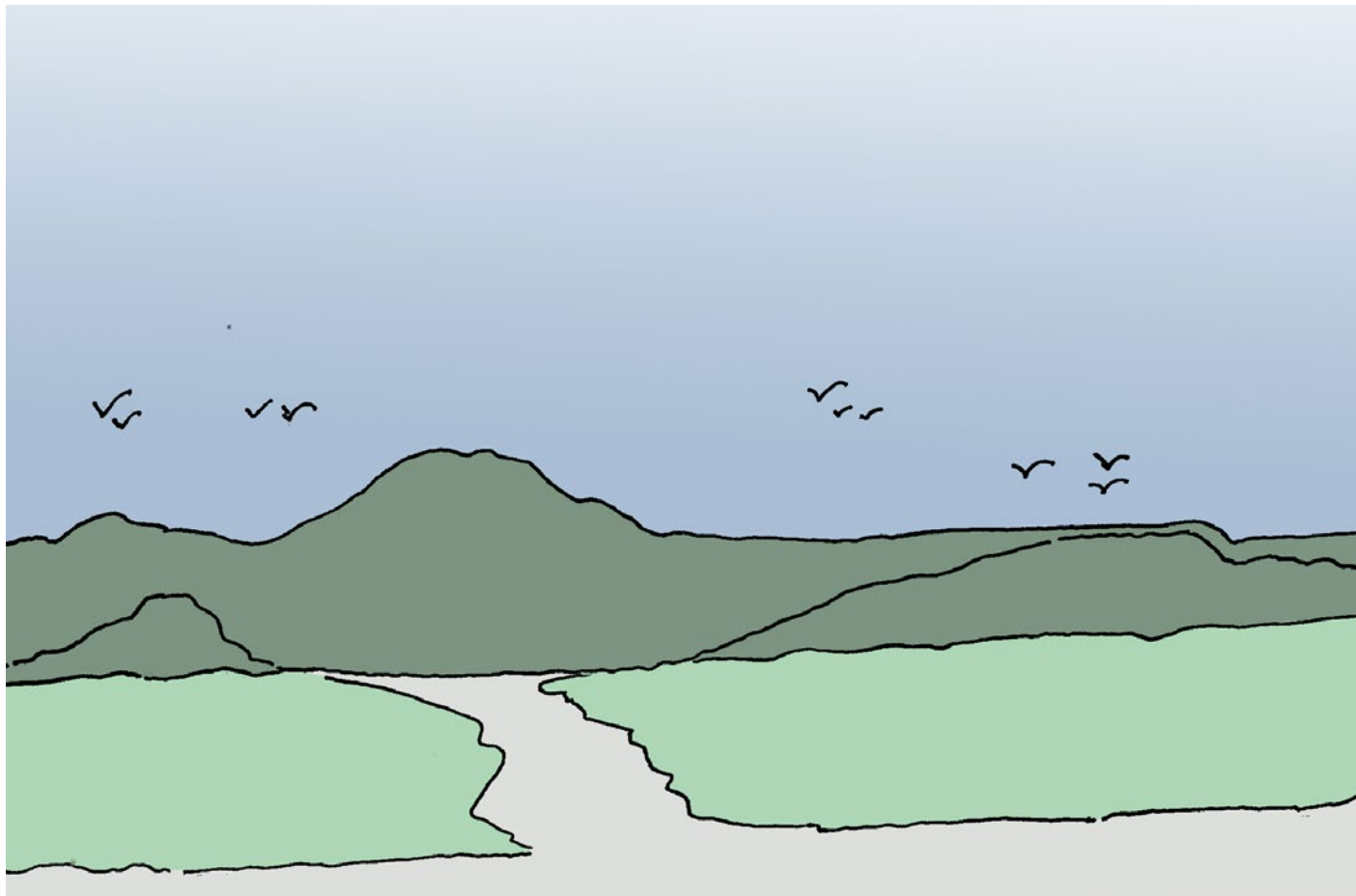
1. The site as a pathway
2. The use of Ngunnawal language through the school
3. Children learning from other children
4. A Ngunnawal "greeting" at the entry to the school
5. The use of the totem, which is the wedge tail eagle

IMPLEMENTATION OF KEY STRATEGIES

1. Through wayfinding, signage and functional layouts the school is established as a community hub. If a shared-use agreement is established the hall and carpark and sports courts are co-located to allow for good community address.
2. The landscape design in collaboration with the architectural design proposes pathways that weave into and through the site, connecting the key functional spaces, within the landscape.
3. Through collaboration with the wayfinding, signage, landscape, ESD and architecture the school will educate students in connecting with country,
4. The architectural landscape will implement colour, site planning and landscape to integrate the information we gather through these collaborative processes.
5. Arrange for continued collaboration in the process to ensure that connecting to country occurs not only in the finished design but in the design and construction process (for example, supporting a smoking ceremony on the site before construction where stakeholders and other schools may attend to learn about country).

DESIGN PRINCIPLES

3



CONNECTION TO THE LANDSCAPE - PATHWAYS

On site with the CEO of the Onerwal Land Council there was a discussion about the nature of the sites context. This locality is in between places likely passed through by the Aboriginals in the area. The location is a 'pathway'.

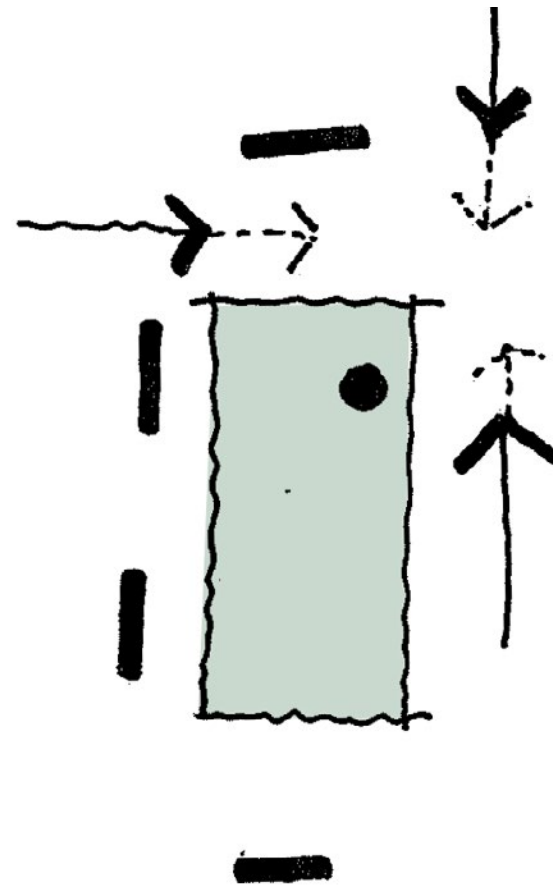


CONNECTION TO THE FLORA

In the first consultation, the Schools Infrastructure representative commented on how the site currently has minimal native flora and noted the exposed terrain of the site. It was recommended to bring back the native flora, which in turn will bring the native fauna back to the site. It was stated that this will assist in achieving positive sustainable outcomes for the school.

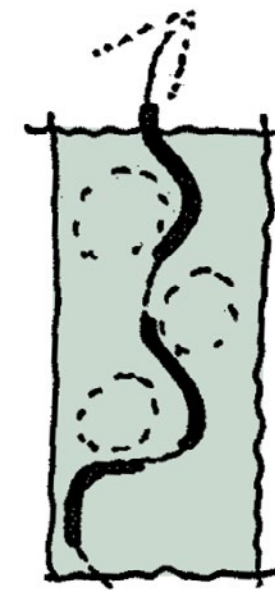
DESIGN PRINCIPLES

URBAN DESIGN



CONNECTING TO CONTEXT

- The built form located and orientated on the site is to consider and respond the context (Murrumbateman commercial precinct and surrounding residential neighbourhood)
- Built form addresses the streetscape
- The north-eastern corner has been identified as an urban marker
- Proposed 2 storey scale respects the scale of the surrounding built form



CONNECTING TO SITE

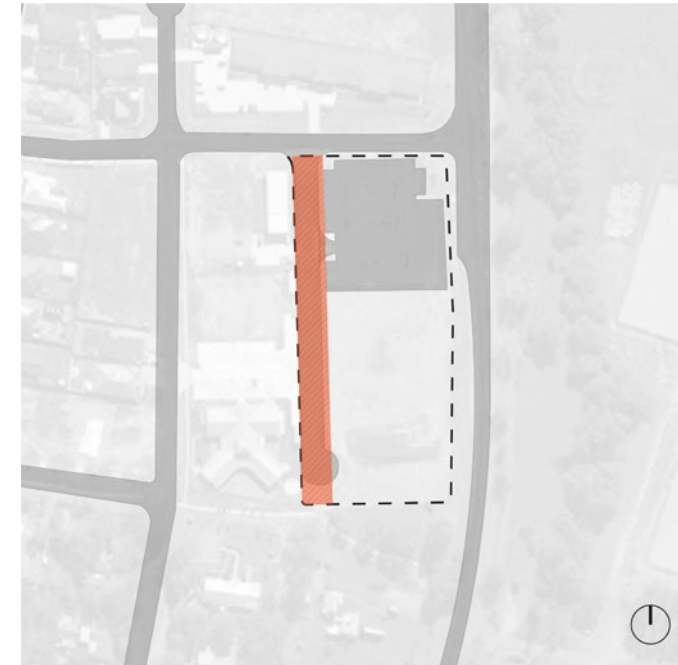
- The site has a constrained curtilage with limited access available from the north and southern boundaries
- The terrain levels rise up towards the southern boundary with adjacent existing large trees
- A rectangular site with a single point for vehicular access from the northern boundary
- Vehicular access required for the health club carpark to the north-west corner of the site
- Pedestrian and equestrian pathway near southern boundary

DESIGN PRINCIPLES

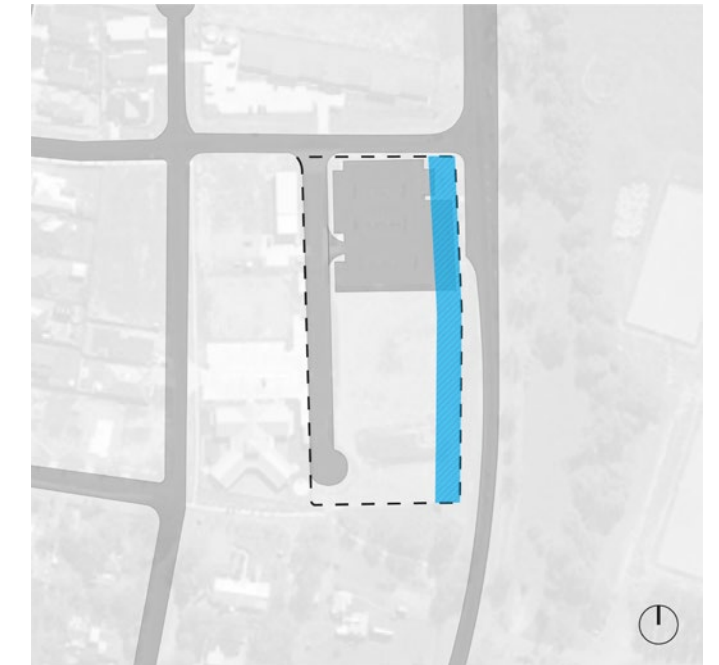
SITE PLANNING PRINCIPLES



Extending the southern landscape corridor into school site. Open playspace to the centre of the site for acoustic and visual separation from the neighbouring context and passive surveillance of the students from staff.



Buffer required for visual separation of buildings, privacy and acoustics to neighbouring commercial facilities.



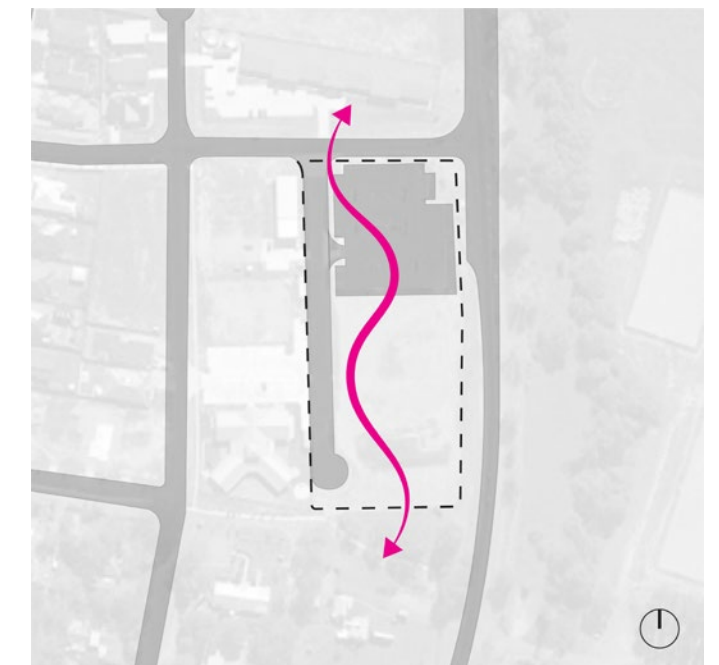
Pedestrian entry off Barton Highway not safe. Acoustics need to be considered on the sites eastern edge.



Existing carpark on the school site addressing Fairly Street. Vehicle access is only feasible from this road.



Southern and northern pedestrian access. Southern entry facilitates bicycle entry for existing cycle path.



Murrumbateman area has been so far noted by the CEO of the Onerwal Land Council as a place that was travelled through by several Aboriginal clans.

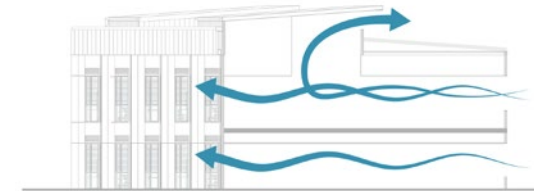
DESIGN PRINCIPLES

ESD

The following ESD principles have been developed with Steensen Varming. They outline the ESD principles that have been incorporated into the proposed design. In addition to the principles shown right the installation of solar panels and the reuse of rainwater have been incorporated into the proposal.

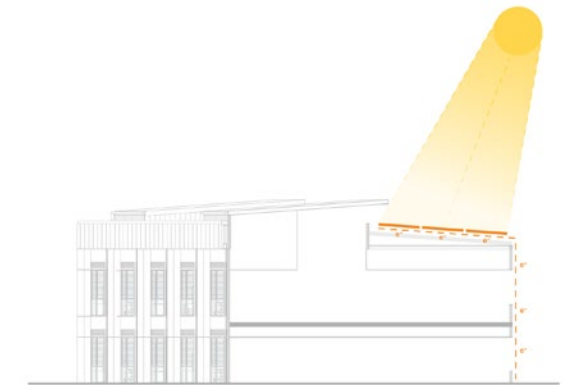
NATURAL VENTILATION

Natural ventilation, which provides good air quality and passive cooling to be achieved through the integration of operable windows and room layouts that ensure cross flow of air movements in rooms.



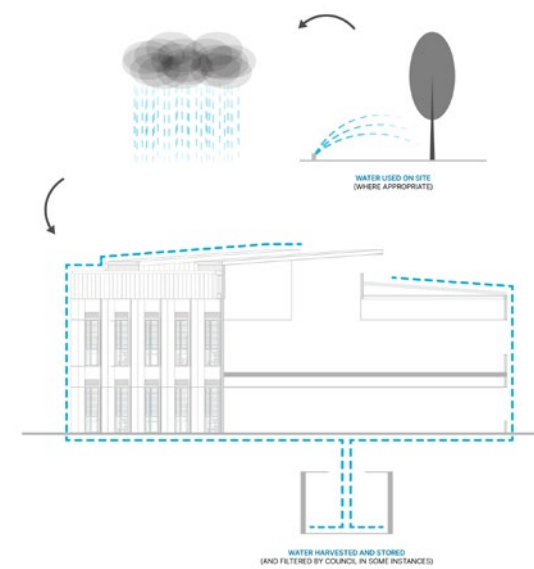
SOLAR HARVESTING

Installation of solar panels on the roof of the proposed school to supplement power supply.



WATER HARVESTING

Water sensitive urban design principles are to be adopted, including the capture and reuse of rainwater. Through a stormwater drainage plan, site water will be captured and stored in rain water tank/s for reuse where appropriate. Please see hydraulic engineers (NDY) documentation for more information.



REDUCING HEAT ISLAND EFFECT

Consider high solar reflectance index materials; playing court and car park surface; provide vegetation; provide shade with vegetation and external shading elements within the architectural design.



4 DESIGN PRINCIPLES

CRIME PREVENTION

CPTED consists of four (4) universal design principles which are aimed at assessing crime risk and reducing preventable risk before a development is approved. The proposed development has been designed having regard to the CPTED principles.

TERRITORIAL RE-ENFORCEMENT

The Site has frontage to the public domain on Fairley Street to the north; The Barton Highway, east; and the pedestrian/landscape corridor south. The primary entry is accessed off an internal driveway off of Fairley Street with the secondary entry through the southern pedestrian/landscape corridor. The site is fenced in accordance with the SINSW security (SSU) requirements therefore delineating ownership and access. The entry points are clearly defined by built form and signage and encourage access to the site through controlled points. The main entry is located on Fairley Street

SURVEILLANCE

The principles relating to surveillance relate to spaces in public areas where people can see and interact with others. The proposal, with its clear circulation paths, promotes strong natural surveillance of both the public domain and the interior of the site. During weekend and after-hours periods, the site will be secured with site fencing and the buildings will be fitted with a Back to Base Alarm System. Further, the external lighting for night-time crime deterrence will be designed to the relevant Australian Standard & SSU requirements.

ACCESS CONTROL

The proposed development proposes to utilise fencing to all boundaries, with gates to provide access control. Fencing around the boundary of the site will not restrict surveillance opportunities and will be constructed of optically permeable materials in accordance with EFSG.

SPACE/ACTIVITY MANAGEMENT

The proposed development achieves this through the design of buildings orientated to the exterior of the site and the promotion of interior open spaces protected from the public domain. During school operation, the students will be contained generally to the interior of the site. Graffiti resistant materials will be used wherever practicable to assist in removal.

DESIGN PRINCIPLES

4

EXTERNAL LIGHTING STRATEGY

Key Considerations for External Lighting

AS 4282:

- Light falling on surrounding properties
- The brightness of luminaires in the field of view to nearby residents
- Glare to users of adjacent transport systems
- Effects of astronomical observations

Control of Effects:

- Level of lighting
- Times of operation for proposed lighting
- Type of lighting technology

CPTED:

- Ensuring correct categorisation of areas
- Ensuring robust quality fittings
- Ensuring compatibility with security

Legend

Target 80-300

Target PA1, 21 LUX HORIZONTAL (1158.3.1-2020)

Target PCD, 14 LUX HORIZONTAL (1158.3.1-2020)

Target PC3, 3.5 LUX HORIZONTAL (1158.3.1-2020)



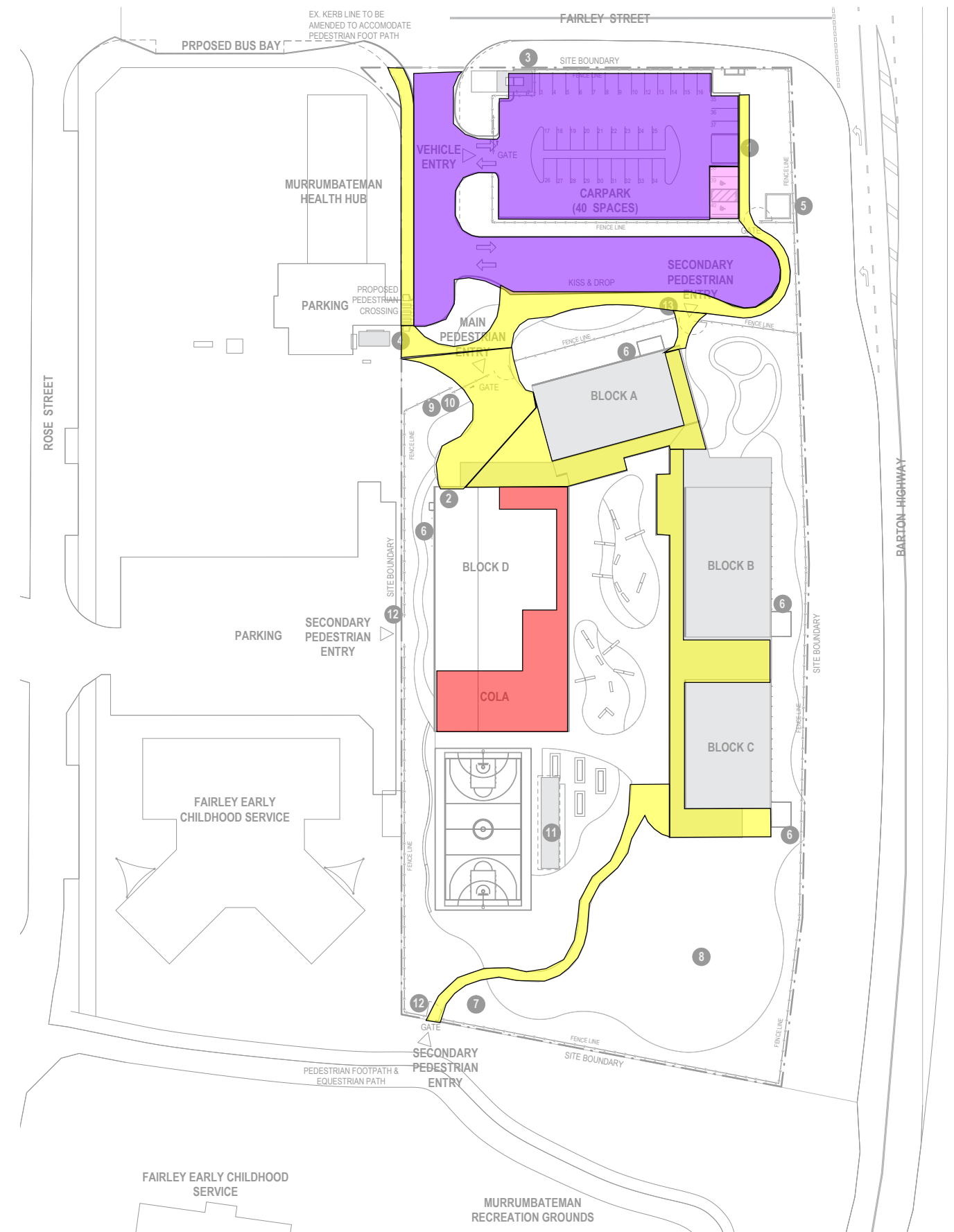
Design Objectives:

The implementation of a new exterior lighting design will be in accordance with the following Australian Standards:

- AS/NZS 1158:2005 Lighting for the roads and public spaces and,
- AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.

The design will consider surrounding properties and residents and work to mitigate the negative effects of this through careful and considered selections of luminaires and control strategies, appropriate lighting levels and lighting locations.

The new exterior lighting system will also consider crime prevention and work to eliminate cause through the implementation of correct lighting categorisations, and a cohesive lighting system with robust luminaires that is compatible with security system requirements.



Source: Norman Disney & Young

5 ARCHITECTURE

OPTION ANALYSIS

Options - Design Verification and Concept Design

The following options were developed for the masterplan in collaboration with the traffic consultant to assist in the development of their traffic impact assessment and for the purpose of consultation with council.



OPTION A

This option proposes an off site kiss and drop on Rose Street to the west of the site. The main entry and the administration building address Fairley Street to the north with a secondary entry from the sites south. The SELU, library and homebase buildings address The Barton Highway to the east, for acoustic separation and privacy to the outdoor playspace. The hall is located for direct access to the carpark. Part of the existing road on the school site is demolished in this option.



OPTION B

This option positions the hall and sports court directly to the carparks east. Kiss and drop is located off-site on Rose Street, with the existing road on the school site remaining as a potential kiss and drop. The main entry, administration and library/SELU/staff address the existing western roadway, there is a proposed secondary entry from the sites south. The two home base buildings are on the sites east, adjacent to the hall for acoustic separation and privacy for the outdoor playspace.



OPTION C

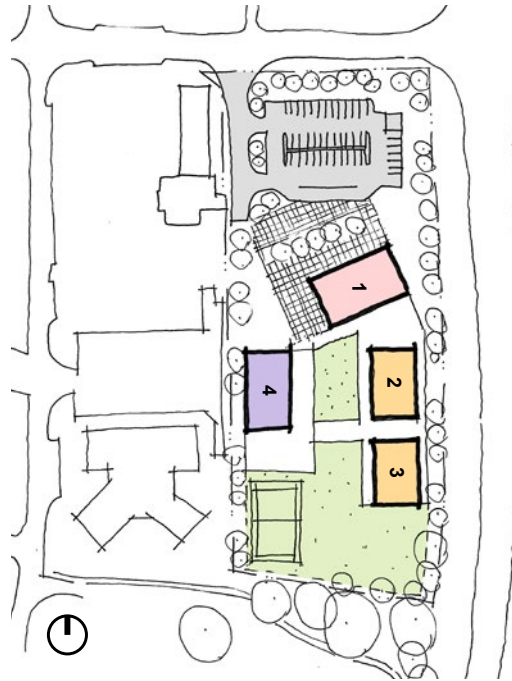
The southern portion of the existing road on the school site is demolished, with the kiss and drop proposed off-site on Rose Street. The hall is located on the western boundary. The main entry is from the north between the SELU/library and administration buildings with a proposed secondary entry from the sites south. The homebase buildings are located on the sites eastern boundary.

5 ARCHITECTURE

OPTION ANALYSIS

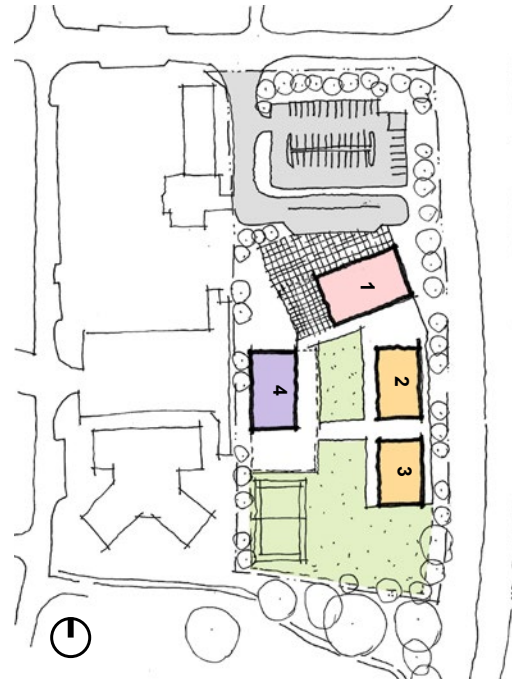
Options - Design Verification and Concept Design

The following options were developed for the masterplan in collaboration with the traffic consultant to assist in the development of their traffic impact assessment and for the purpose of consultation with council.



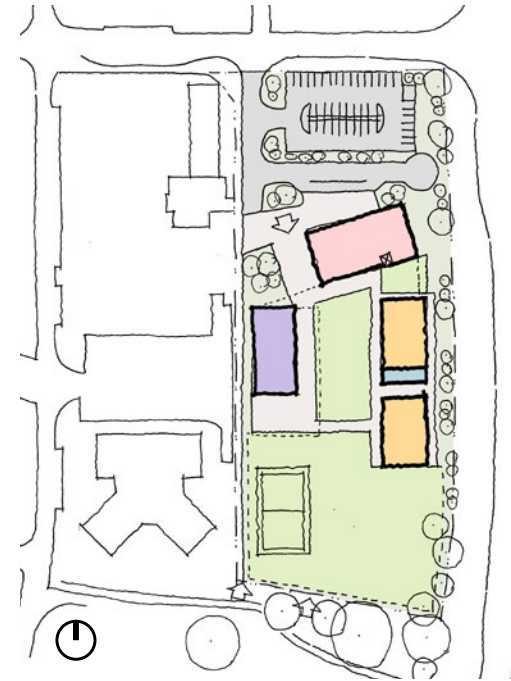
OPTION D

This option proposes using the existing carpark as a combined staff car park and kiss and drop. The southern portion of the existing roadway on-site is demolished. The administration/staff/library building (Building 1) is located to the sites north, adjacent to the kiss and drop. The hall (building 4) is located on the western boundary. The homebases (buildings 2 and 3) address the eastern boundary (The Barton Highway). The outdoor playspace is to the sites south, connecting with the existing landscape.



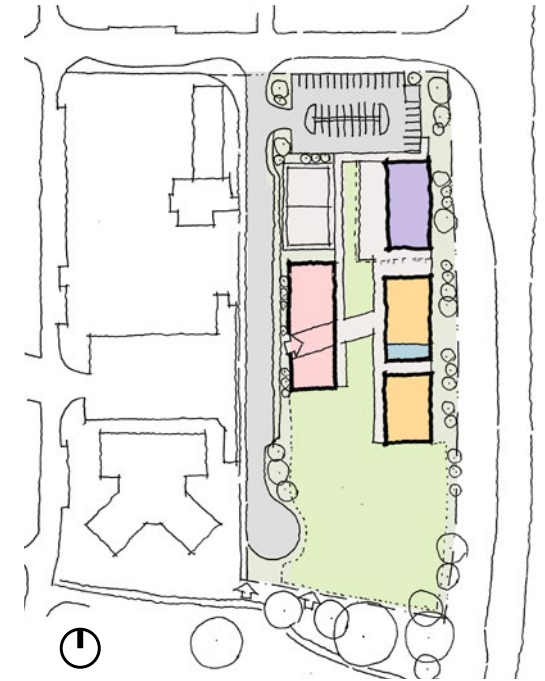
OPTION E

The building footprint in this option remains as per option D. A separate roadway is provided for the kiss and drop to the south of the existing carpark.



OPTION F

The kiss and drop is located north of the school running east-west adjacent to the existing carpark. The administration building and library (building 2) sit south of the carpark with the main entry to the buildings west. The hall (building 4) is on the western boundary and the homebases to the eastern boundary forming a buffer to the central outdoor playspace. The playspace is located on the sites south to connect with the tree-lined southern boundary.



OPTION G

This option retains the existing roadway on-site for the kiss and drop. The administration building and library (building 1) address this roadway. The hall (building 4) is located adjacent to the car park on the eastern boundary. The homebases (buildings 2 and 3) sit on the eastern boundary south of the hall.

5 ARCHITECTURE

OPTION COMPARISON

The design for the purposes of the Masterplan was undertaken by SHAC architects. HY, PA and the consultant team undertook a design validation review that resulted in some changes to the original design.

These changes came about through consultation with the client, which outlined the importance of screening the outdoor play space from the busy Barton Highway; connecting the open playspace to the existing landscaped corridor to the south of the site; and screening the open playspace from the existing and future commercial buildings on the western boundary of the site. We have located homebases Blocks B and C to the eastern boundary buffering the open playspace from The Barton Highway. The Hall (Block D) sits on the western boundary creating a buffer from the existing commercial premises to the open play space whilst allowing ease of access from the primary pedestrian entry and vehicular drop off point.

These changes to the Blocks B, C and D locations required the administration, staff, and library programs to be relocated (Block A) as the urban marker for the school. The administration building and hall remain as the boundaries of the primary entry point of the school with the positions reversed. The Special Education Learning Unit has been moved to provide direct access to the kiss and drop. The traffic engineer has reviewed the transport infrastructure and arrived at the current plan that is similar to the original design. The bus bay is located on Fairley Street. The existing car park is retained although the footprint is reduced. The kiss and drop is located adjacent to the car park and main entry given the limited on street opportunities.



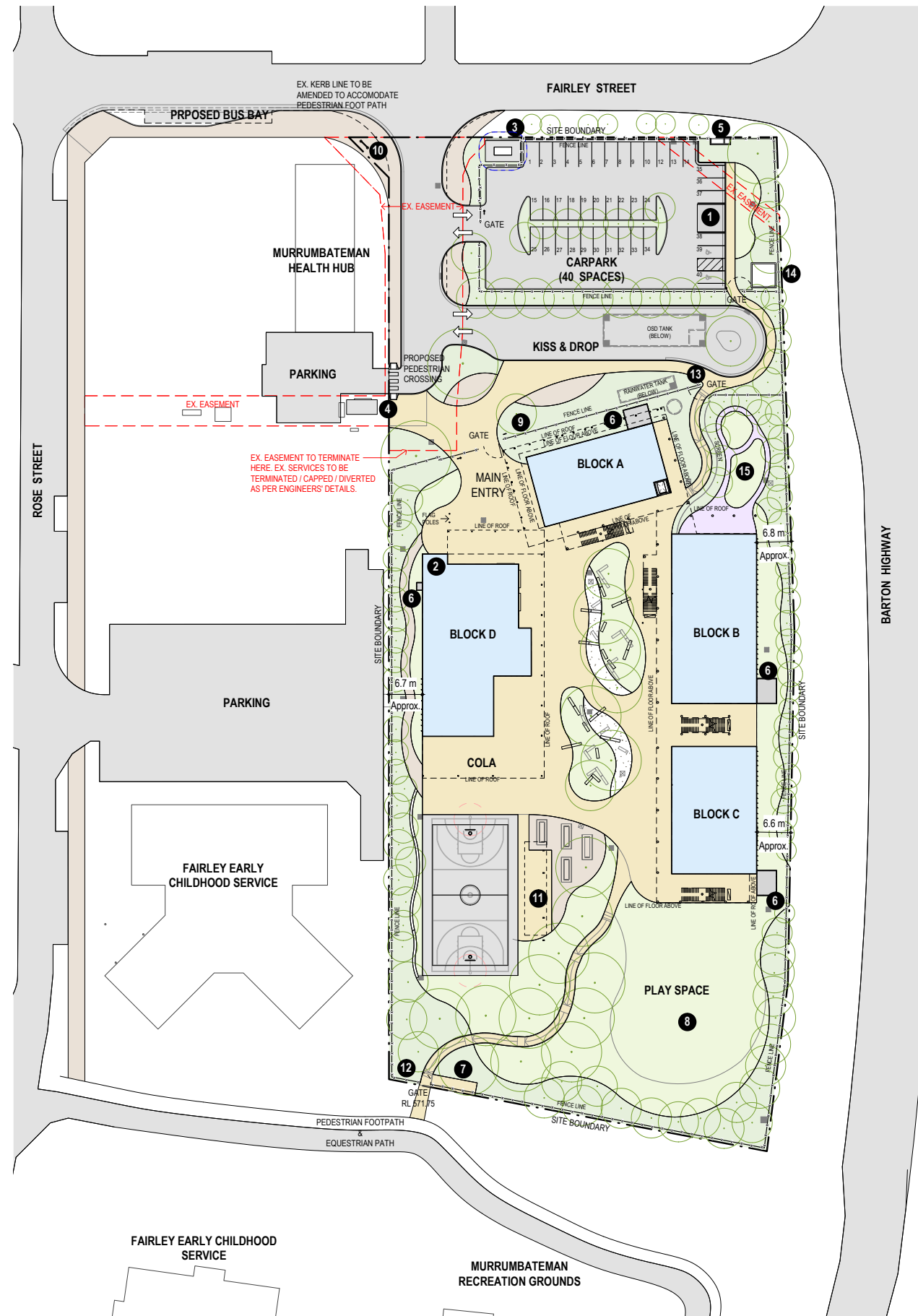
PREVIOUS SITE PLAN (SHAC)



PROPOSED SITE PLAN

5 ARCHITECTURE

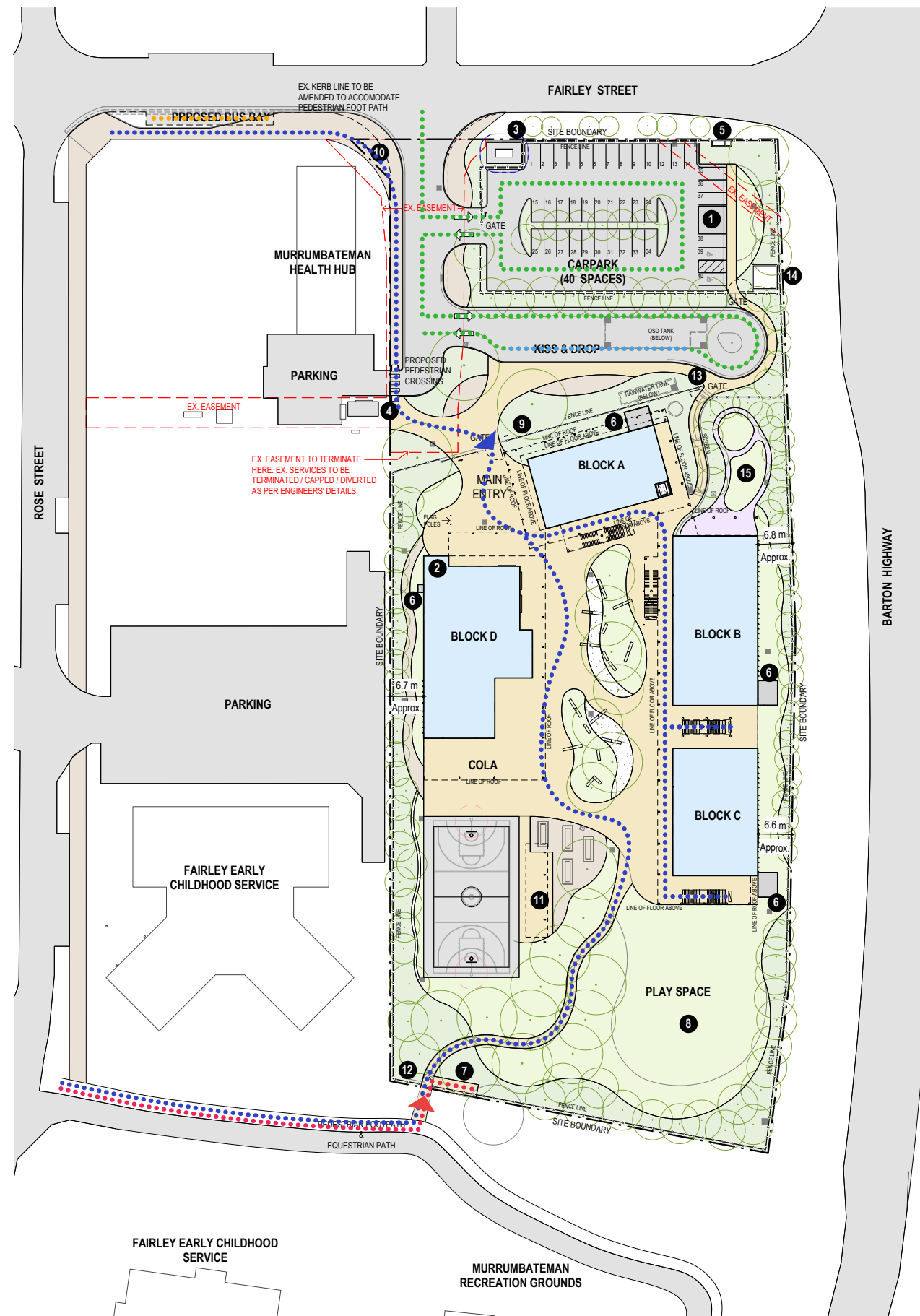
MASTERPLAN



5 ARCHITECTURE

CIRCULATION DIAGRAM

Main Entrance	
Secondary Entrance	
Pedestrian	
Bicycle	
Vehicular	
Bus & Accessible Drop-Off	
Kiss and Drop	



5 ARCHITECTURE

LANDSCAPE MASTERPLAN

The proposed landscape site plan shown on this page forms a part of the documentation submitted by Taylor Brammer. Please refer to the Landscape Report for more information and design rationale. This proposed landscape plan was developed in collaboration with the architectural scope, site narrative, ESD, wayfinding and signage designs.



5 ARCHITECTURE

DESIGN STATEMENT

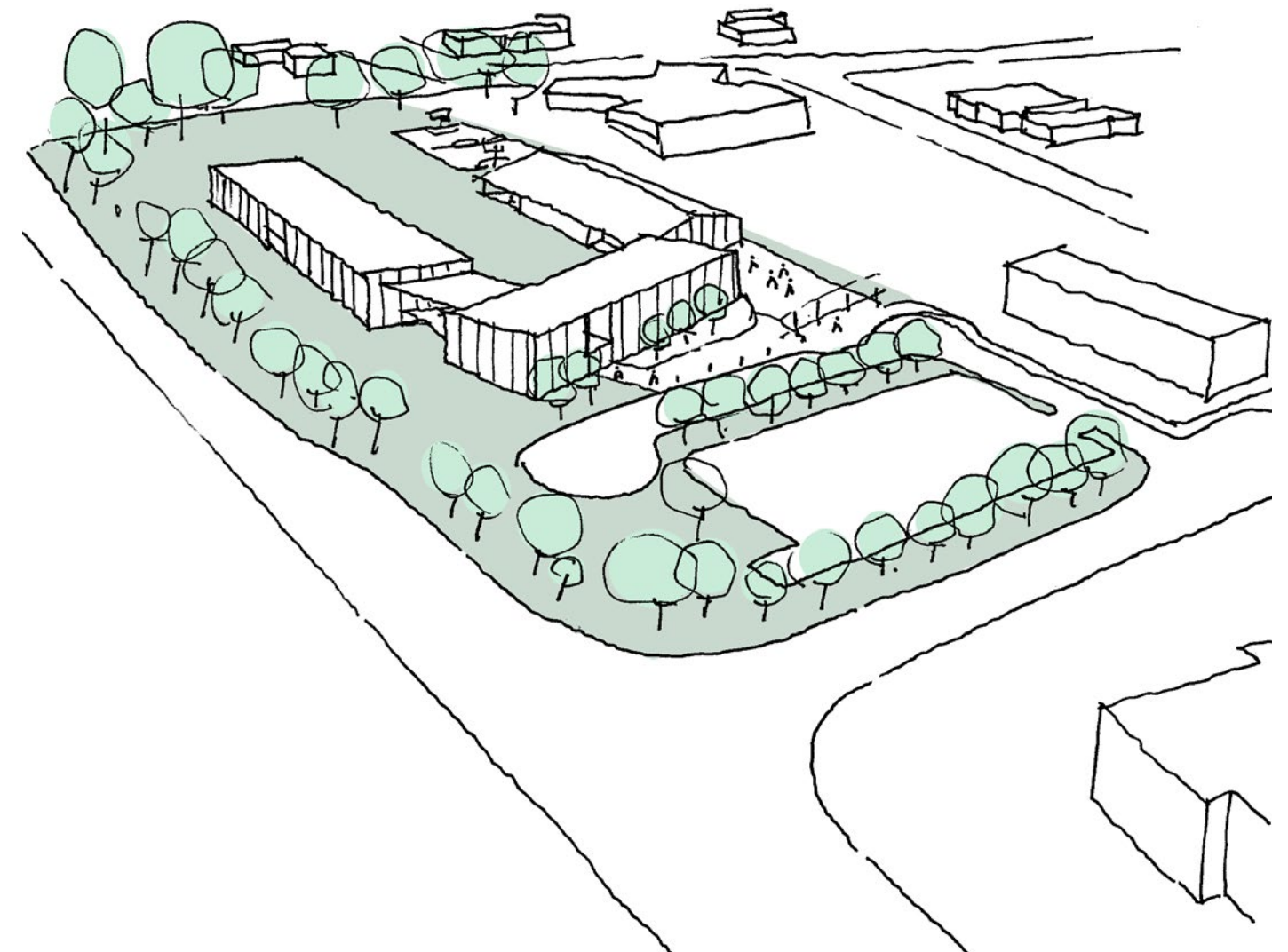
The new primary school in Murrumbateman is located within the traditional lands of the Ngunnawal People. The school is located adjacent to commercial development in a new area of development 300m north of the centre of Murrumbateman.

The site narrative has been developed in collaboration with the consultant team to bring together the natural environment; surrounding landscape; immediate adjacencies; the Aboriginal history in the area; the topography; and the existing pedestrian and vehicular circulation passages. These elements inform the landscape design, wayfinding approach and the material palette selected for the school. The colour palette for the materials and finishes are inspired by the regional landscape, this is described later in this report.

The arrangement of the built form on the site addresses Barton Highway to the east; and creates a buffer to the open playspace. The hall occupies the western edge of the site and similarly shields the playspace from the adjoining commercial development; and addresses the kiss and drop on the northern edge. This horseshoe configuration allows the outdoor playspace to nest in between the buildings and spread out to the south. The southern end of the outdoor playspace connects to the existing green landscape and pedestrian network. The proposed separation between buildings, provides cross site views, natural ventilation, and daylighting. Wrapping

around the inside of the horseshoe is a continuous undercover walkway that connects the four buildings.

The Administration, Staff and Library (Block A) is the urban marker for the school located adjacent to the kiss and drop at the northern end of the site. The main pedestrian entry is bounded by Block A and the Hall (Block D), which form a funnel into the school's interior. These two programs as urban markers and boundaries for the main entry allow for appropriate passive surveillance and suitable public access to the hall and reception (Blocks D and A respectively). The proposed homebases (Blocks B and C) sit on the site's eastern boundary addressing the Barton Highway while buffering the outdoor play space from it. The outdoor playspace form a spine running north-south through the school, appropriately screened from the neighbouring context while providing connection to the existing open green spaces and pedestrian/equestrian passageway to the south. The spatial arrangement of Block D, the C.O.L.A and Canteen provide a direct connection to the outdoor playspace and clear visibility for teacher surveillance. The mechanical plant areas have been appropriately screened and located away from the outdoor play spaces.



5 ARCHITECTURE

SITE PLANNING AND MASSING

The site planning incorporates feedback from key stakeholders and the design principles outlined in this report. The proposed site layout has responded to the contrasting dynamics that exist on each boundary. The arrangement of building form has been developed through collaboration with Taylor Brammer, the landscape architects for the project.

- The eastern boundary is shared with the road reserve for the Barton Highway. The homebases are proposed parallel to this boundary, setback from the boundary to allow a landscape buffer. This locality for the Blocks B and C provide an acoustic and safety buffer to the outdoor play space, which is located centrally and to the south of the site.
- The southern boundary addresses the pedestrian/landscape corridor. The built form has been kept clear of this zone so as to contribute further to the landscape and pathways in the design of the playspace to the south (see proposed landscape plan).
- To the western edge are commercial developments. An appropriate setback is proposed with some hard and soft landscape proposed in the building setback zone. The hall has its back to this edge addressing the central playspace, creating a privacy and acoustic buffer for the commercial developments and the school.
- To the north is Fairley Street, which is the vehicular access road. The proposed carpark utilises the existing carpark, with some changes to create a kiss and drop that the Main entry to the school addresses.
- The proposed building heights for the school are one and two storey, responding appropriately to the scale of the buildings in the immediate context.



Refer to Architectural Fence Plan for details on the fenceline that is not displayed in the following visualisations.

5 ARCHITECTURE



Elevation: North (NTS)

STREETSCAPE ELEVATIONS

The following streetscapes illustrate the scale of the proposed works within the neighbouring context.



Elevation: West (NTS)



Elevation: East (NTS)

5 ARCHITECTURE

STREETSCAPE ELEVATIONS

The following streetscapes illustrate the scale of the proposed works within the neighbouring context.



Elevation: North (NTS)



Elevation: South (NTS)

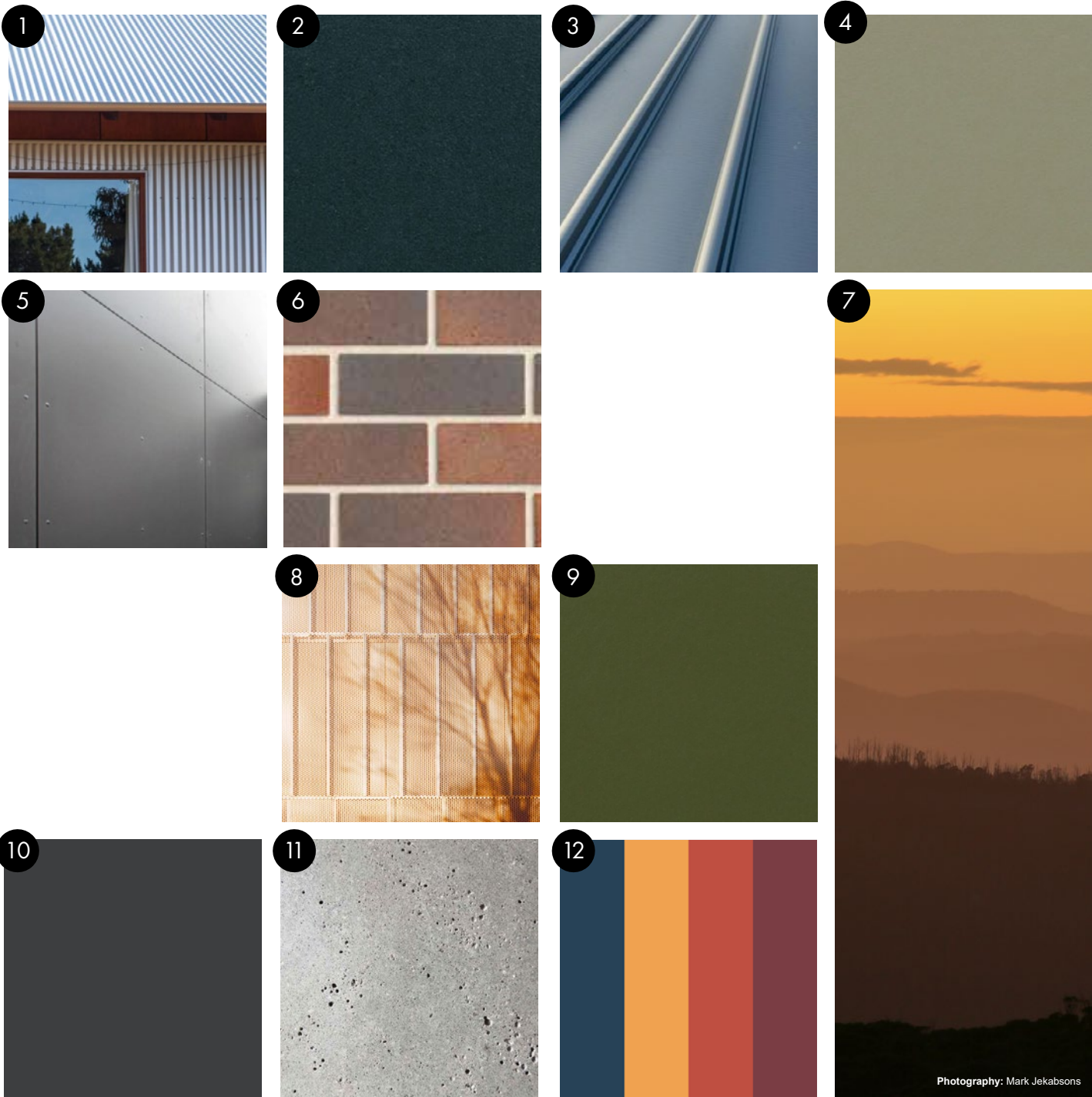


5 ARCHITECTURE

MATERIAL PALETTE

The colours and textures in this material palette are desaturated tones, drawing on the inspiring surrounding landscape and Connecting to Country (See connecting to country design principles). The palette also looks to integrate with the wayfinding, signage and landscape proposals. In regards to Environmentally Sustainable design, the roof will be light colour to achieve low solar absorbency and materials will be selected that are durable and require low maintenance. Brick has been selected for the hall to respond to the surrounding built context and the earthy tones that are found in the landscape.

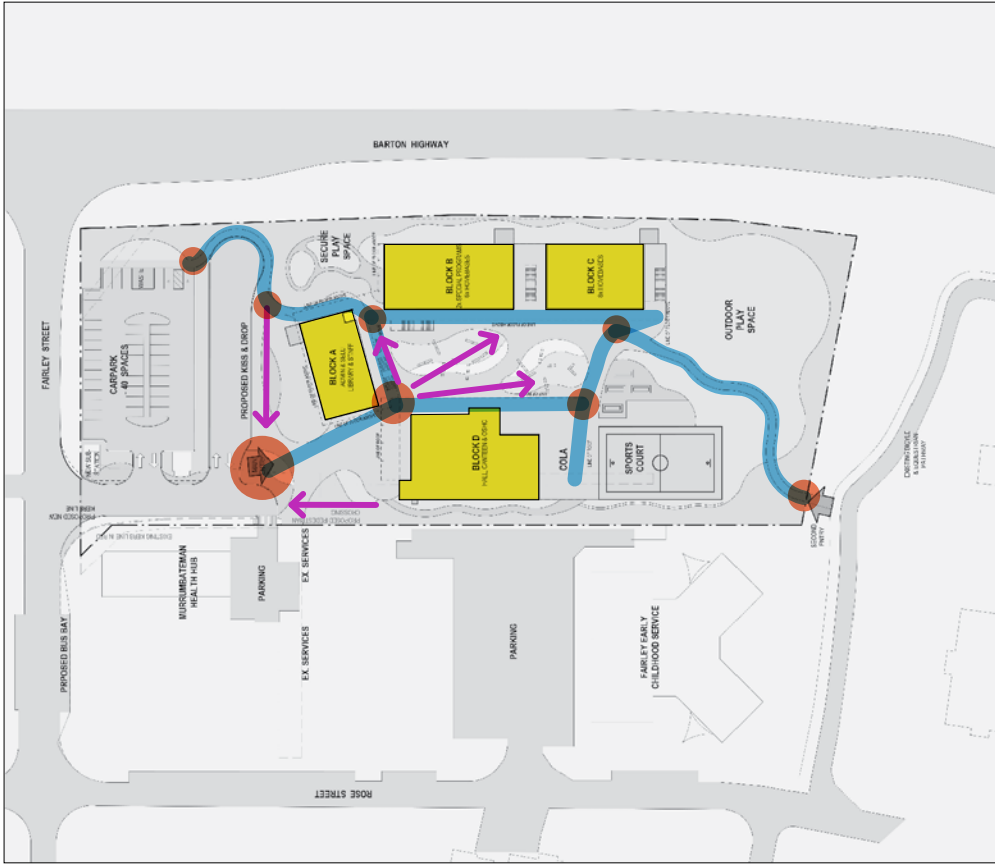
- 1. Metal Roof/Wall Cladding - Custom Orb
- 2. Cladding Accent Colour - Prefinished CFC
- 3. Roofing - Colorbond
- 4. Cladding Accent Colour - Prefinished CFC
- 5. Cladding - General - Prefinished CFC
- 6. Dry Pressed Bricks
- 7. Locality
- 8. Metal Mesh Screening - Powdercoated
- 9. Cladding Accent Colour - Prefinished CFC
- 10. Glazing - Monument
- 11. In-situ Concrete Paving Colour
- 12. Sunshade Colour Selection



WAYFINDING AND SIGNAGE

The proposed wayfinding and signage strategy by Working Images shown here was developed in collaboration with Pedavoli Architects and Taylor Brammer.

Please see architectural drawing set where the main identification signs are shown for SSDA approval are shown. The wayfinding design and signage strategy are shown here to display the integration of visual communication with the site principles to achieve a holistic site strategy.



Note: site plan is indicative only. Final locations to be confirmed with resolved site plans.

1.0 SITE ANALYSIS: Circulation and nodal points

The above diagram identifies **Circulation Pathways**: tracing the movement of users throughout the site, **Nodal points**: highlighting the intersection of circulation pathways and therefore the location of signage forms and according to the scale of the nodal point and the level of information required, **Primary destinations**: which forms the basis for navigation throughout the site and **Primary site lines**: which influences the location of Type 2 Block signage and Entry signage. These four factors will guide the location and development of a signage system.

Circulation pathways
Nodal points: Primary / Secondary / Tertiary
Primary destinations
Primary site lines

Source: Working Images

MURRUMBATEMAN PUBLIC SCHOOL WAYFINDING AND SIGNAGE
WAYFINDING STRATEGY

THE STRATEGIES ARE DRAWN IN RESPONSE TO THE SITE NARRATIVE, SITE CONDITIONS AND CONTEMPORARY WAYFINDING PRINCIPLES

TYPE1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6	TYPE 7	TYPE 8
ENTRY BOLLARD	BLOCK SIGNAGE	DIRECTIONAL PLINTH	DIRECTIONAL BOLLARD	DOOR SIGNAGE	FLOOR NUMBERS	SUPER GRAPHICS	IDENTIFICATION SIGNAGE
IDENTIFICATION	IDENTIFICATION	DIRECTIONAL	DIRECTIONAL	IDENTIFICATION	IDENTIFICATION	ARTWORK	IDENTIFICATION
Supports the clear identification and branding of the school at main entry visible on both approaches.	Supports the clear identification and branding of school blocks visible from the central grounds within the school.	Ensures provision of high level information supporting navigation to and from primary destinations within the site.	Ensures provision of detailed information supporting navigation to and from secondary destinations within the site if required.	Signage system that supports the clear identification of classrooms detailing the floor level and room number.	Signage system that supports the clear identification of floor levels in each building adjacent to vertical circulation.	A range of site specific large scale graphics that contribute broadly to the site aesthetics and amenity and specifically to learning and placemaking.	Signage system that supports the clear identification of destinations throughout the site.
2800mm x 630mm x 150mm	1200mm x 600mm x 50mm	2000mm x 400mm x 50mm	1600mm x 150mm x 150mm	300mm x 150mm	2000mm x 600mm	2700mm x 8000mm	200mm letter height
2 x sided sign form comprising 3 x vertical panels 50mm depth featuring a graphic abstract leaf pattern. Panels and graphics to be durable powder coated paint finish. The 2 outer panels have different colours to the front and reverse faces. Dimensioned lettering to the front and reverse sign faces from 10mm aluminium finished in durable powder coated paint finish. Engineering and footing details to be resolved.	1 x sided sign form with graphics to face that may wrap around the corner of a building. Sign face as 3mm aluminium sheet finished with durable powder coated paint finish with concealed fixing to SHS galvanneal frame. Dimensioned lettering in 10mm aluminium finished in durable powder coated paint finish.	2 x sided sign form with graphics to front and reverse faces. Sign face as 3mm aluminium sheet finished with durable powder coated paint finish, concealed fixed to internal 60mm SHS galvanneal frame. Graphics to sign face with clear protective coating over to seal. Engineering and footing details to be resolved.	Square, 2 x sided sign form with graphics to front and reverse faces. Bollard to standard SHS post finished with durable powder coated paint finish. Graphics to sign face with clear protective coating over to seal. Directional text to meet EFSG SG-581 minimum size compliance 15mm. Engineering and footing details to be resolved.	A Fixed Room Identification as per AMS System and B. Variable Room Identification compliant with EFSG SG-581. Sign forms mechanically fixed to wall or glazed surface. Graphics to sign face with clear protective coating over to seal.	1 x sided sign form with graphics to front face only. Letters to be cut from 6mm aluminium, finished with durable powder coated paint finish. Base plate mechanically fixed to wall surface with sign face mechanically fixed to base plate.	Graphic to be digitally printed die sublimation to synthetic wallpaper product such as 3M. Require drops in 1200 or 1500mm width to full heights of walls. Require means to conceal ends of graphics to avoid lifting or picking.	1 x sided sign form. Dimensioned lettering from 10mm aluminium, finished with durable powder coated paint finish, mechanically fixed to wall.

1.1 SIGNAGE REQUIREMENTS AND SPECIFICATION: SCALE 1:50

1.2 THE WAYFINDING STRATEGY

PRIMARY OBJECTIVES: The primary objective for the wayfinding is to facilitate the autonomous navigation and movement throughout the site of a range of users supporting a positive visitor experience.

USER GROUPS: The signage will support a range of user groups comprising students, parents, staff and broader community. It is expected that the requirements will be higher for first time visitors to the site and as familiarity increases with subsequent visits the dependence upon information and signage will decrease.

CIRCULATION AND NODAL POINTS: A range of circulation pathways are evident within the site typically tracing the movements from a number of entries to a range of key destinations. As the school site contains no through vehicular access the signage will preference pedestrian movement and, where relevant, guide visitors through the site from designated car parks. A high reliance on directional information (to/from destinations) is typical at circulation nodal points which are characterised by: 1. transitions between spaces and zones: ie public/school & internal/external, 2. transition between transport modes: ie vehicular/pedestrian, and 3. at the intersection of circulation pathways. To support good site navigation a range of signage is required that accommodates a range of varying types and scale of information providing clear

identification of destinations throughout the site and the movement between them. Primary site lines are noted in the heart of the school grounds and main entry that will guide location of entry signage and situation of high level block signage.

INTEGRATED SIGNAGE SUITE: A draft, functional signage suite is detailed above that responds broadly to the site narrative and to the specific site conditions. The suite consists of a set of scaled forms, categorised as either directional or identification, that respond to the identification and navigation to and from a range of primary and secondary destinations.

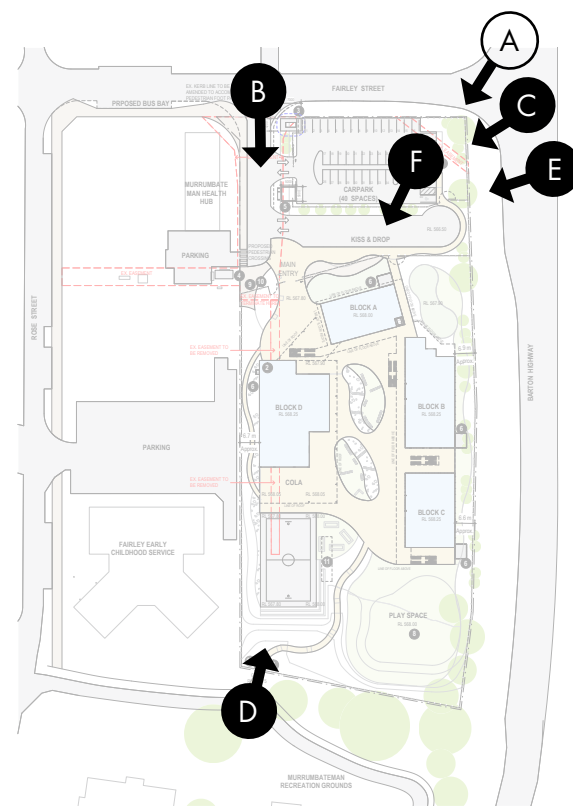
MATERIALS, AESTHETICS AND FORM: Whilst the design of signage satisfies primarily functional requirements and will preference the autonomous navigation of visitors throughout the site, it is important also that the signage respond to the architectural, material and spatial scale and consider this in its design, materiality and construction. The signage will importantly contribute to the sense of place and strengthen the site narrative.

BRAND AND SIGNAGE: A secondary though important function of a signage system is to appropriately brand the site. At a basic level this means the clear representation of the school brand but also to reflect the aspirations, character and positioning of the school through its design. This will be further developed with user groups.

6 VISUALISATIONS & STREETSCAPES

3D VISUALISATION

The proposed design balances the built form and landscape to create a positive setting that is in keeping with the local context. The built form is articulated to provide visual relief; clarity to the entry point; proportion; and openings for the necessary passive design principles. The main entry is established by the acute angled junction between blocks A and D, which draw you into the schools interior via the administration unit that provides visitor/student support and the necessary passive surveillance upon arrival. Block A is the urban marker for site, established through its site placement; materials; finishes and its functional programs that attend to the requirements of a student, teacher and visitor (Administration unit, staff unit, SELU and library). The main entry touch-point is supported further through specific wayfinding designs and landscape design.



6 VISUALISATIONS & STREETSCAPES

3D VISUALISATION



DESIGN 7 VERIFICATION

GFA

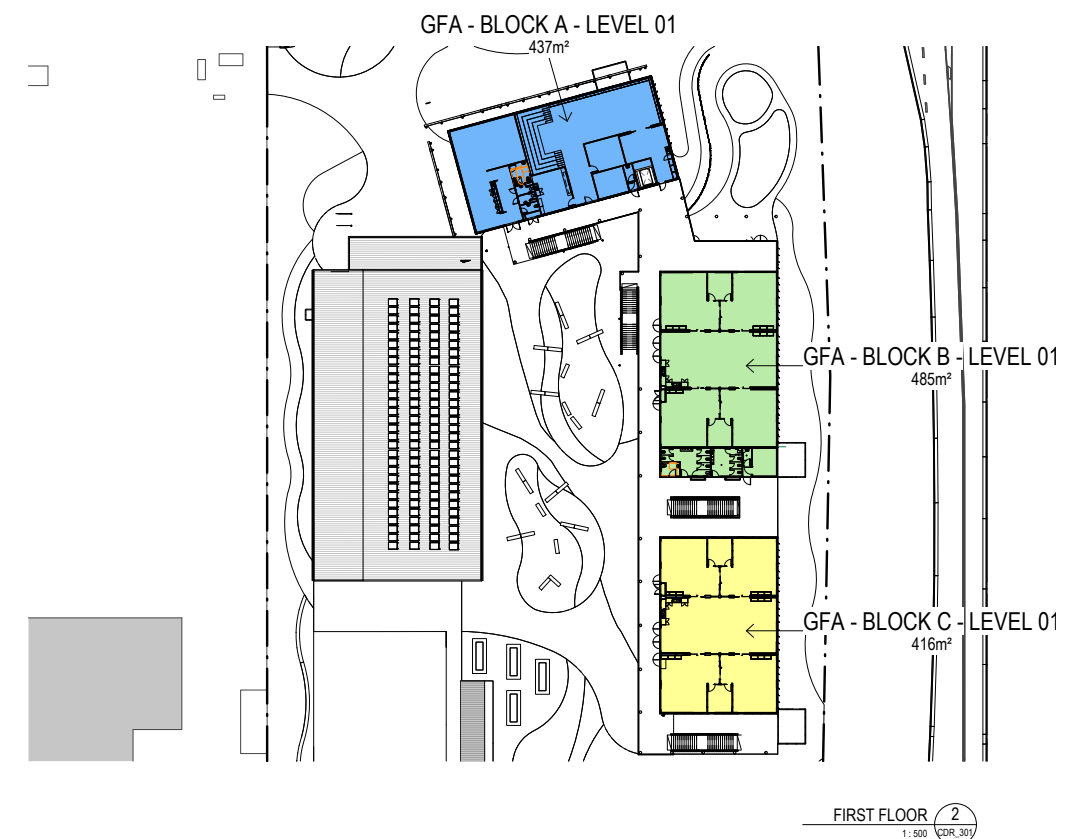
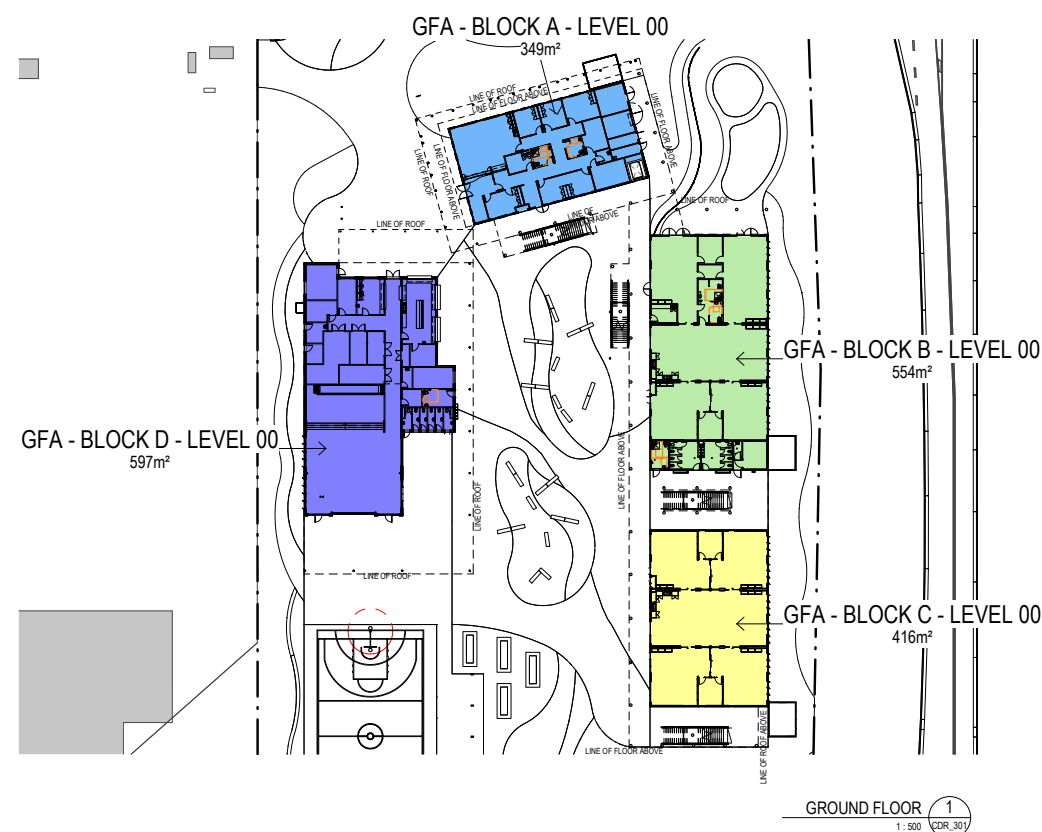
GFA DEFINITION

Gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- The area of a mezzanine.
- Habitable rooms in a basement or an attic.
- Any shop, auditorium, cinema, and the like, in a basement or attic.

But excludes:

- Any area for common vertical circulation, such as lifts and stairs.
- Any basement, storage, and vehicular access, loading areas, garbage and services.
- Plant rooms, lift towers and other areas used exclusively for mechanical services or ducting.
- Car parking to meet any requirements of the consent authority (including access to that car parking).
- Any space used for the loading or unloading of goods (including access to it). Terraces and balconies with outer walls less than 1.4 metres high, and voids above a floor at the level of a storey or storey above.



GFA Definition: (LEP)

gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes—

(a) the area of a mezzanine, and

(b) habitable rooms in a basement or an attic, and

(c) any shop, auditorium, cinema, and the like, in a basement or attic,

but excludes—

(d) any area for common vertical circulation, such as lifts and stairs, and

(e) any basement—

(i) storage, and

(ii) vehicular access, loading areas, garbage and services, and

(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and

(g) car parking to meet any requirements of the consent authority (including access to that car parking), and

(h) any space used for the loading or unloading of goods (including access to it), and

(i) terraces and balconies with outer walls less than 1.4 metres high, and

(j) voids above a floor at the level of a storey or storey above.

GFA - BLOCK A	
BUILDING / LOCATION	AREA
GFA - BLOCK A - LEVEL 00	348.89 m²
GFA - BLOCK A - LEVEL 01	437.46 m²
	786.35 m²
GFA - BLOCK B	
BUILDING / LOCATION	AREA
GFA - BLOCK B - LEVEL 00	554.07 m²
GFA - BLOCK B - LEVEL 01	484.76 m²
	1038.82 m²
GFA - BLOCK C	
BUILDING / LOCATION	AREA
GFA - BLOCK C - LEVEL 00	415.76 m²
GFA - BLOCK C - LEVEL 01	415.86 m²
	831.63 m²
GFA - BLOCK D	
BUILDING / LOCATION	AREA
GFA - BLOCK D - LEVEL 00	597.03 m²
	597.03 m²

SITE AREA: 15434.92m²

GFA TOTAL: 3253.83m²

FLOOR SPACE RATIO: 0.21:1

DESIGN 7 VERIFICATION

COUNCIL PLANS AND STRATEGIES

The following state planning and local planning document are relevant for consideration for the planning of the new primary school in Murrumbateman as noted in the SEARS.

1. Barton Highway Improvement Strategy
 - a. One of the targets of this strategy is to improve the safety in Murrumbateman Village Centre.
 - b. Please see Transport Assessment by Ason Group (P1669) for more details on the schools relationship to the Barton Highway and the design response to it.
2. Yass Valley Council – Local Strategic Planning Statement.
 - a. We note the following Planning Priorities cited in the statement, which are being supported in this development through collaboration with our ESD and landscape consultants. Please see the EIS for further details in response to this item.
 - i. Priority 4: protect and conserve the natural

- environment, built and Aboriginal cultural heritage of Yass Valley.
 - ii. Increase Yass Valley's resilience to climate and natural hazards.

3. South East and Tableland Regional Plan 2017
 - a. This report has been noted and considered in light of the proposal.
4. Healthy Urban Development Checklist
 - a. Please see EIS by Mecone.
5. Yass Valley Settlement Strategy
 - a. Please see EIS by Mecone.

YASS VALLEY COUNCIL DCP

'Yass Valley Council Development Control Plan (DCP), Fairley Commercial Centre, Murrumbateman.' has also been reviewed and assessed in relationship to the development of this proposal.

For more information please see the EIS by Mecone.

DESIGN 7 VERIFICATION

DESIGN QUALITY PRINCIPLES

INTRODUCTION

This Architectural Design Analysis Report illustrates and describes the rationale behind the proposed design for the school. We have achieved design quality through site analysis; context analysis; briefing with the PRG and stakeholders; close collaboration with key consultants; and the testing of design options. The following policies and manuals are required to be addressed by the SEARS for their SSDA submission. These policies and manuals have been tested and applied throughout the design process to ensure the most suitable design outcome for the school is achieved for its time and context.

- State Environmental Planning Policy (Educational Establishments and Child Care Facilities (2017)
- Design Guide for Schools (GANSW) – ISSUE 02 PUBLISHED 2018
- Better Placed An integrated design policy of NSW
- Draft Greener Places Design Guide (GANSW) – ISSUE 03 PUBLISHED 2020 (please see Taylor Brammer’s Landscape Report and Documentation for a response to this Guide)
- Environmental Design in Schools Manual (2018)
- Please See ESD SSDA Report by Steensen Varming, which responds to this manual for this proposal.

DESIGN QUALITY PRINCIPLES

Below are our itemised responses to schedule 4 of the Education SEPP (2017) “Design Quality Principles” 1 through 3. These responses also address the Design Guide for Schools (GANSW 2018) “Design Quality Principles”, which are aligned with the Education SEPP.

PRINCIPLE 1 – CONTEXT, BUILT FORM & LANDSCAPE

Schools should be designed to respond to and enhance the positive qualities of their setting, landscape and heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape and mitigate negative impacts on neighbouring sites.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The design for the new primary school in Murrumbateman is based on information drawn from the site analysis and urban design principles described in this report, which ensure the project responds to the context and is site and community specific.

The proposed site planning is in keeping with the context by extending the landscape corridor to the south into the site as a secondary school entry. The setback to the western boundary and the proposed carpark, kiss and drop relationship establishes a forecourt at the school's entry that addresses the neighbouring commercial facilities/carpark and vehicular/pedestrian entry points. The scale of the school at two storeys is in keeping with the surrounding built form, at this scale the school nests within the surrounding landscape.

PRINCIPLE 2 – SUSTAINABLE, EFFICIENT & DURABLE

Good design combines positive environmental, social and economic outcomes. Schools and school buildings should be designed to minimise the consumption of energy, water and natural resources and reduce waste and encourage recycling. Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The new primary school in Murrumbateman has been designed with regard to the principles of environmentally sustainable development. The buildings' location, orientation, sun shading and passive thermal design elements are the first step to creating a sustainable building solution. This is further enhanced by the inclusion of a rainwater tank to be used for irrigation, solar power and the selection of long lasting, low maintenance materials. The structural system for the buildings is a mixture of concrete frame and steel framing. The benefit of these systems is that the internal walls are non-loading bearing allowing for reconfiguration in the future if deemed necessary. Together with Steensen Varming the buildings have been optimised to facilitate good daylighting and natural ventilation. The ESD report that forms part of this submission, outlines these principles in more detail including energy conservation, water conservation and other sustainability initiatives.

PRINCIPLE 3 – ACCESSIBLE & INCLUSIVE

School buildings and their grounds should provide good wayfinding and be welcoming, accessible and inclusive to people with differing needs and capabilities. Note: Wayfinding refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space. Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The site has been designed to provide an accessible and inclusive ground plane such that buildings are all served by ramps and/or lifts. The design of the open space aims to provide walkway transitions between the various areas. This creates equitable access for all users. The site layout is clear and simple, promoting easy and direct circulation. This will be enhanced by clear wayfinding signage. The signage strategy is included in Section 4 of this report.

DESIGN 7 VERIFICATION

DESIGN QUALITY PRINCIPLES

Below are our itemised responses to schedule 4 of the Education SEPP (2017) “Design Quality Principles” 4 through 7. These responses also address the Design Guide for Schools (GANSW 2018) “Design Quality Principles”, which are aligned with the Education SEPP.

PRINCIPLE 4 – HEALTH AND SAFETY

Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The design ensures that natural light, ventilation & acoustics create healthy and safe learning/teaching environments. The school site is to be fenced at the boundary as the perimeter security. The landscaping of the site and arrangement of the fence assist in integrating the school into the site and public domain. The primary and secondary entries are clearly visible and are integrated into the sites context.

PRINCIPLE 5 – AMENITY

Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood. Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The location and layout of the proposed work was developed in consultation with the Project Reference Group, building on the design work undertaken by the previous project team. The objective is to provide a variety of teaching and learning spaces that have access to natural light and ventilation and have good internal acoustics to facilitate comfortable learning environments. The typical learning clusters contain four homebases, a combined practical activity area with a shared learning common. In addition, a range of outdoor learning and play spaces are provided with the aim to encourage learning from the natural environments and the buildings themselves. The site massing locates the built forms adjacent to the streetscape to maximize the useable play spaces towards the centre and south of the site. This site planning places the buildings as a buffer between the public domain and the students outdoor playspace.

PRINCIPLE 6 – WHOLE OF LIFE, FLEXIBLE & ADAPTIVE

School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning. Good design for schools should deliver high environmental performance, ease of adaptation and maximise multi-use facilities.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The design of the site is based on the urban design and sustainability principles described in the points above. The key factors that ensure a building can be used well into the future are;

- Long lasting, low maintenance materials to ensure its use stands up to the impacts associated with school buildings.
- Framed construction that allows the internal walls to be reconfigured in the future to adapt to future learning requirements.
- Providing a variety of learning spaces that have good amenity for the students and teachers.

PRINCIPLE 7 – AESTHETICS

School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements. Schools should respond to positive elements from the site and surrounding neighbourhood and have a positive impact on the quality and character of a neighbourhood. The built form should respond to the existing or desired future context, particularly, positive elements from the site and surrounding neighbourhood, and have a positive impact on the quality and sense of identity of the neighbourhood.

REF: ESEPP (2017) Schedule 4 and Government Architect NSW Design Guide for Schools.

The school is designed to provide an articulated and dynamic built form which contextually responds to site, scale, and massing. The main pedestrian entry and urban marker for the site is bounded by Block A and the Hall (Block D), which form a funnel into the school's interior.

The proposed school is two storey with the exception of the hall. It wraps around a central playspace in a horseshoe form. The connections between each of the four buildings unify the schools order and form. These open covered connections create visual relief in the façade between buildings, whilst allowing daylight, breezes, and visual connection to exist appropriately between the school and it's surrounding context.

See material palette in this report for the proposed colours and materials for the proposal. A site narrative has been developed through the applied material palette, landscape design, signage and wayfinding strategy to include site narrative, history and culture of the traditional Aboriginal groups. These themes will be refined further at our next meeting with the relevant Aboriginal community members. The combination of the building forms and the landscape setting will provide a sense of identity for the neighbourhood and wider community.

DESIGN 7 VERIFICATION

BETTER PLACED

Below are PA's description of how we have responded to the Better Placed (GANSW) 2.6.1 – Design Objectives For NSW.



OBJECTIVE 1. BETTER FIT Contextual, local and of it's place

Good design in the built environment is informed by and derived from its location, context and social setting. It is place-based and relevant to and resonant with local character, heritage, and communal aspirations. It also contributes to evolving and future character and setting.

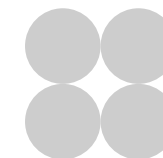
- Our design process as shown in this report includes a detailed site and context analysis with the support of the relevant specialist consultants and stakeholders.
- During the current phase of work the PRG was consulted on the development of the design. The consultation and feedback loop that exists helps ensure that the project continues to be suitable for the local community and their aspirations for the school.
- See Principle 1 - Context, built form and landscape in the response to the ESEPP above for more information.



OBJECTIVE 2. BETTER PERFORMANCE Sustainable, adaptable, and durable

Environmental sustainability and responsiveness is essential to meet the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, whole of life design.

- This project has been developed with ecological sustainability integrated from first principles including: passive heating and cooling design; flexibility of buildings for future uses; provision for a photovoltaic system on the roof; selection of durable lasting materials; and close collaboration with key consultants including ESD and Landscape.
- See Principle 2 - Sustainable, efficient, and durable in the response to the ESEPP above for more information.



OBJECTIVE 3. BETTER FOR COMMUNITY Inclusive, connected, and diverse

The design of the built environment must seek to address growing economic and social disparity and inequity, by creating inclusive, welcoming and equitable environments. Incorporating diverse uses, housing types and economic frameworks will support engaging places and resilient communities.

- The location of the proposed buildings was determined considering equitable access to and throughout the site as well as considering community access to the hall and OSHC facilities. The proposed lift access to the second floors of all buildings provide equitable access to all of the necessary spaces for students and teachers.
- The proposed site layout creates a diversity of outdoor environments suitable for different learning and community opportunities.
- The schools primary address is off Fairly Street, with the secondary entry from the pedestrian corridor to the south. These two entry points establish the school as an accessible place to the community (with in the framework of CPTED and child safety).
- See Principle 3 - Accessible and inclusive and Principle 5 - Amenity in the response to the ESEPP above for more information.

DESIGN 7 VERIFICATION

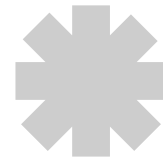


OBJECTIVE 4. BETTER FOR PEOPLE

Safe, comfortable and liveable

The built environment must be designed for people with a focus on safety, comfort and the basic requirement of using public space. The many aspects of human comfort which affect the usability of a place must be addressed to support good places for people.

- The proposed entries and fencing are integrated with the landscape, creating a school connected to its community while providing the necessary security for the school.
- The main entry passes by the administration unit, which allows for passive surveillance of those entering and exiting the school.
- See CPTED lighting strategy and the Architectural site plan for more information on the fencing and lighting for the school.
- Solar access, natural ventilation and access to landscaped open space has been integrated into the design from first principles providing the students with a quality learning environment.
- See Principle 4 - Health and Safety in the response to the ESEPP above for more information.



OBJECTIVE 5. BETTER WORKING

Functional, efficient, and for purpose

Having a considered, tailored response to the program or requirements of a building or place, allows for efficiency and usability with the potential to adapt to change. Buildings and spaces which work well for their proposed use will remain valuable and well-utilised.

- The homebase modules have been arranged spatially in close collaboration with key consultants and stakeholders to establish fit for purpose learning environments that are adaptable to future changes.
- The layouts of the homebases and proposed core facilities consider circulation pathways and the necessary uses of each space to create an efficient functional layout.
- See Principle 6 - Whole of life, flexible and adaptive and Principle 2 - Sustainable, efficient, and durable in the response to the ESEPP above for more information.



OBJECTIVE 6. BETTER VALUE

Creating, and adding value

Good design generates ongoing value for people and communities and minimises costs over time. Creating shared value of place in the built environment raises standards and quality of life for users, as well as adding return on investment for industry.

- The flexibility of the homebase module design in planning and structure allows for future education rationales to be implemented into the building fabric without fundamental changes to the schools footprint.
- The proposed school has been planned to achieve successful integration with the surrounding contexts. The fundamental integration of sustainability and ESD ensure the designs relevance into future.



OBJECTIVE 7. BETTER LOOK AND FEEL

Engaging, inviting and attractive

The built environment should be welcoming and aesthetically pleasing, encouraging communities to use and enjoy local places. The feel of a place, and how we use and relate to our environments is dependent upon the aesthetic quality of our places, spaces and buildings. The visual environment should contribute to its surroundings and promote positive engagement.

- The proposed design's two storey scale allows for the school's aesthetic to be significantly shifted by the landscape buffer that exists between the built forms and the boundary. What is now a site without landscape will become a growing library of native flora and fauna. See Taylor Brammer's landscape plans for more details on the landscape. The built form is setback from the east, south and western boundaries becoming the backdrop to the landscape that grows between. The northern elevation, while still buffered by landscape will be clearly visible from the street, carpark and drop off.
- See Principle 7 - Aesthetics in the response to the ESEPP above for more information.

DESIGN 7 VERIFICATION

GANSW RESPONSE

The following are PA's responses to the comments provided by the Government Architect in the SDRP Session, Dated the 28 of April 2021.

The project team would like to thank the panel for their responses and feedback on the new school at Murrumbateman.

The status of the project is approaching 50% schematic design, many of the items noted by GANSW will be integrated into the design as we progress.

We note that the panel supports:

- The project team's early engagement with the local indigenous community and the current exploration into Connecting to Country.
- The integration of Country, landscape, and sustainability into the architectural response.
- The location and strategy of the canteen.
- Approach to natural daylighting.
- The table provided outlines GANSW comments and our response to the comments.

GANSW Comment	Pedavoli Architects' Response
Connecting with Country	
<i>Formulate a strategy to gather, retain and embed cultural knowledge as an ongoing process throughout the development of the project.</i>	On Pg.16 and 17 of this report is the summary of the strategy and implementation for Connecting with Country.
<i>Consult with other cultural groups that have relationships with the site and incorporate multiple cultures, languages, and stories into the project.</i>	This is underway with references that were provided to the project team from the AECG. We are meeting with Aunty Lil (AECG) on the 20th of May.
<i>Illustrate how local materials can be incorporated as part of the Modern Methods of Construction system to provide local character and further emphasise the connection to Country.</i>	The material palette on page 35 outlines the rationale behind the colour palette and its integration of inspiration from the Connecting to Country work that has been undertaken.
<i>Understand and demonstrate the intention of the yarning circle to this location. Consultation with the local community, cultural groups and school community can inform a suitable purpose for this site.</i>	Consultation is still underway. In this consultation we will discuss this item with the relevant Aboriginal elders.
<i>Illustrate how the broader cultural and physical landscape, including distant views, can be incorporated into the project.</i>	See Visualisation and Streetscapes on Pg. 37-38, which exhibit the views to and from the site. Refer also to the landscape plan by Taylor Brammer.
Public Domain and Context	
<i>The new school will serve as a community hub. Illustrate how the main entry will accommodate and encourage gathering and social interaction.</i>	The school entry has been designed with a generous forecourt that acts both as a welcoming entry space for the school and has the potential to be a valuable community gathering space. The hall creates the southern boundary to this forecourt, therefore providing easy access for the community, should it be required. The canteen location within the hall has the opportunity to address this forecourt via a servery window. This arrangement provides the flexibility to utilise the hall, canteen and forecourt as a community space.
<i>The location and approach to the canteen is supported, however its operation and security lines need further resolution. Consider a secondary security line during the day allowing this area to remain open to the public during school hours.</i>	The proposed canteen servery design provides opportunity for it to serve towards the forecourt entry. To secure this area for the public to be able to access the canteen during the day would require a gate within the forecourt, which is viewed as a negative outcome for the primary entry to the school. The exterior school fence location allows for a generous forecourt and does not require a secondary fence.
<i>A standard 2.4m palisade fence is not an appropriate site-specific response. Fencing should relate to the context and surroundings. Explore zones that are appropriate to be opened during the day, context specific materials, varying perimeter lines relating to the school and avoid long expanses of hard edges.</i>	The details of the fence are being developed with the PRG and the technical stakeholders in order to achieve the functional requirements and a good urban design outcome. Fencing options are being explored. Due to the site area and the adjacent contexts it was decided (in collaboration with the landscape architect and the project team to locate the perimeter fence on the boundary.)
<i>Develop a stronger civic address at the main entry that promotes a sense of arrival. Include traffic calming devices such as textured paving, trees, shared ways, etc. to reduce the dominance of vehicles and ensure the circulation from the street to the school entry is pedestrian friendly.</i>	The fence line has been considered in the design so that it is woven in between landscape, removing a hard visual boundary to the site. The main entry will have a large sliding gate that will open on arrival during school session. The fence location allows for a generous forecourt at the school entry. Clear signage, wayfinding and seating is proposed in the school forecourt (between Blocks A and D) and outside the school fence line to allow for visitors and students to gather at the main entry.

DESIGN 7 VERIFICATION

GANSW Comment	Pedavoli Architects' Response
<i>Illustrate potential future expansion options for the school and demonstrate the current proposal will not adversely impact future opportunities.</i>	The core facilities of the school, including hall, administration and staff have been sized to cater for future expansion. The 'U' Shaped site layout allows for additional homebases to be added along the eastern boundary, while maintaining the centralised playspace. Any expansion of the school will require a separate design and approval process.
Architectural Expression	
<i>The proposal is yet to show the architectural expression of the buildings. Develop the architecture for this proposal to have its own individual character, specific to the site and context.</i>	The library (block A) is intentionally positioned as the urban marker and rotated on the site as a response to the civic address. The rotation of block A was determined to assist in the pedestrian flow towards the main forecourt/entry. Block D functional arrangement was so that the hall provides the future potential for shared uses. The architectural language and materials will be woven into the connection to country. The "U" shape of the built form joined by the circulation corridors, nests the primary outdoor play space, creating a safe educational outdoor learning environment. See part 5 "Architecture" and part 6 "Visualisation and Streetscapes" that show the design has developed with individual character and site-specific responses in the architecture.
<i>Illustrate the internal amenity of spaces, including daylighting, access to the outdoors, views, and appropriate solar shading.</i>	The depth of building and window design facilitate a good level of daylighting and ventilation. Working closely with the ESD consultant (Steensen Varming) the thermal performance and solar shading has been optimised to provide an efficient envelope as well as a functional classroom and school environment. In consultation with the Landscape Architect (Taylor Brammer) the connection with the external playspace has been considered and maximised by physical and visual connections. This connection reinforces the principles of connecting to county. See composite architectural floor plans, site plans; the proposed landscape design; and the ESD report, which together illustrate the response to this item.
Next SDRP Meeting	
<i>It is recommended the project returns to the State Design Review Panel. In addition to the Design Package Requirements the following material should also be provided at the next SDRP:</i> <i>Details of the extent of fencing along the perimeter including size, materials, openings, and further resolution along the north boundary at the main entry including security lines.</i> <i>Spatial details to demonstrate how the main entry will form part of the public domain, including the canteen's role in encouraging gathering, pedestrian connectivity from the street and how the vehicle dominance will be addressed.</i> <i>Details of the character of the buildings, including further developed building masses, façade articulation and materials.</i> <i>Massing diagrams exploring where development could occur in future, should the school need to expand.</i> <i>Summary response to the points raised in this advice letter.</i>	Noted

DESIGN 7 VERIFICATION

CONNECTING TO COUNTRY

The Government Architect NSW “Draft Connecting with Country Framework” (2020) outlines 7 statements of commitment and principles for action. The framework states these 7 statements are, “To help project teams fulfill their commitment to Country” (Draft Connecting with Country Framework 2020 Pg.32).

In our process for this project, we will be guided by this framework. We welcome and invite collaboration with the relevant Indigenous stakeholders in the region who can guide us in the fundamental work of Connecting with Country. Through collaboration we will be able to attend authentically to the “Draft Connecting with Country” Framework in our process on this project.

In parallel to our reaching out for guidance on the Connecting with Country work we have commenced in parallel, a summary of information gathered through desktop online research.

- Basic info (people, clan, boundaries, significant geographies).
 - Proposed theme/idea for the site (in principle).
 - How this process achieves the 7 outcomes from the Draft Connecting to Country 2020 Doc (7 criteria quoted below).
1. We will respect the rights of Aboriginal peoples to Indigenous cultural intellectual property, and we will support the right of Country to be cared for.
 2. We will prioritise Aboriginal people’s relationship to Country, and their cultural protocols, through education and enterprise by and for Aboriginal people.
 3. We will prioritise financial and economic benefits to the Country where we are working, and by extension to the Traditional Custodians of that Country.
 4. We will share tangible and intangible benefits with the Country where we are working and by extension the Traditional Custodians of that County, including current and future generations.
 5. We will respect the diversity of Aboriginal cultures, but we will prioritise the local, place-specific cultural identity of the Country we’re working on. Aboriginal people will determine the representation of their cultural material, customs, and knowledge.
 6. We will prioritise recognition and responsibility of Aboriginal people, supporting capacity building across Aboriginal and non-Aboriginal communities, and across government project teams.
 7. We will support Aboriginal people to continue their practices of managing land, water, and air through their ongoing reciprocal relationships with country.