Environmental Impact Statement

State Significant Development (SSD 16858710)
New School – Pacific Brook Christian School
72-74 Maitland Street Muswellbrook

PLANNING. URBAN DESIGN.
RETAIL AND ECONOMIC. HERITAGE

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DECLARATION

ENVIRONMENTAL IMPACT STATEMENT

Applicant Name: Applicant Address: Land to be developed: SSD Application Number: Proposed development:	Pacific Brook Christian School 96-104 Hill Street, Muswellbrook 72-74 Maitland Street, Muswellbrook Lot 100 DP 1261496 SSD 16858710 The masterplan will support high-quality educational outcomes to meet the needs of students within the local community as follows: • Administration building; • Junior School facilities; • Middle School facilities; • Senior School facilities; • Hope School (special needs) facilities; • Multi-Purpose Hall; • Maximum student capacity of 656; • Maximum 67 staff; • Agricultural facilities (including maintenance and bus area); • On-site Parking (67 spaces, inclusive of 1 accessible); • Tree removal; • Landscaping; • Internal infrastructure works; • Acoustic and safety fence; and • Vehicular access via Maitland Street.
ENVIRONMENTAL IMPACT STATEMENT	This report is an Environmental Impact Statement which addresses all relevant matters required by Section 4.12(8) (formerly s.78A) of the *Environmental Planning and Assessment Act 1979* and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.
DECLARATION	The undersigned certify that we have prepared the contents of this Environmental Impact Statement and to the best of our knowledge it: • addresses all relevant matters listed under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*; • contains all available information that is relevant to the environmental assessment of the development to which the EIS relates; and • is not, by its presentation or omission of information, false nor misleading.
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Abbreviations

AADT	annual average daily vehicle trips
AEP	Annual Exceedance Probability
AS	Australian Standard
ASS	acid sulphate soils
BAM	Biodiversity Assessment Methodology
BCA	Building Code of Australia
BC Act	Biodiversity Conservation Act 2017
BDAR	Biodiversity Assessment Report
BOS	Biodiversity Offset Scheme
CIV	capital investment value
CMP	construction management plan
COLA	covered outdoor learning area
Council	Muswellbrook Shire Council
CPTED	crime prevention through environmental design
DA	development application
DCP	development control plan
DDA	Disability Discrimination Act 1992 (Cth)
DFP	DFP Planning Pty Limited
DP	Deposited Plan
DPIE	NSW Department of Planning, Industry and Environment
DSI	Detailed Site Investigation
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA	NSW Environmental Protection Authority
EPBC	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
EPI	environmental planning instrument
ESCP	erosion and sedimentation control plan
ESEPP	SEPP (Education Establishments and Child Care Facilities) 2007
ESD	ecologically sustainable development
FTE	full time equivalent
GANSW	Government Architect NSW
GFA	gross floor area
LALC	Local Aboriginal Land Council
LEP	local environmental plan
LGA	local government area
OSD	on site detention
PBCS	Pacific Brook Christian School
PRG	project reference group
PSI	Preliminary Site Investigation
RAF	Rapid Assessment Framework
RAP	remediation action plan
REAP	Registered Environmental Assessment Planner
RL	reduced level
SDRP	State Design Review Panel
SEPP	State Environmental Planning Policy
SEARs	Secretary's Environmental Assessment Requirements
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TfNSW	Transport for NSW
WSUD	water sensitive urban design

Executive Summary

Pacific Brook Christian School (the School) proposes to construct a new school to cater for 656 students in years K-12. The project will be staged, with overall works involving site preparation work (including remediation), tree removal, civil works, landscaping, and construction works. Stage 1 of the project is included and will involve the delivery of the initial facilities required to establish the school on the site. Stage 1 will cater for 140 students.

The upgrades will support high-quality educational outcomes to meet the needs of students within the local community and includes a Junior school, Middle School, Senior School, Hope School, administration block, multi-purpose hall, Agricultural zone, landscaping and carparking/ drop off/ pick up zones.

As the work is for a new school, the project is deemed to be State Significant Development under *State Environmental Planning Policy (State and Regional Development) 2011*. The proposed works will generate up to 65 new operational and 11 construction jobs in Stage 1 and 129 construction jobs for the masterplan.

72-74 Maitland Street (the Site) is located within the Local Government Area of Muswellbrook Shire.

The site is currently zoned RU3 Forestry under Muswellbrook Local Environmental Plan 2009. Development for the purpose of an educational establishment is prohibited in the RU3 zone. A Planning Proposal has been lodged with Council to seek rezoning of the site to R1 General Residential in which educational establishments are permissible with consent. Initial feedback was sought from Council and supported both the proposed rezoning and the potential future use of the site for a School.

The School and the project team have consulted with the local community, Muswellbrook Shire Council and State government agencies throughout the design of the development. Feedback provided through this time has been incorporated and addressed in final design and supporting documentation.

Environmental impacts associated with the proposed development have been the subject of detailed assessment, including impacts associated with built form, flood, biodiversity, and traffic/parking. The assessment finds that while the proposal will generate impacts, these impacts can generally be mitigated such that their outcomes are acceptable.

The proposed works have been assessed on balance as providing significant public benefit to the immediate local and surrounding district through the provision of new educational facilities.

This Environmental Impact Statement report has been prepared under Part 4 of the *Environmental Planning and Assessment Act 1979,* in accordance with the Secretary's Environmental Assessment Requirements for SSD 16858710 issued by the Department of Planning, Industry and Environment, and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*. The works proposed under this SSDA will be subject to the recommendations of specialist reports to ensure appropriate outcomes are achieved.

The proposed works have been designed to, and will be carried out in, the interests of the public. The works will meet the project objectives to provide upgraded and new facilities.

Accordingly, it is requested that the Minister for Planning and Public Spaces grant approval to the proposed State Significant Development application as set out in this report.

1 Introduction

1.1 Overview

1.1.1 Purpose of Report

DFP Planning Pty Ltd (DFP) has been commissioned by Pacific Brook Christian School (PBCS) to prepare an Environmental Impact Statement (EIS) to accompany a state significant development application (SSDA) to the NSW Department of Planning, Industry and Environment (DPIE) for a new school at 72-74 Maitland Street, Muswellbrook.

The proposed development is a staged concept application for a new educational establishment (school) and accordingly, is deemed to be State Significant Development (SSD) pursuant to Clause 15(1) of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (the SRD SEPP).

On 26 April 2021, the Secretary of the DPIE issued Secretary's Environmental Assessment Requirements (SEARs) (**Appendix 1**) for SSD Application No. 16858710.

This report has been prepared in accordance with the SEARs, Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation) to enable assessment and determination of the proposal.

1.1.2 Project Objectives and Summary

The proposed new school design provides new opportunities for a cohesive campus whilst improving the streetscape of Maitland Street by providing built form to an otherwise underutilised and abandoned site.

The project objectives are to provide sustainable and contemporary opportunities for learning. The new works include site planning, way finding, overall cohesiveness of built form and landscaping to connect with the site's aboriginal history which has been lost through previous uses of the site over time.

The below extract from the NBRS Architectural Design Analysis Report (**Appendix 8**) outlines the architectural design response to the brief, site and opportunities/constraints:

> *'Overall, PBCS expect the masterplan to show an attractiveness with landscaping being a high priority. The masterplan will offer hospitality and welcome, with a sense of belonging for students and the community. There are connections between the different parts of the school, Junior, Middle, Senior, Hope, Administration and Library.*
>
> *The Masterplan of the school is centred around community, culture, and place. A place where students can gather and interact with the environment. The orientation of buildings and interaction with the landscape encourages spontaneous, voluntary, and joyful learning opportunities for students to explore and interact within a safe indoor and outdoor learning areas.*
>
> *The relationships between the buildings, outdoor learning areas, and pedestrian pathways are significant parts of the design as it is crucial to have good connections between schools and enhance its green vistas surrounds facing the Golf Course on the Northeast.*
>
> *The scale of the buildings has been developed as single and double storey modular buildings linked within a gardenesque setting. Large eave overhangs will be used as covered walkways between the buildings and each learning space will have direct access to a landscaped area.*
>
> *The building materiality used will complement with tones and textures from the surrounding bush environment and is inspired by local aboriginal motifs gathered through the Building on Country consultation.*
>
> *The ecologically sustainable response of the building is further underpinned by its materiality. Thermal mass, shading mechanisms, and cross ventilation have been*

1 Introduction

articulated in the design to ensure the comfort of occupants and a reduction of the environmental footprint'.

1.2 Site History

72-74 Maitland Street is located within the ancestral lands of the Wonnarua peoples (indigenous custodians) at Muswellbrook and is also closely affiliated with the Kamilaroi people.

The Wonnarua territory is described as extending along the Hunter River "*from a few miles above Maitland west to [the] Dividing Range*".

There are no known Native Title Owners or claimants for the study area. The study area falls within the Central Lowlands (extending between Newcastle and Murrurundi) topographic zone which are located within and along the Hunter River and comprise 'rolling low hills on weak sedimentary rocks'.

The nearest major permanent water source is Muscle Creek (third order water course), which is a tributary of the Hunter River (fourth order water course).

The site has been disturbed by previous land practices. The existing buildings appear to be built from the mid to late 20th Century. In 2011/12, Forestry NSW had consolidated nursery operations and Muswellbrook nursery was leased to a local land management group. The land was later transferred from Government to private ownership.

The site contains established trees at the northern end of the site and structures from its previous use as a forestry nursery by Forestry NSW are located within a fenced boundary at the southern end. The structures included a residential property, administrative building, glass house and various sheds. They are variously constructed in timber or steel framing and clad in weatherboard, sheet metal or glass and planting beds. The developed area is surround by a high wire fence. All structures are subject to demolition under a separate development consent.

Table 1 describes the known historical development of the site.

Table 1 Chronological History – 72-74 Maitland Street, Muswellbrook

Year	Land Use/ Development History
1938	Largely vacant and grassed with the exception of a track across the eastern portion of the site. Appeared to be part of larger sports field including a walking track.
1964 - 2016	Use as a propagation nursery until approximately 2015/2016
2015- 2021	Buildings on site have been vacant – issues with vandalism and squatters.
2020	DA for demolition of structures and removal of 14 trees approved by Muswellbrook Shire Council on 12 November 2020

Figure 1 - **Figure 5** illustrate the Site in its existing state.

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Figure 1 Adjoining south-east boundary with residential properties.

Figure 2 Adjoining boundary with Golf Course

Figure 3 Used buildings on site

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Figure 4 Vegetation and existing unused buildings on site.

Figure 5 Existing internal driveway and informal parking

1.3 Site Context

1.3.1 Location

The Site is located in the Upper Hunter Region of NSW in the suburb of Muswellbrook. The Site is predominantly triangular in shape, with street frontage to Maitland Street (see **Figure 6**), south-eastern side boundary to residential properties, rear and north-eastern side boundary to Muswellbrook Golf Course.

1 Introduction

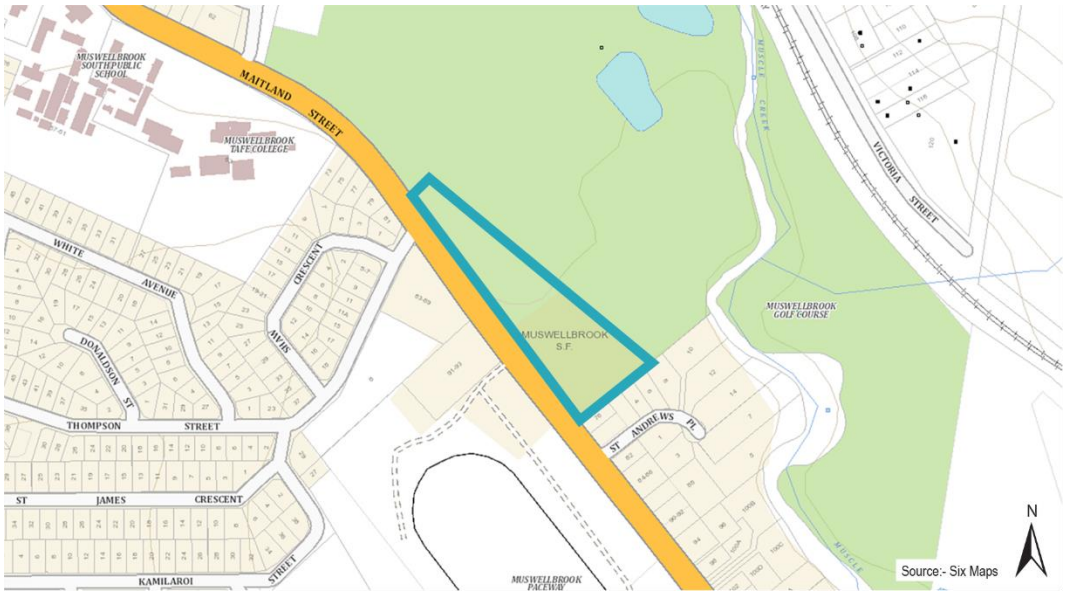

Figure 6 Site Location

1.3.2 Site Description

The Site is currently identified as Muswellbrook State Forest, as it has historically functioned as an NSW State Forest operations site and plant nursery until its recent decommissioning and sale. The Site features dense vegetation on the north-west area of the site and dilapidated buildings, green houses, water tanks, sheds and an at grade gravel/ grass car parking area to the south-east. Minimal trees are located to the south-east of the site, including some that are dead and pose a safety risk.

Two (2) vehicular entry points are located along Maitland Street with a gravel driveway sweeping around the car parking area, connecting the two entry points.

The Site comprises of one (1) allotment as detailed in **Table 2** below.

Table 2 Site Description

Property Description	Legal Address	Area (m^2)
72-74 Maitland Street, Muswellbrook	Lot 100 / DP 1261496	24,320 (approx.)
	TOTAL	**24,320 (approx.)**

A Section 10.7 Certificate for the site is provided at **Appendix 43**.

72-74 Maitland Street was previously used for forestry purposes and is mapped as Muswellbrook State Forest. Separate rezoning is being sought as the site is no longer used for forestry and currently sits as an empty and underutilised site.

Main vehicular access to the site is from Maitland Road. There is also pedestrian access to the site from Maitland Road. Existing vehicular parking on site includes open air at grade parking spaces facing Maitland Road. **Figure 7** and **Figure 8**

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Figure 7 Aerial photograph of site

Figure 8 The Northern-most vehicular access point

1.3.3 Surrounding Development

The immediate surrounding locality has varying characteristics, being a mixture of Muswellbrook Golf Course (adjoining to the northwest and northeast boundaries), Muswellbrook Paceway, educational facilities (Muswellbrook TAFE and Muswellbrook South Public School approximately 130m northwest of the Site), retail outlets and residential properties (adjoining south east boundary). (**Figure 9** – **Figure 12**).

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Figure 9 Adjoining residential land

Figure 10 Residential Development (Western side of Maitland Street)

Figure 11 Retail development (western side of Maitland Street)

1 Introduction

Figure 12 Adjoining Muswellbrook Golf Course

1.3.4 Surrounding Road Network

Roadways adjoining and surrounding the school site include collector and local roads, as detailed below:

- **Maitland Street** – Classified Road under jurisdiction of the State of NSW adjoining the south-western side of the site. The road is two lanes in both directions separated by a landscaped median strip. No on street parking is located within the vicinity of the site. -(**Figure 13**). A pathway is located on the western side of Maitland Street.

  The road has a north-west to-south-east alignment along the site frontage.

  There are no pedestrian refuges along the site frontage. Maitland Street currently has an approved speed limit of 50km/h.

- **Thompson Street** – local road under the jurisdiction of Muswellbrook Shire Council adjacent the north-western side of the Site The road is a two-way, with no on-street-car-parking provided (**Figure 14**).

  The road has a north-south alignment from its intersection with Maitland Street. The road has a posted speed limit of 50km/h. The Maitland Street/ Thompson Street intersection is in the detail design phase for a signalised intersection (**Figure 15**).

Figure 13 Maitland Street

1 Introduction

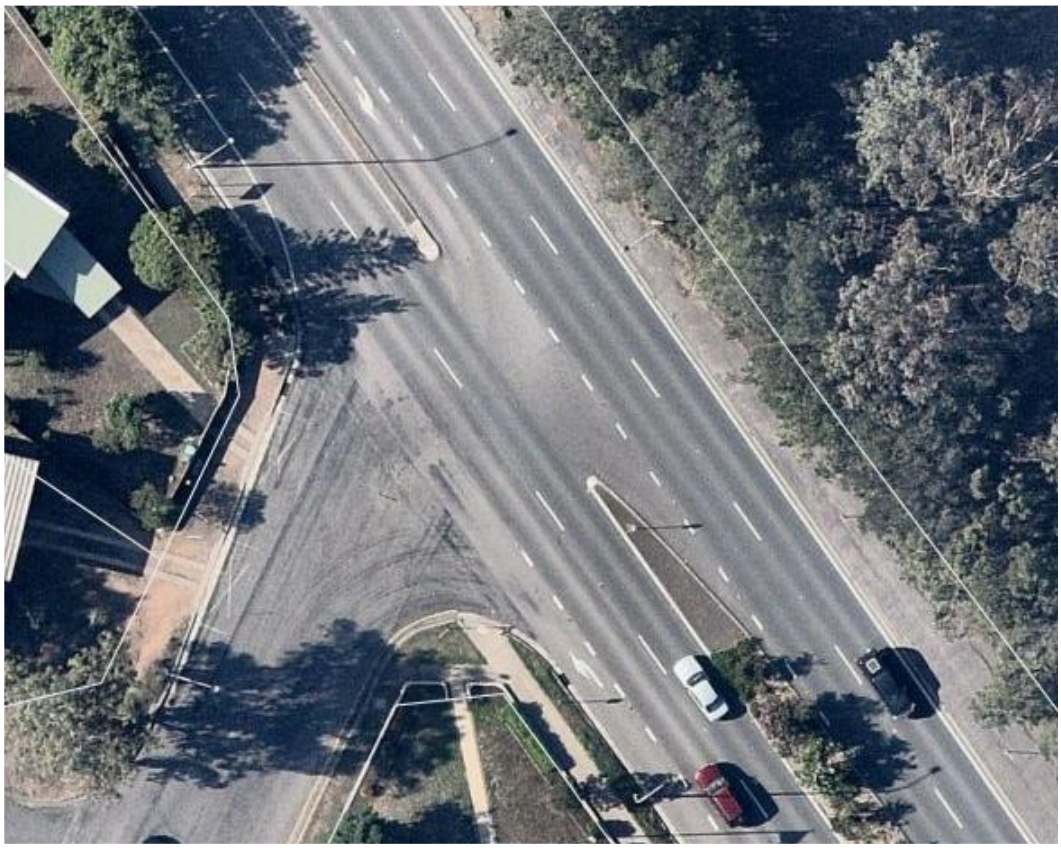

Figure 14 Current Intersection of Maitland Street and Thompson Street (PTC)

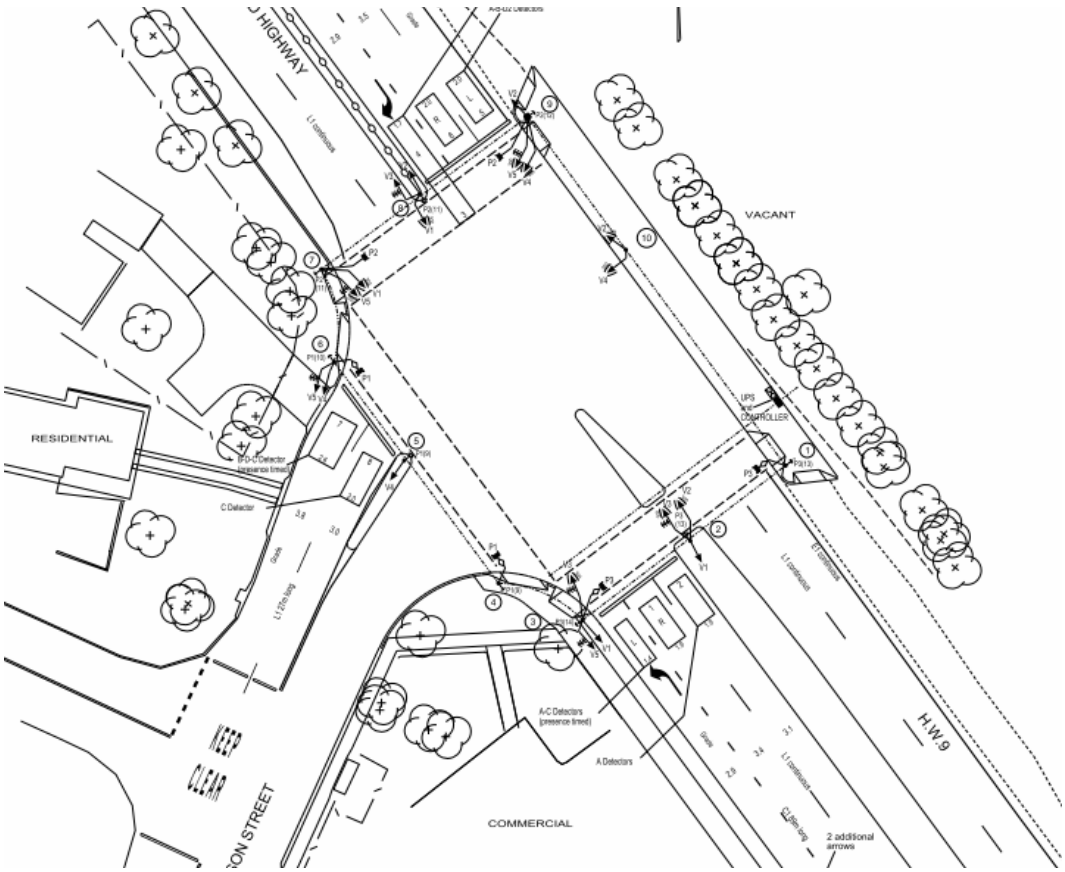

Figure 15 Proposed Maitland Street/ Thompson Street intersection (Council)

1 Introduction

1.3.5 Muswellbrook Bypass – New England Highway

In 1998 Roads and Maritime Services (now TfNSW) carried out a route selection study for a proposed Muswellbrook bypass. Three (3) options were exhibited in 2000/2001 however they are no longer viable due mainly to the mining activities in the area. A preferred option was selected by the Australian Government in 2005, and in 2009 the preferred route corridor was included in Muswellbrook's Local Environmental Plan and preserved for the future bypass.

The 2018 New England Highway Muswellbrook Bypass – Options Report[1] reaffirms the corridor that has been preserved with minor adjustments to the SP2 zoned land, as shown as the dark blue line in **Figure 16**.

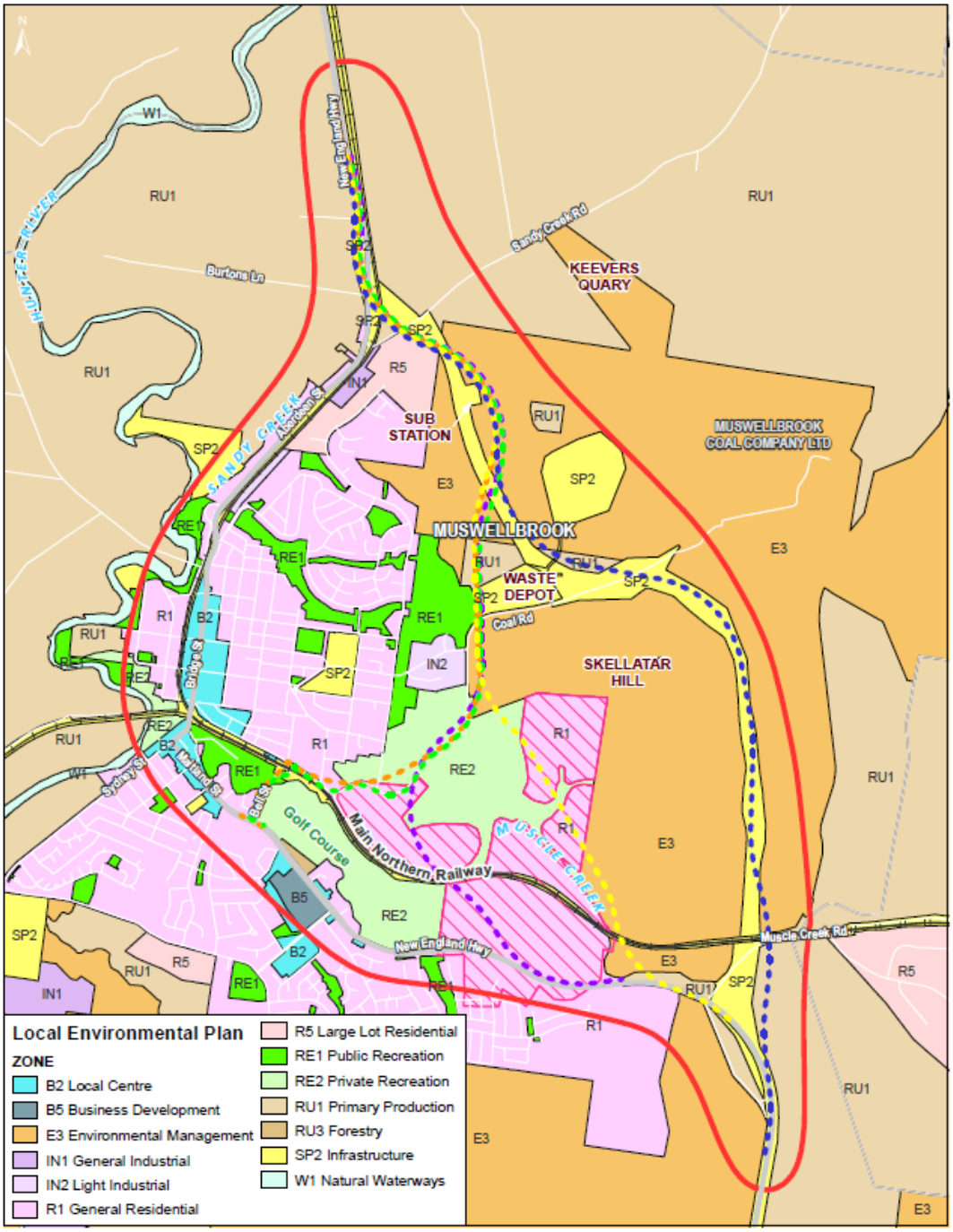

Figure 16 Muswellbrook Bypass – Options Report (preferred Option in Blue)

[1] Refer to: https://roads-waterways.transport.nsw.gov.au/projects/new-england-highway/muswellbrook-bypass.html

The preferred option is a 9.1km long route that departs the New England Highway near its intersection with Milperra Drive and reconnects to the Highway near around 1.2km north of Sandy Creek Road.

The project team has received feedback from TfNSW in regard to the progress and timeline of the Muswellbrook Bypass and how it might impact on the proposed new school. This is captured in the EIS as well as in the Consultation and Communication Report (**Appendix 15**).

1.3.6 Surrounding Transport Network

Rail Services

Muswellbrook train station is a heritage listed station that is located approximately 1km north-west of the site. The railway station is located on the Main Northern Line with services running from Newcastle to Scone. A Maitland/ Singleton/ Muswellbrook train also provides opportunity for students outside of the area to attend PBCS.

A regional train also runs from Central to Armidale, stopping at Muswellbrook.

Bus Services

There is one (1) public bus stop within 200m north-west of the site on Maitland Street (at the TAFE), which is operated by Osborn's Transport. As the proposal is for a new school, no specific bus services for the Site exist, however, bus stops along Maitland Street are proposed as part of the long-term masterplan for the site. This would require further discussion with Osborn's Transport.

1.3.7 Design Development

Alternatives Considered

In selecting an appropriate site for the school, PBCS has established a 'brief' against which properties would be tested for suitability, including the following:

- Affordable (i.e. property market as well as costly environmental constraints to overcome);
- Suitable for school development (i.e. without major encumbrance or constraint);
- Capable of accommodating a double stream school;
- Zoning that permits the relevant land use, or a clear pathway to achieve this goal;
- Minimised requirement to deliver infrastructure;
- Land and masterplan that maximises outdoor learning opportunities for sports, recreation and agriculture;
- Layout capable of implementing communities (i.e. junior, middle and senior schools); and
- Land suitable for appropriate landscaping to complement the school.

Alternative 1: Current Site

PBCS is currently operating from a small site at 96-104 Hill Street, Muswellbrook, which is limited in expansion above the existing arrangement and is not suitable for achieving the brief for the school. Therefore, this site is not a viable option.

Alternative 2: Sandy Creek Road, Muswellbrook

An option for land purchase at Sandy Creek Road, Muswellbrook (adjacent to Jehovah's Witness Kingdom Hall) was investigated by the school. The approximately 19ha site is located to the north of the Muswellbrook township, and is situated 1km west of a future landfill site, 2km west of an open cut mine, and 2km southwest of the St Heliers Correctional Centre, being a minimum security prison for men.

1 Introduction

This site presented the school with opportunities including an affordable market price, gently topography and landscape amenity, but also presented the school with a wide number of constraints, including:

- Accessibility of the site to the school community;
- Environmental context of surrounding land uses and related amenity impacts (air quality, odour and noise);
- Social considerations including proximity of the school to a prison;
- Environmental constraints of the site including bushfire prone land, high biodiversity value land, and partial flood prone land mapping.

The site was deemed unable to meet the school's brief and therefore was not a viable option.

Alternative 3: 73 Aberdeen Street, Muswellbrook

An option for land purchase at Aberdeen Street, Muswellbrook was investigated by the school. The approximately 11ha site is located behind the residential and commercial properties fronting Aberdeen Street and has two (2) points of access to the road with a relatively flat topography and cleared areas suitable for agriculture and landscaping works.

The site is located to the north of the Muswellbrook township but is accessible to some of Muswellbrook's current and future northern residential subdivisions via Aberdeen Street.

The site presented the school with opportunities including favourable access arrangements (compared to Alternative 2) and a large and cleared site, however a range of constraints were also present including:

- High risk flooding across most of the site that places students at risk and significantly limits the ability for built form on the property;
- School development would need to occur immediately adjacent to the back yards of most of the properties fronting Aberdeen Street and therefore presented a residential interface issue from the beginning of the master planning stage;
- The accessibility of the site was still not ideal when the catchment for students would extend through to the southern side of Muswellbrook, thus limiting the ability for students to walk to the site.

The site was deemed unable to meet the school's brief and therefore was not a viable option.

Justification and Reasoning for Proposed Site

Following the due diligence and concept master planning of the above alternative sites, the option for the purchase of 72-74 Maitland Street, Muswellbrook became available to the school and after initial investigations it was considered a superior site for the location of a new school as it:

- Was affordable in terms of market availability;
- Was a suitable size for a school development, that was capable of accommodating a double stream school;
- Enjoyed an environmental context with compatible surrounding land uses and did not have detracting amenity impacts outside of the control of the school;
- Has accessibility that is superior to the other options and is centrally located within the broader Muswellbrook township;
- Has environmental constraints on the site are able to be accommodated and designed against as detailed in this EIS; and
- Is able to accommodate a school without resulting in unacceptable adverse impacts on neighbouring properties.

1 Introduction

For these reasons, PBCS has pursued the rezoning and development of the subject site at 72-24 Maitland Street, Muswellbrook as a favourable location for a school subject to the brief as established by PBCS.

Figure 17 identifies the locations of the current, alternative and proposed sites in relation to the township and surrounds of Muswellbrook.

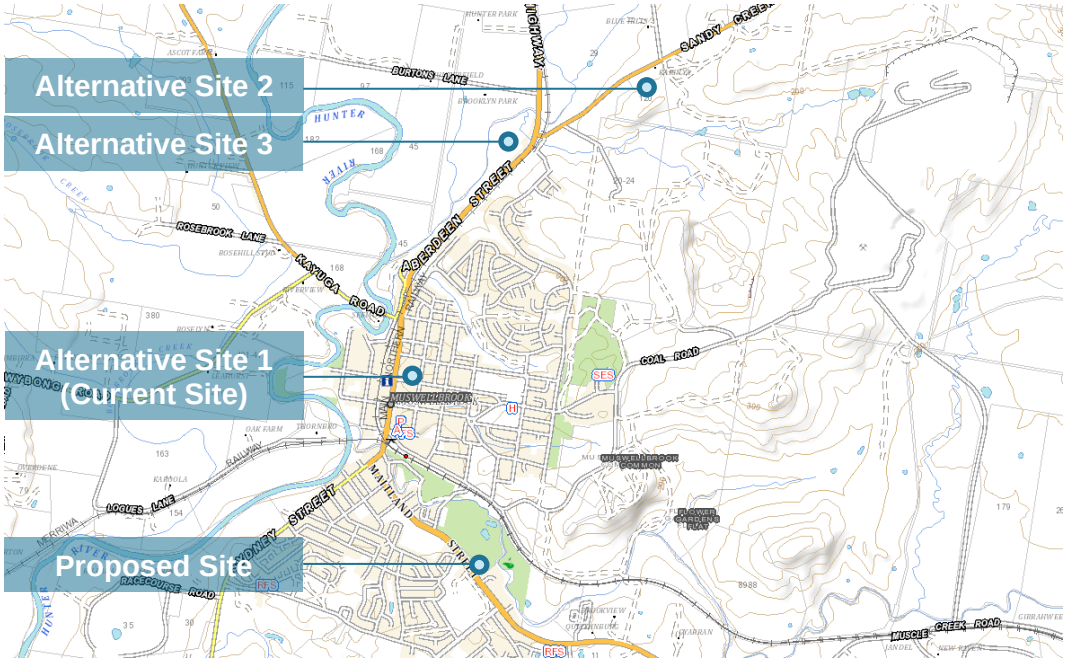

Figure 17 Current, Alternative and Proposed sites.

Development of Masterplan

The new school proposes an ultimate maximum capacity of 656 student ranging from kindergarten to year 12. With the age range of students, one of the key drivers in the master plan was the provision of 'mini schools' within the new school, being junior school, middle school, senior school and a hope school (students with special needs), each with their own outdoor learning area/ play area, whilst also proving areas to encourage cross mingling of all students. Inclusion of aboriginal cultural heritage and traditions was also a key driver in designing the masterplan as was ensuring a multi-purpose hall being provided for outside of school hours community use.

PBCS is currently operating from a site at 96-104 Hill Street, Muswellbrook with 90 students. The masterplan also considers how to effectively transfer these students with minimal disruption, being 'Stage 1' whilst also incorporating Stage 1 into the overall masterplan. This has been achieved through the placement of buildings in the long-term middle school location.

The design has sought to celebrate the natural beauty across the site with creation of new facilities while appreciating the surrounding landform and new opportunities for learning and socialisation in the natural settings.

The site has constraints that have also influenced the design, including:

- Existing services;
- Existing access to Maitland Street;
- Flooding;
- Transitioning scale and context with neighbouring development; and
- Mature trees and existing landscape character.

The design and approach to the new school has progressed from the initial concept plan (**Figure 18** and **Figure 19**) for the redevelopment of the site, however the vision behind the

1 Introduction

new school and the identified areas on the site for development and retention of existing vegetation have remained largely reflective of the earlier concept plan.

The approach to the new school was to utilise areas of the site that have been previously disturbed and located outside of the 1 in 100 flood level (including access points from Maitland Street and existing car park location) and retain as much existing vegetation in the undisturbed part of the site (except where recommended by the arborist to be removed for safety reasons).

This approach was considered the best response to the site constraints, design objectives of the school, desired future learning spaces outcomes and joint use facilities.

Following consultation with Government Architect NSW (GANSW), the Masterplan and concept designs were revised to retain as much vegetation as possible, create safe pedestrian access points and incorporate connection to country into the design.

These changes provided an opportunity to integrate history, retain valuable landscaped areas and provide passive surveillance to Maitland Street. The evolution of the design concepts for the site are illustrated in **Figure 20**.

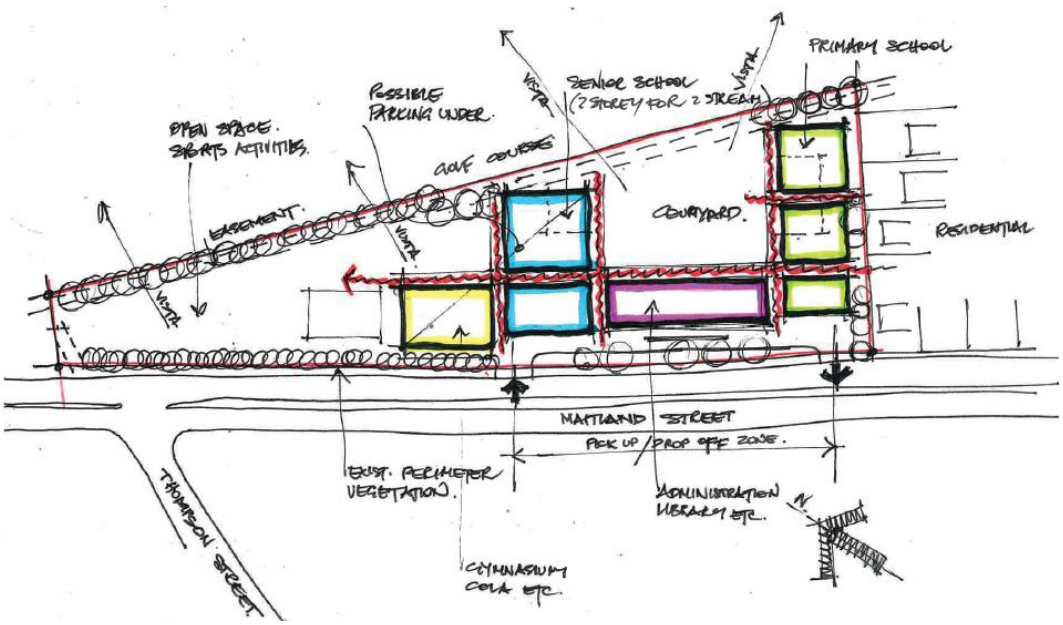

Figure 18 Preliminary Concept Plan A (source: NBRS Architecture)

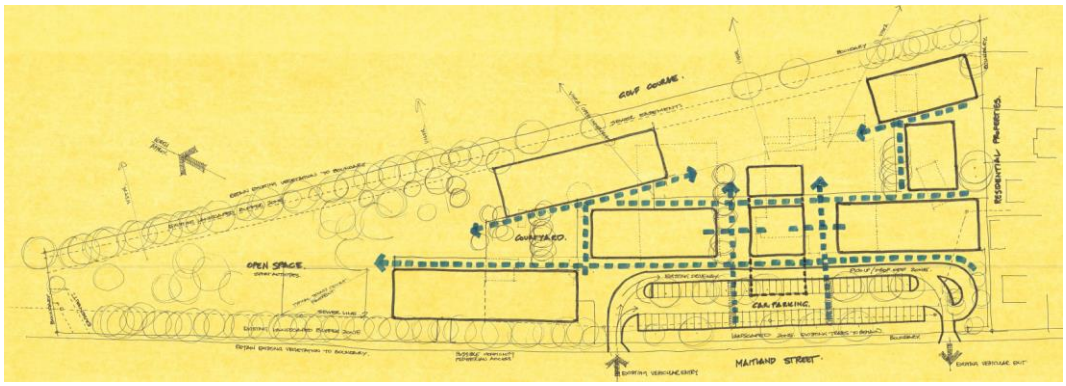

Figure 19 Preliminary Concept Plan B (Source: NBRS Architecture)

1 Introduction

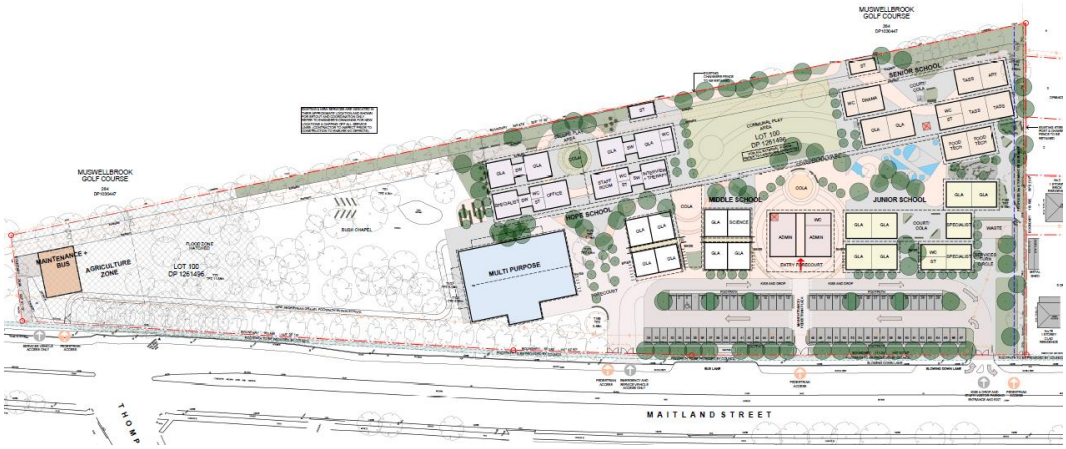

Figure 20 Developed concept plan (Source: NBRS Architecture)

The school and project team continued liaising with school communities, residents, and technical stakeholders throughout the design phase.

Constraints which have influenced the design response include existing services, topography, existing structures, neighbouring residential scale and context, neighbouring golf course, vegetation and landscape character.

The revised masterplan protects additional biodiversity to the northwest of the site, provides greater operational efficiencies and passive surveillance, and is reflected in the documentation now submitted for assessment.

Development of Final Scheme

NBRS Architecture has prepared an Architectural Design Analysis Report (**Appendix 8**) which provides an analysis of the site context, identifies the opportunities and constraints of the site and details urban design strategies for the site which support the proposed built form as well as providing an assessment of the proposal against the Design Quality Principles set out under *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017*.

The Architectural Design Statement also provides details of the design intent, materials and finishes, landscape treatments and other information that provides details of the design analysis which has informed the final design.

The built form, scale, articulation, and materiality of surrounding buildings are residential and commercial in character. The design concept for the school is to be reflective of surrounding developments as well as the archaeological history of the site and surrounds.

Topography, flooding, open space, and interface with the surrounding golf course and residential properties were considered during design development. **Figure 21** and **Figure 22** demonstrate how the proposed massing for Pacific Brook Christian School will present to surrounding development and Maitland Street.

1 Introduction

Figure 21 Indicative Maitland Street elevation - masterplan (Source: NBRS)

Figure 22 Indicative elevation to neighbouring residetial properties (Source: NBRS)

This project involves site preparation work (including remediation), the removal of 96 trees, civil works, landscaping, and construction works in stages over the next 20 years.

The masterplan will support high-quality educational outcomes to meet the needs of students within the local community as follows:

- Administration building;
- Junior School facilities;
- Middle School facilities;
- Senior School facilities;
- Hope School (special needs) facilities;
- Multi-Purpose Hall;
- Maximum student capacity of 656;
- Maximum 65 staff;
- Agricultural facilities (including maintenance and bus area);
- On-site Parking (67 spaces, inclusive of 1 accessible);
- Bicycle parking (36 racks catering for 72 spaces);
- Tree removal;
- Landscaping;
- Internal infrastructure works;
- Acoustic and safety fence; and
- Vehicular access via Maitland Street.

Stage 1 is proposed together with the staged concept masterplan and consists of:

- Site remediation;
- Removal of 7 trees;
- Facilities for a maximum of 140 students and 16 staff, including:
    - One (1) administration and staff building;

  - One (1) staff and student amenities block; and
  - Six (6) General Learning Areas (GLAs);
- Onsite parking (15 spaces inclusive of 1 accessible space)
- Bicycle parking (6 racks catering for 12 spaces)
- Landscaping;
- Internal infrastructure works; and
- Vehicular access via Maitland Street.

Staging of Masterplan

The masterplan has been developed around a flexible approach to staging to ensure that growth in enrolments can be accommodated as it occurs, so that the school always meets its requirements for facilities without over-catering for demand.

To achieve this, PBCS has established a broad approach for ten (10) stages of development across the site. The stages are not intended to necessarily be carried out sequentially, but rather they reflect the scope of each stage of work based on anticipated growth in student numbers.

The following is not a staging plan or part of the proposal, but an explanation of how the school might expand as demand grows.

- Stage 1 of the development is included in this application and is detailed above/below.
- Stage 2 (around 2024) will comprise the establishment of the Brook Hope School (special needs students) for 50 students as well as additional car parking spaces.
- Stage 3 (around 2026) will focus on providing core administration, library and specialist facilities for when 40 additional students need to be accommodated.
- Stage 4 (around 2028) anticipates growth of up to 80 students with additional specialist and general learning spaces.
- Stage 5 (around 2030) anticipates growth of around 100 students with additional specialist and general learning spaces.
- Stage 6 (around 2032) anticipates growth of around 40 students with additional specialist and general learning spaces as well as additional car parking spaces.
- Stage 7 (around 2034) anticipates growth of around 40 students with additional Brook Hope School facilities, as well as specialist and general learning facilities.
- Stage 8 (around 2036) anticipates growth of around 40 students with new school facilities and the potential delivery of the multi-purpose hall (if not provided earlier).
- Stage 9 (around 2040) anticipates growth of around 80 students (to maximum capacity) with additional specialist and general learning spaces, with the removal/upgrading of demountable buildings.
- Stage 10 (around 2042) would deliver the maintenance and bus facilities in the northern end of the site.

Refer to **Section 2.1** for a detailed description of works.

Assessment of the environmental impacts of the proposal are set out in **Section 6**.

1 Introduction

1.3.8 Separate Works Packages – Under Separate Planning Pathways

Two (2) separate works packages are currently being carried out across the site. These works are summarised in **Table 3**.

Table 3 Summary of Separate Works Packages

Works Package	Scope of Work	Planning Pathway	Status[2]
Early Works	• Demolish all buildings apart from residential dwelling and 1 shed • Tree removal	Development Application through Muswellbrook Shire Council (Ref: DA 2020-104)	Approved (but not commenced) Trees approved for removal are separate to trees proposed for removal is SSD.
Planning Proposal	Amend Muswellbrook LEP for the site for: • Rezoning of land from RU3 Forestry to R1 General Residential • Include a maximum height of building of 8.5m • Include a floor space ratio of 0.5:1 The Planning proposal makes the use of the site for an educational establishment permissible with development consent.	Planning Proposal through Muswellbrook Shire Council and DPIE. (Council Ref: PP018) (DPIE Ref: PP-2021-6532)	Under Assessment for Gateway Determination

1.3.9 Response to State Significant Guidelines

This EIS acknowledges the State Significant Development Guidelines published by DPIE in July 2021 as part of the Rapid Assessment Framework, including the requirements for preparing an Environmental Impact Statement (Appendix B of the Guidelines).

This EIS provides the information and assessment required by the guidelines, and while the format of this report does not exactly match the recommended structure of an EIS (under Appendix A of the Preparing an EIS document) it can be confirmed that all required sections are included and addressed in this report.

This EIS is structured and presents information such that it will assist people to make informed submissions or decisions on the project, as required under the guidelines.

It is noted that DPIE's requirements relating to the declaration by a registered environmental assessment practitioner (REAP) do not come into effect until 1 July 2022, however it is acknowledged that this EIS has been prepared and reviewed by a REAP-qualified planner certified under the Planning Institute of Australia's REAP-qualification scheme, Registered Planner (Plus).

[2] Status is at the time of submission of SSD-16858710.

2 Project Description

2.1 Project Summary - Masterplan

The key aspects and features of the masterplan (staged concept) proposal are set out in **Table 4**

Table 4 Summary of Key Aspects of Project - Masterplan

Aspect	Description
Project Summary	Site preparation, demolition works, tree removal, construction of new School buildings, outdoor covered learning areas, covered walkways, landscaping, core facilities and associated works. The project will accommodate 656 students and 65 full time equivalent (FTE) staff.
Site Preparation[3]	• Site Remediation • Removal of 96 trees; and • Civil works.

Built Form	• Administration building and Library, including an amenities block;
	• Junior School facilities, comprising:
	  ○ Ten (10) General Learning Areas (GLAs);
	  ○ Two (2) Specialist classroom;
	  ○ One (1) Store; and
	  ○ Covered Outdoor Learning Area (COLA)
	• Middle School facilities, comprising:
	  ○ Seven (7) General Learning Areas (GLAs);
	  ○ One (1) Science classroom; and
	  ○ Covered Outdoor Learning Area (COLA)
	• Senior School facilities, comprising:
	  ○ Eight (8) General Learning Areas (GLAs);
	  ○ One (1) Specialist classroom;
	  ○ Three (3) TAS classrooms;
	  ○ Two (2) Food Tech classrooms;
	  ○ One (1) Art classroom;
	  ○ One (1) Drama classroom;
	  ○ Four (4) amenities block;
	  ○ Three (3) Store; and
	  ○ Covered Outdoor Learning Area (COLA)
	• Hope School (special needs) facilities, comprising:
	  ○ Four (4) General Learning Areas (GLAs);
	  ○ One (1) Specialist classroom;
	  ○ Four (4) Shared Withdrawal rooms;
	  ○ One (1) Office;
	  ○ One (1) Staff room;
	  ○ One (1) Interview + Therapy room;
	  ○ Three (4) amenities block;
	  ○ Three (3) Store; and
	  ○ Covered Outdoor Learning Area (COLA)
	• Multi-Purpose Hall.

Landscaping	Landscaping works including the planting of 141 new trees, large and small-medium shrubs, ground covers, inclusion of a yarning circle, play areas, nature trails, productive gardens, sensory play areas and a bush chapel.
Entry and Signage	One (1) school entrance wall sign that is 1.1m high and is not illuminated. One (1) typical free standing that is 3.75m high and 1.6m wide and illuminated. Seven (7) typical free standing wayfinding multi destinations signs are proposed throughout the school. The signs are 1.85m high and 700mm wide. These signs are not illuminated.
Utility Infrastructure	All new structures. Existing connection to main sewer will require augmentation. Single connection to existing authority connection within the site's boundary. Existing site potable supply will likely require augmentation. Single connection to the existing authority within the site's boundary. Storage tanks and booster pumps will be required to cater for the required flow and pressure for fire fighting purposes.

[3] *Note: Supplementary packages of work will be undertaken via alternative planning pathways in order to facilitate the construction of the proposal. These early works do not form part of this SSD application and are referenced only for context in regard to the preparation of the site for the works now proposed. Refer to* ***Section 1.3.8*** *for more information.*

2 Project Description

Table 4 Summary of Key Aspects of Project - Masterplan	
Aspect	**Description**
	Fire hydrants will be required. Electrical pad mounted kiosk substation located along Maitland Street. Main communication room to be located in Administration building and replace any redundant Telstra/ NBN cabling.
Site Area	2.432ha
Use	Educational establishment (proposed)
Access	Vehicular access for parking, deliveries and maintenance is provided off Maitland Street. Widening of existing vehicular access from Maitland Street.
Car parking	• Entry and exit from existing southern cross over with loop driveway • 67 Parking spaces inclusive of one (1) accessible spaces • Kiss and drop facility • Pedestrian access spine through middle of car park
Bicycle parking	• 36 bike racks, catering for 72 bicycles.

Hours of operation	• Operational hours will be 07:30am – 10pm Monday - Friday (this includes before and after school care and use of the multipurpose hall) and 8.30am - 10pm Saturdays (multipurpose hall).
	• School Bell times will be 08:35am to commence school and 3.10pm to finish school with recess bells starting at 10.35am and 10.50 am and lunch bell starting at 12.55pm and 1.10pm.
	• Multi-Purpose Hall operating hours
	  ○ School use – Ordinary school hours
	  ○ Community use – As per individual agreements between school and community groups/ member

Community use	• The Multi-Purpose Hall will be available for community use upon agreement with the School.
Construction hours	• 7am – 6pm Monday to Friday • No construction deliveries between 8.00am to 9:30am, and between 2.00pm to 3:30pm on school days for stages subsequent to Stage 1. • Saturday: 7:00AM to 1:00PM (Work hours may be altered in accordance with COVID-19 Health Orders at the time of construction); and • Sunday and Public Holidays: No planned work
Jobs	• Up to 65 full time operational jobs. • Up to 129 full time construction jobs. • 20 year construction period
Students	• 656 Students
CIV	Approximately $34,579,000 (**Appendix 28**)

2 Project Description

2.2 Project Summary – Stage 1

The key aspects and features of Stage 1 are set out in **Table 4**.

Table 5 Summary of Key Aspects of Project

Aspect	Description
Project Summary	Site preparation/ remediation, tree removal, construction of part new carpark, installation of modular buildings, installation of COLA, landscaping, core facilities and associated works. The project will accommodate 140 students and 16 FTE staff.
Site Preparation	• Site Remediation (entire site) • Removal of 7 trees; • Civil works (including car park of 15 spaces)
Built Form	• One (1) administration and staff area; • One (1) staff and student amenities block (including one (1) end of trip facility); • Five (5) General Learning Areas (GLAs); • One (1) Science classroom; and • Covered Outdoor Learning Area (COLA)
Landscaping	No additional landscaping is proposed for the Stage 1 works
Entry and Signage	No signage proposed under SSDA. Should any signage be required for Stage 1, this will be undertaken as Exempt Development.
Utility Infrastructure	Existing services to be utilised for Stage 1 works.
Access	Vehicular access for parking, deliveries and maintenance is provided off Maitland Street. Widening of existing vehicular access from Maitland Street.
Car parking	• Entry and exit from existing southern cross over with loop driveway • 15 Parking spaces inclusive of one (1) accessible space • Kiss and drop facility • Pedestrian access spine through middle of car park
Bicycle parking	• 6 bike racks, catering for 12 bicycles.
Hours of operation	• Operational hours will be 07:30am – 6.30pm Monday - Friday (this includes before and after school care) and 8.30am - 4pm Saturdays • School Bell times will be 08:35am to commence school and 3.10pm to finish school with recess bells starting at 10.35am and 10.50 am and lunch bell starting at 12.55pm and 1.10pm.
Construction hours	• 7am – 6pm Monday to Friday • Saturday: 7:00AM to 1:00PM (Work hours may be altered in accordance with COVID-19 Health Orders at the time of construction); and • Sunday and Public Holidays: No planned work
Jobs	• Up to 16 FTE operational jobs. • Up to 11 full time construction jobs. • Two (2)-month construction period.
Students	• 140
CIV	Approximately $2,806,000 million (**Appendix 28**)

2.3 Physical Layout and Design - Masterplan

The new built form including the carpark, driveway and school entry will be predominantly located to the south of the site with the exception of agricultural and maintenance bus area. This allows for retention of existing vegetation, responds to topography and site constraints, and enables safe pedestrian access to the school and secure community access to the multi-purpose hall outside of school hours.

The indicative layout of the proposed works is provided at **Figure 23.**

2 Project Description

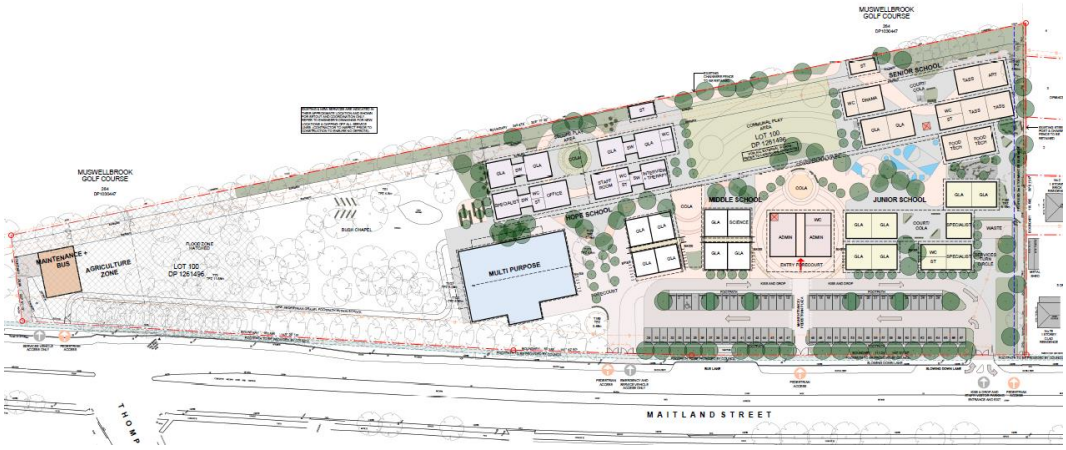

Figure 23 Indicative masterplan

2.4 Physical Layout and Design – Stage 1

Stage1 built form includes part carpark, driveway, school entry, eight (8) buildings and a COLA to the south of the site. Stage 1 works allow for retention of most existing vegetation and responds to topography.

The layout of the proposed works is provided at **Figure 24.**

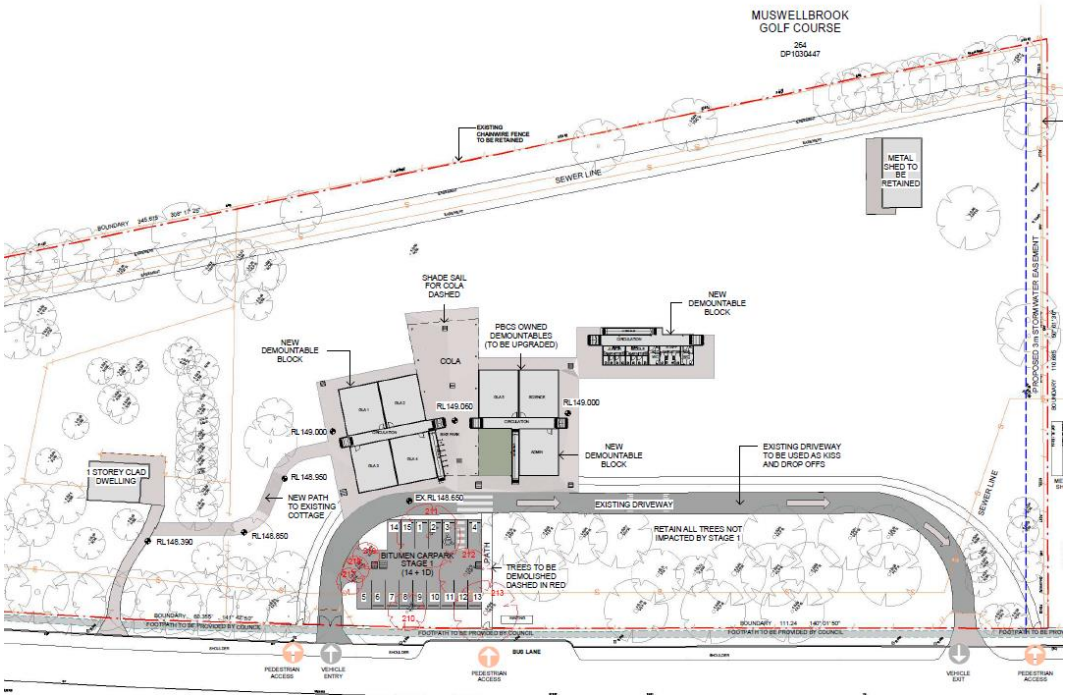

Figure 24 Stage 1 layout (entry and exit marked in grey arrow)

3 Strategic Context

3.1 Strategic Justification and Project Need

Pacific Brook Christian School is currently operating from a small school site at 96-104 Hill Street, Muswellbrook. The school population is increasing and therefore outgrowing the site to accommodate for future growth.

The new school will assist in addressing the NSW State and Premier's priority for 'highest quality education' and the Hunter Regional Plans for Muswellbrook to enhance its role as a centre of educational excellence in the Upper Hunter.

The project will provide general learning areas and supported learning spaces (Hope School), alongside provision of a new outdoor covered learning areas and shared use multi-purpose Hall.

The project objectives are as follows:

- Provide new learning spaces;
- Provide joint use multi-purpose hall;
- To provide a high-quality built form and open spaces that are adaptable and flexible to cater for future educational needs; and
- To provide safe and efficient access for students, teachers, visitors and service personnel.

3.2 Strategic Plans

3.2.1 State Policies

Table 6 provides a summary assessment of the proposed development against the relevant provisions, goals and objectives of relevant State policies.

Table 6 Response to Provisions, Goals and Objectives of State Policies

State Policy	Response
NSW State and Premier's priorities • Highest quality education • Bumping up education results for children • Increasing the number of Aboriginal young people reaching their learning potential	The proposal is consistent with relevant State and Premier priorities as it will: • Create new jobs for construction workers, and maintain employment for teachers, support staff and maintenance workers • Provide educational infrastructure to support the growing population in the locality. • Provide specialist educational facilities for students with special support needs. • Provide a high-quality environment to enable a high quality publicly funded education; and • Provide a safe learning environment and education regarding personal protection and welfare.
Hunter Regional Plan 2036	The project is consistent with Hunter Regional Plan as the new school will enhance Muswellbrook's role as a centre of educational excellence in the Upper Hunter.
Muswellbrook Local Strategic Planning Statement 2020-2040	The proposal is consistent with the planning priorities 8, 11, 12, 14, 15 and 19 Planning Priority 8 – The proposal is for an educational establishment and will also offer employment opportunities. Planning Priority 11 – Future footpaths along Maitland Street allow connectivity for pedestrian movements and healthier transport options. Planning Priority 12 – The proposal utilises and expand on existing infrastructure services. Planning Priority 14 – The proposal incorporates feedback from key Local Aboriginal Stakeholders. Planning Priority 15 – Vegetation to the northern section of the site ahs been retained along with significant trees as noted by the project arborist.

3 Strategic Context

Table 6 Response to Provisions, Goals and Objectives of State Policies	
State Policy	**Response**
	Planning Priority 19 – The proposed school buildings are located outside of the 1 in 100 year flood affected area of the site. The site is being remediated where required.
Future Transport Strategy 2056 Relevant vision outcomes: • Successful places • Accessible services • Sustainability	The strategy sets six state-wide outcomes to guide investment, policy and reform and service provision. The proposal will support the relevant vision outcomes identified in the NSW Future Transport Strategy 2056 by: • Active travel to the school is further encouraged through the provision of 36 bike racks, catering for 72 bicycles and of end of trip facilities. • Encouraging the use of public transport through the provision of school bus services; and • Supporting more environmentally sustainable travel by adopting green travel initiatives to discourage private car use in favour of more sustainable means.
State Infrastructure Strategy 2018-2038 Building the Momentum	The proposal is consistent with this Strategy as it provides new learning spaces. The new learning spaces will provide a modern digitally enabled learning environment for students.
Koala Habitat Protection Guideline (DPIE 2020)	The Koala Habitat Protection Guideline was the implementation tool for the new Koala Habitat SEPP. As SEPP's (Koala Habitat Protection) 2020 and 2021, are now in force, the SEPP's are the overarching legislation relevant to this proposal, these have been addressed at **Section 4.7.8** of this report
Crime Prevention Through Environmental Design (CPTED) Principles	This report provides a CPTED assessment of the proposal at **Appendix 4**. The assessment considers and responds to the objectives and desired outcomes of the principles/strategies employed by CPTED.
Healthy Urban Development Checklist, NSW Health	The design of the educational facilities at Muswellbrook is consistent with the relevant aspects of the Healthy Urban Design Checklist as it will: • Utilise residential zoned land and not reduce the availability of agricultural land. • Promote walking and cycling through provision of appropriate infrastructure within and immediately adjoining the site. • Include CPTED principles in its design to promote a safe environment for students and visitors to the school; and • Provide equitable access to facilities.
Better Placed: An integrated design policy for the built environment of NSW (GANSW, 2017) This policy aims to ensure a well-designed built environment that is: • Healthy for the community • Responsive to the needs and aspirations of local people • Integrated • Equitable and • Resilient	The project team met with GANSW and the State Design Review Panel (SDRP) two (2) times through the design process, and comments were incorporated into the design accordingly. The project meets the objectives of this policy as follows: • The proposal provides 36 bicycle racks (for 72 bicycles) and end of trip facilities to encourage walking and cycling. • Proposed multi-purpose hall promotes physical activities. • The proposal is responsive to the needs and aspirations of the community by providing new educational facilities • The proposal is integrated into the community through the incorporation of a Multi-Purpose Hall (available for community use) and through being adjacent to residential, commercial and recreation uses. • The proposal provides educational facilities for all students including those with special needs
Design Guide for Schools (GANSW, 2018) This policy aims to: • Promote and champion good design processes and outcomes for schools across NSW; and • Deliver schools that respond positively to	Schedule 4 of the Education SEPP sets out the seven (7) design quality principles which must be addressed as part of any development application for a school. The Design Guide for Schools provides further guidance around each of the seven (7) design principles, and outlines design considerations to be considered for school projects. The Architectural Design Analysis Report (**Appendix 8**) provides an analysis of the design against the design quality principles and finds that the proposal satisfies the principles, including responses to biodiversity values, site circulation/accessibility, safety and security, social and environmental context, adaptability of learning environments, and quality of materiality.

3 Strategic Context

Table 6 Response to Provisions, Goals and Objectives of State Policies	
State Policy	**Response**
their physical, social and environmental context; and • Support the delivery of excellent learning environments.	
Environmental Design in Schools (GANSW, 2018) This policy aims to provide school principals and school communities with a holistic understanding of environmental design.	The Environmental Design guide presents strategies for passive design as opportunities for making positive, sustainable change in the building or running of a school. The strategies set out in the Environmental Design guide have been incorporated into the proposal with common objectives with the green star system, seeking to achieve environmentally sensitive design (ESD) and ensure its integration into school development.
Draft Greener Places Design Guide (GANSW) The Draft Greener Places Design Guide framework provides information on how to design, plan, and implement green infrastructure in urban areas throughout NSW. The major components that make up the green infrastructure network fall into three categories: • Open space for recreation: green infrastructure for people • Urban tree canopy: green infrastructure for climate adaptation and resilience • Bushland and waterways: green infrastructure for habitat and ecological health.	The proposal provides additional landscaping, providing a net increase in the canopy coverage over the site. Outdoor learning areas are also proposed to increase teaching/ student learning facilities.

4 Statutory Context

4.1 Planning Approval Pathway

The proposal comprises a new school and therefore pursuant to Clause 15(1) of the SRD SEPP, the proposed works are classified as State Significant Development.

4.2 Permissibility

Educational Establishments are not permissible in the current RU3 Forestry Zone (**Figure 25**).

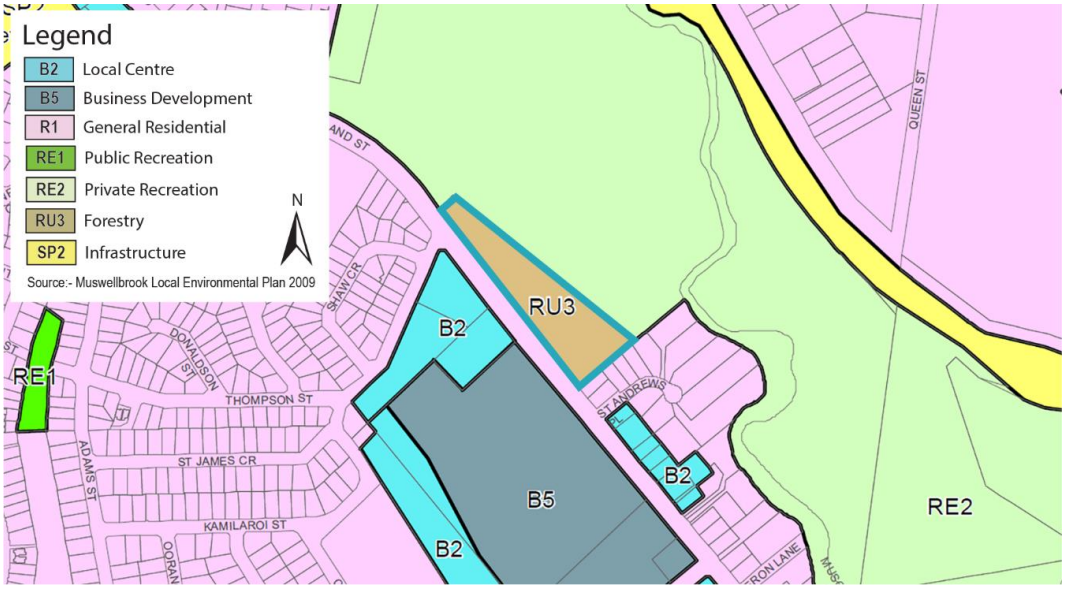

Figure 25 Extract from Muswellbrook zoning map

A Planning Proposal is being sought concurrently to this SSDA, seeking rezoning of the site at 72-74 Maitland Street to R1 General Residential (R1 zone), as shown at **Figure 26**. Educational Establishments are permissible with consent in the R1 zone.

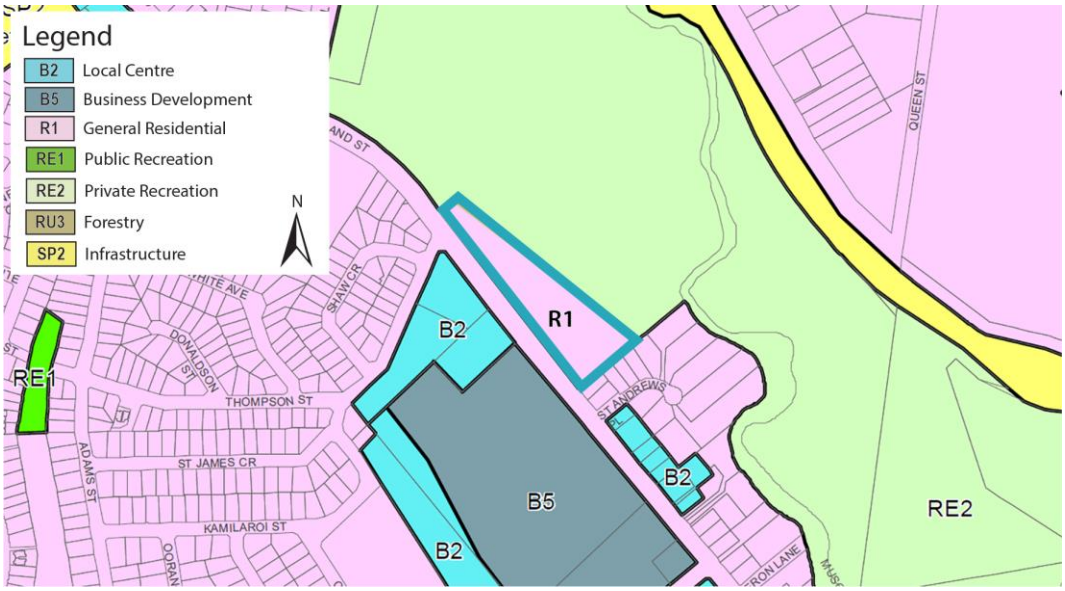

Figure 26 Proposed Muswellbrook LEP zoning map (subject of current Planning Proposal)

4 Statutory Context

4.3 Statutory Approvals

4.4 Commonwealth Department of Environment and Energy

4.4.1 Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places and is the Australian Governments central piece of environmental legislation.

The Planning Secretary's Environmental Assessment Requirements (SEARs) (SSD-16858710) details the provision of a BDAR as a requirement of the proposed SSDA. As such, the Biodiversity Offset Scheme (BOS) applies and a BDAR has been completed by Kleindfelder (**Appendix 12**).

No EPBC listed species were assessed as likely to occur within the Subject site, therefore, a referral to the Commonwealth Minister for the Environment is not considered necessary.

4.5 NSW Department of Planning, Infrastructure and Environment (DPIE)

4.5.1 Heritage Act 1977

The *Heritage Act 1977* contains provisions relating to the protection of items of State heritage significance or items of potential significance.

Section 57 relates to items listed in the State Heritage Register or to which an interim heritage order applies and development relating to such items triggers the integrated development provision of the EP&A Act. The site does not comprise an item listed on the State Heritage Register or an item that is subject to an interim heritage order.

A Heritage Impact Statement prepared by NBRS Heritage (**Appendix 24**) notes there a three (3) locally heritage listed items located within 400m-1.3km of the site. The report also notes that these items are both visually and physically removed from the site.

The proposed new school will not impact on the surrounding heritage items of local significance.

4.5.2 National Parks and Wildlife Act 1974 (NPW Act)

The NPW Act contains provisions relating to the protection of native terrestrial fauna, flora and Endangered Ecological Communities (EEC) and contains the primary statutory controls relating to Aboriginal heritage in NSW.

Section 90 of the NPW Act does not apply to SSD pursuant to Section 4.41 of the EP&A Act, however provisions relevant to Section 90 of the NPW Act have been considered in the body of this assessment.

An Aboriginal Cultural Heritage Assessment (ACHAR) has been prepared by APEX Archaeology (**Appendix 6**), which provides an assessment of the Aboriginal cultural heritage values of the site. The findings of the ACHAR are discussed in detail at **Section 6.2.1**.

4.6 Transport for NSW (TfNSW) – NSW Roads and Maritime Services (RMS)

4.6.1 Roads Act 1993

Section 138(1) of the *Roads Act 1993* relates to works associated with public roads and provides that a person must not:

> *"(a) erect a structure or carry out a work in, on or over a public road, or*
>
> *(b) dig up or disturb the surface of a public road, or*
>
> *(c) remove or interfere with a structure, work or tree on a public road, or*
>
> *(d) pump water into a public road from any land adjoining the road, or*

4 Statutory Context

(e) connect a road (whether public or private) to a classified road,

otherwise than with the consent of the appropriate roads authority."

The site is bound by Maitland Street to the south-west, with two (2) existing crossovers. These crossovers are proposed to be retained and upgraded as part of the works.

4.7 Mandatory Matters for Consideration

4.7.1 Environmental Planning and Assessment Act 1979

Section 1.3 – Objects of the EP&A Act

Section 1.3 of the EP&A Act sets out the Objects of the Act. An assessment of the proposed development's consistency with these Objects is provided at **Appendix 2**. The assessment concludes that the proposal is consistent with the Objects of the Act.

Section 4.41 – Approvals etc Legislation that Does Not Apply

Section 4.41 outlines that a range of authorisations are not required for SSD. None of the authorisations listed under Section 4.41 would otherwise have been required for the proposed development, so these provisions have no effect on the current proposal.

4.7.2 Biodiversity Conservation Act 2016

Part 7 of the Biodiversity Conservation Act 2016 (BC Act) sets out provisions relevant to biodiversity assessment and approvals under the EP&A Act. Specifically, Clause 7.9 applies to an application for development consent under Part 4 of the EP&A Act for SSD. This includes the proposed development.

Clause 7.9(2) and (3) set out the following requirements:

(2) Any such application is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

(3) The environmental impact statement that accompanies any such application is to include the biodiversity assessment required by the environmental assessment requirements of the Planning Agency Head under the Environmental Planning and Assessment Act 1979.

Kleinfelder prepared a Biodiversity Development Assessment Report (**Appendix 12**) to accompany the SSDA. The assessment within the report was undertaken in accordance with the NSW Biodiversity Assessment Method (BAM) under the Biodiversity Conservation Act 2016 (BC Act). Further assessment of the findings of the BDAR under the BC Act is provided at **Section 6.4.2**.

4.7.3 State Environmental Planning Policy (State and Reginal Development) 2011

Clause 15 of Schedule 1 of the SRD SEPP identifies new educational establishments (schools) as State Significant Development, regardless of the CIV.

Rider Levett Bucknall has prepared a Capital Investment Value Letter which identifies that the CIV of the proposed development will be greater than $20 million.

Clause 11 of the SRD SEPP outlines that DCPs (whether made before or after the commencement of the SEPP) do not apply to SSD.

4.7.4 State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

Part 4 of the Education SEPP sets out specific development controls for schools, which are addressed in **Table 7**.

4 Statutory Context

Table 7 Education SEPP Part 4 - Schools	
Requirement	**Response**
Clause 35(6)(a): Evaluation of design quality principles in Schedule 4	NBRS has prepared an Architectural Design Analysis Report (**Appendix 8**) which provides an evaluation of the proposal against the design quality principles under Schedule 4 and demonstrates consistency.
Clause 35(6)(b): Does development enable shared community use of school facilities	The proposed development will enable the shared community use of a Multi-Purpose Hall (**Section 2.1**).
Clause 35(9): DCP controls relating to Clause 35 subclauses (1), (2), (3), or (5) does not apply	Noted, but notwithstanding, an assessment against DCP controls has been provided at **Appendix 2**.
Clause 42: Development consent may be granted even though development would contravene a development standard imposed by this or any other EPI.	Assessment on Built Form is contained in **Section 6.1** of this EIS. The proposal does not contravene any development standards
Clause 57 Traffic generating development: Referral to RMS required if development will result in educational establishment being able to accommodate 50 or more additional students.	The proposal will result in accommodation of 50 or more additional students, therefore referral to RMS is required. As discussed at **Section 5.3.1** of this EIS, the project team has carried out consultation with TfNSW and has incorporated that feedback into the body of this SSDA submission.

4.7.5 State Environmental Planning Policy (Infrastructure) 2007

The Infrastructure SEPP applies to the state and seeks to facilitate the efficient delivery of infrastructure. The SEPP sets development controls for specified types of infrastructure and referment requirements for 'traffic-generating development.

The site currently provides informal on-site parking. The works include a formal carpark of 67 parking spaces (15 in Stage 1). The site is located within 90m of a Classified Road and at peak times 50 or more vehicles per hour would be expected to enter/ exit the site, therefore triggering a requirement for referral to Transport for NSW. Matters relating to Traffic, Transport and Parking are assessed further in **Section 6.3**.

4.7.6 State Environmental Planning Policy No. 55 – Remediation of Land

SEPP 55 relates to remediation of contaminated land and requires, amongst other things, investigations to be undertaken as part of the development assessment process, to determine whether the subject land is likely to be contaminated and if so, what remediation work is required.

A Preliminary Site Investigation (PSI) (**Appendix 41**) and Detailed Site Investigation (DSI) (**Appendix 17**) were carried out by Douglas Partners in accordance with SEPP 55 and NSW Environmental Protection Agency (EPA) endorsed criteria and overseen by an EPA Accredited Auditor (refer **Appendix 25**). A Remediation Action plan was recommended as part of the investigation (refer **Appendix 29**).

The assessment concludes that the site will be suitable for the proposed development after the remediation has been completed. A detailed assessment of contamination and remediation is provided at **Section 6.6**.

4.7.7 State Environmental Planning Policy No. 64 – Advertising and Signage;

SEPP 64 aims to ensure that signage is safe, compatible in its character setting, and effective in its communication.

The proposed signage is of a scale which is considered suitable for the length and height of the built form and the size of the Site and will not dominate the streetscape of Maitland Street

While no signs are proposed as part of Stage 1, in total nine (9) signs are proposed for the masterplan, including:

- One (1) school entrance wall sign is proposed. The proposed sign is 1.1m high and is not illuminated;
- One (1) typical free-standing sign is proposed. The proposed sign is 3.75m high and 1.6m wide and illuminated; and
- Seven (7) typical free-standing wayfinding multi destinations signs are proposed throughout the school. The signs are 1.85m high and 700mm wide. These signs are not illuminated.

Signage for the masterplan is detailed in the Architectural plans and Architectural Design Analysis Report prepared by NBRS (**Appendix 8** & **9**).

An assessment of the proposed signage against the provisions of SEPP 64 is provided at **Appendix 2**.

4.7.8 State Environmental Planning Policy (Koala Habitat Protection (2020 and 2021)

The policy applies to specific Councils as set out in Schedule 1 of the 2021 SEPP, or land identified in the 2021 SEPP.

Muswellbrook is listed in Schedule 1 of the 2021 SEPP and as such this policy applies. The SEPP requires that the consent authority be satisfied that the developable land is not potential, or core, Koala Habitat.

This Policy aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline—

> *(a) by requiring the preparation of plans of management before development consent can be granted in relation to areas of core koala habitat, and*
>
> *(b) by encouraging the identification of areas of core koala habitat, and*
>
> *(c) by encouraging the inclusion of areas of core koala habitat in environment protection zones.*

A BDAR was prepared by Kleinfelder, which identified the site as not comprising Core Koala Habitat (**Appendix 12**)

4.7.9 Draft State Environmental Planning Policy (Remediation of Land)

The Department of Planning and Environment (now DPIE) exhibited the proposed SEPP from 1 January to 13 April 2018. It is proposed the new land remediation SEPP will:

- Provide a state-wide planning framework for the remediation of land maintain the objectives and reinforce those aspects of the existing framework that have worked well.
- Require planning authorities to consider the potential for land to be contaminated when determining development applications and rezoning land.
- Clearly list the remediation works that require development consent; and
- Introduce certification and operational requirements for remediation works that can be undertaken without development consent.

In light of the above, it is considered that the assessment of the proposed development within this report satisfactorily considers relevant matters, and that the proposal is acceptable in these regards.

4.7.10 Draft State Environmental Planning Policy (Environment)

DPIE exhibited the proposed Environment SEPP to 31 January 2018 which seeks to protect and manage the natural environment and proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

It proposes consolidating the following seven existing SEPPs:

- State Environmental Planning Policy No. 19 – Bushland in Urban Areas
- State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011
- State Environmental Planning Policy No. 50 – Canal Estate Development
- Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment
- Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2-1997)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Willandra Lakes Regional Environmental Plan No. 1 – World Heritage Property.

It is considered that the environmental assessment within **Section 6** of this EIS satisfactorily considers relevant matters and that the proposal is acceptable in these regards.

4.7.11 Draft State Environmental Planning Policy (Infrastructure) (Health Infrastructure Provisions).

The proposed amendments to SEPP (Infrastructure) relate to infrastructure such as community health centres, consulting rooms and ambulance facilities. These amendments do not impact on the proposed development.

4.7.12 Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

A review of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 was carried out in 2020 and the resultant changes are due to be introduced shortly. An overview of the proposed amendments as they may relate to this project are:

- Clarify existing provisions to better reflect the policy intent;
- Facilitate ongoing assessment commensurate with impacts and capital investment values;
- Update organisation names, definitions, and legislation references;
- Increase the capital investment value trigger for new schools and alterations and additions to existing schools and tertiary institutions to better reflect the nature and impact of these developments; and
- Clarify investigations, including geotechnical and other testing, surveying, and sampling as exempt development.

The proposed amendments to the Education SEPP do not impact the proposed development.

4.7.13 Muswellbrook Local Environmental Plan 2009

A detailed assessment of the proposed development against the relevant (proposed) provisions of Muswellbrook Local Environmental Plan 2009 (LEP) is provided in the Statutory Compliance Table (**Appendix 2**). In summary, the proposal is generally consistent with the provisions of the LEP.

The site does not currently have a mapped Height of Building or Floor Space Ratio (FSR) development standard. Proposed Height of building and FSR are proposed as part of the Planning Proposal in keeping with surrounding residential development standards. Refer to **Figure 27** and **Figure 28.**

The proposal is consistent with both the proposed height of building (8.5m) and proposed floor space ratio (0.5:1) development standards with a maximum height of 4.932m (Stage 1) and 8.5m (Masterplan), and an FSR of 0.028:1 (Stage 1) and 0.21:1 (Masterplan). Impacts associated with the proposed built form are discussed in **Section 6.1**.

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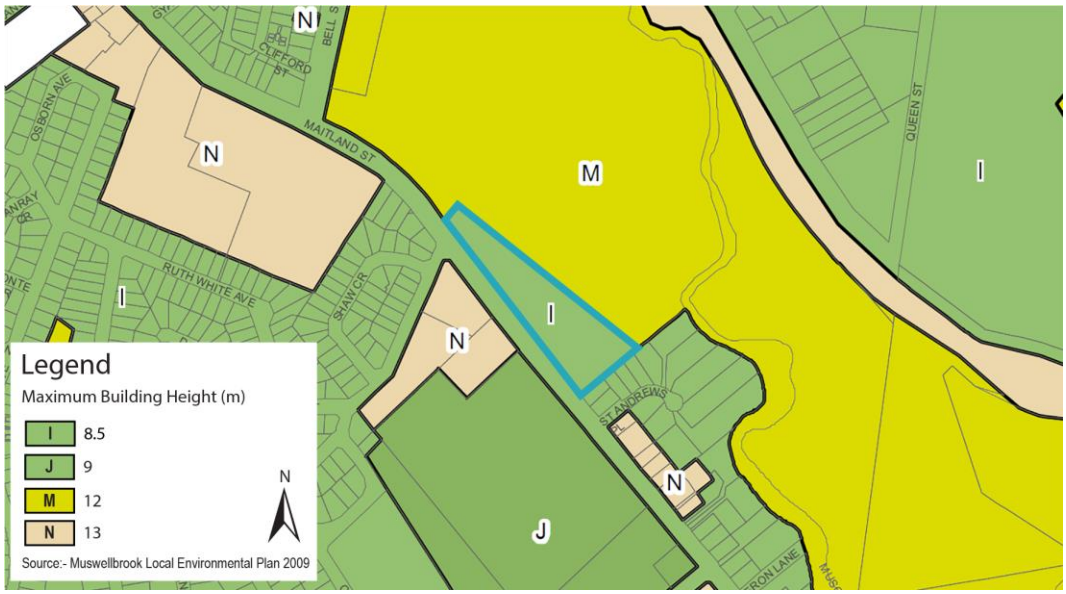

Figure 27 Proposed Height of building map (subject of current Planning Proposal)

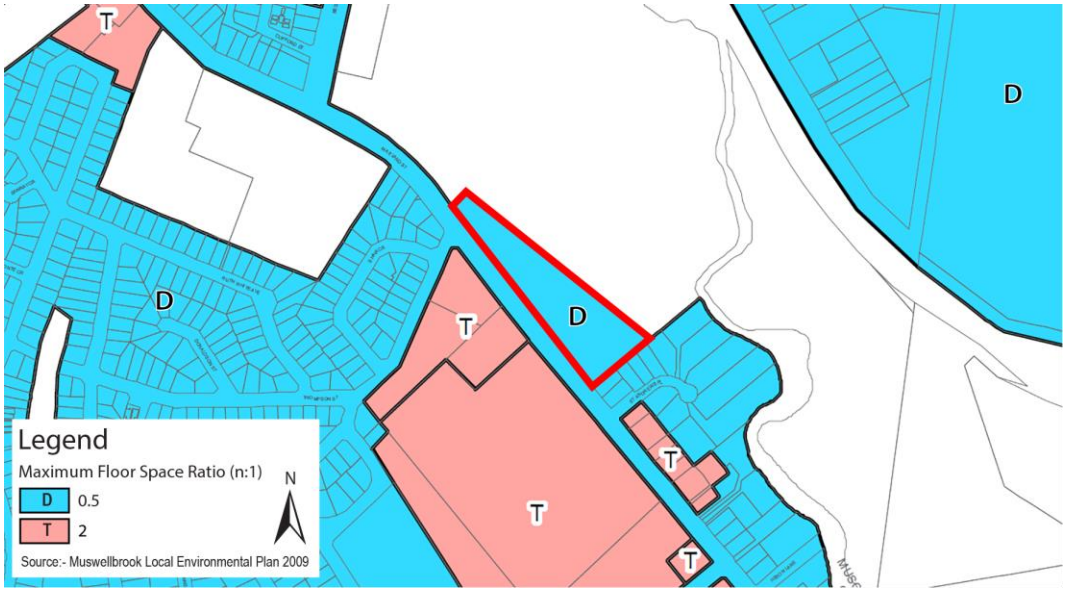

Figure 28 Proposed Floor space ratio map (subject of current Planning Proposal)

4.7.14 Muswellbrook Shire Development Control Plan 2009

It is noted that Clause 11 of the State and Regional Development SEPP and Clause 35(9) of the Education SEPP exclude the application of Development Control Plans to SSDAs. Notwithstanding, an assessment of the proposed development against the provisions of Muswellbrook Shire Development Control Plan (DCP) 2009 that may otherwise be deemed relevant is provided at **Appendix 2**.

The proposed development is generally consistent with the provisions of the DCP, with the exception of car parking (refer to **Section 6.3**).

5 Consultation

5.1 General

In accordance with the SEARs issued by the Department of Planning and Environment, the project team has carried out consultation with the following stakeholders:

- Muswellbrook Shire Council;
- Department of Planning and Environment;
- NSW Government Architect;
- Transport for NSW;
- Special interest groups including Local Aboriginal Land Council and registered Aboriginal stakeholders;
- Affected landowners;
- Pacific Brook Christian School Staff and Students; and
- Relevant Community Groups.

Consultation was carried out between May 2020 and August 2021. DFP Planning has prepared a Consultation and Communication Report (**Appendix 15**) which details all consultation carried out for the proposal. Relevant details of the consultation carried out by the project team are set out in the following sections.

5.2 Community Engagement

5.2.1 Project Control Group

A Project Control Group was formed for the Pacific Brook Christian College Project, which comprised the following representatives (**Table 8**):

Table 8 Project Reference Group for Pacific Brook Christian School Project

Project Reference Group Members	Role
Pacific Brook Christian School	Pacific Group Business Manager
Pacific Brook Christian School	Property Projects Manager – Regional
Pacific Brook Christian School	Principal
Individual Consultant	Project Manager
NBRS Architecture	Senior Architect
NBRS Architecture	Project Architect
NBRS Architecture	Project Architect
DFP Planning	Town Planner

The PCG consulted extensively with stakeholders and community members throughout the design development process, including initial design workshops and meetings which provided the PCG with input on the design of the school.

To date, there have been 12 PCG meetings and these will be on-going throughout the project as necessary now that schematic design is complete, to ensure the project is carried out in accordance with the initial visions and objectives of the PCG.

5.2.2 Community Groups

Multiple community engagement strategies were carried out to ensure a broad range of the community was canvassed about the project. Key community stakeholders were identified as school staff, parents, local community, Council and Aboriginal community.

5 Consultation

The Consultation and Communication Report (**Appendix 15**) details all consultation carried out for the proposal, including with community groups. Engagement strategies include:

- Project Control Group meetings.
- Site meetings
- Information sessions with Stakeholders
- Community Newsletter
- Letters
- Meetings
- Project updates

A total of six (6) interactions with community members were logged.

Feedback received from the above community consultation has been taken into consideration in the preparation of this EIS, including steps to address key concerns, as summarised in **Table 9.**

Table 9 Response to Key Concerns from Consultation

Key Issues	Project Response	Relevant Report
Flood		
Flood affectation	The buildings are proposed to be sited above the flood planning level as noted in the Flood impact assessment.	Flood Impact Assessment Architectural Plans
Easements		
Provision of easements	Easements have been provided over the sewer along Maitland Street and a 3m stormwater easement provided along the boundaries to residential properties to the south-east.	Architectural plans
Traffic Noise and Safety of Entry/ Exit to Site		
Safe vehicular access Noise generation from traffic	Entry/ exit to site has been designed in accordance with TfNSW requirements. Traffic noise to the operation of the school is reduced through the placement of the buildings being setback from Maitland Street. An acoustic wall is proposed along the boundary to the residential properties to reduce noise from the carpark/ waste area.	Traffic Impact Assessment
Car parking		
Car-park location	Alternate car park locations were considered, however not supported due to noise generation, existing easements ensuring the built form sits outside of the flood extents.	Architectural plans Architectural Design Response Traffic Impact Assessment
Amenity Impacts to Neighbours through Additional Noise		
Additional noise	Acoustic wall along boundary from waste area to Maitland Street. Minimise windows facing residential properties.	Noise and Vibration Impact Assessment. Architectural Plans

5 Consultation

Table 9 Response to Key Concerns from Consultation		
Key Issues	**Project Response**	**Relevant Report**
Removal of Unsafe Trees		
Unsafe trees	Removal of trees as per arborist report.	Arboricultural Impact Assessment
Connection with Country/ Incorporation of Aboriginal History into the Design		
Inclusion of Aboriginal history	Incorporate yarning circle, meeting place and bush chapel into the school design	Architectural Plans Architectural Design Response

Community consultation will continue throughout the assessment and construction phases of the project. Future consultation will include:

- Ongoing project information dissemination to provide timely and clear information, including newsletters, media releases, factsheets, community updates, letterbox drops;

5.3 Public Authority Engagement

5.3.1 Transport for NSW and the former Road and Maritime Service

TfNSW issued comments for inclusion in the SEARs for the proposed development. Following issuing of the SEARs, the project team consulted with TfNSW to discuss matters relating to the proposed new Pacific Brook Christian School.

Consultation was undertaken 18th August 2021. The meeting participants consisted of two (2) representatives from PTC, two (2) representatives from TfNSW, three (3) representatives from NBRS Architecture, one (1) representative from Pacific Brook Christian School, one (1) project manager on behalf of the school and two (2) representatives from DFP Planning. Discussion related to entry/ exit points, turning lanes, bus zones, a review of carpark location, potential future shared paths to the school, existing cycle provisions, school zone times and review of bus services.

Shared paths are subject to future discussions with Council.

5.3.2 Osbourne Buses

PTC contacted Osborne Buses in mid-2021 and were advised that changes to bus schedules were to be discussed with TfNSW. Correspondence on this matter is ongoing.

5.3.3 NSW Government Architect

The project team has carried out consultation with the Government Architect NSW (GANSW) through video conference together with the State Design Review Panel (SDRP) on 3rd March 2021.

The SDRP supported the following elements of the design approach:

- *The new site selection for the growing school and the biophilic and place-based opportunities inherent in this choice – The Bush School concept*
- *The development of a rational and considered approach to staging and delivery in response to specific budget, time and evolving school population considerations*
- *The overall landscape and built form strategy, especially retention of existing trees and arrangement of built form in clusters (villages) responding to topography, orientation, views, adjacencies and microclimate*
- *The proposed use of modular construction systems to enable the expedient and staged delivery of school buildings over time*

The SDRP recommendations and the design team response are provided in **Table 10**.

5 Consultation

Table 10 Design response to GA feedback	
SDRP feedback	**Design response**
Connection with Country	
The commitment to engage with the local Wanaruah Community, and the initial ideas to respond to Country across the campus are supported. The project is well positioned to respond to the Draft Connecting with Country Framework with a Wiradjuri Headmaster leading the project from the school side. How this develops should be subject to a deep integration of this opportunity in the design and delivery process.	Addressed and included in SDRP 2 presentation.
With appropriately qualified Aboriginal consultants, a strategy should be developed embedding what is learnt through engagement, including how to manage knowledge that is shared, how to demonstrate a response to that knowledge through the project and how to 'report back' to your First Nations advisors fostering a continuing relationship through the design process.	Correspondence with the local indigenous community has been ongoing. The local indigenous community has provided input into the design and landscape strategy.
The following areas of exploration may inform the CwC response: • Cultural awareness, cultural expression, relationship with Country, learning from Country • Incorporating place names and language to connect and enrich • Referring to stories from the Wanaruah nation and their neighbours in the design process – both of and beyond the site • Consideration of, not only the human, but also of non-human inhabitants of the site and surroundings – including habitat retention and repair, maintenance of canopy corridors, any bush regeneration opportunities • Remediation and repair of the site following previous uses • Use of local materials and colours in the architecture and landscape design to fundamentally promote integration with place • Development of a strong and meaningful relationship between the built form and place based on the above	
Parking Traffic and Master planning	
The brief for the new school presents an opportunity to embrace and explore the qualities of the site: the experience of arrival at the school and the balance of managing mixed modes of transport all need to be examined carefully to harness the qualities of this site while creating safe and legible pathways.	Noted.
This is a chance to design a school from the ground up in a largely landscape setting, with the neighbouring golf course providing spatial and aesthetic benefits and the sporting facilities within walking distance creating further opportunities for developing the character of the school.	Refer to SDRP 2 comments.
The strategy of creating clusters or villages for Hope, Middle, Senior and Junior school groups is strongly supported. The current separation of Admin, Entry and Multi-Purpose Hall should be reconsidered with a view to creating a central gathering and meeting place, a 'school heart'.	Noted.
Currently the parking and traffic proposition is unsupportable and in conflict with other core aspirations presented for the campus. The desire for a clear and safe entry sequence is compromised by the approach where key nodes of pedestrian activity and points of arrival are severed from the school boundary by carparks and roads and people compete with cars for access to the centre of the school.	Refer to SDRP 2 comments.
Key areas to focus on in the next stage of design development include: • Reorganising the road and parking system into a less aggregated arrangement – fewer cars per parking area where possible and more scope for trees and permeable landscape • Explore space along the south-eastern residential interface for some parking • Prioritise the retention of existing trees in all options testing • Reduce the number of pedestrian crossings. Ensure the safe travel of students from the school boundary and into the school campus	Refer to SDRP 2 comments.

5 Consultation

Table 10 Design response to GA feedback	
SDRP feedback	**Design response**
• Create clear, pedestrian priority entry to the school grounds focusing on orientation in relation to the school heart • Develop a plaza / town centre for the school as a gathering space for the students, with further smaller courtyards distributed throughout the site as small village centres • Clarify circulation around the site as far as possible, remaining connected to the 'bush school' concept as a design driver	
Architecture and Built Form Concepts	
Architectural concepts presented include references to the animal totems and biophilic potential – these ideas should be further explored as the design develops	Addressed and included in SDRP 2 presentation.
Villages and clusters of low scale buildings arranged around courtyards are supported and should remain as integral ideas as the school grows	Addressed and included in SDRP 2 presentation.
The potential for indoor / outdoor learning opportunities, as manifest in the courtyard clusters, is also strongly encouraged	Noted.
Landscaping	
Landscape input must be integrated as the design develops	Addressed and included in SDRP 2 presentation.
A clear strategy for the retention of trees and the potential locations for new planting including integration with buildings, COLAs and ancillary shade canopies should be developed and presented	Addressed and included in SDRP 2 presentation.
Carefully consider the building clusters and their response to the landscape in the round, both inward and outward looking	Addressed and included in SDRP 2 presentation.

The project team carried out a second consultation with GANSW and the SDRP through video conference on 23rd June 2021. The SDRP supported the following elements of the design approach:

- *The extent of consultation since SDRP01 including meetings and walking country with the Wanaruah, Awabakal & Kamilaroi Aboriginal communities.*
- *The inspiration drawn from the Wedgetail eagle and its potential to inform a rich and nuanced architectural language.*
- *The proposed integration into the curriculum of the school of lessons learnt from the Aboriginal consultation.*
- *The separation of Junior, Middle, High and Hope Schools and the location of potential shared facilities across the site is logical and legible.*
- *The proposal for pastoral care of the campus with help from stewardship by a local Aboriginal couple.*
- *The development of the landscape design into distinct character courtyards associated with learning and age groups.*
- *The retention and care of the northern bush parts of the site, the nature trail and bush chapel.*

The SDRP recommendations and the design team response are briefly described in **Table 11**. A full response in provided in **Appendix 10.**

5 Consultation

Table 11 Design response to GA feedback	
SDRP feedback	**Design response**
Connection with Country	
Use the stories learnt during the Connecting with Country consultation to move beyond the application of pattern onto surfaces and integrate the learnings into a holistic and embedded approach to the design development of the landscape and built form, open spaces, circulation, nodes and meeting places.	The landscape design and treatment of open spaces was informed through the Connecting with Country consultation.
Seek opportunities to enrich the landscape and details within the built form with Aboriginal knowledge and embed the Dreaming Stories of the Wanaruah and Baiame as creator.	Consultation between the local Aboriginal maintenance team, school Principal and Aboriginal Wanaruah Elder provided input into the landscape design that facilitates the connection between students, staff, natural eco-systems and the elements. The masterplan also provides gathering spaces where students and staff can go on Country to engage with each other and their elders.
Consult with Aboriginal Communities throughout the development of the garden areas, especially regarding the usability of the yarning circle as a teaching space for people from all Aboriginal nations.	Local Aboriginal stakeholders have been consulted through the design process and will continue to be consulted with to implement the masterplan.
Provide clarity on proposed and retained planting employing standard landscape drawing conventions for legibility.	The landscape drawings have updated to provide clarity in regard to proposed and retained planting (**Appendix 26**).
Develop stronger integration between the existing northern bush open space and the courtyards in the proposed southern open areas of the campus.	The landscape drawings were updated to provide integration between the existing northern bush open space and proposed courtyards (**Appendix 26**).
Extend the canopy through the courtyards and open space to provide bush school character and shading while exploring methods beyond continued tree canopy through extensive ground planting, hard scape treatments and surface materiality.	Tree canopy has been extended where possible.
Provide further details on the (non-formal) 'bush chapel' with basic amenity to be made from local timbers.	Details of the Bush Chapel will be submitted at a future Development Application stage. The Bush Chapel does not form part of Stage 1.
The 2D representation of landscape should be developed to include 3D, plan and section drawings to illustrate the spatial, textural, material and visual character of each distinct proposed landscape space.	Detailed landscape plans of future stages will be submitted with future Development Applications, which will respond to the Landscape Masterplan.
Masterplan and Car Parking	
The proposed masterplan, pedestrian circulation and parking layout is not supported in its current configuration.	The car park configuration has been amended to provide main pedestrian entry to the north of the car park and reduce conflict between vehicles and pedestrians. One (1) pedestrian access through the carpark has been designed to be raised and differ in material from the car park. The location of the car park within the masterplan has not been amended. Additional discussion on this is provided at **Section 6.3**.
The current layout of buildings, pedestrian and traffic circulation appears to be an engineering driven response. This should be challenged from the point of view of how generations of students will experience arrival at and movement within the school and how the school will be perceived as a civic presence from the public realm.	The design is an architectural response to the opportunities and constraints of the site and has been prepared to maximise solar access, reduce noise to classrooms from Maitland Street and maximise internal surveillance of the open space areas within the school. The location of the car park is discussed further at **Section 6.1**

5 Consultation

Table 11 Design response to GA feedback	
SDRP feedback	**Design response**
The main entry, admin building and meeting place should have a stronger civic presence along Maitland Street rather than being setback behind two rows of car parking, a traffic aisle and a drop off lane.	Traffic generation/ noise from Maitland Street and existing services easements restricts development within the Maitland Street frontage of the site. Car parks can be built over easements and alternative locations for the car park were explored and abandoned as a result of little to no benefit to the other design factors (relevant to the masterplan) being able to be achieved. Additional discussion on this is provided at **Section 6.1**.
The current proposed location of the carpark and proposed drop off route are not supported; nor is the pedestrian arrival sequence across two lanes of vehicles from Maitland St. Relocation of staff parking to the southern boundary is strongly encouraged to reduce pedestrian safety risks and avoid the current physical and visual barrier resulting from the proposed Maitland St alignment.	Alternate options for the carpark were investigated, however not supported due to various reasons as listed in the SDRP response in **Appendix 10.**
This relocation to the southern boundary for staff parking will ease safety concerns with the current carpark location and convoluted vehicle/pedestrian circulation conflicts, provide a noise buffer for the adjacent dwellings, and allow for significant canopy tree planting in deep soil and extensive ground edge landscaping.	As noted above a relocation of the car park was not supported.
The school admin and entry area can be located closer to Maitland Street and in turn enable a larger internal courtyard 'heart' for the campus.	The Administration Building was not relocated due to reasons noted above, being, noise implications from Maitland Street and existing easement for services along the Maitland Street frontage.
The disaggregation of the Admin/Entry and the school heart and meeting place appears as a missed opportunity. The plaza / town centre to the school as a gathering space for the students, with further smaller courtyards for the students throughout the site is a core organising principle of the masterplan diagram. The location of proposed new buildings should continue to support this central space, rather than diluting the logic of a central entry/plaza.	In most non-government schools, the admin space does not signal the entry to the school campus. The admin area is primarily for visitors, however it is also accessible for students. Students at Pacific Brook Christian School will be generally encouraged not to enter the school via the administration building to reduce congestion. Students are encouraged to enter the school into the forecourt area until roll call is held at the home bases. Assembly will take place in the multi-purpose hall or in the adjacent forecourt (weather permitting).
The retention of the 'kiss and drop' along Maitland Street with a reduced waiting lane is recommended. Management of arrival times by age group etc could assist with queuing limitations.	Two (2) bell times are proposed to reduce the queuing at pick up/ drop off.
Continue correspondence with Transport for NSW to pursue the downgrading of Maitland Street which may provide increased roadside drop-off areas.	Correspondence with TfNSW is ongoing, however in general terms, TfNSW did not have any concerns with the carpark location or layout. TfNSW provided advice regarding the entry land to the carpark, which has been addressed by the traffic consultant. A timeline to the future potential reclassification of Maitland Street following construction of the Muswellbrook Bypass was not clearly established in terms that would enable current design outcomes to respond to and incorporate for the purposes of an SSDA. Future consideration of this matter may be necessary as the bypass is delivered and associated changes to Muswellbrook are realised.

5 Consultation

5.3.4 Muswellbrook Shire Council

A meeting was held with Muswellbrook Shire Council on 23rd January 2020 to discuss the proposal and gather feedback. **Table 12** provides an overview of key issues raised and the design/ project response.

Table 12 Consultation Summary – Muswellbrook Shire Council - Key Issues and Responses

Key Issue	Design Response
1. Contamination – EPA accredited Auditor to sign off on Remediation Action Plan	Interim Audit Advice has been provided by Ramboll (**Appendix 25**). The Auditor considers that the required remediation works can be undertaken in conjunction with the development of the site, however, the remediation should be completed prior to bulk earth works.
2. BDAR required	A BDAR was prepared by Kleinfielder (**Appendix 12**). The BDAR identifies that three (3) credits are required for the removal of 0.20ha of PCT 485. These credits can be within the IBRA region of Hunter, Ellerston, Karuah Manning, Kerrabee, Liverpool Range, Peel, Tomalla, Upper Hunter, Wyong and Yengo or any IBRA subregion that is within 100 kilometres of the outer edge of the impacted site.
3. SEPP (Koala Habitat) – applicable as land is mapped	A BDAR was prepared which did not identify the site as Core Koala Habitat (**Appendix 12**).
4. Archaeology – potential in Alluvium – ACHA required	An ACHA has been prepared by APEX (**Appendix 6**).
5. Flood – Site affected by flood – flood certificate/ flood planning level required	A Flood Impact Assessment has been prepared (**Appendix 21**) and identifies a Flood Planning Level of RL 148.11m AHD. Floor levels of the proposed building are RL 149.60m AHD.
6. Easements – easements to be provided over services. • 3m required adjacent residential properties • Sewer line along Maitland Street	An easement is proposed over the sewer line along Maitland Street and a 3m wide stormwater easement provide along the south-eastern boundary.
7. Thompson Street – Upgrade expected to commence March 2020	Thompson Street upgrade has not yet commenced, and construction timing is not known at this stage.
8. Planning Proposal to be endorsed by Council prior to lodgement of SSDA with proposed R1 zone	Lodged with DPIE in August 2021 (Ref: PP-2021-5041) and currently under assessment.
9. Developer Contributions – Water headworks contribution	Contributions to be included in Conditions of Consent.

5.3.5 Transport for NSW

A meeting was held with TfNSW on 18 August 2021 to discuss the proposal and gather feedback. **Table 12** provides an overview of key issues raised and the design/ project response.

Table 13 Consultation Summary – Transport for NSW - Key Issues and Responses

Key Issue	Design Response
Existing bus arrangements	Consultation with bus service providers has commenced.
Design of entry/exit	Entry/exit reviewed in response to TfNSW feedback.
Road cyclist safety	Further consultation with Council is being sought.
Northbound parents returning to town	No further action required.
Impacts of staggered bell times	School to incorporate staggered bell times.
Muswellbrook Bypass – update from team	Bypass not likely to impact projected figures.

5 Consultation

Table 13 Consultation Summary – Transport for NSW - Key Issues and Responses	
Key Issue	**Design Response**
Fencing for pedestrian access / safety	Review of fencing and access/safety to be incorporated into final design.
Provision for parent parking for short stay visits to school	Provision for parent parking incorporated into design.
Location and design of parking area including access points in response to SDRP comments.	Location and design of parking area not of concern to TfNSW and is supported in current arrangement.

6 Environmental Assessment

The following subsections provide a detailed assessment of the following environmental issues:

- Built form and urban design;
- Aboriginal and European heritage significance;
- Traffic, transport and parking;
- Tree removal and biodiversity;
- Landscape;
- Contamination, Hazardous Building Material and Remediation
- Flooding;
- Noise and vibration; and
- Ecologically sustainable development.

Other environmental issues are assessed in **Table 16** and the suitability of the site for development is assessed in **Table 17**.

6.1 Built Form and Urban Design

The project requires consideration of the opportunities and constraints that present at the site. The context of the site sits within a residential/ recreational/ commercial setting.

NBRS has set out the approach to the analysis of the site constraints and opportunities, as well as the design response to these matters, in an Architectural Design Analysis Report (**Appendix 8**). The Architectural Design Analysis Report identifies the urban residential/ recreational/ commercial/ context of the site and surrounds, and sets out the environmental factors and pedagogical approach that informed the design including:

- Existing urban context and interface with neighbouring built form;
- Environmental factors including topography of the land, flood and existing vegetation;
- Clear and well-defined pedestrian and vehicle access points which respond to the surrounding road network;
- Existing services;
- Consideration of pedestrian safety and proposed after-hours access;
- Safe student access to “Hope School”; and
- The proposed school has been designed using modular buildings and are situated above the 100yr ARI flood design level with connecting footbridges.

Site and Design Context

An opportunities and constraints study of the site identified the main site constraints to the layout and design of a new school campus, which are namely topography, flooding, existing vegetation, interface with adjoining properties and access from Maitland Street.

The study then identified the areas of the site suitable for development and where the greatest opportunities could be achieved. The proposed built form has been designed and located to protect and enhance vegetation to the north of the site, locate classrooms and other school building outside of flood affected land and provide appropriate interface with the existing surrounding development, including residential properties, Muswellbrook Golf Course, and Maitland Street.

6 Environmental Assessment

Masterplan Layout and Car Park Location

The master plan is centred around community, culture and a place where students can gather and interact with the environment. Relationship between built form, outdoor learning area and pedestrian access are significant design features.

Gathering spaces are an integral part of the design, these include:

- Meeting place – an outdoor area where students can express their Christian faith, connect with country and be thankful for nature, knowledge and community. This eagle wings of the library/ administration building provides weather protection and shelter.
- Bush Chapel – Intimate and secluded space, allowing for small group gatherings to celebrate nature and spirituality, located in a natural clearing within the existing trees and separated from learning spaces.
- Forecourt – provides direct access to the multi-purpose area with the main focal point being a centrally located, existing large Acacia Macredenia (Wattle)

The proposed car park location was chosen to create a noise barrier between Maitland Street, the school buildings and outdoor learning areas and was considered the bet use of the site over an existing easement. The Pacific Hills Group of school's typically use a model where carparking fronts the street and the administration and school buildings

Alternate car park locations were considered, however for various reasons listed below, they were not supported:

- Proximity to Thompson Street intersection
- Inadequate queuing lengths
- Noise and fume impacts to neighbouring developments
- Carpark to south of site, would cause built form to encroach into 1 in 100 flood area

Entry Works (Stage 1)

A temporary entry on Maitland Street is proposed to provide a sense of place and safe entry for students and visitors. The initial site entry will include:

- Pedestrian and vehicle entry to the north of the carpark;
- Vehicle exit to the south of carpark;
- Bus lane on Maitland Street (near northern gated emergency access); and
- Signage.

Entry Works (Masterplan)

An upgraded entry on Maitland Street is proposed to provide a sense of place and safe entry for students and visitors as part of the future stages of work. The final entry arrangement will include:

- Pedestrian access to the north of the carpark;
- Central pedestrian access (raised crossing in car park);
- Pedestrian access to south of carpark;
- Gated emergency access and large vehicle access to north of carpark;
- Vehicle entry/ access to south of carpark;
- Slow down lane into carpark;
- Bus lane on Maitland Street (near northern gated emergency access);
- Landscape works; and
- Signage.

6 Environmental Assessment

Built Form (Stage 1)

The proposed built form for Stage 1 works provide a central location for the initial phase of development, acting as a central hub of facilities that will form the central basis for future stages of work to be delivered in permanent buildings as intended by the Masterplan. The Stage 1 works comprise the following:

- Five (5) General Learning Areas;
- One (1) Science Learning Area;
- One (1) Administration Block;
- Outdoor covered learning area; and
- Amenities block.

Built Form (Masterplan)

Built form for the overall masterplan seeks to deliver a cohesive and structured campus where junior, middle, and senior school facilities are separated but where student interaction is also achieved both formally (with assemblies) and informally (through play time). The masterplan comprises seven (7) sectors to the campus layout, including:

Junior School

- Six (6) General Learning Areas;
- Two (2) Specialist Classrooms;
- One (1) WC;
- One (1) Storeroom; and
- Covered outdoor learning area.

Middle School (Stage 1 classrooms)

- Six (6) General Learning Areas;
- One (1) Science Learning Area; and
- Outdoor covered learning area.

Senior School

- Two (2) General Learning Areas;
- Two (2) Food Technology Classrooms;
- One (1) Art Classroom;
- One (1) Drama Classroom;
- Three (3) TASS classrooms;
- Two (2) WC; and
- Two (2) storerooms.

Hope School

- Four (4) General Learning areas;
- One (1) Specialist room;
- One (1) office;
- One (1) staffroom;
- One (1) Interview/ Therapy room;

- Three (3) WC;
- Four (4) storerooms; and
- Four (4) SW rooms.

Administration

- Entry forecourt;
- Administration rooms; and
- Amenities.

Multi-Purpose Hall

- Internal Design to be confirmed.

Bus Maintenance

- One (1) bus maintenance shed

Built form across the campus will be one (1) or two (2) storey and include design features which respond to the school objectives as well as the indigenous totem (being the eagle) of the Wonnarua people.

6.2 Heritage Significance

6.2.1 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment (ACHAR) (**Appendix 6**) has been prepared for the site by APEX Archaeology. The ACHA was produced in accordance with the *Guide to Investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011); the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010); the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010); and relevant statutory controls.

Aboriginal community consultation was undertaken for the project following the *Aboriginal cultural heritage consultation requirements for proponents 2010* and resulted in the registration of 13 Registered Aboriginal Parties (RAPs) for the project. Responses from the consultation period were received from four (4) RAP's which were all supportive of the proposal.

The RAPs were involved in consultation throughout the project and provided feedback on the ACHAR where required.

An AHIMs search with a 200m buffer from the site was conducted, did not identify any previously registered Aboriginal sites or places within the site area.

Archaeological investigations of the area identified that the area is heavily disturbed and does not possess potential for archaeological deposits to be present. No archaeological material was identified on the ground surface during the site inspection. No registered sites fall within the study area.

The ACHAR provides recommendations as follows:

- *This report details the Aboriginal archaeological potential of the site, which has been assessed as nil. No further Aboriginal archaeological assessment is required for the site.*
- *The proposed development works must be contained within the assessed boundaries for this project. If there is any alteration to the boundaries of the proposed development to include areas not assessed as part of this archaeological investigation, further investigation of those areas should be completed to assist in managing Aboriginal objects and places which may be present in an appropriate manner.*

- *Should unanticipated Aboriginal archaeological material be encountered during site works, all work must cease in the vicinity of the find and an archaeologist contacted to make an assessment of the find and to advise on the course of action to be taken. Further archaeological assessment and Aboriginal community consultation may be required prior to the recommencement of works. Any objects confirmed to be Aboriginal in origin must be reported to Heritage NSW under Division 1, Section 89A of the NPW Act.*

  In the unlikely event that suspected human remains are identified during construction works, all activity in the vicinity of the find must cease immediately and the find protected from harm or damage. The NSW Police and the Coroner's Office must be notified immediately. If the finds are confirmed to be human and of Aboriginal origin, further assessment by an archaeologist experienced in the assessment of human remains and consultation with both Heritage NSW and the RAPs for the project would be required.

  This recommendation should be included in any Construction Environmental Management Plan developed for the site.

- *One digital copy of this report should be forwarded to Heritage NSW for inclusion on the Aboriginal Heritage Information Management System (AHIMS).*

  One copy of this report should be forwarded to each of the registered Aboriginal stakeholders for the project.

The investigation, assessment and recommendations of the ACHAR are considered suitable for the proposed works and will be implemented into the outcomes of the project, including the development of the Construction Environment Management Plan.

6.2.2 European Heritage Significance

NBRS Heritage has prepared a Heritage Impact Statement (**Appendix 24**) which responds to the SEARs and provides a concise assessment of potential impacts upon European heritage.

The site is not identified as comprising any items of local heritage significance nor is it listed as being an area of heritage conservation. The site does not adjoin and is not in the vicinity of any items of either local or State heritage significance. The closest heritage item to the site is located approximately 400 north-west of the site (**Figure 29**), however, is not visible from the site.

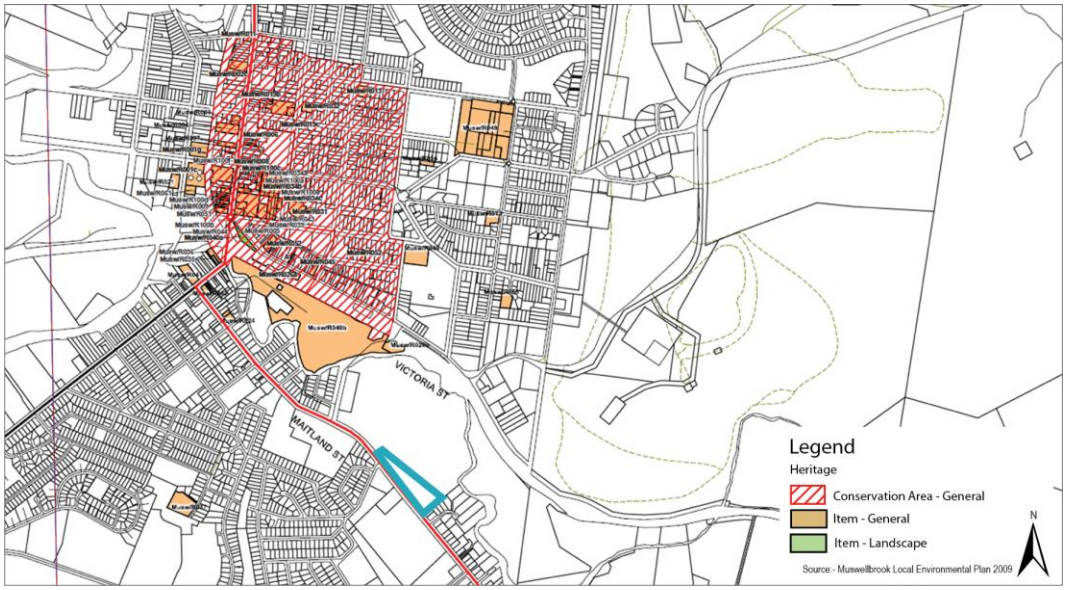

Figure 29 Heritage Map MLEP

6 Environmental Assessment

Having regard to the findings of the Heritage Impact Statement, the proposed development is not expected to result in any change or loss of understanding of the cultural heritage significance of the heritage items within Muswellbrook.

6.3 Traffic, Transport and Parking

6.3.1 Vehicle Access

Currently there are two (2) vehicular access points located to the middle and south of the site, servicing the existing carpark.

Stage 1 proposed to utilise both of the vehicular access points with the same entry and exit arrangement as present. A pedestrian access point is also proposed, to the northern end of the existing carpark. A carpark for 15 spaces is proposed for Stage 1 (refer **Figure 30**).

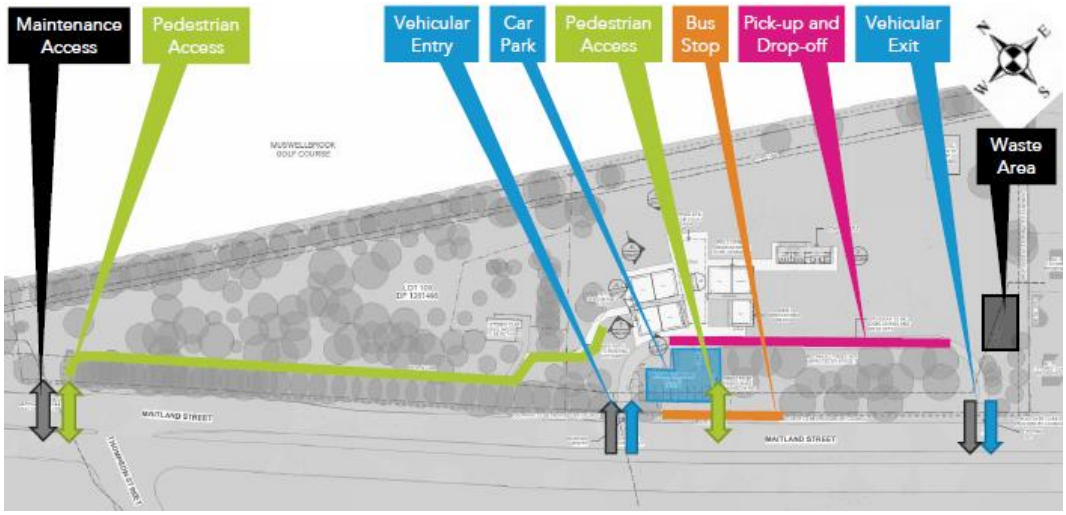

Figure 30 Stage 1 proposed access (PTC)

The masterplan proposes both entry and exit from the southern vehicular access point, with the northern vehicular access to be retained for emergency access, deliveries and waste collection. A vehicular access point is also proposed to the north of the site for the bus maintenance area and agriculture facilities (**Figure 31**).

Main pedestrian access is located north of the carpark, with secondary pedestrian access located to the south of the carpark and to the north of the site.

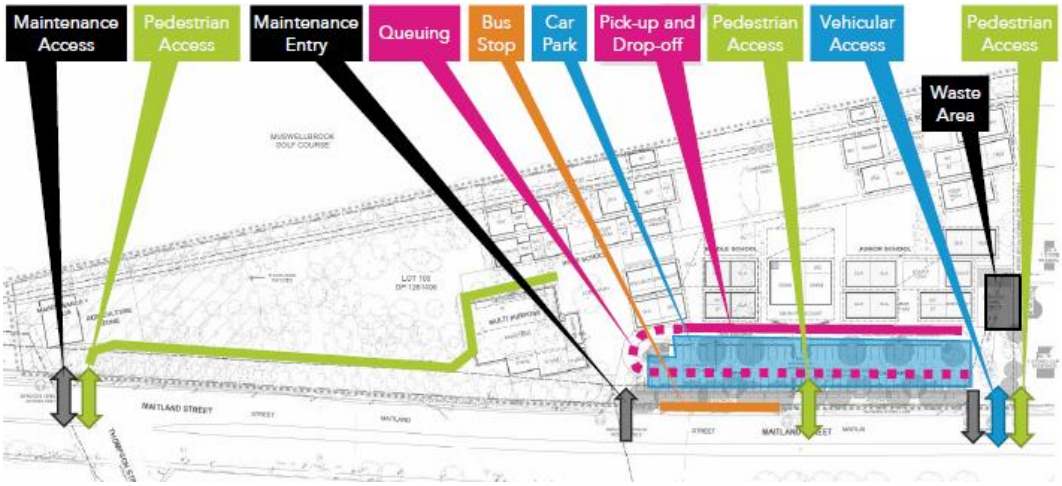

Figure 31 Masterplan proposed access points (PTC)

6 Environmental Assessment

6.3.2 Pedestrian Access

A portion of the area south of Maitland Street is covered by the walking catchment. Towards the north, the golf course and the railway line are the main reasons for little walking coverage.

Footpaths are located north, west and south of the site, however, lack continuity to the site boundaries, which currently restricts formal pedestrian access to the site on the north-eastern side of Maitland Street (**Figure 32**).

A footpath to the frontage of the site is proposed, which Council and TfNSW are working together on this project with commencement within the next 12 months.

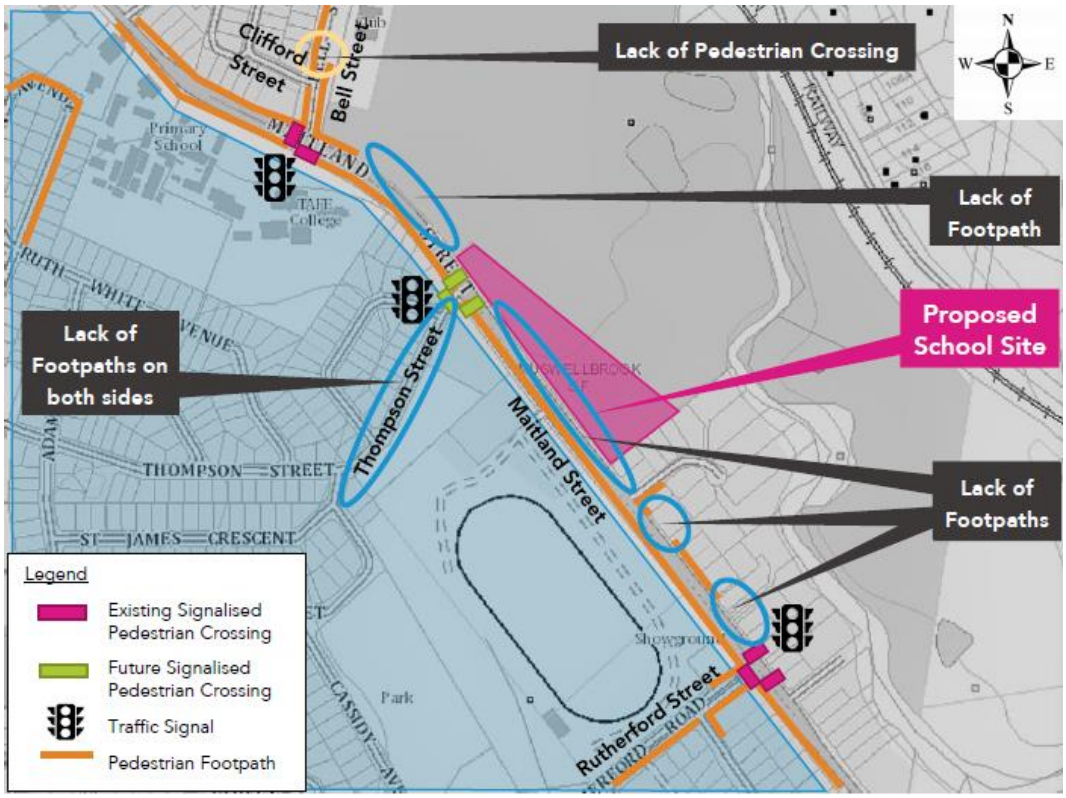

Figure 32 Pedestrian access around and to the Site (Source: PTC)

6.3.3 Cycle Network

Muswellbrook does not have comprehensive cycling infrastructure. Cycling along collector and arterial roads would require off road cycle facilities. Cycling facilities to the frontage of the site require further discussions with Council. Current cycling facilities are shown at **Figure 33**.

6 Environmental Assessment

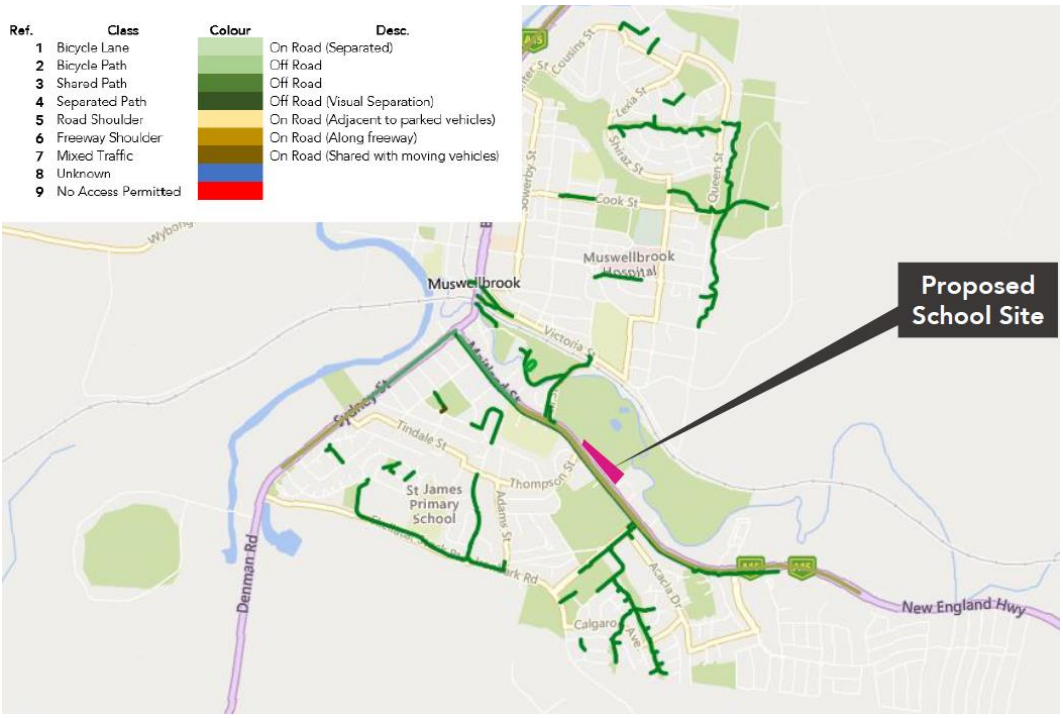

Figure 33 Existing Cycle Network (Source: PTC)

Almost the entire Muswellbrook area is located within the cycling catchment area of the new school, however, the direct vicinity of the proposed school site is not linked by any safe cycling routes, and the road shoulder on the eastern side of Maitland Street is not an acceptable cycling facility for students. Shared path and footpath upgrade recommendations made by PTC are summarised in **Table 14**.

Table 14 Shared Path / Footpath Upgrade Recommendations

Element	Identified Connection	Justification	Recommended Action
1	Maitland Street	Provide safe pedestrian access to the school site and safe cycling facilities to and past the site.	That Pacific Brook Christian School provide data to assist Council / TfNSW in the justification of the network update.

Source – Traffic Impact Assessment (PTC)

6.3.4 Traffic and Transport

The school has been involved in discussions to reduce area usage by both students and staff and to reduce impacts of the pickup/ drop off area on Maitland Street. This has formed the basis of the traffic and transport assessment carried out by PTC.

The two (2) key intersections relevant to the assessment of traffic activity are Maitland Street/Thompson Street and Maitland Street/Rutherford Road. Existing and future conditions (future existing, future development, 10yr growth, 10 yr + future development) were assessed having regard to current and future intersections arrangements, and traffic/trip distribution assessed across the western, northern and southern areas of Muswellbrook.

SIDRA analysis of the two key intersections across existing and future scenarios has found that the proposed development at the masterplan stage will have a negligible effect on the surrounding road network, and therefore the traffic related to Stage 1 can be easily accommodated within the capacities of the surrounding roads and intersections.

The following measures are proposed to be implemented to ensure the anticipated traffic and transport outcomes are achieved:

- Provision of a bus stop just outside of the school to enable school buses to drop-off and pick-up students safely and closely to the access point.
- Provision of a pedestrian access at the Thompson Street / Maitland Street intersection and an internal footpath to provide the most direct pedestrian connectivity. The internal footpath enables students to not need to walk along Maitland Street.
- Provision of bicycle spaces and an end of trip facility to encourage active transport.
- Implementation of staggered bell times, when required.
- Highly managed pick-up and drop-off process.
- Provision of before and after school care, which will spread the traffic during the main pick-up and drop-off times.
- Colocation of the entry and exit to one driveway to increase internal queuing at later stages.

A turning lane into the southern entry of the carpark and a dedicated bus stop will reduce traffic impact to Maitland Street.

6.3.5 Parking

Car parking is proposed in the south-western section of the site, utilising existing vehicular access points. Some widening of the existing vehicular access points will be required.

Stage 1 proposes 15 car parking spaces (inclusive of 1 accessible space) and a queue length to accommodate 20 cars within the car park and kiss and drop facilities.

The masterplan proposes 67 car parking spaces (inclusive of 1 accessible space) and a queue length via a loop driveway to accommodate 37 cars within the car park and kiss and drop facilities. Staged bell times also reduce queue lengths at the masterplan stage.

No queuing is proposed on Maitland Street.

Car parking is proposed along the Maitland Street frontage for two (2) reasons, being:

- easement for the Sewer along Maitland Street that means that no building can be constructed within 8 meters of the boundary. However, carparking and landscaping can be located over the easement.
- To provide an acoustic barrier from Maitland Street to the classrooms, administration building, library and outdoor learning areas.

Muswellbrook DCP requires 93 parking spaces for staff and students at masterplan stage. The proposal does not comply with the DCP requirements, with 67 car parking spaces proposed, however the inclusion of 37 queuing spaces in the ‘kiss and drop’ for the masterplan is considered to bring the total available spaces to 104. The combination of parking spaces and ‘kiss and drop’ spaces is considered sufficient for the parking needs of the school.

6 Environmental Assessment

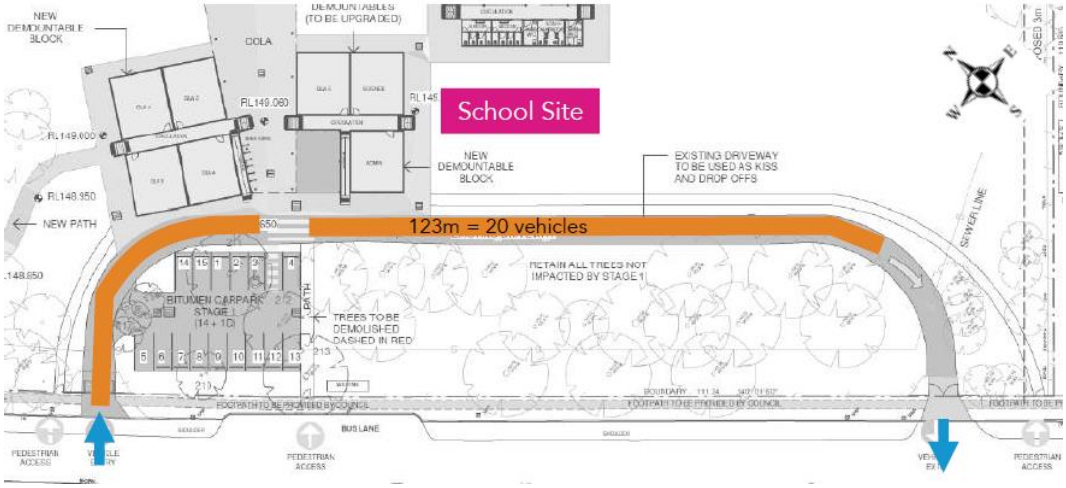

Figure 34 Stage 1 queuing and kiss and drop

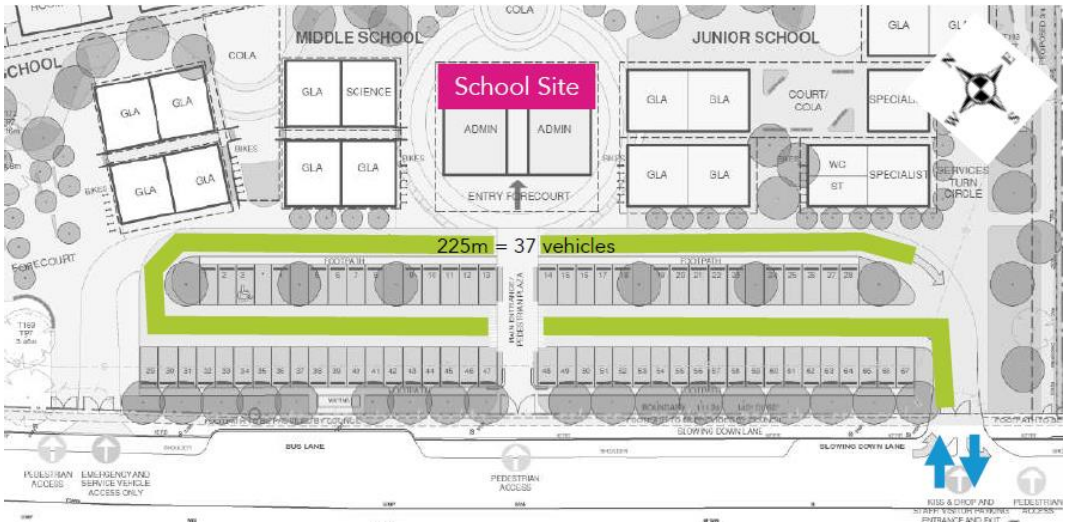

Figure 35 Masterplan queuing and kiss and drop

6.4 Tree Removal and Biodiversity

6.4.1 Tree Removal

Abel Ecology prepared an Arborist Impact Assessment Report (**Appendix 5**) and inspected 240 trees on the site. The proposed works will require the removal of 96 trees across the site as detailed in **Table 15**, and as depicted at **Figure 36**.

Table 15 Trees Proposed for Removal

Clause	Comments	Tree numbers
Arborist Advice (**Appendix 5**)	Dead	12 Trees (Tree Nos: 3,6,10,11,14,16,23,29,34,35,46,85)
	Nearly Dead	1 Tree (Tree Nos: 17)
	Lost leader, suppressed canopy, poorly pruned for canopy lift	1 Tree (Tree Nos: 7)
	Codom trunk at 6m	1 Tree (Tree Number 18)
	Dying	2 Trees (Tree Nos 31,228)
	Structurally unsound	32 Trees (tree Nos 47, 50, 51, 58, 84, 93, 113, 114, 146, 148, 176, 181, 189, 195, 203, 204, 205, 206, 207, 220, 221,

6 Environmental Assessment

Table 15 Trees Proposed for Removal		
Clause	**Comments**	**Tree numbers**
		222, 224, 226, 227, 229, 230, 231, 232, 234, 235, 237)
	Declining	1 Tree (Tree No 52)
	Crossed trunks, split bark, dying	1 Tree (Tree No 66)
	Split bark, dying, major limb shed, very sparse canopy	1 Tree (Tree No 67)
	Dangerous overweight on highway side	1 Tree (Tree No 129)
	Weak branch attachment	1 Tree (Tree No 167)
	Structurally unsound, bracket fungus	1 Tree (Tree No 173)
Impacted by Works (**Appendix 9**)	Additional trees sought for removal as impacted by works	41 trees
Total Trees for Removal		**96**

Every effort will be made to preserve the long-term viability of trees to be retained including the involvement of a qualified arborist in design discussions and to implement protection measures. However, despite these efforts there is a possibility that their retention may not be viable. Mitigation measures are as follows:

- Remove trees that are structurally unsound or hazardous and within the footprint of construction.
- Make provision for fencing around senescent and declining trees to minimise the safety hazard posed by those trees.
- Apply mulch 100 - 150 mm deep with a radius of at least 2 m, (or to the edge of the calculated tree protection zone where possible) around retained trees to stimulate growth of absorbing roots. For trees that will be located beneath fill, apply mulch on top of fill soils.
- Show tree locations and protective fencing on all construction plans used on site.
- Engage a qualified ecologist to inspect trees for bird nests and hollow-bearing trees before they are removed. The ecologist will provide further advice as applicable.
- All site activity must be excluded from tree protection zones during any future demolition and construction phases (see ‘Tree protection guidelines’ in Appendix 2).
- Route all trenching for underground services outside the TPZs of retained trees. If any underground service installation or underground boring will occur within TPZs, engage an arborist to supervise the activity.
- Crown pruning must comply with the appropriate class of pruning described in AS4373-2007 Pruning of amenity trees and be undertaken by a qualified arborist practising modern arboricultural methods.
- Advanced stock (>300 mm pot size) must not be planted within nominated tree protection areas so as to avoid disrupting the critical root zone of protected trees.

6 Environmental Assessment

Figure 36 Overall tree removal plan (Abel Ecology)

Replacement planting will be undertaken as indicated in the Landscape Plans (**Appendix 26**) and discussed at **Section 6.5**. While the development requires some tree removal, replacement planting of 141 trees will result in a net gain of 45 trees across the site.

6.4.2 Biodiversity

Kleinfelder prepared a Biodiversity Assessment Report (**Appendix 12**) to accompany the SSDA. The assessment within the report was undertaken in accordance with the NSW Biodiversity Assessment Method (BAM) under the Biodiversity Conservation Act 2016 (BC ACT).

The design of the proposed PBCS development has been informed by biodiversity and arboriculture assessments. The assessment identified the following key ecological constraints occurring within the site:

- Two (2) species associated with locally threatened populations, including:
    - Eucalyptus camaldulensis (River Red Gum) specimens – potentially representative of the endangered Eucalyptus camaldulensis population in the Hunter catchment.
    - Acacia pendula (Weeping Myall) specimens - potentially representative of the endangered Acacia pendula population in the Hunter catchment.

The proposed PBCS development layout is positioned to avoid impacts to the threatened populations detailed above. As a result, no impacts to threatened species, populations or their habitat is expected to occur as part of this proposed development.

Entry into the Biodiversity Offset Scheme (BOS) is triggered by developments, projects and activities that meet criteria or certain thresholds for significant impacts on biodiversity in accordance with Section 6.3 of the BC Act. State Significant Development is one of the criteria and therefore the project meets the criteria to enter into a BOS.

The proposed development will result in the removal of 0.20 ha of native vegetation (that is consistent with plant communities within the locality), 0.21 ha of planted native/exotic vegetation (not consistent with plant communities within the locality), and 0.49 ha of exotic grassland (managed).

There are no areas of geological significance or outstanding biodiversity value mapped within the development area.

One Plant Community type (PCT) was identified within the site, being PCT 485 – *River Oak riparian grassy tall woodland of the western Hunter Valley (Brigalow Belt South Bioregion and Sydney Basin Bioregion)*. The remainder was characterised by areas of exotic grassland, and a mix of planted native ad exotic trees and shrubs.

Vegetation within the study area was assigned to three (3) vegetation zones:

- Vegetation Zone 1 – PCT - River Oak riparian grassy tall woodland of the western Hunter Valley (Brigalow Belt South Bioregion and Sydney Basin Bioregion).
- Vegetation Zone 2 – Planted Native/ Exotic Vegetation
- Vegetation Zone 3 – Exotic grassland (managed)

The Project has the potential to impact on one prescribed impact, the connectivity of habitat facilitating movement of threatened species (i.e. identified wildlife corridors). However, the project layout has been informed by the findings of an initial biodiversity assessments to minimise impacts to biodiversity values and connectivity between habitats within the locality. As such, the development is not expected to have a significant impact on connectivity for threatened species within the locality.

Provided appropriate mitigation measures and management plans are enforced, the proposed development is unlikely to indirectly impact threatened species, ecological communities, or their habitats during construction and operational phases.

The proposed development will result in the following impacts that do not require offsets:

- 0.21 ha of Vegetation Zone 2 – Planted Native/Exotic Vegetation – Including 66 trees, 33 trees identified as being impacted by the proposed masterplan, 33 trees of which were identified as requiring removal based on an arborist report due to tree hazard potential; and
- 0.49 ha of Vegetation Zone 3 – Exotic Grassland (Managed).

The prescribed impact on connectivity of habitat facilitating movement of threatened species (i.e. identified wildlife corridors) has also been considered but does not require offsetting.

The proposed development will however result in the following impacts that do require offsets:

- Three (3) credits are required for the removal of 0.20ha of PCT 485 – *River Oak riparian grassy tall woodland of the western Hunter Valley (Brigalow Belt South Bioregion and Sydney Basin Bioregion)*.

These credits can be within the IBRA (Interim Biogeographic Regionalisation for Australia) region of Hunter, Ellerston, Karuah Manning, Kerrabee, Liverpool Range, Peel, Tomalla, Upper Hunter, Wyong and Yengo or any IBRA subregion that is within 100 kilometres of the outer edge of the impacted site.

6.5 Landscape

A landscape strategy has been developed by NBRS (**Appendix 26**) to complement the design development of the built form. The landscaping works improve accessibility to and within the site and continues to promote the movement of students between formal and natural/ outdoor areas.

Landscaping works including the planting of 141 new trees, large and small-medium shrubs, ground covers, inclusion of a yarning circle, play areas, nature trails, productive gardens, sensory play areas and a bush chapel (**Figure 37**).

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Figure 37 Landscape Plan

6.6 Contamination

A Detailed and Supplementary Detailed Site Investigation (DSI) were undertaken by Douglas Partners (**Appendix 17** and **18**). The Supplementary assessment was conducted with reference to the Auditor approved Sampling Analysis and Quality Plan (SAQP), which included excavation of an additional 16 test pits across the site, inspection, surface and near surface sampling surrounding existing buildings and stockpiles on site.

The Supplementary DSI identified the following:

- General absence of gross contamination within the site;
- Presence of shallow filling within majority of test pits / bores;
- Presence of ash and coal reject within the upper fill materials within the access track footprint;
- Presence of buried asphalt lenses (i.e., associated with a former pavement) in pits north-west of Building 5 (Pits 406, 407, 408, 409 and 106A);
- Asphalt materials exceeded the adopted HIL and EIL, however, the exceedances can be attributed to the asphalt / bitumen wearing course which typically has low bioavailability and are relatively immobile.
- Laboratory results indicated the absence of coal tar with the asphalt samples tested.
- Fill materials tested are within the criteria for classification as GSW based on total and leachable concentrations;
- Asphalt materials are pre-classified as GSW, with reference to the NSW EPA (2014);
- Testing on two fibro fragments at the surface adjacent to Buildings 5 and 8 indicated the presence of ACM. The minor ACM identified are likely to be associated with the poor condition of the adjacent buildings, and do not appear to be related to impacts within underlying soil/fill.
- General absence of gross contamination within the stockpiled soils tested.

As a result of the DSI and Supplementary DSI, remediation of the identified materials is required and is discussed further at **Section 6.8**.

6.7 Hazardous Building Material

A Hazardous Building Material Report was prepared by Douglas Partners (**Appendix 23**). The residential dwelling will remain as part of Stage 1 works as will the shed to the south-east of the property. All other structures are to be demolished under approved DA 2021/13 in accordance with the recommendations in the Hazardous Building Materials Survey.

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6.8 Remediation Action Plan

A Remediation Action Plan (RAP) was prepared by Douglas Partners (**Appendix 29**) to address the localised bonded asbestos containing materials (ACM) and localised asphalt materials containing elevated PAH concentrations.

The two identified locations of ACM will be removed and validated. Further validation inspections and possible testing will be conducted following demolition of site structures as discussed below.

Although the asphalt materials contained elevated PAH, the elevated results can be attributed to the asphalt / bitumen wearing course which typically has low bioavailability and is relatively immobile. The elevated results are therefore not considered to be significant as presented in the supplementary investigation by Douglas Partners.

As a precautionary measure, it was therefore proposed to place the asphalt impacted materials beneath the proposed carpark pavement. It is noted that placement of the materials within the carpark area does not constitute remediation nor attract long term management requirements.

Remediation procedures, goals, acceptance criteria, roles and responsibilities are outlined in the RAP.

The site is subject to audit advice provided Ramboll (**Appendix 25**), being a NSW EPA accredited auditor (contaminated land).

6.9 Flooding

A Flood Impact Assessment was prepared by Royal Haskoning DV (**Appendix 21**) to determine whether the proposed changes to the site are likely to have a significant impact on flood behaviour, or if they have the potential to increase the flood affection of neighbouring properties.

Muscle Creek is located to the north and north-east of the site.

Part of the property to the north is affected by 1 in 100-year ARI flood extent and the whole site is fully inundated during the Probable Maximum Flood (PMF), though higher ground to the west of the site is less than 200m away. The report notes that only a maintenance and bus shed is located within this area. Majority of the site is shown to be located outside of the 1 in 100yer ARI as shown in **Figure 38.**

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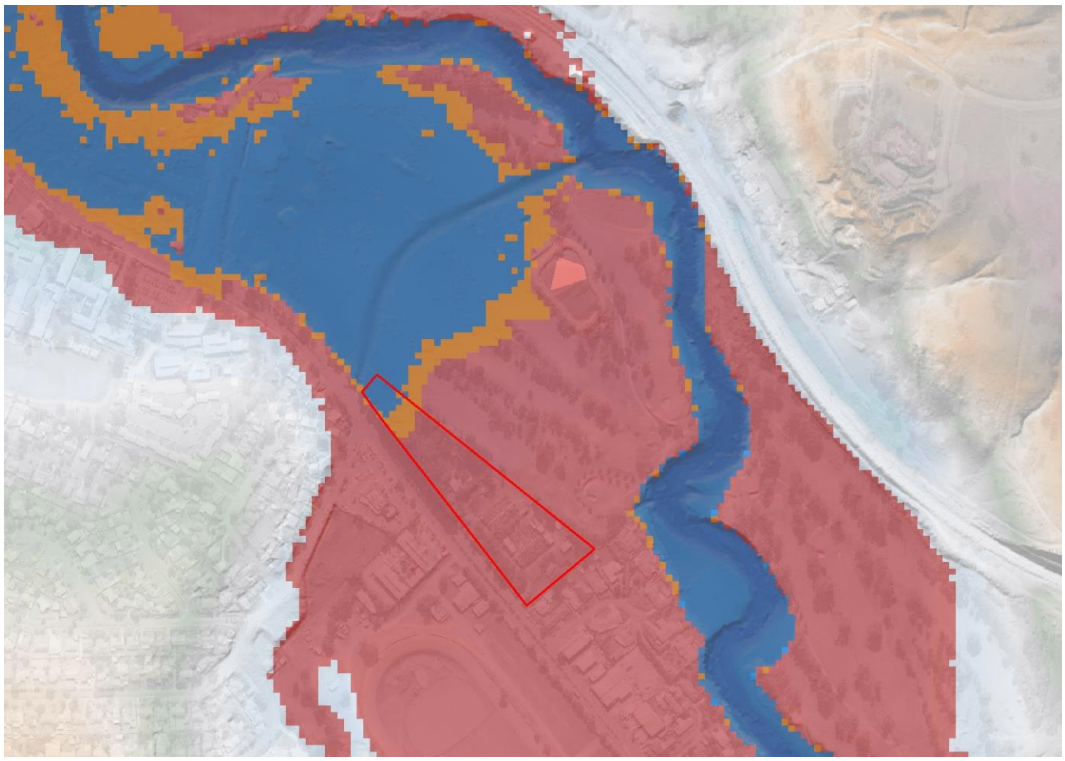

Figure 38 Map showing 20yr (blue) 100yr (orange) PMF (pink) flood extents for Muscle Creek. (RHDV)

It is noted that during the PMF the site would be flooded by more than 2m in depth, whilst the 1% AEP (100yr ARI) level is 147.61m AHD. The current ground levels vary between 147.1m and 149.5m AHD.

A minimum flood planning level for the site has been determined at 148.11m AHD (1% AEP design level with 0.5m freeboard). The siting of built form to the south of the Site is proposed at 149.0m AHD.

A small portion of flood storage is located to the north-west of the Site as shown in **Figure 39**.

Minor ground level changes required for the driveway and bus/ maintenance shed, reduce the available flood storage, however, as this flooding is due to a tailwater and the level is controlled by 'wiering' over Bell Street, the minor loss of flood storage does not result in an increase to the 1 in 100yr ARI flood levels.

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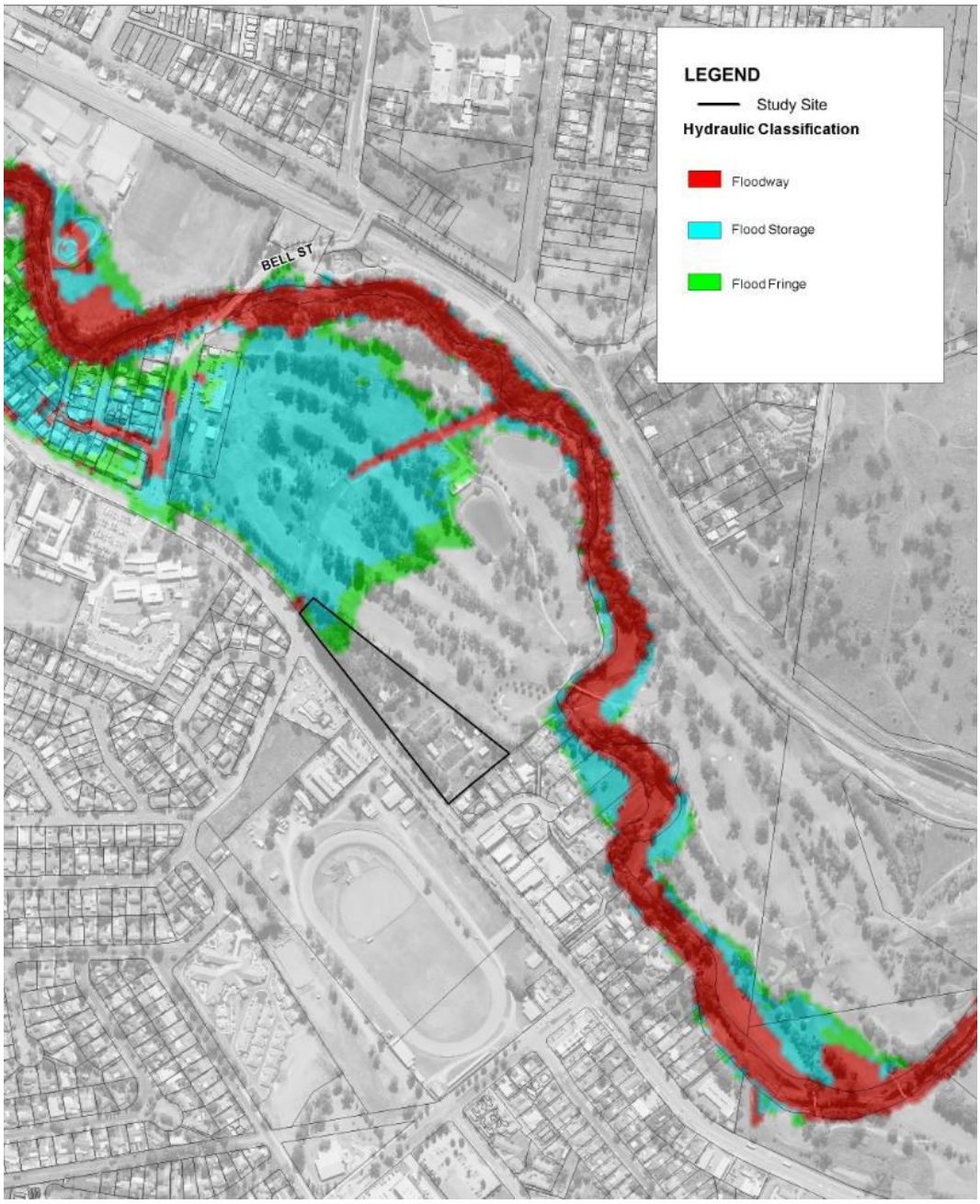

Figure 39 Flood fringe and flood storage area (RHDV)

6.10 Noise and Vibration

Acoustic Logic has prepared a Noise and Vibration Assessment (**Appendix 20**) in accordance with the relevant policies and guidelines identified in the SEARs, and notes that acceptable noise limits are derived from the EPA's *Noise Policy for Industry* for intrusive noise impacts, and the Association of Australasian Acoustical Consultants (AAAC) *Technical Guideline for Child Care Centre Noise Assessment* noise criteria for children in outdoor areas.

The Noise and Vibration Assessment involved a survey of the existing noise environment, a noise impact assessment relative to appropriate criteria, and recommendations for measures to minimise the potential for disturbance to surrounding residents. Its findings and recommendations are outlined in **Sections 6.10.1** (operational) below.

Figure 40 identifies the location of acoustic loggers which were used at nearby sensitive receivers to determine the acoustic environment. One noise logger was placed to the rear of

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the site (background noise and to determine whether noise form the rail corridor was impacting the site), the other was placed at the front of the site near Maitland Street (to capture traffic noise levels impacting the site). Noise monitoring results are shown in **Figure 41** to **Figure 44**.

Figure 40 Location of acoustic loggers used to determine existing acoustic environment (Acoustic Logic)

Date	Day L_{90}	Evening L_{90}	Night L_{90}
Tuesday 28 July 2020	-	40	34
Wednesday 29 July 2020	43	40	34
Thursday 30 July 2020	42	42	34
Friday 31 July 2020	43	43	35
Saturday 01 August 2020	41	41	36
Sunday 02 August 2020	41	43	36
Monday 03 August 2020	44	39	35
Tuesday 04 August 2020	-	44	32
Wednesday 05 August 2020	45	39	35

Figure 41 Noise monitoring results - rear of site (Acoustic Logic)

Location	Time of Day	Rating Background Noise Level – dB(A)L_{90}
North Eastern Side of Site - Logger Location in Figure 3	Day (7am-6pm)	43
	Evening (6pm-10pm)	41
	Night (10pm to 7am)	35

Figure 42 Summary Long Term Noise Logging - rear of site (Acoustic Logic)

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Date	Day L_{90}	Evening L_{90}	Night L_{90}
Tuesday 28 July 2020	-	43	38
Wednesday 29 July 2020	53	43	36
Thursday 30 July 2020	53	47	36
Friday 31 July 2020	54	46	38
Saturday 01 August 2020	50	45	38
Sunday 02 August 2020	47	46	38
Monday 03 August 2020	53	42	37
Tuesday 04 August 2020	53	46	36
Wednesday 05 August 2020	52	42	38

Figure 43 Noise monitoring result – front of site (Acoustic Logic)

Location	Time of Day	Rating Background Noise Level – dB(A)L_{90}
Southern Western Side of Site - Logger Location in Figure 3.	Day (7am-6pm)	53
	Evening (6pm-10pm)	45
	Night (10pm to 7am)	38

Figure 44 Summary Long Term Noise Logging -front of site (Acoustic Logic)

6.10.1 Operational Noise Emissions Assessment

Noise modelling of the school's future operation considers noise emissions from public address systems, school bells, mechanical services, use of multi-purpose hall and out of hours use of school facilities, noise from internal areas and waste removal. Mitigation measures to minimise noise impacts are also outlined.

Noise from Internal Spaces

No openable/operable glazing is to be installed on the south-east facade or on other facades within 5m of the boundary of the nearest residential property is recommended.

Multi-Purpose Hall

The Multi-Purpose Hall is located to the north-west of the proposed developed area. The potentially most impacted receivers would be residential receivers, other areas within the school and the golf course.

Traffic Generation

The proposed carpark of 67 spaces is located to the south-west of the site, fronting Maitland Street. The proposed kiss and drop facility is proposed along the driveway of the carpark. A 1.8m high imperforated boundary fence extending from the waste area to near the road boundary is recommended to prevent line of sight to the kiss and drop and to achieve compliance with an acceptable background noise level.

Time restrictions are also recommended for waste removal between 7am and 6pm.

External Activities

Proposed external activities include:

- Use of external spaces immediately before school commences and recess/ lunch times

- Use of courts for sports (Multi -Purpose Hall) lessons during the normal school day, plus occasional afternoon and Saturday use for sports tournaments/ competitions.

It is recommended that the multi-purpose hall has all doors/ windows closed during sporting activities.

Non-school uses, and after-hours school activities.

It is recommended where music practice occurs within the school outside of school hours, the windows of the room be kept closed. This also applies to parent/ teacher nights/ election activities etc. As per above with use of the hall by the school, it is recommended that when the multi-purpose hall is used after-hours for sporting activities, all doors/ windows are closed.

Should there be a need to utilise the outdoor areas/ COLA outside of school hours (i.e., fetes, sports) this should be limited to 7am to 9.30pm.

Noise from Mechanical Plant, School Buildings Public Address System and School Bell

Noise from proposed development mechanical plant rooms should be controlled to ensure external noise emissions are not intrusive and do not impact on the amenity of the noise sensitive receivers.

At this stage, mechanical plant selections have not been made; therefore, it is not possible to undertake a detailed assessment of the mechanical plant noise emissions. Acoustic assessment of all mechanical plant shall continue during the detailed design phase of the project in order to confirm any noise control measures to achieve the relevant noise criteria at the nearest noise sensitive receivers.

The school bell and public address system should minimise noise spill to adjacent properties through speaker selection and positioning.

6.10.2 Construction Noise and Vibration Planning

A Construction Environmental Management Plan must be prepared by the contractor in accordance with the standard conditions of consent issued by DPIE.

The Construction Environment Management Plan should include all mitigation measures recommended in the Noise and Vibration Assessment including:

- Operation of large earthmoving equipment (Bulldozers and excavators) between 7am and 8am with 30m of the south eastern boundary should be avoided;
- Quiet work methods/ technologies to be put in place as per Section 11.8 of Noise and Vibration Report;
- Pneumatic/ hydraulic hammering (if required) noise impacts should be addressed via the imposition of respite periods, typically limiting operation to:
    - 8am – 6pm, Monday to Friday
    - 8am to 1pm, Saturday
    - In any case maximum 3 hours operation with 1-hour uninterrupted respite.
- A detailed noise management plan should be developed by the main contractor that describes in detail the construction phases, programme, processes and equipment used, noise impacts assessment and proposed mitigation and management.

6.11 Waste

Waste Audit prepared waste management plans for the demolition, construction and operational phases of the project.

The objectives of the Operational Waste Management Plans are:

1. ***Ensure waste is managed to reduce the amount of waste and recyclables to land fill*** *by assisting staff to segregate appropriate materials that can be recycled; displaying signage to remind and encourage recycling practices; and through placement of recycling and waste bins to reinforce these messages.*
2. ***Recover, reuse and recycle*** *generated waste wherever possible.*
3. ***Compliance*** *with all relevant legislation, codes and policies.*

The Waste Management Plans outline measures to avoid the generation of unnecessary waste, minimise the volume of waste to be collected, and recycle, reuse and recover waste generated by the proposed works.

Stage 1 comprises of 2 x 1,100L general waste bins to be collected twice weekly and one (1) 1,100L recycling bin to be collected twice weekly. The bins will be located to the south of the Stage 1 development adjacent the kiss and drop area.

The masterplan proposes a waste storage area to the south of the carpark. There will be six (6) 1,100L general waste bins and five (5) 1,100l recycle bins all collected twice weekly.

Garden waste is to be re-used onsite or disposed of at a composting facility and managed by the appointed gardener.

6.12 Solar Access/ Overshadowing

The proposed new buildings do not impact on neighbouring or adjacent developments. Shadow analysis has been provided in the Architectural Plans (**Appendix 9**).

6.13 Ecologically Sustainable Development

An Ecologically Sustainable Development (ESD) Assessment Report was prepared by ACOR Consultants (**Appendix 19**). The report acknowledges and addresses the requirements referenced under ESD in the SEAR's.

The principles of ESD (as set out under Clause 7(4) of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*) are addressed below:

- ***The Precautionary Principle***: The proposal demonstrates a considered design response that avoids irreversible damage to the environment and creates spaces with an ability to adapt to a changing environment.
- ***Inter-Generational Equity***: The works demonstrate a strong commitment to the preservation of environmental health, diversity and productivity.
- ***Conservation of Biological Diversity and Ecological Integrity***: The project supports local biological diversity and integrity by the planting of native (and other) vegetation, reducing stormwater runoff and an integrated landscape as detailed in **Sections 6.5**
- ***Improved Valuation, Pricing and Incentive Mechanisms***: The project has weighed up economic cost benefits with a short term and long-term view to deliver the best environmental and use benefits on budget.

Energy efficiency has been considered throughout the project including incorporating high performance glazing and shading strategies, together with energy efficient appliances, water efficient fixtures and water conservation.

The ESD Assessment recommends:

- Building shading consisting of perforated mesh;
- Glazing to improve daylight and reduce artificial lighting;
- Motion activated lighting;
- Openable doors and windows to improve natural ventilation;

- Local indigenous planting; and
- Stormwater and rainwater capture for re-use.

The proposed built form embraces sustainable design principles, maximises where possible, natural daylight and ventilation. The orientation and massing of built form allows daylight into the building. Roof material and columns are to be carefully selected at detailed design stage. Retention of existing landscaping contributes to the cooling of the immediate environment.

6.14 Construction Impacts

The following details the construction impacts and how these will be mitigated (where appropriate):

- Timing for each works package will be as follows:
    - Stage 1 – Delivery over two (2) months (including site remediation and construction works); and
    - Masterplan – Delivery over 20 years.
- Site remediation works are to comply with the measures set out in the RAP.
- All vehicle movements are to be in a forward direction only, with spoil to be loaded within the site boundary under supervision of an authorised traffic controller.
- Supervision by an authorised traffic controller for deliveries.
- The school will remain operational during all construction works (excluding stage 1).
- There will be physical separation between operational parts of the sites and the construction works at all times (excluding stage 1); and
- Construction impacts will be minimised by implementing acoustic recommendations and by managing construction operations around school needs.

6.15 Other Environmental Issues

An assessment of other environmental issues associated with the proposed development is provided in **Table 16**.

Table 16 Assessment of Other Environmental Issues

Issue	Assessment Findings
Stormwater Drainage	Stormwater works are proposed to accommodate the new built form and landscaping works having regard to stormwater runoff volumes and detention (stormwater quantity), stormwater quality treatment measures (stormwater quality) and erosion and sedimentation control (**Appendix 36**). A new stormwater system is proposed for site. Stormwater runoff will be conveyed via a proposed below-ground pit and pipe system, with systems directed to an OSD tank before connecting to Council's system. The minimum pipe diameter for the proposed drainage system is 225mm. Overland flow routes are provided away from existing and proposed buildings. No existing stormwater pits form part of the new stormwater system and will be decommissioned. Rainwater tanks are proposed for internal non-potable uses. The proposed works will result in an increased pervious area from existing conditions, and as such an OSD is required.

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Table 16 Assessment of Other Environmental Issues	
Issue	**Assessment Findings**
Bushfire	A bushfire statement has been prepared by Building Code and Bushfire Hazard Solutions which confirms the site is not identified as bushfire prone land, however recommendations are made regarding Asset Protection Zones, emergency management landscaping, fire hydrants electricity, gas services and access (**Appendix 13**).
Soil Erosion and Sediment Control	Civil Engineering Plans include an Erosion and Sediment Control Plan (**Appendix 14**) which details the management strategies to be implemented during construction to minimise the impacts of sedimentation and erosion across the site. The proposed strategies satisfy the Landcom design guide "Managing Urban Stormwater – Soils and Construction" (the Blue Book).
Social Impacts	A Social Impact Assessment has been prepared by Sarah George Consulting (**Appendix 35**). The proposed school will have 24-hour surveillance to increase safety to students, staff and the local community. Minimal impacts to privacy are expected as the built form is generally located away from residential dwellings or has mitigation measures in place such as non-operable windows to the south-eastern facades. The proposed development does not remove any employment opportunities from the local area. The proposal has the following interests to public benefit: ▪ Modern education facility for the existing and future school population from K-12; ▪ Hope School for children with additional needs; ▪ Employment opportunities in the construction and operation of the proposed school; and ▪ Improvements to the existing site and streetscape.
Accessibility	An Access Assessment Report prepared by BCA Logic (**Appendix 7)** confirms that the proposed development is capable of compliance with the intent of the Disability Discrimination Act (DDA) 1992, Disability (Access to Premises – Buildings) Standard 2010, the Building Code of Australia and relevant Australian Standards. Therefore, accessibility to and within the site is considered to be acceptable at this planning stage of documentation.
Crime Prevention Through Environmental Design	A detailed CPTED Assessment has been carried out (**Appendix 4**), which outlines that the proposed development has been designed having regard to the CPTED principles: • Territorial re-enforcement – fencing, landscaping, proposed built form and signage encourage communal responsibility for the public areas and clearly communicating to people where they should and should not be. • Surveillance – the proposal promotes strong natural surveillance of both the public domain and interior of the site through placement of administration facilities and proposed learning areas. The site will include lighting to deter criminal activity. • Access control – the proposed development will utilise physical barriers, including fencing, gates, built form and landscaping to provide access control. Symbolic barriers will be utilised including signage, landscaping, waste servicing areas and natural direction of pedestrian traffic to the administration office and classroom areas. • Space/Activity Management – The site achieves natural community control by orienting new buildings to face both inwards and outwards to the school setting and through vegetation located along the Maitland Street Boundary. The design, landscaping and signage will combine to reinforce CPTED principles and represent a positive security outcome for the school.
Structural Adequacy	Birzulis Associates has prepared a Structural Design Certificate (**Appendix 37**) which confirms that the proposed works can comply with relevant provisions of the BCA, and relevant referenced standards. The report also states the structural design is to comply with the recommendations of the Geotechnical Report (**Appendix 22**), prepared by Douglas Partners.
Building Code of Australia	As evidenced by the BCA Compliance Statement & Access Report (**Appendix 7** and **11**), the proposed development can achieve compliance with the Building Code of Australia.
Air Quality	The potential risks to receptors from air emissions from the proposed development is considered to be low and can be appropriately managed via typical mitigation measures.
Wind	The proposed masterplan comprises mostly single storey and some two storey buildings across the site, arranged so that internal movement and gathering areas are provided between learning facilities. The layout avoids the creation of a uniform wind-break or a wind tunnel, and as the new buildings are consistent with the built form of surrounding residential and commercial development, the proposal is in keeping with the nature of wind impacts for the locality. Further assessment of wind impacts is not considered necessary in this instance and is not considered to give rise to any undesirable amenity outcomes for site users or neighbouring properties.

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6.16 Contributions and Planning Agreement

The proposal is subject to the provisions of Muswellbrook Shire Council's S94A Contributions Plan 2010, which imposes a levy based on the cost of work. As the cost of work exceeds $200,000 a levy of 1% of the value of work is required under the S94A plan.

The project involves the carrying out of public domain works, including a new footpath and bus stop on Maitland Road. It is proposed that Council consider a waiving or reduction of these levies in response to the delivery of these works. It is anticipated that this could be facilitated through a written response to this EIS from Council.

Should it be necessary to facilitate the above, the school is open to entering into a Planning Agreement (PA) with Council in regard to the works in kind required for the school. It is anticipated that should it be required, this process will be able to commence upon determination of this application and would include provisions that clarify what works and costs are to be borne by the school, and how Council's S94A Contributions Plan 2010 would apply to the development.

6.17 Suitability of the Site for Development

An assessment of the suitability of the site for the proposed development is carried out in **Table 17**.

Table 17 Assessment of Suitability of the Site for Development

Issue	Assessment Findings
Ground water	Ground water was not encountered during geotechnical investigations.
Acid Sulphate Soils	A Preliminary Salinity Assessment by Douglas Partners (**Appendix 22**) indicates the site is not mapped within an area known to comprise acid sulphate soils.
Salinity	A Preliminary Salinity Assessment by Douglas Partners (**Appendix 22**) references the site as a low risk profile for salinity.
Utilities	The Infrastructure Report (**Appendix 32**) has assessed the existing capacity and adequacy of the existing site utilities. As a result of these investigations, it is found that some augmentation and upgrades to some utility services are required. No Gas connection is currently available nor proposed.

The above assessment finds that the site is suitable for development, having regard to ground water, acid sulphate soils, salinity and utility servicing.

6.18 Public Interest

In accordance with Section 4.15(1)(e) of the EP&A Act, the proposed development is in the public interest as it:

- Will meet the current and future education demands for residents of Muswellbrook and the surrounding catchment area;
- Provides an additional joint use facility for educational and community use;
- Will ensure the use of the site as an educational establishment is safeguarded for the long-term;
- Will provide high quality learning and teaching spaces with flexible layout arrangements and durable finishes ensuring the proposal operates as a long-life, high utility and low maintenance educational establishment;
- Has been designed in accordance with the visions, objectives and expectations of the community, local Aboriginal knowledge holders, and design experts;

- Incorporates appropriate design and urban design analysis to ensure the best design outcome is achieved for the site, students and surrounds in the interests of all stakeholders;
- Will be permissible in the proposed land use zone (subject to a concurrent Planning Proposal) and is generally consistent with relevant planning controls and legislation;
- Will provide a net increase in the number of trees, by 45 additional trees;
- Will minimise the potential for environmental amenity impacts through both the construction and operational phases;
- Achieves appropriate environmental performance outcomes in relation to acoustic amenity, traffic movements, stormwater drainage and waste management;
- Will be provided with adequate connection to necessary infrastructure and servicing to ensure the development operates smoothly at full capacity; and
- Is capable of meeting the deemed to satisfy provisions of the BCA and the spirit and intent of the DDA.

7 Risk Assessment and Mitigation

In accordance with the SEARs, this section identifies the potential environmental impacts associated with the development, including:

- A description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions.
- An assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines.
- Consideration of the cumulative impacts due to other related development proposed or underway on the site, including development progressed under other assessment pathways and all other developments in the vicinity (completed, underway or proposed).
- Identification of all proposed monitoring or required changes to existing monitoring programs.
- Measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action.

Table 18 sets out the anticipated impacts, the level of respective impact in terms of severity (low, medium, high), identifies mitigation measures, and once these measures are applied, identifies residual risks (low, medium, high).

Table 18 Environmental Risk Assessment

Impact Theme	Impact Detail	Level of Impact	Mitigation Measures	Residual Risk
Transport and Assessment				
Construction	Management of Construction vehicles on site	Low	Construction Management Plan to be prepared and adhered to. Hours of construction to comply with Conditions of Consent.	Low
Operation	Minimise pedestrian/ vehicle conflict. Safe vehicular access to/ from site.	Low	All vehicles forward in forward out. Main pedestrian access to north of carpark. Deliveries and waste collection to be outside of peak hour drop off/ pick up times.	Low
Noise and Vibration				
Construction	Noise impacts to surrounding developments through construction	Low	Hours of construction to comply with Conditions of Consent.	Low
Operation	Minimise to surrounding developments	Low	Time restrictions to use of Multi-Purpose Hall Windows to be closed in classroom where extracurricular activities are taking place.	Low

7 Risk Assessment and Mitigation

Table 18 Environmental Risk Assessment				
Impact Theme	**Impact Detail**	**Level of Impact**	**Mitigation Measures**	**Residual Risk**
Aboriginal Heritage				
Construction	Works to be contained within assessed boundaries	Low	Revised ACHA to be prepared should any works be required outside of assessed boundary	Low
	Should unanticipated Aboriginal archaeological material be encountered during site works	Low	All work must cease in the vicinity of the find and an archaeologist contacted to make an assessment of the find and to advise on the course of action to be taken.	Low
Operation	N/A	-	N/A	-
Flood				
Construction	Flood Planning Level – 148.11m AHD	Low	Buildings to be constructed above the flood planning level	Low
Operation	Flooding of site	Medium	Flood Evacuation Pan to be prepared	Low

8 Evaluation and Conclusion

The proposed new Pacific Brook Christian School has been assessed in accordance with the SEARs issued by DPIE and consultation carried out with the public and relevant public agencies.

The proposal is consistent with the objects of the EP&A Act, including ecologically sustainable development, and is consistent with the State's strategic planning objectives for the site as set out in the Hunter Regional Plan as it will enhance Muswellbrook's role as a centre of educational excellence in the Upper Hunter

The proposed works have been assessed on balance as providing significant public benefit to the immediate local and surrounding district through the provision of new education infrastructure.

The project team has carried out consultation with a wide range of stakeholders, including State government departments, local government, community, and experts in the design of schools. The advice received throughout the consultation process has informed the consideration of built form impacts and traffic management and has been incorporated into the current proposal where possible, reflecting a commitment to provide a quality and objective-driven outcome.

The public interest is served by the proposed development through the provision of:

- Increased supply of learning spaces and supported learning spaces within new facilities;
- Works with a significant capital investment value that will provide new educational infrastructure facilities to support the local community; and
- Creating 65 new operational jobs and 11 construction jobs in Stage 1 and 129 construction jobs for the masterplan.

Environmental impacts of the proposal have been assessed and are capable of mitigation to achieve acceptable levels of impact subject to a number of measures being adopted, as set out in the assessment material supporting this EIS. Mitigation measures proposed under this project are summarised at **Appendix 3.**

Accordingly, it is recommended that the Minister for Planning, Public Spaces, Transport and Roads approves the proposed SSDA.