STATEMENT OF ENVIRONMENTAL EFFECTS

Proposed Redevelopment of Blakebrook Public School

NSW Department of Education

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Revision No.: C

Revision Date: 21 December 2023

Project Revision History:

Version	Prepared By	Reviewed By	Issued To	Date
A	P. Smith		Adco/SINSW	14 December 2023
B	P. Smith	A. Robinson, SINSW & A. Cropley, EPM	Adco	20 December 2023
C	P. Smith	S. Ganis, Adco & A. Cropley, EPM	Council	21 December 2023

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1 Introduction

1.1 Commission

EPM Projects (EPM) has been commissioned by the Department of Education (DoE) to prepare a Statement of Environmental Effects (SEE) for the proposed construction of a new elevated school building and ancillary development at Blakebrook Public School, 417 Rosehill Road, Blakebrook (the site).

The SEE is to accompany a development application (DA) to Lismore City Council (Council). The site is zoned SP2 Infrastructure – Educational Establishment (SP2) under *Lismore Local Environmental Plan 2012* (the LEP) and educational establishments are permitted with consent in the SP2 zone.

1.2 Overview of Proposed Development

Blakebrook Public School, 417 Rosehill Road, Blakebrook (Lot 2, Deposited Plan (DP) 859866), was significantly inundated during the February/March 2022 floods and the existing school buildings are no longer habitable due to the damages caused by the flood waters.

As a result, the NSW Department of Education has prepared two (2) Development Applications (DA):

- Stage 1: Demolition of the existing buildings – submitted to Lismore City Council via the NSW Planning Portal on 17 November 2023 (DA 5.2023.299.1); and
- Stage 2: Construction of a new elevated school building, landscaping and ancillary works and structures (this application).

This SEE has been prepared to accompany the Stage 2 DA for the construction of a new elevated school building. The floor level of the new building will be located above the flood planning level and the 0.2% Annual Exceedance Probability (AEP) level (1 in 500-year flood level) to increase flood resilience and create useable undercroft spaces.

1.3 Purpose of this Statement

The purpose of this report is to provide Council and relevant NSW State Government Agencies all pertinent information necessary to assess the proposal and to determine the DA in accordance with section 4.16 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2021* (the Regulation). The proposed development is assessable pursuant to Part 4 of the EP&A Act.

Pursuant to section 4.33 of the EP&A Act, the DA will be a Crown DA. Section 4.32 of the EP&A Act defines a Crown DA as a "*development made by or on behalf of the Crown*". The proposed works are being undertaken by the NSW Department of Education.

Pursuant to section 4.44 of the EP&A Act, a Crown DA is not integrated development under Division 4.8 of the EP&A Act. Following determination of the Stage 1 DA for demolition of existing structures, an application will be made to Heritage NSW for an Aboriginal Heritage Impact Permit (AHIP) under section 90 of the *National Parks and Wildlife Act 1974* (refer to **Section 4.4**).

As the Capital Investment Value (CIV) is greater than $5 million, pursuant to Schedule 6 of *State Environmental Planning Policy (Planning Systems) 2021*, the proposal is Regionally Significant Development, and will be determined by the Northern Regional Planning Panel.

1.4 Consultation

On 10 November 2022, an informal meeting took place with Council, a representative from DoE, Acor Consultants (flood engineer) and EPM, to discuss the proposed redevelopment of the site. Key issues raised include:

- **Flooding**

- Council is not modelling or completing flood studies in Blakebrook catchment area, so Council cannot provide any updated flood analysis for this site. However, CSIRO is modelling the upper catchment area, which may provide updated data for Blakebrook. Council will request access to this flood model.
- Due to the lack of accurate flood data for the site, with regard to minimum habitable floor levels, Council recommended one (1) metre freeboard above the design flood level, which would be 17m AHD. [n.b. the February 2022 flood waters reached 17.4m AHD].
- The two rivers that are proximate to the site (Goolmangar Creek to the west and Terania Creek to the east) will cut the roads off quickly in the event of a flood. The risk to SES personnel must be considered in any flood evacuation or rescue plan.
- If "shelter in place" is to be provided, it must be above the 1 in 500-year flood level, which is 1.03m above the 1% AEP level. Council recommends incorporating a mezzanine for school and emergency evacuation.

- **Traffic and Parking**
  - Council would like to see improved car parking design with more spaces and pick-up and drop-off zones and line marking.
- **Heritage**
  - The trees and grounds are the main contributory items to the local heritage significance. Council does not have any records indicating the significance of buildings on the site.
- **Infrastructure**
  - There is no town water supply or sewer connection to Blakebrook Public School.

In October 2023, EPM spoke with Lismore City Council again and it was determined that due to the updated Lismore Flood Study stopping short of Blakebrook Public School, the Department of Education should commission Engeny to extend their flood modelling to cover the site and identify the flood hazard risks to establish if the site is suitable for the redevelopment of the school.

DoE commissioned the extended flood study and the resulting hazard category for the site is H3 at the 0.2% AEP flood event. This is discussed further in Sections **4.8** and **5.1**.

2 The Site and Context

2.1 Site Location

Table 1 Property Details	
Property Detail	**Blakebrook Public School**
Address	417 Rosehill Road, Blakebrook, NSW 2480
Lot and DP	Lot 2, Deposited Plan (DP) 859866
Local Government Area	Lismore City Council
Local Aboriginal Land Council	NGULINGAH
Site Area (from SixMaps)	1.2760ha

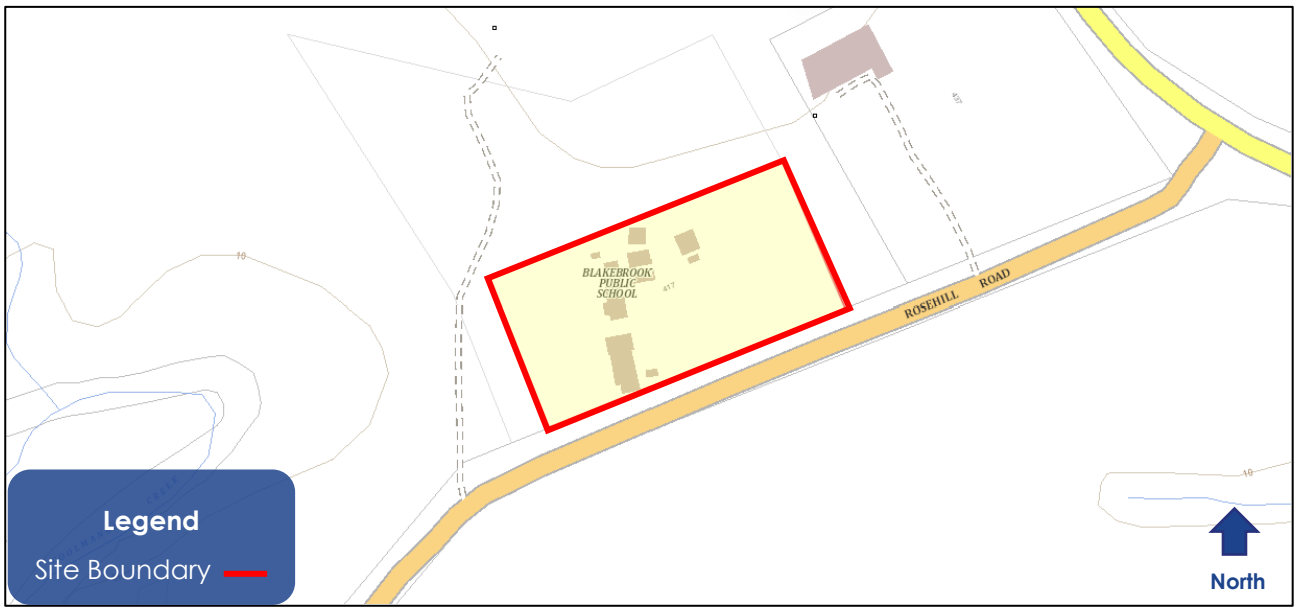

Figure 1: Site Location plan with the site boundary outlined in red (Source: ePlanning portal).

2.2 Site Description

The site is legally described as Lot 2 in Deposited Plan (DP) 859866, known as 417 Rosehill Road, Blakebrook. The site is rectangular in shape with its long axis orientated north-east to south-west. The highpoint of the site is located in the centre of the northern portion of the site, radiating down a gentle slope towards the south-western and south-eastern corners of the site. The south-western boundary of the site is lined by mature vegetation, with established trees and vegetation located along all boundaries (**Figure 2**).

The school is currently operating out of temporary demountable buildings located to the east of the flood-damaged structures (identified in red in **Figure 2**).

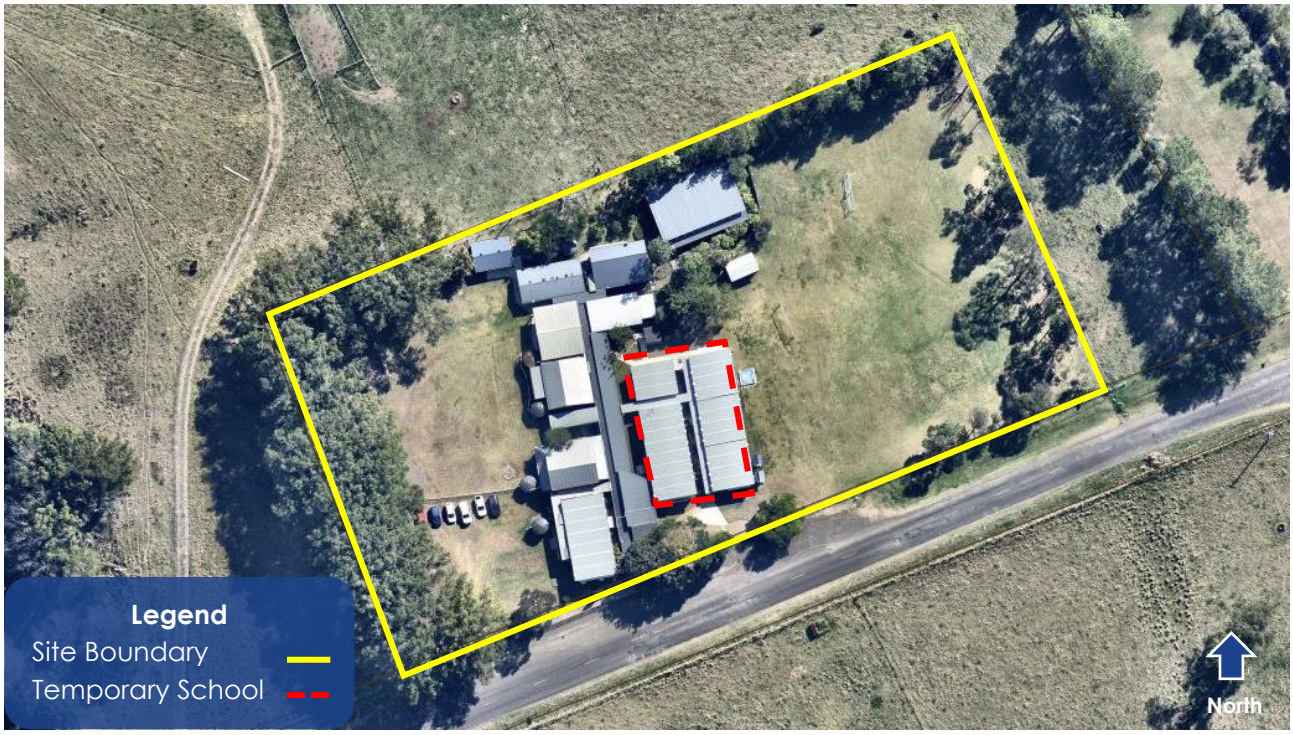

Figure 2: Aerial Image of the existing site (Source: NearMap dated 20 August 2023).

A development application (DA5.2023.299.1) for demolition of existing structures on the site is currently under assessment by Lismore City Council. The existing structures are unable to be retained for future use due to the extent of flood damage they sustained, and the structural integrity of the buildings is not suitable to be raised for flood resilience. Accordingly, this application has assumed that there are no existing permanent structures remaining on the site (**Figure 3**).

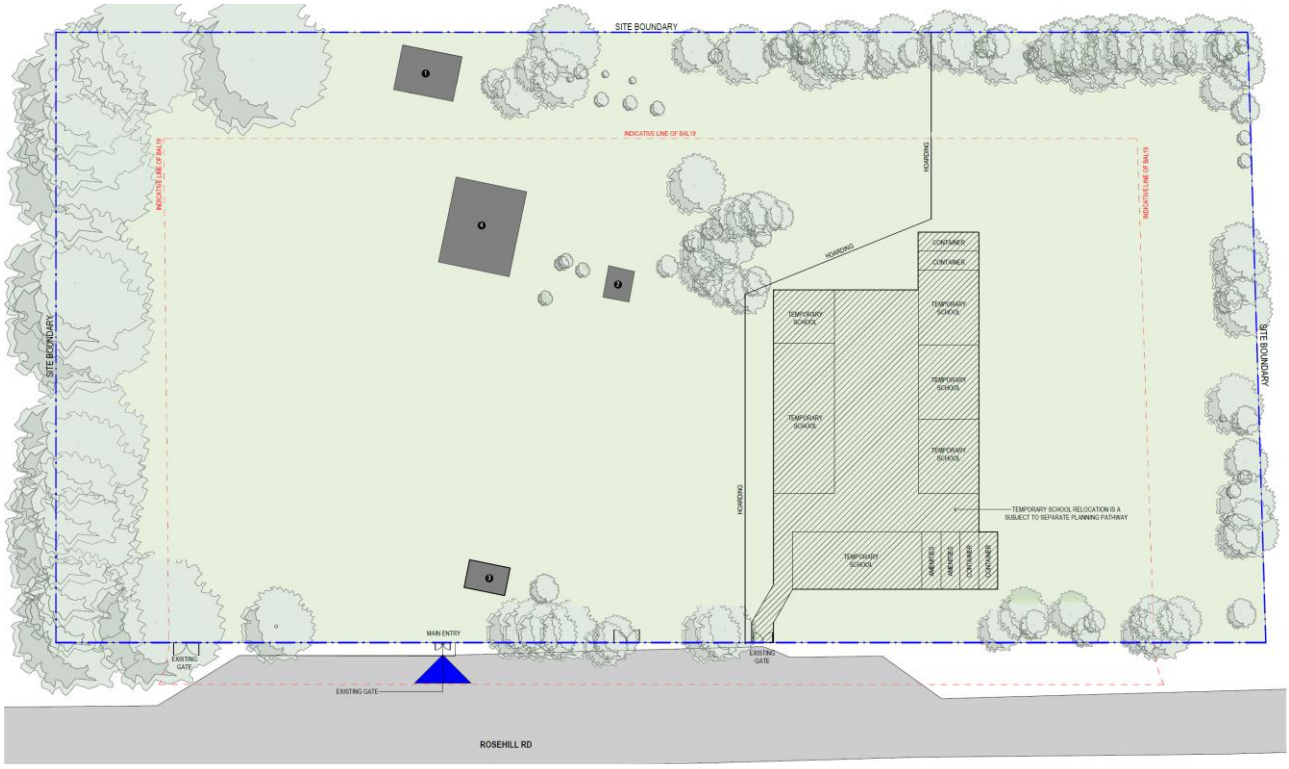

Figure 3: Post-demolition site plan (Source: Pedavoli Architects).

2.3 Site Considerations and Constraints

2.3.1 Zoning and Permissibility

The site is zoned SP2 Infrastructure - Educational (the SP2 zone) under LLEP 2012 (**Figure 4**) and educational establishments are permissible with consent. Furthermore, the SP2 zone is a prescribed zone for the purposes of educational establishments under section 3.34 of the SEPP T&I.

Figure 4: Extract of LLEP 2012 Zoning Map (Source: ePlanning Spatial Viewer)

2.3.2 Heritage

The site is mapped as an item of local heritage significance under LLEP 2012 which relates to item I4: *Blakebrook Public School Grounds* (**Figure 5**). The site is also listed on the Department of Education's Section 170 Heritage and Conservation Register.

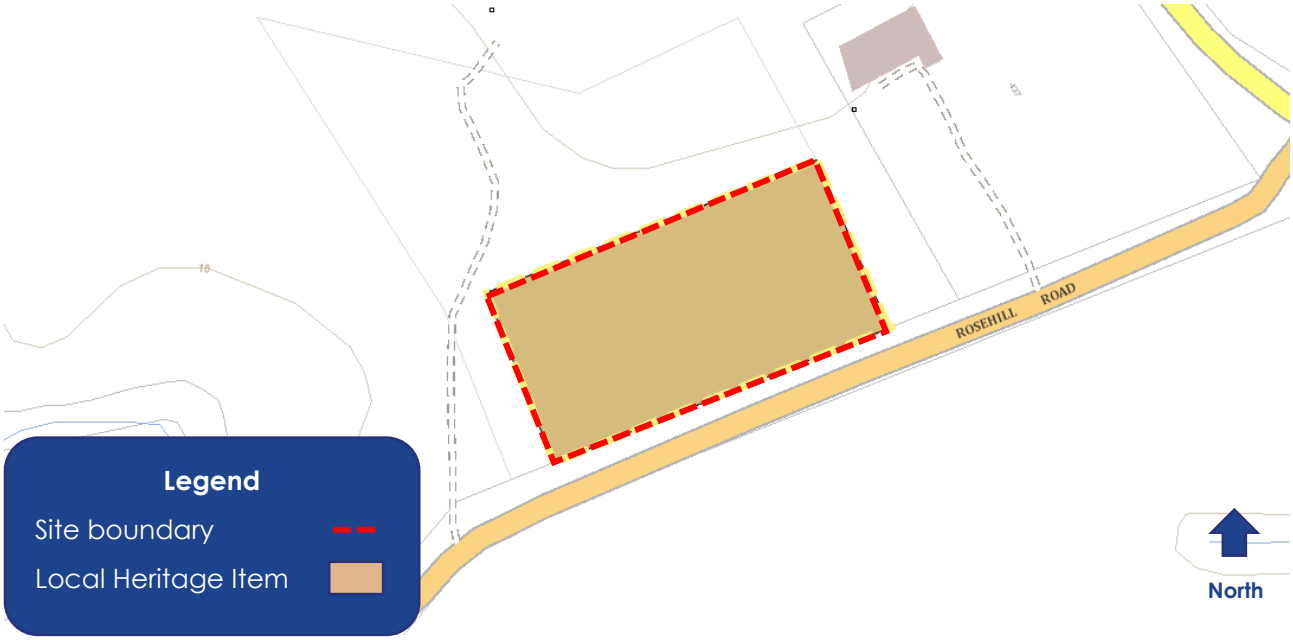

Figure 5: Extract of LLEP 2012 Heritage map (Source: ePlanning Spatial Viewer)

2.3.3 Bushfire

The site is not mapped as containing bushfire prone land on Council's bushfire prone land map. However, it is adjacent to land mapped as Vegetation Buffer and Category 2 to the west (**Figure 6**). Given the proximity of bushfire prone land, it is prudent to obtain bushfire advice.

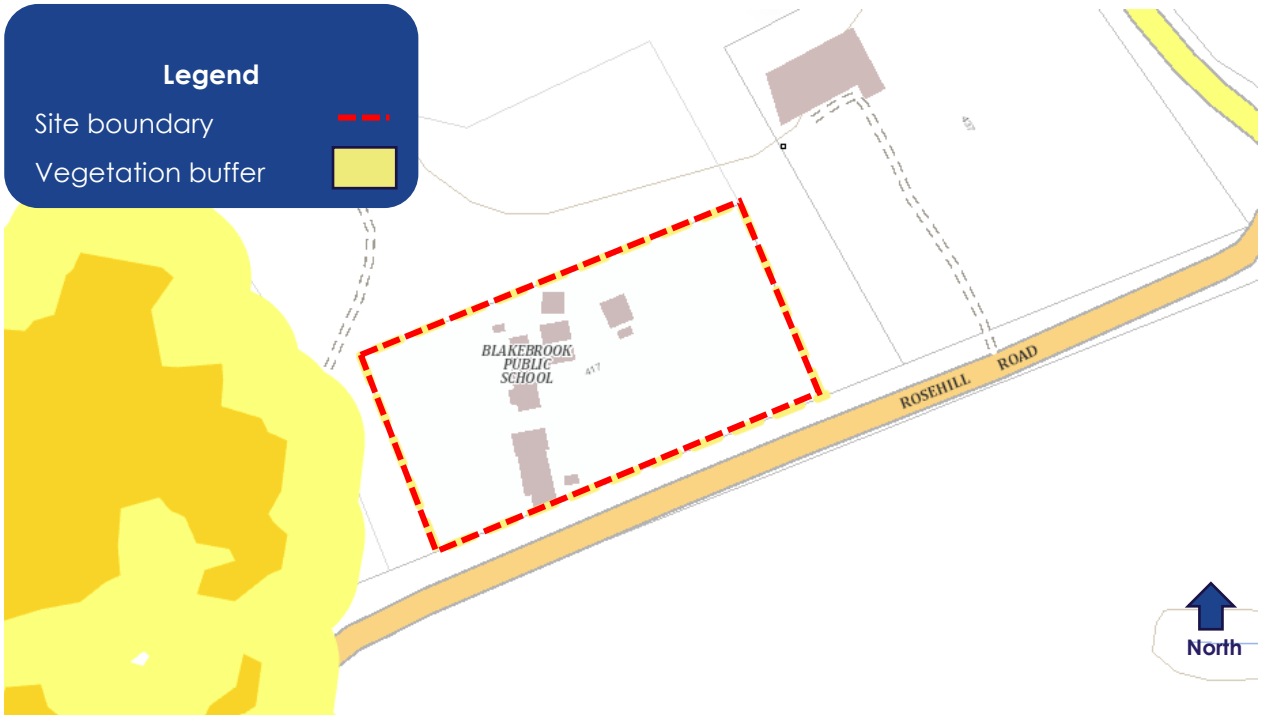

Figure 6: Extract of Bushfire Prone Land map (Source: ePlanning Spatial Viewer)

2.3.4 Flood

The site is partially mapped as flood planning area under LLEP 2012 (**Figure 7**).

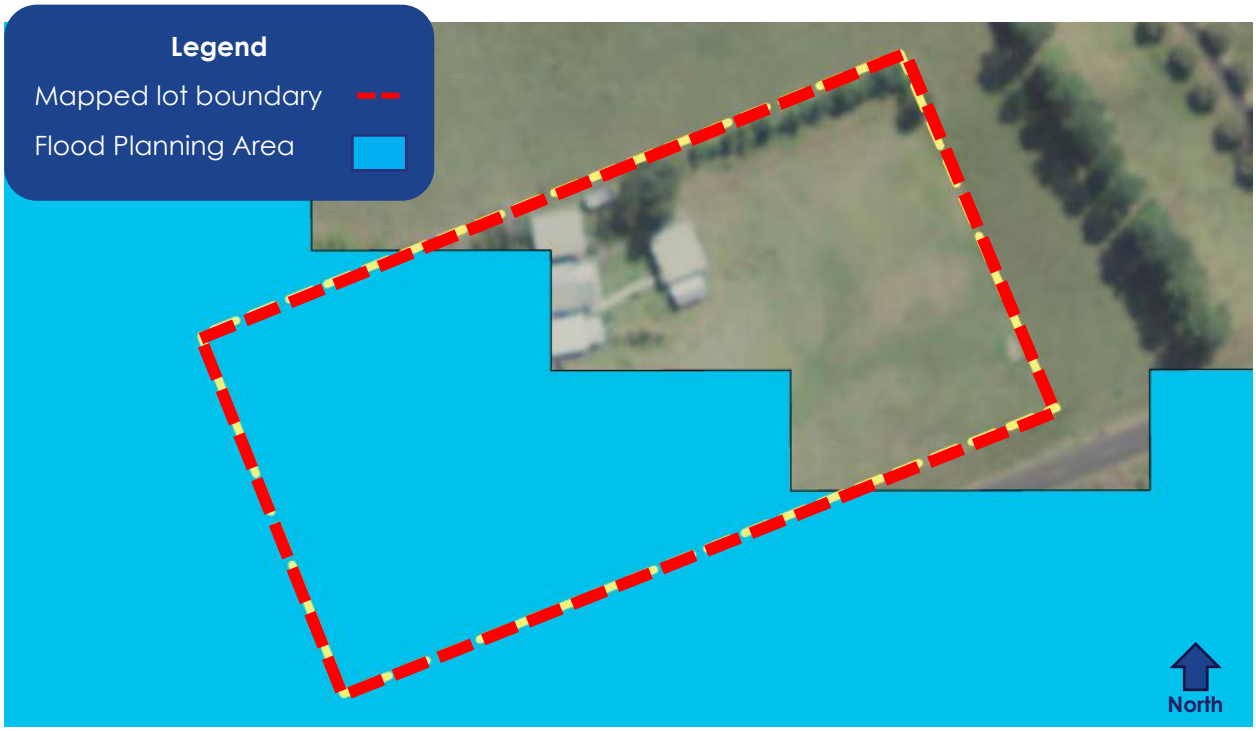

Figure 7: Extract of Lismore City Council Flood Planning Area map (Source: Lismore City Interactive Mapping Service)

2.4 Easements and Encumbrances

EPM has obtained copies of the property files applying to the land (**Appendix C**) to identify any encumbrances that apply outside of the planning controls covered elsewhere in this advice. The documents obtained by EPM include:

- Certificate of Title (CoT)
- Deposited Plan (DP) 859866

The CoT for Lot 2 DP859866 identifies the following schedules and notations:

- Land owned by Minister for Education and Early Learning
- Reservations and Conditions in the Crown Grant
- BK 2952 No 142 Easement for pipeline 3.655 appurtenant to the part shown so benefited affecting the land shown so burdened in the title diagram (identified as (B) in **Figure 8** below.

Figure 8: Extract of Deposited Plan indicating site in red and easement (B)

2.5 Development Consents

A request to be provided all development consents applying to the site was submitted to Lismore City Council under the *Government Information (Public Access) Act 2009* (GIPA Act).

Table 2 below provides an overview of the relevant consents available on Council records:

Table 2 DA Consents

Date	DA Consent	Relevant Conditions
4/1/1995	94/520 (amended) – Subdivision, Lots 3 and 4, TCC92/3 and Lot 1, DP 795287 in accordance with the plans submitted, a copy of which is returned, to create three rural lots of areas 1.286, 1.8 and 67.66 hectares	3. That proposed Lot 2 be used for the purpose of an educational establishment
27/01/1999	99/003 – Education Addition – Awning/Cola	
28/06/2007	2007/330 – Extension to Library	

2.6 Surrounding Development

As shown in **Figure 9** land uses surrounding the site and school are largely characterised by agricultural land, with large lot residential developments to the west and further north of the site.

The site is located between two creeks, Goolmangar to the east (approx. 340m) and Terania to the west (approx. 125m), which are tributaries to Leycester Creek and Wilsons River. A single dwelling adjoins to the north-east with agricultural land to the west and north.

Figure 9: Aerial image of the site indicating surrounding development (Source: NearMap)

3 Proposed Development

3.1 Summary of Proposed Development

Blakebrook Public School was significantly inundated during the flooding events of February/March 2022. Most of the structures are no longer habitable due to the damage caused because of the flood waters. Accordingly, the NSW Department of Education is proposing to demolish the existing school buildings and construct a new elevated school to provide modern educational facilities in a climate resilient design. The proposed development is to be undertaken in two (2) stages as follows:

- Stage 1: Demolition of the existing buildings (DA5.2023.299.1 submitted on 17 November 2023).
- Stage 2: Construction of a new elevated school building and landscaping and ancillary works and structures (this DA).

This application is for Stage 2 works only. Please refer to proposed architectural plans prepared by Pedavoli Architects (**Appendix A**).

3.2 Description of Works

3.2.1 New Building

The proposed development comprises (**Figure 10**):

- Construction of a new elevated school building, with at-grade (undercroft) amenities and storage, including:
    - Ground Level:

- Open undercroft space for covered outdoor learning and play
- Male and female amenities and accessible toilet / change room facility.
- Cleaners Store.
- Sports Store.
- Equipment and general store.

o Elevated Level:

- New administration comprising interview room, clerical spaces, Principal's office, staff room, sick bay, store and male, female and accessible amenities.
- School library with computer room, store, main communications room and library office.
- Four (4) General Learning Spaces (GLS) with learning commons and multi-purpose space.
- Canteen with open servery space.
- Store.
- Male, female and accessible amenities.
- Mechanical plant.

- New hard and soft landscaping including replacement playing field, playground, vegetable garden and new yarning circle.
- New hydrant pump house with fire tanks
- Relocation and replacement of existing septic tanks and water tanks

It is not proposed to increase student or staff numbers as a result of these works.

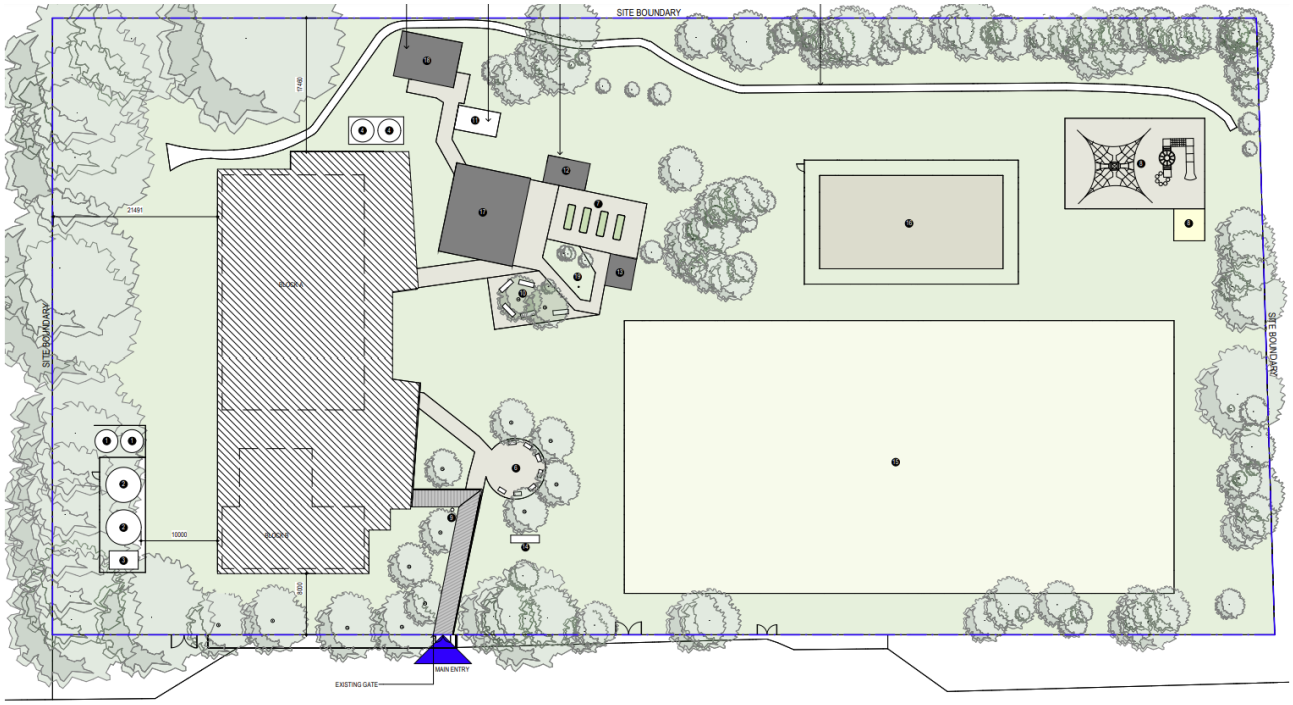

Figure 10: Proposed Site Plan (Source: Pedavoli Architects)

3.2.2 Construction Staging

The development will be constructed in two (2) stages (noting that demolition will be undertaken subject to approval of DA5.2023.299.1). Generally, the construction sequencing of the works will comprise:

- Stage 1 – Substructure and Civil Works: The scope of Stage 1 comprises of the installation of all inground services and structural works including (but not limited to) excavation for services, installation of all external services, piling and detailed excavation for pile caps and slab on ground.
- Stage 2 – Main building works and completion: The scope of Stage 2 comprises all structural slab on ground, footpaths and other hardstand, construction of the structural steel gantry system and the installation of the modular building components. Landscaping and commissioning of the new elevated building will be undertaken during this stage.

3.2.3 New Elevated School Building

The new elevated building is located on the west of the site, in a similar location to the buildings that were damaged by the floods. The new building comprises amenities and storage spaces within the undercroft and the school facilities including administration, four (4) GLAs, library, canteen and amenities on the elevated level (**Figure 11**). Access to the elevated level is via stairs and a lift.

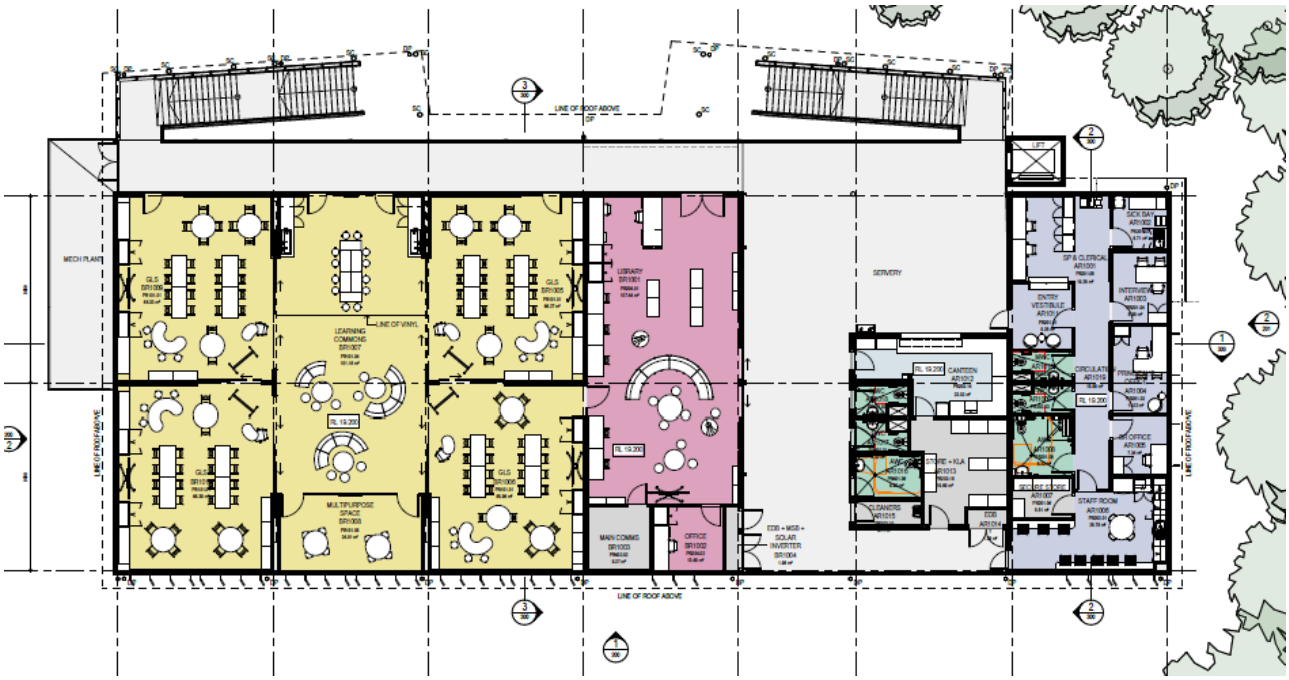

Figure 11: Proposed Elevated Floor Plan (Source: Pedavoli Architects)

The new building has a total Gross Floor Area (GFA) of 806.04m^2 consisting of 63.77m^2 within the undercroft and 742.27m^2 on the elevated level. The building has a maximum height of 8.73m to the top of the lift overrun above the existing ground level.

The new building utilises modular construction techniques. An elevated platform will be constructed on site, whilst the new GLAs and other school facilities are constructed off-site and craned into place. The off-site manufacturing provides benefits through a standardised approach that maximises design efficiencies and reduces construction impacts.

The proposed elevated building has been designed using flood resilient construction methods and materials.

External finishes for the new building have been influenced by the colours of country and community including the colours of endemic flora and the school's colours. The use of coloured vertical battens

and shading elements creates visual interest and provides articulation (**Figure 12**). Proposed building materials include fibre cement wall cladding in neutral colours and metal sheet roofing.

Figure 12: 3D Photomontage of new school building from interior of site with views through the building to significant trees to the west (Source: Pedavoli Architecture)

3.2.4 Landscape

Landscape plans for Blakebrook Public School have been prepared by Taylor Brammer Landscape Architects (**Appendix F**). The landscape design seeks to reinstate the landscape features that were damaged during the 2022 floods and build on the landscape heritage values of the site.

Thirteen (13) new trees are proposed to be planted, with species selected in accordance with the Connecting to Country narrative for the site. Plants with documented traditional Bundjalung uses and fast-growing Grevillea robusta will provide a bird and insect friendly screen for raised buildings.

The existing flagpole garden will be improved with architectural rainforest plants and a tall, spreading canopy of endemic gums. Seating will be provided throughout the mature Camphor Laurel trees along the western boundary to provide gathering spaces for small groups.

The Yarning Circle will feature a diverse stand of rainforest trees such as the White Booyong, and underplantings with rich biological, aesthetic and cultural value. The species are recommended in the Lismore City Council Landscape Guidelines (2007) and the Ecological Assessment Report for Blakebrook Public School.

A number of original items with heritage value or community significance will be retained and repurposed; the heritage bell and memorial seat will define the pedestrian entry to the building; the heritage bus shelter will be relocated to provide shelter to the games court and growing gardens; and the letterbox will strengthen the existing character of the school.

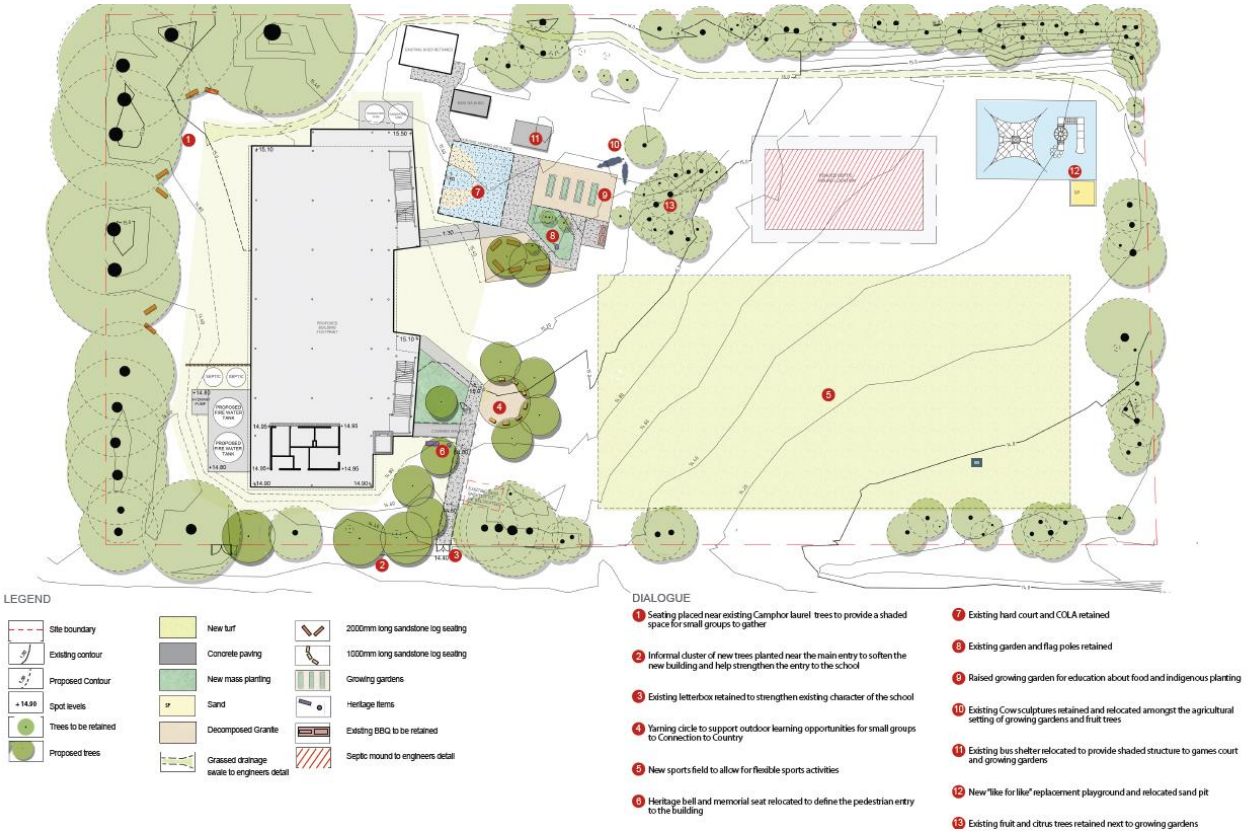

Figure 13: Landscape Plan (Source: Taylor Brammer)

3.2.5 Tree Protection

The site contains a number of significant trees, which are contributory items to the heritage significance of Blakebrook Public School grounds. Tree protection measures such as protective fencing will be implemented during construction in accordance with *AS4970-2009 Protection of trees on development sites*.

3.2.6 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment has been undertaken (**Appendix K**) to identify the presence of Aboriginal heritage values. One Aboriginal site was identified within the proposed development area during the archaeological field survey. Aboriginal items are protected under the *National Parks and Wildlife Act 1974* and an Aboriginal Heritage Impact Permit (AHIP) will be required prior to any works within 10 metres of the site being permissible. The location of the item and the AHIP curtilage is indicated in **Figure 14**. Please note that the AHIP will be obtained upon determination of the Stage 1 DA for demolition of existing flood damaged structures (DA5.2023.299.1)

Figure 14: AHIP curtilage and location of Aboriginal site (Source: EMM)

3.2.7 Groundwater

In relation to groundwater, the Geotechnical Investigation found that groundwater was observed at depths between 2.1m and 8m below the existing ground surfaces levels. However, it is expected that groundwater level varies at this site in response to climatic conditions. Accordingly, a groundwater table of RL13m AHD has been considered in the design. It is unlikely that shallow excavation will encounter groundwater, however, the driven piles may.

3.2.8 Stormwater

A Civil Report has been prepared by Henry & Hymas Consulting Engineers, which describes the proposed stormwater system and includes plans (**Appendix G**). The stormwater system will "collect all concentrated flows" from impervious areas as well as stormwater runoff from pervious areas such as landscaping up to the 20-year average recurrence interval (ARI) storm event.

Overland flow routes will be provided throughout the site to ensure stormwater can be conveyed to the site's discharge point in the event of a complete pipe blockage or a significant storm event greater than the 5-year ARI.

Minor site grading of less than 300mm has been proposed under DA5.2023.299.1 to improve drainage and ensure overland flow will be directed away from the school building and surrounding habitable areas. Grading has been designed in accordance with the Education Facilities Standards and Guidelines (EFSG), however the design has worked around the retention of existing tree levels. Minor earthworks batters of less than 300mm are provided where required in accordance with the grading design.

The stormwater management system includes an extension of the existing swale to the north of the development area and two 34KL rainwater tanks (adjacent to the northern façade of the new building). Roofwater will be directed to both the fire services tanks (144KL capacity) and the rainwater tanks (68KL capacity).

Stormwater quality measures will be implemented that aim to minimise pollution such as stormwater pit basket filters.

3.2.9 Infrastructure and Services

An Infrastructure Services Statement has been prepared by JHA Engineers (**Appendix Z**) for the project, which sets out the following works for provision of appropriate utilities and services:

- **Communications** – connection will originate from the existing pit out the front of the school entrance on Rosehill Road and reticulate to the new main comms room.
- **Power** – proposed power supply will be an underground cable from a new private pit established within the property boundary, adjacent to the existing Essential Energy pole 15749. A new underground cable will connect this private pit to the new main switchboard.
- **Water** – There is no available water main servicing the site. Accordingly, an existing rainwater reticulation will be utilised to service potable water and fire services demand. The water from the harvested rainwater system (2 x 34Kl tanks) will run through an appropriate filtration system via water filtration and disinfection.
- **Fire Fighting** – two (2) x 72 kilolitre fire tanks with fire pumps will be located on the western side of the new school building and the hydrant booster will be located adjacent to Rosehill Road will service the fire hydrant requirements.
- **Sewer** – The existing on-site sewage management system will be decommissioned and removed, and a new system installed comprising:
  - A new 4,000L all-waste concrete septic tank;
  - Aerated wastewater treatment system (AWTS); and
  - New Wisconsin Mound located at the rear of the site and fenced off from public access.

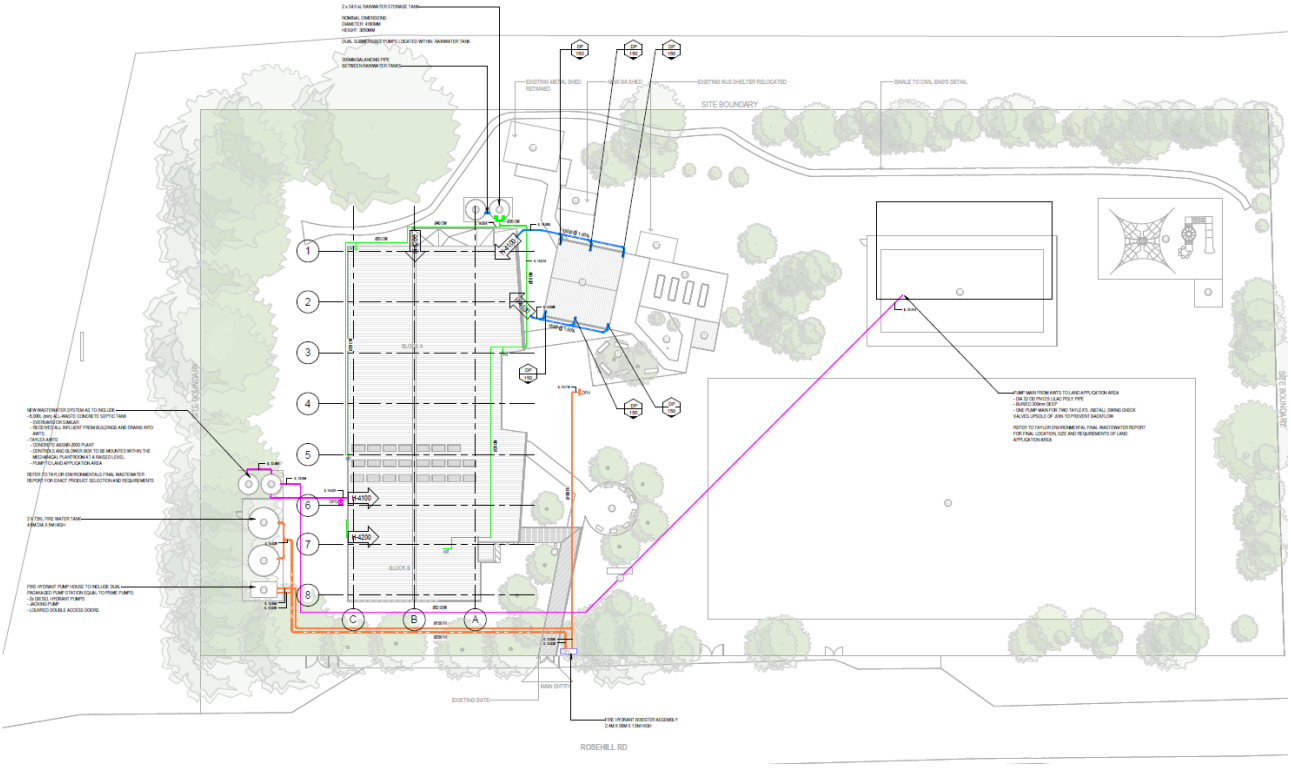

Figure 15: Site plan identifying location of proposed infrastructure and services (Source: JHA)

3.2.10 Ecologically Sustainable Design

A Sustainable Development Plan has been prepared by E-Lab Consulting to describe the ecologically sustainable design (ESD) strategies and measures that have been incorporated into the design of the proposed activity (**Appendix S**). The project is seeking to achieve a 4 Star Green Star Design & As Built v1.3 equivalency.

A number of sustainable design initiatives will be implemented as part of the proposal as follows:

- Resilience – including a site-specific climate change risk assessment and adaptation plan.
- Energy and carbon – energy efficiency across the buildings and the use of on-site renewable energy with installation of photovoltaic solar rooftop system.
- Water management – water efficient fixtures and fittings, collection, and reuse of water and improved stormwater quality.
- Health and wellbeing – maximising daylight and improving indoor quality through the use of low emissions materials.
- Materials – consideration of the whole of life impact of materials and selection to minimise harm to the environment and efficient construction methods.

3.2.11 Access and Parking

The proposed works are replacing infrastructure that was damaged in the February 2022 floods, no additional facilities are proposed as part of the project, including car parking. The proposed works do not include any changes to the existing access or parking provisions on-site. There is a vehicle access from Rosehill Road for emergency or informal site access. Staff parking will continue to be located along the street front, which is un-restricted.

3.2.12 Operations

There is no change proposed to existing student or staffing levels. The school hours of operation are between 8.30am and 3.30pm during school terms, with limited usage outside of these hours. The school does not have an out-of-school-hours (OOSH) facility. These works do not propose to increase staff or student numbers at Blakebrook Public School. No changes to the school's pre-flood operations are proposed.

3.2.13 Construction Staging

A Construction Management Plan has been prepared by Adco Constructions (**Appendix CC**), which sets out site establishment and construction management procedures during the construction works to mitigate environmental impacts.

The new elevated school building will be constructed in two (2) stages. Generally, the construction sequencing of the works will comprise:

Stage 1 – Substructure and Civil Works:

- Construction of building foundations and piling.
- Removal and disposal of spoil from site including appropriate classification and handling of any contaminated materials.
- Excavation and installation of underground building services.

Stage 2 – Main building works and completion:

- Construction of elevated platform for the new school to be placed on.
- Off-site construction of new modular school facilities and craned into position.
- Connection of new building services.
- Fit-out of new building.
- Completion of landscape works and any make-good site works.
- Relocation of students and staff back to school once commissioning and handover is complete.

Construction Hours

Generally, construction hours will be as follows:

- 7:00am to 6:00pm, Monday to Friday

- 8:00am to 1:00pm, Saturday
- No work without prior approval on Sundays and Public Holidays

If works do not exceed background level 5dB, works may carry on till 7pm weekdays and 4pm on Saturdays.

Construction Traffic

Construction vehicle access to the site will be from Rosehill Road. Construction traffic ingress and egress routes are shown in **Figure 16**. The CTMP provides that there will be an average of up to 15 vehicle/truck movements per day during construction. There will be an average of 10 construction staff on site per day and they will park on the adjacent street as public transport options are very limited.

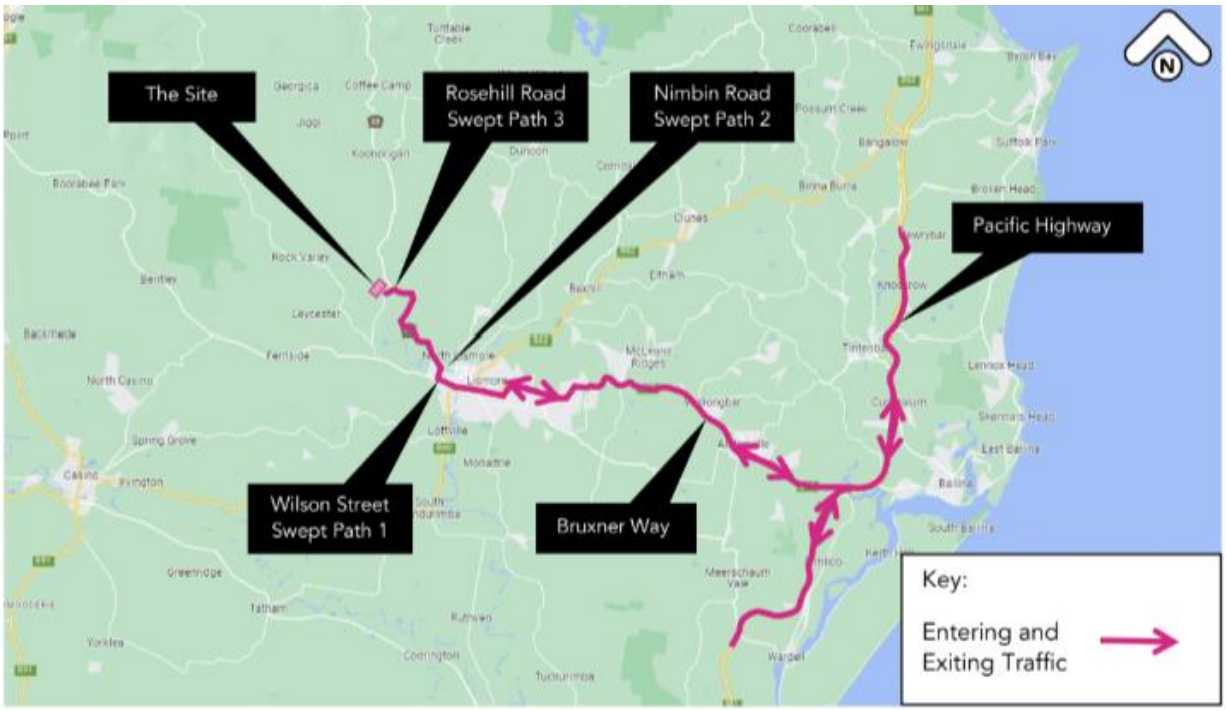

Figure 16: Construction traffic routes to and from site (Source: ptc)

3.2.14 Waste Management

Construction waste will be managed in accordance with the requirements of the NSW Environment Protection Authority (EPA). Throughout the development process, all materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling process. A waste storage area will be established on site and will be sufficient to store the various waste streams expected during construction. All materials to be removed from site will be analysed and classified by an appropriately qualified consultant in accordance with the *Protection of the Environment Operations (Waste) Regulation 2014* and the EPA's Waste Classification Guidelines.

A Waste Management Plan has been prepared by MRA Consulting Group to describe the proposed operational waste management practices (**Appendix BB**). The proposed activity does not seek to increase staff or student numbers; therefore, it is not expected that the works will result in an increase in the total waste generated by the school. Nevertheless, ongoing waste management practices will aim to contribute towards the NSW *Waste and Sustainable Materials Strategy 2041* target to achieve an 80% average recovery rate from all waste streams by 2030.

Based on the current school enrolment and the waste generation rates detailed in the NSW Environment Protection Authority (EPA) *Better Practice Guide for Resource Recovery in Residential Developments* (2019), the school requires the following bins:

- Five (5) x 240L general waste bins.
- Three (3) x 240L co-mingled recycling bins.

Waste bins are stored close to the administration area at the front of the site and in proximity to Rosehill Road where they are serviced.

4 Statutory Requirements

The following statutory instruments, documents and matters have been considered in this SEE:

- *Environmental Planning and Assessment Act 1979* (EP&A Act)
- *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *Biodiversity Conservation Act 2016* (BC Act)
- *National Parks and Wildlife Act 1974* (NPW Act)
- *Local Government Act 1993* (LG Act)
- *Local Land Services Act 2013* (LLS Act)
- *Rural Fires Act 1997* (RF Act)
- *Heritage Act 1977*
- *Water Management Act 2000* (WM Act)
- *Roads Act 1993*
- *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation)
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *Lismore Local Environmental Plan 2012*

The applicable provisions from each of the above are considered below.

4.1 Environmental Planning & Assessment Act 1979

4.1.1 Evaluation

Section 4.15(1) of the EP&A Act outlines matters that a consent authority must consider in determining a development application. Matters as are of relevance to the proposed development are discussed in the table below:

Table 3 Matters for Consideration under Section 4.15 of EP&A Act

Section	Discussion
4.15(1)(a)(i) Any environmental planning instrument (EPI)	All applicable environmental planning instruments are addressed at **Section 4.**
4.15(1)(a)(ii) Any draft (EPI)	All applicable draft environmental planning instruments are addressed at **Section 4.**
4.15(1)(a)(iii) Any development control plan	The Lismore Development Control Plan 2012 is addressed at **Section 4.8.1.**
4.15(1)(a)(iiia) Any planning agreement	There are no planning agreements applicable to the proposed development
4.15(1)(a)(iv) The regulations (as prescribed for the purposes of this section)	See **Section 4.7** below.
4.15(1)(b) Likely impacts	The likely impacts of the proposed development, including but not limited to environmental impacts on both the natural and built

Table 3 Matters for Consideration under Section 4.15 of EP&A Act	
Section	**Discussion**
	environments, and social and economic impacts in the locality are addressed at **Section 5.**
4.15(1)(c) Site suitability	The suitability of the site for the proposed development is addressed at **Section 5.18.**
4.15(1)(d) Submissions	EPM understands that Council will notify the proposed development to adjoining and nearby landowners in accordance with the Lismore Development Control Plan 2012. Should any submissions be received by way of objection to the proposal, the applicant seeks to be provided a copy of the submission(s) and be afforded an opportunity to provide a response to the matters raised.
4.15(1)(e) The public interest	The public interest of the proposed development is considered in detail at **Section 5.19.**

4.1.2 Crown Development

Pursuant to Section 4.32 of the EP&A Act, as the proposal is being submitted by the NSW Department of Education, it is a 'Crown Development'. Section 4.33(1) provides that a consent authority (other than the Minister) must not refuse consent to a Crown DA without the Minister's approval, and must not impose a condition of consent to a Crown DA without the approval of the applicant or the Minister.

4.1.3 Integrated Development

Notwithstanding that the proposal will require an *Aboriginal Heritage Impact Permit* (AHIP) to be issued under Section 90 of the *National Parks and Wildlife Act 1979;* Section 4.44 of the EP&A Act provides Division 4.8 Integrated development does not apply to Crown development, other than development that requires a heritage approval. Section 4.45 defines a heritage approval as approval required under Section 57(1) of the Heritage Act 1977.

Accordingly, the development is not integrated development.

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

A Flora and Fauna Assessment has been prepared by Kleinfelder (**Appendix X**) which considers the proposed works against the requirements of the EPBC Act. Only one EPBC Act threatened plant species (Davidson's Plum) was recorded within the subject site. The Davidson's Plum is outside of the area of development and will be protected during construction of the new school.

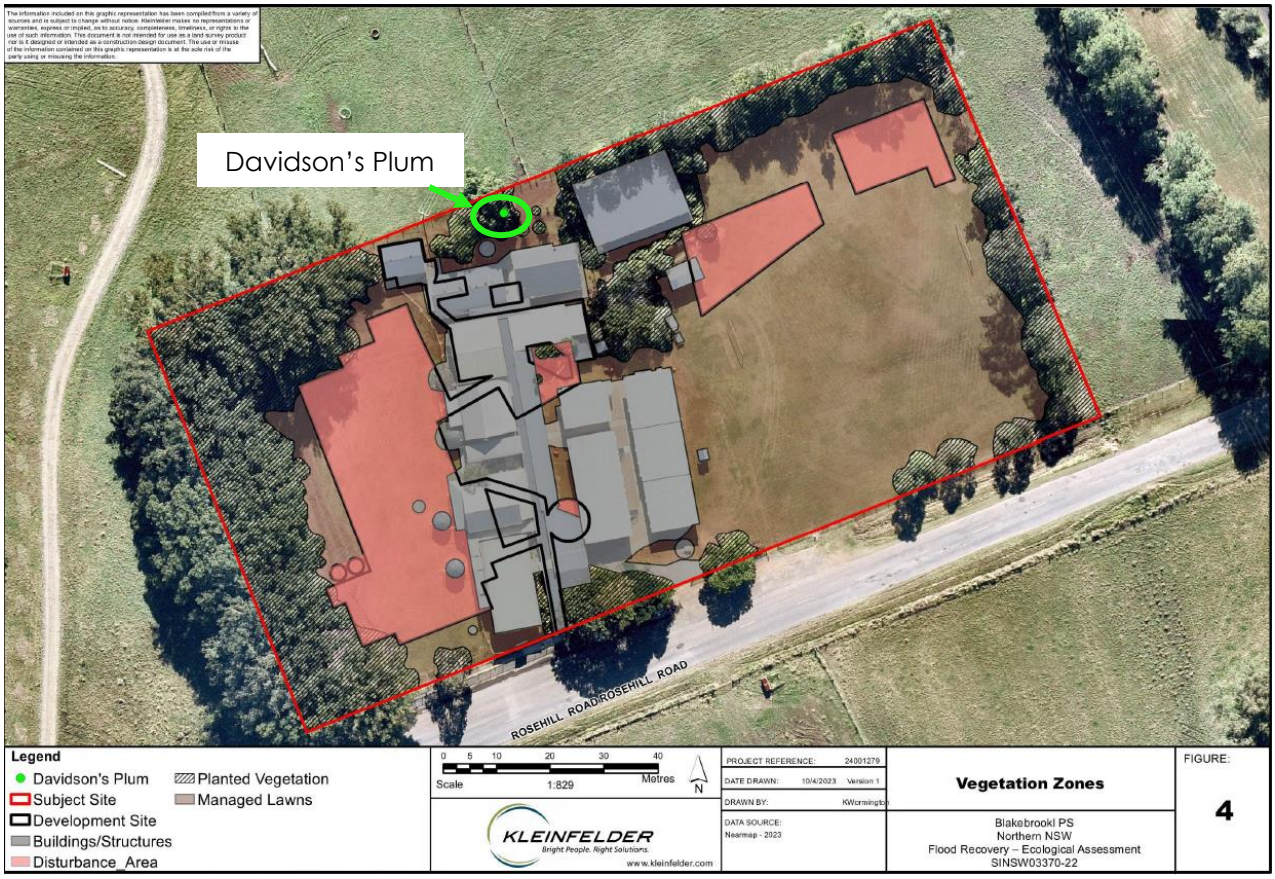

Figure 17: Vegetation zones, identify Davidson's Plum along northern boundary outside of works area (Source: Kleinfelder)

The Koala was identified as having a moderate to high likelihood of occurrence within the site. An assessment was undertaken against the Significant Guidelines of the EPBC Act, which determined that the Koala would not be significantly impacted by the proposed works. An EPBC Act checklist is provided at **Table 4**.

Table 4 Matters for consideration under the EPBC Act

Consideration	Yes/No
Will the activity have, or be likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or be likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No
Will the activity have, or be likely to have, a significant impact on Commonwealth marine areas?	No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

4.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) outlines the framework for addressing impacts on biodiversity from development and clearing. In accordance with section 7.2 of the BC Act, an activity is likely to significantly affect threatened species if it is:

a) likely to "significantly affect threatened species or ecological communities, or their habitats" in accordance with section 7.3 of the BC Act; or

b) the development exceeds the biodiversity offsets scheme (BOS) threshold if the BOS applies to the impacts of the development on biodiversity values; or

c) carried out in a declared area of outstanding biodiversity value.

A Flora and Fauna Assessment Report has been prepared by Kleinfelder that provides an assessment against sections 7.3 and 7.7 of the BC Act (**Appendix X**). The new disturbance area will be 1,832m^2 that is made up of 1,814m^2 of managed lawns and 18m^2 of planted trees. Kleinfelder made the following conclusion:

> *The proposed development at BBPS will result in no clearing or impacts to native vegetation communities, but has an area clearing threshold of 0.5 ha based on the Subject Site's minimum lot size of 1.2809 ha. There are no areas mapped on the BV Map within the Subject Site. As such, the proposed development does not trigger entry into the BOS, thus a Biodiversity Development Assessment Report (BDAR) is not required to support the DA under the above criteria.*

An assessment against the likelihood of occurrence of threatened species and ecological communities listed under the BC Act has been carried out (see **Section 5.1** and **Appendix X**) and concluded that no threatened communities, flora or fauna species were recorded within the site or are considered to have a moderate to high likelihood of occurrence except the Koala. An assessment of impact found the development would not significantly impact the Koala.

4.4 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (NPW Act), administered by Heritage NSW, is the primary legislation for the protection of Aboriginal cultural heritage in NSW. The NPW Act gives the Director General of Heritage NSW responsibility for the proper care, preservation and protection of 'Aboriginal objects' and 'Aboriginal places', defined under the Act as follows:

- an Aboriginal object is any deposit, object or material evidence (that is not a handicraft made for sale) relating to Aboriginal habitation of NSW, before or during the occupation of that area by persons of non-Aboriginal extraction (and includes Aboriginal remains).
- an Aboriginal place is a place declared so by the Minister administering the NPW Act because the place is or was of special significance to Aboriginal culture. It may or may not contain Aboriginal objects.

Section 90 of the NPW Act requires an Aboriginal Heritage Impact Permit (AHIP) to be granted by Heritage NSW for any works likely to destroy, deface, damage or knowingly cause or permit the destruction or defacement of a relic or Aboriginal place or object. In addition, section 87 provides that it is a defence to a prosecution if harm or desecration to a relic or Aboriginal place or object was authorised by an Aboriginal heritage impact permit and the conditions to which that permit was subject were not contravened.

The Aboriginal Cultural Heritage Assessment (ACHA) Report prepared by EMM (**Appendix K**) has identified an Aboriginal site, an isolated find recovered from the north-western portion of the project area. Accordingly, an AHIP will be required prior to commencement of works within the area identified as AHIP curtilage in **Figure 14** Subject to application for the AHIP under Section 90 of the NPW Act and implementation of the recommendations contained in the ACHA Report, the impacts to Aboriginal cultural heritage can be suitably mitigated. The AHIP will be sought upon determination of DA5.2023.299.1 for demolition of existing structures.

Detailed discussion is provided at **Section 5.13** of this SEE.

4.5 Local Government Act 1993

Under Section 68 of the Local Government Act 1994 (LG Act), approval is required from Council to:

- Carry out sewerage work
- Carry out stormwater drainage work
- Install, construct or alter a waste treatment device or human waste storage or a drain connected to any such device or facility.
- Operate a system of sewage management (within the meaning of section 68A)

The works include stormwater drainage works as well as installation of a new septic tank and on-site waste water disposal system which would require approval under Section 68 of the LG Act. However, Section 69 of the LG Act states:

> *Section 68 does not require the Crown or a person prescribed by the regulations to obtain the approval of a council to do anything that is incidental to the erection or demolition of a building.*

As the NSW Department of Education is a statutory body representing the Crown and the proposed stormwater drainage works and sewage connection are incidental to the erection or demolition of a building, approval is not required under s68 of the LG Act.

4.6 Other NSW Acts

The following lists any additional legislation that is required to be considered if it is applicable to the proposed DA.

Table 5 Other Legislative Considerations

Legislation	Assessment
Rural Fires Act 1997 (RF Act)	The site is not bush fire prone land on a bush fire prone land map. However, pursuant to s63 of the RF Act, public authorities must take all practicable steps to prevent the occurrence and spread of bush fires on or from land vested in or under its control or management. Accordingly, a Bushfire Assessment has been prepared and confirms the proposal is consistent with the bushfire risk on the site (See discussion at **Section 5.11**)
Protection of the Environment Operations Act 1997 (PoEO Act)	The PoEO Act seeks to protect, restore and enhance the environment in NSW and promote public access to information and involvement in environmental protection. If a pollution event that causes or threatens harm to the environment occurs while carrying out the activity, the person carrying out the activity must notify the appropriate regulatory authority (as defined under Section 148 of the PoEO Act). A Construction Management Plan has been provided (**Appendix CC**), which sets out management measures to ensure that construction activities won't cause a pollution event. A licence under the PoEO Act is not required.

4.7 State Environmental Planning Policies

The following table provides an assessment of State Environmental Planning Policies that need to be considered for these works.

Table 6 State Environmental Planning Policies

Legislation	Assessment
State Environmental Planning Policy (Planning Systems) 2021	The works have a CIV of >$5 million and <$50 million. Pursuant to Schedule 6, Crown development with a CIV of >$5 million is Regionally Significant Development. Accordingly, pursuant to Section 4.5(b) of the EP&A Act, the Northern Regional Planning Panel will be the consent authority.

Table 6 State Environmental Planning Policies	
Legislation	**Assessment**
State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP B&C)	Chapter 4 (Koala Habitat Protection 2021) of the BC SEPP applies to land zoned SP2 located within the Lismore City LGA. The aim of Chapter 4 of the BC SEPP is to encourage the 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. As identified in the Flora and Fauna Assessment Report prepared by Kleinfelder, the site contains moderate to high potential for koalas and contains (potential) koala feed tree species (**Appendix X**). However, the site is not identified as 'core koala habitat' and is located approximately 700 metres from the nearest koala habitat (disconnected by the River and cane fields). An assessment of significance has been undertaken by Kleinfelder, which confirms the works will not have an unacceptable impact on koalas or their habitat. Notwithstanding, suitable mitigation measures have been identified in **Section 5.2** to ameliorate any impacts on koala habitat.
State Environmental Planning Policy (Sustainable Buildings) 2022	SEPP SB applies to new educational buildings with a CIV of more than $5 million. The principles of the SB SEPP have been incorporated into this development, as set out in the Sustainable Development Plan at **Appendix S** and discussed in **Section 5.9** of this SEE.
State Environmental Planning Policy (Transport and Infrastructure) 2021	Section 3.36 provides that development for the purposes of a school can be carried out on land in a prescribed zone or within the boundaries of an existing school. Section 3.36(6) provides that the consent authority must consider the design quality of the development in accordance with the design quality principles. An Architectural Design Statement is provided at **Appendix B** and discussed in **Section 5.6.1** of this SEE, which confirms the school is designed in accordance with these principles. Section 3.36(9) provides that a provision of a DCP that specifies a requirement, standard or control is of no effect.
State Environmental Planning Policy (Resilience and Hazards) 2021	
Chapter 2 – Coastal Management s2.10 Development within the coastal environment area	The site is mapped as being located within the 'coastal environment area'. The Civil Report confirms that the development will not have unacceptable impacts on flood behaviour or hydrological process (**Appendix G** and **Sections 5.1** and **5.4**) The Flora and Fauna Assessment confirms that the development will have no unacceptable impacts on flora or fauna (**Appendix X** and **Section 5.2**). Appropriate erosion and sediment control measures will be implemented along with water quality measures for stormwater management. An ACHA has been prepared to mitigate the impacts on Aboriginal cultural heritage and an AHIP will be required prior to any works on site taking place (see **Section 5.13**). Accordingly, the proposed development has been assessed as being consistent with the requirements of this chapter.
Chapter 4 – Remediation of Land	Contamination investigations have been undertaken and confirm that the site is suitable for the proposed development subject to appropriate mitigation measures. See **Section 5.10** and **Appendix N**.

4.7.1 Lismore Local Environmental Plan 2012

The following table provides a summary assessment of the proposed development against the relevant provisions of the LEP.

Table 7 Lismore LEP 2012	
Clause	**Assessment**
2.2 Zoning – SP2 Infrastructure Zone	Schools are permissible with consent in the SP2 Infrastructure – Educat5ional Establishments zone under the LEP and the SP2 zone is a prescribed zone for the purposes of school development under SEPP T&I.
5.21 Flood Planning – Flood Prone Land	The proposal has been designed in accordance with the flood affectation of the site. The minimum habitable floor level is above the 0.2% AEP plus 500mm freeboard as well as the Probable Maximum Flood (PMF) extent, which exceeds Council's minimum level. Further discussion is at **Section 5.1**.
6.2 Essential Services	An Infrastructure Services Statement has been prepared by JHA (**Appendix Z**), which confirms that the development has access to the required essential services. As the site does not have access to a potable water supply or Council's sewer network, water tanks are proposed and an On-Site Wastewater Management Plan has been prepared for the septic system. Further discussion is at **Section 5.12.**
6.3 Earthworks	Minor earthworks are proposed to level the site, these are expected to be less than 300mm.

4.8 Non-statutory Requirements

4.8.1 Lismore Development Control Plan (DCP) 2012

Pursuant to Section 3.36(9) of the TI SEPP, provisions in a DCP are of no effect to school developments. Notwithstanding, an assessment of the proposal has been undertaken against the relevant provisions of the Lismore DCP.

Table 8 Assessment against Lismore DCP 2012		
Provision of DCP	**Assessment**	**Consistent**
7. Off-Street Parking **1:2 staff** **1:12 students**	The proposal involves the reinstatement of school facilities following flood damage and does not propose any increase in staff or students or any change to the existing parking arrangements on the site, which has staff and parent parking along the unrestricted street frontage.	No But no change from existing arrangement
8. Flood Prone Lands	Minimum habitable floor level is 19.2m AHD which is above the PMF and well above the 0.2%AEP + 500mm freeboard. A statement from the structural engineer has been provided confirming that the development can withstand the forces of floodwaters and associated debris up to the PMF event, which exceeds the DCP requirement. The non-habitable floor area below the FPL is constructed of suitable flood resilient materials and the Civil Engineer's report has confirmed that the structure will not have an adverse effect on existing flow of floodwaters. A Flood Emergency Response Plan has been prepared for the school confirming safe evacuation of students and staff prior to a flood event that would affect the road network or the school.	Yes
12. Heritage Significance	The site is an item of local heritage significance. DA5.2023.299.1 has considered the demolition of the existing school structures. Therefore this application only deals with consideration of the new building's impact on the heritage significance of the site. In this regard, a SOHI has been prepared that identifies that visual	Yes

Provision of DCP	Assessment	Consistent
	impact is the main heritage consideration. The proposed development retains the remaining significant elements of the site including the established tree-lined perimeter and therefore, the development will not have an adverse heritage impact. Heritage matters are discussed in detail at **Section 5.14**.	
13. Crime Prevention through Environmental Design	Has been designed in accordance with CPTED principles and have been assessed in **Section 5.16.**	Yes
14. Vegetation Protection	The proposal does not include any tree removal. A Tree Protection Plan has been provided with this application to ensure protection of trees throughout the construction works.	Yes
15. Waste Minimisation	A construction and operational waste management plan has been provided with this DA which provides strategies for recycling and reuse of materials where possible and confirms suitable waste storage and disposal facilities (discussed further at **Section 5.8**).	Yes
22. Water Sensitive Design	The proposal will result in a reduction in impervious area of 192m^2. Rainwater tanks with a capacity of 68KL will be installed to collect roofwater. Stormwater quality measures are also proposed are discussed in detail at **Section 5.4.2** The proposal includes an erosion and sediment controls during construction.	Yes

4.8.2 Draft Lismore Development Control Plan (DCP) 2021

On 19 June 2023, Lismore City Council exhibited the Revised Flood Prone Lands DCP (draft DCP) which includes a new Chapter 8 Flood Prone Lands. The draft DCP provides that educational establishments are considered as a "sensitive" land use with regard to flood development standards. However, we have received advice from Lismore City Council that following community consultation educational establishments have been moved to a "commercial, industrial and community" land use. The following assessment against the draft DCP has implemented this change.

Table 9 Draft Flood Prone Lands DCP

Clause	Assessment
2. Definitions Flood Planning Level – 0.2% AEP + 500mm freeboard	The draft DCP indicates that the flood planning level is the 1% AEP + 500mm freeboard. However, Lismore City Council has advised that the school must achieve a minimum habitable floor level of 0.2% AEP + 500mm freeboard. The minimum habitable floor level is approximately 16.5m AHD. The PMF is 18.38m AHD. The proposed habitable floor level for the school will be 19.2m AHD, which significantly exceeds both the minimum habitable floor level and the PMF.
3. Flood Risk Precincts Medium Risk Precinct	The Flood Impact Assessment prepared by Engeny (**Appendix I**) identifies the site as having an H2 Flood Hazard at the 1% AEP event; an H3 Flood Hazard at the 0.2% AEP event and an H5 Flood Hazard in a PMF event. Accordingly, the site is classified as being in a Low to Medium Hazard Precinct. The assessment has considered the site as being in a medium hazard precinct. Detailed discussion is at **Section 5.1**
4. Development Controls H3 Risk level Commercial, Industrial & Community land use	*Floor Level – 4* 4. The development proposes a small area of non-habitable floor space below the FPL, comprising toilet facilities and a storeroom. All habitable floor area is above the FPL and PMF, and represents more than 25% of floor area. The area below the FPL has been designed with flood resilient materials and to allow the free movement of flood waters through this space.

Table 9 Draft Flood Prone Lands DCP	
Clause	**Assessment**
	Fill – 1 1. Minor benching works are required, to facilitate the development, these will be negligible and any fill will be sourced from within the site.
	Flood Affectation – 2 2. The Flood Impact Assessment confirms that the development will not impact flood behaviour, flows, levels or velocities and will not impact adjoining sites.
	Building Materials and Design – 1, 3, 4 1. The building is constructed of flood resilient materials below the FPL 3. Fencing is permeable and will allow free movement of flood waters 4. The non-habitable spaces below the FPL have openings that will allow the free movement of flood waters
	Structural Soundness – 1 1. The Civil Engineering Report prepared by Henry & Hymas confirms that the proposed building is designed to withstand the forces of floodwater, debris and buoyancy up to and including the PMF event, which exceeds the minimum requirement.
	Emergency Response – 2 2. A flood emergency response plan has been prepared by Acor, it includes evacuation in the event of a heavy weather warning to ensure road egress to land above the PMF.
	Management – 2, 3 2. A FERP has been prepared. 3. No storage of hazardous materials is proposed below the FPL.

4.9 Strategic Planning Context

The following table lists any strategic plan that is required to be considered if it is applicable to the proposed activity.

Table 10 Strategic Plans	
Plan	**Assessment**
Inspire Lismore 2040 Local Strategic Planning Statement (Lismore LSPS)	Following is a brief assessment of how the proposal is consistent with the themes of the Lismore LSPS: <u>Theme 1 – Liveable Places</u> • Restoring public school infrastructure to service the local community <u>Theme 2 – Productive Economy</u> • Maintaining permanent educational jobs as well as short-term construction jobs <u>Theme 3 – Connected Communities</u> • n/a <u>Theme 4 – Sustainable Environment</u> • The new school building has been designed to have 4 Star Green Star equivalency. • Existing mature vegetation will be retained. <u>Theme 5 – Climate Resilience</u> • The new school building has been designed in consideration of bushfire and flood risks and has been situated away from bushfire risk and above the PMF flood event level.

Table 10 Strategic Plans	
Plan	**Assessment**
	Accordingly, the proposal is consistent with the themes and objectives of the Lismore LSPS.
Lismore Growth & Realignment Strategy 2022	Lismore Growth & Realignment Strategy was developed following the natural disaster in February/March 2022 and represents "*a significant shift in re-imagining and realigning Lismore to facilitate growth and the relocation of homes and businesses to areas outside of anticipated future flooding*". Blakebrook is not mentioned within this strategy, however the proposed development provides critical school infrastructure in the locality, incorporates flood resilience in the design and provides a comprehensive Flood Emergency Response Plan.
North Coast Regional Plan 2041	The *North Coast Regional Plan 2041* (the Regional Plan) guides the land use planning priorities and decisions to 2041 for the North Coast Region. There is a total of 12 Local Government Areas (LGAs) located within the North Coast Region including Lismore City LGA. The Regional Plan identifies three (3) goals for the region: • Goal 1: Liveable, sustainable and resilient. • Goal 2: Productive and connected. • Goal 3: Growth change and opportunity. The three (3) goals are supported by 20 objectives, along with strategies, actions and collaborative activities. The proposed activity is consistent with the following objectives under the Regional Plan: • Objective 5: Manage and improve resilience to shocks and stresses, natural hazards and climate change. • Objective 19: Public spaces and green infrastructure support connected and healthy communities.

5 Environmental Planning and Impact Assessment

The following subsections consider the environmental impact associated with the proposed development including relevant matters for consideration under section 4.15 of the EP&A Act.

5.1 Flooding

The site is flood prone land and was inundated during the February/March 2022 floods, which damaged the existing school buildings and was measured as reaching a height of 17.4m AHD as indicated in **Figure 18** and **Figure 19**.

Figure 18: Storage building with Feb 2022 flood height indicated by blue line (Source: Acor Consultants)

Figure 19: Building A learning spaces with Feb 2022 flood height indicted by blue line (Source: Acor Consultants)

In December 2023, Engeny prepared flood modelling for the site using TUFLOW hydraulic modelling to expand upon the *Lismore Floodplain Risk Management Study* (FRMS) (Engeny, 2019) to consider the flood context of Blakebrook Public School, which was excluded from the FRMS. (**Appendix I**). The following table sets out the flood context of the site.

Table 11 Summary of flood and floor levels for Blakebrook Public School	
Description	**Level/ Hazard Classification**
Flood Levels at the Site as per Engeny modelling (including depth of water above ground level on the site). n.b. the 0.2% AEP (1 in 500) event is not identified in the Engeny modelling, so we have included the 0.1% (1 in 1,000) event.	1% AEP – 15.53m AHD (up to 0.43m deep) – H2 0.5% AEP - 15.84m AHD (up to 0.75m deep) – H3 0.1% AEP – 16.02m AHD (up to 0.92m deep) – H3 PMF – 18.38m AHD (up to 3.29m deep) – H5
February / March 2022 peak flood level (as measured onsite by Acor)	17.4m AHD (up to 2.3m deep) – H5
Minimum Habitable Floor Level (MHFL) 0.2% AEP + 0.5m	Approximately 16.5m AHD
Proposed Minimum Habitable Floor Level	19.2m AHD (2.7m above the MHFL and 0.64m above the PMF flood level)
Flood velocity (1% AEP)	0.36m/second (0.58m/second in PMF event)
Flood Risk Precinct	H3 at the 0.2% AEP event H5 at the PMF

The site is identified as an H3 flood hazard at the 0.2% event and an H5 flood hazard at the PMF event (see **Figure 20** below)

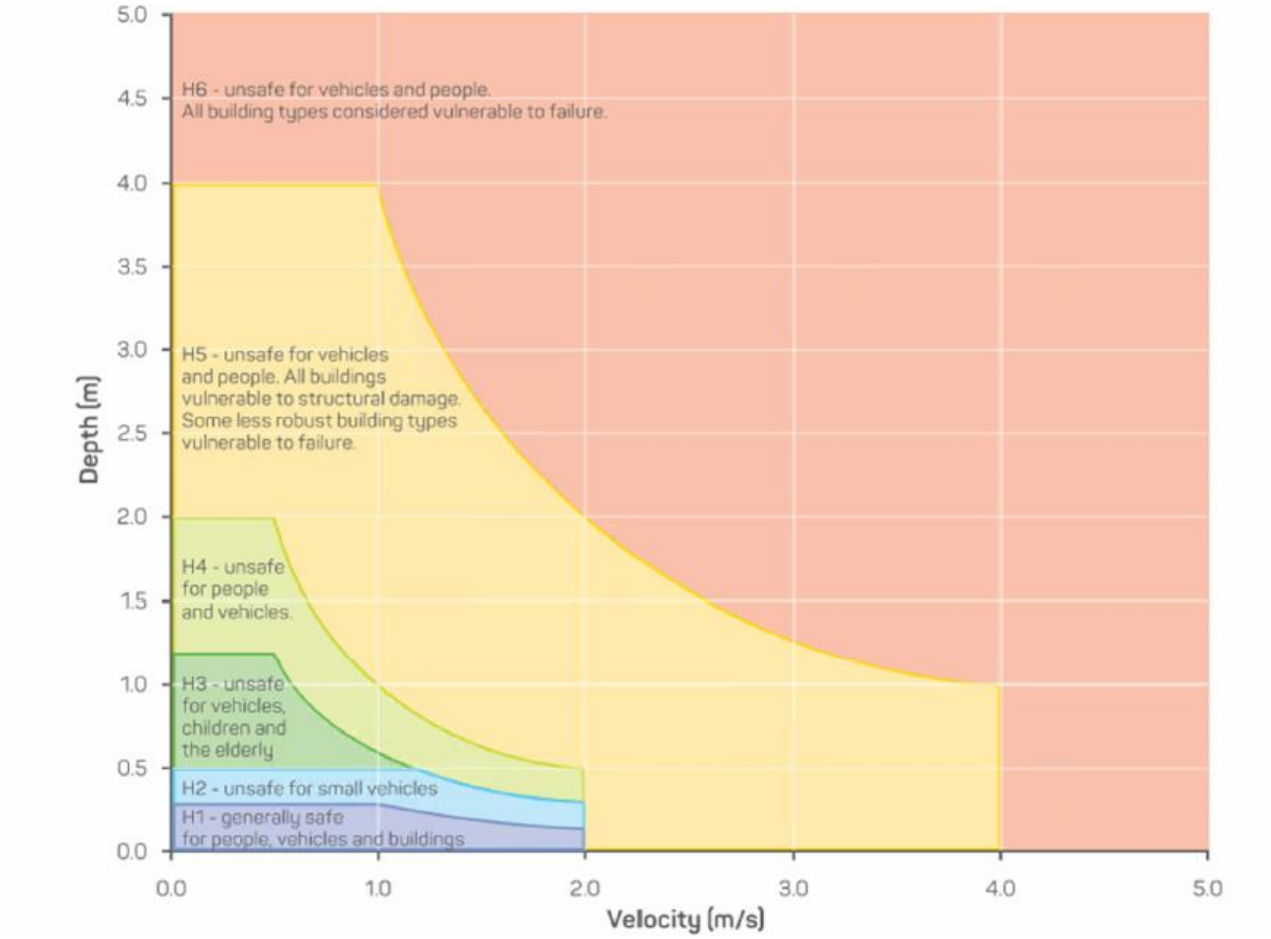

Figure 20: General Flood Hazard Vulnerability Curve (Source: Australian Institute for Disaster Resilience, 2019)

The draft Lismore Flood Prone Lands DCP includes a Flood Risk matrix (**Figure 21**) which identifies the site as a Medium risk at the 0.2% AEP event and a Low Risk at the PMF event.

Flood Likelihood	Flood Hazard (AIDR)					
	H1	H2	H3	H4	H5	H6
10% AEP	Low	Medium	Medium	High	Extreme	Extreme
5% AEP, 1% AEP	Low	Low	Medium	High	High	Extreme
0.2% AEP	Low	Low	Medium	Medium	High	High
1:1,000 AEP, 1:2,000 AEP	Low	Low	Low	Low	Medium	High
1:10,000 AEP, 1:100,000 AEP, PMF	Low	Low	Low	Low	Low	Medium

Figure 21: Flood Risk Precinct Matrix (Source: draft Lismore Revised Flood Prone Lands DCP, 2023)

The NSW Flood Inquiry 2022 provided a series of recommendations for flood affected sites, including taking a risk-based approach to setting minimum habitable floor levels (Recommendation #18). The recommendation provides that the 1% AEP level plus 500mm freeboard, which has been traditionally used to set habitable floor levels, is not an adequate measure. The proposed buildings will provide a useable undercroft space with a habitable floor level of 19.2m AHD (**Figure 22**), which exceeds both Council's MHFL and is above the PMF event. Accordingly, the minimum habitable floor level is consistent with *Recommendation 18* from the *NSW Flood Inquiry,* and Council's requirements, and is therefore considered suitable.

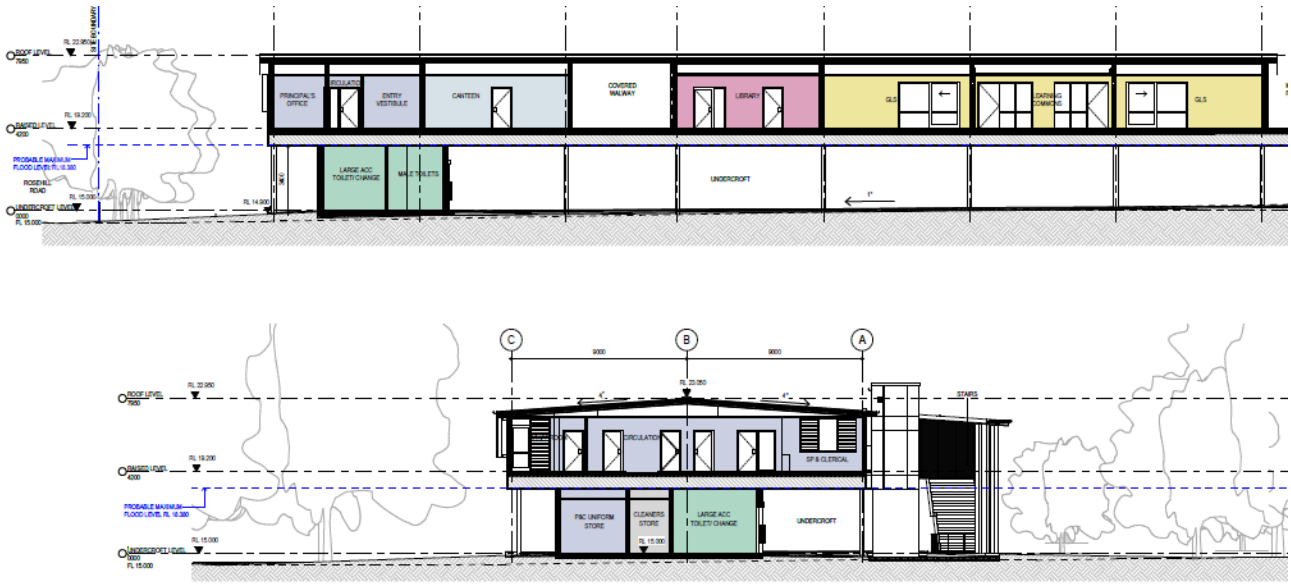

Figure 22: Section through new building with PMF level in blue and proposed MHFL above it. (Source: Pedavoli Architects)

A Civil Engineering Report has been prepared by Henry & Hymas Consulting Engineers (**Appendix G**) that provides a review of the Flood and Civil Assessment prepared by Acor, along with an assessment against the following guidelines and studies:

- NSW Department of Planning and Environment (2023) *Flood Risk Management Manual* and associated toolkit including:
  - Flood Impact and Risk Assessment LU01

- Engeny (2023) *Blakebrook Public School Flood Impact Assessment*
- Australian Building Codes Board (2012) *Construction of Buildings in Flood Hazard Areas*.
- Hawkesbury-Nepean Floodplain Management Steering Committee (2006) *Reducing vulnerability of buildings to flood damage: Guidance on Building in Flood Prone Areas.*
- *Lismore Development Control Plan 2012*
- *Draft Lismore Development Control Plan – Chapter 8*

5.1.1 Flood Behaviour

In relation to the impacts of the proposed activity on existing flood behaviour, the Civil Report notes that the proposed site works will only generate minor modifications to the existing topography. The proposed new elevated building has undercroft areas without enclosed sides that allow flood waters to pass beneath the building.

A comparison between the existing building footprints (red) and proposed building footprints (blue) is shown in **Figure 23**. The proposed activity results in a reduction in building footprint from 1,557m^2 to 1,313m2, which represents a 16% reduction and will have a negligible impact on local flood conveyance and storage.

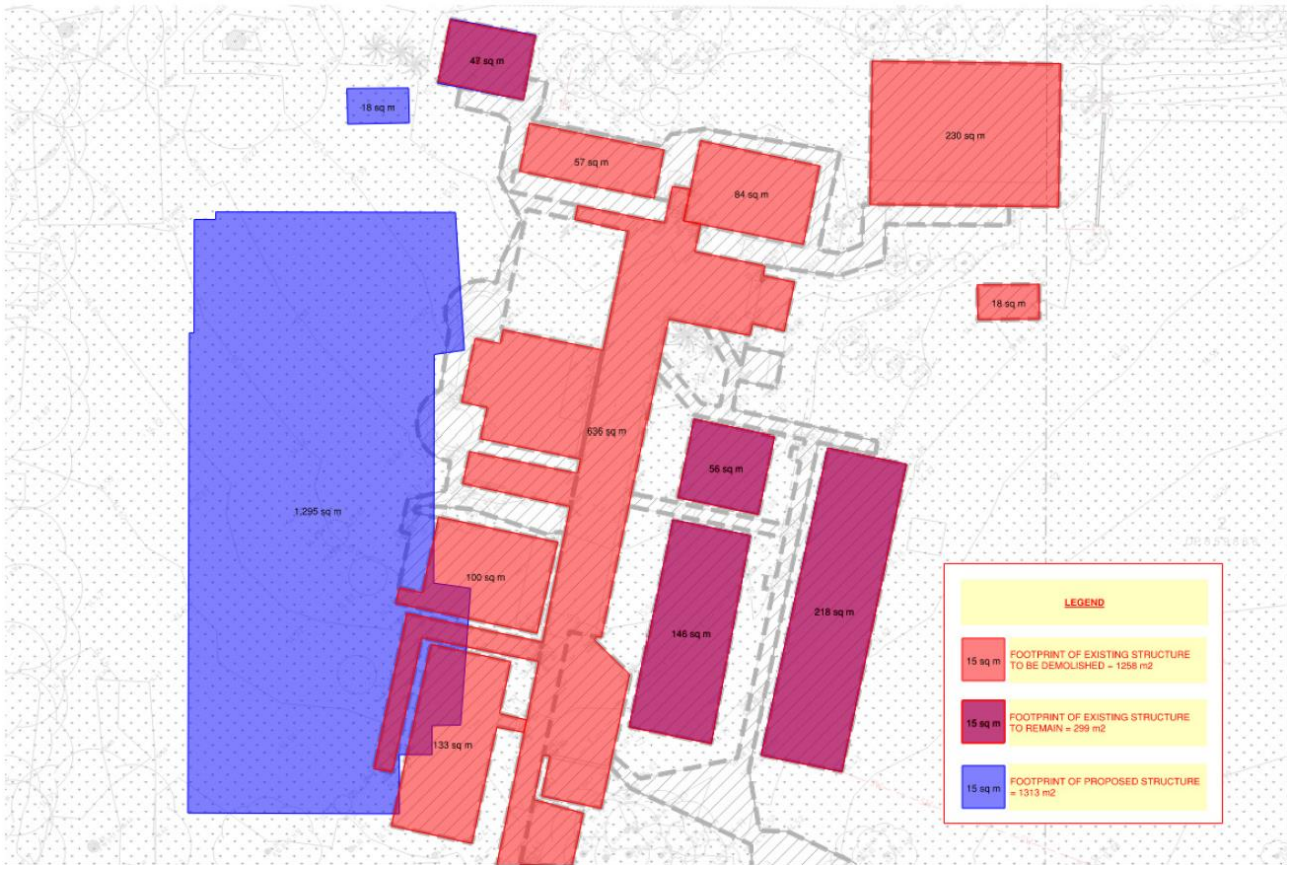

Figure 23: Comparison between existing and proposed footprints at Blakebrook Public School (Source: Henry & Hymas 2023)

Accordingly, the Civil Report concludes the following in relation to the impacts of the proposed activity on existing flood behaviour:

- *The proposed development will not result in significant changes to the existing flood level.*
- *The proposed development will not result in significant changes to the existing the duration of flooding.*
- *The proposed development will not result in meaningful or significant changes to existing flood velocity or existing flow path.*

- *The proposed development does not decrease available warning time and time available for evacuation.*
- *The proposed development does not increase the frequency of inundation.*

5.1.2 Flood Resilience - Structure

In relation to the structural flood resilience of the new elevated building, the undercroft area (including the storage areas and amenities) adopts a 'wet flood proofing' methodology.

> *"With wet flood proofing, the water is allowed to enter the building to reduce the build-up of hydrostatic pressure between the flood water and the inside of the building. The structural materials used below the flood level must therefore be water resistant to minimise the resulting damage."*

The structural design has taken into account all relevant provisions of National Construction Code (NCC) as well as relevant Australian Standards relating to the design of buildings subject to flooding. The structure has been designed to consider all additional forces and loads from flood waters including hydrostatic actions (buoyancy), hydrodynamic (drag forces), debris actions, wave actions, erosion and scour, as well as combinations of these actions. In addition, consideration has been given to the impacts from debris and the 1% AEP flood velocity of up to 0.5m/s. The structural design is capable of withstanding floodwater up to the habitable floor level of 5.5m AHD.

The following structural elements are included to provide a flood resilient modular design:

- The undercroft wall structure is comprised of external and internal core filled blockwork.
- The external reinforced blockwork has been designed to resist the forces imposed by floodwaters and debris impact.
- The external reinforced blockwork wall has been designed to include regular removeable vent blocks or weep holes to equalise water pressures.
- The undercroft floor is proposed to be reinforced concrete raft slab supported on screw piles. External and internal reinforced block walls will be built off this raft slab. The ground flood slab is proposed to include a subsurface drainage system to mitigate uplift forces from receding floodwaters.
- The internal wall systems have been designed using approved flood resilient material and strength suitable to withstand pressure differential forces that will occur between the internal and external water levels. Internal and external walls are proposed to include small weepholes to relieve pressure between external and internal areas minimising pressure differential between internal and external walls. Cavities and internal wall linings (excluding render) are not proposed due to the additional burden of maintenance following a flood event.
- As recommended in the NCC and reference documentation. The design has been undertaken to reduce moisture traps in design of the building. I.e. avoid non ventilated or non free draining cavities etc.

5.1.3 Flood Resilience – Materials & Services

Materials selection has been undertaken in accordance with the NCC, relevant Australian Standards and guidelines, in particular the *NSW Flood Risk Management Manual* (DPE), *Construction of Buildings in Flood Hazard Areas* (ACBC) and the current and draft Lismore DCP Flood Chapters.

The undercroft area of the new building, including amenities and storage area, has been designed with a "wet flood proofing" methodology as it is below the 0.2% AEP level. In this regard, a detailed assessment of the proposed building materials against these documents is included in the Civil Report to confirm their suitability. Following is an overview of the assessment:

- Floor – concrete – low vulnerability
- Internal and external walls – reinforced core filled blockwork – lowest vulnerability
- Non-load carrying component interior lining of walls – cement render – lowest vulnerability.

The elevated level is above the PMF extent and is therefore not required to be constructed from flood resilient materials.

The Civil Report also provides a series of recommendations for electricity and lighting, with particular regard to services required below the flood planning level, have been provided in consultation with JHA Engineers to improve flood resilience, minimise damage during a flood event and reduce the requirement for replacement, maintenance and cleaning of key infrastructure following a flood event. Measures include raising services above the mhfl and separation of circuits between levels.

5.1.4 Flood Emergency Response Plan

A Flood Emergency Response Plan (FERP) has been prepared by Acor (**Appendix J**) in accordance with *Support for Emergency Management Planning. Flood Risk Management Guideline EM01* (Department of Planning and Environment, 2023), *Flood Emergency Planning for Disaster Resilience and Evacuation Planning Handbook 4* (Australian Disaster Resilience Handbook Collection). The FERP provides a step-by-step sequence of roles, responsibilities, functions, actions and management arrangements for the conduct of emergency operations. The FERP provides:

- description of existing flood behaviour
- description of flood emergency response preparation procedures, responsibilities, warning systems, flood evacuation strategies and methods
- description of flood emergency response plan.

Blakebrook Public School is located in the upper catchment and is subject to overland flow and creek flooding in addition to Riverine flooding. In this regard, the FERP notes:

> *The worst floods are typically due to multi-day high rainfall events that occur when rain-bearing weather systems stall over a region and occur during a temporally compounding event (one where heavy rainfall events occur too rapidly in succession for a catchment to dry in between). The February – March 2022 rainfall was a temporally compounding event, whereby each successive storm intensified the impact of the previous storms. The intensity of the resultant flooding event was amplified because the rain fell in a saturated catchment and in locations with terrain and landscape characteristics conducive to flooding.*
>
> *Local storms in the upper catchment can also produce high intensity rainfall for durations long enough (short intense rainfall bursts, or longer duration heavy rainfall) to produce runoff that could exceed the capacity of creek systems, thereby causing flooding of the school site.*

Therefore, the Flood Watch warning system may not be suitable to mitigate flood risk at the site and enable sufficient evacuation time. A summary of the key features of the FERP is as follows:

- *It was advised by the NSW State Emergency Service at a meeting on 11 April 2023 with the consultant project team that that an 'evacuation strategy' could be adopted by Blakebrook Public School such that the school is closed or evacuated (until the potential for flooding has passed) upon issue of a 'Severe Weather Warning' or 'Severe Thunderstorm Warning' for very heavy rain or intense rain in the region (catchment) by the Bureau of Meteorology (which may be relayed by the NSW SES)…*
- *Closing (do not attend) or evacuating the school upon issue of a "Severe Weather Warning" or "Severe Thunderstorm Warning" alert notification process provides longer effective warning times to allow evacuation to take place as an alternative to waiting for a "Flood Watch" or "Flood Warning" notification from Lismore City Council.*
- *In an emergency, a direction to evacuate is made by the Incident Controller (NSW SES) in consultation, where possible, with the NSW Police Force. Blakebrook Public School administration or the Department of Education can decide to close or evacuate the school upon issuance of forecast adverse weather conditions "Severe Weather Warnings: or "Flood Watch" notifications.*
- *The Department of Education is responsible for remote co-ordination of the flood emergency at the school for an evacuation event. Blakebrook Public School*

administration (the principal "Flood Warden" and staff) are responsible for on-site co-ordination of a potential flood emergency at the school.

- *Students are largely unable to self-evacuate and require assistance from parents/carers and multiple methods of evacuation must be available for the FERP to be effective, such as:*
- *Arrangement with a local bus service to be on-call and available for the evacuation of all students to a pre-determined evacuation location is required.*
    - *By parents and carers*
    - *By teachers and school staff*
    - *The Flood Emergency Response Plan provides further information around roles and responsibilities of different parties for different stages of the flood responses.*

The FERP identifies the following further actions that should be undertaken to ensure the effective implementation of the FERP:

- School administration to subscribe to the Early Warning Network to provide alerts for severe weather forecasts and catchment river height gauge levels.
- School to undertake annual evacuation preparations prior to the commencement of the wet season (November to April).
- Installation of a flood warning notice (as illustrated in **Figure 24**).
- School administration and staff to be made aware of their roles and responsibilities as detailed in the FERP.
- Head contractor to be aware of their responsibilities during the demolition and construction process.

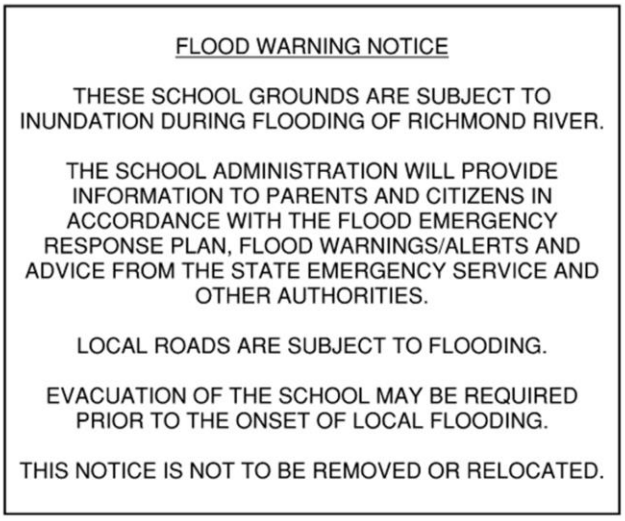

Figure 24: Sample flood warning notice sign to be installed at Blakebrook Public School (Source: Acor)

5.2 Flora and Fauna

A Flora and Fauna Assessment has been prepared by Kleinfelder that provides an assessment of the proposed development against the provisions of the EPBC Act, BC Act and FM Act (**Appendix X**). Based on desktop research and a site survey carried out on 10 August 2022, the following vegetation communities have been identified within the site:

- Zone 1: Planted Vegetation (0.3703 hectares)
- Zone 2: Managed Lawns (0.6421 hectares)

A total of 30 native flora species were detected on the site, of which one (1) was the threatened flora species Davidson's Plum. Searches of the BioNet Atlas of NSW Wildlife and EPBC Protected Matters identified a number of threatened plant species predicted to occur within the locality of the site. However, a 'likelihood of occurrence' (LoO) assessment undertaken by Kleinfelder determined that no threatened flora species have a moderate or high likelihood of occurrence within the development area, based on habitat suitability and occurrence of records within the locality.

The proposed development will result in the removal of 0.1832 hectares of native species, which comprises predominately managed lawns (0.1814 hectares) and 0.0018 hectares of planted vegetation. The planted vegetation proposed for removal has no habitat values other than flowering. One dead tree is proposed for removal.

All existing vegetation on the site is highly managed and there is little to no leaf litter, logs, trees or shrub cover that would otherwise provide habitat for fauna. A total of 15 native fauna species were identified during the site survey, none of which are threatened fauna species. A LoO assessment determined that one (1) threatened fauna species (Koala) had a moderate or high likelihood of occurrence within the site.

In relation to Koala habitat, the site is not in the Koala planning area where preferred koala habitat is mapped in the Lismore LGA. However, BioNet identifies koala sightings in a large patch of Wet and Dry Sclerophyll forests 1.5km east of the site. There site is within an area that has not been mapped as koala habitat, and the surrounding vegetation and along the creeks is primarily Lismore Basalt Subtropical rainforest, which would not provide a strong linkage to nearby areas where koalas have been recorded. The site contains two Koala feed species on the site (*Blue Gum Eucalyptus tereticornis and Swamp Mahogany E. robustus*), of which none are proposed for removal. It is unlikely that these are used by Koalas for foraging.

Under the Comprehensive Koala Plan of Management for South-east Lismore 2013 (Lismore KPoM), the Lismore KPoM does not apply to the school site. However, it is recommended that Lismore KPoM be used as a guide for Koala conservation at the school site.

Kleinfelder undertook a *5 Factor Test of Significance* under Section 7.3 of the BC Act (summarised in the Table below) and determined there would be no significant impact on the Koala or any other threatened species or endangered ecological community, or their habitat, as a result of the works.

Table 12 Assessment against section 7.3 of the BC Act

BC Act – s7.3	Impact Assessment	Satisfied
The following is the be taken into account for the purposes of determining whether a proposed development is likely to significantly affect threatened species or ecological communities, or their habitats -		
Impacts on the life cycle of threatened species	The proposed activity will not remove any Koala Feed Trees or trees that could be used for roosting. The life cycle of the Koala will not be affected. A Davidson's Plum was identified on the site but it is located along the northern boundary of the site and is likely to be a planted specimen. The Davidson's Plum is not anticipated to be affected by the proposed development. Appropriate tree protection measures will be established during the works to protect this tree.	Yes
Impacts on endangered ecological species	There are no endangered ecological communities or critically endangered ecological communities located on the site.	Yes
Impacts on the habitat of a threatened species	The proposed development will remove any Koala habitat trees. No wooded vegetation corridors used by Koalas will be impacted. There will be no fragmentation or isolation of any areas of habitat.	Yes

Table 12 Assessment against section 7.3 of the BC Act		
BC Act – s7.3	**Impact Assessment**	**Satisfied**
Impacts on area of outstanding biodiversity value	N/A	Yes
Whether the activity is part of, or likely to increase the impact of, a key threatening process	Key Threatening Processes (KTPs) relevant to the proposed development: • Clearing of native vegetation • Removal of dead wood and dead trees (potential) • Predation by feral predators (potential as a result of increased human activity and discarded waste products attracting such animals) • Invasion of native plant communities by exotic perennial • grasses The proposed development would not facilitate the above-listed KTPs even to a minor extent. This is in consideration of the small scale of proposed impact and the existing disturbed nature surrounding the Subject Site.	Yes

The proposed activity will not impact the two (2) koala feed tree species. No impact will occur to any foraging or potential breeding habitat for these species. Potential KTPs are likely to be minimal and can be appropriately controlled.

The Flora and Fauna Assessment (**Appendix X**) identifies a series of mitigation measures with regard to erosion control, dust control, chemical spills, tree and habitat protection, weed management, and management of displaced fauna to minimise any indirect impacts to biodiversity values on the site and its vicinity.

In addition, tree protection measures during construction are set out in the Arboricultural Report at **Appendix W**.

5.3 Soils and Geology

A Geotechnical Investigation Report has been prepared by Tetra Tech Coffey (**Appendix M**) to assess the soil conditions at Blakebrook Public School with regard to the proposed development. The geotechnical investigation comprised the drilling of four (4) geotechnical boreholes and two environmental boreholes for contamination purposes within the proposed building footprint.

The regional geology is primarily composed of Quaternary alluvium (Q_af), which consists of "silt, very *fine to medium grained lithic to quartz-rich sand, clay*".

The boreholes were dug to a depth of between 8.3 and 11.0m (refusal at bedrock) using a truck mounted drilling rig. Standard Penetration Tests (SPT) were carried out at selected depths to assess soil strength and to obtain samples for logging. Samples were tested at a NATA accredited laboratory testing in accordance with the following standards.

Laboratory Test	Quantity	Method
Moisture Content	4	AS 1289.2.1.1
Atterberg Limits	4	AS 1289.3.1.1 / 2.1
Linear Shrinkage	4	AS 1289.3.4.1
CBR	4	AS 1289.6.1.1
Soil aggressivity suite	4	Inorg-001, Inorg-002 and Inorg-081

The soil profile is detailed in the following table.

Fill/ Natural	Depth (mbgl)	Material Description
Fill	0.0 – 0.2	Silty CLAY and Sandy CLAY– grey, trace rootlets, loose
Natural	0.2 – 1.0	CLAY – brown
Natural	1.0 – 7.0	CLAY – red
Natural	7.0 – 10.0	CLAY – red mottled grey

Soil aggressivity was assessed as "non-aggressive to moderate-aggressive" ground conditions for buried concrete elements and "non-aggressive" ground conditions for buried steel elements. The Geotechnical Assessment details design criteria for building foundations including slab on ground and piled foundations and recommends driven piles or screw piles for the elevated school building based on the soil profile.

5.4 Hydrology and Water Management

5.4.1 Hydrology

The site is located between Goolmangar Creek (to the west) and Terrania Creek (to the east). Borehole investigations by Tetra Tech Coffey (Coffey) for geotechnical and environmental purposes intercepted groundwater at 4.2 and 8.0 metres below ground level (mbgl). However, they note that a previous investigations undertaken by Douglas Partners (DP) observed groundwater about 2mbgl. In this regard, Coffey state:

> *The different observed groundwater levels in October 2022 [DP] and July 2023 [Coffey] could have been due to different rainfall amount prior to the drilling dates.*

5.4.2 Stormwater Management

A Civil Report has been prepared by Henry & Hymas Consulting Engineers that describes the proposed stormwater system (**Appendix G**), which has been designed in accordance with "Australian Rainfall and Runoff" (Institute of Engineers, Australia 2019), Lismore DCP, and AS3500.3 National Plumbing and Drainage Code Part 1 – Stormwater Drainage.

The stormwater system will "collect all concentrated flows" from impervious areas as well as stormwater runoff from pervious areas such as landscaping. In accordance with Council guidelines, the in-ground stormwater pipe network has been designed to cater for the 20-year ARI storm event. The system has also been designed in such a way that stormwater run-off for events above this will be conveyed via the piped and overland flow paths with no impact on the school or surrounding development.

Catchment analysis identifies the impervious area pre-development of 2,240m^2 (**Figure 25**)and a post-development impervious area of 2,048m^2 (**Figure 26**), which represents a decrease in impervious area of 192m^2. Lismore DCP identifies the permissible site discharge for a development as the maximum discharge from pre-development. As the development achieves this requirement, on-site detention tanks are not required. Notwithstanding, rainwater tanks with a capacity of 68KL and fire services tanks with a capacity of 144KL will mitigate the stormwater impacts of the development. rainwater detention storage (14kL) for catchment of roof water and a rainwater storage (20kL). The rainwater storage tank has been sized to accommodate irrigation associated with the playing field and gardens.

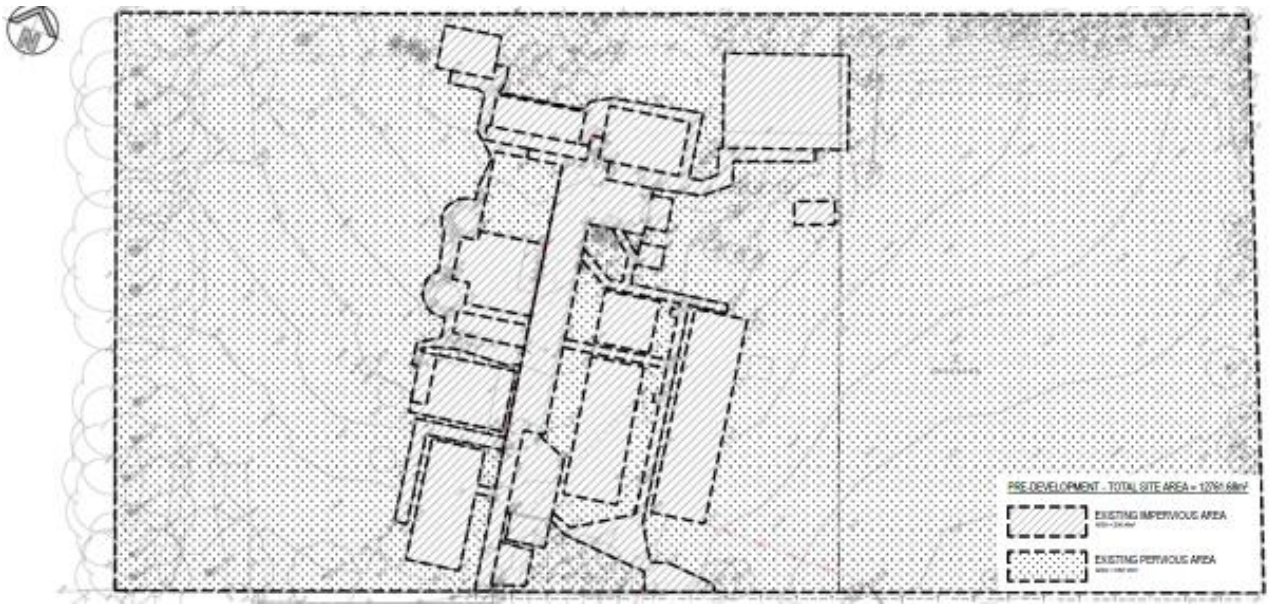

Figure 25: Pre-development catchment plan (Source: Henry & Hymas)

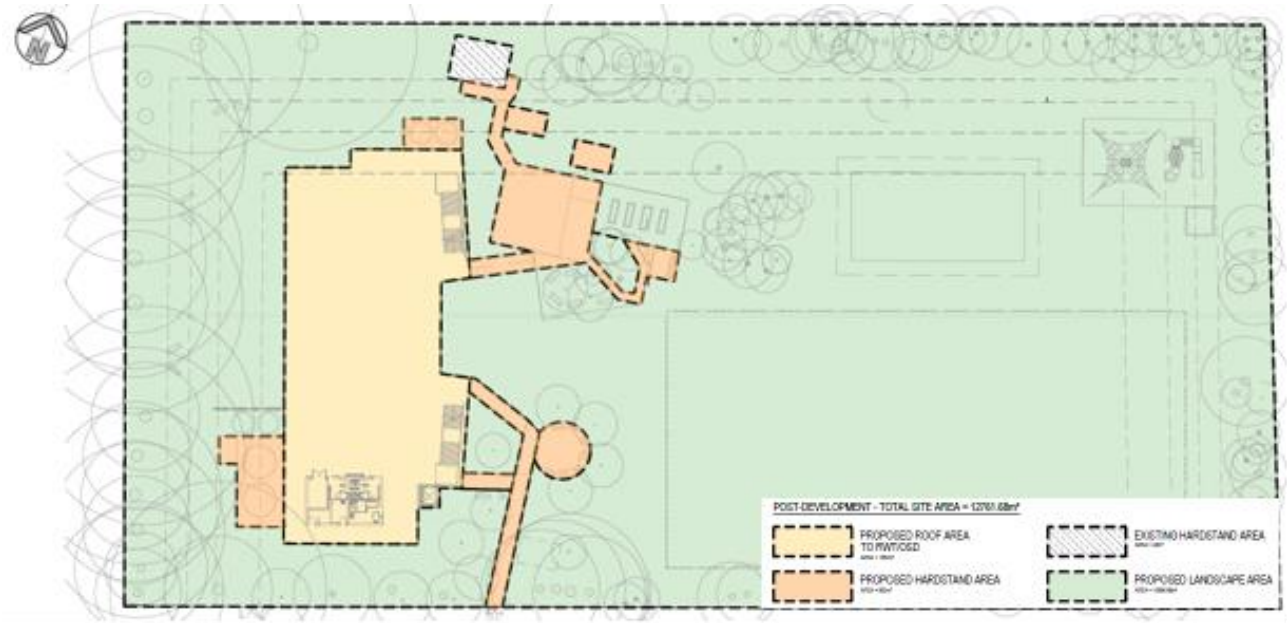

Figure 26: Post-development catchment plan (Source: Henry & Hymas)

Overland flow routes will be provided throughout the site to ensure stormwater can be conveyed to the site's discharge point in the event of a complete pipe blockage or a significant storm event greater than the 20-year ARI. There are a number of existing swales on site that capture overland flow, as follows:

- South – capturing overland flow and runs along Rosehill Road
- North – drains a portion of the neighbouring development to the west and connects to an existing swale on the east.
- East – connects with the northern swale
- West – collects from the northern swale and drains to a rip rap structure, which disperses to the west

Stormwater quality improvement devices to minimise pollution during operation of the school are incorporated into the design in accordance with the requirements of Lismore DCP. The effective

treatment train for the site includes pre-treating selected areas of the development via passive screening pit baskets. Pit baskets proposed are 200-micron mesh Enviropod pit basket filter

A sediment and erosion control plan has been prepared (**Appendix G**) in accordance with *Landcom – Managing Urban Stormwater – Soils and Construction,* Volume 1 2004 and Lismore City Council requirements.

5.5 Air and Microclimate

Some dust is anticipated during the construction phase of the proposal, particularly as minor demolition works are involved. This however can be mitigated and managed through the use of measures such as wetting down work areas and stockpiles, stabilising exposed areas, preventing material tracking out onto public roadways, covering loads and all departing vehicles and working to weather conditions as appropriate.

The proposal is otherwise not expected to give rise to any long term or adverse impacts on local or regional air quality.

5.6 Visual Amenity and Built Form

The proposed school design is responsive to the surrounding context. The single storey built form has been raised above the flood risk, which is typical of the architectural typology of the Northern Rivers region. The school building will be located on the western side of the site providing significant separation from the nearest dwelling to the east. The elevated form will allow visual connection from the playspaces through to the significant trees situated along western boundary. The 8m front setback includes plantings and retained mature trees to provide an attractive street frontage that is sympathetic to the rural character of the area, while clearly presenting as educational infrastructure (**Figure 27**).

Figure 27: Photomontage of Rosehill Road frontage and main entry (Source: Pedavoli Architects).

It is considered that the visual impact of the proposed new elevated building is acceptable for the following reasons:

- The finished floor level of the new elevated building exceeds the height of the required minimum habitable floor level 0.2% AEP flood event (1 in 500 year) and is above the PMF.

- The new building adopts a contemporary architectural language that is sympathetic to the rural character of the locality. In particular, the building is reminiscent of the traditional building typology of Northern NSW and Queensland, which comprises elevated buildings with wide verandas.
- The use of the coloured vertical feature screening creates visual interest and assists in articulating the new building.
- The new elevated building has an 8m setback from Rosehill Road, which while it is less than Lismore DCP's requirement for rural development, provides a larger setback than the existing school.
- The elevated building allows for filtered views through the undercroft towards the mature trees along the western boundary.
- Existing mature trees will be retained, which will soften the appearance of the new elevated building and set it into the landscape.
- The proposed activity will ensure the continuing operation of a long-established educational establishment.

5.6.1 Design and Aesthetics

The new building utilises modular construction techniques. An elevated platform will be constructed on site, whilst the new GLAs and other school facilities are constructed off-site and craned into place. The off-site manufacturing provides benefits through a standardised approach that maximises design efficiencies and reduces construction impacts.

The building has been designed in accordance with the Building Code of Australia requirements for a two-storey building Type B construction (**Appendix P**), which includes non-combustible external wall system and fire rating to the undercroft ceiling, columns from ground to first floor and load bearing columns on the first floor within 18m of a fire source feature. Some performance requirements are proposed and set out in the BCA Statement at **Appendix P**.

The proposal has been designed in accordance with accessibility standards (**Appendix Q**), including accessible path of travel from the boundary to the new building, lift access and accessible shower and facilities on the first floor. Accessible facilities are not provided at ground level due to the flood affection and is supported by a performance solution.

With regard to aesthetics, the Architectural Design Statement (**Appendix B**) makes the following statement:

> *The aesthetic composition of the school was considered with regards to creating a balanced and regular rhythm in the location of building mass and openings in elevation. The colour palette is consistent with the school's natural setting, with the blue and green accents being picked up from local flora.*
>
> *The building to sits comfortably within its surroundings… A perforated metal screen has been used to provide interest to the elevation to the street and to screen off the mechanical plant at the rear. Particular landscaping attention has been given to the areas of public interface, with the planting beds around the school entry creating a pleasant and welcoming environment. The school's landscaped setting assists in creating an aesthetically pleasing school design.*

Figure 28: Photomontage – birdseye view from south-east of the site above Rosehill Rd (Source: Pedavoli Architects)

Figure 29: Photomontage of the new school buildings and playspace looking north-east (Source: Pedavoli Architects)

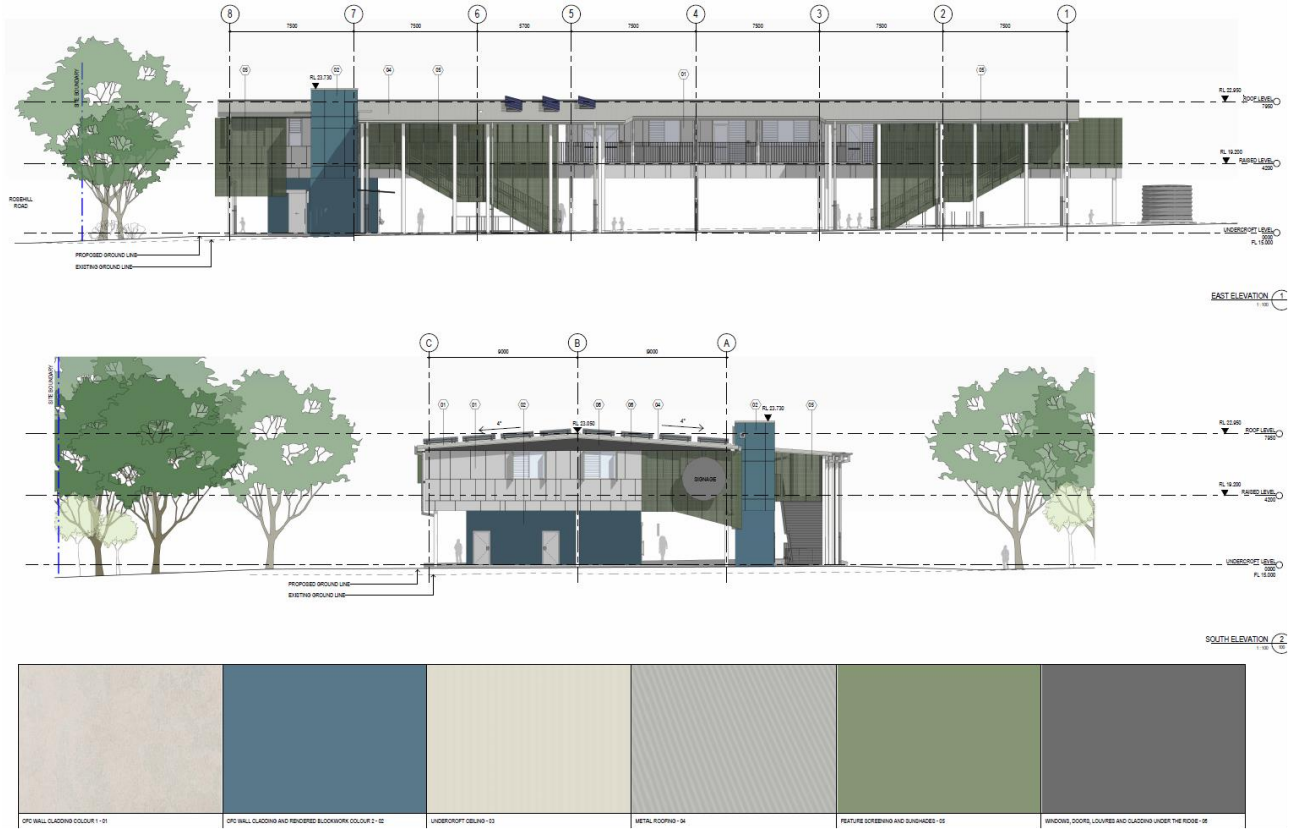

Figure 30: Eastern elevation (facing main playspace) and southern elevation (facing Rosehill Rd) with façade colour swatches. (Source: Pedavoli Architects)

An Architectural Design Report (**Appendix B**) has been prepared to assess the proposal against the design quality principles in Schedule 8 of SEPP T&I.

Table 13 Design Quality Principles

Principle	Assessment
1. Context, Built Form and Landscape	The elevated single storey built form is typical of the architectural style in the Northern Rivers. Aboriginal cultural heritage is recognised through the use of endemic vegetation species, the gathering spaces at the school entry and yarning circle and the colour scheme. The building has landscaped setbacks and planted edges providing a green setting for the school.
2. Sustainable, efficient and durable	The school has been designed in accordance with environmentally sustainable development to 4-star Greenstar equivalency. Solar panels, water and energy efficient fixtures and fittings are provided throughout. The learning spaces are flexible and adaptive to meet the changing needs of the school community over time. The habitable floor level of the building is raised above the PMF extent, and has considered bushfire threat from the surrounding grasslands and vegetation to ensure climate resilience.
3. Accessible and inclusive	An accessibility report (**Appendix Q**) has confirmed that the development meets all access requirements. The site is welcoming with a simple layout and direct circulation. Stairs and a lift provides access to the main school building. Directional signage will be provided to support wayfinding around the school.
4. Health and Safety	The main play space remains in its current location and a secure perimeter fence will prevent students from running onto Rosehill road unattended. Passive surveillance opportunities are available from the servery and administration and covered walkways provide weather protection.

Table 13 Design Quality Principles	
Principle	**Assessment**
5. Amenity	The building design ensures good provision of natural light, ventilation and good acoustics. There are a diverse range of internal and external play and learning spaces to support flexible learning opportunities. Outdoor playspace achieves the minimum requirement of 10m^2 per student. The site has good access to ICT/AV to facilitate contemporary learning practices.
6. Whole of life, flexible and adaptive	The learning hub design and learning commons creates flexible and adaptive learning spaces to meet the individual needs of schools. The grid layout provides for reconfiguration in future if the needs of the school change. Future community access to the library has also been considered with the large glazed door, which allows that space to be opened up to the servery for community events and school meetings.
7. Aesthetics	The built-form creates a balanced and regular rhythm of building mass and openings. The colour palette is drawn from the natural surroundings. A perforated metal screen provides interest to the street elevation and screens mechanical plant. The landscape design aims to create an aesthetically pleasing school design.

5.6.2 Solar Access

Shadow diagrams area provided with the Architectural Plans at **Appendix A**, which confirm that the proposal will not result in overshadowing of any neighbouring property and has minimal impact on solar access to the play space (**Figure 31**).

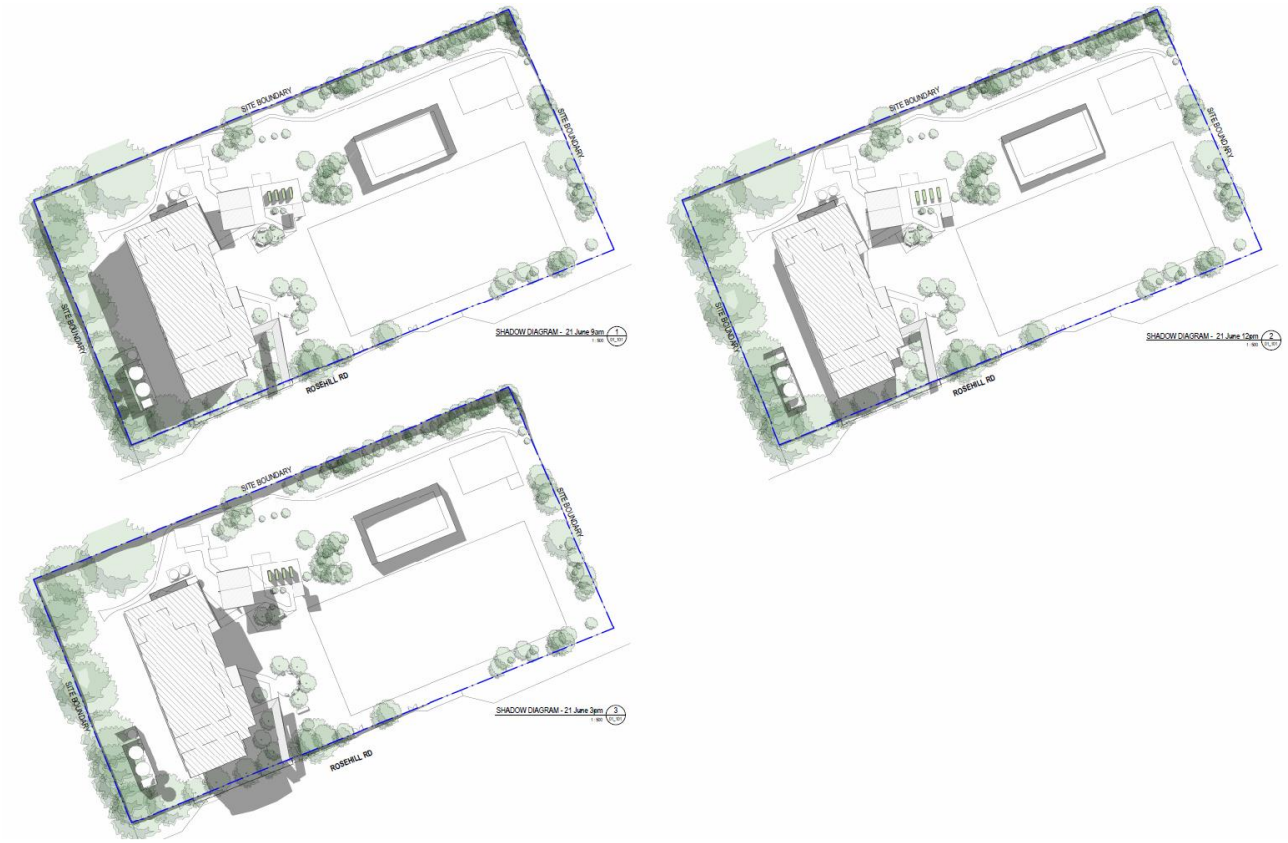

Figure 31: Extract of shadow diagrams on 21 June (Source: Pedavoli Architects).

5.7 Noise and Vibration

An Acoustic Assessment has been prepared by Acoustic Logic (**Appendix V**) to detail acoustic design measures for the new buildings to ensure external noise is mitigated in the internal school environment and assess the potential noise impacts generated by the proposed development. The Acoustic Assessment has been prepared in accordance with the EFSG (v.2, Nov 2022), DGN003 – Sliding Glazed Doors and Wall Specifications (16/12/2022), Green Star – Design & As Built v1.3, and Australian Standards.

The school is existing, and the proposal will not result in additional students at the site or any changes to the operating times – 8.30am till 3.30pm during school terms. Noise monitoring has been conducted to assess the impacts of the proposal on the nearest residential receivers.

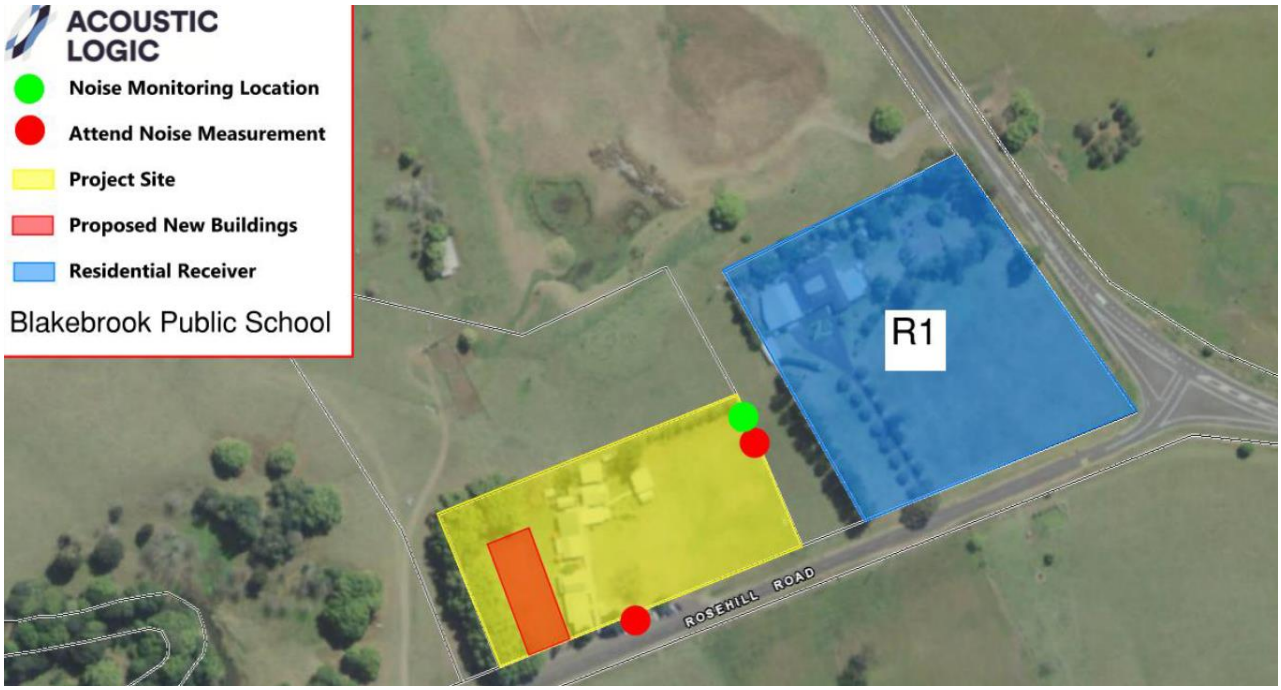

Figure 32: Noise monitoring locations and nearest residential receiver (Source: Acoustic Logic)

The school building is a substantial distance from the nearest residential receiver and operations are unlikely to have an unacceptable acoustic impact for the neighbour.

5.7.1 Construction Noise and Vibration

The Acoustic and Vibration assessment has considered the impacts of construction activities on the residential neighbour. Predicted vibration levels are not expected to cause any damage to buildings and noise generation is not expected to exceed amenity acoustic criteria.

The report sets out a series of acoustic mitigation measures including:

- Scheduling construction activities to reasonably minimise noise impacts
- Undertaking community consultation throughout construction
- Implementing quiet work methods and technologies
- Preparing a noise management plan

5.8 Waste Management

A Waste Management Plan (WMP) has been prepared by MRA Consulting Group to identify best practice waste management and promote sustainable outcomes during construction and operation of the proposed activity (**Appendix BB**). The Waste Management Plan has been prepared

in accordance with the requirements under the Lismore DCP and EFSG, along with the relevant EPA guidelines including:

- *Better Practice Guide for Resource Recovery in Residential Developments* (2019)
- *Better Practice Guideline for Waste Management and Recycling in Commercial and industrial Facilities* (2012)

5.8.1 Construction Waste Management

The WMP provides estimates of the quantities of waste that will be generated during the demolition and construction process. The WMP indicates that over 90% of construction waste will be able to be diverted from landfill. This is consistent with the targets established by the NSW Department of Planning and Environment's *NSW Waste and Sustainable Materials Strategy 2041* (June 2021).

5.8.2 Operational Waste Management

The proposed activity is not expected to result in an increase in the total waste generation at the site. However, ongoing waste management practices will aim to contribute towards the *NSW Waste and Sustainable Materials Strategy 2041* target to achieve an 80% average recovery rate from all waste streams by 2030.

The operational waste volumes have been based on the current student population of 52 students and have been calculated in accordance with the *NSW Practice Guide for Resource Recovery in Residential Developments* (2019).

- General waste – 5 x 240L MGBs
- Recycling – 3 x 240L MGBs

A waste storage area is located in the in the southern side of the new building and will have a minimum area of 6.9m^2. Council will be responsible for bin collection. Prior to collection, the bins will be transferred from the waste storage area along the bin transfer path to the collection point on Rosehill Road (**Figure 33**).

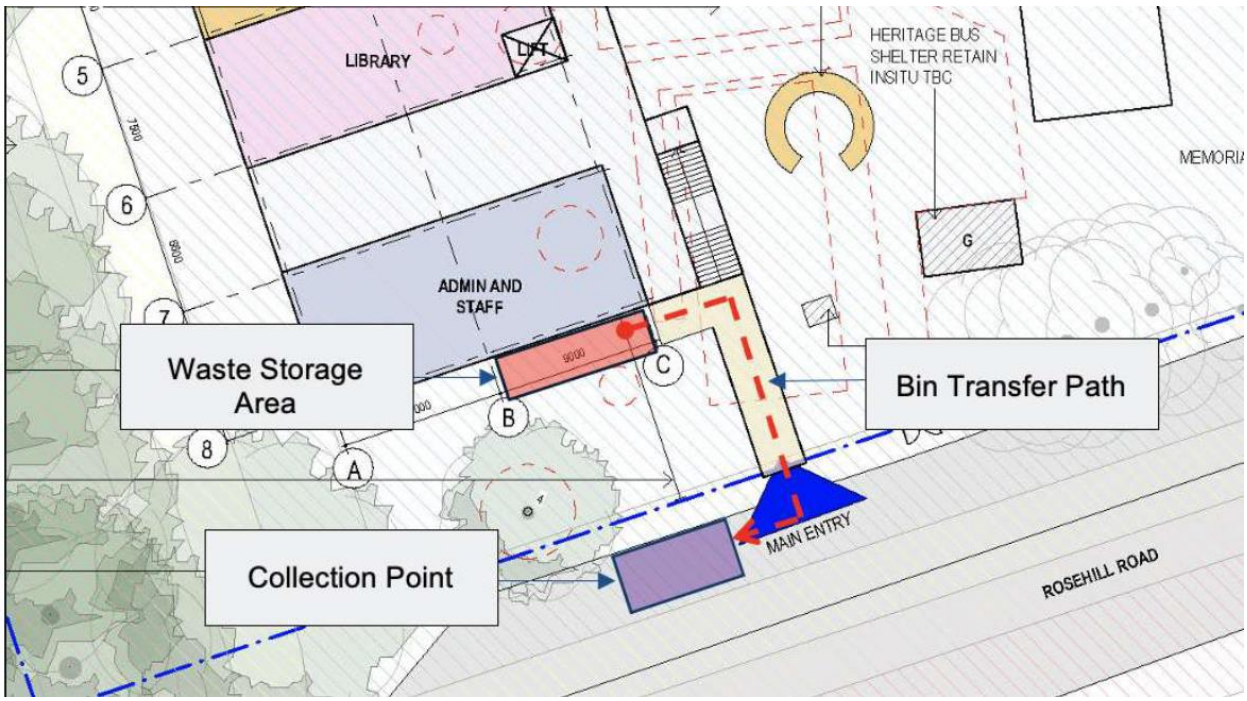

Figure 33: Waste storage area, bin transfer path and collection point (Source: MRA Consulting Group).

5.9 Sustainability and Climate Resilience

A Sustainable Development Plan has been prepared by E-Lab (**Appendix S**) to provide an overview of the proposed sustainability targets and initiatives that have been incorporated for the proposed

activity. The proposed activity seeks to achieve a 4 Star Green Star Design & As Built v1.3 equivalency and exceed the requirements under Section J of the National Construction Code 2019 Amendment 1 (see **Appendix T**). The proposed activity is benchmarked against the requirements of the EFSG, using industry best practice.

The principles of environmentally sustainable development (ESD) are detailed in section 193 of the EP&A Regulation. **Table 14** provides an assessment against these principles.

Table 14 Environmentally Sustainable Development Principles

Principle	Assessment
The Precautionary Principle *The precautionary principle is that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*	Where practicable, the proposed activity will avoid serious and irreversible damage to the environment by providing improved ecology outcomes and incorporating management measures that reduce resource and energy consumption during the demolition, construction and operational lifecycle. Strategies to reduce impacts from pollution and improve the environmental amenity for staff and students by providing a resilient design that has considered future climate change adaption needs and has a habitable floor level above the PMF extent.
Inter-generational equity *The principle of inter-generational equity is that the present generation should ensure the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations*	The proposed elevated building has been designed to achieve a 4 Star Green Star equivalency rating and incorporates design measures that improve the internal environment to enhance health and wellbeing for staff and students. The proposed activity involves the replacement of existing school facilities to ensure the ongoing use of the site as an educational establishment, which provides social benefits to the local residents of Blakebrook.
Conservation of biological diversity and ecological integrity *The principle of the conservation of biological diversity and ecological integrity is that the conservation of biological diversity and ecological integrity should be a fundamental consideration.*	As assessed in the Flora and Fauna Assessment (**Appendix X**), the proposed activity will not have an adverse impact on the existing biological diversity and ecological integrity of the site. The Flora and Fauna Assessment includes mitigation measures to protect the ecological values of the surrounding environment. The proposed landscape design includes the planting of endemic vegetation that will contribute to the biological diversity and ecological integrity of the site.
Improved valuation, pricing and incentive mechanisms *The principle of improved valuation, pricing and incentive mechanisms is that environmental factors should be included in the valuation of assets and services, such as—* *(a) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement, and* *(b) the users of goods and services should pay prices based on the full life cycle of the costs of providing the goods and services, including the use of natural resources and assets and the ultimate disposal of waste, and* *(c) established environmental goals should be pursued in the most cost effective way by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*	As described below, the design of the proposed activity includes the incorporation of a sustainable and operational measures that will reduce the consumption of materials, energy and water over the lifetime of the new elevated building. The following measures will ensure the effective and efficient use of resources: • Energy efficiency across the buildings and use of on-site renewable energy • Water efficient fixtures and fittings, collection and reuse of water Consideration of the whole of life impact of materials and selection to minimise harm to the environment and efficient modular construction methods that are consistent with Section J requirements.

The Sustainable Design Report includes an assessment of project risks associated within the predicted impacts of climate change. Potential strategies to manage climate risks include:

- A site-specific climate change risk assessment and adaptation plan
- Consideration of the impacts of climate change as part of the flood impact system.
- Proposed elevated building and associated systems have been designed to be flood resilient as well as to comply with bushfire requirements.
- Use of passive design and outdoor shading to promote comfort in extreme heat.
- Provision of rainwater storage and energy generation.
- Material selection is focused on improving health and well being through the use of low emissions materials that are durable to climate stress such as extreme heat and wind loads.
- Landscape design to suit climactic conditions and tolerate dry periods.

5.10 Site Contamination

A Contamination Investigation Report has been prepared by Tetra Tech Coffey (**Appendix N**) to assess the suitability of the site for the proposed activity in accordance with the *Guidelines for Consultants Reporting on Contaminated Land* (NSW EPA, 2020) and Schedule B2 of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM, 2013).

A conceptual site model (CSM) was developed to identify potential sources of contamination, receptors and exposure pathways. Eleven (11) soil samples were taken, with five (5) surface samples and six (6) boreholes ranging in depth from 1 metre to 11 metres below ground level (mbgl). Soil samples were screened in accordance with NEPM 2013. A marginal exceedance was found of lead and of zinc but these were considered to be unlikely to cause an unacceptable risk to human health. No other contaminants were identified at above the laboratory limit of reporting level in any of the samples.

Three (3) samples between 6.2 and 7.4mbgl) were tested for acid sulfate soils (ASS). The results did not indicate Actual ASS or Potential ASS.

The report concludes that:

- No unacceptable human health soil impacts were identified in the investigation area
- No unacceptable ecological soil impacts were identified in the investigation area

Accordingly, the site is suitable for use with regard to contamination.

5.10.1 Hazardous Chemicals

A Hazardous Chemicals Assessment has been prepared by Tetra Tech Coffey to identify any hazardous chemicals that are stored on site and evaluate the effectiveness of risk control measures implemented on the site to manage hazardous chemical storage (**Appendix O**). All hazardous chemicals should be stored on site in accordance with the recommendations of the Hazardous Chemicals Assessment.

Accordingly, subject to the implementation of an unexpected contamination finds protocol, appropriate waste/spoil management and implementation of the Hazmat Assessment's mitigation measures, the site is suitable for the proposed activity and will not result in any unacceptable environmental impacts.

5.11 Bush Fire

The site is not mapped as bushfire prone land under the Lismore City Bushfire Prone land map. Therefore, a Bushfire Safety Authority (BSA) is not required for the proposed activity under section 100B of the *Rural Fires Act 1997* (RF Act).

However, the land to the west of the site is mapped as bushfire prone land and the site is surrounded sloping land, grass and vegetation. Section 68 of the RF Act requires public authorities to take all "*practicable steps to prevent the occurrence [and spread] of bushfires…*". Accordingly, a Bushfire Hazard Assessment has been prepared by BlackAsh Bushfire Consulting (**Appendix U**) to provide an assessment against the relevant provisions of *Planning for Bushfire Protection 2019* (PBP 2019).

Noting that pursuant to Section 6.28(2) of the EP&A Act, as the date for the invitation for tenders to carry out Crown building work was issued in 2022, the works are subject to NCC 2019, and therefore the new provisions under NCC 2022 do not apply to the works.

Based on the site assessment methodology outlined in section 100B of the RF Act, section 45 of the *Rural Fires Regulation 2022* and the PBP 2019, a bushfire threat assessment was undertaken to determine the application of bushfire protection measure such as the location of asset protection zones (APZ) and Bushfire Attack Levels (BAL). The location of the proposed building is within the BAL12.5 area (**Figure 34**).

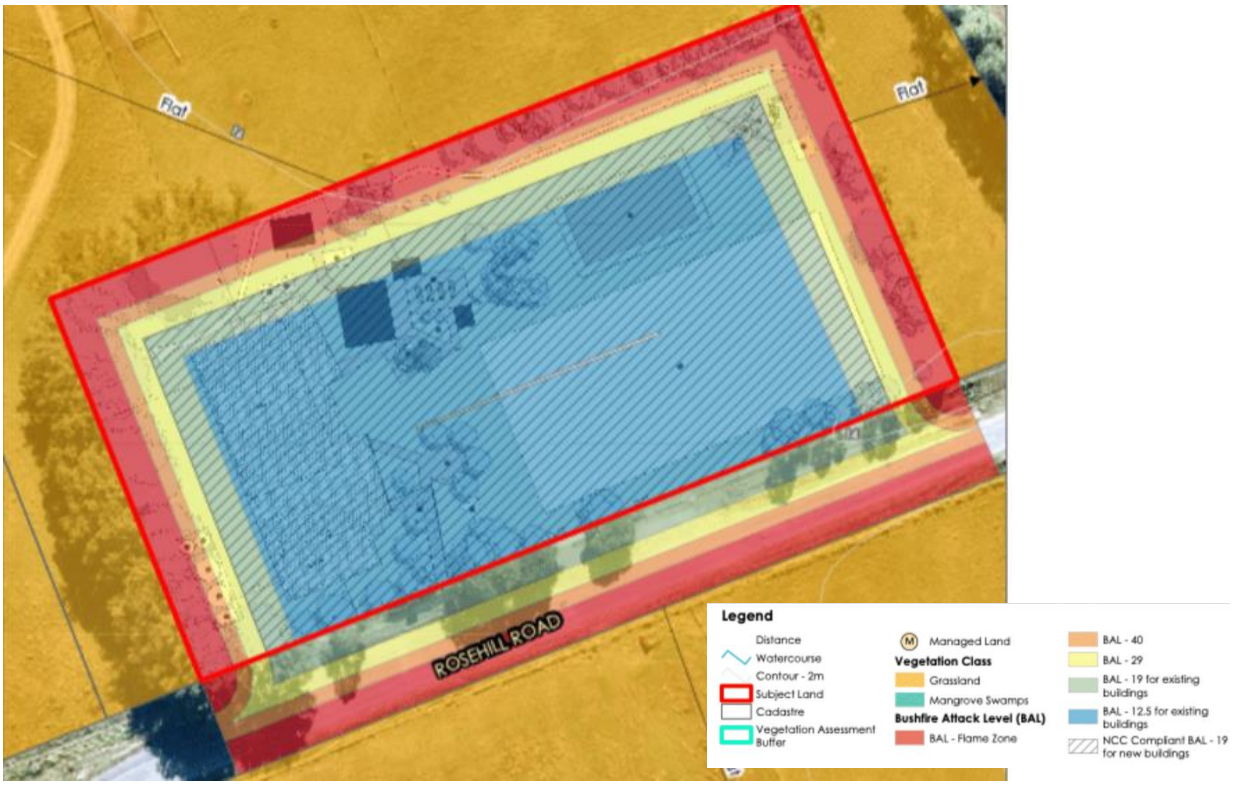

Figure 34: BAL ratings - proposed new buildings are affected by BAL 12.5.

The Bushfire Assessment Report concludes that the proposed development is generally consistent with the relevant aims, objectives and performance criteria set out in Chapter 6 of the PBP 2019, subject to the implementation of the following recommendations:

> *Recommendation 1: New buildings will be built in accordance with Figure 7 and or to minimum BAL 19 within the site…*
>
> *Recommendation 2: Any upgrades to water, electricity and gas supplies through the proposed development must comply with section 6.8.3 of PBP (pages 59-60).*
>
> *Recommendation 3: All Asset Protection Zones and landscaping within the site are to be maintained in accordance with Appendix 4 of PBP 2019 and the NSW RFS "Asset protection zone standards". No trees or additional vegetation is to be removed.*
>
> *Recommendation 4: A Bush Fire Emergency Management and Evacuation Plan is to be prepared consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan.*

5.12 Services and Utilities

An Infrastructure Services Statement has been prepared by JHA Engineers (**Appendix Z**) for the project, and a full description of the works required to support the school is set out at **Section 3.2.9** of this SEE. The Statement confirms that suitable services and infrastructure can be provided.

As the site does not have access to town water, the proposed rainwater reticulation system and fire services tanks will be appropriately filled prior to occupation of the school (if there has not been suitable rainfall to do this following their installation).

With regard to the proposed septic system, an OSSMS Wastewater Report has been prepared by Taylor Environmental (**Appendix AA**), which confirms that the proposed wastewater system has been designed in accordance with Council's OSSMS Strategy and Guidelines, along with the relevant legislative requirements and Australian Standards. The wastewater system has been designed to incorporate flood immunity measures including:

- Installation in accordance with manufacturer's specifications for flood areas.
- Installed with concrete ground anchors to prevent floating.
- Reflux valve fitting the elevated building and connection point.
- All lids and IOs sealed with flexible sealant to reduce floodwater ingress.
- Vents, alarms and controls to be a minimum of 150mm above the flood level (mounted to the side of the building as required).
- Following a flood event that inundates the tank and/or site, it is recommended that a suitably qualified person inspects the system prior to being used again.

The Wisconsin Mound has a maximum height of 16.125m AHD and will be up to 1.675m above existing ground level.

The site is not near to restricted land uses and will not result in unacceptable impacts to services for neighbouring development.

5.13 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment (ACHA) Report (**Appendix K**) has been prepared by EMM Consulting in accordance with Aboriginal Cultural Heritage Consultation Guidelines for Proponents (DECCW 2010), Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010a). Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (DECCW 2010b) and the *National Parks and Wildlife Act 1974* (NPW Act).

The ACHA was prepared in response to an Aboriginal Due Diligence which concluded that the site had a moderate archaeological sensitivity. Aboriginal consultation was carried out with Widjabul Wia-bal Gurrmbil Aboriginal Corporation, the Registered Native Title Body Corporate, established to hold native title rights and interest and to progress Widjabul Wia-bal's interests. In accordance with the Guidelines, no further notification or inclusion of other participants is required once a native title claimant has been identified. Four (4) individuals from the Corporation were involved throughout.

The findings of the EMM desktop review, which included a search of the Aboriginal Heritage Information Management System (AHIMS), a review of previous studies in the area, and a field survey indicated there was potential for buried soil profiles of archaeological interest to be present. Accordingly, archaeological investigations were undertaken with the involvement of Aboriginal representatives. Test pits were spaced 20m apart in a grid formation and were manually excavated to an average depth of 30cm and the contents were wet sieved (**Figure 35**).

Figure 35: Location of test pits (Source: EMM)

One (1) stone artefact (see **Figure 36**) was recovered from test pit 2 during the excavations and a post-excavation artefact analysis was undertaken.

Figure 36: Stone artefact recovered during excavation program (Source: EMM Consulting)

A significance assessment was also undertaken in accordance with the Article 1.2 of the Burra Charter (ICOMOS 2013, Australia), which includes consideration of social, historic, scientific and aesthetic values. The following statement of significance has been prepared by EMM Consulting:

> *"NRBL IF1 AHIMS (#04-4-0321) has been assessed as having low scientific significance as it is an isolated stone artefact. As it is an isolated occurrence it has low research potential and is a well-represented site type as there are many occurring across the region. While important in demonstrating the longevity and continued use of the region by Aboriginal people in the past, it is considered that little further information can be obtained from additional investigation of this site.*
>
> *No project specific cultural values have been provided by the local Aboriginal community for the identified site."*

The impact of the proposed development on the items has been considered and will result in total loss of value of the items. A management strategy and recommendations have been prepared

and an Aboriginal Heritage Impact Permit (AHIP) under the NPW Act will be required. However, the ACHA notes

> *"Given the low significance and secondary context of this site, it is considered that avoidance would be unnecessary and suitable mitigation measures included in the AHIP would allow suitable management of the cultural materials."*

The recommendations are detailed in Section 10.3 of the ACHA and summarised below:

- No ground disturbance within 10 metres of the identified Aboriginal site without having obtained an AHIP.
- The Construction Environment Management Plan should reinforce how the cultural landscape is considered throughout the project and detail the rehabilitation of the project area.
- To avoid inadvertent impact, the proponent should implement cultural awareness training by RAPs for all relevant personnel and contractors involved in the project of the relevant heritage considerations, legislative requirements, and recommendations identified in this assessment.
- Consultation should be maintained with RAPs throughout the life of the project and subsequent ground disturbance stages of the project.
- A copy of the ACHA should be lodged with AHIMS and provided to the RAPs.
- AHIMS Site Recording Forms for the newly identified Aboriginal site within the project area should be submitted to the AHIMS database once their validation has been completed.
- If any part of the construction footprint is located outside the areas identified in this ACHA further assessment of these area(s) should be undertaken to identify and appropriately manage Aboriginal objects and/or sites that may be present.
- Where heritage consultant changes through the project, suitable hand over should be undertaken.

The location of the find and proposed AHIP boundary is identified in **Figure 14**. An AHIP must be issued by Heritage NSW and satisfied prior to any demolition works taking place as the structures are all located within the AHIP boundary.

Discussion about the findings of the ACHA has also been included in the SEE for DA5.2023.299.1. An application for an AHIP will be submitted to Heritage NSW upon determination of that application and the AHIP will be satisfied prior to any works commencing on the site. Subject to adherence to the requirements of the AHIP, the works will not result in unacceptable impacts to Aboriginal cultural heritage.

5.14 Non-Aboriginal Heritage

The site is identified as a local heritage item under Schedule 5 of the LEP (item I4 'Blakebrook Public School Grounds). The site is also listed on the NSW Department of Education's section 170 Heritage and Conservation Register as 'Blakebrook Public School – Buildings B00A, B00E, B00F and Grounds'.

A Statement of Heritage Significance (SoHI) has been prepared by EMM to provide an assessment of the impacts of the main works on the significance of the heritage item (**Appendix L**). As the Stage 1 DA (DA5.2023.299.1) proposes demolition of the existing heritage structures, the SoHI for the Stage 2 DA (this application) considers the impacts of the proposed development on the significance of the grounds. The SoHI provides an updated Statement of Significance for the site:

> *The grounds of Blakebrook Public School are of local heritage significance for their historical associations with the original Rosehill Pastoral Lease, the setting, and the continuity of school purposes on the land. The mature trees that line the western boundary and north-west corner of the school property contribute to the northern NSW rural character of the locality and provide a familiar landmark to the surrounding community. As the only visible surviving remnants of the heritage listed site, they are more precious as a landmark than before the devastating floods of 2022.*

The school, and others in the local area, have a new significance arising from the floods of 2022, which left a devastating mark on the local area, in the community and on familiar structures and landmarks. The grounds survive as a testament to the place's resilience.

The SoHI notes that impacts to the significance of the grounds are predominantly visual as a result of the construction of the new elevated building. The proposed development retains the remaining significant elements of the site including the established tree-lined perimeter and therefore, the development will not have an adverse heritage impact.

The SOHI provides the following recommendation:

Revise the Lismore LEP listing for the school and grounds to only the school grounds and incorporate, more detailed data that accurately reflects the significance of the school. Ensure the update includes comments on the floods and the changes that have been enacted as a result.

The following management measures have been identified:

1. *All trees not identified for removal, particularly those on the western and north-west boundary, are protected from construction activities that would have a detrimental effect on their longevity.*
2. *Works may proceed with caution after the unexpected finds procedure has been incorporated into the project construction environmental management plan (CEMP).*
3. *Establish a no-impact zone around the locations of the historical cess pits and absorption trenches during the construction phase (refer to archaeological assessment, EMM 2023c).*
4. *Avoid impacts to the area that the teacher's residence was located to reduce the requirement for stop works if archaeological resources are found (refer to archaeological assessment, EMM 2023c).*
5. *Prepare an interpretation plan for the school, that incorporates the significant events in the history of the place.*
6. *If future development beyond the rebuilding of the school is considered, ensure that the grounds retain the combined rural/rainforest aesthetic.*

Subject to the implementation of the management measures identified in the SoHI, it is considered that the proposed development will not have an adverse impact on the heritage significance of the site.

5.15 Social and Economic Impacts

The redevelopment of Blakebrook Public School will restore an important piece of social and educational infrastructure in the local community. The modern, flexible classroom layouts and climate resilient design will provide high quality public education facilities for current and future students in the locality. The proposal does not result in unacceptable amenity outcomes with regard to noise, privacy and overshadowing for neighbouring dwellings.

The proposal will provide short term economic benefits through the creation of construction jobs and the flow on effect of this, and by securing long term educational jobs in this rural location.

5.16 Crime and Safety

Crime Prevention Through Environmental Design is a crime prevention strategy that focuses on the planning, design and structure and neighbourhoods. It seeks to reduce the opportunities for crime through the use of design and place management principles. The four (4) key strategies of Crime Prevention Through Environmental Design (CPTED) are:

- Surveillance measures

- Territorial reinforcement
- Access control
- Space / activity movement

Each of these strategies is discussed below.

5.16.1 Surveillance Measures

Opportunities for crime can be reduced by providing effective surveillance. The surveillance principle indicates that offenders are often deterred from committing a crime in areas with high levels of surveillance. From a design perspective, deterrence of crime can be achieved by providing:

- Clear sight lines between public and private places and maximising natural surveillance.
- Appropriate lighting and effective guardianship of communal and/or public areas.
- Landscaping that makes places attractive but does not provide offenders with a place to hide or entrap victim.

The principal entry to the school is from Rosehill Road. This location provides direct access to the lift and stairs for access to the school administration. The ground level of the site is open providing opportunities for passive surveillance of the site by staff across the open play spaces from both ground level and the first floor.

There are toilet facilities provided at ground level for use during play times and on the elevated level for use during class time, so that students won't have any need to be at either ground or first floor level unsupervised.

The proposed landscaping has been designed to provide a safe and attractive environment for students.

5.16.2 Territorial Reinforcement

This principle involves the community ownership of public spaces and that staff, students and visitors will be more comfortable in visiting a communal area that is well-cared for and to which they feel they own. Well used places also reduce opportunities for crime and present as a deterrent to criminals. Also, designing with clear transitions and boundaries between public and private spaces, and clear design cues on what the area is used for is recommended.

During school term, the school will be heavily used by staff and students. Outside of school term, the school may be available for community use with fencing and signage clearly identifying accessible areas.

Territorial reinforcement such as fences, signs, doors and other physical thresholds will clearly indicate the separation between public and private spaces, which helps to convey where visitors should and should not be within the school.

5.16.3 Access Control

The principle of access control is to use physical and symbolic barriers to attract, channel or restrict the movement of people to minimise opportunities for crime and increase the effort required to commit a crime.

During school hours, access to the school is restricted with all visitors being required to sign in. The school grounds will be fenced. The school will be a secure education facility with access control minimising opportunities for crime. This will also discourage vandalism and activism.

5.16.4 Space / Activity Management

This principle provides that space which is appropriately utilised and well cared for reduces the risk of crime and antisocial behaviour. Space management strategies include activity coordination, site cleanliness, rapid repair of vandalism and graffiti, the replacement of lighting and the removal or refurbishment of decayed physical elements.

Presentation of the school is managed by the school with general repairs and maintenance of replacement lighting, broken equipment and removal of graffiti occurring as required. The proposed school is a high quality contemporary educational establishment that will contribute to neighbourhood amenity, casual surveillance and contribute the sense of security within surrounding precinct.

5.17 Traffic, Transport and Accessibility

5.17.1 Operational Traffic and Parking

A Traffic and Transport Assessment report has been prepared by PTC that provides an assessment of the impacts of the proposed activity on the existing and future operation of the nearby road network, as well as other traffic and transport-related issues including access to and from the site, public and active transport accessibility, car parking requirements and service vehicle access (**Appendix Y**).

Transport & Access

The existing vehicular access will be maintained from the Rosehill Road. A separate pedestrian entry is provided from Rosehill Road.

The site is serviced by two public bus routes and five school bus routes. Due to the rural location, active transport is unlikely to be utilised by staff or students unless they live close to the school. With regard to alternate transport, the traffic consultant states:

> *With consideration to the coverage area and operation frequency, public transport is expected to be a proportion in the student and staff travel mode share.*

Parking

There is no existing formal on-site car parking provision. As the school is located outside Lismore Central Business District (CBD), the relevant car parking provision rates under Lismore DCP for a primary school are:

- 1 space per 2 employees, and
- 1 space per 12 students

Based on the maximum capacity of the site being ten (10) staff and 75 students, compliance with the DCP car parking rates would require 11 on-site car parking spaces. However, the current student population is 53 students, which would require up to 10 on-site parking spaces.

As the proposed development comprises replacement of existing facilities damaged during the 2022 floods, it is not proposed to add formal off-street car parking. The existing vehicle access will be retained from Rosehill Road for emergency vehicles and informal vehicle access (as required). The traffic consultant concluded that:

> *Given that no additional staff or student enrolment capacity is proposed, the context of the area and the size of the development; car parking demand is expected to be low and easily accommodated by the unrestricted on-street parking. On this basis, the on-street parking demand will not negatively impact the amenity of surrounding neighbours or road users.*

The development does not propose any provision for, or changes to the existing arrangements for service vehicles. The low demand for parking by service vehicles will be easily accommodated on the street frontage.

A total of 14 bicycle parking spaces will be provided within the undercroft area should staff or students cycle to school. These have been designed to comply with the requirements of *AS 2890.3 (2015) Parking Facilities – Part 3: Bicycle Parking*.

Traffic

The proposed activity does not seek to increase the number of staff or students at Blakebrook Public School and therefore, it is expected that the traffic generated by the proposed activity will be consistent with the existing conditions and will not adversely impact upon the existing road network.

5.18 Suitability of the Site for the Development

The site is an existing educational establishment servicing the local community in Blakebrook. The site is flood prone land, however, as per the discussion in **Section 5.1** above, the built form impacts of flood have been mitigated by raising the structure and flood risk to staff and students has been mitigated with a Flood Emergency Response Plan that will ensure they are not on site in a flood event. The sections above confirm that the site is suitable with regard to natural and built considerations as well as social, heritage and economic considerations.

5.19 The Public Interest

In accordance with Section 4.15(1)(e) of the EP&A Act, the proposed development is considered to be in the public interest as it will restore public educational facilities to Blakebrook. The new school building has been designed in accordance with the flood affectation of the site and will provide high quality, flexible learning spaces to meet the needs of existing and future students within an environmentally sustainable development.

The public interest is an overarching requirement, which includes the consideration of the matters discussed in this report. The proposed development is considered to generally meet the provisions of relevant environmental planning instruments, which have been created to protect the public interest.

In addition, the proposal is consistent with Lismore City Council's Local Strategic Planning Statement and Objective 5 – manage and improve resilience to shocks and stresses, natural hazards and climate change and Objective 19 – infrastructure to support connected and healthy communities of the Northern NSW Regional Plan 2041. Accordingly, the proposal is not prejudicial to the public interest.

6 Conclusion

The Department of Education is proposing the reconstruction of Blakebrook Public School, 417 Rosehill Road, Blakebrook which was significantly damaged in the 2022 floods. The redevelopment has been assessed in accordance with the requirements of the EP&A Act and other relevant legislation. The proposal comprises construction of an elevated single storey school building, landscaping and ancillary works. No increase in staff or student numbers is proposed.

The building will have a minimum habitable floor level of 19.2m AHD, which is above the 1 in 500 year flood level, the peak height of the flood of record (February 2022) and the probable maximum flood extent. The building is constructed of flood resilient materials below the flood planning level that have been structurally designed to withstand a flood event up to the PMF. A Flood Emergency Response Plan has been developed, which will ensure that staff and students will not be onsite when a flood event occurs.

Environmental investigations have been undertaken to ensure the development will not result in unacceptable environmental impacts and to confirm the site's suitability. An Aboriginal Heritage Impact Permit will be required prior to the commencement of works.

The redevelopment of Blakebrook Public School will support the community by providing modern and climate-resilient, locally based public education infrastructure, which responds to an existing need within the community.

Accordingly, the proposal is considered to satisfactorily respond to the opportunities and constraints of the site, is generally consistent with the relevant legislation and is therefore in the public interest, and worthy of Council support and approval by the Northern Regional Planning Panel.

Glossary and Abbreviations

ACHAR	Aboriginal Cultural Heritage Assessment Report
AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management Systems
ARI	Average recurrence interval
AS	Australian Standard
ASS	Acid Sulfate Soils
BAL	Bushfire Attack Level
BC Act	NSW *Biodiversity Conservation Act 2016*
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
BFA	Bushfire Safety Authority
CIV	Capital Investment Value
CM Act	Coastal management Act 2016
CMP	Construction Management Plan
Council	Lismore City Council
DCP	Development Control Plan
DoE	NSW Department of Education
DPE	NSW Department of Planning and Environment
EEC	Endangered Ecological Communities
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	NSW *Environmental Planning and Assessment Act 1979*
EP&A Regulation	NSW *Environmental Planning and Assessment Regulation 2021*
EPBC Act	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPM	EPM Projects
FERP	Flood Emergency Response Plan
FFL	Finished Floor Level
FM Act	NSW Fisheries Management Act 1994
FPL	Flood Planning Level
FSR	Flood Space Ratio
GFA	Gross Floor Area
HAT	highest astronomical tide
Heritage Act	NSW *Heritage Act 1977*
HIS	Heritage Impact Statement
LEP	Local Environmental Plan
LGA	Local Government Area
MNES	Matters of National Environmental Significance

NCC	National Construction Code
NPW Act	NSW *National Parks and Wildlife Act 1974*
PBP 2019	*Planning for Bushfire Protection 2019*
PCT	Plant Community Type
PMF	Probable Maximum Flood
POEO Act	*Protection of the Environment Operations Act 1997*
POAA	Priority Oyster Aquaculture Area
Public Authority	Government departments, statutory bodies
RF Act	*Rural Fires Act 1997*
RFS	NSW Rural Fire Service
SEE	Statement of Environment Effects
SEPP	State Environmental Planning Policy
SES	State Emergency Services
SIS	Species Impact Statement
SINSW	School Infrastructure NSW
Site	417 Rosehill Road, Blakebrook
TEC	Threatened Ecological Community
TfNSW	Transport for NSW
WM Act	*Water Management Act 2000*