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Murwillumbah Education Campus

Environmental Impact Statement
State Significant Development Application (SSD-16848913)

Prepared for:
Department of Education NSW

Date: 14 April 2022

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C	7 March 2022	Test of Adequacy
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Statement of Veracity

Project details	
Project name	Murwillumbah Education Campus (MEC)
Application number	SSD-16848913
Address	86 Riverview Street, Murwillumbah NSW 2484
Applicant details	
Applicant name	NSW Department of Education (DoE)
Applicant address	105 Phillip Street, Parramatta NSW 2150
Details of persons by whom this EIS was prepared	
Names and professional qualifications	**Jonathan Archibald** Associate, Planning *Bachelor of Planning, Macquarie University* **Genevieve Hastwell** Senior Planner *Master of City Planning, UNSW*
Address	Architectus Australia Pty Ltd Level 18 MLC Centre, 25 Martin Place Sydney NSW 2000
Declaration by Registered Planner	
Name	**Jane Fielding** Senior Associate, Planning *Bachelor of Landscape Architecture (University of Canberra)* *Master of Social Science (International Urban and Environmental Management) (RMIT University)*
Organisation registered with	Planning Institute of Australia
Declaration	The undersigned declares that this EIS: – has been prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2021; – contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which the EIS relates; – does not contain information that is false or misleading; – addresses the Planning Secretary's environmental assessment requirements for the project; – identifies and addresses the relevant statutory requirements for the project, including any relevant matters for consideration in environmental planning instruments;

	– has been prepared having regard to the Department's State Significant Development Guidelines - Preparing an Environmental Impact Statement; – contains a simple and easy to understand summary of the project as a whole, having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development; – contains a consolidated description of the project in a single chapter of the EIS; – contains an accurate summary of the findings of any community engagement; and – contains an accurate summary of the detailed technical assessment of the impacts of the project as a whole.
Signature	 Jane Fielding Senior Associate, Urban Planning
Date	April 14, 2022

Executive Summary

Proposed Development

The proposed development comprises the construction of the new Murwillumbah Education Campus (MEC), involving the redevelopment of the existing Murwillumbah High School (MHS) and the co-location of four (4) existing schools comprising Murwillumbah Primary School (MPS), Murwillumbah East Primary School (MEPS), Murwillumbah High School (MHS), and Wollumbin High School (WHS). The MEC will include a primary school, a high school, Department of Education (DoE) offices and school community health facilities, co-located together in an integrated, purpose-designed and built campus.

The development of the campus will provide high quality of educational facilities to serve the Murwillumbah community. The proposal will include school community health facilities to support the wellbeing of students.

The proposed development comprises:

- Demolition of inground building slabs, pathways and footings, of buildings B, C, D, G, H, M, P, S, AW and AZ (following the demolition of these buildings under a separate planning pathway);
- Demolition of existing Building E;
- Construction of four (4) new educational buildings and facilities that will reflect best practice and innovative education design principles; and
- Retention and refurbishment of Building A (a local heritage item) and Building F.

A total of approximately 1,296 students are currently enrolled across the four school sites. The new MEC will provide capacity for a total of 1,722 students, an increase of 426 students compared to current enrolment across the four schools once the MEC is at full capacity.

Feasible Alternatives

After exploring a range of possible options, it was found that investing in one primary school and one high school at the Murwillumbah High School site offered the best opportunity for meeting Murwillumbah's current and projected educational needs and maximising benefits to students and the community. Many existing buildings on the site are not suitable for conversion to innovative learning spaces and so it was determined that new buildings, integrated with the existing heritage building on the site, would provide the best outcome.

Architectus considered thirteen different site layouts before arriving at a preferred design option (Option 10) which was then refined further. The advantages and disadvantages of each shortlisted option are discussed in Section 1.6.

Consultation

In accordance with the Secretary's Environmental Assessment Requirements (SEARs), the proponent team has undertaken extensive consultation with Government agencies and stakeholders, including consultation with respective school communities and the broader local community. The issues discussed and raised during these consultations have been addressed as part of the proposal. Consultation and outcomes have been addressed in detail at Section 4 of the EIS and appended Consultation Report at **Appendix N**.

Planning Framework and Assessment

The proposed development is classified as a State Significant Development (SSD) on the basis that it meets the requirements of Section 15 of Schedule 1 of State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP), being development for the purposes of the erection of a building, or alterations or additions to an existing building, at an existing school that has a capital investment value (CIV) of more than $50 million.

The MEC has been assessed in accordance with the requirements of Section 4.15(1) of the Environmental Planning and Assessment Act 1979 (EP&A Act) and against the SEARs issued for the project.

Statutory and Strategic Planning Context

The proposal has been assessed against relevant strategic policies and planning controls and is found to be generally consistent with these, as detailed within Chapters 2 and 4 of this EIS, and in **Appendix C**. Additionally, the proposal satisfies the SEARs as demonstrated in this EIS and in **Appendix B**.

Environmental Impacts

The proposed MEC will not cause unacceptable impacts on neighbouring residential properties or the public domain. Subject to the various mitigation measures recommended at **Appendix D**, the proposal will not have unreasonable traffic, heritage, economic, social and environmental impacts or affect the public domain.

Assessment Summary

There are no known site conditions which would prevent the development including geotechnical conditions, contamination, flooding, biodiversity, Aboriginal cultural heritage, or other.

The site will be serviced by additional public transport connections. Where there are environmental impacts, these can be sufficiently ameliorated through the recommended mitigation measures and through ongoing design development.

1. Introduction

1.1 Applicant's Details

The Applicant's details for the project are as follows:

- Applicant: Department of Education (DoE)
- Applicant address: 105 Phillip Street, Parramatta NSW 2150
- ABN: 40 300 173 822

1.2 Site and Context

The site is located at 86 Riverview Street, Murwillumbah. It has a total area of 11.7 hectares and comprises three lots legally described as Lots 5 and 6 in DP 820602 and Lot 2 in DP 578679.

The site has three street frontages, including Riverview Street to the west, Nullum Street to the east and High School Lane to the north.

The site is located approximately 1 kilometre to the south of the Murwillumbah town centre and 13 kilometres northeast of Wollumbin. Development to the north-west and north of the site consists of established low density residential development. Development to the south-west and south of the site consists of broader agricultural farmland.

Development to the east of the site consists of several sports playing fields and courts which are also utilised by the school located directly to the east, with the Tweed River located approximately 500 metres to the east of the site.

The site currently contains eleven permanent buildings, off-street car parking, playgrounds, sports ovals, sports courts and green space.

Figure 1 Site Context
Source: Metromap May 2021 with Architectus edits

1.3 Description of the Project

The proposed development comprises the construction of the new MEC, involving the redevelopment of the existing Murwillumbah High School and the co-location of four (4) existing schools comprising Murwillumbah Primary School, Murwillumbah East Primary School, Murwillumbah High School, and Wollumbin High School. The MEC will include a primary school and a high school, school community health facilities and DoE administrative offices co-located together in an integrated, purpose-designed and built campus.

Once the campus becomes operational, it will enhance public education in Murwillumbah by supporting contemporary teaching approaches and providing students with access to new, modern, flexible learning environments and facilities.

This application seeks development consent for the creation of a new primary school and new high school, together with the following development:

- Demolition of Building E;
- Demolition of inground building slabs, pathways and footings, including those to buildings B, C, D, G, H, M, P, S, AW and AZ;
- Construction of new Buildings 1, 2, 3 and 4;
- Refurbishment of Building A for DoE administrative offices and school community health facilities;
- Refurbishment of Building F to provide learning space for agricultural education;
- Retention of existing Building AY;
- Creation of outdoor learning spaces, new landscaping and embellishment of outdoor playgrounds;
- Civil and infrastructure works; and
- New vehicular access, kiss and drop and at-grade car park off Nullum Street.

Note: the demolition of buildings B, C, D, G, H, M, P, S, AW and AZ above slab level will be under a separate planning pathway.

A detailed description of the proposed development is provided at **Section 3.1** of this EIS. Refer also to the architectural plans prepared by Architectus at **Appendix H** and landscape plans prepared by Arcadia at **Appendix J**.

1.4 Project Objectives (Educational Rationale)

The key objective of the project is to improve the educational and wellbeing outcomes for the students and community of the Murwillumbah region by providing a seamless education journey from Kindergarten to Year 12, supported by modern learning facilities and school community health facilities.

The development of the MEC will support the Department to achieve this objective by providing students and teachers from all public schools in Murwillumbah with access to new, flexible learning environments that better support contemporary teaching approaches.

Contemporary learning and teaching means teachers choose from a wide range of strategies to meet the personalised needs of students and build the skills and capabilities needed to become successful lifelong learners. Flexible learning spaces enable teachers to easily adapt and transition between the most appropriate learning experiences for students. This includes but is not limited to, explicit learning, collaboration and hands-on project learning.

The physical learning environment, such as air quality, temperature, light and good acoustics has a significant impact on student learning outcomes.

Flexible spaces that can adapt to accommodate different group sizes, learning activities and teaching practices, have been shown to impact on how teachers foster deep

learning for students. This means building strong creativity, critical thinking, collaboration, and communication skills as well as being actively curious about learning.

Other benefits of contemporary learning environments include:

- Increased student engagement, including school attendance;
- A higher sense of student wellbeing; and
- Ongoing professional support for teachers through collaborative teaching.

It has been identified that forming an education campus will allow for a broader range of educational opportunities to be provided to the existing students of Murwillumbah due to the provision of more teachers and other resources on the same site. Compared to metropolitan schools, the high schools in the Murwillumbah district are not always able to provide a full range of senior subject choices due to the small number of students in each school.

Co-locating four existing schools in a new education campus will enable a broader range of subjects to be offered. MEC will establish a shared learning culture, merging the values and effective practices from each of the individual schools, to create an exceptional, collaborative, creative and inclusive education experience for students in the Murwillumbah school community group.

Each of the four schools currently has individual programs that are important to the identity of that school. These programs will continue to operate at the campus.

All of this being considered, the core objective of the proposal is to provide an improved educational and wellbeing experience to the young people of Murwillumbah by supporting them from kindergarten to Year 12 with school community health services and a broader curriculum.

The core planning principles for the project are to:

- Provide high quality learning environments for students;
- Increase educational opportunity by providing a wider choice of subjects;
- Meet the demand for more places for students with special education needs and improve the quality of facilities available for those students;
- Create and improve effective links with community, council and local industry through potential shared school facility use;
- Enable stronger partnerships with local health, disability and vocational education service providers;
- Increase the use of sustainable modes of transport to and from school; and
- Reduce Murwillumbah schools' vulnerability to natural disasters, particularly flood, and the impact to school operations when natural disasters occur.

1.5 Primary Drivers of Service Need

Several drivers of service need have been established by the DoE for the MEC. The drivers for the service need are wide ranging and cover educational, wellbeing, economic and social considerations. The core drivers of the project are to:

- Provide Murwillumbah young people with a high quality, modern learning environment;
- Improve student engagement and completion rates by providing broader subject offerings on site, and school community health facilities to support wellbeing;
- Minimize disruption to students currently located on sites prone to flooding (Murwillumbah East Public School); and
- Broaden equitable access to education by providing new Disability Discrimination Act (DDA) compliant buildings and additional spaces for students with specific learning needs.

In addition, Building A has been identified as suitable for the relocation of the regional Murwillumbah DoE office. The rationale for this is discussed in Section 3.6.

1.6 Analysis of Feasible Alternatives

The NSW Government is committed to investing in education infrastructure in Murwillumbah so that all public school students have access to contemporary learning environments and an exceptional education experience.

To determine the best option for investment, DoE undertook a thorough early planning process. Early planning involved a review and analysis of population projections, enrolment and teaching space projections, educational requirements, current schooling options, catchment boundaries, site locations and sizes, transport links, and condition of existing schools. The planning process also took into consideration the location, size and condition of Murwillumbah's existing schools and their suitability for development.

After exploring a range of options, it was found that investing in one primary school and one high school at the Murwillumbah High School site offered the best opportunity for meeting Murwillumbah's current and projected education needs and maximising benefits to students and the community. While other options, such as upgrading or amalgamating some schools, might deliver new and upgraded learning spaces for some students, many existing buildings are not suitable for conversion to innovative learning spaces and this would not overcome the constraints and issues associated with some existing school sites.

Site Analysis

The Murwillumbah High School site was chosen as the best site for the campus because of its large land area, central location, access to transport, and because it was less impacted by flood than some other school sites.

The other school sites have a range of limitations that make them inappropriate either for the campus or individual school upgrades:

- Murwillumbah East Public School is located on flood-prone land and would therefore be at risk of being damaged again in future floods.
- Murwillumbah Public School is constrained by residential development and there are limited opportunities for future expansion.
- Wollumbin High School is less centrally located and existing infrastructure is not suitable for converting to innovative learning environments.

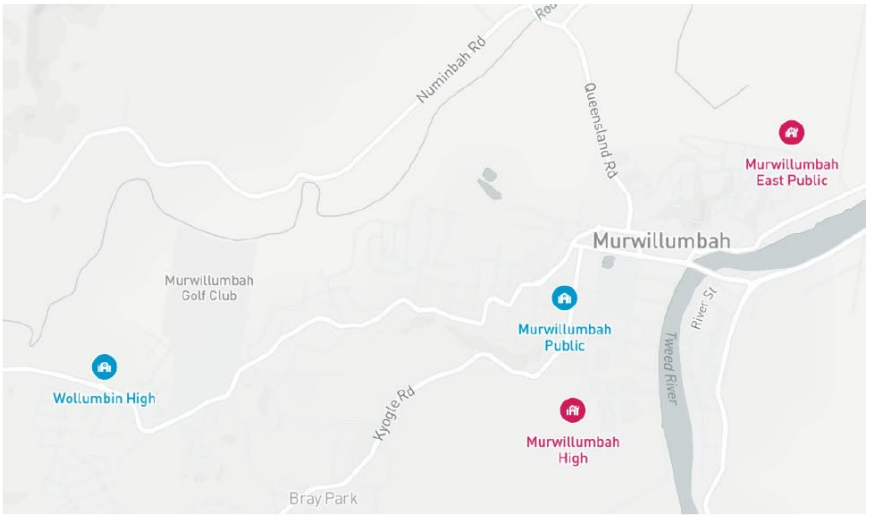


Figure 2 Location map of the four schools relative to Murwillumbah town.
Source: DoE

Table 1 Numerical overview of other school sites.

	Murw. High School	Wollumbin High School	Murw. East Public School	Murw. Public School	Proposed MEC
Education years	6-12	6-12	7-12	7-12	K-12
Location (relative to Murw. town)	1km SW	3km SW	1km NE	600m SW	1km SW
Site area	11.7ha	9.9ha	3.2ha	1.02ha	11.7ha
Current enrolments	470	387	247	249	N/A
Enrolment capacity	1,160	700	278	370	1722
Transport access	On-site parking Bus services	On-site parking Bus services	On-site parking Bus services	No on-site parking Bus services	On-site parking Bus services
Constraints	See Section 2.1.	Located far from the town centre, and the other three schools.	High flood risk. Demountables are currently in use to replace flood affected buildings.	Small site with minimal potential to expand without becoming overdeveloped	See Section 2.1.

Campus Composition Options Considered

Initially, twelve (12) options were developed and considered (Options A-L) as part of the business case for investment in education infrastructure in Murwillumbah. These were subsequently refined and consolidated to three options, listed in order of preference:

- Option 1 (D)
- Option 2 (C); and
- Option 3 (B).

These three options were compared based on their ability to meet the project objectives and achieve the project success criteria. The three shortlisted options are summarised below.

Table 2 Summary of the campus composition options considered

Option	Description	High School capacity	Primary School capacity
Current scenario	*The four schools are located on four separate sites.* *Upgrades to all four sites would need to occur in the short to medium term.*	*Across the two HS schools:* – 1,860 students – 97 mainstream learning spaces – 1 support unit comprising 6 learning spaces (located at Murwillumbah HS).	*Across the two PS schools:* – 648 students – 24 mainstream learning spaces – 1 support unit with 2 learning spaces (located at Murwillumbah East PS).

Option	Description	High School capacity	Primary School capacity
Option 1 (D) – Establish a Kindergarten to Year 12 educational campus on the Murwillumbah HS site. <u>This is the option being pursued.</u>	Amalgamate: – Murwillumbah HS – Wollumbin HS – Murwillumbah PS – Murwillumbah East PS Schedule of Accommodation is to include: – A new primary school – A new high school – School community health facilities – Murwillumbah DoE Office – Pre-school (Masterplan Only)	Stream 7 – 1,160 students – 47 mainstream learning spaces – 1 support unit comprising 6 learning spaces	Core 28 – 805 students – 35 mainstream learning spaces – 1 support unit comprising 3 learning spaces
Option 2 (C) – Co-location of the HS and one PS only (excludes Murwillumbah PS).	– Amalgamate Murwillumbah HS and Wollumbin HS on the Murwillumbah HS site – Relocate Murwillumbah East PS to Murwillumbah HS	Stream 7 – Same as Option 1.	New Core 14 PS at Murwillumbah HS site: – 391 students – 12 mainstream learning spaces – 1 support unit comprising 3 learning spaces
Option 3 (B) – Co-location of the High Schools and upgrade to Murwillumbah East PS	– Upgrade Murwillumbah HS to enable co-location of Murwillumbah HS and Wollumbin HS – Upgrade Murwillumbah East PS	Stream 6 – 980 students – 45 mainstream learning spaces – 1 support unit comprising 6 learning spaces	Murwillumbah East PS: – Replacement of the temporary buildings with new buildings above the flood level: – New Library – 5 mainstream learning spaces – 1 support unit comprising 2 learning spaces
Note: 'Core' and 'Stream' grades are based on the student capacity and the required learning spaces and support unit spaces needed for this capacity based on DoE standards and guidelines.			

<u>Master Planning Process</u>

Option 1 (D) was chosen as the best option to achieve the project objective, to improve the educational and wellbeing outcomes for the students and community of Murwillumbah by providing a seamless education journey from Kindergarten to Year 12, supported by school community health facilities, while:

- Meeting forecast enrolment and teaching space demand to 2036;
- Enabling the delivery of a broader school curriculum that creates pathways for further education and employment;
- Supporting the implementation of contemporary learning and teaching approaches in new, flexible learning environments;
- Providing the required level of support for students with special learning needs;

- Creating and improving effective links with community, council and local industry;
- Increasing the use of sustainable modes of transport to and from school; and
- Minimising the disruption and cost to school operations when there is a flood event.

Options 2 and 3 allowed for some of these project objectives to be partially met, however Option 1 was the only option that allowed for the objectives to be fully met.

Design Options Considered

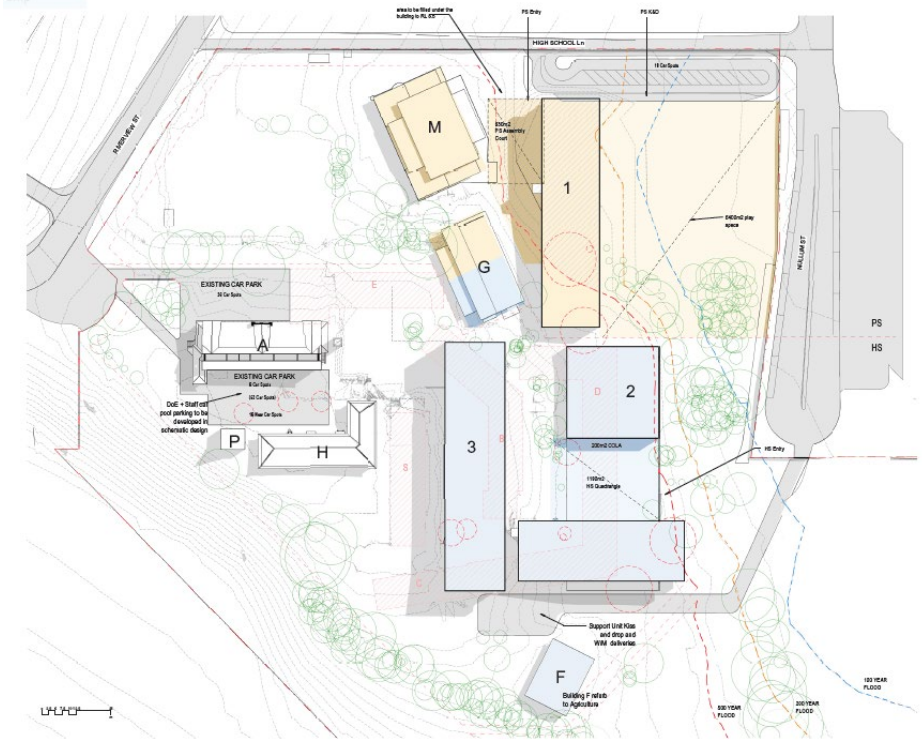
At the beginning of the concept design phase of the project, Architectus explored 13 alternative masterplan site layouts for the campus based on Option 1 (D) above (amalgamating the four schools). These site layouts are shown in **Figure 3** below.

These options were shortlisted to three (Options 9, 10 and 13). These shortlisted options were then explored further. An overview of each of the shortlisted options, as well as the advantages and challenges are summarised in Table 3.

Figure 3 Masterplan options considered for the layout of the campus.
Source: Architectus

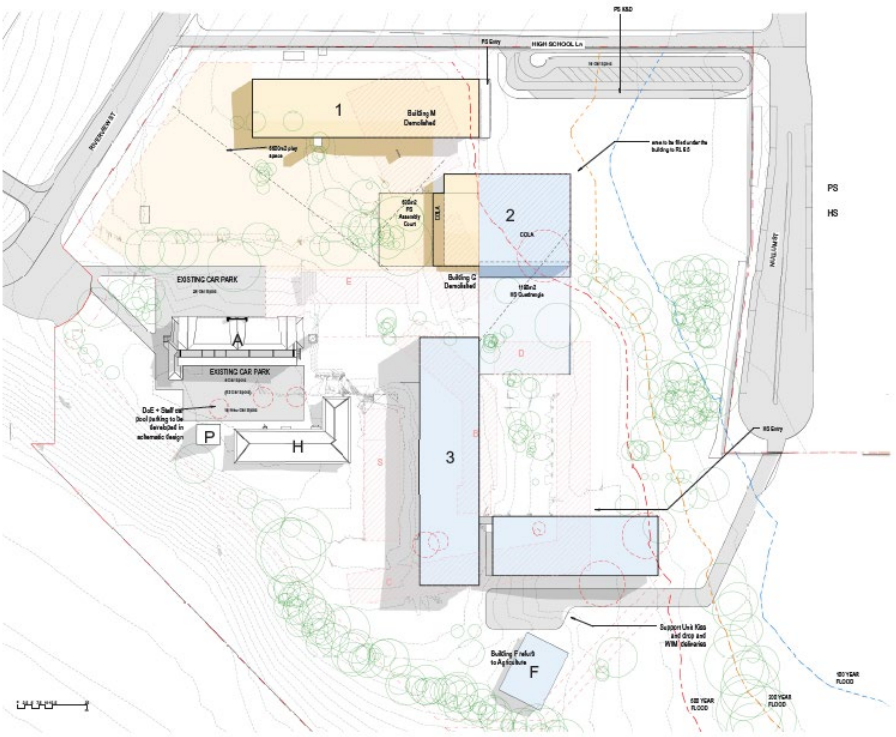
Table 3 Summary of advantages and disadvantages of the three shortlisted options

Option 9



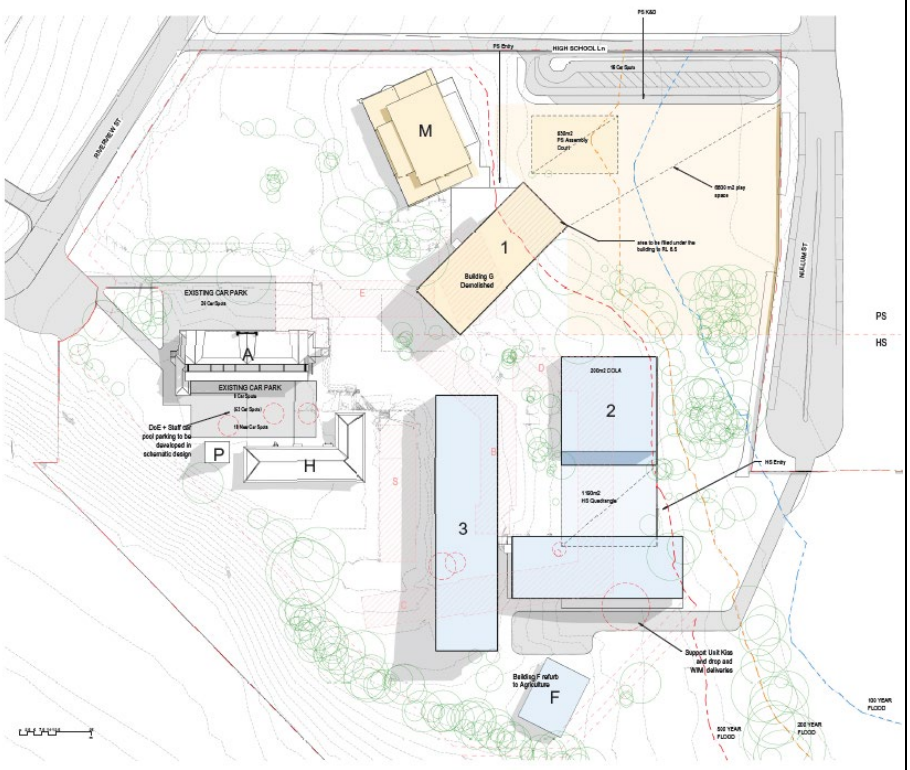
Overview of option	Advantages	Challenges
– 3 New buildings / regular form – Retains Buildings M and G – Provides total 70 teaching spaces on site – Removes two trees adjacent to memorial cluster	– Creates clear arrival from Nullum Street – Creates new identity for school with new buildings	– Fit out of existing buildings creates departures from NSW Educational Facilities Standards and Guidelines (EFSG) – Connection from Primary school to building A is circuitous – Providing on-site parking – Removal of 2 trees adjacent memorial cluster – High school assembly cannot expand

Option 10



Overview	Advantages	Challenges
– 3 New buildings / regular form – Removes M + G – Provides total 70 teaching spaces on site – Removes one tree	– Creates clear arrival from Nullum Street – Creates new identity for both schools with new buildings – Creates a K-12 arrangement on the campus, allowing for shared spaces – Combined hall provides for large school and community events – Large central campus assembly area – All buildings are new – DfMA and future focused learning for all spaces – Creates a campus heart – High school outdoor central space is large and contiguous – Primary school has a clear school heart – Future expansion completes coherent masterplan	– Connection from Primary school to building A is circuitous – Providing on-site parking

Option 13



Overview of option	Advantages	Challenges
– 3 New buildings / regular form – Removes building G, retains M – Provides total 70 teaching spaces on site – Retains all trees	– Creates clear arrival for primary school and high school from Nullum Street – Creates new identity for school with new buildings	– Fit out of existing buildings creates departures from EFSG standards – 6-storey primary school building could appear like mega school – Connection from Primary school to building A is circuitous – Providing on-site parking – High school assembly cannot expand

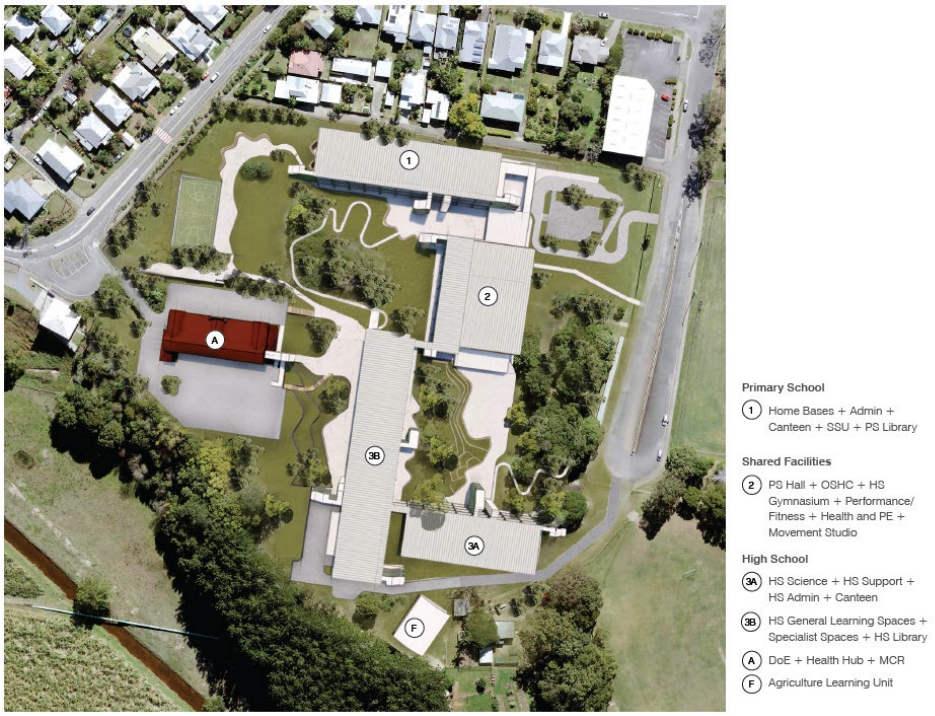


Figure 4 The preferred masterplan for the site (Option 10.A.2).
Source: Architectus

Based on the analysis above, Option 10.A.2 is being pursued as the preferred design. A noted disadvantage of Option 10 was that there was insufficient space on site for parking. The option was further refined as a result to remove existing buildings P and H and allow for a bigger car park. The resulting layout is Option 10.A.2 (**Figure 4**).

1.7 Consequences of Not Carrying Out the Development

The consequences of not carrying out the development is a reiteration of the primary drivers of service need for the project, referred at Section 1.5 above, including that:

- Young people of Murwillumbah will not have equitable access to new, flexible learning environments comparable to those available in new metropolitan schools.
- High school completion rates are likely to continue to fall, due to the curriculum being too narrow and a smaller school being unable to resource a broad range of subjects to keep students engaged in their education;
- Demand for additional places for students with special education needs will be unmet; and
- Murwillumbah East Primary School may experience a flood event that disrupts schooling, as the current school site is within the high flow area under the *Tweed Valley Floodplain Risk Management Study*.

1.8 Project Team

The project team is set out in **Table 4** below.

Table 4 Project team

Discipline	Consultant
Applicant	Department of Education
Project Management	Mace
Quantity Surveyor	Slattery
Surveyor	NDC
Aviation	Aviation Projects
Architect	Architectus Australia Pty Ltd
Landscape Architect	Arcadia
Urban Planner	Architectus Australia Pty Ltd
Heritage Consultant	EMM
Aboriginal Cultural Heritage Consultant	EMM
Traffic Consultant	Bitzios
Contamination Consultant	Douglas Partners
Geotechnical Engineer	Douglas Partners
Arboricultural Consultant	EMM
Social Impact Consultant	Elton Consulting
Civil Engineer	TTW
Ecological Consultant	EMM
Accessibility Consultant	GroupDLA
BCA Consultant	GroupDLA
Structural Engineer	TTW
Acoustic Consultant	E-lab consulting
Bushfire Consultant	BlackAsh
Waste Management Consultant	EcCell
Construction Management Consultant	Built
Consultation	School Infrastructure NSW
Lighting Consultant	JHA

1.9 Estimated Capital Investment Value

The estimated Capital Investment Value (CIV) for the proposed development exceeds $50 million. A CIV Estimate has been prepared by Slattery and is included under separate cover.

2. Strategic Context

2.1 Justification for the Proposal

The proposal responds to the need for school infrastructure in the Tweed area. Notably, the Tweed Local Strategic Planning Statement (LSPS) includes Action 11.1 that Council will "*work with School Infrastructure NSW and local universities to identify community needs and plan for new and upgraded infrastructure, school, campuses or other educational facilities in the Tweed".*

The Tweed Shire community is predicted to grow by 38% in the twenty-year period between 2016 and 2036 with a predicted population of 125,700 people in 2036. This will be matched by an increase in the school age population (Tweed Shire LSPS, 2020). School enrolments within Murwillumbah have however been falling so current forecasts are more conservative. It is an aspiration of the project that modern educational facilities will improve student enrolments and retention. With current forecasts, the new school will be able to accommodate projected growth to at least 2036.

The establishment of the MEC will accommodate up to 1,722 students and provide modern facilities and a broader curriculum to service the school children age population.

The proposed educational campus will provide new learning spaces that are fully compliant with DDA standards, and that can accommodate a greater number of students with special learning needs than is currently possible across the four schools combined.

More staff on one site will also allow for a broader and more engaging curriculum to be offered. Support services in the form of the school community health facilities will also be available on site to ensure the wellbeing of students.

The proposed scheme is the result of detailed design testing that seeks to respond to several known constraints at the site, including:

- Topography: The site falls more than 14 metres from west to east, and the current access points are at the highest and lowest points.
- Heritage: Building A is a locally listed heritage building, and is located at the highest point, in the western part of the site. This building is to be retained.
- Building functionality: Existing facilities are old and are inflexible.
- Significant trees: There are several trees of high landscape value on the site, including captains' and memorial trees, and nine endangered Davidson plums.
- Bushfire: a portion of the site along the southwestern boundary is bushfire prone.
- Flood prone: the lower lying sections of the site are flood prone.
- Sensitive receivers: the site adjoins a residential area with the closest residents being those on the northern boundary.

Figure 5 Site constraints.
Source: Architectus

2.2 Strategic Planning Context

State Context

The proposed development is aligned with many of the strategic directions of relevant state policies, as shown in **Table 5.**

Table 5 State Planning Policies

Strategic planning policy	Response
NSW State Priorities	NSW State Priorities are fourteen priorities unveiled by the NSW Premier, in a commitment to making a significant difference to enhance the quality of life. The relevant priorities include: – Bumping up education result for children; – Increasing the number of Aboriginal young people reaching their learning potential; – Improving outpatient and community care; – Greener public spaces; The educational facilities are co-located in a purpose-designed and built campus, providing improved education service delivery within Murwillumbah. The development application will also contribute to an increase in construction jobs, strengthening the local Murwillumbah and regional economy.
Future Transport Strategy 2056	The Future Transport Strategy sets out a 40-year vision, direction and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. The proposal is consistent with the Strategy by rationalising existing bus services that currently operate across the four schools that are proposed to be relocated, whilst expanding transport services available to the site.
State Infrastructure Strategy 2018 –	The State Infrastructure Strategy is a 20-year infrastructure investment plan that provides recommendations to best grow the State's economy, enhance productivity and improve living standards for NSW.

Strategic planning policy	Response
2038 Building the Momentum	The proposal is consistent with the State Infrastructure Strategy, as it will deliver upgraded school infrastructure to meet the needs of increasing student numbers; whilst providing new, high quality learning spaces for students.
Crime Prevention Through Environmental Design Principles	The Architectural Design Report at **Appendix H** provides an assessment of the proposal against the principles of Crime Prevention Through Environmental Design (CPTED). Refer to a further discussion of CPTED matters at Section 6 of this report.
Healthy Urban Development Checklist	The Healthy Urban Development Checklist prepared by NSW Health assess the built environment factors that impact on health. The proposal promotes the checklist's 11 themes through the design and function of the site. The proposal aims to improve the amenity and wellbeing of students and staff, through new and improved learning spaces, upgrade of existing facilities and provision of new areas of outdoor recreation and broader landscape improvements across the site. The proposed development will improve access, transport and connectivity to the site, including incorporation of CPTED principles as detailed above, contributing to improved community safety and security. Overall, the proposal is considered to improve learning outcomes and improve social cohesion and connectivity.
Better Placed: An integrated design policy for the built environment of New South Wales	Better Placed has been prepared by Government Architect NSW (GANSW) as an integrated design policy for the built environment of NSW. The project team have had five meetings with the State Design Review Panel (SDRP) through the development of the proposed MEC. As detailed in the Architectural Design Report at **Appendix H**, these objectives and consultation meetings have shaped and guided the design. Consultation with GANSW is further explained in Section 4 of this EIS.
Draft Greener Places Design Guide	The GANSW Draft Greener Places Design Guide provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The Greener Places Design Guide has three main objectives: – Open space for Recreation: green infrastructure for people; – Urban tree canopy: green infrastructure for adaptation and resilience; and – Bushland and waterways: green infrastructure for habitat and ecological health. The Draft Greener Places Policy has guided the delivery of green infrastructure of the site together with the EFSG. Consultation has been undertaken with the SDRP and will continue throughout the project. The proposed development will ensure adequate play space provision per student, across both hardstand areas and broader landscape and open space upgrades across the site. Refer to a further discussion on play space matters at Section 6 of this report.

Local and Regional Planning Policies

The proposed development is aligned with the strategic directions of relevant local and regional policies, as shown in **Table 6**.

Table 6 Local and Regional Planning Policies

Strategic planning policy	Strategic planning policy
North Coast Regional Plan	The North Coast Regional Plan 2036 is a 20-year blueprint for the future of the North Coast. The NSW Government's vision for the North Coast is to create the best region in Australia to live, work and play thanks to its spectacular environment and vibrant communities. To achieve this vision the Government has set four goals for the region: – The most stunning environment in NSW; – A thriving, interconnected economy; – Vibrant and engaged communities; and – Great housing choice and lifestyle options. Within the plan, Murwillumbah is recognised as a hinterland centre, which assists both the surrounding region as well as supporting the larger centre of Ballina. The plan identifies the importance of the education sector, including tertiary education and training and the growth and opportunities these bring to residents and the region. The proposed MEC will improve educational opportunities available within the region, by providing modern, high quality learning spaces and open space, contributing to the objectives of the North Coast Regional Plan.
Tweed Local Strategic Planning Statement (LSPS)	Adopted by Council on 4 June 2020, the Tweed Shire LSPS sets out Council's 20-year vision for land use in the Tweed. Including to deliver and maintain: – Natural environment; – Thriving economy; – Liveable communities; and – Diverse housing and lifestyles. These four elements of the vision are underpinned by a number of planning priorities and actions to ensure appropriate development within the region. In particular, Action 11.4 of the LSPS provides that Council will: "*Work with School Infrastructure NSW and local universities to identify community needs and plan for new and upgraded infrastructure, schools, campuses or other educational facilities in the Tweed, including options for the co-location or co-use of spaces and infrastructure."* The Tweed Shire community is predicted to grow by 38% in the twenty-year period between 2016 and 2036 with a predicted population of 125,700 people in 2036. This will be matched by an increase in the school age population. The proposal seeks the co-location of Murwillumbah Primary School, Murwillumbah East Primary School, Murwillumbah High School, and Wollumbin High School to establish a new education campus. MEC will co-locate educational facilities with school community health facilities, in a purpose-designed and built campus, providing improved educational facilities within Murwillumbah. The proposed MEC will therefore directly contribute to achieving this action within the LSPS.

2.3 Site Context

The site is located at 86 Riverview Street, Murwillumbah. The site has a total area of 11.7 hectares and comprises three lots legally described as: Lots 5 and 6 in DP 820602 and Lot 2 in DP 578679.

The site has three street frontages, including Riverview Street to the west, Nullum Street to the east and High School Lane to the north.

The site is located approximately 1 kilometre to the south of the Murwillumbah town centre. Development to the north-west and north of the site consists of established low density residential development. Development to the south-west and south of the site consists of broader agricultural farmland.

Development to the east of the site consists of several sports playing fields and courts which are also utilised by the school located directly to the east.

The Tweed River located approximately 500 metres to the east of the site and further afield is Wollumbin located 13 kilometres south-west of the school, and the Queensland border located 13 kilometres to the north (**Figure 7**).

The site currently contains eleven permanent buildings (nine of which are being demolished to slab level under a separate planning approval pathway), off-street car parking, playgrounds, sports ovals, sports courts and green space. Refer to the site context plan at **Figure 1** above, and the local context plan at **Figure 6** below.

Figure 6 Aerial View of the local context
Site outlined in red
Source: Architectus

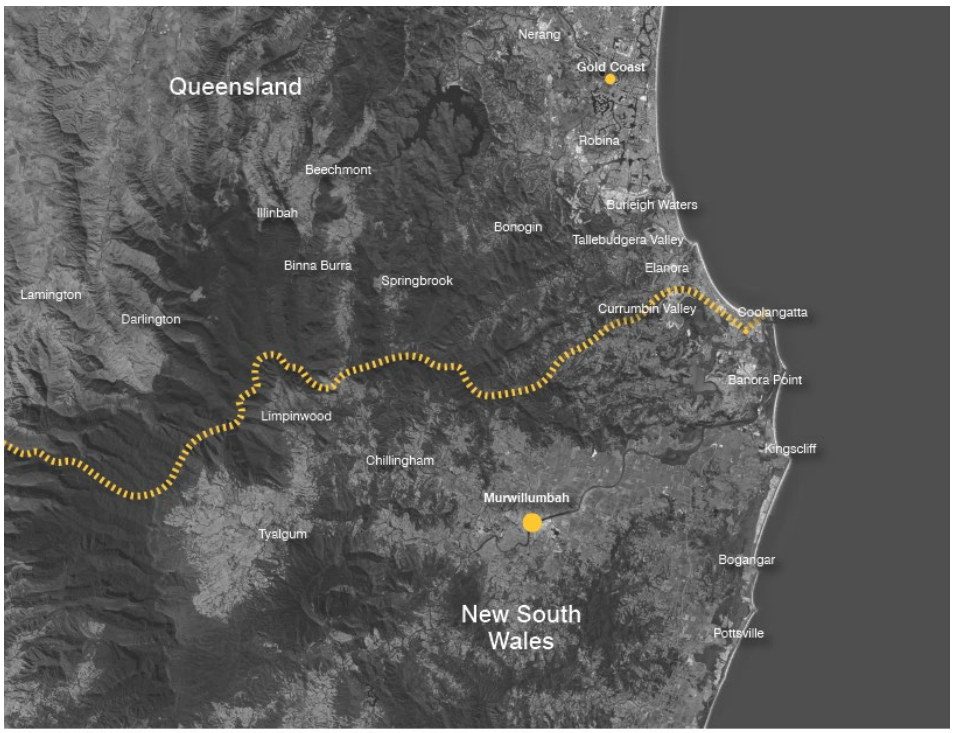


Figure 7 Broader regional context of the site.
The site and the Queensland-New South Wales border are marked in yellow.
Source: Architectus

Surrounding Built Form and Land Use

The built form and land use character surrounding the site can be categorised by three distinct areas:

- Residential: The northern boundary adjoins an area of predominantly established low-scale residential development (1-2 storeys in scale). There is also a small pocket of light industrial uses (auto parts and repair shops) fronting Nullum Street.
- Open space and sporting fields: To the south and east of the site are a number of local sporting fields and clubs including the Murwillumbah Mustangs Rugby League Club, the Murwillumbah Vulcans Junior AFL Club, the Tweed Hockey Club, Murwillumbah Cricket Club and Murwillumbah Soccer Club. The Soccer and Hockey Clubs play home matches on Les Cave Oval while Rugby League is based at Stan Sercombe Oval.
- Agricultural lands: There is a levy bank system located to the south of the site as well as large plots of agricultural land.

Location of the Four Schools Relative to the Site

The four schools to be co-located at the MEC are:

- Murwillumbah High School is located on the site;
- Wollumbin High School is located 2.5 km to the east (10-minute drive) of the chosen site;
- Murwillumbah Public School is located 200 metres north (1-minute drive) of the chosen site; and
- Murwillumbah East Primary School is located 1 km northeast (4-minute drive) of the chosen site.

Ownership

The site is owned in its entirety by DoE.

2.4 Existing Development

Murwillumbah High School is a co-educational high school and currently accommodates off-street car parking, playgrounds, sports ovals, sports courts and green space as well as the following eleven permanent buildings, summarised in **Table 7** below and shown in **Figure 8**.

Table 7 Summary of existing buildings on the site.

Block / Building	Description	Status
A	Linear brick building near Riverview Street and adjoining the staff car park. The block incorporates general learning spaces (GLS), music and performance classrooms, change rooms and clinic rooms. Note this building is a locally listed heritage item under the Tweed Local Environmental Plan (TLEP) 2014.	Proposed to be retained and refurbished
E	Linear brick building adjoining the assembly area. It incorporates staff facilities and offices, GLS and study spaces.	Proposed to be demolished
F	Agricultural science building.	Proposed to be retained and refurbished
AY	A single level structure comprising agricultural teaching facilities and office space	Retained
AZ	A single level structure comprising maintenance storage	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
B	Linear brick building running parallel to Block S and Block D and adjoining the northern edge of Block D. The block incorporates computer learning spaces, science labs, staff facilities, art learning spaces, workshop, GLS, and special education learning spaces.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
C	A linear brick and wood building adjoining the southern extremity of Block D. The block incorporates a canteen, storeroom, and GLS.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
D	U-shaped brick building adjoining Block C at its southern extremity and Block B at its northern extremity. It incorporates science laboratory learning spaces, GLS, design and technology learning spaces, and art learning spaces.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
G	Brick building immediately south of Block M and adjoining Block E. It incorporates GLS and library.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
H	L-shaped brick building immediately west of Block S and south of Block A. It incorporates food technology and materials learning spaces.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
M	Brick building fronting High School Lane immediately north of Block G. It incorporates a gymnasium.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
P	Timber building accommodating staff spaces.	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
S	A two-level structure comprising offices and storage areas to the lower level and classrooms to the upper level;	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application

SS2	A single level structure comprising maintenance storage	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
AW	A single level structure comprising maintenance storage;	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application
AZ	A single level structure comprising maintenance storage	Demolished to slab level under separate approval / Proposed to remove slab and footings under this application

Figure 8 Existing site layout plan
Source: Architectus

Photographs of the school are shown at **Figures 9** through to **Figure 14**.

Figure 9 View of the site from corner of High School Lane and Nullum Street.
Source: Architectus

Figure 10 View of the site at the end of Nullum Street, facing south.
Source: Architectus

Figure 11 View of the site from the eastern perimeter, facing west.
Source: Architectus

Figure 12 View of the site along Nullum Street, facing north.
Source: Architectus

Figure 13 View of existing Building A, within existing car park facing south-east.
Source: Architectus

Figure 14 View of typical covered walkway between existing buildings H and S.
Source: Architectus

2.5 Transport, Access and Car Parking

Existing vehicle access to the site is obtained from Riverview Street, High School Lane and Nullum Street. Pedestrian access is obtained from Riverview Street and Nullum Street.

A paved carpark is accessible via Riverview Street to the west of the site, accommodating 18 spaces. Informal car parking also occurs at the Riverview car park (11 cars observed) and within areas of open space to the south of the site at the end of Nullum Street (35 cars observed). Therefore, on the day observed, a total of 64 cars were accommodated within the school site.

Figure 15Existing parking and access arrangements
Source: Bitzios

2.6 Public Transport

The site is accessible via bus, with a number of school bus routes that directly connect to the site via the bus stops located along Nullum Street.

Current bus routes servicing the school include public services operated by Surfside Bus Lines as well as local services provided by Murwillumbah Bus Co, Gosels, Parsons and Singh's.

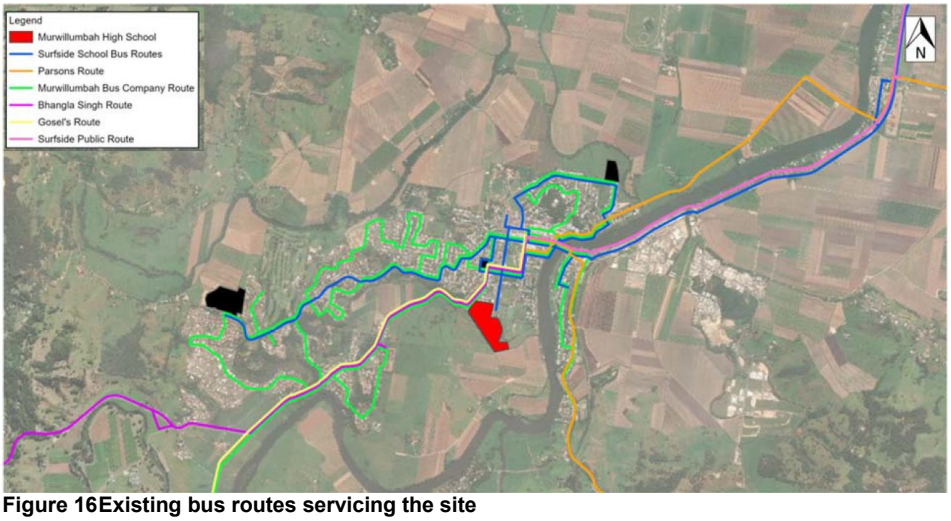


Figure 16Existing bus routes servicing the site
Source: Bitzios

2.7 Topography

The site has undulating topography and falls more than 14m from the west to the east, with access points to the school at the highest point along Riverview Street and at the lowest point along Nullum Street. Refer to the Survey Plan at **Appendix F**.

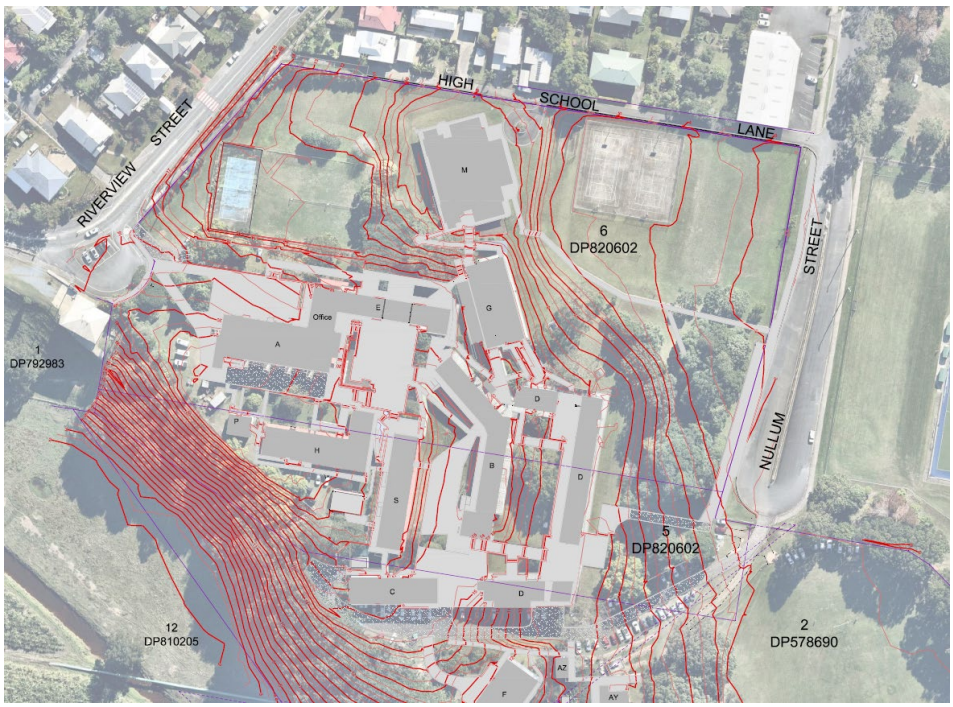


Figure 17 Extract from the survey plan, showing the site topography
Source: NDC

2.8 Ecology

Vegetation

The proposed new buildings are largely confined to the northern part of the site, which is characterised by existing built form, interspersed with trees and areas of landscaping. The remainder of the site is largely undeveloped and accommodates areas of vegetation, including areas adjacent to the south-western, eastern and southern boundaries which contain areas of remnant vegetation. A detailed assessment of the 451 existing trees on the site is included in the Arboricultural Impact Assessment (AIA) prepared by EMM at **Appendix P**.

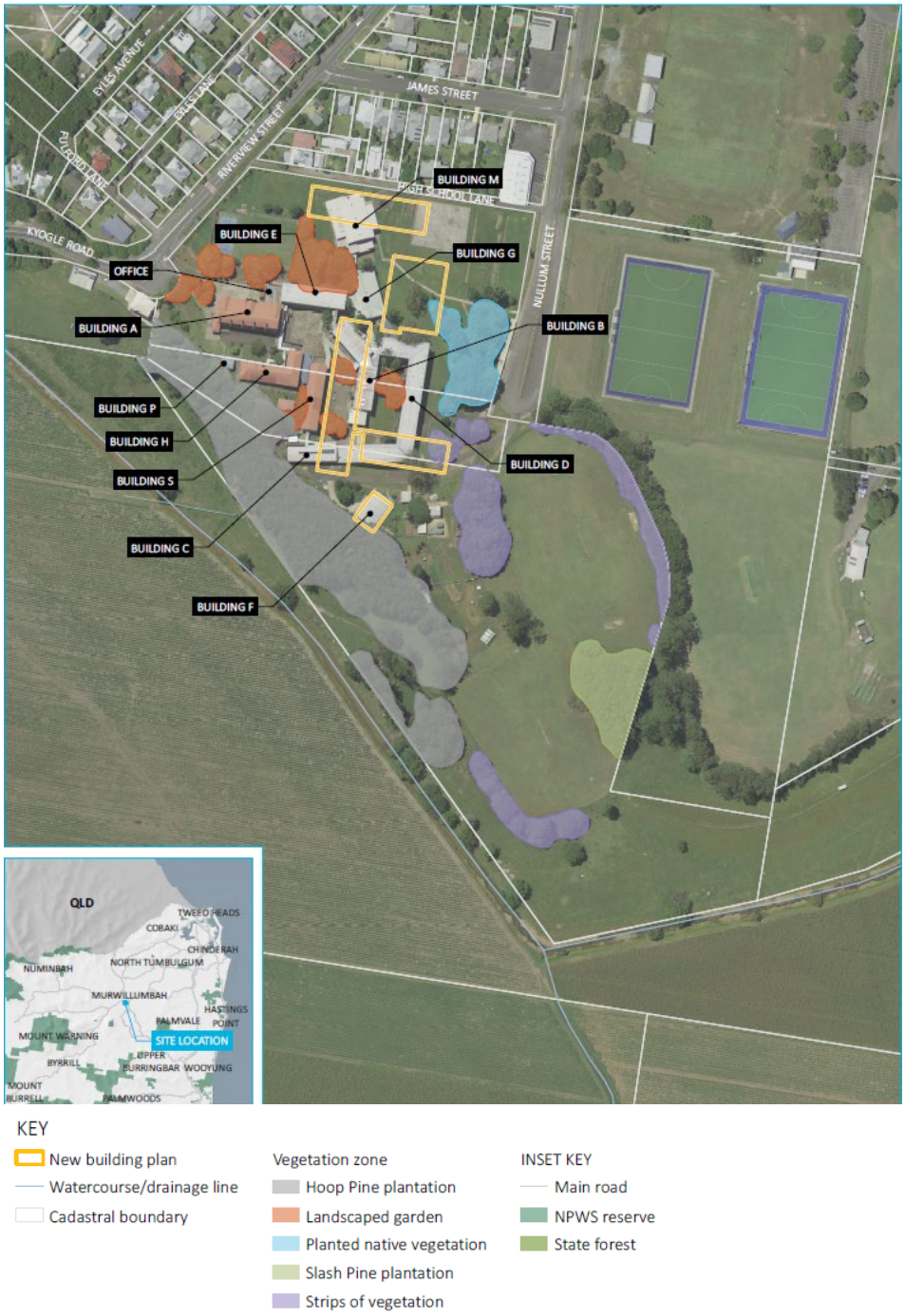


Figure 18 Vegetation types located on the site
Source: EMM

Planted specimens include trees planted by past school leaders, Memorial Day plantings and the pine plantations. These areas are shown in blue and grey in **Figure 18**.

A total of 72 species (42 native and 30 exotic) were recorded in the two completed plots from the subject land. Both sites showed heavy disturbance with high weed encroachment and lacking native shrub layers.

The two plantations on the site (Bruce Chick Pine Forest and Bruce Chick Rainforest) comprise a mix of Indigenous and non-Indigenous rainforest species, including several threatened species. The endangered species is the Davidson Plum of which there are nine (trees numbered 243, 317, 321, 322, 343, 362, 372, 377 and 381 in the Arborist report) present on the site. Declared weeds, such as Camphor laurels, Queen palms, Chinese rain trees, Leucaena and Broad-leaf privets are also found on the site. The most common species on the site are Alexander pines and Hoop pines, due to the pine plantation, located along the site's south-western boundary.

Refer to **Figure 19** to **Figure 21** for images of typical vegetation on the site.

Figure 19 Typical vegetation within Murwillumbah High School.
Source: Architectus

Figure 20 Typical vegetation within Murwillumbah High School.
Source: Architectus

Figure 21 Typical vegetation within Murwillumbah High School.
Source: Architectus

Biodiversity

A Biodiversity Development Assessment Report (BDAR) has also been prepared by EMM at **Appendix O**.

In undertaking this biodiversity assessment. a total of eight (8) threatened flora species were detected on the subject land, including:

– Davidson's Plum (*Davidsonia jerseyana*);
– Smooth Davidson's Plum *(Davidsonia johnsonii*);
– Small-leaved Tamarind (*Diploglottis campbellii*);
– Fine-leaved Tuckeroo (*Lepiderema pulchella*);
– Queensland Nut (*Macadamia integrifolia*);
– Onion Cedar (*Owenia cepiodora*);
– Scrub Turpentine *(Rhodamnia rubescens*); and
– Coolamon *(Syzygium moorei*).

Further, a total of five (5) threatened fauna species were detected on the subject land, including four (4) bat species and one (1) flying fox species as follows:

– Little Bent-winged Bat *(Miniopterus australis);*
– Large Bent-winged Bat *(Miniopterus orianae oceanensis);*
– Grey-headed Flying-fox *(Pteropus poliocephalus);*
– Northern Free-tailed Bat *(Ozimops lumsdenae);* and
– Greater Broad-nosed Bat *(Scoteanax rueppellii).*

In addition to the above identified species, although not identified, one further species (Koalas, *Phascolarctos cinereus*), was considered to have a moderate likelihood of occurrence following the desktop assessment and has also been considered in the BDAR.

The findings of the BDAR have been considered in the design of the proposed development to mitigate potential impacts to flora and fauna across the site, including those threatened species listed above. The ecological impact of the proposed development is detailed in the BDAR prepared by EMM at **Appendix O** and is discussed further in **Section 6** of this EIS.

2.9 Flooding

The Section 10.7(2) & (5) Planning Certificates issued for Lots 5 and 6 in DP 820602 and Lot 2 in DP 578679) dated 13 January 2022, identifies that the lots are flood control lots. Therefore, the proposal includes design solutions to mitigate flood risk.

Notwithstanding, areas of the site which accommodate school buildings are located on higher ground, above the 0.2% (1 in 500 year) flood probability (AEP) level.

The lower sports pitches to the southeast, and eastern basketball area adjacent to Nullum Street are inundated by more than 2m deep in a 1 in 500-year flood. The depth of flooding at Nullum Street is approximately 0.3m, 0.6m and 1.0m in the 20%, 5% and 1% AEP. The existing school main entrance off Riverview Street remains flood free for all storm events up to the 0.2% AEP. Flood mapping is provided in the Flood Impact Assessment (**Appendix T**). All new buildings are set above the 0.2% AEP, and hence the proposal meets the requirements of Tweed Shire Council Flood Planning Levels.

As noted in the Flood Impact Assessment (**Appendix T**), the Murwillumbah High School site was affected by flooding with respect to the operation of Nullum Street and the Bus interchange. Refer **Figure 23** which shows flooding along the Nullum Street frontage of the site. Nullum Street is situated at RL 3.90. Refer **Appendix T** for further detail on how the 2022 flood events affected the MEC site and Murwillumbah east primary school.

The flood level was about 5.0m RL based on the site photos provided and comparing to existing survey. The floods exceeded the 1% AEP flood levels but did not exceed the 0.2% AEP flood levels calculated by Council's flood model.

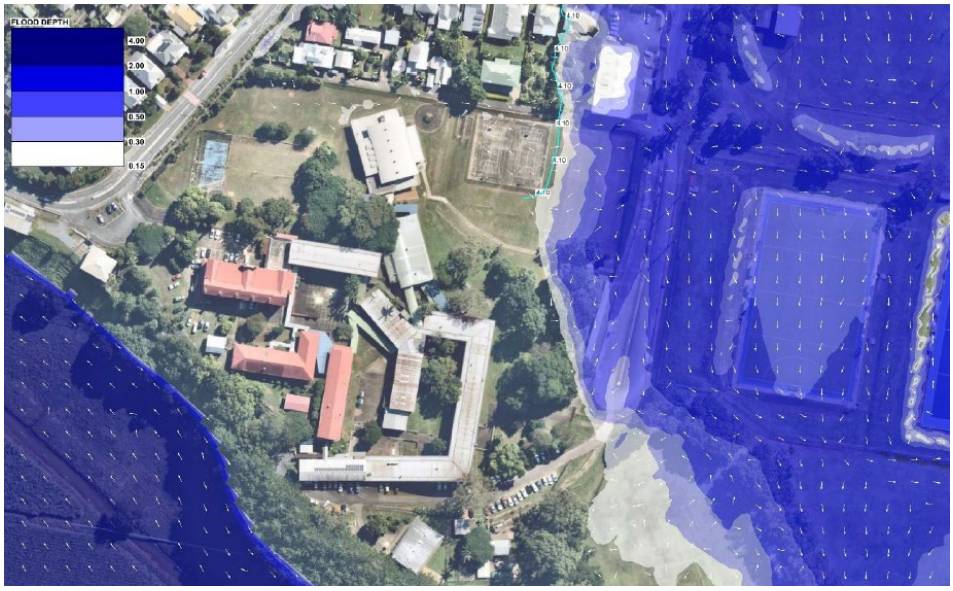


Figure 22 1 in 100-year flood affectation, including expected flood water depths.
Source: TTW

Figure 23 The eastern edge of the Murwillumbah High School site, at a point significantly below existing buildings, shows Nullum Street under water.
Source: TTW

2.10 Bushfire

All three lots comprising the site are bush fire prone land, although only part of each lot is affected by Vegetation Buffer and Vegetation Category 1 encumbrances on Council's Bush Fire Prone Land Map. The mapped or designated bushfire prone vegetation is located generally to the south-western boundary of the site, away from key school buildings.

Section 4.41(1)(f) of the EP&A Act provides that a bushfire safety authority is not required for SSD. Notwithstanding, consultation regarding the proposed development has been undertaken with the NSW Rural Fire Service (RFS) as detailed within **Section 5** of this EIS.

2.11 Utility Services

The site is connected to all necessary utility services including water, gas, electricity, communication and sewerage.

2.12 Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment has been undertaken EMM at **Appendix K** to determine whether any objects of aboriginal heritage significance were known to be present on the site and to determine the likelihood of archaeological finds.

Based on regional ethnographic information, environmental factors and regional archaeological site patterning, it is highly likely that the study area was occupied and used by local Bundjalung people. With regards to the material culture that is likely to be preserved on site, regional and local site patterning suggests this is likely to be made up of occupation deposits containing stone artefacts and hearths evident of either transient use of the landscape or use of the area as a more permanent camping location. However, the site has been subjected to high levels of disturbance through historical construction of the school buildings, football ovals, agricultural sheds and paddocks. Refer to a further discussion of Aboriginal Heritage at **Section 5** of this EIS.

2.13 European Heritage

Heritage Context

Lot 6 DP 820602 within the site is identified as a local heritage item under the TLEP 2014 (Item Ref. 49), noting this heritage listing relates to the existing Block A building only (located within Lot 6 DP 820602). This listing is specific to Block A and curtilage. Block A is also included on the DoE Section 170 Heritage Register. This building is proposed to be retained as part of this application. The site is not located in a Conservation Area.

There are no other heritage items within proximity to the site, however the surrounding residential area to the north is partly within the Hartigan Hill Heritage Conservation Area (HCA) under the TLEP 2014 (hatched area in **Figure 23**).

The Hartigan's Hill HCA is characterised by low density detached dwellings with examples of quality Victorian, Federation and Interwar architecture. The HCA is historically significant for demonstrating the development of the town of Murwillumbah from the late 19th century to the early twentieth century. Murwillumbah has its roots in the timber and dairy industries and the establishment of the early settlement of Murwillumbah is reflected in the built form and characteristics evident in the houses on Hartigan's Hill many of which incorporate timber. It is also notable for being a high ridge in the Murwillumbah township and the outstanding views provided from its elevated position.

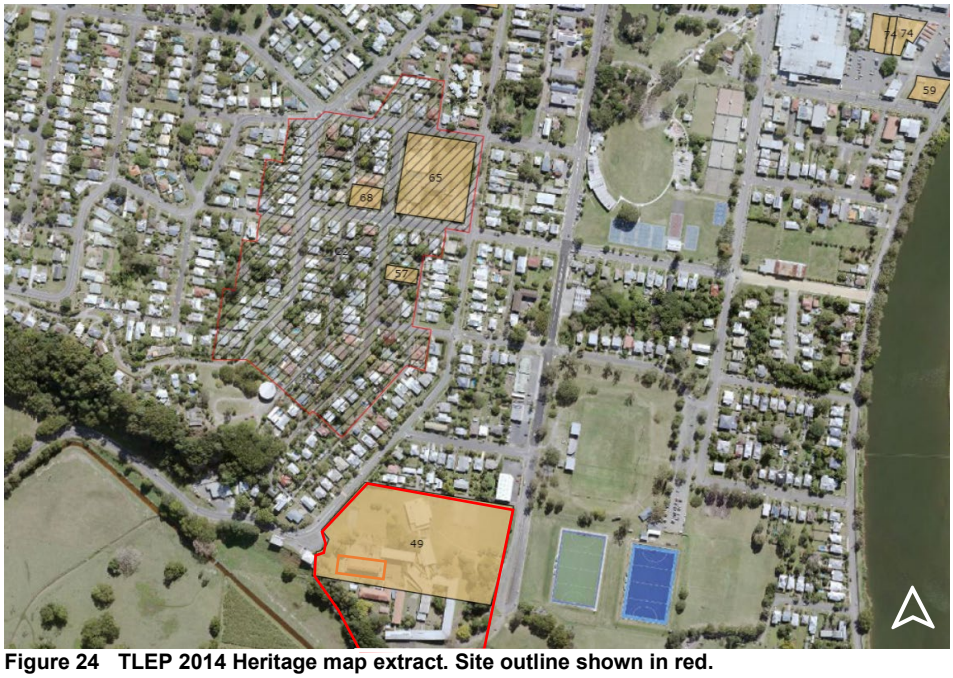


Figure 24 TLEP 2014 Heritage map extract. Site outline shown in red.
Source: NSW Department of Planning, Industry and Environment

Existing Heritage Item (Building A)

The existing heritage item on the site, Building A, is a Georgian Revival Interwar style brick building constructed in 1929 and standing at 14m (3-storeys). When the school was first opened, Block A was the only building on the site.

Elements of the building have been modified over time, including interiors to meet modern educational needs, however these modifications do not materially affect the heritage significance of the building. This building is in good condition and is to be retained as part of the proposed development.

The building sits at a higher elevation to its surroundings and is framed by open paved areas to the front and rear (used for parking) and a retaining wall with stairs to a large

open playground introduced to the north of the main building at a lower elevation for recreational purposes shortly after the construction of the Block A building.

Figure 25 Block A north elevation
Source: Architectus

Figure 26 Block A west elevation
Source: Architectus

Figure 27 Block A interiors
Source: Architectus

Figure 28 Block A interiors
Source: Architectus

3. Proposed Development

3.1 Overview

The proposal seeks the construction of the new MEC, involving the redevelopment of the existing Murwillumbah High School and the co-location of four (4) existing schools including Murwillumbah Primary School, Murwillumbah East Primary School, Murwillumbah High School, and Wollumbin High School to establish a single new education campus on the site of the current Murwillumbah High School. The MEC will include a primary school, a high school, administrative offices and school community health facilities, co-located together in an integrated, purpose-designed and built campus.

The development of the campus is required to allow for higher quality educational facilities to serve local students. The proposal will include community health facilities to support the wellbeing of students.

The proposed development comprises:

- Demolition of inground building slabs, pathways and footings, of buildings B, C, D, G, H, M, P, S, AW and AZ (following the demolition of these buildings under a separate planning pathway);
- Demolition of existing Building E;
- Construction of four (4) new educational buildings and facilities that will reflect best practice and innovative education design principles; and
- Retention and refurbishment of Building A (a local heritage item) and Building F.

With a proposed new capacity of 582 primary school children and 1,140 high school students, the MEC is proposed to result in an overall capacity of 1,722 students.

The proposed number of places is higher than the combined 2020 enrolment figures and lower than the combined capacity of the four existing schools.

The new capacity of 582 students for primary school is a decrease on the current primary schools' capacity of 648. The new capacity of 1,140 secondary school students is a decrease on the current secondary schools' capacity of 1,860.

The current schools do not operate at capacity and therefore the core driver of the project is not to create additional student capacity, but rather to provide higher quality learning facilities for students. Notwithstanding, the new school will be able to accommodate projected growth to at least 2036.

3.2 Project Description

The application seeks development consent for the creation of a new primary school and new high school, together with the following development:

- Demolition of Building E;
- Demolition of inground building slabs, pathways and footings, including those to buildings B, C, D, G, H, M, P, S, AW and AZ;
- Construction of new Buildings 1, 2, 3 and 4;
- Refurbishment of Building A for DoE administrative offices and school community health facilities;
- Refurbishment of Building F to provide learning space for agricultural education;
- Retention of existing Building AY;

- Creation of outdoor learning spaces, new landscaping and embellishment of outdoor playgrounds;
- Civil and infrastructure works; and
- New vehicular access, kiss and drop and at-grade car park off Nullum Street.

Note: the demolition of buildings B, C, D, G, H, M, P, S, AW and AZ above slab level will be under a separate planning pathway (refer **Figure 31**).

Refer to the Proposed Site Plan and images of the proposed development at **Figure 29** and **Figure 29**.

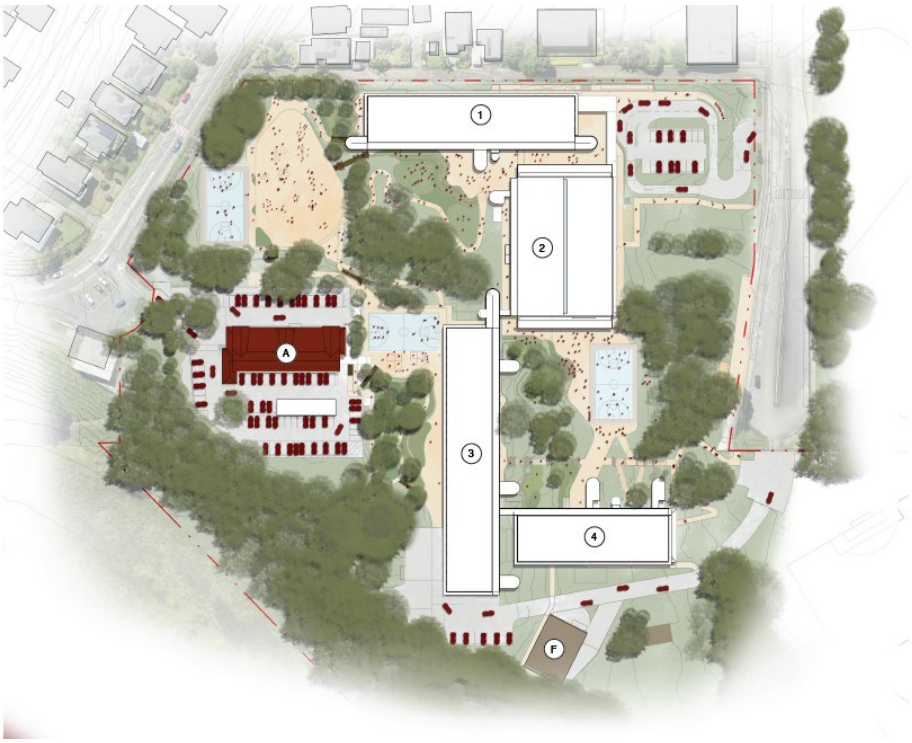


Figure 29 Proposed site plan.
Source: Architectus

Figure 30 North elevation of Building 4 viewed from the assembly area.
Source: Architectus

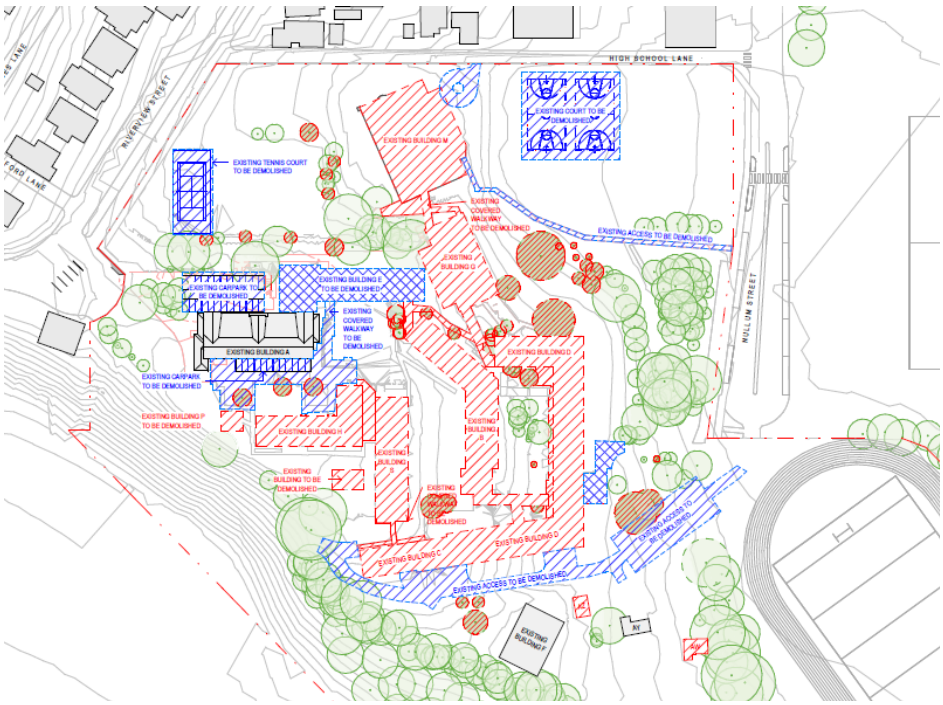


Figure 31 Demolition Plan.
Source: Architectus
Key:
– demolition of buildings and slab under this SSDA
– demolition of slab only under this SSDA, demolition of building structures under a separate planning pathway.

3.3 Design Aspirations

The Architectural Design Report at **Appendix H**, prepared by Architectus identifies the following design aspirations have informed the design:

- ***A collective culture***. Every student is known, valued and cared for. Collegial learning communities are enabled to build shared understanding and application of pedagogy K-12. Learning is visible and celebrated, contributing to a culture of high expectations.
- ***Innovative education with a focus on deep learning***. Curriculum based on skills and learning dispositions. Technology rich learning environments. Student-driven learning to maximise engagement and meet individual learning needs. Activity-based learning with ability for sustained projects.
- ***Community as an integral motivation***. Strong sense of renewed identity, whilst respecting the heritage and history of each school. Support for health and wellbeing of students and the school community.
- ***Campus as a place and space***. Opportunities for joint and shared use of school facilities between secondary, primary and the community. Collaborative culture across all staff.

3.4 Numerical Overview

Key numerical information is set out in **Table 8** and **Table 9** below.

Table 8 below provides a comparison between the existing site, and what is proposed to determine how the built form and facilities on the site will change.

Table 9 compares the pooled educational facilities between the four existing schools and the proposed MEC, to determine what the overall change in services to students in the area will be.

Table 8 Built form and site – Numerical overview.

Component	Existing	Proposed
Site area	11.7 hectares	11.7 hectares
Maximum building height (metres)	14.65 (Block A)	16.03 (Building 4)
Maximum building height (RL)	RL33.33 (Block A – being retained)	RL27.63 (Building 3 – tallest new building)
Gross floor area (GFA)	Current GFA is 12,653m2	Proposed GFA is 17,658.4m^2
Floor Space Ratio (FSR)	0.108:1	0.15:1 *Maximum permitted FSR is 0.8:1.*
Car parking spaces	64*	161 including: – 98 accessed via Riverview St – 18 at the primary school drop off – 33 Nullum St south entrance – 12 in the Building 4 back of house.
Accessible parking	4	4
Student bike parking	N/A	148 (storage racks)
Student scooter parking	N/A	Can use bicycle storage racks also.
Staff bike parking	N/A	13
End of trip facilities	N/A	Located in Building 3
Trees	439	489
Urban tree canopy cover	33.27%	31.92%
Play space (total)	36,785m^2	34,780 m^2
Construction hours	N/A	7am - 6pm M - F 8am -1pm Saturdays No work on Sundays and public holidays.
Construction jobs	N/A	680
** This was the number of cars accommodated on the site on the observed day. Formal marked spaces are 18.*		

Table 9 Educational facilities – Numerical overview

Component	**Existing** ***(across the four schools)***	**Proposed** ***(Murwillumbah Education Campus)***
Primary School Learning Spaces	21	24
High School Learning Spaces	41	47
Student Support Unit Learning Spaces (each space accommodates up to 10 students)	8 total: – 2 learning spaces within the MEPS Support Unit – 6 learning spaces within the MHS Support Unit Current enrollment is 48 students.	9 total: – 3 learning spaces within the MEC Primary School Support Unit – 6 learning spaces within the MEC High School Support Unit
Staff (Full Time Equivalent)	150	150*

**inclusive of school support staff who will operate the school community health facilities.*

3.5 Demolition

The demolition of existing Building E is proposed. Building E is not listed as a heritage item, however it is physically connected to the heritage listed Block A and is within the same lot as the Building A.

Building E is considered intrusive to heritage fabric of Block A, due to the fact that a support beam that largely relates to Building E is also tied into Building A.

It should be noted Buildings B, C, D, G, H, M, P, S, SS2, AZ and AW are proposed to be demolished to slab level under a separate planning approval pathway, and only the remaining concrete slabs are proposed for removal as part of the SSDA. Refer to demolition plan at **Figure 31** which delineates demolition under this SSDA and demolition occurring under the separate planning pathway.

3.6 Retention and Refurbishment of Existing Buildings

Buildings A, F and AY are being retained.

Building F

Building F is currently and will continue to be used for Primary Industry Studies courses. The learning spaces in this building will be refurbished.

Building A (Block A)

Building A is a locally listed heritage item and will be retained. It is proposed to accommodate DoE administrative office space and school community health facilities. Refurbishment is required to accommodate these uses within Building A.

The relocation of DoE offices to the MEC site and the use of the building for community health facilities allows for the ongoing use of a heritage building with only minor internal alterations being required. The internal spaces of the building are otherwise difficult to retrofit as modern and flexible learning spaces. Notwithstanding, retention of Building A is considered essential for the MEC project.

School Community Health Facilities

The proposed school community health facilities comprise a series of flexible spaces, located in the middle level (Level 1) of Building A.

Minor internal refurbishment works to this part of the building are required to accommodate this use. The spaces are anticipated to be used for meetings, workshops, classes, etc to support the general health and wellbeing of members of the campus community.

The health facilities are to support DoE's wellbeing framework and will therefore be under the management of DoE, it is not intended that these facilities are used to supplement the local area health service.

The management of the health facilities will be the responsibility of the Student Administration and Support Staff (SASS) and as such, will not require dedicated staff.

The facilities would be for use by the school community (students, teachers and parents) and will operate to the same hours as the campus. The intent is to improve the wellbeing of students.

Department of Education Office

Building A has been identified as suitable for the relocation of the regional Murwillumbah DoE office. Building A has a local heritage listing and only minor internal alterations are required to facilitate its use as office accommodation. The top level of Building A (Level 2) will be fitted out and used as DoE office space.

Building AY

This shed will be retained on site and is unaffected by this application.

3.7 Construction of New Buildings

Following demolition of Building E and the clearance of the building slabs for Buildings B, C, D, G, H, M, P, S, SS2, AZ and AW, four (4) new buildings are proposed to be constructed at the site.

There are distinct areas for the Primary School and High School which each have their own facilities (canteen, library etc), parking and entrances.

The Primary School facilities occupy all of Building 1, and part of Building 2. Building 2 is located towards the centre of the masterplan and will be used by both the Primary School and High School occupying separate but adjoining parts of the building. Buildings 3 and 4 will be used by the High School only.

The Primary School

Building 1 is a three-storey building located to the north of the site near the boundary with High School Lane.

The main entrance to the primary school is located off High School Lane, near to the Kiss and Drop.

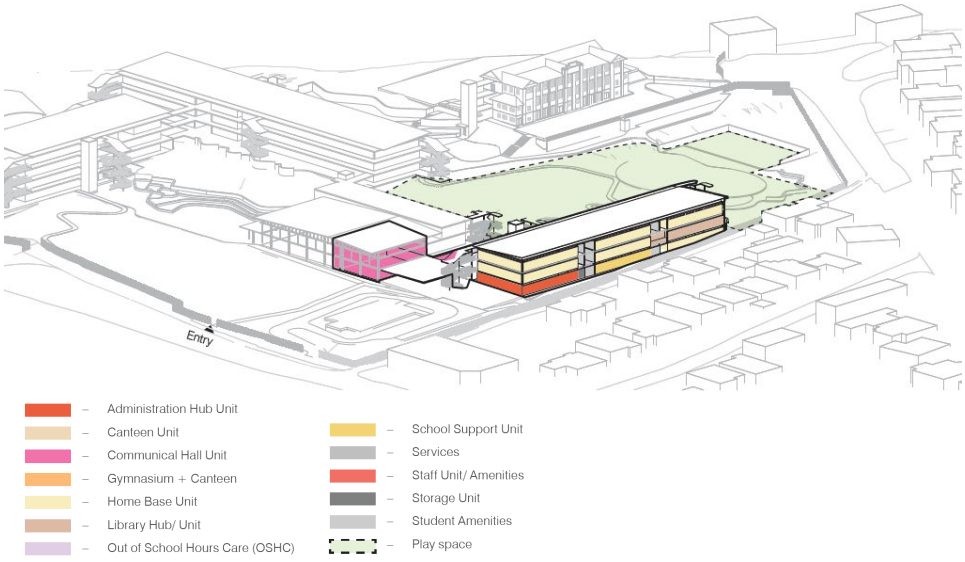


Figure 32 Proposed primary school
Source: Architectus

The High School

The High School will predominantly operate out of proposed Buildings 3 and 4.

Buildings 3 and 4 are two separate buildings oriented in an L form and linked by a covered walkway. The buildings are oriented to the south and west of the main assembly area for the high school, framing this open space and overshadowing the assembly area only for a short period (in the afternoons). The main entrance for the High School is located further south on Nullum Street from the Primary School entrance.

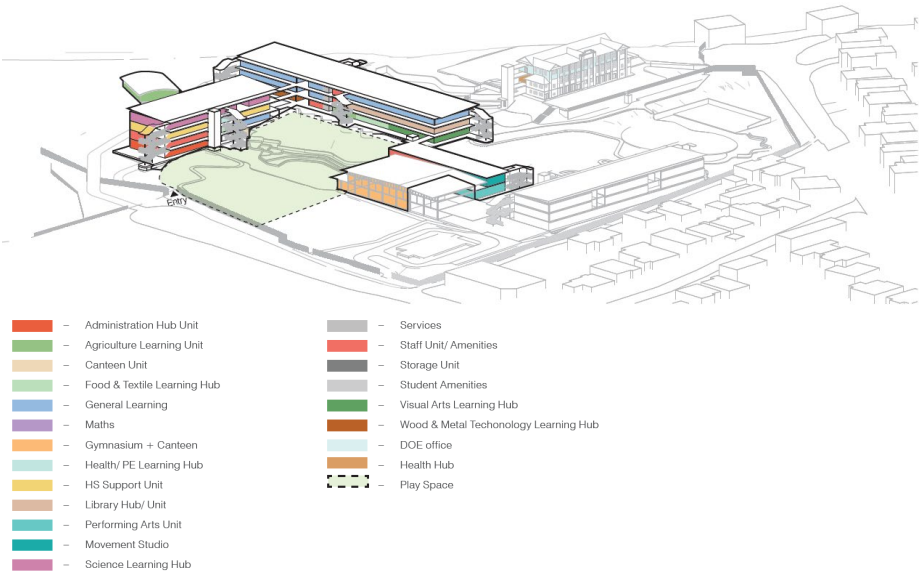


Figure 33 Proposed high school layout
Source: Architectus

Figure 34 Proposed north elevation of Building 4
Source: Architectus

Interface Between Primary and High School

The campus is designed to have distinct areas for use by the Primary School and High School. Each of the primary school and high school have their own facilities (canteen, library etc), parking and entrances. This is so they can operate independently and has been done in response to community feedback stating this as the preference. As shown in **Figure 32** and **Figure 33** above, both the primary school and high school will use Building 2. The building has frontages to both the main assembly area for the primary school (north) and the main assembly for the high school (south).

A communal hall space and after school care will be accommodated on the north side of the building for use by the primary school, while space for sports and performing arts will be located on the south side of the building for use predominantly by the high school. On either side of the building are Outdoor Learning Commons (OLC).

The building creates a transition between the primary and high schools in use and in form. Building 2 lies on a steep portion of the site. The building sits on a high point of the site where it fronts the primary school. As a result, the effective height where it interfaces with the primary school is much lower than where the building fronts the high school (at a lower point of the site), where the building's overall height appears greater. In this way, Building 2 provides a built form transition between the lower scale buildings in the primary school (maximum three storeys) and the higher scale of buildings in the high school (maximum four storeys).

Figure 35 Circulation into/out of the primary school assembly area.
The northern portion of Building 2 (where the PS hall and canteen are located) appears low scale from this vantage.
Source: Architectus

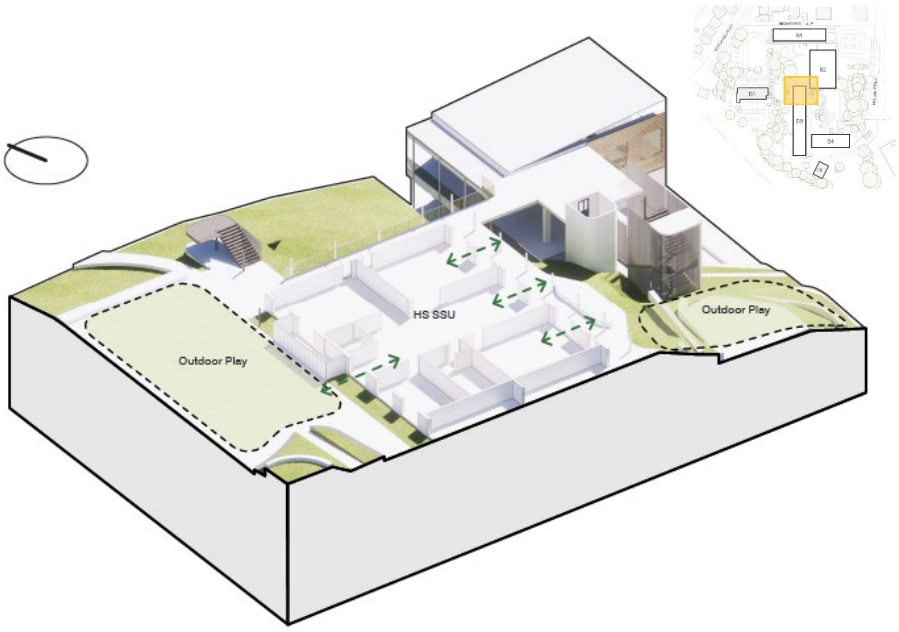


Figure 36 Circulation into Building 3.
The southwest corner of Building 2 appears larger in scale, when perceived from the high school outdoor areas.
Source: Architectus

3.8 Design Rationale

Flexible learning spaces

A key driver in the design was the desire to cater for different ways of learning to maximise engagement (*Innovative education with a focus on deep learning).*

Providing flexible learning space is considered best practice for new school projects. Making learning spaces flexible allows schools to accommodate different ways of learning, and in turn better meet the needs of students.

Learning Hubs accommodate up to 120 students and have been designed on evidence-based principles that reflect best practice to provide maximum flexibility and configurability. These learning environments facilitate the full range of current and emerging contemporary learning and teaching practices.

Central to the layout of these best practice hubs is the provision of the Learning Commons, which enable students and teachers to engage in activities such as project-based learning, cross-curricular units of work and collaborative learning and teaching across the entire Hub. They also provide learning spaces that enable choice and variety in learning environments for individual class activities, groups of students to work together, or individuals to work independently outside of the GLS while maintaining line of sight for teachers.

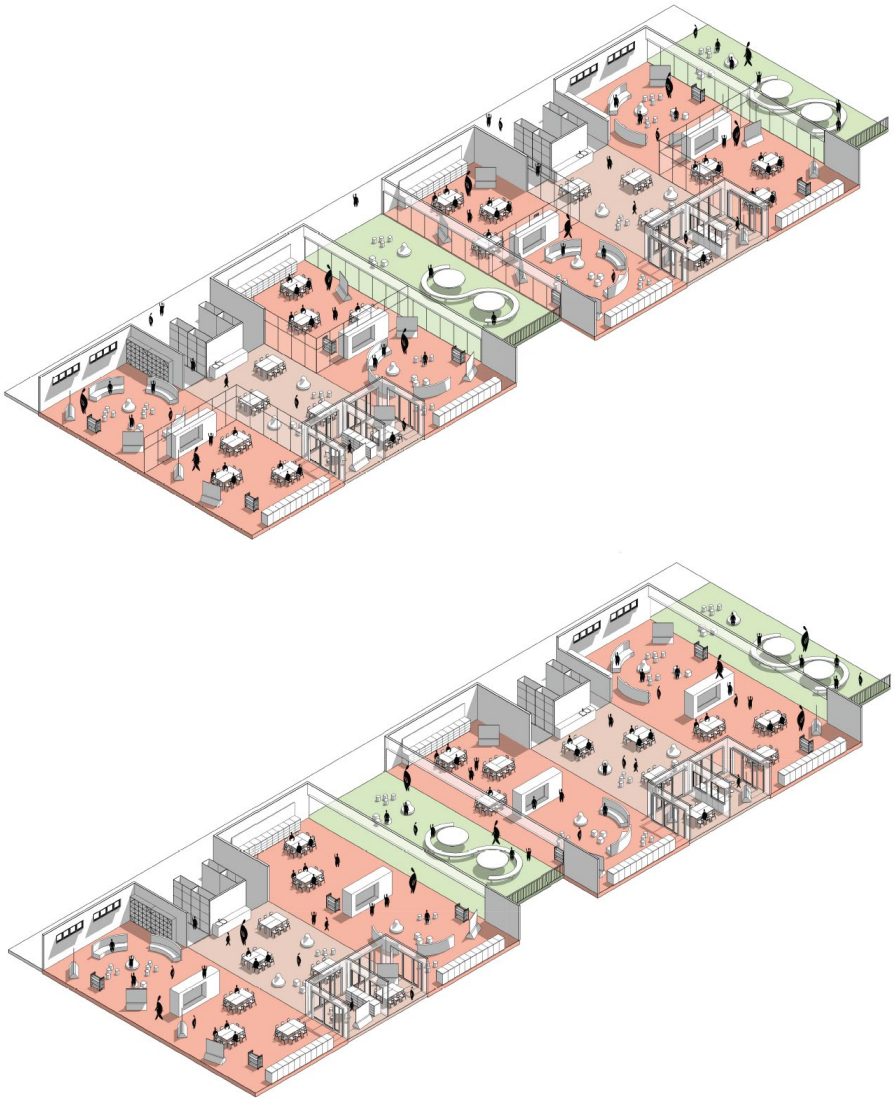


Figure 37 Adaptable floor plans for the new learning spaces.
Source: Architectus

Outdoor Learning Commons (OLC)

OLC are proposed as part of the new campus. OLC are located on building edges and commons are interspaced between indoor learning spaces and contribute to the flexible learning spaces model in providing fluid layouts for learning spaces.

Connecting with Country

A Connecting with Country strategy has been developed by EMM for the MEC site. An excerpt of the strategy has been included in the Architectural Design Report (**Appendix H**). It is anticipated that a range of features may be incorporated into the various built elements including architecture, landscape and signage forms contributing to the activation of space and Connecting with Country.

In relation to the landscape, a landscape strategy prepared by Arcadia for the project that shows potential landscape elements that could be included as part of the Connecting with Country response. The strategy notes a location for a cultural garden, yarning circles, areas for cultural planting and lookouts. The applicant, in partnership with EMM, will continue consultation with Aboriginal stakeholders to determine the precise location and plantings for the cultural garden as well as what other elements will be included in the final strategy. Therefore, the current landscape strategy is currently only conceptual and the intent is for finalized landscape plans to be conditioned and submitted prior to commencement of works on the site.

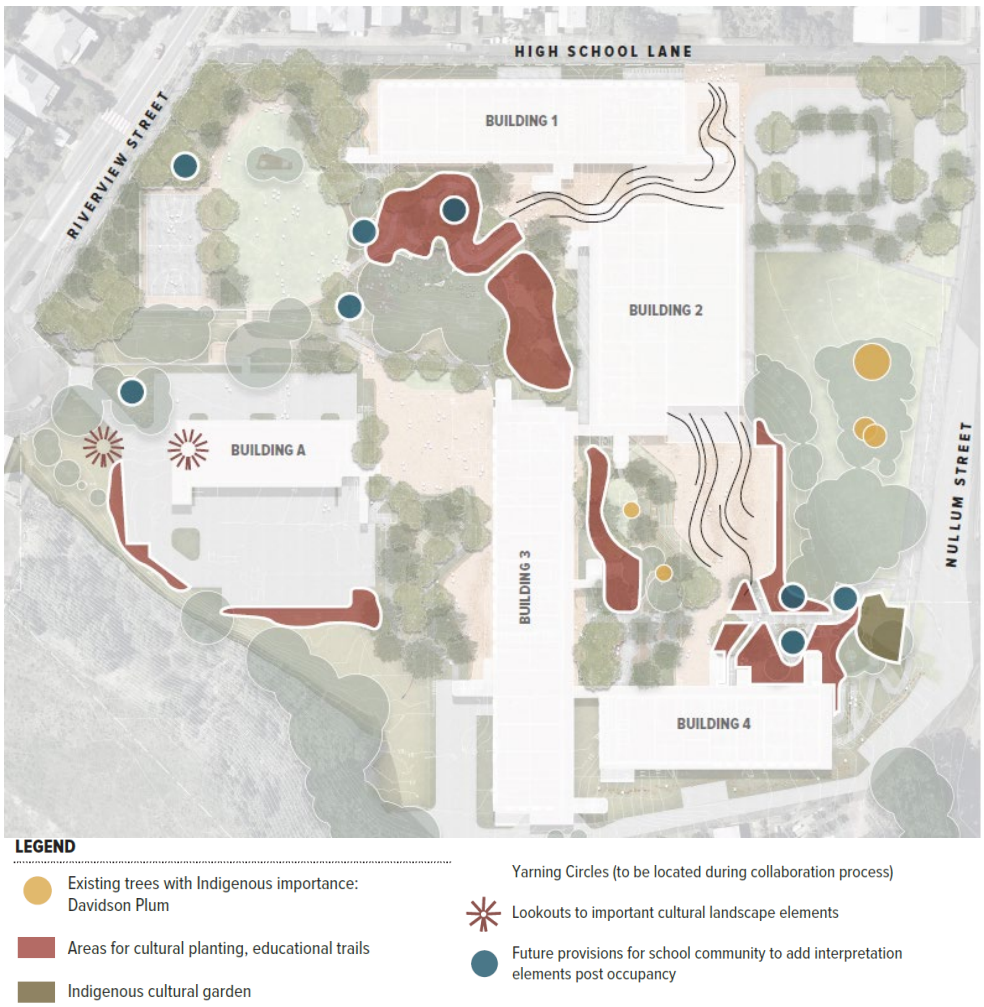


Figure 38 Connecting with Country – Conceptual landscape strategy
Source: Arcadia

Further to the above, the materiality of the buildings is inspired by the landscape and the indigenous stories shared during the consultation process. Shades of red and green feature prominently in the buildings to reflect the reds soils of the Cudgen Plateau and the greens of the fertile tropical landscape.

3.9 Building Height

The proposed maximum height of buildings for the site is new Building 4 at 16.03 metres (RL 26.0) however the highest point on the site will remain the top of existing Block A, which stands at 14.65 metres in height (RL33.33). In keeping with the surrounding land uses and the zoning of the school site (Zoned R2 – Low Density Residential), the maximum permissible height under the TLEP 2014 for the site is 9 metres. This height is exceeded by both the existing and proposed buildings.

The masterplan for the site envisaged a maximum height of three storeys for the primary school and a maximum height of four storeys for the High School. The proposed heights are based on this strategy, as well as advice from the heritage consultant in relation to heritage impacts to Block A.

The built form approach advised by the heritage consultant and provided for by this application is for proposed buildings that are an equal or lesser height than Block A (RL33.33). Building 4 is in fact higher than Block A in metres, however it is located on a lower lying portion of the site and so is perceptively lower in scale. The top of Building 4 sits 7.33 metres below the top of Block A and therefore will not detract from the visual significance of this heritage item.

Table 10 Overview of proposed building heights

Building	Maximum height	
	RL	In metres
Building 1 (primary school)	20.15	12.43
Building 2 (shared)	24.03	10.137
Building 3 (high school)	27.63	12.43
Building 4 (high school)	26.00	16.03
Block A (existing)	33.33	14.65
Building F (existing)	18.8	5.72

3.10 External Materials and Finishes

Refer to Architectural Design Report prepared by Architectus at **Appendix H** which includes details of the proposed materiality and façade treatments.

As noted previously the colour palette of the materials is inspired by the landscape and the indigenous stories shared during the consultation process.

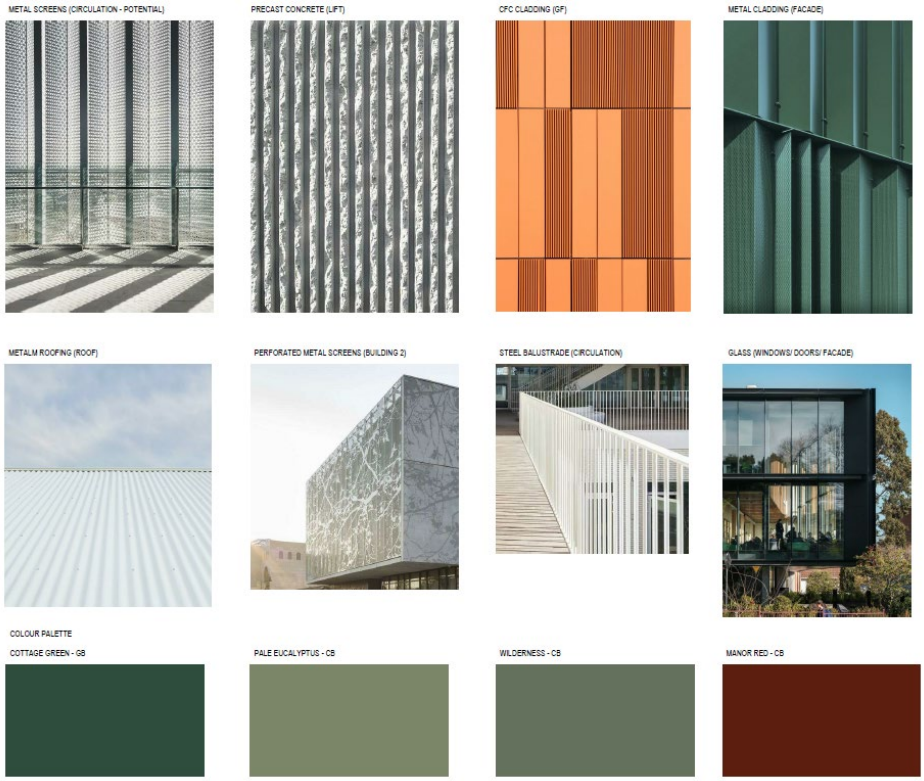


Figure 39 Materials and Finishes – Layers
Source: Architectus

3.11 Tree Removal, Tree Planting and Canopy Coverage

Tree Removal

A total of 130 trees are proposed to be removed to accommodate the proposed development, as identified in the Arboricultural Impact Assessment (AIA) prepared by Civica at **Appendix P.**

Table 11 below provides an overview of the existing trees that are proposed to be removed, retained and proposed additional. Trees are proposed to increase on site as a result of the proposed development by 50 trees (from 439 to 489). Of those trees that are proposed to be removed, the breakdown is as follows:

- 58 trees are required to be removed to reduce bushfire risk at the site;
- 54 trees conflict with the footprint of the proposed development including location of fill, retaining wall, basketball courts and the new four buildings;
- 13 trees conflict with site access; and
- 5 trees are to be removed due to them being in poor health.

Suitable compensatory planting is proposed and detailed in **Section 6.3**.

Table 11 Proposed tree removal, retention and additional trees

Tree Statistics	Numbers
Existing	439
Removed	130
Retained	309
Additional	180
Total trees	**489**

Davidson Plums

Further to the above, there are six (6) Davidson plum trees located on the site, an endangered tree species. Four of these (trees numbered 343, 362, 372 and 381) are required to be removed as they conflict with the footprint of the proposed buildings. The Biodiversity Development Assessment Report (BDAR) noted the removal of these trees was not significant from an impact perspective. Further discussion of tree removal and ecological impacts is provided at **Section 6**. Refer also to the BDAR prepared by EMM (**Appendix O**) and the AIA prepared by Civica (**Appendix K**).

Canopy Coverage

The total number of trees on the site is increasing, however the total tree canopy coverage is set to decrease on site because of the proposed tree removal, from 33.5% to 31.92%. An increase in trees on site does not translate in this instance to an increased canopy coverage because canopy sizes of different tree species vary greatly. Sixteen different trees species are proposed to be planted, the smallest species being Coastal Banksias with a diameter of 2 metres, and the largest species being Tallow Woods with a diameter of 20 metres. The trees being removed include over a dozen large camphor laurels with canopies of up to 15 metres diameter and dozens of hoop pines (ranging 4-8 metres in diameter) located within the pine plantations. As a result, while overall more trees are being planted than removed on the site, the canopy coverage falls (albeit marginally by 1.6%).

As noted above, nearly half the tree removal is to minimize bushfire threat. The reduction in Hoop Pine Plantation (fire risk) results in approximately 2,200 m^2 canopy loss. It is important to note the removal of these trees for bushfire reduction purposes would be required regardless of whether the school was redeveloped. If the tree removal for bushfire management was excluded, tree canopy coverage on site would be increasing by 300m^2.

The Draft Greener Places Design Guide (GANSW, 2017) sets a tree canopy target of 40% in the Greater Sydney region by 2040. It does not however specify a canopy target for regional NSW but is a policy document specified under the project SEARs for consideration for the application. However, *A Guide to Cool Towns: Tweed Shire Urban Forest Program* (Tweed Shire Council, 2020) has a similar ambition for the Tweed area, to increase the average total canopy cover in urban areas from 26.8% to 35% by 2030 and then to 40% by 2040. The tree removal represents a modest decrease in the site canopy coverage, from 33.5% to 31.92%. However, given that discounting removal for bushfire management the canopy would be increasing, and the number of trees to be planted is greater than those to be removed, the proposed tree planting is considered reasonable.

Table 12 Tree canopy coverage

Tree Canopy cover	Area (ha)	Area (sqm)	%
Site Area	11.7	117,000	NA
Existing	3.92	39,200	33.5%
Removed	0.732	7,325	6.26%
Proposed New	0.55	5,453	4.66%
Total	9.23	37,342	31.92%

3.12 Landscaping and Open Space

Arcadia have prepared Landscape Plans and a Landscape Design Report, at **Appendix I** and **Appendix J** respectively.

Vision

The vision for the site landscape strategy is based on eight principles:

1. Improve access and circulation;
2. Manage wellbeing;
3. Create a sense of place;
4. Respond to the built form;
5. Facilitate social interaction and engagement;
6. Create flexible spaces;
7. Inspire new ways of learning; and
8. Connection to Country.

Landscape Components

The key landscape components including shared components:

- Main school entrance on Nullum Street (north);
- Main primary school entrance on High School Lane;
- Main high school entrance on Nullum Street (south);
- Pick up / drop off zones on Nullum Street;
- Interpretive Nature / Play; and
- Upper Quadrangle, which is a flexible space that can be used for large gatherings and includes an integrated handball court and lawn area. There is an accessible walkway linking Building 1 (primary school) to the Upper Quadrangle.

Within the Primary School, spaces for active play, rest and coming together including:

- Primary School Assembly + OLC;
- Multi- purpose courts;
- Outdoor classrooms; and
- Terrace seating.

Within the High School, spaces for rest and coming together including:

- Outdoor classroom areas;
- Passive turf space;
- Paved breakout space;
- High school 'social terraces; and
- Assembly area, adjoined by turfed amphitheatre steps.

To the south of the proposed buildings are the existing ovals which would be used by the High School for sports and active play. These are not being developed/modified and therefore are not covered by the landscape strategy.

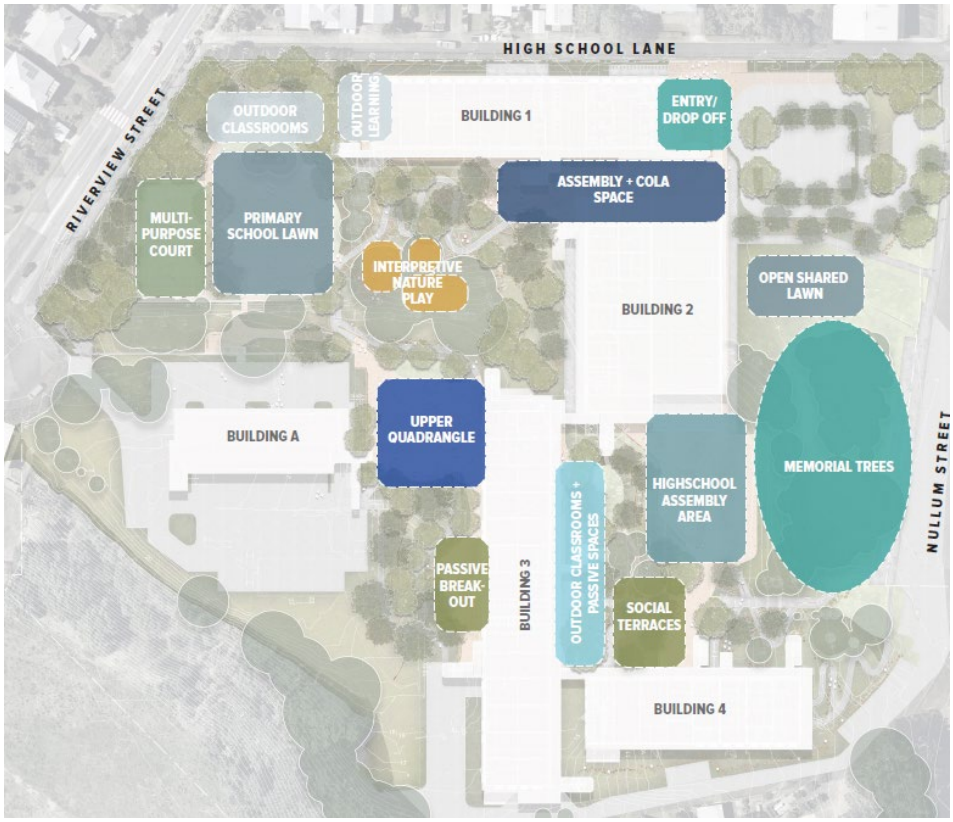


Figure 40 Proposed landscaped spaces.
Source: Arcadia

The main pedestrian entry to the school will be via Nullum Street (denoted 'S' in **Figure 41**). The entry to the high school is further south on Nullum Street (denoted 'H'), and the main entry to the Primary School (denoted 'P') is in High School Lane.

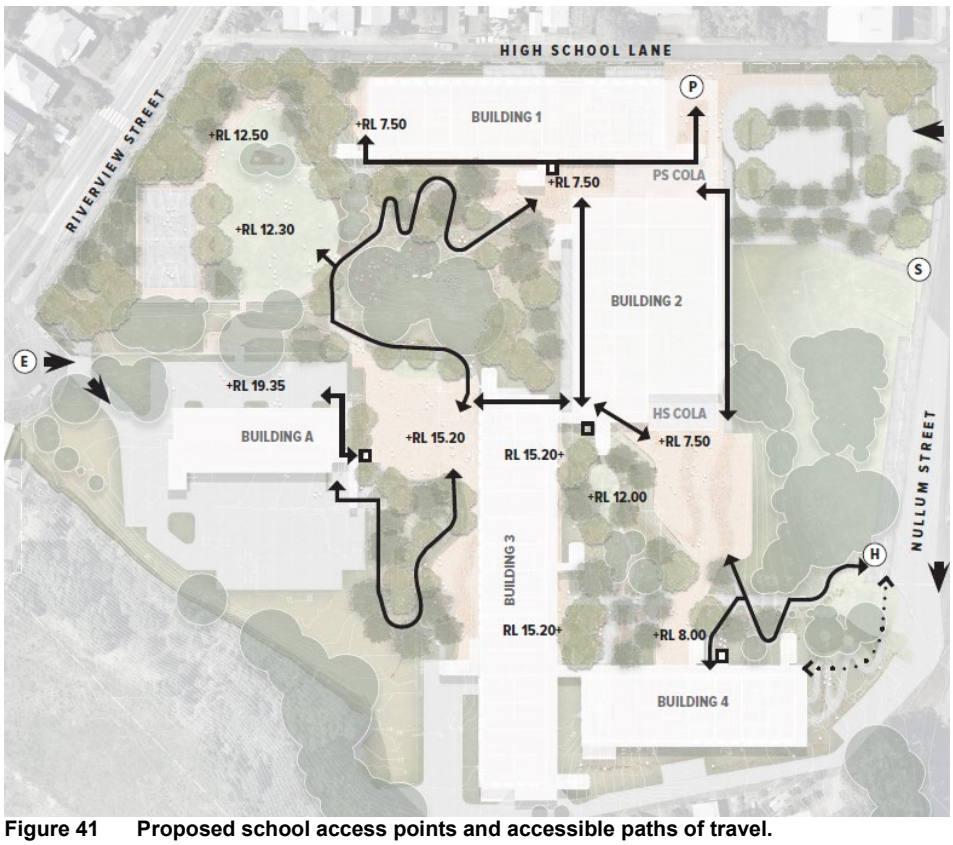


Figure 41 Proposed school access points and accessible paths of travel.
Source: Arcadia

Figure 42 Section of the interpretive nature play area within the primary school.
Source: Arcadia

Play Space

Having adequate play space and open space at school is beneficial to students, the environment, and local community. Recognizing the importance of play space, DoE Educational Facilities Standards and Guidelines (EFSG) provide that a minimum of 10m^2 onsite play space per student is required at a new school.

The site is quite large and is therefore able to provide a good level of play space and open space per child and exceed the recommended provision under the EFSG. The proposed play areas are summarised in **Table 13**.

Table 13 Proposed play space

Play Space	**Proposed**
Primary School	
Outdoor play area total	10,158 m²
Outdoor play area per child	17.45m^2
High School	
Outdoor play area total	26,600 m^2

Play Space	Proposed
Outdoor play area per child	23.33m^2
Average play area per child	**21.34m^2**

3.13 Signage

Community Notification Signs

Approval for community notification signage is sought as part of this application.

Two digital signs are proposed including:

- A community notification sign located on the corner of High School Lane and Nullum Street; and
- A community notification sign located on Riverview Street.

The proposed signage is shown in the Architectural plans (**Appendix J**), refer drawing *SSDA0014 ELECTRONIC SIGNS*.

Table 14 Proposed signage characteristics

Characteristic	Proposed
Dimensions (height)	4000mm (including signage mount / base and display)
Dimensions (width)	4000mm (including signage mount / base and display)
Format	Digital sign – The sign will use digital technology to display bright, high quality electronic images. Luminance will be controlled and adjusted automatically.
Display	Variable message sign (VMS) – the sign will display static images only, which are presented successively at set intervals (dwell time). Display area (LED panel) 3000 x 3000 mm
Hours of operation	Dynamic (moving) display: Monday - Friday 7:00 am – 8:00 am; 9:30 am - 2:30 pm; and 4:00 pm - 7:00 pm Saturday - Sunday 7:00 am – 7:00pm Static display: 8:00 am – 9:30am; 2:30pm - 4:00pm Monday-Friday (School Zone Hours)
Nature of messaging	Notification of community events

The hours of operation of the sign would be limited to between 7am-7pm seven days per week to minimise disruption and light spillage impacts for residents of adjoining properties. The signage zone has been assessed against *State Environmental Planning Policy (Industry and Employment) 2021* (Industry and Employment SEPP) in **Appendix C**.

The community notification signage zone is consistent with the relevant objectives and assessment criteria of the Industry and Employment SEPP. Community notification signs are standard at the main entrance of a school and in this instance the environmental impacts are assessed as minimal.

The proposed display dwell times, transition times and luminance will be enabled to be controlled and changed electronically. The signage will also be made available for emergency messaging as required.

The proposed signage has been assessed against the relevant provisions in Chapter 3 Advertising and Signage of the Industry and Employment SEPP in **Appendix C**.

Wayfinding Signage

Signage types include entry pylons at the entrances to the Primary School and High School, block signage, directional plinths and bollards, artistic graphics as well as signage zones within buildings and at building entrances on door and walls. Refer to **Appendix H** for the Architectural Design Report which incorporates a Wayfinding Strategy.

The strategy is based on an analysis of the site to determine key destinations, entrances, nodes and circulation points. The strategy is indicative and will be finalised prior to commencement of works.

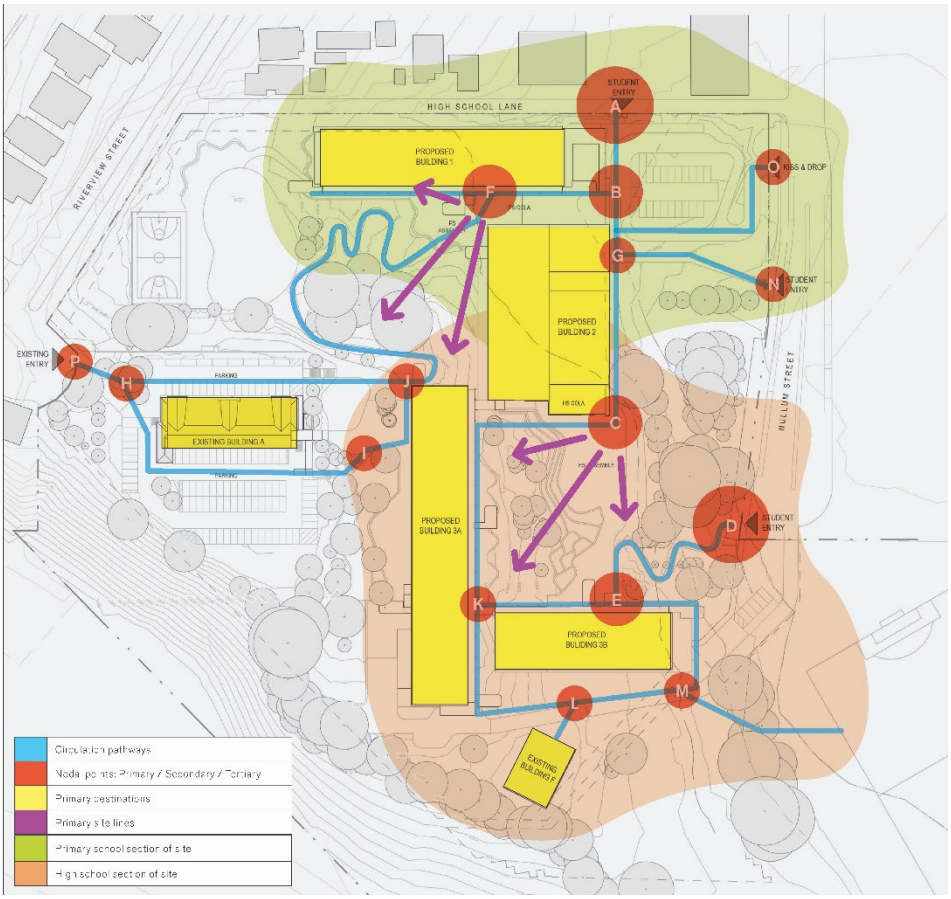


Figure 43 Wayfinding strategy.
Source: Architectus

Building Identification Signage

Approval is not sought for any signage for the purposes of building identification.

3.14 Car Parking, Vehicular and Pedestrian Access

The existing staff car park (with 18 marked spaces) is located in the north-western corner of the site. Staff currently park on the site both within the car park and within an informal parking area, located off Nullum Street. On an observed day, 35 vehicles were parked in the informal/unmarked parking area. On a typical school day, all vehicles can be accomodated on site either in the informal or formal parking area.

This existing (formal) car park is to be demolished and reconstructed and across the school site a total of 161 spaces will be provided for use by school and DoE staff. No parking is provided on-site for students. This is detailed further in **Section 6** of this report

and in the Traffic Impact Assessment at **Appendix X**. The existing school vehicular access points, via Riverview and Nullum Streets are to be maintained.

Existing pedestrian entry to the school can be obtained from Riverview Street, Nullum Street and High School Lane. Access from these locations is to be maintained, however operationally, the Riverview Street access is to be dedicated to staff, whilst students will be encouraged to use access points along High School Lane and Nullum Street.

3.15 Lighting

The external lighting and lighting control strategy, appended at **Appendix AE**, outlines that the external lighting proposed complies with the requirements of the National Construction Code of Australia, including AS 4282, AS/NZS 1680.23 and AS2293.1.

The proposal's external lighting is to be designed, but not limited to:

- Emergency lighting and illuminated existing signage;
- External lighting and lighting control; and
- Obtrusive lighting control.

All external lighting will use LED technology.

3.16 Hours of Operation

The current hours of operation of the four schools are from 8am to 3:30pm (first to last class of the day), Monday to Friday. These hours are not proposed to change.

Additionally, the campus will accommodate Out of Hours School Care from 6.30am to 9.15am in the morning; and 2.15pm to 6pm in the afternoon Monday to Friday.

Approval for any activities on the campus beyond this, for example for community use of the campus facilities, will be sought under a separate planning approval and are not sought as part of this application.

3.17 Employment

The proposed development will generate 651 Full Time Equivalent (FTE) jobs during construction phase.

No jobs will be generated during operation in the short-term and 2 additional operational jobs will be created in the medium to long term. There are currently 148 permanent jobs between the four schools. All of these jobs are transferred and retained to 2025. At such a time as the MEC reaches enrolment capacity, 150 staff will be required to operate the school. This is inclusive of the community health facilities use which will be operated by school support staff.

No operational jobs are generated by the proposed DoE offices, given the 25 staff are being transferred from the existing Murwillumbah DoE office.

3.18 Construction Hours and Duration

<u>Construction Hours</u>

The Preliminary Construction Management Plan (CMP) at **Appendix AK**, provides for the following standard construction hours:

- Between 7am and 6pm, Monday to Fridays inclusive;
- Between 8am and 1pm, Saturdays; and
- No work on Sundays and public holidays

Refer to the Acoustic and Vibration Impact Assessment at **Section 6** below or **Appendix AA**.

Construction Duration and Staging

Demolition of most buildings on the site is occurring under a separate planning pathway (refer **Section 3.19** below). This demolition will occur in the first construction stage (Stage 1A) before the proposed SSD works, under construction Stage 1B (refer site plans at **Appendix AK**). The refurbishment of Block A is anticipated to occur after construction of the new buildings The indicative construction timeframe is 18 months for the works. Refer to the Preliminary CMP at **Appendix AK**.

3.19 Related works under separate planning pathways

Existing Murwillumbah High School students will not be on site during the construction period. Given most existing buildings on site will be demolished, arrangements for temporary accommodation will be made on another site, however will be subject to separate planning approval processes.

Similarly, the demolition of several buildings on the site (to slab level only) is occurring under a separate planning approval pathway. The demolition of these buildings will occur prior to the demolition and construction approved under this application. Refer to **Figure 31** for delineation of demolition scope.

4. Statutory Context

4.1 Power to Grant Approval

Section 4.36 of the EP&A Act provides that the Minister, or a State Environmental Planning Policy may declare development to be SSD.

Section 15(2) of Schedule 1 of the Planning Systems SEPP specifies the erection of a building, or alterations or additions to an existing school with a CIV of more than $50 million is to be assessed as SSD.

Proposed works have a CIV of more than $50 million. The proposal therefore constitutes SSD and the Minister for Planning is the consent authority.

4.2 Permissibility

The site is zoned R2 - Low Density Residential under the TLEP 2014.

School buildings

The proposed development is for the purpose of a school, which is defined as an 'educational establishment' under TLEP 2014. Educational establishment is a permitted use with development consent in the R2 zone.

Pursuant to Section 3.36 of State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) development for the purposes of an educational establishment is permitted with development consent within the R2 zone.

A school is consistent with the zone objective to "*enable other land uses that provide facilities or services to meet the day to day needs of residents"*, as it provides educational infrastructure needs to support the residents of Murwillumbah.

School community health facilities

The proposed health facilities are for the exclusive use of the school community and are considered an ancillary use, i.e., subservient to the dominant purpose of the development. Were it not for the presence of the school on the site there would be no purpose for school community health facilities, and thus it is not considered an independent component of the development.

As noted in Section 3.6, the proposed school community health facilities comprise a series of flexible spaces to be used for meetings, workshops, classes etc. to support the general health and wellbeing of members of the campus community.

Department of Education Office

The DoE office is characterised as a 'public administration building' under the TLEP 2014:

> *Public administration building means a building used as offices or for administrative or other like purposes by the Crown, a statutory body, a council, or an organisation established for public purposes, and includes a courthouse or a police station.*

Public administration buildings are prohibited in the R2 Low Density Residential zone under TLEP 2014.

Notwithstanding this prohibition, it is considered that the DoE office use of Building A within the campus is acceptable given:

- It supports the function of the school and also contributes toward providing improved educational opportunities and facilities across the region.
- It does not increase the scale of the proposal as it is located within the existing heritage listed building on the site. The proposed office will support the ongoing

economic use of the building, which due to its heritage listing is limited in the range of uses it can support.

- It constitutes a minor component (589m^2) of the proposed development overall (17,658.4m^2), accounting for approximately 3% of the floor space of the proposal.
- It will not create any adverse impacts on the operation of the school or surrounds.

Having regard to the matters outlined above, the site is considered suitable for the proposed development.

Section 4.38(3) of the EP&A Act allows the Minister to grant consent to SSD that is partly prohibited and therefore, the Minister would be able to approve the proposal.

Section 4.38(3) states:

1) *The Minister is to determine a development application in respect of State significant development by:*
   a) *granting consent to the application with such modifications of the proposed development or on such conditions as the Minister may determine, or*
   b) *refusing consent to the application.*
2) *Development consent may not be granted if the development is wholly prohibited by an environmental planning instrument.*
3) *Development consent may be granted despite the development being partly prohibited by an environmental planning instrument.*

4.3 Other Approvals

The provisions of section 4.42 of the EP&A Act lists approvals under other legislation that must be applied consistently for the proposal.

Additional approvals under the Roads Act 1993 will be required for the proposed development to occur, including the following road works which would be on Council controlled roads and subject to Section 138 of the Roads Act:

- Pedestrian crossings on Nullum Street and High School Lane;
- Pathway upgrade on High School Lane; and
- Right turn lane on Nullum Street for pick up / drop-off facility access.

4.4 Pre-conditions

Pursuant to Section 4.6 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP) a consent authority must be satisfied that the land is suitable in its contaminated state - or will be suitable, after remediation - for the purpose for which the development is proposed to be carried out. This is addressed in **Appendix B** of the EIS.

4.5 Matters for Consideration

A detailed assessment of the proposed development against the mandatory matters for consideration is provided in **Appendix C**.

5. Consultation

In accordance with the SEARs issued for the project, consultation was undertaken with relevant public authorities, the community and Council.

5.1 Council and Agency Consultation

In accordance with the SEARs issued for the project, consultation was undertaken with relevant public authorities, the community and Tweed Shire Council.

Tweed Shire Council

Consultation with Council occurred several times over the course of the project with meetings held with Council staff in the areas of planning, transport and flood engineering. Topics discussed include:

- Flood planning / proofing of the design;
- Earthworks and civil works options;
- Kiss and Drop arrangement;
- Future bus network opportunities;
- Parking;
- Walking and cycling analysis / missing links;
- Results of the travel mode surveys; and
- School design.

NSW Environment, Energy and Science Group

The project team met with the Environment, Energy and Science Group (EESG) on 28 September 2021 to discuss biodiversity impacts relating to the project. In the meeting the EESG confirmed that a BDAR was required for the project. This was prepared and is **Appendix O** to this application.

Transport for NSW

Four meetings were held with Transport for NSW (TfNSW) on 10 February 2021, 18 February 2021, 3 December 2021 and 17 January 2022. The first meeting introduced the project and subsequent meetings were to discuss changes to public transport to service the new campus.

Transport Working Group

A series of Transport Working Groups (TWG) were held with Stakeholders throughout 2021 to help inform the design and transport solution to support the new MEC. The group meet on six occasions, on 18 February 2021, 23 February 2021, 22 March 2021, 24 March 2021, 20 April 2021 and 12 October 2021. Representatives from TfNSW Bus Planning Team, TfNSW Roads Team, Bitzios (Transport planning consultant), Murwillumbah High School and Tweed Shire Council were in attendance.

5.2 Local Aboriginal Land Council

As per the Consultation Report appended at **Appendix N,** consultation with the Local Aboriginal Land Council and Registered Aboriginal Party (RAPs) stakeholders was conducted in June and July 2021.

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared EMM. Their assessment involved consultation with registered Aboriginal stakeholders with an

interest in the proposed development. An initial 18 stakeholders were approached, with five parties responding that they would like to participate. These five groups (the Tweed Byron Local Aboriginal Land Council (TBLALC) and four individuals) attended an archaeological survey of the site with EMM. Refer to **Appendix N** and **Appendix K**.

5.3 State Design Review Panel

School Infrastructure and Architectus attended five SDRP meetings with GANSW on the 21st October 2020, 3rd February 2021, 28th April 2021, 18th August 2021 and 20th October 2021.

The issues raised and the final responses in the design that were discussed in the final SDRP on 20th October 2021 are summarised in **Table 15**.

Refer to the consultation report for further detail on the matters discussed in the meetings with the SDRP and the outcomes of this consultation (**Appendix N**).

Table 15 Summary of final session with the SDRP

SDRP comment	Outcomes
AGNSW Meeting #5 on 20 October 2021.	
Connection with Country (CwC) – Continue to engage with the local Bundjalung Community particularly for development of the landscape design and continue to expand and develop the approach to CwC within the project.	– Feedback with the local Bundjalung community will continue.
Masterplan / site layout – The use of natural topography to delineate different site uses/ functions is supported. – The configuration of the carpark surrounding Block A should be further developed to reduce heat island effect.	– Noted. – More landscaping has been added to the north of Building A to improve this.
Landscape The following aspects are supported: – Retention of the natural topography is supported – Limited use of retaining walls – Use of landscape as a tool for learning. The following aspects are for noting, or further development: – A canopy target for the campus should be defined – Systems for rainwater harvesting and overland flow collection to be further considered – A planting schedule was requested.	– Noted. – The landscape report notes the proposed canopy. Canopy is expected to decrease by 1.6%. This is considered reasonable given 2,200m^2 tree removal is due to bushfire risk and the removal of these trees would need to occur regardless of whether the school site was redeveloped. Further, the overall number of trees at the school is increasing by 50 trees. – A planting schedule is included in the landscape strategy (**Appendix I**). – Water Sensitive Urban Design is a strong focus for the development, Rainwater harvesting and use will be incorporated to maximise non-potable water usage on site.
Architectural design The following aspects are supported: – the adoption of a Design for Manufacture and Assembly (DfMA) approach (to enable efficient assembly). – The varied learning environment / spaces provided – The evolution of the horizontal façade articulation over the project lifestyle – The use of timber in the building structure.	– Noted.

SDRP comment	Outcomes
The following aspects are recommended to be further developed: – Explore expansion of the upper-level circulation to enable outdoor play and learning areas – Provide more detail of the covered walkways and develop these further – Consider locating the shared hall further south to optimise the OLC between building 1 and 2 and improve the connection between building 2 and 3. – Continue to develop the façade design of the shared hall – Continue to develop the façade and cladding treatments for the stairwell and lift shafts	– The upper levels of building 1, 3 and 4 does include outdoor learning spaces, approximately 135m^2 in total area. – Detail on these areas is included in the façade and materiality section of the Architectural Design Report (**Appendix H**). – The location of the buildings was chosen based on a number of factors including retention of significant trees and existing ridgelines. Many layouts were tested and the proposed layout is considered to provide the best balance given the site's constraints and opportunities. – The horizontal expression of the façade was further developed, see **Appendix H** (Materiality section). – The stair treatment was chosen to be a unique part of the school design and to showcase the vertical movement.

5.4 Community Consultation

Community feedback and consultation has been integral to the development of this proposal.

Numerous consultation and communication channels were undertaken by the project team. These included:

- Regular updates shared to the MEC website on the School Infrastructure site (October 2020, November 2020, December 2020, January 2021, March 2021, May 2021, September 2021 and December 2021);
- Project information in the school newsletter and distributed via letterbox drop (October 2020, December 2020, December 2021);
- Works notifications distributed via letterbox drop (February 2021, April 2021, June 2021 and September 2021);
- Drop in community hubs with residents and the school community (March 2021 and April 2022);
- Virtual Sessions with the school community including residents, teachers and with; the School's P&C (November 2020 and September 2021);
- Online surveys (December 2020 and December 2021).

The project team also received and responded to numerous email and phone calls regarding the project.

Five key themes emerged from the community feedback. These include:

- Retention of mature trees and additional landscaping to buffer between existing homes and new build;
- Separation of high school and primary school functions;
- The need for improved learning space, outdoor areas and additional School Support Units;
- Impacts to school culture and retention of core traditions; and
- Traffic management, parking and site access.

This feedback has been considered and has informed and been incorporated within the design of the proposed development.

6. Environmental Assessment

This section assesses those matters as required under Section 4.15(1) of the EP&A Act and responds to the matters for consideration set out in the SEARs.

6.1 Built Form, Scale and Siting

Building Scale

The proposed maximum height for the new buildings is greater than that permitted by the TLEP 2014, which provides a maximum building height of 9.0m height within the R2 – Low Density Residential Zone. The maximum height of the proposed development is 16.03 metres (RL 26.00) for Building 4 although it is noted that all the new buildings exceed the 9.0m height limit.

It is noted that Schedule 6 of the Transport and Infrastructure SEPP allows for school buildings to be constructed up to a height of 22m under the Complying Development planning pathway. Further, Clause 3.43 of the Transport and Infrastructure SEPP does not require schools to comply with the height of buildings control established by an LEP. Notwithstanding, an assessment of the proposal has been undertaken against the planning principle for assessment of height and bulk set by Veloshin v Randwick Council [2007] NSWLEC 428.

Table 16 Planning principle: Assessment of height and bulk

Question	Response
Are the impacts consistent with impacts that may be reasonably expected under the controls? (For complying proposals this question relates to whether the massing has been distributed to reduce impacts, rather than to increase them)	The building height and bulk does not comply with the TLEP 2014 control however it is a complying scheme due to Section 3.43 of the Transport and Infrastructure SEPP. Proposed buildings have been designed so that when viewed from any point they appear to be lower in scale (and RL) than Building A, which is located at a high point of the site. This principle has defined the height principle for the proposal and was adopted to appropriately balance the bulk and scale impacts of the new buildings.
How does the proposal's height and bulk relate to the height and bulk desired under the relevant controls?	The school is located within the R2 – Low Density Residential zone under the TLEP 2014. The height of the proposal exceeds that required under TLEP 2014. The 9-metre height control is applied to a low-density residential zoning and therefore could be considered more reflective of the desired bulk of future residential development. The bulk of the proposed development has been considered with regard to heritage considerations and surrounding residential development and is discussed further below.
Does the area have a predominant existing character and are the planning controls likely to maintain it?	The existing character, being low density residential development, will be maintained as a result of the proposed development.

Question	Response
Does the proposal fit into the existing character of the area?	The school is situated on a large site, at the edge of a low-density residential area where the adjoining properties are all 1-2 storey detached homes. In this respect the land use character of the school differs to the land uses surrounding. However, the school has existed at this location since 1929 and so in this respect the proposed augmentation of the educational land use does not represent a significant change in the prevailing character of the site or the local area.

Having regard to **Table 16**, whilst a request to vary this development standard is not required, consideration has been given to the objectives of Cl.4.3 (Height of Buildings) and Cl.4.6 (Exceptions to Development Standards of the TLEP 2014. The objectives of Cl.4.3 of the LEP are provided below.

"(a) to establish the maximum height for which a building can be designed,

(b) to ensure that building height relates to the land's capability to provide and maintain an appropriate urban character and level of amenity,

(c) to ensure that taller development is located in more structured urbanised areas that are serviced by urban support facilities,

(d) to encourage greater population density in less car-dependant urban areas,

(e) to enable a transition in building heights between urban areas comprised of different characteristics,

(f) to limit the impact of the height of a building on the existing natural and built environment,

(g) to prevent gross overshadowing impacts on the natural and built environment."

Having regard to the above, it is noted that the site has been continuously used for the purposes of a school for over 90 years, pre-dating surrounding residential development, including along High School Lane to the north of the site.

The site has undulating topography and falls more than 14m from the west to the east, with areas of the site also noted as being flood prone, particularly to the east of the site adjacent to Nullum Street. The scale of proposed buildings is therefore derived through the topography of the site and context to surrounding buildings, in particular to the existing heritage listed Building A (which also exceeds the TLEP 2014 height limit), as well as the relationship of the site to existing low density residential development to the north of High School Lane, in order to mitigate potential visual amenity impacts.

As a result of both heritage and flooding considerations, proposed buildings are located across consistent contours at the site, noting this is downslope of the existing heritage listed building A, which is proposed to be retained. This arrangement is respectful to the heritage significance of this building which will maintain a prominent position on the hill above the proposed buildings. As building A is proposed to be utilised for departmental administrative functions, the proposed arrangement maintains existing separate, direct access to this building from Riverview Street, ensuring the function of this building without conflicting with the broader operation of the school.

While the height in metres of the new buildings are greater than for Block A, their perceived height and prominence in the landscape is less due to them being located at lower points of the site. As recommended by the heritage consultant, the ridgeline of proposed buildings will remain a lower point than the roof line of Block A, ensuring that proposed buildings are both respectful and subordinate to Building A (RL33.33) as well as being sited lower than existing dwellings within High School Lane, noting the there is a significant drop from High School Lane to the location of proposed building 1.

In particular, proposed Building 1 has been designed to provide a suitable transition from existing dwellings to the north of High School Lane. The location of Building 1 is

downslope of these dwellings and is proposed to have a maximum ridge height of RL 20.15, which is considered to provide a suitable transition to dwellings facing High School Lane, including the residential flat building at 58 James Street (addressing High School Lane) which is substantially setback from Building 1.

Proposed buildings will not present any unreasonable visual or solar amenity impacts to nearby properties as detailed further within this report. The proposed development is therefore considered to be consistent with the applicable objectives of Cl.4.3 of the TLEP 2014 and that proposed heights are within the capability of the land, without unreasonable amenity impacts and whilst maintaining the character of the area.

On this basis, having regard to the long-standing use of the site as a school, existing topographical, heritage and flooding constraints and relevant provisions of the Transport and Infrastructure SEPP, it is considered that compliance with the height of buildings development standard is unreasonable or unnecessary in the circumstances of the case, and there are sufficient environmental planning grounds to warrant the scale of proposed buildings at the site. A compliant scheme would require larger building footprint to build to floor levels of RL 7.50 for flood proofing and still provide the same floor space for learning spaces as in the current scheme. Larger footprints would constrain the amount of open and play space, tree canopy and landscaping that could be provided at the campus.

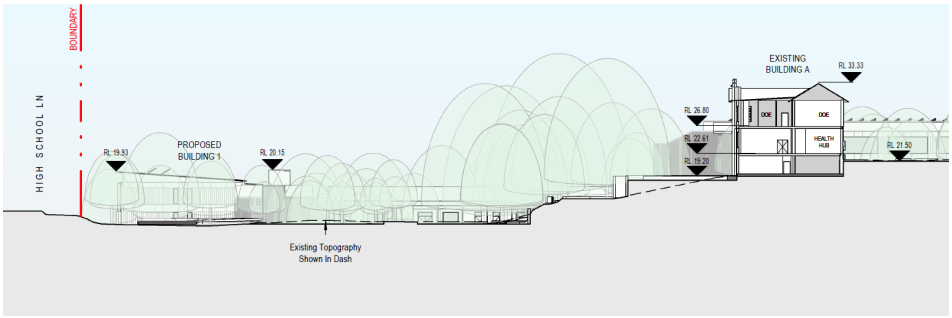


Figure 44 North-south section.
Source: Architectus

Materiality

The selection of external materials has resulted from the setting of the proposed new buildings against the existing heritage listed Building A, as well as in response to the broader landscaped setting and associated bushfire protection requirements.

The materials selected for the proposed new buildings (refer **Section 3.10**) have been selected to be sensitive to the local environment, making them pragmatic, fit for purpose and visually appealing whilst also ensuring thermal and acoustic performance in a tropical climate. The colours and textures of the materials were chosen to reflect the landscape through the implementation of amber, red of the soil from the Cudgel Plateau, and the greens to replicate the surrounding nature throughout the seasons. The chosen materiality is an appropriate design and functional response within the site context.

6.2 Heritage

Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared by EMM and is provided at **Appendix K**.

In undertaking this assessment, no Aboriginal objects were identified during the survey and the northern portion of the study area (being the location of proposed buildings) was assessed as posing a low potential for such cultural materials to be present. Whilst other areas to the south of the site may have a greater potential for the existence of cultural materials, these are areas not currently proposed for any development.

Further, the ACHAR provides that the proposal is unlikely to result in any intergenerational or cumulative loss to material culture. Conversely, the report also provides there are potentially numerous cultural heritage benefits, including incorporating

Aboriginal culture into the school curriculum as well as physically incorporating Aboriginal cultural heritage into the landscaping, artwork and building design. As part of the Connection with Country approach for the proposal, materials have been selected that are inspired by the landscape. Incorporating Connecting with Country into the landscape strategy will continue to be explored in consultation with the local community, including members of the Aboriginal community. Refer separate discussion on the strategy for Connecting with Country in **Section 3.8**.

Based on regional ethnographic information, environmental factors and regional archaeological site patterning, it is highly likely that the study area was occupied and used by local Bundjalung people. However, as a result of previous disturbances the ACHAR concludes that the area of the proposed development has low to nil archaeological potential, with no further archaeological investigations considered necessary. Notwithstanding, standard unexpected finds protocols are recommended, as well as the following site-specific recommendations:

- Prior to ground disturbance, an Aboriginal cultural heritage management plan (ACHMP) must be developed by a heritage specialist in consultation with the Aboriginal stakeholders and consent authority to provide the post-approval framework for managing Aboriginal heritage within the study area.
- A heritage-interpretation strategy must be developed by a heritage specialist to identify the interpretive values of the study area, and specifically Aboriginal heritage values across the study area relating to Wollumbin and potentially the Young Man and the Kangaroo, and to provide direction for potential interpretive installations and devices. This strategy should be made available for consultation and feedback with the RAPs. Following consultation and feedback on the strategy, a heritage interpretation plan would refine the strategy with content (visual and textual) and design details to allow the implementation stage.

The ACHAR also recommends that consultation should be maintained with RAPs throughout the project, and that a copy of the ACHAR should be lodged with the Aboriginal Heritage Information Management System (AHIMS) and provided to each of the RAPs. The Applicant commits to undertake these activities.

On the basis of the above, the proposed development is not considered to result in any unreasonable impact to Aboriginal heritage and cultural heritage values will be promoted in the design and operation of the development.

<u>European Heritage</u>

Lot 6 DP 820602 within the site is identified as a local heritage item under the TLEP 2014 (Item Ref. 49), noting this heritage listing relates to the existing Block A building only (located within Lot 6 DP 820602). This listing is specific to Block A and curtilage. The site is not identified as, nor within proximity to, any State heritage items.

Accordingly, a Heritage Impact Assessment (HIA) has been prepared by EMM at **Appendix L**. This HIA considered the proposed works have varying levels of direct and indirect impact to the heritage significance of the site and the Block A building.

The HIA finds:

- The majority of the original, c.1929 structures, setting and layout to Block A have been retained in the proposed design with a prescribed function for the site. This is a positive heritage outcome and in line with Article 7 of the Burra Charter.
- The demolition of Block E in particular, would constitute the removal of an intrusive structure to the prominent north elevation of Block A and would have an overall positive impact, contingent on the manner in which Block E is demolished and restoration and reconstruction works are conducted.
- The construction of four new buildings and associated landscaping would have minor visual impacts however the overall design and scale, setting and massing of the proposed buildings is largely sympathetic to the Block A building.

- The works proposed to the Block A building are largely acceptable with minor to moderate in impacts to selected original elements and significant fabric. A majority of the internal and external fabric would be retained and with the application of the mitigation measures impacts may be further mitigated without compromising the overall, proposed design intent for the Block A building.

The HIA provides a list of recommendations relating to how works can be conducted to mitigate impacts to Block A. Refer to these in the Environmental Risk Assessment at **Appendix D**. The HIA notes that even for minor changes to the works proposed to Block A in future design iterations, the HIA would need to be revised.

Historical Archaeological Impacts

The HIA has assessed the potential for archaeological items at the site and provides that the probability of finding historical archaeological remains is low, due to the disturbed nature of the site and there being no records of previous archaeological finds on the site.

6.3 Landscaping and Tree Removal

Tree Removal

An AIA has been prepared for the proposed development by EMM at **Appendix P**.

Where possible existing trees have been retained, particularly those which the Arborist Report has identified as being of high retention value. The proposal will necessitate the removal of 105 trees which conflict with the location and construction of proposed buildings, and the AIA recommends the removal of an additional 5 trees due to poor health and the potential safety risk to users.

The impact of tree removal will be mitigated through the provision of new high-quality landscaping, where species have been selected that are not associated with fire risk.

A total of 130 trees are proposed to be removed and 180 trees planted, resulting in a net increase of 50 trees across the site.

Landscaping

As required by the SEARs, a detailed site wide landscape strategy has been prepared by Arcadia at **Appendix I**. The vision of the landscape design seeks to address and enhance general and visual amenity of the school campus with consideration of ecological sustainability, an emphasis to retain existing significance vegetation and further integrate landscaping between buildings and across the campus overall.

The proposed landscape design creates spaces for staff and students to rest, play and learn (through the incorporation of outdoor learning areas). This is an approach that is supported by GANSW.

6.4 Play Space

Having adequate play space and open space at school, is beneficial to students, the environment, and local community. Recognizing the importance of play space, DoE EFSG guidelines provide that a minimum of 10m^2 onsite play space per student be provided in a new school.

The proposal will provide more than the recommended standard of play space, at 21.34m^2 per child based on campus capacity.

6.5 Safety and Security

Lighting

A Lighting Strategy has been prepared by JHA (**Appendix AE)** to ensure appropriate lighting is provided within the proposed development, including to new pedestrian pathways, roads and external building surrounds for the creation of a safe, well-lit environment that reduces risk of crime. The lighting design has also been developed in consideration of minimising external lighting spillage to adjacent receivers, maintenance, energy efficiency and integration into the architectural design.

CPTED

A CPTED Assessment has been included in the Architectural Design Report, prepared by Architectus at **Appendix H**. This assessment outlines the design elements and CPTED principles included in this proposal that will deter unsocial and criminal behaviour from the site.

Table 17 below highlights the proposal's consistency with CPTED principles.

Table 17 CPTED Principles

Principle	Proposed development
Perimeter security and access control	The site has perimeter fencing and includes a buzzer access and video intercom to Reception, consistent with this CPTED principle. Further, the proposal will reinforce the main student entry and bus drop off from Nullum Street and High School Lane, improving the visual presentation of the school, visibility of movements and passive surveillance opportunities. The entrance points are appropriately fenced to allow them to be closed off when they are not in use and are landscaped in a way that avoids creating hidden areas. Further, the play spaces and student spaces created as part of this project have been designed to allow for good passive and active supervision at all times, particularly during the school's operating hours.
Natural surveillance	Clear sightlines, safe lighting, elimination of hiding spots and environmental design have been considered throughout the proposal to provide enhanced natural surveillance opportunities. Natural surveillance opportunities have been proposed throughout, including clear sightlines identified between and within new buildings, relocation of student amenities to encourage passive surveillance, installation of safe lighting along pathways and key sightlines from Nullum Street and High School Lane. The new main site entrance that is created as part of this work is designed to allow for a free flow of students and parents at pick up and drop off time. However, during school operating hours the entrance is closed off and visitors are directed to the Administration Reception area to ensure that they are checked and signed-in before they are given access to the school. The facilities have been designed in a way as to allow them to be easily locked down in a case where there was a security incident.
Territorial reinforcement	The proposal creates a clear distinction between public and private property, through main signage, fencing, access control through video intercom and buzzer and well-maintained landscaped areas to create a sense of 'ownership' and territorial reinforcement of school boundaries. Wayfinding signage and visual cues have been incorporated to reinforce this.
Maintenance	Maintenance is a form of territorial reinforcement. It discourages negative social behavior and is a matter of safety and pride for the existing Murwillumbah High School and will continue to be so for the proposed MEC. Regular removal of waste, graffiti, repair and restoration and garden maintenance will be undertaken to reduce the likelihood of criminal acts. Regular maintenance of school grounds discourages negative social behavior and is a matter of safety and pride for the existing Murwillumbah High School and will remain so for the proposed MEC.

6.6 Environmental Amenity

Solar access and overshadowing

The siting and form of the proposed development has been designed to provide maximum solar access to all existing and proposed school buildings and areas of open space across the site. In addition, the proposed new buildings have been designed to facilitate maximum solar access and natural light within classrooms.

By virtue of the orientation of the site and siting of the proposed buildings, the proposal will not result in any overshadowing impacts to nearby residential properties as detailed within the shadow diagrams at **Appendix H**.

Visual Privacy

The closest residential dwellings to the proposed works are those located along High School Lane to the north of the site, which are located near the north elevation of Building 1.

The proposed development is appropriate in terms of visual privacy as the proposed works, in particular Building 1, provides for sufficient separation to these dwellings (15.29m to the nearest dwelling at 62 James Street) to minimise any instances of overlooking. Further it is noted that these properties back onto High School Lane and have their main frontages on James Street and Riverview Street.

Building 1 faces onto the garages of these dwellings. There is one exception to this being a residential flat building (RFB) located at 58 James Street that has rear-facing balconies to High School Lane.

Proposed Building 1 is to maintain a separation distance of 15.29 metres to this property. Additionally, the proposed building uses at this location (fronting 58 James Street) are all non-habitable uses (general storage, cleaning supplies room, garden storage) and so the opportunity to affect privacy of 58 James Street is considered to be minimal.

Refer to **Figure 45 - Figure 47** for details.

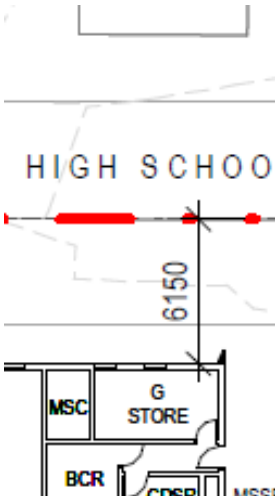


Figure 45 Ground floor interface with 58 James Street
G store = garden store.

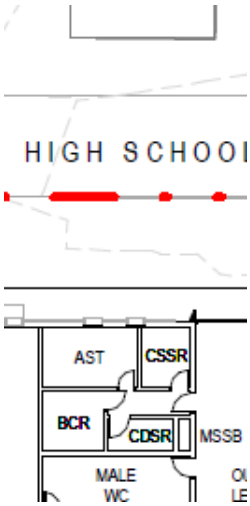


Figure 46 Level 1 interface - Building 1 and 58 James Street
AST = additional storage
CSSR = cleaning supplies room.

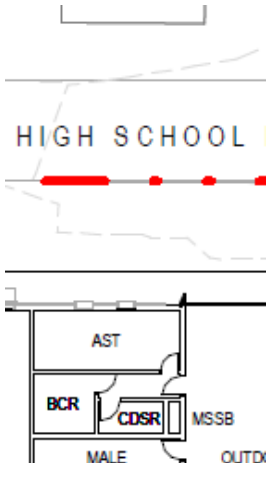


Figure 47 Level 2 interface - Building 1 and 58 James Street
AST = additional storage.

There are no minimum setback requirements for the site, however it is noted this separation distance is far beyond what is required for new apartment buildings in the Apartment Design Guide (ADG) (6m to balconies for buildings less than 12 metres in height).

Whilst the proposed development is for the purposes of a school, building separation guidance contained within the ADG is broadly accepted as the minimum setback required to maintain visual privacy for RFBs. Therefore, it is considered proposed separation distances to the property at 58 James Street is sufficient to maintain visual privacy to this property.

Further, the school is well landscaped to all its street frontages, with additional landscaping proposed by this application, which will provide partial screening of the proposed building to surrounding properties. Any potential visual and privacy impacts will be further ameliorated through the provision of new landscaping along the northern boundary of the site in the form of mixed shrubs such as golden wattle, salt bush, coastal rosemary, banksia and correa.

View Loss

Murwillumbah locality and Tweed Shire are renowned for their high scenic landscape quality, with rolling vistas across sugar cane fields, to World Heritage listed National Parks of Gondwana Rainforest that encircle the locality, including to Wollumbin (Mount Warning), the now extinct volcano. Wollumbin is visible from higher vantage points although it is acknowledged in the architectural design report that the views are largely obscured by existing vegetation. The redevelopment of buildings on the site will not result in obstruction of these important vistas since views to Wollumbin from the school are currently obscured by mature vegetation.

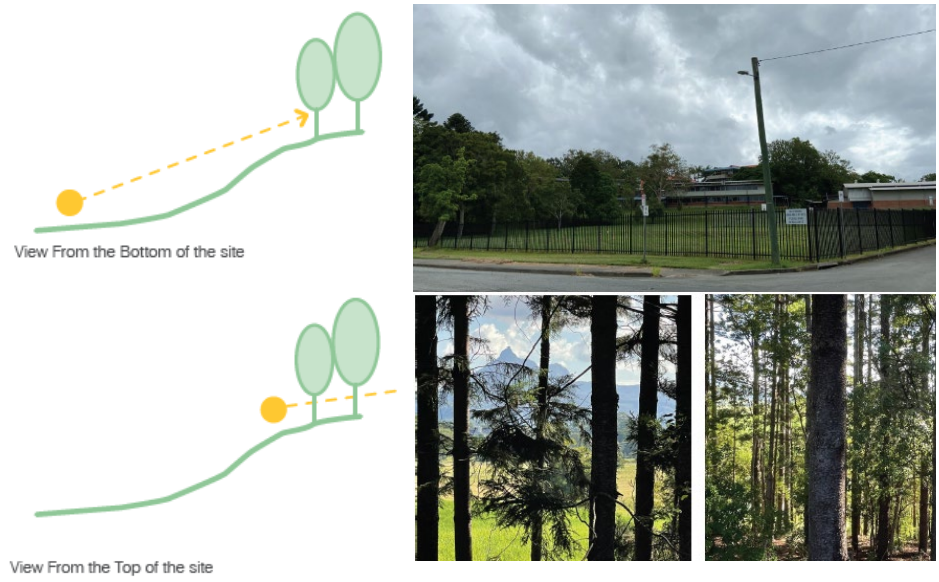


Figure 48 Views to Wollumbin from the site are largely obstructed by vegetation.
Source: Architectus

Visual Impact

A View Analysis has been prepared by Architectus and is contained within the Architectural Design Report at **Appendix H** to this EIS. The View Analysis has been prepared in response to the SEARs items 2 and 4, which require respectively:

- *"A visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items."*
- *"A view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development."*

Accordingly, the View Analysis has identified key existing public viewpoints along streets around the school and assesses the visibility of the proposed development. There are no adjoining heritage items, although Views 1 and 2 represent views to heritage Building A on site. Views from the site are unobstructed in all directions, except where they are

obscured by existing buildings, topography or vegetation. There are views to the Tweed River, Wollumbin and Tygalah from the northern part of the site however these views are largely obstructed by mature trees (Figure 48).

The View Analysis has considered a series of public and private views of the proposed development, including residential development to the north.

Five (5) viewpoints have been selected as detailed below.

– View 1: View towards existing building A from the vehicle access along Riverview Street.
– View 2: View towards existing Building A from tennis courts located within the school site.
– View 3: View towards existing Building A from the north-west at the corner of Riverview Street and High School Lane.
– View 4: View within the school grounds from the north-east at the corner of Nullum Street and High School Lane.
– View: 5: View south towards existing building A from neighbouring lot, 84B Riverview Street.

An overview of these view locations is provided at **Figure 49** below.

It should be noted these view locations were agreed with the heritage consultant.

Figure 49 Overview of proposed view locations
Source: Architectus

Viewpoint 1: View towards existing building A from the vehicle access along Riverview Street.

Figure 50 Current View 1 (photo)

Figure 51 Current View 1 (model)
Source: Architectus

Figure 52 View 1 post development
Source: Architectus

Response: The materiality and form of the proposal is lighter in appearance than the current buildings and is similar in location in density.

The overall impact on views from this aspect is therefore considered to be improved by the proposal.

Viewpoint 2: View towards existing Building A from tennis courts located within the school site.

Figure 53 Current View 2 (photo)

Figure 54 Current View 2 (model)
Source: Architectus

Figure 55 View 2 post development
Source: Architectus

Response: The proposal obscures Block A less than the current buildings from this vantage point. The overall impact on views from this aspect is therefore considered to be improved by the proposal.

Viewpoint 3: View towards existing Building A from the north-west at the corner of Riverview Street and High School Lane.

Figure 56 Current View 3 (photo)

Figure 57 Current View 3 (model)
Source: Architectus

Figure 58 View 3 post development
Source: Architectus

Response: The proposal obscures Block A less than the current buildings from this vantage point. The proposed building in the foreground is greater in scale than the existing building however the built form close to Block A is more subtle in form and materiality than the current building at this location. On balance, the visual impact from this location is considered neutral.

Viewpoint 4: View within the school grounds from the north-east at the corner of Nullum Street and High School Lane.

Figure 59 Current View 4 (photo)

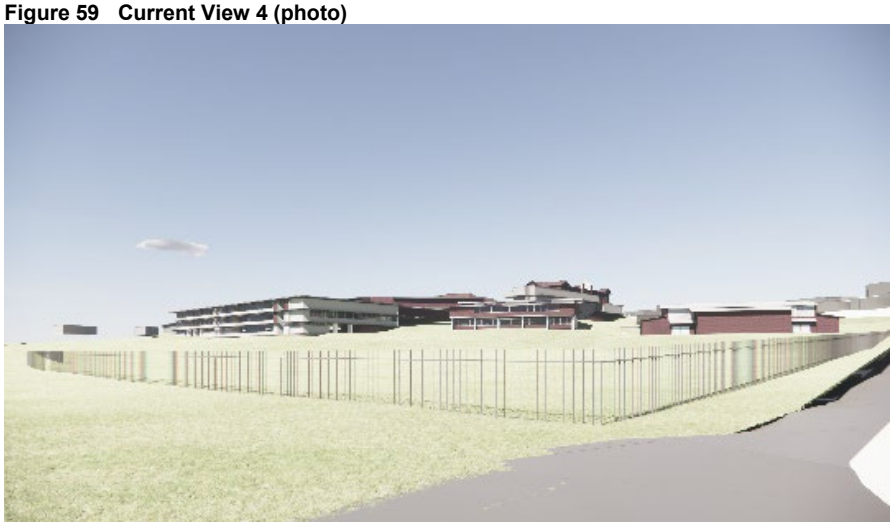


Figure 60 Current View 4 (model)
Source: Architectus

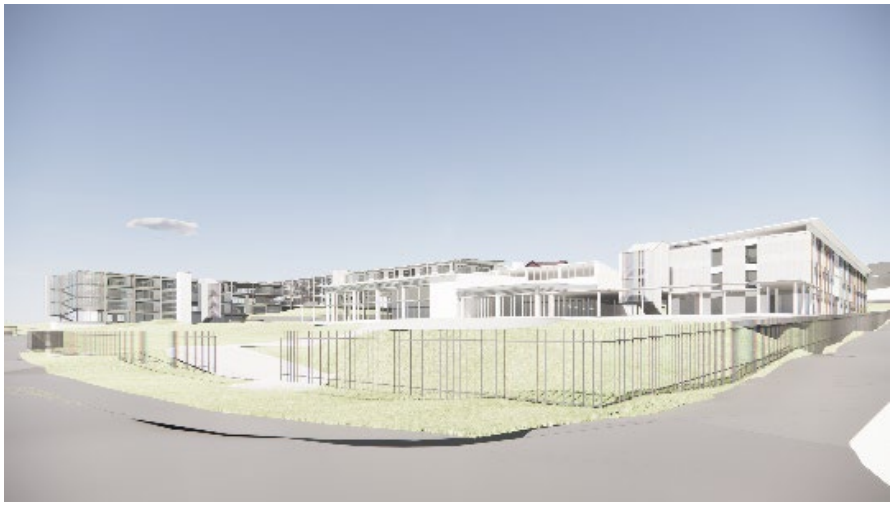


Figure 61 View 4 post development
Source: Architectus

Response: the proposed buildings are larger in scale than the existing buildings visible from this location.

The scale of building however remains appropriate and is lesser in scale than the existing maximum height of buildings for the school.

Note: view perspectives 1-4 are shown without trees for ease of comparison however in reality these buildings will be partially obscured by trees from this vantage point and this will alleviate the visual impact at this location. The overall view impact at this location is low-moderate.

Figure 62 View 4 post development accounting for existing and proposed trees
Source: Architectus

Viewpoint 5: View south towards existing building A from neighbouring lot, 84B Riverview Street

Figure 63 Current View 5 (photo)

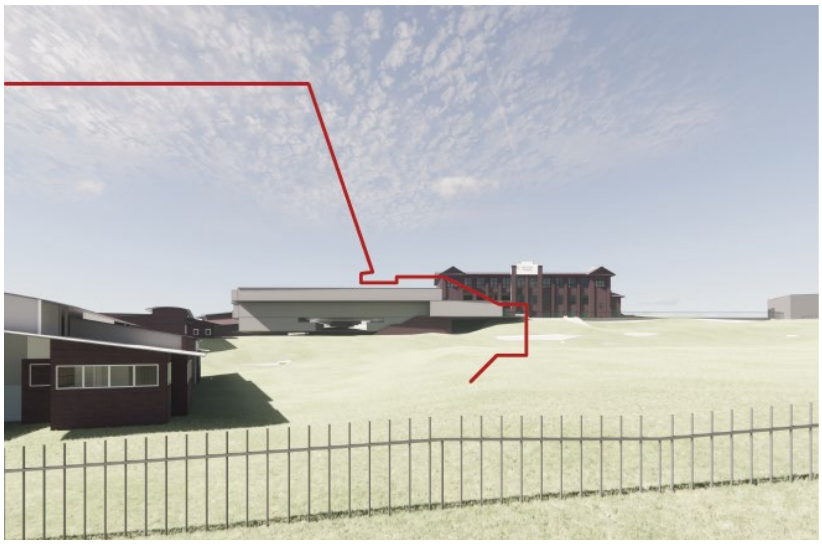


Figure 64 Current View 5 (model)
Source: Architectus

Figure 65 Proposed View 5
Source: Architectus

Figure 66 View 5 post development accounting for existing and proposed trees
Source: Architectus

Response: The building proposed at this location faces towards five residential properties located across High School Lane. A reasonable (15.29m) setback to the nearest properties as well as louvres on windows on this frontage makes the overall privacy impact low.

Landscaping on this frontage will provide a visual and acoustic buffer. Note: The actual building materiality and design (not shown in the image) will be higher in quality than that currently viewed from this location. While it represents a significant visual change, the use of quality architectural detailing and materials in the building façade will ensure visual impact is acceptable.

The overall view impact at this location is therefore moderate-high impact.

Due to existing background development, vegetation, topography of the site, and scale of proposed buildings set lower than Heritage Building A, the proposed redevelopment will generally have a low impact from all vantage points with the exception of View 5 which has a moderate-high visual impact. It is therefore concluded that the visual impacts of the proposed development are acceptable. Refer to the View Analysis prepared by Architectus at **Appendix H**.

Wind Impacts

Murwillumbah experiences strong morning winds from the south-west, however, afternoon winds in the warmer months (September - December) come from the northern and eastern end of the site. Given the hot climate in the region the proposed development was designed with an intention to soften south-westerly winds and make use of summer afternoon winds for passive cooling. The topography and existing vegetation provide some protection from wind and given the proposal's integration into this topography through building placement, the buildings use this protection to decrease the wind impacts on the buildings. Further the areas of the landscape where staff and students are anticipated to dwell and sit (such as the high school and primary assembly areas) are sheltered from wind by the proposed buildings.

6.7 Transport, Traffic and Accessibility

A Transport Impact Assessment (TIA) has been prepared by Bitzios and is provided at **Appendix X**. The TIA assesses the traffic and transport impacts and design elements of the proposed development.

School Catchment Analysis

Analysis of the student population within the walking and cycling catchment of MEC has been undertaken. The results of the analysis are provided in **Table 18**.

Table 18 Existing student population within walking and cycling distance

Catchment	Distance	Student Population	Proportion
400 m	5 min walk	10 students	1%
800 m	10 min walk	49 students	4%
1200 m	15 min walk / 5 min cycle	129 students	10%
2400 m	10 min cycle	348 students	25%
3600 m	15 min cycle	699 students	52%

To understand the current modal split for the journey to and from the school for both students and staff, a travel mode questionnaire was completed of students across all four schools to understand how they currently get to school. Modal split for students and staff is shown in **Table 19**.

Table 19 Current modal split for the High Schools and Primary Schools

	Pick up/Drop off	Self Drive	Bus	Cycle	Walk	Other
High Schools	26%	4%	53%	7%	10%	1%
Primary Schools	60%	0%	34	2%	4%	0%

As can be deduced from **Table 18**, only 15% of students are within a 15-minute walk or less to the school, however 52% live within a 15-minute cycle (3.6 km radius). However, as detailed at **Table 19**, cycling and walking form only 6% (among the primary school students) and 17% (among high school students) of the current modal split, likely due to the topography and tropical weather.

The travel mode survey revealed that the most common mode for high school students was by far the bus, while most primary school students are dropped off. Only a small proportion of year 12 students drive to school, representing a modal share of 4% of the high school population.

Existing Traffic Conditions

To analyse the background traffic conditions, traffic volumes across six intersections near the Murwillumbah High School site were collected. In addition, school traffic was extracted from the intersection data at Nullum Street/James Street and the Nullum Street Access, and the Riverview Street western Access to determine how much traffic was entering and exiting the school. The school generates a total of 218 trips in the AM peak and 179 trips in the PM peak.

For the purposes of traffic modelling of future conditions (with planning horizons to 2024 and 2034 respectively), a background growth rate of 2% per annum is applied to external traffic. This is used as at the base case “no development” scenario to determine the traffic impact from the MEC, and to determine if the final traffic network performance with development and background growth is acceptable.

Table 20 School access points – Volume of peak hour trips.

Access	AM			PM		
	In	Out	Total	In	Out	Total
Nullum Street	73	55	128	46	67	111
Riverview Street	62	38	100	23	43	66
Total Existing	136	83	218	69	110	179

According to the modelling, AM peak hour overlaps with peak school-related traffic which occurs between 8:15 am and 9:15 am; however, the PM peak hour of the intersection starts after school PM peak hours.

The TIA considers AM and PM peak modelling for intersections to determine the development impact on the intersection traffic operation. The intersections analysed and their performance are summarised in **Table 22.**

Figure 67 Overview of surrounding intersections
Source: Bitzios

Existing Parking Conditions

There are currently 18 marked car parking spaces on the site including 2 accessible parking spaces. Sixteen are located at the carpark near Block A while 2 additional accessible parking spaces are located via Nullum Street within the staff and student parking area. However, a number of cars park in informal parking zones. On the observed day, 35 vehicles were parked in an informal/unmarked parking area, accessed via the south end of Nullum Street. An additional eleven cars were parked informally off Riverview Street. Therefore, the total vehicles observed as parked on site on that day were 64. The existing on-site car parking is for use by staff. Students have been parking in the informal parking area off Nullum Street.

Historical aerial imagery available from Nearmap has been assessed to determine the long-term trends in occupancy, including comparing school days and non-school days.

On-street parking in the vicinity of the site is generally unrestricted. The extent and description of on-street zones used for the detailed analysis is shown below in Figure 68.

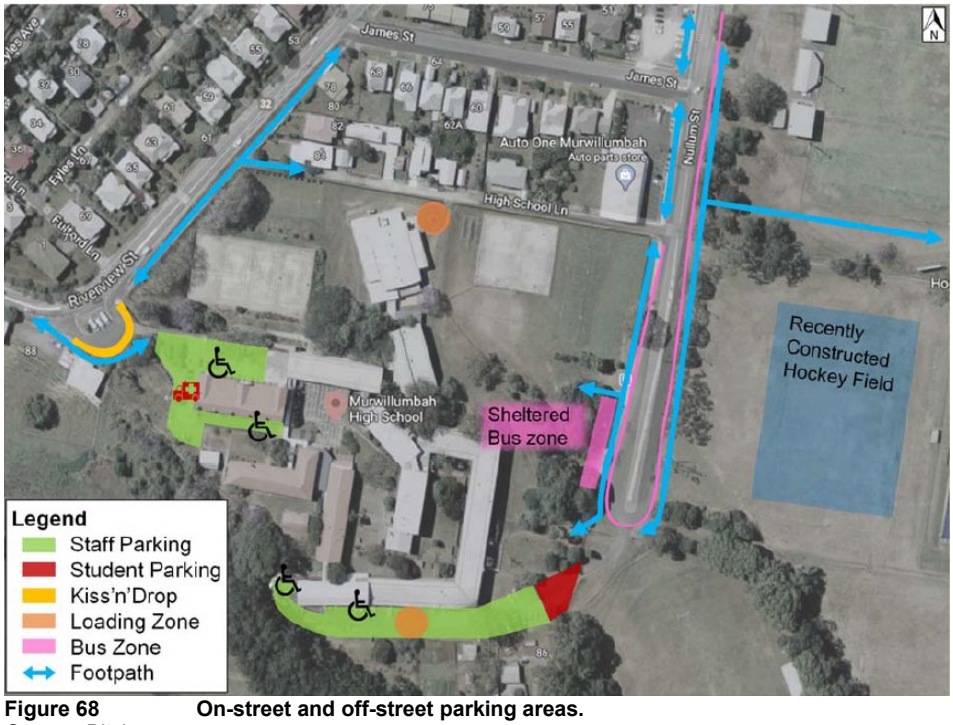


Figure 68 **On-street and off-street parking areas.**
Source: Bitzios

The analysis shows that there is generally good availability of parking in the vicinity of the site and within the assessed zones.

Noting the overall capacity in the assessed zones of 18 spaces, there is an average occupancy rate of around 355% reflecting most cars on the site being in informal parking zones.

Traffic Impacts

The student capacity at the site is proposed to increase to 1,722 students, which is an increase of approximately 51% from current student enrolment capacity of Murwillumbah High School. As a result of this growth, the additional trips generated will be 672 in the AM peak and 711 in the PM peak, by 2034. The projected car trips are based on the predicted modal splits estimated and advised by Bitzios.

Table 21 **Summary of vehicle trip generation from the site.**

	Current	2024	2034	Change
AM	218	714	890	+672
PM	179	714	890	+711
Total	397	1428	1780	+1,383

SIDRA modelling was completed to determine the impact of the development on three intersections near the school. The modelling of background traffic growth through to 2034 demonstrates that all three intersections operate within typical performance limits (in terms of Delay of Service (DOS) and queues) for a priority-controlled intersection under the development scenario.

Table 22 Intersection analysis and Level of Service in 2034.

		Intersection	Performance analysis	Level of Service	Mitigation required
1		Riverview Street (at Western Access)	The High School Kiss and drop is currently at this location and is being removed. This will be the access to the new staff car park (98 spaces). Overall traffic volumes at this location will decrease with the proposal. The addition of the development traffic is shown to have a minor impact on the intersection performance with an increase in queues from one vehicle to two vehicles, however this is a negligible impact with no mitigation required.	A	No
2		Riverview Street / Prince Street	Traffic will increase at this location due the MEC, with maximum traffic queuing delay of 12 seconds by 2034 on Prince Street heading east in the AM peak. This is considered to still be a good level of service. Note: traffic here will decrease somewhat due to traffic generated by Murwillumbah Primary School being removed (from Murwillumbah Primary School being relocated within the MEC). This has not been factored in by the intersection modelling and so a 12 second delay is a conservative maximum. The addition of the development traffic is shown to have only a minor impact on the intersection performance and therefore no mitigation is required.	A	No
3		Riverview Street / James Street	From 2024 to 2034 the MEC increases the maximum queue for this movement by 2 vehicles (12m) with no substantial change observed in delay. This is an improvement compared to the under a no-development (no change) scenario to 2034, where there is a maximum queue of 3 vehicles and average delay of 5 seconds.	A	No
4		Nullum Street / James Street	The maximum average delay for this intersection is 13 seconds by 2034 on James Street heading west in the PM peak. This is within typical performance limits.	A	No
5		Nullum Street / Condong Street	This intersection is within the 40km/h school zone for peak periods. The maximum average delay for this intersection is 21 seconds by 2034 on Condong Street heading east in the PM peak. This delay is caused by stop-controlled right turns. There is an opportunity at this intersection for cars to pass in the left lane and therefore the delay can be reduced by driver familiarization with this intersection. Therefore, no mitigation for this delay is considered necessary. Further, this intersection is located in proximity to MPS to the north, which will see a reduction in	A	No

		Intersection	Performance analysis	Level of Service	Mitigation required
			background traffic as a result of the MEC project. On this basis, the traffic analysis for this intersection was conservative.		
6		Nullum Street / Wollumbin Street	A review of the traffic at this intersection demonstrates that there is a significant trend for vehicles northbound on Nullum Street to divert onto Condong Street, alleviating traffic at this intersection. Bus routes currently run the length of Nullum Street and use this intersection, therefore changes to bus planning will have a core influence on the operation of this intersection.	TBD**	No

***There is no available traffic data to analyze this intersection, hence only a qualitative assessment can be provided. Refer commentary in section 7.6.7. of the Transport Impact Assessment (**Appendix X**).*

On balance the impact of the development on intersection performance is minor when compared to the existing operations associated with the Murwillumbah High School and Murwillumbah Public School. The project team will continue working with TfNSW and Council on the detailed planning and improvements where necessary and practical to support the MEC.

Public Transport

The transport modal share targets aim for an increase in bus usage of 5% for staff, 16% for primary school and 6% for high school. Currently no staff, 34% of primary school students and 53% of high school students take the bus to school.

During consultation with TfNSW, it was advised that changes to bus services and contracts were scheduled to occur in 2025. Given MEC plans to open in 2024 these changes to contracts would have to be brought forward or revised in consultation with each of the service operators. A Bus Operational Plan for Murwillumbah will be developed in partnership between School Infrastructure, TfNSW and local service providers. In addition, several bus facility upgrades are proposed to MEC to ensure bus patronage. TfNSW (Bus Contracts) advised that they will be responsible for managing contract updates to support the new school. Refer to the minutes of meetings with the Transport Working Group, in Attachment B to the Transport Impact Assessment (**Appendix X**).

Car Parking

Parking for school and DoE staff

154 spaces are to be provided for use by school staff including staff operating the school community health facilities and staff of the DoE offices. Parking is proposed to be provided assuming an 82% car mode share for school staff and based on DoE flexible working arrangements, not all DoE staff will be on-site at the one time. The intent of the on-site parking provision is to provide a reasonable amount of parking, whilst encouraging a mode shift towards more sustainable modes, hence a mode share target of 82% is proposed for staff, and equivalent parking for this mode share is provided.

It should be noted that 7 allocated spaces are provided for DoE fleet vehicles.

Parking for students

No parking is provided on site for students, which is consistent with the approach taken across all new schools in NSW.

The parking requirements in the DCP and the proposed parking are summarised in Table 23.

Table 23 Comparison of proposed parking and DCP parking requirements

Tweed Development Control Plan – Provision	Proposed development	Required parking spaces under DCP	Total parking spaces after redevelopment
School			
0.5 space per staff member	168* staff	84	134***
– 1 space per 14 primary school students – 1 space per 12 high school students	582 + 1140 students	137	0
DoE Office			
1 space per 50 m^2	340m^2 GFA	7	27**
Total		228	161

**Note: The figures for school staff are based on staff numbers representing 150 Full Time Equivalent staff. In reality, school staff will be a mix of full-time and part-time personnel, and so a daily ratio factor increase of +12.5% has been allowed for part-time workers. Not all staff are expected to require parking for a full day.*

***Only 7 spaces will be dedicated for DoE fleet vehicles with a combined 154 spaces available for use by school and DoE staff.*

The provided 161 spaces is a practical maximum on-site parking supply based on available space, while balancing the need for other school facilities and adequate separation of student areas from on-site vehicle traffic.

Based on the capacity of 582 primary school students, 1,140 high school students, 150 school staff and 25 DoE staff, the total on-site parking requirement based on the DCP rates would be 228 spaces. The DCP rate for staff is considered low and parking provisions are high as it does not consider efficiencies associated with a Kiss and Drop (Pick up / Drop-off area) facilities nor policies regarding student parking provisions at school sites. Should the DCP parking requirement consider only teachers and DoE staff the result would be 91 (inclusive of 7 for fleet vehicles spaces).

The school also only operates during school hours, with staff generally arriving from around 8am and departing by around 4pm, meaning that all on-street parking remains available for residents and their visitors outside these hours and during weekends and school holidays.

Notwithstanding this, the School Transport Plan (STP) seeks to change this modal split to reduce car-based travel for staff and achieve a shift towards active transport modes, thereby reducing parking demand otherwise generated by the increase in staff.

Pick up / Drop-off area

A Pick-up / Drop-off facility is proposed to offset the need to provide dedicated parking spaces for student pickup/ drop-off purposes and is accessed via Nullum Street. The Pick-up / Drop-off facility provides six (6) collection bays and is estimated to be able to service 360 vehicles over a 30-minute period. The combined Pick-up / Drop-off demand for both primary and secondary schools based on mode share targets is approximately 307 vehicles (116 for primary and 191 vehicles for secondary). Therefore, the student drop- off period can be accomodated within a 25-minute period assuming all vehicles arriving at the same time and this therefore represents the worst-case scenario. In reality, vehicles would arrive within a wider time frame.

The facility is designed to allow for internal circulation to remove the need for vehicles to turn around on Nullum Street. In addition to the 6 to 7 vehicles able to be accommodated within the pick-up drop-off spaces, there is an approximately 100 metres length internal queuing area to accommodate approximately 14 vehicles and a further 5 to 6 vehicles are able to be queued within the proposed right turn pocket on Nullum Street.

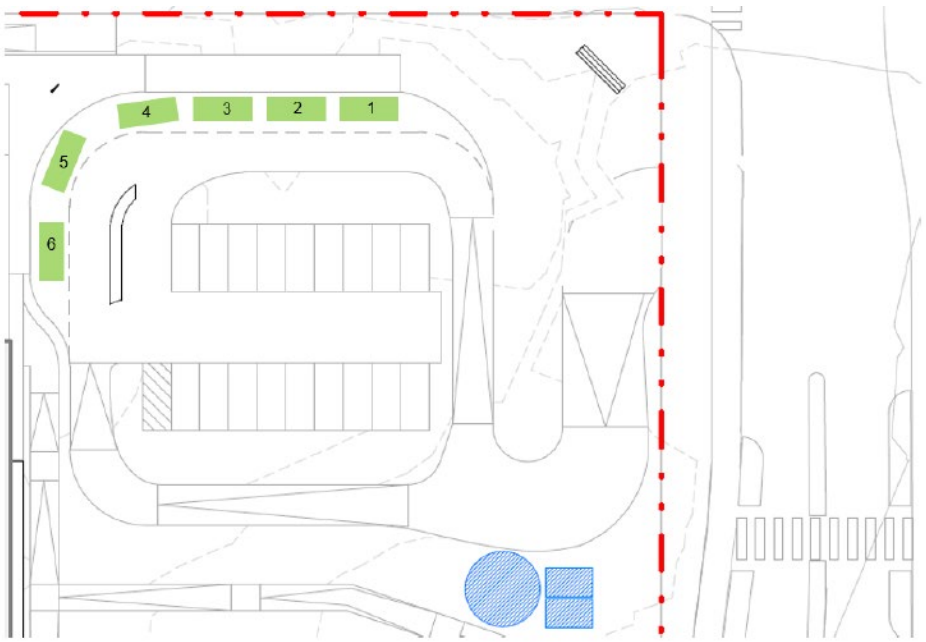


Figure 69 Layout of Pick up / Drop off Area proposed via Nullum Street.
Source: Bitzios.

School Transport Plan (STP)

A School Transport Plan (**Appendix X**) was prepared to set a strategy for achieving the desired mode share for the site.

As part of the traffic assessment, surveys were undertaken at all four schools to determine the realistic range of private vehicle usage as well as a ratio of students per car / family. In addition to the travel mode surveys, the existing Murwillumbah High School traffic volumes were captured in intersection surveys, which assisted in providing a realistic volume of school related trips. The mode shares have been developed based on a catchment analysis of students located within relevant active transport and public transport service catchments. The resulting mode share targets based on the catchment analysis are summarised in **Figure 70**.

Primary School				
Travel Mode	**Existing**	**Catchment Analysis* / Regional Target ****	**Mode Share Targets***	**% Change**
Staff				
Private Vehicle	99%	82%	82%	-17%
Walking	1%	8%	8%	7%
Cycling	0%	5%	5%	5%
Bus	0%	5%	5%	5%
Student				
Private Vehicle	60%	21%	35%	-25%
Walking	4%	14%	5%	1%
Cycling	2%	69%	10%	8%
Bus	34%	76%	50%	16%
High School				
Travel Mode	**Existing**	**Catchment Analysis* / Regional Target ****	**Mode Share Targets**	**% Change**
Staff				
Private Vehicle	99%	82%	82%	-17%
Walking	1%	8%	8%	7%
Cycling	0%	5%	5%	5%
Bus	0%	5%	5%	5%
Student				
Private Vehicle	30%	40%	24%	-6%
Walking	10%	7%	7%	-3%
Cycling	7%	42%	10%	3%
Bus	53%	59%	59%	6%

Figure 70 Current mode share and mode share targets based on catchment analysis.
Source: Bitzios.

The STP seeks to change the existing modal split averaged across the four schools, to reduce car-based travel and achieve a shift towards active and public transport modes. Targets are provided in **Figure 70**.

These modal share targets are considered reasonable and achievable as:

- 25% of students are within 2.4km of the school (10-minute bicycle ride).
- Approximately 23% of the student population is within 400m of a bus stop, and 88% live within 400m of a bus route.
- Bike storage can accommodate 148 bicycles (or scooters) to achieve an 8.4% uptake. End of trip facilities for staff are also to be provided, which can accommodate staff cycling, walking, or catching public transport.
- A reduction in car driver modal share (for staff) can also be achieved through staff car-pooling. While it is acknowledged that this is not a practical solution for all users, it is likely to be viable for a number of staff at any given time and will be encouraged.

School teaching and support staff currently come from across the region and so the mode shift targets away from private vehicle are more modest for this group, acknowledging that the majority of staff will still have to drive to work. By contrast, students live within the school catchment and so a mode shift to public transport and active transport is more achievable.

A Bus Operational Plan for Murwillumbah will be developed in partnership between School Infrastructure, TfNSW and service providers to ensure appropriate public transport serving is provided for students transitioning to the campus.

This Bus Operational Plan is expected to include, but not be limited to the following:

- Develop a Nullum Street Bus Interchange Operations Plan and Reference Guide;
- Common Service Route maps and integrated timetabling across all service providers (MEC and other schools);
- Bus Services updates based on new ‘combined’ student catchments;
- Bus Service information to be included on TfNSW’s Journey Planner for all service providers;
- MEC as well as public interface improvements via the School’s and TfNSW’s website;
- Contract updates and journey planning info ready for day-of-opening;
- External bus interchange locations identification and facilities.

Additionally, through the upgrade of the kiss and drop, bus interchange, pathway upgrade and new crossings on High School Lane, communications and transport programs under the STP, it is anticipated that the usage of private vehicle as a travel mode would reduce in the future.

In this regard, achieving a modal shift as shown in the table above would have the effect of offsetting the growth rates for private vehicle usage, including drop-off/pick-up that would otherwise be generated by the additional student population based on the current, unimproved modal split.

<u>Transport Infrastructure Upgrades</u>

An additional 60 pedestrians and 366 bus patrons are expected as part of the proposed development. Accordingly, several upgrades to infrastructure are proposed:

- New pedestrian crossing on High School Lane crossing to Nullum Street;
- New pedestrian crossing on Nullum Street south of High School Lane;
- New kiss and drop facility accessed via new dedicated right turn lane on Nullum Street;

- Upgrades to the existing bus interchange to provide passenger pick-up/drop-off areas on the western side of Nullum Street fronting the school, with the remaining bus storage area designated for bus layover and storage;
- Widening of the footpath between Nullum Street and the hockey fields; and
- A new pedestrian link along the south side of High School Lane, connecting Riverview Street to Nullum Street.

Construction Traffic

A Preliminary Construction Traffic and Pedestrian Management Plan (CTPMP) has been incorporated into the TIA prepared by Bitzios. It discusses the management of construction vehicles and activities, and an investigation of the local traffic and safety conditions throughout the construction process.

- Access: Construction access will be via site entrances on Riverview Street and Nullum Street.

  Construction vehicle access points to the site would be secured by manned traffic control to ensure no unauthorised or unsafe access is permitted for vehicles or pedestrians. Traffic control will also enable safe pedestrian movements across the construction access driveway, particularly students walking to and from school.
- Construction vehicle routes: Inbound construction vehicles are likely to access the site from the north taking the following routes:
  - Wollumbin Street > Condong Street > Nullum Street; and
  - Wollumbin Street > Condong Street > Riverview Street.

  Outbound construction vehicles will be departing the site taking the same route in reverse.
- Parking: worker's parking will be provided within the school grounds, on the MHS oval, south of the work zone, and at the bus zone area fronting the subject site at Nullum Street. In addition to on-site parking, surrounding public parking is generally available to accommodate for additional parking demands without having a significant impacting on local amenity or street parking for other users.
- Vehicle Management: Vehicle volumes for the development are subject to confirmation by an appointed contractor. No detailed analysis of the wider transport network has been undertaken as it is expected that the surrounding road network will have sufficient capacity to accommodate the low levels of additional construction traffic coupled with the temporary closure of school activities at the subject site.

A detailed CTPMP will be prepared by the appointed contractor with consideration of all final design selections. This preliminary CTPMP is intended to provide a framework within which a future CTPMP can be developed and implemented, and to demonstrate the potential operation of the construction site.

6.8 Ecologically Sustainable Development

As required by Item 6 of the SEARs, an Ecologically Sustainable Development (ESD) report has been prepared by E-Lab and is provided at **Appendix W**.

ESD initiatives

Overall, the proposed development is seeking to achieve a 4-Star Green Star rating with the Green Building Council of Australia. To achieve this, several building services and façade design improvements are proposed to assist in achieving this, including:

- The design will adopt passive cooling and heating design principles to reduce the school's reliance on artificial lighting and heating, ventilation, and air conditioning systems, through external shading, glazing on glass and implementation of a cross flow ventilation strategy in occupied spaces to provide thermal comfort for students and staff.

- All mechanical equipment will be selected for maximum operational efficiency and support to life cycle cost analysis. This will be supported by sustainable electrical services, including long life LED lighting, internal blinds and screens, energy and water monitoring screens for students and staff monitoring and the construction of solar photovoltaics (PV) system located on the roofs of buildings 1 and 3.
- With regard to hydraulic services, the project team will adopt efficient hydraulic services to assist water efficient design, including, however not limited to rainwater reuse, water sub-metering and electric hot water supply
- In relation to water reuse, the MEC will use a mix of harvested rainwater and non-potable water. Water Sensitive Urban Design is a strong focus for the development and an opportunity has been identified (due to the steep nature of the site) to intercept and filter water before it reaches waterways and reduces overall stormwater discharge.

The project team has also taken into consideration a number of broader sustainable strategies in relation to waste management, promoting alternative forms of transport, future proofing of building infrastructure and the use of sustainable materials within the new building.

The four principles of ecological sustainable development as set out within Section 193 of the Environmental Planning and Assessment Regulation 2021 have been incorporated into the proposed development, as detailed below.

Precautionary Principle

This principle refers 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. In the application of the precautionary principle, public and private decisions should be guided by:

- Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
- An assessment of the risk-weighted consequences of various options.

Due to the proposed works being a redevelopment of the existing long-standing school at the site, it is considered that there will be no additional adverse environmental effects. During the construction phase, a detailed Construction Environmental Management Plan (CEMP) and a Climate Adaptation Plan will be implemented to ensure all environmental risks are mitigated and appropriately managed.

Intergenerational equity

This principle refers that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

The proposed development will aim to reduce consumption of energy, water and reduce waste, both as part of the construction and operational phases of the development. The ESD principles have been incorporated into the development through energy efficient measures and towards achieving the overall a 4-Star Green Star rating with the Green Building Council of Australia.

Conservation of biological diversity and ecological integrity

This principle refers that conservation of biological diversity and ecological integrity should be a fundamental consideration. Whilst matters relating to biodiversity are addressed within the BDAR report, given that the site is already developed, there are no biological concern that merit not proceeding with the redevelopment of the school. As detailed within this report, a detailed CEMP will be developed to mitigate any further adverse impacts to biodiversity during the construction phase.

Improved valuation, pricing and incentive mechanisms

This principle refers that environmental factors should be included in the valuation of assets and services, such as:

- Polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance and abatement;
- The users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assts and the ultimate disposal of any waste; and
- Environmental goals, having been established, 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 detailed within the ESD report at **Appendix W**, it is acknowledged that expenditure in sustainability initiatives will provide a return on investment over the life of the building, which will be factored during the detailed design phase with regard to the final sizing and specification of items such as for solar panels and rainwater tanks.

Overall, the project is considered to provide for industry best practice in achieving sustainability targets and in accordance with the requirements of the SEARs. Whilst further opportunities exist to improve sustainability during the detailed design phase, it is noted that the project is seeking a 4-Star Green Star rating, through formal certification with the Green Building Council of Australia to ensure all sustainability targets are met.

6.9 Social Impacts

The SEARs requested an assessment of the social impacts associated with the creation of the MEC involving the amalgamation of four schools into a new K-12 campus. A Social Impact Assessment (SIA) has been undertaken by Elton Consulting at **Appendix M**.

As per the DoE policy of 'Community Use of School Facilities Implementation Procedures'**,** schools are encouraged to share facilities with their local community. This policy encourages members of the community and education groups to use school facilities for appropriate uses and purposes when they are not required by the school. Schools are a community resource, that provide benefits to both schools and their communities. **Table 24** below assesses the social impacts resulting from the proposed development.

Table 24 Social impact of the proposed development

	Social Impact
Improved education and employment opportunities	A combined site and larger school population allows for an improved curriculum offering for students, due to greater choice of subjects and access to teaching resources. Greater choice in curriculum and more vocational educational opportunities have the potential to increase retention through Years 11 and 12. Increased completion through Year 12 is a strong indicator of greater post-school outcomes.
More shared social infrastructure	Plans for the new campus are based on 'share our school' concept with opportunity for a shared oval and use of the hall space. School will also include before and after school care and vacation care on site.
Additional services and facilities	The inclusion of school community health facilities will provide health and wellbeing services to the school population. SINSW will consult with local stakeholders and will seek partnership opportunities.
Improved access to public education	The school places will be available for students of all abilities, where currently the existing schools are not all fully DDA compliant.
Change of school culture and sense of place	Moving from smaller schools to a larger campus will present challenges for some students and families related to a change of education culture and school/community relationship. The existing schools all have their own sense of place and levels of history,

	Social Impact
	tradition and connection to their communities. The new campus will be a new environment that will take time to adapt to.
Temporary relocation of students	Existing Murwillumbah High School students will be re-located to Wollumbin High School during the construction period. There will be a period of adjustment for students who will need to form new habits for some change the way they commute to school.
Transport and access	Travel distance for students will change when they relocate to MEC. Refer the Transport Impact Assessment at **Appendix X**.

It is acknowledged that there will be a period of adjustment for students who are moving to the new campus and integrating into their new school community. Notwithstanding, it is considered that the proposal will have medium to long term positive social impacts, subject to the successful implementation of the recommended mitigation measures.

During consultation, some community members expressed concern with the loss of localised social ties associated with having multiple smaller schools, where students and their families living in proximity to the school engage with one another both inside and outside school times. The effect of the proposed change is acknowledged, however the overall benefit of co-locating the schools and being able to provide better learning facilities and a broader curriculum due to a combined campus is considered to outweigh this social impact.

The new school community of the MEC will build and strengthen with time and the social impact of losing existing social ties is one of transition and is considered a short to medium term impact, and an impact considered not dissimilar to when children change schools moving from Primary School to High School and have to rebuild social ties within their new school community. Having a combined K-12 campus will foster improved social ties that span children's entire school life as they will be able to continue into high school with the same community that they spent their primary school years with. The intent is for the Primary School and High School components of the campus to become operational on the same day for all relocated students.

The co-location of existing Primary Schools and High Schools into a combined campus is a model that has already been tested within New South Wales and has demonstrated benefits through improved academic performance of students. Three case studies are summarised below in **Table 25**.

Table 25 Case studies of amalgamated schools in NSW.
Source: DoE

School	Overview	Educational outcomes
Gosford Public / Henry Kendall High	In 2014 Gosford Public School was relocated to a newly built primary school located at the Henry Kendall High School site. The shared site has subsequently led to numerous teaching and learning opportunities, student leadership, curriculum links, teacher professional development, social skills development, and indigenous education. Over time, such opportunities have contributed to a significant improvement in student outcomes. These are	– Improved literacy outcomes – up 8.8% for Year 3 and 1.6% for Year 5 – Improved numeracy outcomes – up 9.7% for Year 3 and 5.6% for Year 5 – Similar improvements have been experienced by Henry Kendall High School since the move to the shared site. – The number of students achieving band 6 results increased from 3.6% to 6.4% of total results. – The average mark across the HSC has risen markedly across the cohort, representing a significant overall shift in achievement for not only the most academic students, but for all students. – The schools average HSC mark exceeded the state average twice, a result that had never been attained before in the schools 50-year history.

School	Overview	Educational outcomes
	summarised under Educational Outcomes.	– University placements for graduating students rose to average nearly 40% across 2017-2020.
Ballina Coast High School	Ballina Coast High School was formed through the amalgamation of Ballina High School and Southern Cross School Year 7 to Year 12. Ballina Coast High School commenced operation in 2018 and relocated its newly built facility in 2019.	Comparison of education outcomes from before the amalgamation (2017) and after the amalgamation (2019) evidences an improvement in: – NAPLAN average Reading scores – Year 7 NAPLAN average Writing scores – Year 9 NAPLAN Reading growth score – NAPLAN Writing growth score – NAPLAN Grammar and Punctuation growth score – Numeracy growth score – Reading at or above expected growth – Writing at or above expected growth – Numeracy at or above expected growth – NAPLAN Value add to student growth Year 7 to Year 9 – Days lost to learning by suspension have reduced from 1,943 in 2017 to 891 in 2020.
Armidale Secondary College	Formed through the amalgamation of two high schools in 2019 and subsequently moving to new school facilities	– Reading up from 14.97% in 2018 to 21.31% in 2019 – Numeracy up from 14.53% in 2018 to 21.23% in 2019 – Percentage HSC results in the top 2 bands up from 19.96% in 2018 to 21.83% in 2020 – Percentage of HSC results in the top 3 bands up from 44.75% in 2018 to 53.61% in 2020. – 2020 school attendance was 89.58%, above the state average of 89.54% and SSSG 89.06%. This percentage was the highest since 2011, based on previous Armidale High School statistics, and the first time the cohort was above the state average. – Students with 90% or more attendance has increased from 25.1% in 2019 to 47.7% in Semester 1, 2021.

As demonstrated above, the amalgamation of schools improved educational outcomes, where the subject amalgamation also provided improved facilities and a broader curriculum. Although noted by Elton Consulting in the SIA, “differences in school size have not shown a consistent effect on school climate [safe and supportive school environment where students flourish emotionally, socially and academically] and student achievement”.

Therefore, it is considered on balance that the amalgamation of the schools will have a neutral impact on educational outcomes however the provision of new and improved educational facilities will have a positive and significant impact on educational opportunities and student engagement. As a result, the social benefits of the proposal are, on balance, positive.

6.10 Noise and Vibration

A Noise and Vibration Impact Assessment has been prepared by E-Lab at **Appendix AA**.

Method

In undertaking this assessment, the following applicable NSW policies and Australian Standards have been applied, including, however not limited to the NSW Noise Policy for Industry 2017, NSW Interim Construction Noise Guideline 2015, NSW EPA Assessing Vibration: A Technical Guideline 2006; NSW DECCW Road Noise Policy 2011 and the Association of Australasian Acoustical Consultants (AAAC) Technical Guideline for Child Care Centre Noise Assessment.

In addition, three noise monitoring locations were selected to characterise the existing noise environment at the site. Attended and unattended noise surveys were conducted to assess noise impacts from the proposed development to the nearby affected sensitive receivers; hence, noise survey locations are at the following nearby sensitive receivers:

- Location 1: Near the northern boundary of the site near High School Lane;
- Location 2: At the corner of Riverview Street and High School Lane; and
- Location 3: At the location of the existing pick up drop off on Riverview Street.

Figure 71 Noise receiver catchments and noise monitoring locations.
Source: E-Lab

Based on the background and ambient noise and vibration monitoring carried out within and surrounding the site, E-lab has developed project specific noise and vibration criteria and mitigation measures to minimise any impacts from noise and vibration. The Acoustic Assessment establishes noise intrusiveness criteria for residential receptors for day, evening and nighttime.

Operational Noise and Vibration

The main sources of operational noise are additional traffic, mechanical servicing for the new buildings, and the Public Announcements and bell system.

Mechanical plant would mainly be operational during the day, and on the results of the assessment of the noise generated by the mechanical plant and equipment, the predicted noise levels at the surrounding noise-sensitive receivers are expected to comply with the project noise trigger levels where the mitigation measures recommended are adopted.

The bell and PA system are only used during school hours and are oriented inwards and therefore the noise impact to adjoining residents is low as shown in **Figure 72**.

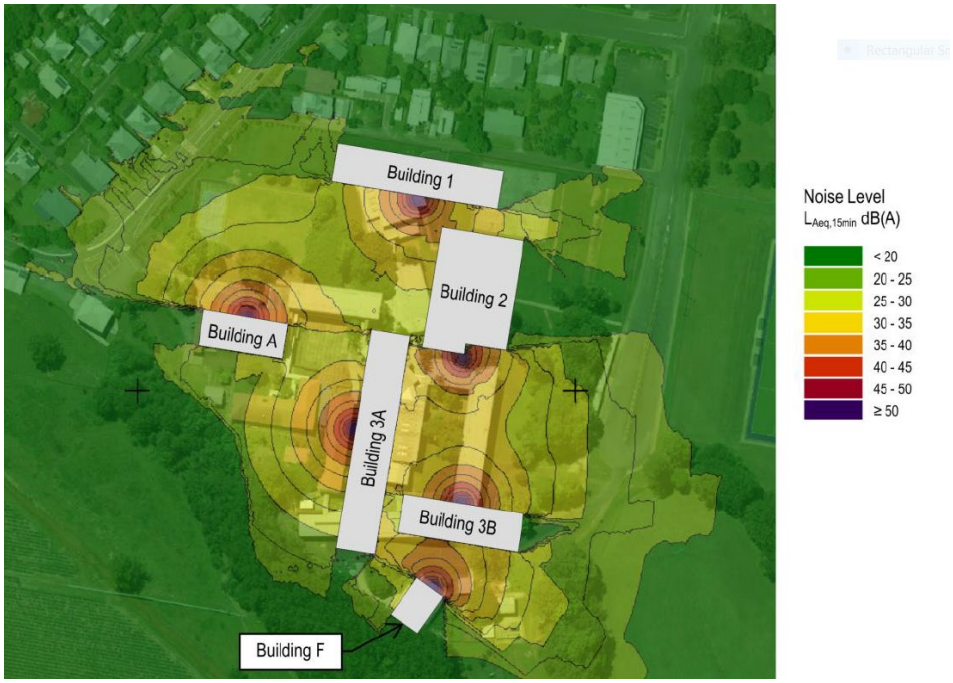


Figure 72 Noise coverage for the bell and PA system.
Source: E-Lab

Finally, a review was conducted for the road noise intrusion on the proposed development. As discussed in Section 2.3, the development is bounded by Riverview Street, High School Lane and Nullum Street, none of which are major roads.

It can be reasonably expected that internal noise levels for the development from road noise intrusion can be maintained within noise management levels using standard façade elements, and without the need for additional acoustic treatment or mitigation.

Construction Noise

A noise model was prepared to assess the noise impact from the site during the various construction stages. The noise model represents the 'reasonable' worst case periods of construction activities, meaning that all the equipment of each stage is operating simultaneously during a 15-minute observation period.

The noise assessment demonstrated no exceedances in acceptable noise levels with the exception of one location, RC1, being residential receivers on the northern boundary. The exceedance (of 3 dB beyond noise management level) only occurs during piling work for Building 1. As a result, this work will have to conducted during the day to avoid the possibility of sleep disturbance, and rest breaks will have to be provided. Noise monitoring will be conducted during the works.

Construction Vibration

An assessment was completed of vibration generated during construction and associated impacts on the surrounding vibration sensitive receivers. The highest

vibration inducing activities are predicted to be impact hammer piling and rock hammering / breaking. Vibration monitoring results for an activity of similar nature to the proposed piling method has been used as a proxy, and the result was that a distance of 10 to 15 metres from the piling rig produced a reading of approximately 1 to 2 mm/s.

The most-affected receivers are predicted to be residential receivers on the northern boundary (Location “RC1”), approximately 14 metres from future Building 1. Although the provided results indicate a lower magnitude than the DIN 4150 criteria (structural damage) for dwellings, it is still recommended that vibration monitoring be conducted at the most-affected receivers in accordance with the monitoring program proposed in **Appendix AA**, as the working and ground conditions will be different than that of the provided results. Should there be exceedance in vibration levels, use of alternative equipment should be investigated. Furthermore, a one-hour respite period should be applied.

6.11 Biodiversity

A BDAR has been prepared by EMM in accordable with the *Biodiversity Conservation Act 2016* (BC Act) and the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). It is attached at **Appendix O**. As noted in **Section 2.8**, this BDAR provides that a total of eight (8) threatened flora species were detected on the subject land, as well as five (5) threatened fauna species, including four (4) bat species and one (1) flying fox species.

The affected vegetation and habitat are shown in Figure 73.

The findings of the BDAR have been considered in the design of the proposed development to mitigate potential impacts to flora and fauna across the site and the desire to minimise and avoid ecological impacts has impacted on the location of the proposed buildings.

An overview of this assessment to flora, fauna and broader biodiversity impacts is provided below.

Flora

As noted at **Section 3**, the proposal will result in the removal of trees and areas of landscaping across the site. Areas of native planted vegetation identified as the Hoop Pine plantation and commemorative rainforest plantings were assessed as planted vegetation in the BDAR.

Given the high degree of modification, garden landscaping and disturbance across the site, vegetation within the development footprint does not conform to any plant community type (PCT) or ecological community listed under the BC Act and/or EPBC Act.

Outside of the development footprint, a total of eight (8) threatened flora species (identified as either vulnerable or threatened under the BC Act and/or EPBC Act) were detected on the subject land, including:

– Davidson's Plum (*Davidsonia jerseyana*);
– Smooth Davidson's Plum *(Davidsonia johnsonii*);
– Small-leaved Tamarind (*Diploglottis campbellii*);
– Fine-leaved Tuckeroo (*Lepiderema pulchella*);
– Queensland Nut (*Macadamia integrifolia*);
– Onion Cedar (*Owenia cepiodora*);
– Scrub Turpentine *(Rhodamnia rubescens*); and
– Coolamon *(Syzygium moorei*)

Figure 73 Vegetation within the development footprint.
Source: EMM

With the exception of Scrub Turpentine, the occurrence of the above species within the subject land are artificial populations 'not in the wild' and derived from planted stock. Although indigenous to the region, all are located within maintained gardens or within commemorative plantings surrounded by mown lawns or artificial structures. Given the high degree of modification and landscaping, vegetation at the site does not conform to any recognised native PCT.

In relation to the Queensland nut, Onion Cedar and Coolamon, all populations of these species within the subject land originate from plantings and therefore do not represent natural or important populations. Most individuals will be retained, with 3 of 4 for both Queensland nut and Onion Cedar trees being retained, along with 1 of 2 Coolamon trees. Due to the artificial origins of the populations of these species along with a substantial number of individuals being retained, the project will not result in a significant impact to these species.

In relation to the Davidson's Plum, Smooth Davidson's Plum and Small-leaved Tamarind, all populations of these species located on the subject land originate from plantings and therefore are not natural populations. Most individuals will be retained with no individuals of Smooth Davidson's Plum within the impact area, a total of 7 of 11 Davidson's Plum will

be retained along with 4 of 6 Small-leaved Tamarind (Diploglottis campbellii). Due to the artificial origins of the populations of these species along with a substantial number of individuals being retained, the project will not result in a significant impact.

In relation to the Scrub Turpentine, none of the 20 recorded individuals will be directly impacted by project activities and impacts to habitat will be negligible. The habitat occupied by the subject population is considered atypical for the species, is highly isolated from typical habitat areas and is heavily degraded. However, this area of vegetation will remain contiguous with all individuals located outside of the project impact area. Due these factors, the activities associated with the project will not result in a significant impact and the species population is unlikely to be adversely affected.

Notwithstanding, Myrtle Rust disease remains an active risk to Scrub Turpentine. As part of the mitigation and management of pathogen impacts, hygiene protocols will be implemented during construction to manage the risk of exacerbating existing Myrtle Rust on the existing population.

Fauna

A total of five (5) threatened fauna species (identified as either vulnerable or threatened under the BC Act and/or EPBC Act) were detected on the subject land, including four (4) bat species and one (1) flying fox species as follows:

– Little Bent-winged Bat *(Miniopterus australis);*
– Large Bent-winged Bat *(Miniopterus orianae oceanensis);*
– Grey-headed Flying-fox *(Pteropus poliocephalus);*
– Northern Free-tailed Bat *(Ozimops lumsdenae);* and
– Greater Broad-nosed Bat *(Scoteanax rueppellii).*

In addition to the above identified species, although not identified, one further species (Koalas, *Phascolarctos cinereus*), was considered to have a moderate likelihood of occurrence following the desktop assessment and has also been considered in the BDAR.

In relation to the Greyheaded Flying-fox, the habitat for the species which will be impacted by the proposal does not contain substantial winter and spring foraging habitat resources. Habitat for this species including Black Bean, Spotted Gum and Silky Oak each occur within the subject land; however the development is likely to directly impact less than 0.16 ha of vegetation containing these species. This is a small area of the total available foraging habitat on the site.

Therefore, the proposed development will not result in a significant impact to Grey-headed Flying-fox foraging habitat and the species population is unlikely to be adversely affected. Further, the area proposed to be removed is unlikely to represent habitat critical to the survival of the species and the proposed development is unlikely to interfere with the recovery of the species.

In relation to Bats, in preparing the BDAR the initial site visit determined that existing buildings proposed to be demolished may provide roosting habitat for microbat species as some are known to use a variety of urban and peri-urban habitats such as roof cavities. As Buildings Block E is planned to be demolished and buildings A and F are being refurbished, there is potential that roosting habitat would be affected. As a result, subsequent dedicated survey for microbats was initiated.

Roost searches of Building E were conducted on the site and bat detectors were used on 12 separate evening. No evidence of microbat activity was identified, with no microbat activity observed during the dusk emergence survey or recorded on bat detector devices. Based on this lack of evidence of roosting, it is considered likely that bats utilise the site for foraging activities only. As these species have large foraging ranges, the planted vegetation as foraging habitat is not likely to be critical to the persistence of these threatened microbat species in the locality.

Notwithstanding, given that bat species have historically been observed on the site several mitigation measures are suggested within the BDAR and will be implemented so as to minimise the impact to microbats.

In relation to Koalas, identified potential habitat present consists primarily of isolated foraging trees or small patches vegetation within landscape gardens and windrows. Foraging food trees in these areas recorded include Tallowwood, Flooded Gum and Spotted Gum. The subject land is also surrounded by heavily developed areas and barriers (e.g. fences) that are likely to impede site utilisation. It is considered unlikely that Koala would be reliant on the limited habitat areas surrounded by existing barriers and disturbances within the subject land and therefore the development is considered unlikely to modify or decrease the availability or quality of habitat to the extent that would lead to further decline.

Biodiversity Impact

The BDAR has also considered impacts on species and ecological communities listed under the EPBC Act and the BC Act. The development is expected to result in no significant impacts to any Threatened Ecological Communities (TECs) or threatened species. In addition, no TECs or ecological communities identified as being vulnerable to Serious and Irreversible Impacts (SAIIs) were identified within the site. As such, the development is unlikely to be a 'controlled action' and no referral under the EPBC Act is necessary.

The BDAR does not identify the requirement for any biodiversity offset contributions.

6.12 Geotechnical

A Geotechnical Investigation Report has been prepared for the proposed development by Douglas Partners. Refer to this report at **Appendix P**.

Reference to the NSW Department of Planning, Industry and Environment's (former – now DPE) *Seamless Geology Dataset* indicated that the ridgetop and hillslope portion of the site is underlain by the Devonian-aged Neranleigh-Fernvale beds with a lithology of feldspathic and lithic meta-arenite, meta-siltstone, chert, jasper, basic meta-volcanics, conglomerate; while lower lying floodplains are underlain by Cainozoic-aged undifferentiated alluvial deposits, with a lithology consisting of sand, silt, clay, and gravel; some residual and colluvial deposits.

Intrusive sub-surface investigations were carried out (drilling of boreholes) and testing to determine sub-surface conditions and make recommendations for construction methodology for the proposed building. Investigations comprised the drilling and sampling of seven boreholes to depths of between 14.0 m and 30.25 m, using either a drilling rig utilizing solid flight auger, mud rotary and NMLC rock coring methods.

The fill encountered generally comprised silty/sandy clay and silty/gravelly sand. It is probable that the fill encountered was placed under 'controlled' conditions as part of the building platform construction however given there are no records of this it is treated as 'uncontrolled fill'.

Due to the presence of 'uncontrolled' fill and near surface soils with a bearing pressure less than 100 kPa, the site (as a whole) in its present state would be given a 'Class P' classification and will require design by engineering principles.

Groundwater

Free groundwater was encountered at 3.8 m depth in Bore 103 while auger drilling and was not encountered during auger drilling (i.e. prior the introduction of water for mud rotary drilling) in the remaining boreholes. It is noted however that groundwater depths and ground moisture conditions are affected by external factors (climatic soil permeability, surface and subsurface drainage, human impact) and will therefore vary with time. Seepage may also occur along the fill/natural and soil/weathered rock interface during and after periods of wet weather. Further investigation comprising the installation of groundwater monitoring wells will be required to confirm on site groundwater levels, if required.

Douglas Partners has not identified the need for detailed groundwater investigations report or management plan.

Douglas Partners has indicated in their report specific practices for construction to manage groundwater impacts, and **Appendix P** also includes recommendations for construction methodologies for the proposed building based on testing, relating to site preparation and earthworks, excavation support, retaining walls, foundations, floor slabs, seismic design, pavements, site maintenance, drainage, and salinity. Refer to the reports for details.

6.13 Contamination and Acid Sulphate Soils

Douglas Partners has prepared a Detailed Site Investigation (DSI) for the proposed development at **Appendix S**.

Contamination

The report notes the following sources of potential contaminants on the site:

- Fill material of unknown origin placed at the site during the construction of the existing buildings;
- Pesticides, herbicides, fertilisers, petrol, or oils for agriculture (i.e., crops, grazing and tractor maintenance); and
- Hazardous building materials within current structures such as lead paint, synthetic fibres and asbestos.

One soil sample included a volume of zinc that exceeded the environmental screening level (ESL) for this substance. No exceedances were observed in any of the other soil samples. Testing for Total Recoverable Hydrocarbon (TRH) levels were recorded as below the Health Screening Levels. No asbestos was detected during investigations.

Consistent with Section 4.6 of the of the Resilience and Hazards SEPP, Douglas Partners concludes that here are no significant contamination issues at the site that could restrict the proposed development; and, nor did Douglas Partners consider that further investigation or remediation is required and that the site is suitable for the proposed use.

Acid Sulphate Soils

In relation to acid sulphate soils, there is potential for their presence in the lower lying eastern areas of the site, below a depth of approximately 0.5 m bgl, and at a depth of 1.25 m bgl near the location of borehole 2, within the site near the corner of Nullum Street and Hartigan Road. Although major excavation of soil below this depth is not expected to be required for the development, if any minor excavation of soil from below 0.5 m occurs (e.g., building piles and footings, underground service trenches) the procedures detailed in the Acid Sulphate Soils Management Plan (included in the DSI) would be implemented. Douglas Partners has indicated a suitable location for treatment, at the north end of the oval.

6.14 Utilities

An Infrastructure Management Plan has been prepared by JHA Services and is provided at **Appendix AD.** The Plan describes existing hydraulic, electrical and communication services for the site and outlines upgrade and augmentation strategies to serve the proposed development. Broadly, a number of upgrades are required to support the proposed development and are outlined below.

Electrical

The Infrastructure Management Plan identifies that the proposal will result in additional electrical loading which cannot be accommodated within existing infrastructure. Therefore, a new 1500kVA private pad mount substation is to be provided on site to support the proposed development, located along Riverview Road as the existing high voltage network cable is available on this road.

Telecommunications

The Infrastructure Management Plan identifies that the proposal will result in additional telecommunication requirements which cannot be accommodated within existing infrastructure. Therefore, a new campus distributor is to be provided on site to support the proposed development, located within Block A.

Potable Water

The site has access to two (2) water mains, including one (1) x 200mm Asbestos-cement pipe located to the western side of Riverview Street; and one (1) x 100mm Ductile Iron pipe located to the eastern side of Riverview Street. There is sufficient capacity within this existing infrastructure to accommodate the proposed development, without any upgrades required.

Sewer

The site has access to two (2) sewer pipelines, each 150mm and located to the eastern and western ends of High School Lane. There is sufficient capacity within this existing infrastructure to accommodate the proposed development, without any upgrades required.

Gas

The site does not have an existing gas connection, which is serviced by on site LPG storage. The proposed development does not include any gas connections, nor are they considered to be required. The proposed development will maintain existing arrangements, being on site LPG storage, which is sufficient to accommodate the proposed development.

6.15 Drainage

In-ground Stormwater System

Stormwater management plans have been prepared for the proposed development in the civil documentation package by TTW. Refer to these at **Appendix U**. It includes a Site Works Plan inclusive of stormwater planning and stormwater details. The Tweed DCP states that the maximum discharge rate shall be limited to 200 L/s/Ha for all storm events up to and including the 100-year ARI storm event unless otherwise approved by Tweed Shire Council. There is difficulty in achieving this due to the site's downstream flood constraints, and as such it has been agreed that maximum discharge from the development will not exceed current values.

The proposed development includes an on-site detention (OSD) tank with a minimum storage volume of 455m³. The OSD tank has been sized to ensure the post-development peak stormwater run-off does not exceed pre-development peak stormwater run-off levels.

Integrated Water Management Plan

The Integrated Water Management Plan has been provided within the Infrastructure Management Plan prepared by JHA (refer to **Appendix AD**) and details proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.

Potable water systems for human consumption, hygiene purposes and cistern flushing for the site is to be supplied from the primary water supply from the authority potable cold-water main nominated by Tweed Shire Council. An alternative non-potable water supply is proposed to be provided to the site via a new rainwater tank supplementing the supply for landscape drip irrigation. This non-potable water would be used for sanitary fixtures, appliances and equipment, fire hydrants and fire hose reels.

Due to the steep nature of the site, level changes across the campus necessitate a water management strategy to ensure that water is channeled and treated appropriately.

Water Sensitive Urban Design (WSUD) strategies have been incorporated by Arcadia (**Figure 74**) to ensure water is intercepted and filtered before it reaches waterways such as The Tweed River.

The landscape strategy relies on natural filter media such as rocks, plants and algae arranged in a variety of ways to make usually invisible processes visible to present unique learning opportunities for students.

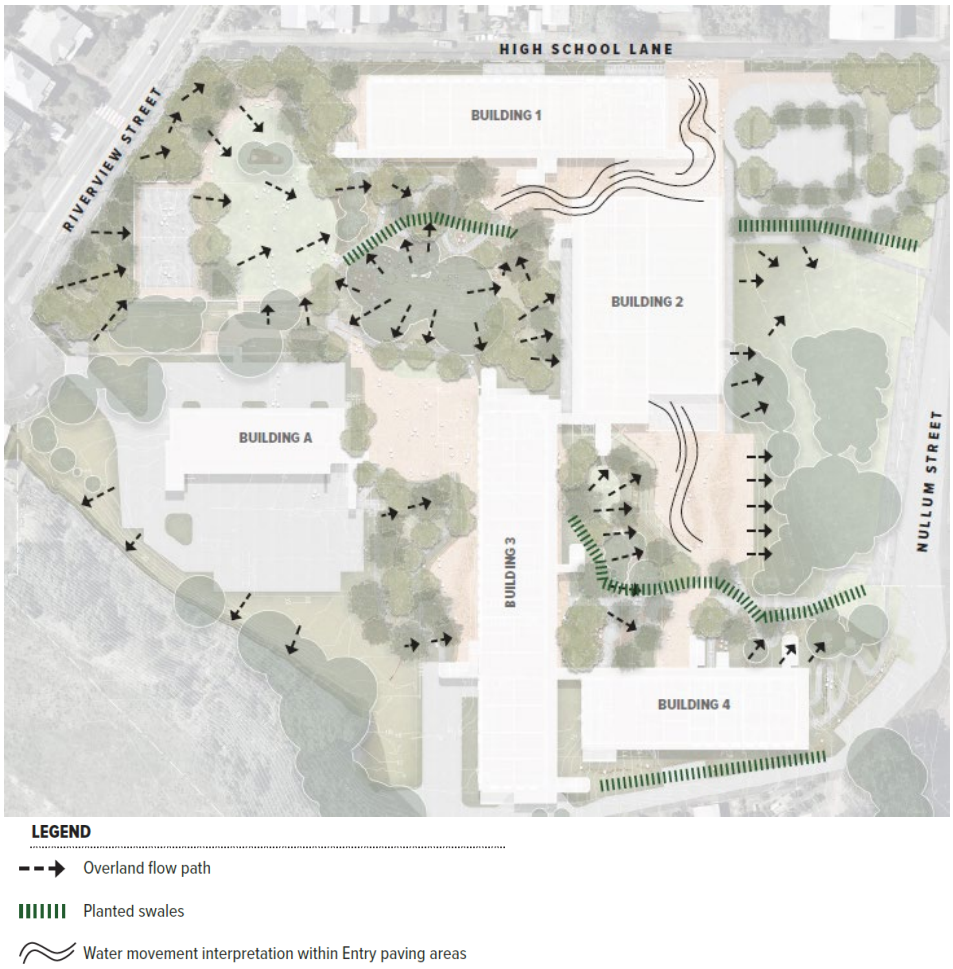


Figure 74 Water Sensitive Urban Design principles within the Landscape Strategy.
Source: Arcadia

6.16 Flooding

As noted in Section 2.9, the Section 10.7(2)(5) Planning Certificates issued for the site identify that all lots are flood prone. Therefore, the proposal includes design solutions to mitigate flood risk. A Flood Impact Assessment (FIA) has been prepared by TTW for the proposed development and is attached at **Appendix T**. This is supplemented by analysis of the February / March 2022 Flood Event at Attachment 1 to the FIA.

TTW advise the conclusions of the FIA are not materially affected by the outcomes of the February / March 2022 flood event. The recent devastating flooding in the Northern Rivers has demonstrated the importance of building school infrastructure that is flood resilient in Murwillumbah. While in many cases the 1 in 100-year flood level is considered a safe level to build above, all new campus buildings will be located above the 1 in 500-year flood level. Initial mapping of the March 2022 water level indicates that it would not have come close to the floor level of any of the proposed new buildings.

The proposed building floor levels will be set at the minimum of RL 7.50m which is above the 0.2% AEP flood level as required by School Infrastructure and above the Defined Flood Level and 1% AEP +500mm flood level as required by Tweed Shire Council.

The main car park for the campus will be located on the highest area of the site, well away from flood prone areas and will have accessible connections to all buildings. This will enable the campus to remain operational during flooding.

A Flood Emergency Response Plan will be completed as part of the ongoing development of documentation for the MEC development which will include:

- Communication with SES, Council, Staff and Authorities;
- Response for storm events up to the Probable Maximum Flood (PMF) event that affects the site and the surrounding township;
- Evacuation recommendations; and
- Shelter location recommendations.

Flood testing completed by TTW (refer **Appendix T**) demonstrated the proposed development has no significant impact on the existing flood behaviour. There are some minor changes to flood levels and flow distribution however the existing flood behaviour of flood water overtopping and filling behind the existing levees along Tweed River remain unchanged.

A comparison of the pre and post development flood levels is provided in **Table 26** and **Table 27**.

Table 26 Pre and post development flood levels at Nullum Street.

Flood event	Pre-development	Post development	Flood level afflux
0.2% AEP	7.49m	7.47m	-20mm
1% AEP	4.07m	4.08m	+10mm
5% AEP	3.03m	3.05m	+20mm
20% AEP	2.95m	2.97m	+20mm
0.2% AEP 'cumulative fill'	7.49m	7.47m	-20mm
1% AEP 'cumulative fill'	4.08m	4.12m	+40mm

Table 27 Pre and post development flood levels at High School Lane.

Flood event	Pre-development	Post development	Flood level afflux
0.2% AEP	7.51m	7.49m	-20mm
1% AEP	4.12m	4.16m	+40mm
5% AEP	3.03m	3.05m	+20mm
20% AEP	4.02m	4.05m	+30mm
0.2% AEP 'cumulative fill'	7.52m	7.50m	-20mm
1% AEP 'cumulative fill'	4.12m	4.17m	+50mm
Note: AEP = annual exceedance probability, where 1% represents levels in a 1-in 100-year flood, 5% AEP a 1-in-20-year flood etc.			

In summary, the proposed development has no significant impact on existing flood levels or existing flood behaviour, and the proposed building floor levels will be set at the minimum of RL 7.50m to be above flood levels required by School Infrastructure and Tweed Shire Council. No further mitigation is deemed necessary.

6.17 Sediment, Erosion and Dust Control

Soil Erosion and Sediment Control measures have been prepared for the proposed development in the civil documentation package by TTW. As noted by TTW, all works will be carried out generally in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004), also known as the "Blue Book". Refer to the civil report and drawings package at **Appendix V**.

6.18 Accessibility

Due to a significant height difference of approximately fourteen metres west to east, and the external site boundary access points being located at both the highest point (Riverview Street) and lowest point (Nullum Street), providing reasonable access provisions for people with disability and/or access needs has required a considered design approach.

The proposed access design strategy to address the steep site topography includes new and altered vehicular on-site parking and potential drop off and pick up zones at three main external pedestrian entry points to the school site: on Riverview Street (existing entry), High School Lane and Nullum Street (new primary school entry) and Nullum Street (new high school and public entry) with proposed parking along internal road-way (and potential High School Special Support Unit (SSU) drop off at Building 3) to assist in reducing travel distance and minimise steep access paths to/from buildings, where possible.

The proposal incorporates a new site wide access/lift strategy that includes circulation paths via walkways, stairs in conjunction with five new passenger lifts across buildings A and 1, 2, 3, 4 to facilitate vertical movement between building levels and horizontal movement across the site where the building level lifts transfer between corresponding site levels. A preliminary assessment of the principal pedestrian entrance to Block A (heritage building) identified performance-based access solutions will be required to allow for continuous accessible path of travel from this building entrance to the new buildings/open space areas. Access to the building is proposed via an accessible entrance and new lift located to the east of Building A.

Moreover, it is considered the proposed design is capable of compliance with the relevant statutory accessibility legislation to provide reasonable access provisions for people with disability to and within the proposed development. This will be achieved through a combination of compliance with the deemed to satisfy (DTS) provisions and/or the Performance Requirements of the Building Code of Australia (BCA).

6.19 Hazardous Building Materials

A Hazardous Building Materials Survey has been prepared for the site by JBS&G. Refer to this at **Appendix AB**. A full pre-demolition survey could not be undertaken, as the school is operational and occupied by staff and pupils and some parts of the buildings were inaccessible.

This report is relevant to the proposed demolition scope of works on site, including Building E and remaining in ground slabs. Asbestos and hazardous materials were identified or suspected to be present at the time of assessment. This report presents a series of recommendations relating to the management and removal of hazardous materials which are noted as mitigation measures in **Appendix D**.

6.20 Structural

A Structural SSD Report has been prepared for the proposed development by TTW. Refer to this report at **Appendix V**. An overview of key structural considerations is provided below.

Foundations and retaining walls

Piled foundations will be used on all new building structures. These will consist of either bored, continuous flight auger (CFA), or driven piles subject to design development. The current option being tested is 275-300mm square bored piles. Due to building proximity to each other, the school boundary, and due to varying levels across the site, specific retaining walls will be required adjacent to new buildings.

Vertical Structure

It is expected that for all the new building structures load bearing cross laminated timber perimeter walls and shear walls for internal structures will be used to support vertical load as well as lateral stability.

Roof Structure

The roof structure will consist of a secondary steel frame to walls built off a cross laminated timber floor.

Lateral Loading Resisting Systems

It has been agreed by the BCA consultant and the structural engineer (GroupDLA and TTW) that existing buildings (where proposed works are only minor) will not be reviewed for current earthquake standards. The new buildings are designed for earthquake loading in accordance with the relevant Australian Standards.

6.21 Waste

A Construction Waste Management Plan (CWMP) and Operational Waste Management Plan (OWMP) have been prepared by Built to manage the waste streams associated with the proposed development. Refer to **Appendix AJ** and **Appendix AL**.

Construction Waste

The CWMP should be read in conjunction with the CMP at **Appendix AK**. The CWMP provides an informed framework to maximise resource recovery and minimise waste during the demolition process. In accordance with Section A15 of the Tweed DCP (Waste Minimisation and Management), any waste generated at the demolition and construction stage will be reused and recycled where possible, with landfill disposal undertaken when required.

The CEMP notes that waste during construction will be managed through waste minimization and general waste tracking and disposal. This involves avoiding over ordering materials, minimizing the use of packing materials and buying environmentally approved and recycled products where possible.

Waste management training will form part of the site induction to ensure construction companies are aware of the waste disposal and tracking requirements. All hazardous waste will be disposed of safely and legally.

Operational Waste

The procedures for appropriate waste minimization and disposal once the school has reopened are summarised in the OWMP (**Appendix AJ**).

The operation of the existing Murwillumbah High School generates a variety of waste streams, including general waste, paper recycling, comingled recycling, shredded paper, e-waste and printer cartridges. The waste streams to be generated are expected to be similar. The waste will be stored within the designated waste storage area located on the school site. Waste collection vehicles will enter the site through Nullum Street and drive to the waste collection point to collect waste from the bins on designated collection days. Waste contractors wheel the bins for each waste stream from their resting position to the back of the truck for collection. The waste storage and collection points are within the boundary of the school grounds and not within a public place. Waste and recycling will be transferred by staff from the point of generation to the bin storage area.

6.22 Aviation

The site is located within proximity to Bob Whittle Murwillumbah Airfield. In accordance with Item 22 of the SEARs, an Aviation Impact Assessment has been prepared by Aviation Projects at **Appendix AG**.

This aviation assessment has considered the potential impact to the nearby Bob Whittle Murwillumbah Airfield and provides that the proposed development will not penetrate any Obstacle Limitation Surfaces (OLS) and will not impact flight or helicopter operations to or from this airfield nor any others within the vicinity of the site.

It is anticipated that cranes may be used during the construction phase of the project, the size of which are not yet known. In this regard, further review will be undertaken once the extent of any crane usage has been confirmed. Should cranes breach the OLS, this may require further approval from Tweed Shire Council and appropriate lighting installed. It is anticipated this will be required as a condition of consent.

In this regard, the proposed redevelopment will not unreasonably impact existing aviation operations at the site or to the nearby Bob Whittle Murwillumbah Airfield subject to the imposition of suitable conditions during the construction phase.

Any potential obstruction that may arise during the construction phase of the project will be managed to avoid conflict, as well as necessary authority approvals obtained.

6.23 Bushfire

All lots, and therefore the whole site, is identified as bushfire prone land under the TLEP 2014. Notwithstanding, it is only parts of the site that sit within the bushfire affected zone/buffer. The main source of bushfire risk within the site is the plantation located along the southwest boundary of the site, however it is considered Low Threat Vegetation, based on the characteristics given it is a single area of vegetation less than one hectare in area and greater than 100m from other areas of Category 1 or 2 vegetation.

Accordingly, a Bushfire Assessment Report has been prepared by BlackAsh Bushfire Consulting at **Appendix Q**. Refer an extract of the bushfire prone land map at **Figure 74** below.

Just beyond the boundary of the site are cane fields which are bushfire prone. However, there is no bushfire risk to the proposal from the cane fields as the setback between the cane fields and the buildings is greater than 70 metres. An overview of this bushfire prone vegetation is provided at **Figure 76** below.

As detailed in the Bushfire Assessment Report, the risk to proposed buildings has been classified as having a Bushfire Attack Level (BAL) of 12.5, thereby not requiring specific bushfire construction requirements under the BCA.

Notwithstanding, an Asset Protection Zone (APZ) is recommended to mitigate any bushfire risk to the MEC, which is managed progressively to minimise fuel loads and reduce potential radiant heat levels, flame, ember and smoke attack.

Accordingly, to manage this APZ and mitigate the bushfire risk ongoing, a vegetation management plan has been prepared for the site. It is anticipated this will be endorsed through a suitable condition of consent and remain in effect in perpetuity.

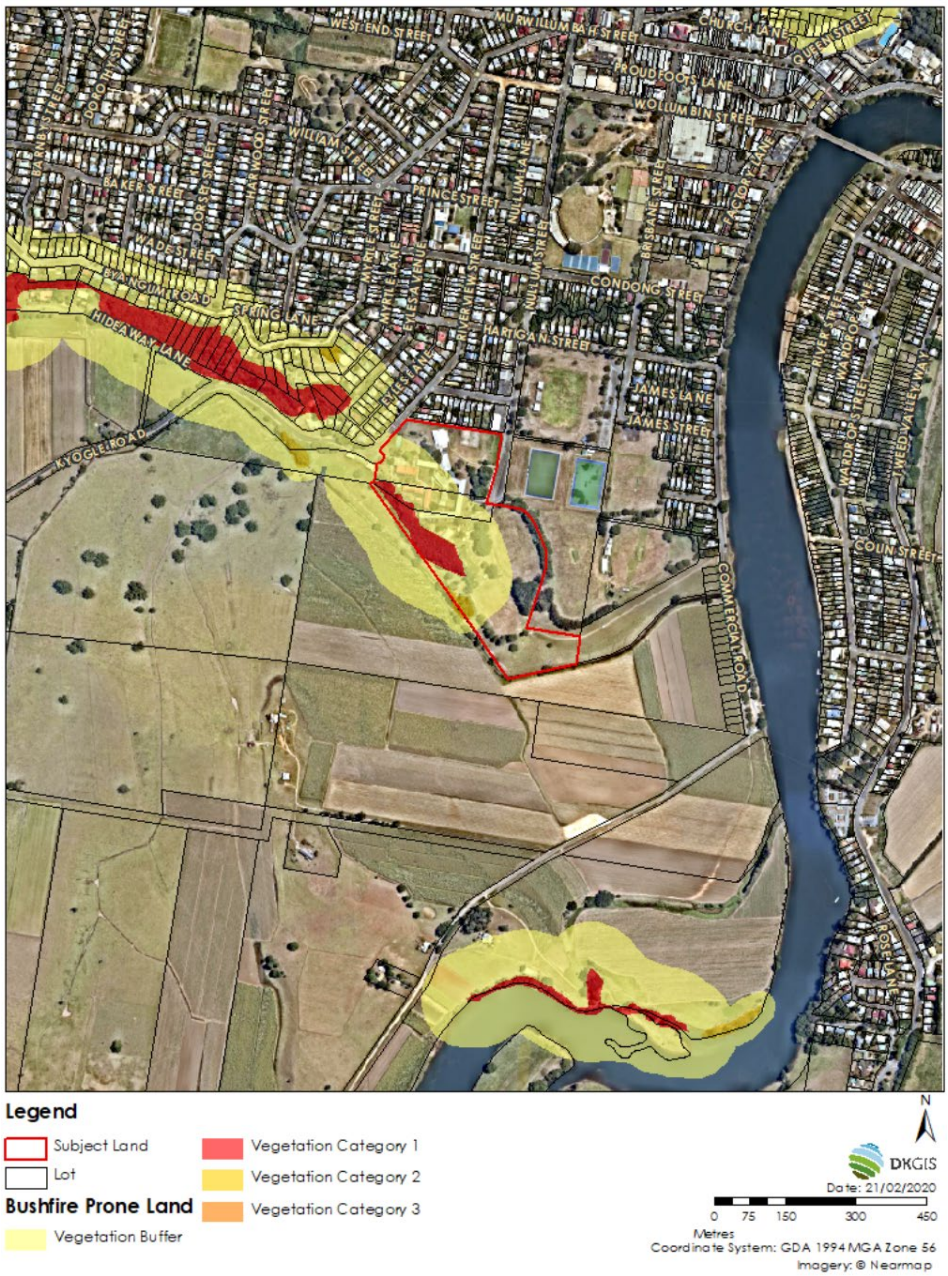


Figure 75 Bushfire prone land map
Source: Blackash

Figure 76 Bushfire prone vegetation within and adjoining the site.
Source: Blackash

6.24 Hazardous Goods

The operation of the campus will involve the use and storage of hazardous chemicals associated with the science department and primary industry studies. If not transported, stored or handled correctly, there is the potential for spillage or combustion, resulting in both environmental pollution and immediate safety risk to the person handling the chemicals.

A Dangerous Goods report has been prepared by JHA Services at **Appendix AC**.

Prior to demolition of Building D and S (which is occurring under a separate planning pathway) hazardous chemicals will be removed from these buildings and stored at a separate location prior to being transported into the new buildings for use in science and primary industry classes. Given the demolition of these buildings is occurring under a separate planning pathway, the temporary storage arrangement for these chemicals is also being dealt with separate to this SSD application.

Consistent with the recommendations of this report, all hazardous chemicals to be stored and transported as part of this SSD application, will be done so in accordance with the applicable Australian Standards and safety guidelines at all times. Consideration of DoEs "Chemical Safety in Schools" will be incorporated into the project. A Preliminary hazard analysis was deemed not required for the proposed development. Refer to proposed mitigation measures at **Appendix D**.

6.25 Economic Impacts

The economic impacts of the proposed development are positive as jobs will be created (651 FTE jobs during construction, no additional operational staff jobs immediately, and additional staff roles created in the long-term).

The construction works have a CIV in excess of $50 million which will stimulate the economy. Government infrastructure works are particularly important in this Covid-19 environment to generate jobs and stimulate the economy.

Overall, the improved learning offerings that will be delivered by the proposed consolidated campus will provide for additional opportunities for students ongoing and contribute to the local economy ongoing, through a broader range of education, training and employment opportunities.

6.26 Cumulative Impacts

Early works are being sought under Part 5 of the EP&A Act by School Infrastructure as ‘development without consent’ under the State Environmental Planning Policy (Transport and Infrastructure) 2021. These works allow for the demolition of some of the existing buildings on the school site to slab level as well as associated removal of hazardous building materials. These works would immediately precede the school upgrade works under this SSD application.

There will be construction vehicles travelling to and from site for the early works, although this will be limited. The largest vehicles will be a 20 metres automated vehicle.

The anticipated construction period for these early works is three months, which will add to the anticipated construction timeframes on site under this SSD application (15 months), resulting in a total timeframe of approximately 18 months of construction on site. It is noted that the precise duration and timeframe will be confirmed once a contractor is appointed for the proposed works. Note it will be the same contractor appointed for both the early and SSD application works. While the early works will add to the cumulative impacts to surrounding residents and community, there is no overlap between the early works and SSDA which would result in a cumulative impact above what is contemplated for this application. Further the early works package is required to facilitate construction of the new campus.

A detailed CEMP and CTPMP will be prepared for the SSDA and this could be conditioned to account for the cumulative impacts of early works on site.

During the construction stage, liaison with adjacent developments (if any) will be undertaken to mitigate the cumulative effect of the concurrent works. This will include the coordination of truck movements to prevent the combined impact of construction activities.

6.27 Site Suitability

There are no known site conditions which would prevent the development. There are existing topographical, heritage and flood constraints that have been considered during the development of the school design.

While existing trees will be impacted, and this is a consequence of being a constrained site, their removal will be compensated by proposed tree planting to increase the number of trees on site.

The works proposed to the Block A building are largely acceptable with moderate impacts to selected original elements and significant fabric being required to keep the building operational and make it fully accessible. Further, Block E (adjoining Block A) is being removed and is considered to encroach on Block A and so the impact of its removal is positive from a heritage perspective.

The impacts on surroundings during construction and operation are not significant and can be adequately ameliorated.

The site has long been used as a school and its redevelopment will ensure its longevity as a school is maintained, whilst keeping the heritage significance of part of the site and character of the broader area intact.

The proposed buildings respond to their context through building form, choice of materials and finishes. The design also responds to the local climate seeking out ways to passively cool classrooms and cross ventilate.

The site is therefore suitable for the proposed development.

6.28 Public Interest

Public Interest

The establishment of the MEC will enhance public education in Murwillumbah by supporting current and emerging learning and teaching approaches. At the campus students will have increased opportunity to develop the skills and capabilities they need to thrive in a rapidly changing and interconnected world, including critical thinking, collaboration and digital literacy.

The new facilities that will be provided at the campus are being built to support these educational outcomes, enhance student engagement and provide students in Murwillumbah with access to modern, flexible learning environments and facilities.

The proposal is in the public interest as it will support:

- Improved educational outcomes and opportunities in the region that will better respond to students' interests.
- Ability of the school to attract and retain quality teachers from urban areas to Murwillumbah with improved conditions and Innovative Learning Environments.
- The needs of students with special education needs at both primary and high school by providing adequate withdrawal spaces and supporting the delivery of consultation and therapy on site.
- Students with special education needs at both primary and high school by providing adequate withdrawal spaces and supporting the delivery of consultation and therapy on site.
- Improved accessibility for students and staff with access requirements.
- Improved student and teacher wellbeing through the provision of on-site school community health facilities.

- Reduced flood risk for students from Murwillumbah East Public School who will be accommodated on the campus.
- Improved and coherent landscaping strategy for the site which will provide a more appropriate setting for its heritage buildings and provide amenity benefits for users and visitors.
- Improving environmental performance of buildings on site given the new buildings will be designed to equivalent 4-star Green Star Design
- Job generation through an additional 651 construction and non-construction FTE jobs during construction phase. It will also retain all existing school jobs across the four schools. These jobs, together with the value of the project, will stimulate the economy.
- The continued use of the site as a school and the longevity of the school.

Given the above it is considered that the SSD Application has merit and can be supported by the Department of Planning and Environment and the Minister for Planning.

7. Project Justification

The Tweed Shire community is predicted to grow by 38% in the twenty-year period between 2016 and 2036 with a predicted population of 125,700 people in 2036. This will be matched by an increase in the school age population (LSPS, 2020).

The establishment of the MEC will accommodate up to 1,722 students providing them with a high quality, modern learning environment.

Moreover, the school facilities at the four schools are outdated and their capacity to support educational outcomes of existing students could be improved upon. The proposed educational campus will provide new learning spaces that are fully compliant with DDA standards, and that can accommodate a greater quantity of students with special learning needs than is currently possible across the four schools combined.

A larger number of students and teachers on the same site will also allow for a broader and more engaging curriculum to be offered. Support services are equally being provided on-site, in the form of the school community health facilities.

Numerous masterplan options were developed to address the service need of the site catchment. Analyses of these options eventually led to the adoption of the current design, which accommodates existing heritage and the topography of the site, creates distinct areas for the primary school and high school while also allowing for collaboration where appropriate. The design provides a more functional and accessible layout than the existing Murwillumbah High School and more modern facilities.

The main site constraints are heritage, topography and flooding. The design works with the topography to establish two distinct areas for the high school and primary school which are grade separated. All buildings are constructed to a minimum of RL 7.5m which is above the 1 in 500-year flood level, and above the defined floor level required by Tweed Shire Council. There are no historical archaeological, and/or Aboriginal cultural heritage constraints. There are some biodiversity constraints however they do not hinder the development as proposed. Whilst some of the existing trees will be impacted, their removal does not impact any biodiversity values on the site and will be compensated by proposed tree planting which will modestly decrease tree canopy cover (or increased by 300m^2 where tree removal for bushfire management is discounted) and increase the number of trees at the school. New tree plantings will also enhance existing habitats for flora and fauna in the locality.

The design of buildings limits the overall building envelope through the provision of vertical floor space (i.e., 3 or 4 storey buildings), helping to maximise open space area for use as student play areas and outdoor learning.

This has been balanced with the need to ensure new buildings are compatible with the local character. Any concern regarding bulk and scale is alleviated on consideration of spatial and acoustic separation from nearby residential development to the north (which also avoids overshadowing and privacy impacts), the relative decline of the site due to the natural contours and the screening provided by mature tree species.

The proposal results in an increase in available on-site parking. The carpark on-site on Riverview Street currently has 18 marked spaces and approximately 35 informal spaces on-site and this will be expanded to 161 formally marked spaces. Extensive community and Council consultation undertaken raised concern with the ability of the development to service increased staff demand for parking. This matter was considered in the TIA developed by Bitzios for the proposal.

The TIA considers several matters concerned with the additional demand on existing roads and parking created by both school staff but also demand from students and DoE staff. Similar concerns were raised by the community on how these areas would accommodate new student demand, although analyses have shown that there is capacity off-site to accommodate this demand and so parking availability for residents will not be significantly affected.

Notwithstanding, a STP has been prepared and develops strategies to encourage a greater uptake in cycling and walking modes, noting the relatively new cycling infrastructure in the locality. Furthermore, a Bus Operational Plan for Murwillumbah will be developed in partnership between School Infrastructure NSW, TfNSW and local service providers to provide appropriate public transport to the site. The predicted modal shift will lessen pressures on parking demand.

New strategies include the provision of additional bicycle/scooter parking for students as well as new bicycle parking and end of trip facilities for staff. Improvements to pedestrian linkages and carriageways on Riverview Street and Nullum Street are proposed to reduce queuing on these roads and improve pedestrian safety.

Potential impacts to surrounding residences because of noise and construction activities have also been considered by the project team. It is considered that any adverse impacts of the proposal can be appropriately mitigated through various measures, which have been summarised in **Appendix D** of this EIS.

Having regard to the above, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the proposed works will not generate significant environmental impacts, and impacts can be ameliorated and appropriately managed.
- The development will provide a significant new piece of social and educational infrastructure to the area, providing an education campus with permanent teaching spaces to accommodate 1,722 students. The provision of new flexible learning environments and facilities for the school will improve the quality of education.
- The proposal allows for the provision of new teaching and educational facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on the site or surrounding uses.
- The proposal is consistent with the principles of ecological sustainable development as defined by Part 3 Schedule 7(4) of the EP&A Regulation 2021.
- The proposed upgrade works are anticipated to create 680 jobs during the construction phase and retention of all operational jobs.
- The proposed upgrade works will not have a significant impact on any threatened flora or fauna species.
- The proposed upgrade works will not result in any adverse traffic impacts on the surrounding road network, and parking demand associated with the proposed development can be accommodated.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits, the proposed development is in the public interest.

Given the above it is considered that the SSD Application has merit and can be supported by the Department of Planning and Environment and the Minister for Planning.