

Design Verification Statement DRA Architects Pty Ltd July 2021

Project Name: Coffs Harbour Christian Community
School – New Campus
Project Address: Lot 2 DP 1194621 Bonville Station Rd,
Bonville NSW



Entry Perspective

Project Overview: Proposed staged development of a new Junior/ Middle School Campus located directly adjacent to the school's existing Bonville Campus. Proposal consists of two Junior school homebase buildings with associated Administration, Library, games courts and COLA spaces. The proposal also includes three additional middle school homebase buildings, shared Canteen and Special Education Building. Overall development includes associated parking and landscape works.

Architect's Name: Lia Mackenzie
Registration No.: Architect NSWARB No.7899

I confirm responsibility for designing the proposed development and have applied the Education SEPP Design Quality Principles.

Signature of Architect:

Architect's Name: Lia Mackenzie

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Overview

DRA Architects Pty Ltd understands that the consent authority (Coffs Harbour City Council) is required to consider the design quality of this school development in accordance with State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 [Education SEPP] Schedule 4 Schools—design quality principles.

To assist, DRA Architects Pty Ltd provides the following comments in regard to the seven design quality principles outlined in the Education SEPP.

Principle 1—Context, built form and landscape.

Schools should be designed to respond to and enhance the positive qualities of their setting, landscape, and heritage, including Aboriginal cultural heritage. The design and spatial organisation of buildings and the spaces between them should be informed by site conditions such as topography, orientation, and climate. Landscape should be integrated into the design of school developments to enhance on-site amenity, contribute to the streetscape, and mitigate negative impacts on neighbouring sites. School buildings and their grounds on land that is identified in or under a local environmental plan as a scenic protection area should be designed to recognise and protect the special visual qualities and natural environment of the area and located and designed to minimise the development's visual impact on those qualities and that natural environment.

Response

The proposed site for the new campus of the Coffs Harbour Christian Community School is located adjacent to the existing middle and senior school at their Bonville Campus, Bonville Station Road.

The Bonville Campus is situated in an existing semi-rural development area. The subject site is located to the south west of the existing school infrastructure. The site adjoins an existing blueberry farm to the west and open land (including school playground) to the south.

The overall development application proposal is for the construction of five homebase buildings, associated Administration and Library building, Canteen and covered outdoor learning areas. The development incorporates a special education building, carparking, games courts and extensive site landscaping.

All of the proposed school buildings are designed to be single storey with wide verandahs and generous overhangs to respect and respond to the surrounding built form and rural character.



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All the proposed buildings respond to their natural environment and are aligned east/west to take full advantage of their northern orientation.

The spatial organisation of the buildings is designed to take advantage of the natural light and ventilation opportunities. It also provides generous spaces between the buildings to provide both passive and interactive landscape opportunities. The spaces between the building are large enough for usable structural landscape design and planting. The spatial organisation of the buildings also provides good sight lines between the buildings and to external areas.

The Administration, Library and COLA roof are designed to be slightly more prominent than the homebase buildings. This is to ensure that the school contributes positively to the streetscape while keeping below the 8.5m maximum development height.

The wide verandahs and covered areas have been designed to provide both well ventilated covered outdoor spaces, as well as to provide adequate weather protection.

The most noise generating parts of the development such as the landscaped areas and future skate park/bike track are located internally within the development to provide visual and acoustic privacy between the new development and existing senior school buildings.

The design intent for the landscape design is to 'generate an attractive and cohesive setting that will enhance and compliment the visual character over the long term. Species will be located to offer visual screens and to define the boundaries between shored and private space , whilst still allowing permeable access'.

Principle 2—Sustainable, efficient, and durable

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

Response

Good environmental design principles which have been considered as part of this development include solar orientation, solar energy opportunities, access to natural light, passive ventilation opportunities and water reuse.

All of the buildings in the proposed development are orientated east/west to take full advantage of the passive solar benefits available to their northern elevation. All of the buildings have large north facing roof areas which are an ideal location for photovoltaic solar panels.

The generous spacing between the buildings will allow natural light penetration and good passive ventilation between the buildings. All homebase buildings are designed with both low level and high level operable glazed openings. The positioning of the windows is to ensure that natural light and natural ventilation are able to infiltrate into the centre of the homebases and to ensure each learning space has good access to these attributes. It is anticipated that this will reduce the reliance on mechanical ventilation and will provide naturally pleasant learning spaces.

The large roof areas will provide for stormwater capture, which is then intended to be filtered and reused across the site including provision for potable water reuse such as drinking, toilet flushing and laundry.

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The rainwater tanks will have a minimum effective capacity of 500,000L. All sanitary fittings are to be water efficient and Smart Watermark approved.

All the external materials selected are low maintenance and robust. The external wall finishes are all prefinished and do not require repainting or refinishing. The design of the building structure ensures that the structural elements can be constructed off site where possible and will reduce material wastage during construction. Energy efficient LED light fittings will be used for all internal and external fittings.



Covered Outdoor Learning Area

The semi-rural location of the school is proven to promote travel to school by local public transport. Students are encouraged to use the bus system (some of which are now electric). This effectively reduces the number of private cars that access the site.

Principle 3—Accessible and inclusive

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

Response

A main design feature that was critical for the school was to create a viewing corridor down the centre of the school to ensure the ability to provide an overview of the site from the main entry to the school. This main corridor provides excellent wayfinding and provides a welcoming and inclusive entry to the facility. To enhance this, clear sight lines are also provided between each of the buildings both within the site and to the adjacent external areas.

Covered disability compliant access is provided from the very front of the site from the designated accessible parking spaces to the main entrance and to all buildings and covered play areas in the development proposal.

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The prominent location of the Administration building and Library ensures that these facilities are easily identifiable and have quick access. The design of these buildings is intended to provide a welcoming presentation to the street for all visitors.

The games court and covered outdoor learning areas are also provided at the front of the school to ensure easy access to the public outside school hours.

The overall spatial organisation of the buildings allows the majority of the new buildings to be constructed on the existing natural grade of the site. This assists to ensure safe, easy access between the school buildings and the adjacent external play areas.



Special Education Building

Principle 4—Health and safety

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

Response

The semi-rural location of the site provides inherent security and the existing adjacent school campus has not experienced any security issues. The design of the entry to the school is clearly located for access during the public after hours.

Vehicle access to the site has been designed to separate the arrival of buses and private cars and assist with promoting student safety. Both the bus drop down/pick up area and the vehicle drop down/ pick up areas are located at the front of the site so that students can safely enter the school without crossing roads or walking through car parks.

The spacing of the buildings on the site allows for strong pedestrian links (mostly covered) between all buildings and external play areas. The wide covered verandahs, covered play areas and covered links between the buildings encourage sun safe play and safe egress between buildings.

Passive surveillance is provided by the good sight lines between buildings.

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There is a good balance of built form and landscaped areas which will provide staff and students with opportunities to enjoy both internal and external learning environments.

The COLA's, games court and mini soccer areas are provided to encourage formal play, and this is balanced by the open space between buildings and central informal green landscaped space which will provide for informal exercise, play and socialising.

Toilet facilities are well located around the school and will be designated to different year groups and genders. Toilet facilities are also provided to service the external play areas for easy access and surveillance.

The principles of crime prevention through environmental design have been considered during the design development of this project. The siting of the building provides good natural surveillance and space management. The physical location of the site provides inherent access control.

Principle 5—Amenity

Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood. Schools located near busy roads or near rail corridors should incorporate appropriate noise mitigation measures to ensure a high level of amenity for occupants. Schools should include appropriate, efficient, stage and age appropriate indoor and outdoor learning and play spaces, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage and service areas.

Response

The location of the existing school and proposed adjacent school campus currently has little to no impact acoustically on the surrounding adjacent development.

The low-density nature of the development allows maximum access to the natural environment including natural light, ventilation, and quality visual outlooks. The majority of the external play spaces are located centrally or between buildings to promote safety and visual privacy from the street.

The central landscaped area is intended to be used as a landscaped discovery play area for students. This will assist to provide diversity in learning spaces. The availability of the external play area, both formal and informal is generous in size.

The design of the homebase buildings will provide flexibility for changing pedagogy trends in the future. The flexibility of spaces will allow for the continuation of technological updates as they become available.

The Library building is designed to be a flexible multi-purpose space to enable the school to run larger activities in this building. This space combined with the generous covered area between the Library and the administration building will allow these spaces to provide ample space for a wide range of school and community based activities to take place. Wide opening bifold doors will enhance this connection.

Principle 6—Whole of life, flexible and adaptive

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

Response

The design of the buildings uses an economical structural design which can be easily adapted to accommodate new learning and teaching approaches in the future.

The regular rectangular single storey design of the building and homebase spaces will allow each learning space to be easily adapted to a variety of teaching styles. The use of loose furniture can be changed daily as required or can be changed as required into the future.

The spaces can easily be adapted for group learning, presentations, and small group breakout sessions. There are both internal and external areas available for reflective/quiet spaces.

The buildings are proposed to be constructed from lightweight yet robust prefinished materials which will withstand the rigours of the daily school environment yet are easy to repair and maintain.

The design responds to all the known site conditions including the topography, drainage, provision of services, acoustics, and traffic.

Principle 7—Aesthetics

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

Response

The proposed school is on a semi-rural site away from any surrounding neighbourhood and is surrounded by open farmland and the existing Coffs Harbour Christian Community School. There is no neighbourhood-built form in which to use as a contextual point of reference to base the schools' buildings form. As such the buildings have been designed to respond to educational requirements of the school in a simple, clean and modern format. The buildings are single storey lightweight structures with a mix of robust prefinished cladding and skillion and gable roofs with some high-level pop-up roofs with more adjustable glazing to promote natural light and ventilation.

The colour and material selections for the external finishes have been considered thoughtfully to assist with differentiation between the buildings and to assist with wayfinding.

The material composition to the street frontage has been purposely selected to be engaging and attractive.



Administration Front Perspective

The main view corridor has been designed to include a sub ground service 'spine' to ensure any changes or extension to services in the future can be easily adapted to the buildings without creating any unsightly pits or above ground cabling.

Coffs Harbour Christian Community School currently has high quality interactive landscaped areas and this will be mirrored in the new development.