

Better Schools

A design guide for schools in NSW

Design Verification Statement

Project Name: Concord High School

Project Overview

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Project Address: 3 Stanley Street, Concord 2137

Architect's Name: JDH Architects (Jayne Harrison – Principal & Founder)

Registration No. Arch Reg 7403

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

Description of the Project:

Design process undertaken:

- **Master Planning – Phase 1**
 - Explore the potential upgrade of the existing Concord High School from a 9 Stream School catering for 1285 students up to a 12 Stream School for 1540 Students in order to accommodate the projected population growth of the Strathfield Secondary Community Group (SCG) in which Concord HS is one of 6 school.
 - A Functional Design Brief (FDB) and Educational Rational were developed and endorsed by SINSW and the school.
 - JDH Architects and various consultant engineers developed multiple options which addressed the short falls in the schools EFSG requirements to achieve a 12 Stream Secondary School. SINSW reviewed the progress of design at various stages of the master planning program.
 - The final Master Plan Report presented 4 options in which was reviewed by Expert Review Group (ERG) of SINSW, and was presented to the State Design Review Panel (SDRP).
 - SINSW endorsed one preferred option.
- **Concept Design – Phase 2**
 - JDH Architects and various consultant engineers continued to develop the endorsed Master Plan Option. This phase looked further into the EFSG requirements and functional relationships of the proposed schedule of accommodation.
 - The final Concept Design Report was presented to the school, ERG and SDRP.
- **Schematic Design**
 - The endorsed Concept Design was further developed in conjunction with the consultant engineers to show a high level strategy on how the proposed buildings will be built.
 - More information was developed, and integrated to test the feasibility of the design.
 - The final Schematic Design was presented to SINSW for the purpose of exploring a Tender Package

Key design considerations:

- **Walking on Country** (a meeting with Darag Elders to discuss indigenous communities history and ongoing connection to the area) and to further strengthen the designs **Connection to Country**
- Educational Facilities Standards and Guidelines (**EFSG**) SINSW
- Asset Management Unit (**AMU**) SINSW existing works and upgrades
- Connection to the existing and extensive Saint Luke's Park Facilities
- **Heritage listed landscape** (gardens) on site and extensive tree and vegetation across the site.
- Maintaining a minimum 10m² of **outdoor space** per student across the 3.38 hectare site
- Maintaining as much existing buildings as possible except for the 15 demountable classrooms.
- Educational Rational (SINSW engage the school to focus on desirable outcome in the design to compliment the schools pedagogical approach and broader community engagement objectives)

Response to Education SEPP Design Quality Principles

Following the structure of the table below summarise how you have applied the Education SEPP Design Quality Principles to the proposed development. Drawings and reports can also be listed to support each response. Add pages as required.

1. Context, Built form and landscape

Concord High School is a co-educational public high school located in the inner-western suburb of Concord in Sydney, New South Wales, Australia. The school is situated on a large site that spans over 3 hectares and features a range of facilities to support the academic, cultural, and sporting needs of its students.

The school's context is characterized by a mix of residential, commercial, and industrial areas. The campus is located adjacent to the Parramatta River, and the surrounding area includes parks and open spaces that provide opportunities for outdoor learning and recreation. The school's location also offers easy access to public transportation, making it a convenient option for students living across the city.

The built form of Concord High School is a mix of late 1970s to early 1980s buildings that have been adapted over time to meet the changing needs of the school community. The original site was a former leather tannery and parts of its original landscaping from the 1940s have been retained and implanted in the schools current landscaping, highlighting an extensive exotic tree collection. This is landscape is now heritage listed. In recent years, the school has undergone significant renovations to modernize its facilities, such as updating outdoor sporting facilities and providing a large covered outdoor learning area(COLA).

The school's landscaping is designed to create a welcoming and inclusive environment for students, staff, and visitors. The grounds feature a mix of open spaces, gardens, and trees that provide shade and create a sense of tranquillity. The school also recognizes the importance of preserving and acknowledging the local Aboriginal cultural heritage, with several artworks and installations paying homage to the local Indigenous community.

In summary, Concord High School is a well-designed and maintained institution that responds to its context and heritage while also providing modern facilities and amenities to support the needs of its students. The school's landscaping and recognition of Aboriginal cultural heritage demonstrate a commitment to creating an inclusive and welcoming environment that reflects the values of the wider community.

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Contemporary design and spatial organization of new buildings and spaces between them are heavily influenced by site topography, orientation, and climate. Architects and urban planners are now incorporating these factors into their designs to create sustainable and comfortable spaces that are both functional and aesthetically pleasing.

One of the most significant considerations when designing new buildings is the orientation of the site. This involves understanding the path of the sun and the wind patterns to maximize the use of natural light and ventilation, reducing the need for artificial lighting and air conditioning. Additionally, architects consider the topography of the site, taking advantage of natural slopes and land features to create functional and visually appealing spaces.

The use of landscaping has become increasingly important in contemporary design, particularly in urban areas. Plants and greenery not only enhance the aesthetic of the building, but also contribute to the local ecosystem, reduce the heat island effect, and provide opportunities for passive cooling.

In terms of student amenities, contemporary design is also incorporating spaces for socializing and relaxation. Outdoor seating, shaded areas, and green spaces are all becoming standard features in new buildings, creating spaces for students to gather and socialize.

2. Sustainable, efficient, and durable

The new school facilities at Concord, are a testament to sustainable, efficient and durable design principles. These proposed facilities have been designed to maximise the use of natural light and ventilation, minimise energy consumption and reduce the school's carbon footprint. The facilities also incorporate durable materials and finishes that will stand the test of time.

One of the most notable features of the new school facilities is the use of natural light. Large windows have been strategically placed to maximise the amount of natural light that enters the buildings, reducing the need for artificial lighting during the day. This not only reduces energy consumption but also creates a more pleasant learning environment for students and teachers.

The new school facilities have also been designed to maximise natural ventilation. Large louvres have been incorporated into the buildings' facades, allowing fresh air to circulate through the classrooms and other spaces. This reduces the need for air conditioning, again reducing energy consumption and improving indoor air quality.

The school has also invested in solar panels, which provide a significant proportion of the school's energy needs. This reduces the school's reliance on grid electricity and lowers its carbon footprint.

The materials and finishes used in the new facilities have been chosen for their durability and low environmental impact. For example, FC sheeting has been selected for its durability, ensuring the facades will be hardwearing, have low maintenance requirements and easily assembled.

Overall, the new school facilities at Concord High School in NSW, Australia, are a shining example of sustainable, efficient and durable design principles. The facilities have been designed to minimise energy and water consumption, reduce waste and encourage recycling, and incorporate durable and sustainable materials and finishes. These features not only benefit the environment but also create a more pleasant learning environment for students and teachers alike.

3. Accessible and inclusive

One of the key benefits of the redesign is accessibility. The campus is designed to cater to the needs of students, teachers, and visitors who may have mobility issues, including wheelchair users. All buildings on the campus are fully accessible, with ramps. A lift is available in the new Block Y to make it easy for everyone to get around both Block Y and Z. In addition, the school has specially designated parking spot for people with disabilities, ensuring that they can easily park and access the campus. Proposed covered walkways will also help to connect existing off site car parking (St Luke's Oval Council Carpark) keeping all visitors dry on wet weather days.

The proposed courtyard of the school is particularly impressive. Situated between Blocks X, Y and Z, it is a large, open space that provides a warm welcome to students, teachers, and visitors alike. The courtyard is well-lit, making it easy to navigate even in the dark. It is also spacious, which makes it easy for people to move around, whether on foot or in a wheelchair. The courtyard is a perfect place for people to gather, relax, and enjoy the adjacent canteen facilities. Shade sails provide additional shaded play space. It is also elevated above the ground level making it great for viewing sporting activities on the nearby recreational sports field. Its proximity to the tiered outdoor seating and adjacent covered outdoor areas are also strengths in the design, which further enhance inclusivity.

The new multi-purpose gymnasium (Block X) is a spacious and versatile facility that can be used for a range of activities, including assemblies, concerts, and sporting events. It is also available for use by the community outside of school hours, providing a valuable resource for local groups and organizations. The gymnasium is fully accessible, with a ramp to the stage to ensure that everyone can access it.

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The new Movement Studio in (Block Y) offers a second potential shared community space suited for more intimate activities/performances.

Both the Gymnasium and the Movement Studio are easily accessible from the main street entry off Stanley Street (no stairs or ramps between both points) which has an ample supply of street parking and links these new facilities to the St Luke's Oval Park Lands.

4. Health and Safety

Concord High School has been designed with a focus on optimizing health, safety, and security for its students, staff, and visitors. The buildings and grounds have been designed to provide a welcoming and accessible environment while ensuring that safety and security are not compromised.

The main entrance (Stanley Street) is easily identifiable and well-lit, ensuring that visitors can find their way into the administration unit and other shared facilities without any difficulty. The school also has multiple entry and exit points, one in particular links the St Luke Oval Council Carpark, which helps to minimize student congestion and make Kiss and Drop activities easy.

The existing Crane Street entry is retained for services and other vehicle access, especially so emergency services can access the centre of the school. All entries are designed to eliminate potential hazards, collisions, trips and falls

The proposed buildings have been designed to optimize health and safety. The classrooms (Block Y and X) are well-ventilated, ensuring that the air quality is good, and that students and staff are not exposed to harmful pollutants. State-of-the-art mechanical is designed to reduce both emissions and running costs.

In addition to the above features, the school has security cameras installed in strategic locations, which can monitor any suspicious activity. Electronic gates can be activated by the Administration unit to isolate the community share space (main entry) from the active student spaces.

In conclusion, Concord High School has been designed to optimize health, safety, and security. The landscaped boundaries, multiple entry and exit points, well-ventilated classrooms, well-maintained grounds, and strong security presence are all designed to create a safe and welcoming environment for students, staff, and visitors. The school's design is a testament to the importance of prioritizing health, safety, and security in educational institutions.

5. Amenity

The design of the buildings and the landscape also consider the needs of the surrounding community. The school is in a residential area, and JDH Architects has taken care to ensure that the building and its activities do not disturb the neighbours. For example, the proposed building and spaces have been designed to minimize noise and light pollution through locating these away from the existing residential neighbours. The chosen location also minimises the impact on the heritage listed gardens on site and takes advantage of the heritage listed fig trees which line Stanley Street and help to soften the facade. Materials, colour and textural selections complement the existing buildings on site and neighbouring, whilst also strengthening the connection to Country.

The indoor spaces at Concord High School have also been designed to be functional and efficient. Each classroom is well-equipped with storage and service areas, ensuring that teachers and students have everything they need to facilitate their learning. Additionally, the classrooms have been designed with visual and acoustic privacy in mind, ensuring that students can focus on their studies without distractions.

In conclusion, the design of Concord High School has been carefully crafted to provide an engaging and functional environment for students of all ages. The building and its grounds offer a wide range of indoor and outdoor spaces that are accessible and appropriate for educational, informal, and community activities. The design takes into account factors such as natural light, ventilation, privacy, and storage to create a comfortable and efficient learning environment. Additionally, the design of the building and its grounds has been carefully considered to minimize disruptions to the surrounding community, ensuring that Concord High School is a valuable asset its locality.

6. Whole of life, flexible and adaptive

Concord High School is a forward-thinking institution that has prioritized the design and development of its buildings and grounds to consider future needs. The school's design is underpinned by a whole-of-life approach, which is reflected in its site-wide spatial planning.

The school's buildings are designed to maximize energy efficiency through the use of passive heating and cooling systems, energy-efficient lighting, and insulation. The building's orientation also takes advantage of natural light, which reduces the need for artificial lighting and further reduces energy consumption.

The school also features a rainwater harvesting system that collects and stores rainwater, which is then used for irrigation. Combined with drought tolerant planting selections this reduces the school's reliance on municipal water supplies and helps to conserve water resources.

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Another critical aspect of Concord High School's design is its ease of adaptation. The school's buildings and grounds are designed to be flexible and adaptable, so they can be easily modified to meet future needs. This approach ensures that the school can continue to evolve and grow over time without needing to undergo significant renovations or rebuilds.

The school's design also maximizes multi-use facilities, ensuring that the buildings and grounds are used efficiently and effectively. For example, the school's gymnasium and adjacent covered outdoor learning area is designed to be used for both school performances and community events, providing a space that benefits both the school and the wider community.

The school's commitment to environmental sustainability, ease of adaptation, and multi-use facilities makes it an excellent example of innovative and forward-thinking educational design

7. Aesthetics

Concord High School is a testament to the successful integration of architecture, landscape design, and urban planning. The built form of the school has been designed with meticulous attention to detail, resulting in an aesthetically pleasing composition of elements that enhance the surrounding neighbourhood and create a positive impact on the quality and character of the locality.

One of the key elements of the school's design is its proportion. The buildings are designed to be in harmony with each other and the surrounding landscape, creating a sense of balance and coherence. The use of scale and proportion has been carefully considered to ensure that the buildings do not overwhelm the surrounding area, but rather blend in seamlessly with the environment.

The outdoor spaces have been carefully planned to ensure that they are functional, comfortable, and aesthetically pleasing. The combination of the buildings and the landscape creates a sense of unity that is both visually appealing, practical and inclusive for all. Particular attention has been paid to strengthening the Connection to Country through the design process.

The use of materials such as brick and fibre cement sheeting adds warmth and texture to the buildings and reinforces the connection between the school and its natural surroundings.

The buildings are also designed to be accessible, with ample parking spaces, bike racks, and pedestrian pathways that connect the school to the surrounding neighbourhood.

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The positive impact of Concord High School's design on the quality and sense of identity of the neighbourhood cannot be overstated. The school has become an integral part of the community, providing a safe, welcoming, and inspiring environment for students, staff, and visitors alike. The buildings and landscape are a testament to the power of good design and the importance of creating public spaces that are functional, sustainable, and aesthetically pleasing.

In conclusion the school's design responds to elements from the site and surrounding neighbourhood, demonstrating the importance of context in the design process. The result is a school that not only provides an exceptional learning environment but also adds value to the community and enhances the quality of life for all who interact with it.