



## **CURL CURL NORTH PUBLIC SCHOOL**

Playfair Road, North Curl Curl  
NSW 2099

# **Urban Design Report**

For

NSW Department of Education

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## 1.0 Introduction

This Urban Report has been prepared by Tanner Kibble Denton Architects on behalf of the New South Wales Department of Education (DoE). It accompanies an Environmental Impact Statement (EIS) prepared in support of State Significant Development Application SSD 8310 for the redevelopment of 'Curl Curl North Public School' at Playfair Road, North Curl Curl (the 'site').

The site is located within the Northern Beaches Local Government Area (LGA). It is irregular in shape and has a total area of 28,083.9m<sup>2</sup>. It includes a 133m street frontage to Abbott Road to the south, and a 220m street frontage to Playfair Road to the west.

The capacity of Curl Curl North Public School (the 'School') is proposed to be increased in response to local population projections currently forecast by the DoE. The school's existing demountable stock, and the majority of its existing buildings will be replaced by new high quality classrooms, collaborative learning spaces, open play spaces, sports courts and associated facilities.

The purpose of this Urban Design Report is to analyse the existing urban character of the school and provide a summary of the urban design response and strategies incorporated into the proposed development detailed within the EIS.

## 2.0 Project Background

### 2.1 Location

The site is located at Playfair Road, North Curl Curl, NSW 2099 and located over the following sites:

- > Lot 1 DP 731454 and Lot 286 DP 752038

North Curl Curl is located 20km north of the Sydney central business district.

### 2.2 General Project Description

The objective of this project increase the capacity of the existing school, and improve its facilities to meet current educational planning principles. With the proposed redevelopment, the school's capacity will increase from its current population of 920 students to 1000 students, and from 66 staff to 69 staff. This represents an increase of 80 students and 3 staff (equivalent to an increase of 8.7% and 4.55% respectively).

### 2.3 Background

The school was first established in the 1950s, and subsequently extended in the 1960s, 70s and 90s. The most recent building constructed was a block of 6 homebases constructed via the BER program. The original school buildings are still in use today but have been supplemented by a large number of demountable and MDR classroom blocks. The current school comprises Kindergarten classes and classes catering for students from grades one to six.

The key drivers of this project are to:

- a) Meet future projected enrolment growth to 2031
- b) Meet the requirements of the DoE's educational planning principles
- c) Improve the performance of the school assets
- d) Achieve the best value for money by maximising functionality of existing assets
- e) Maximise existing infrastructure to satisfy asset requirements

Key stakeholders through a Project Reference Group (PRG) developed the following Project Educational Planning Principles aligned to DOE's over-arching responsibilities:

- a) Connect students to their natural environment
- b) Authentic outdoor learning
- c) Support a personalised learning approach
- d) Support collaboration across groups of different sizes
- e) Vibrant student culture, promote student engagement and celebrate student achievements
- f) Support a diverse curricular and extra-curricular program
- g) Providing mobile integrated technologies that support collaboration and creativity
- h) Comfort and well-being
- i) Technology rich library facility that will be a destination space
- j) Reflect the school's relaxed, community-focused identity and preserve the school's sense of openness
- k) Support a professional community of practise

### 3.0 Site Analysis

#### 3.1 Existing Urban Character

The site is located at the intersection of Abbott Road and Playfair Road, Curl Curl North. Immediately to the south is John Fisher Park - a series of large Council owned playing fields and netball courts that sit beside Curl Curl Lagoon. To the east, north and west are low scale residential dwellings, typically 1-2 storeys in height.

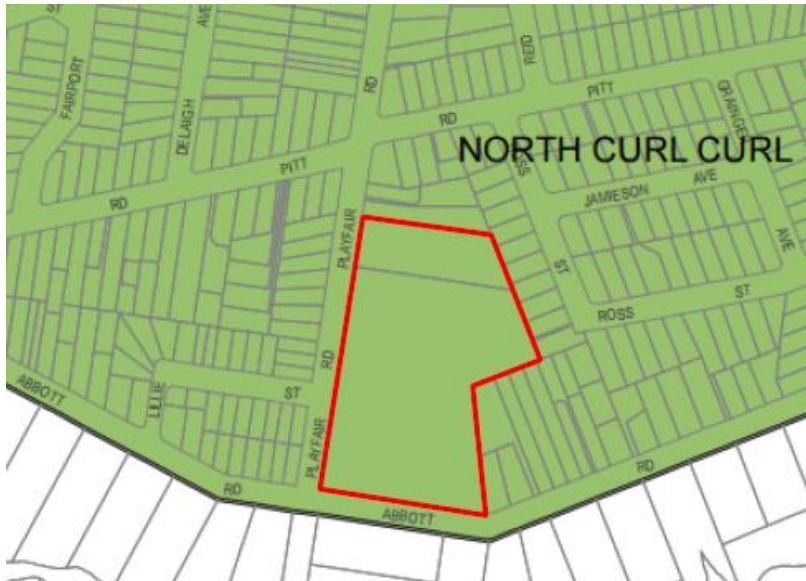
The main pedestrian and vehicular access into the school grounds is from Playfair Road and Abbott Road. There is a secondary pedestrian entrance via a laneway connecting to Ross Street.



*The existing site consists largely of grassed paddocks spread below remnant native canopy trees with minimal understorey planting*



*The area surrounding the site is low density residential, with significant areas of open space across Abbott Road.*



*The surrounding area is low-rise, with a height limit of 8.5m*

### 3.2 Landform

The school currently has open informal play space to the north with a synthetic playing field and shade structure. Smaller garden play spaces and vegetable gardens are interspersed amongst the existing demountable and classroom blocks. An existing staff car park is situated in the middle of the site. To the south is an open playing field which has some grass in poor condition and play equipment located in the south eastern corner. The site falls with 7m fall from north to south with an even gradient to the low point on the SE corner of the site.

The surrounding landscape plays an important part of the existing school character and the school has very well defined edges with significant mature trees along the boundaries with adjoining properties and the street. There is also a mature Morten Bay Fig tree at the centre of the school.



*Courtyard play area adjacent to the original 'Bristol' school buildings*



*Informal seating and play areas at the north of the site*



*Block M, flanked by demountables. The most recent permanent structures on site are compliant with current Building Codes.*

### 3.3 Street Network

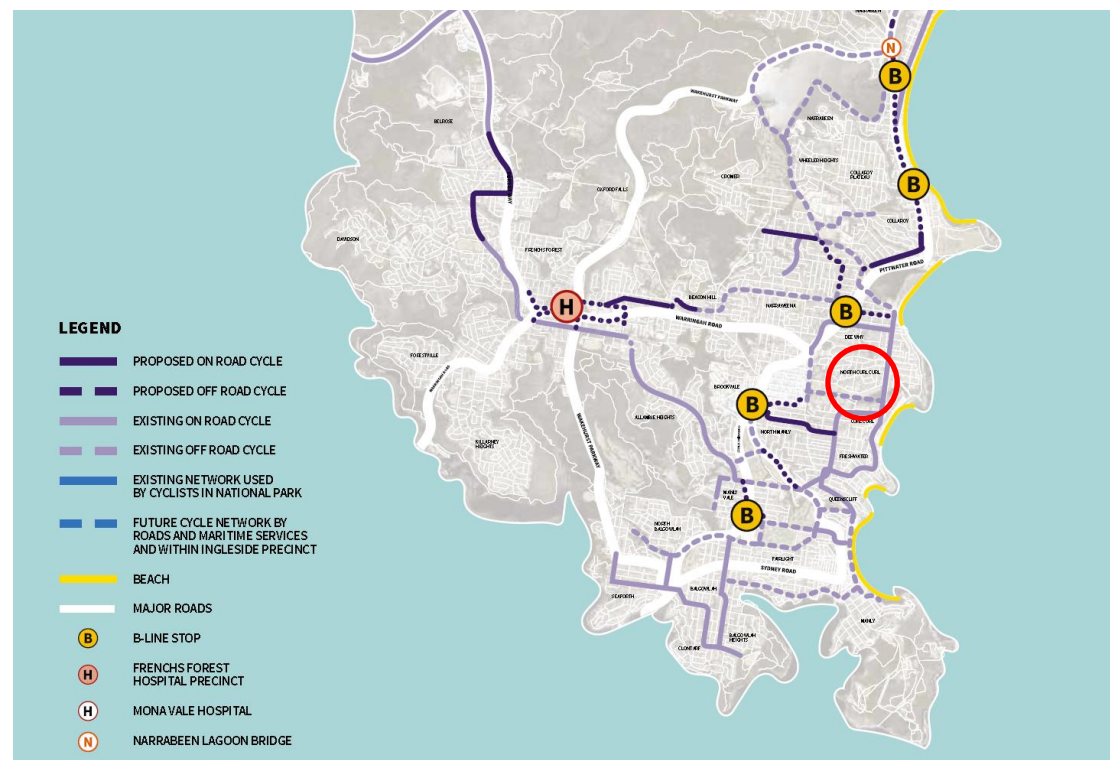
Abbott Road is approximately 12m wide, and carries a single lane of traffic in both directions, with unrestricted street parking on both sides.

Playfair Road is a local road which runs in a north-south direction between Pitt Road to the north and Abbott Road to the south. Playfair Road carries a single lane of traffic in both directions. Playfair Road currently accommodates pedestrian access via three school entrances on Playfair Road, special school bus services/zones, pick-up/drop-off facilities and vehicular access to the existing on-site car parking and waste servicing areas. There is pedestrian school access on Ross Street via a laneway between No.17 and No.19 Ross Street.

Northern Beaches Council is developing a “Connecting the Northern Beaches” initiative with the following objectives:

- Physical connections between Northern Beaches’ towns and villages via walkways, cycleways and shared paths
- Integrate with the B-Line, providing great pedestrian and cycleway access to faster public transport
- Increased use and convenience of facilities and services, as well as community health benefits, with active transport options

Under the initiative, existing active transport routes in the vicinity of the school will be connected to neighbouring areas.



*Extract from the Northern Beaches Council “Connecting the Northern Beaches” initiative map. The school’s location is indicated by the red circle.*

## 4.0 Opportunities & Constraints

### 4.1 Opportunities & Constraints

Based on the analyses of the site provided below, the following urban opportunities and constraints have been identified:

- > The local area is predominantly one and two storeys in scale
- > Abbott Road and Playfair Roads have characters distinct from one another
- > The Abbott/Playfair Road corner is prominent and highly visible
- > Existing, well-used site entrances
- > Existing sewer easement to the north
- > Significant trees provide a green perimeter around the site
- > Desirable connection between the school and John Fisher Park



*The site is on the edge of residential development and open space. The north-south orientation of the site provide opportunities for capturing natural light and breeze*



#### **Existing Urban Design Opportunities**

- Multiple neighbourhood connections
- Significant trees
- Prominent street corner at Playfair and Abbott Roads
- Relationship to John Fisher Park

#### **Existing Urban Design Constraints -**

- Sewer easement to the north

## 5.0 Concept Design Options

In consideration of the Urban Design opportunities and constraints identified, a number of concept design options were tested.

### 5.1 Option 1 (Preferred Option)

This option consolidates the school at the south of the site.

The following advantages and disadvantages were identified for this option:

- > The built form provides a well-defined public face to the school along Abbott Road
- > The proposed buildings are kept distant from residential neighbours, reducing the chance of overshadowing and privacy issues
- > Play space is maximised in area
- > Solar access is maximised to play areas and teaching spaces
- > The buildings are located in an area of the site which needs to consider flood and overland flow

For the advantages described above, Option 1 was determined to respond best to the urban design opportunities and constraints and provide the best educational outcomes for the school. This is the preferred option and has been pursued for the SSDA.



Site Plan – Option 1

## 5.2 Option 2

This option is almost completely single storey, with the exception of a prominent corner building.

The following advantages and disadvantages were identified for this option:

- > The lower scale of this option retains the neighbourhood's low density aesthetic
- > Many opportunities for indoor/outdoor connections
- > The two storey building is located on a primary street corner with good community presence
- > A strong connection is created between the outdoor play space and John Fisher Park
- > Buildings spread across the site limits potential for future expansion of the school, if required
- > North-south orientation of buildings is environmentally challenging
- > The street edge is poorly defined
- > Homebases located distant from one another may limit interaction between classes and sense of school community
- > Bulk of the proposal bounds the residential boundary so may be viewed negatively by neighbours



Site Plan – Option 2

### 5.3 Option 3

This option locates single storey buildings along Playfair Road.

The following advantages and disadvantages were identified for this option:

- > The lower scale of this option retains the neighbourhood's low density aesthetic
- > Many opportunities for indoor/outdoor connections
- > Smaller scale outdoor spaces along Abbott Road provide a connection is created between the school and John Fisher Park
- > Buildings spread across the site limits potential for future expansion of the school, if required
- > North-south orientation of buildings is environmentally challenging
- > The Abbott Road street edge is poorly defined
- > Homebases located distant from one another may limit interaction between classes and sense of school community



Site Plan – Option 3

#### 5.4 Option 4

This option locates the buildings towards the north of the site, but clear of the existing sewer easement.

The following advantages and disadvantages were identified for this option:

- > Many opportunities for indoor/outdoor connections
- > Green spine running the length of the site and connecting to John Fisher Park across the road
- > Existing southern playing field is retained
- > North-south orientation of buildings is environmentally challenging
- > The Abbott Road street edge is poorly defined



Site Plan – Option 4

## 6.0 Design Proposal

### 6.1 Conceptual Urban Design Principles Incorporated into the Proposal

The Design Proposal incorporates the following Urban Design considerations:

- > The main school entry and shared community facilities (hall, library, etc) are accessed from the Abbott/Playfair Road corner via a formal entry
- > The school buildings are located to the perimeter of the site as a visual and acoustic buffer to the schools play areas and to provide a visual presence for this important community facility
- > The buildings are arranged in a U-shape to create a central civic courtyard and connect outdoor areas with teaching spaces
- > The proposed buildings connect into existing buildings that have been deemed suitable for the current educational planning principles
- > Existing site access points are retained
- > Construction is kept well clear of the significant fig tree



*Conceptual Urban Design Principles*

### 6.2 Detailed Urban Design Principles Incorporated into the Proposal

- > The building is primarily two storeys in scale, which is in keeping with the predominate scale of the surrounding development.
- > Verandah spaces (shaded in red below) provide a transition zone between indoor and outdoor spaces
- > The built form is broken into smaller components to allow permeability between buildings for pedestrians, natural light and ventilation

- > Clear delineation between the public face of the school, the zones available for community use, and zones for the exclusive use of enrolled students and staff



*Detailed Urban Design Principles*

## 6.2 Facade Design and Materials

Materials have been selected based on their quality, durability, and for their coastal aesthetic. Glazed brick is hardwearing material which is generally provided at the lower levels of the building and where the facade can be accessed. A mix of fibre-cement sheeting and metal cladding is generally used at the higher and inaccessible locations of the facade. Timber screens are proposed as feature elements and main entry points.

The spaces within the building are naturally ventilated and the building width has been minimised to encourage good cross ventilation. Windows have been maximised to provide good levels of natural light and high level operable louvres incorporated for ventilation.

North-facing verandahs have been incorporated outside homebase areas to protect the building from direct sun penetration.

## 6.3 Crime Prevention through Environmental Design (CPTED)

The following environmental design features have been incorporated to minimise crime:

- > The internal spaces of the school are open and visible from the surrounding public street network, providing good natural surveillance.
- > Building alcoves and areas for hiding in the landscape have been minimised.
- > An open palisade fence will be provided that allows views into the site.

## 6.4 Integration of Services

Services have been integrated into the building design and have minimal impact. A summary of the main building services is provided below:

### Electrical

- > A substation is likely to be required to provide power to the site, with access from the street
- > The main switchboard and electrical distribution boards have been located in cupboards and integrated into the building design.

### Mechanical

- > There is no air conditioning proposed
- > Mechanical exhaust is provided where required to toilets and is integrated into the building design
- > Gas flued heaters are provided to occupied spaces and are integrated into the building design

### Hydraulic

- > Fire hydrant booster is required to service the site and has been located on Abbott Road.
- > Rain water collection tanks exist on the site and these will be retained.
- > Water supply, drainage and sewer will all be integrated into the building design.

### Civil

- > Stormwater pits and grates will be located around the site to pick-up site stormwater. The stormwater system drains into the main street stormwater system located along Abbott Drive.
- > Overland flow paths have been considered and incorporated into the landscape and civil design
- > Flood risk has been considered, and has determined the minimum RL of the proposed buildings
- > Buildings are located away from the main flood risk area, which is located in the zone of the proposed car park.