

# Sikh Grammar School Rouse Hill

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State Significant Development Assessment SSD-9472  
February 2021



Published by the NSW Department of Planning, Industry and Environment

[dpie.nsw.gov.au](http://dpie.nsw.gov.au)

Title: Sikh Grammar School Rouse Hill

Subtitle: State Significant Development SSD-9472

Cover image: Aerial perspective of the Sikh Grammar School looking west across Tallawong Road towards the Gurdwara (Applicant's RtS 2020)

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# Glossary

Abbreviation	Definition
<b>AAAC</b>	Australian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment, October 2013
<b>ACHAR</b>	Aboriginal Cultural Heritage Assessment Report
<b>AHD</b>	Australian height datum
<b>AIA</b>	Arboricultural Impact Assessment
<b>Applicant</b>	Sikh Grammar School Australia
<b>BCA</b>	Building Code of Australia
<b>BC Act</b>	<i>Biodiversity Conservation Act 2016</i>
<b>BDCP</b>	Blacktown Development Control Plan 2015
<b>BLEP</b>	Blacktown Local Environmental Plan 2015
<b>CIV</b>	Capital Investment Value
<b>Consent</b>	Development Consent
<b>Council</b>	Blacktown City Council
<b>CNVMP</b>	Construction Noise Vibration Management Plan
<b>Contributions Plans</b>	Section 94 Contributions Plan No.22L and 22W – Rouse Hill (Land) and (Works)
<b>CPG</b>	Child Care Planning Guideline 2017
<b>CTMP</b>	Construction Traffic Management Plan
<b>DCP</b>	Development Control Plan
<b>Department / DPIE</b>	Department of Planning, Industry and Environment
<b>Draft GPDG</b>	Draft Greener Places Design Guide 2020
<b>DSI</b>	Detailed Site Contamination Investigation
<b>DFPR</b>	Dewatering Fauna Relocation Plan
<b>Education SEPP</b>	State Environmental Planning Policy (Education Establishments and Child Care Facilities 2017)
<b>EIS</b>	Environmental Impact Statement
<b>ELC</b>	Early learning centre
<b>EPA</b>	Environment Protection Authority
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EP&amp;A Regulation</b>	Environmental Planning and Assessment Regulation 2000
<b>EPI</b>	Environmental Planning Instrument
<b>ESD</b>	Ecologically Sustainable Development
<b>GCDCP</b>	Blacktown City Council Growth Centres Precincts Development Control Plan 2018
<b>GSC</b>	Greater Sydney Commission

<b>GTP</b>	Green Travel Plan
<b>ILP</b>	Indicative Layout Plan
<b>IPA</b>	Inner Protection Area
<b>Langar</b>	Community kitchen (located within the Gurdwara)
<b>LGA</b>	Local government area
<b>Minister</b>	Minister for Planning and Public Spaces
<b>NVA</b>	Noise and Vibration Assessment
<b>PMF</b>	Probable Maximum Flood
<b>Planning Secretary</b>	Secretary of the Department of Planning, Industry and Environment
<b>PSI</b>	Preliminary Site Investigation Phase 1
<b>RAP</b>	Remediation Action Plan
<b>RtS</b>	Response to Submissions
<b>SEARs</b>	Planning Secretary's Environmental Assessment Requirements
<b>SEPP</b>	State Environmental Planning Policy
<b>SIDRA</b>	Signalised and Unsignalised Intersection Design and Research Aid
<b>SRD SEPP</b>	State Environmental Planning Policy (State and Regional Development) 2011
<b>SRtS</b>	Supplementary Response to Submissions
<b>SSD</b>	State Significant Development
<b>TIA</b>	Transport and Parking Impact Assessment
<b>TfNSW</b>	Transport for NSW

# Executive Summary

This report provides an assessment of a State significant development (SSD) application for the new Sikh Grammar School located at 151-161 Tallawong Road, Rouse Hill (SSD-9472) within Blacktown local government area. The Applicant is the Sikh Grammar School Australia.

The Department of Planning, Industry and Environment (the Department) is satisfied that the site is suitable for the proposal and would provide social infrastructure for the Sikh community, as well as a high quality educational facility in the Riverstone East precinct of the North West Priority Growth Area. The Department concludes the proposal is in the public interest and recommends that the application be approved subject to conditions.

This application seeks approval for the construction of a new school for up to 1260 (Kindergarten - Year 12) students and 120 staff, an early learning centre for 86 children, student and staff boarding accommodation, a place of worship for the Sikh community (Gurdwara) and Langar (community kitchen), basement car parking and associated civil and landscaping works in 10 construction and operational stages. The proposal would result in diverting an existing overland flow path within the site to the northern side and building a culvert to connect the overland flow to Tallawong Road drainage system.

The site forms the eastern part of a larger site comprising two allotments fronting Tallawong Road to the east. Blacktown City Council (Council) has approved an application to subdivide those lots and the adjoining lot to create this school lot and to create 11 residential lots on the western side with the school site on its eastern side. The subdivision would also create two future local roads on the northern and southern sides of the larger allotment. Construction of the roads and the associated drainage works do not form part of this application. The subdivision approval is a deferred commencement and the consent is not active yet. Therefore, the site has not been legally created.

The Department considered the merits of the proposal in accordance with the relevant matters under section 4.15(1) and the objects of the *Environmental Planning and Assessment Act 1979*, the principles of ecological sustainable development, and issues raised in submissions as well as the Applicant's response to these. The Department considers that the key issues for assessment, traffic and parking, flooding and drainage, built form, landscaping and trees and noise are satisfactorily considered by the Applicant and are acceptable with the inclusion of environmental mitigation measures and recommended conditions of consent. However, the Department's assessment has identified the need for further hydraulic modelling to manage flooding on the site. Additionally, this development consent significantly relies on the subdivision application which is not operative and requires ongoing resolution with Council. Based on the above, the Department has recommended a deferred commencement condition requiring the Applicant to submit evidence of the subdivision application becoming operational and providing satisfactory hydraulic models to the Department, prior to this consent being operational.

The proposal has a capital investment value of \$167,533,780 and is predicted to generate up to 280 full time equivalent construction and 120 new full time equivalent operational jobs. The proposal is SSD under clause 15(1) of Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011, as it is development for the purpose of a new school.

The application was publicly exhibited for 28 days between 17 October 2019 until 13 November 2019. The Department received a total of 25 submissions, comprising nine from public authorities (including one comment from Blacktown City Council), eight objections from special interest groups and eight

individual public submissions (five objections, two comments and one in support of the proposal). Following the exhibition, seven of the public interest group submissions were withdrawn as their concerns were addressed by the Applicant. The key issues raised in the public submissions included traffic and parking, building height and bulk, road construction, flood mitigation and development precedent.

The Applicant's Response to Submissions (RtS) included responses to the issues raised in the submissions including amendments to the boundary adjustments, car parking, green roofs and some design amendments. Public authorities raised no additional concerns subject to conditions. Council provided draft conditions of consent which included a deferred commencement condition requiring further information on roadworks and hydraulic modelling.

The Applicant has submitted multiple supplementary RtS in response to concerns raised by the Department and the recommended conditions by Council.

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# 1 Introduction

This report provides an assessment of a State significant development (SSD) application (SSD-9472) for the construction of the Sikh Grammar School at 151-161 Tallawong Road, Rouse Hill.

The proposal seeks approval for the construction of a new school for up to 1260 (Kindergarten - Year 12) students and 120 staff, an early learning centre for 86 children, student and staff boarding accommodation, a place of worship for the Sikh community (Gurdwara) and Langar (community kitchen) in 10 construction and 10 operational stages.

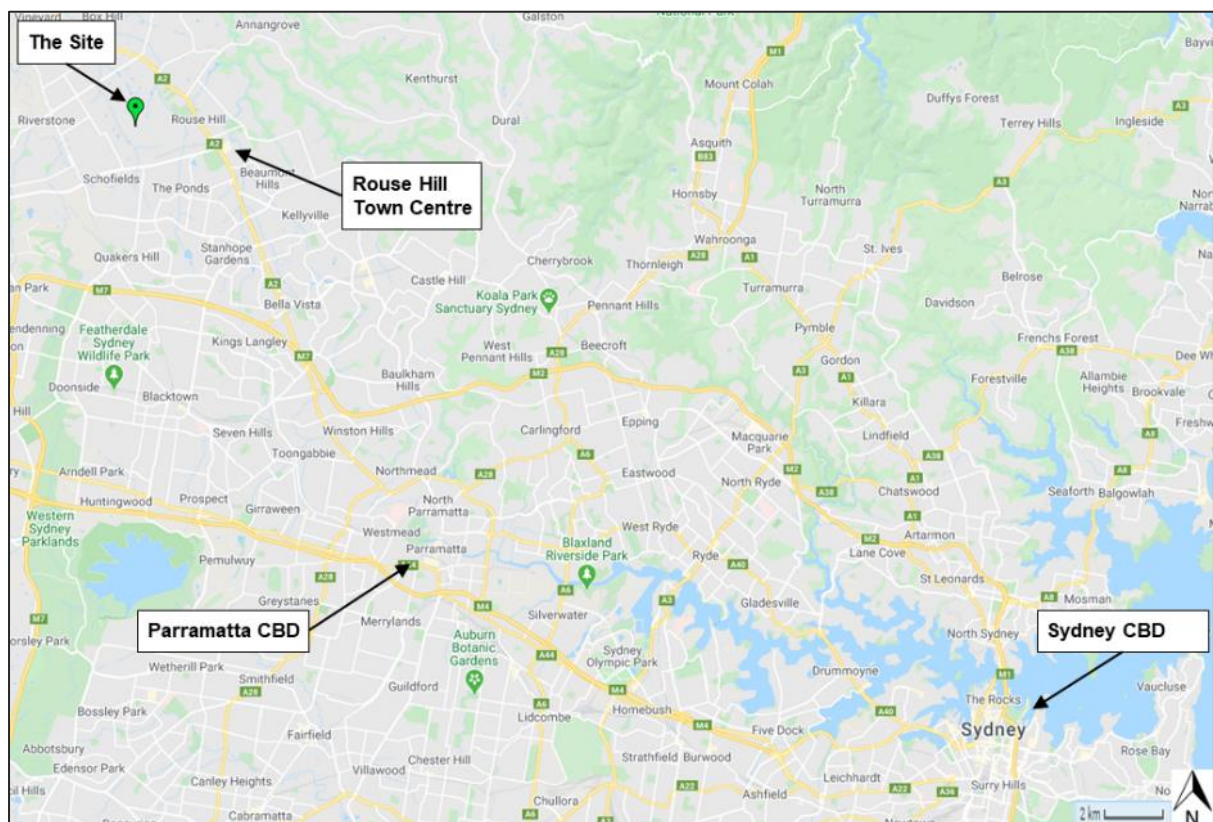
The proposal comprises: demolition works; remediation works; bulk earthworks including dam dewatering; new buildings for various uses, vehicular access and up to 271 car parking spaces (basement and at-grade car parking); associated services; stormwater and flood management works; external roadworks on Tallawong Road; associated landscaping and tree removal.

The application has been lodged by Sikh Grammar School Australia (the Applicant). The site is located within Blacktown local government area (LGA).

## 1.1 Site Description

### 1.1.1 The Site

The site is located at 151-161 Tallawong Road, Rouse Hill within the North West Priority Growth Area, approximately 45 kilometres (km) north-west of the Sydney Central Business District (CBD) and 22km north-west of Parramatta CBD (**Figure 1**).



**Figure 1 | Regional Context Map (Source: Nearmap 2020)**

The property at 151-161 Tallawong Road (the parent lot) is rectangular in shape and comprises two

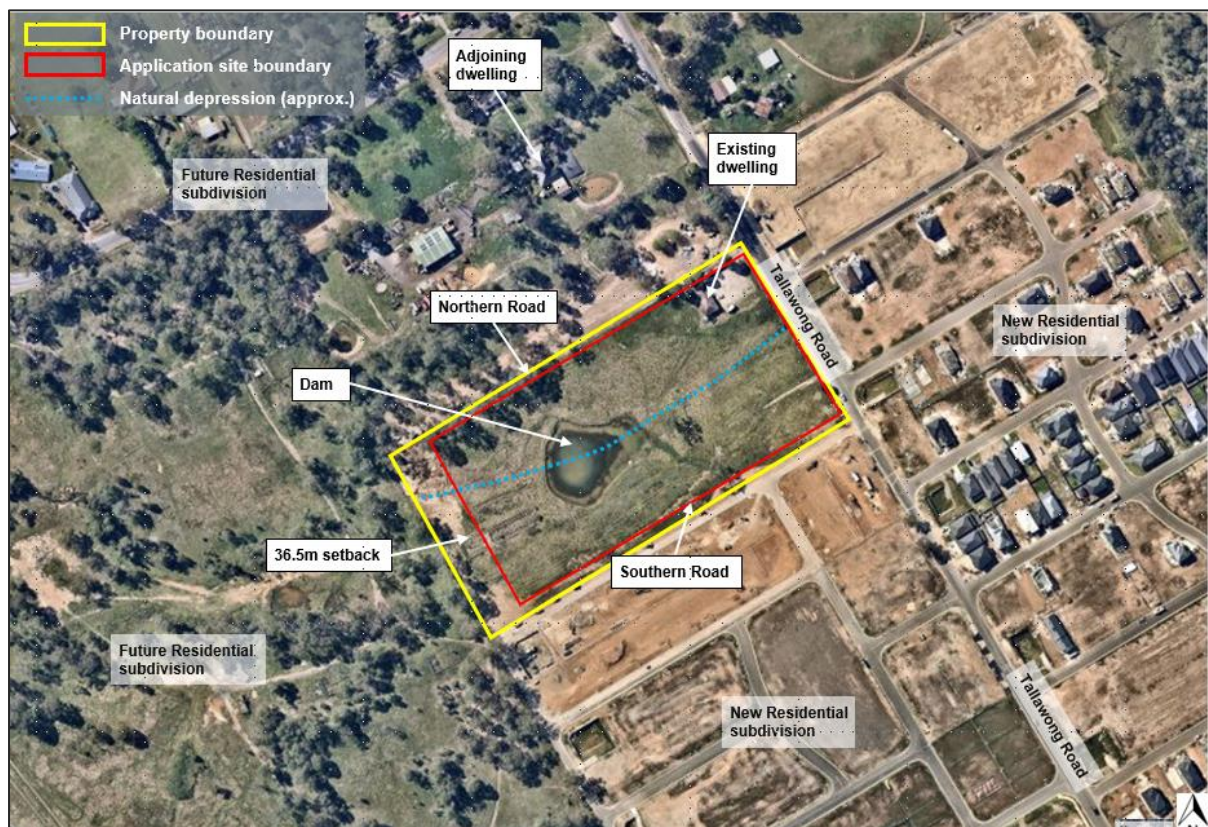


allotments, Lot 42 and 43 within DP 30186. The project area (the site) is located on the eastern side of the parent lot and fronts Tallawong Road. The remaining three boundaries are currently shared with adjoining properties. However, new roadways are planned along its northern, southern and western boundaries as part of the redevelopment of the broader area for residential purposes as identified in **Figure 2** (details discussed later).

The overall size of the parent lot is approximately 4.04 hectares (ha). The site has an area of 3.12ha and excludes the following components of the parent lot:

- a 36.5 metre (m) wide strip of land along the western property boundary (proposed for residential subdivision under a separate application).
- an 8m wide strip of land along the northern and the southern property boundaries (allowance for half-width road reserve).

**Figure 2** shows the external boundary of the parent lots in yellow (referred to as the property boundary) and the site boundary in red (referred to as the application site boundary).



**Figure 2 | The property and application site boundaries and the immediate surrounding site context**  
(Source: Nearmap 2020)

The site contains an existing single storey dwelling house and an agricultural dam. In addition, the property contains six trees scattered along the northern boundary and elsewhere on the site and is otherwise cleared of vegetation.

The site topography is undulating and includes a 12.5m change in land levels (between 54m Australian height datum (AHD) at the eastern, and 41.5m AHD at the western, site boundaries). A natural depression runs through the middle of the property and passes through the dam, which is



located centrally on the site (**Figure 2**). The site is subject to flood events, which are channelled along the natural depression.

The site does not contain any State or local listed heritage items. Photos of the site are provided in **Figures 3** and **4**.



**Figure 3** | View of the site, looking west from Tallawong Road (Source: DPIE 2020)



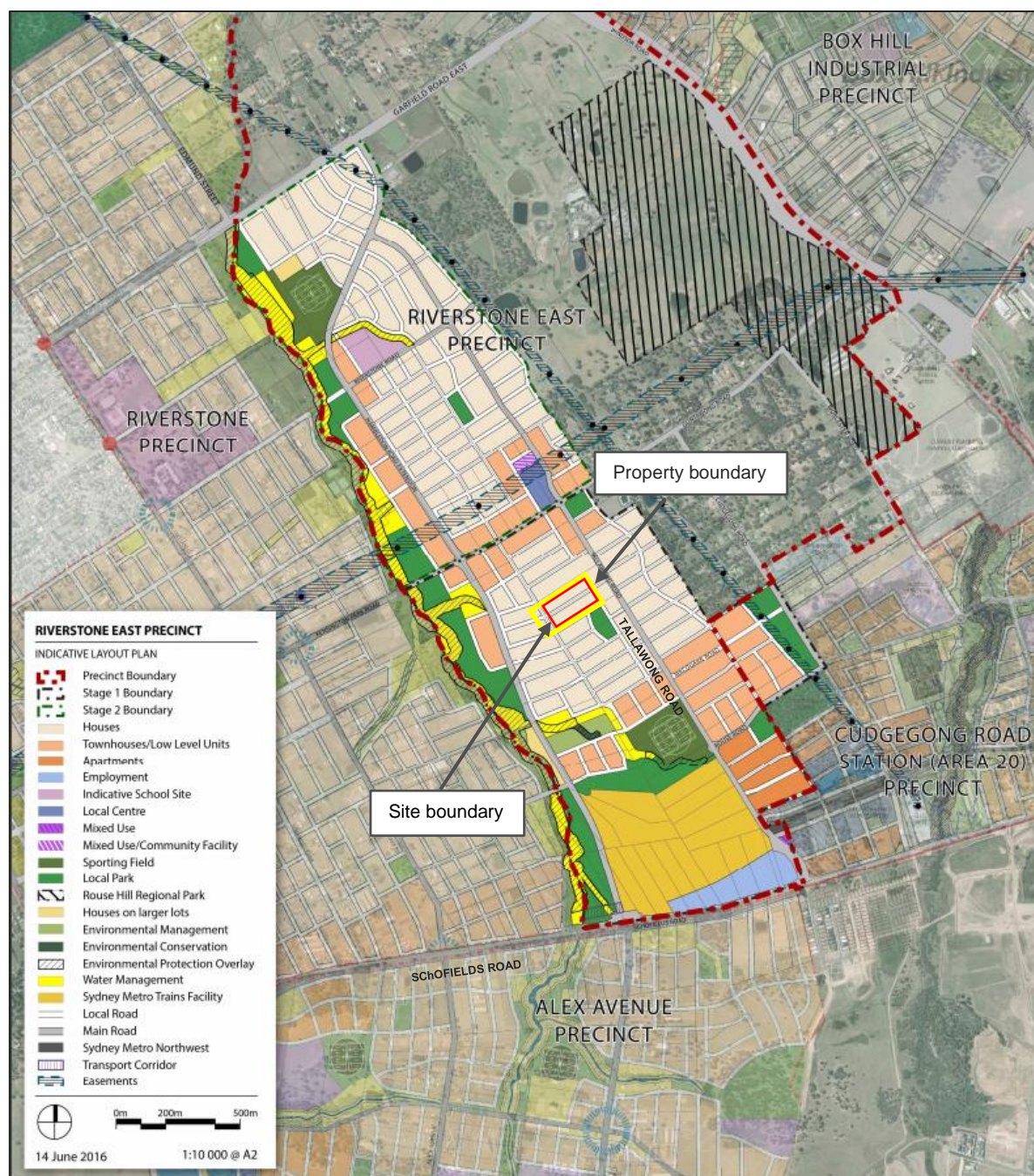
**Figure 4** | View looking north from Tallawong Road (Source: DPIE 2020)



### 1.1.2 Surrounding development and future site planning context

The site is currently surrounded by vacant rural properties and is located within an area currently in the process of being developed and transitioned into a new residential suburb(s). An existing adjoining dwelling is located approximately 90m away from the northern boundary of the site fronting Tallawong Road. No other residential properties currently adjoin any of the site boundaries (**Figure 5**).

The site is approximately 3km west of Rouse Hill Town Centre (**Figure 1**), approximately 1.2 km north of Schofields Road and 1.7 km east of Windsor Road (regional roads). Pedestrian access to the site is currently from Tallawong Road.



**Figure 5 |** The site identified on Riverstone East Precinct ILP (Source: DPIE 2015)

The site is located within Riverstone East Precinct under State Environmental Planning Policy (Sydney Regional Growth Centre) 2006 (SRGC SEPP), a land release area that has been rezoned for higher density developments as part of the North West Growth Area. The Riverstone Stages 1 and 2 were finalised in August 2016 and will deliver up to 3500 new homes and local amenities in Riverstone East.

The site and adjoining allotments are zoned low density residential under the SRGC SEPP, with some allotments to the north-east of the site zoned for medium density residential development.

The surrounding area is zoned for mixed uses including low and medium density housing, local centre, recreation and infrastructure. The surrounding area is therefore transitioning with the land to the north and west of the site currently rural residential and land to the east and north-east under construction of new dwellings and associated infrastructure.

**Figure 5** identifies the site in the context of the property boundary and the Riverstone East Indicative Layout Plan (ILP) identifying the surrounding developments.

The site has access to the Tallawong Metro Station located 1.3km to the south and bus stops (two routes) located near the Schofields / Tallawong Road intersections 1.5km to the south. Future new public transport options are planned as part of the broader North West Priority Growth Area development to improve the public transport in the locality.

### **1.1.3 Future developments surrounding the site**

A number of development applications are either being assessed or have been approved by Blacktown City Council to facilitate low and medium density development in the locality. Adjoining properties to the east, south, north and west (opposite Tallawong Road) are subject to approved / ongoing residential subdivision development applications (see **Figure 6**).

At 154 Tallawong Road (opposite to the site), DA-17-00169 has been approved for Torres title subdivision into 39 residential lots.

At 141 Tallawong Road (south of the site), DA-18-00255 has been approved for Torres title subdivision into 46 residential lots.

At 163 Tallawong Road (north of the site), DA-18-01492 has been approved for staged Torres title subdivision into 38 residential lots and 1 residue lot, and DA-19-00217 has been approved for integrated housing including 18 abutting with community title subdivision and one secondary dwelling.

Therefore, the current and future subdivisions would result in the construction of dwellings on the opposite side of existing / future roads surrounding the site boundaries (approximately 20m away) and adjoining the western boundary of the site as marked in **Figure 2** and **6**.



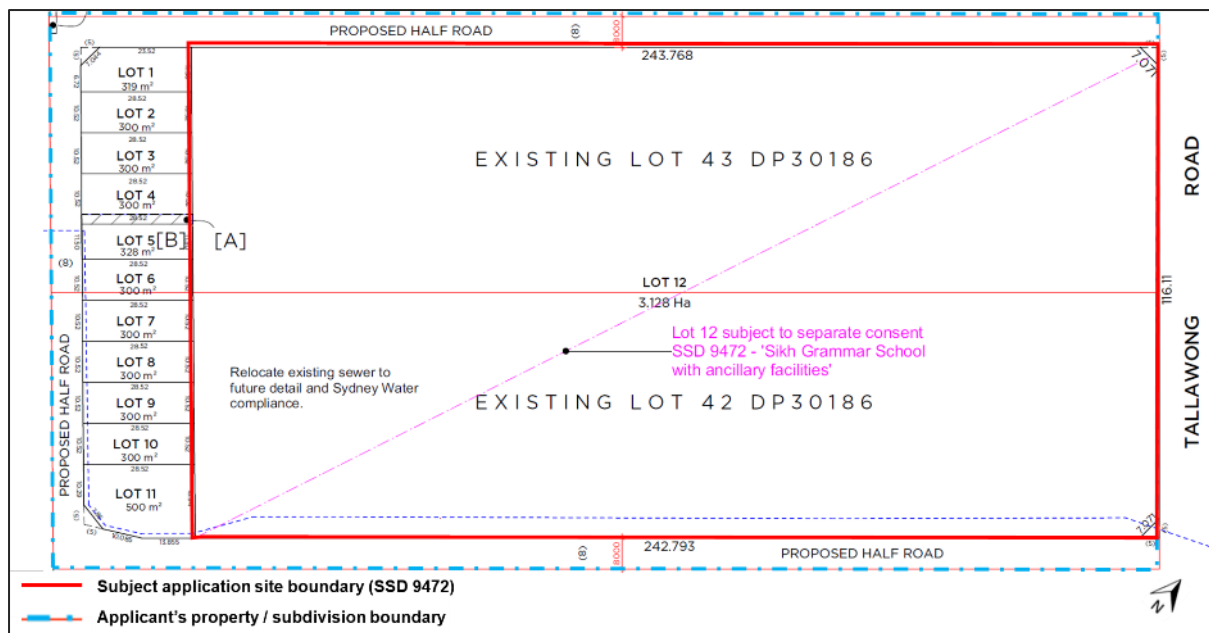


**Figure 6 | The site and surrounding development** (Source: Nearmap 2020)

## 1.2 Approval history and related development

On 9 December 2020, Blacktown City Council (Council) issued a deferred commencement consent for the subdivision (DA-19-01597) of the parent lot, being Lot 42 and 43 DP 30186. The subdivision application approved the following:

- consolidation of Lots 42 and 43 DP 30186 (i.e. the two lots which comprise the current SSD application site) into one super lot.
- construction of two half roads located along the north western and south western boundaries of the site and drainage infrastructure to facilitate the road works.
- Torrens Title subdivision of the land adjoining the western boundary of the site into eleven residential lots and half road construction along their south eastern boundary.
- drainage connections to Tallawong Road.
- drainage connection of the site to the future road on the western side via an easement through the residential lots to the west.



**Figure 7 |** Proposed subdivision plan, part of a separate development application submitted to Council (DA-19-01597) (Base source: Applicant's SRtS 2020)

The application has been approved with deferred commencement, and cannot operate until the Applicant completes the road widening of Tallawong Road adjacent to the site frontage and provides:

- amended road, drainage and engineering plans to Council for approval.
- revised TUFLOW model.
- amended DRAINS model for the entire street drainage network including Tallawong Road.
- amended drainage plans.

Once the consent is operative, the subdivision works can be completed, and the subdivision registered. The subdivision would create the new allotment for the SSD site on the eastern side (marked as Lot 12 in **Figure 7**), 11 residential lots to its immediate west, and three new half roads which would be dedicated to Council as public roads. The site would then be bound by two half width public roads to the north and south and by Tallawong Road to its east.

For the purpose of this report, the future road to the north is referred to as Northern Road and the future road to the south is referred to as Southern Road. Northern Road would be 18m wide towards the eastern portion for the length of 70m, and 16m wide toward the western portion for approximately 213.9m. Southern Road would be 16m wide for the whole length. However, as part of the subdivision application, the Applicant would deliver half road width of the above roads, being 8m wide Southern Road, 8m wide Western Road and variable width Northern Road (9m at the eastern and 8m at the western portion).

The external roadworks to create these roads do not form part of the scope of this application but part of the subdivision application undertaken by Council. However, the Applicant anticipates these works to be concurrently completed with the initial construction work proposed as part of the SSD and would be completed prior to the first operation stage of the SSD.



## 2 Project

The key components and features of the proposal, as set out in the Environmental Impact Statement (EIS) and refined by the Response to Submissions (RtS) and supplementary RtS (SRtS) are provided in **Table 1** and are shown in **Figures 8 – 28**.

**Table 1 | Main components of the proposal**

Component	Description
Project summary	Staged construction and operation of a new school (K – 12) for 1260 students and 120 staff, an early learning centre for 86 children, student / staff boarding accommodation and Gurdwara and Langar (place of worship/assembly area) comprising demolition, construction of four buildings, site remediation, earthworks, drainage, car parking, access and landscaping.
Site area	<ul style="list-style-type: none"> <li>3.12ha</li> </ul>
Site preparation works	<ul style="list-style-type: none"> <li>Demolition of existing buildings on site (single storey dwelling and on grade car parking area).</li> <li>Bulk earthworks resulting in: <ul style="list-style-type: none"> <li>19,581 cubic metres (m<sup>3</sup>) of cut.</li> <li>46,022m<sup>3</sup> of fill (with 26,441m<sup>3</sup> of imported fill).</li> </ul> </li> </ul>
Remediation	<ul style="list-style-type: none"> <li>Remediation works including implementation of a Remedial Action Plan and validation for identified asbestos contamination.</li> </ul>
Staging	<ul style="list-style-type: none"> <li>The construction and operation of the school delivered in 10 construction and operational stages (including temporary and permanent works) over a 10-year period (discussed later).</li> </ul>
Built form	<ul style="list-style-type: none"> <li>Single storey temporary primary school and multi-purpose hall buildings for Stage 1.</li> <li>Permanent buildings (Stages 2 to 9) varying in height between two and four storeys and comprising: <ul style="list-style-type: none"> <li>four storey (maximum RL 66.79) primary and secondary school building comprising: <ul style="list-style-type: none"> <li>classrooms, learning spaces and study areas.</li> <li>administration and other staff and student support facilities.</li> <li>libraries, canteens and terrace.</li> </ul> </li> <li>three storey (maximum RL 67.18) Gurdwara and multipurpose hall including: <ul style="list-style-type: none"> <li>place of worship for the Sikh community (Gurdwara) and multipurpose hall.</li> <li>community kitchen with seating area (Langar).</li> <li>administration / office and amenities.</li> </ul> </li> <li>two storey (maximum RL 55.70) early learning centre (ELC) (0-6) building comprising: <ul style="list-style-type: none"> <li>indoor play areas.</li> <li>kitchen and kitchenette.</li> <li>toilets, baby change rooms.</li> <li>office, staff and meeting rooms.</li> <li>store rooms, laundry and services.</li> </ul> </li> <li>three to four storey (maximum RL 61.35) student and staff boarding accommodation building including:</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- 58 student accommodation rooms (116 beds) and a supervisor's residence.</li> <li>- amenities including common areas, study, kitchen, dining, lounge, games and cinema rooms and roof top terrace.</li> <li>- six self-contained apartments at roof level with kitchen, bathroom, one and two bedrooms, living and dining areas for staff.</li> </ul>
Gross floor area (GFA)	<ul style="list-style-type: none"> <li>• 22,672 square metres (m<sup>2</sup>) comprising: <ul style="list-style-type: none"> <li>○ 5135m<sup>2</sup> - primary school.</li> <li>○ 7667m<sup>2</sup> - high school.</li> <li>○ 1378m<sup>2</sup> - ELC.</li> <li>○ 3618m<sup>2</sup> - boarding accommodation.</li> <li>○ 4703m<sup>2</sup> - Gurdwara, Langar and multi-purpose hall.</li> <li>○ 155m<sup>2</sup> - bin storage area (Services Pavilion).</li> <li>○ 16m<sup>2</sup> - sports amenities areas.</li> </ul> </li> </ul>
Student capacity	<ul style="list-style-type: none"> <li>• School for 1260 students, including: <ul style="list-style-type: none"> <li>○ 680 primary school students (kindergarten (K) - Year 6).</li> <li>○ 580 secondary school students (Years 7 – 12).</li> </ul> </li> <li>• ELC with 86 places (0 - 6 years).</li> <li>• Boarding accommodation for 116 students (in 58 rooms).</li> </ul>
Access	<ul style="list-style-type: none"> <li>• Five vehicle access points: <ul style="list-style-type: none"> <li>○ three located on Northern Road, providing access to the boarding accommodation, school basement and surface carparks.</li> <li>○ two located on Southern Road, providing access to the ELC and the school basement carparks.</li> </ul> </li> <li>• Six pedestrian access points: <ul style="list-style-type: none"> <li>○ four school entries from Southern Road and Tallawong Road.</li> <li>○ one access to the boarding accommodation from Northern Road.</li> <li>○ one access to the ELS from Southern Road.</li> </ul> </li> </ul>
Car parking and pick-up/drop-off	<ul style="list-style-type: none"> <li>• A total of 271 staged on-site car parking spaces comprising: <ul style="list-style-type: none"> <li>○ 226 basement school and Gurdwara spaces.</li> <li>○ 32 at-grade ELC spaces.</li> <li>○ 13 basement student/staff boarding accommodation spaces.</li> </ul> </li> <li>• 11 permanent pick-up/drop-off spaces located at basement level, beneath the Gurdwara.</li> <li>• 17 temporary pick-up/drop-off spaces located at the north-west (Stage 1) and south east (Stage 5) corner of the site.</li> <li>• One servicing bay at the at-grade carpark at the north-east corner of the site.</li> </ul>
Bicycle parking	<ul style="list-style-type: none"> <li>• 43 bicycle parking spaces across the campus.</li> </ul>
External roadworks	<ul style="list-style-type: none"> <li>• Part road construction and dedication of the Northern and Southern Roads adjoining the site (separate DA as discussed earlier).</li> <li>• Construction of a bus bay on Tallawong Road.</li> <li>• Construction of footpath and associated drainage works on Tallawong Road frontage.</li> </ul>
Landscaping and play space	<ul style="list-style-type: none"> <li>• Staged implementation of 12,637m<sup>2</sup> ground level play space, including synthetic central oval / playing field (Village Green), multipurpose court and sports pavilion, courtyards and hard-paved central space (Civic Heart).</li> <li>• Four accessible roof gardens and six inaccessible biodiversity roofs above the primary and secondary schools, ELC and boarding accommodation.</li> </ul>

	<ul style="list-style-type: none"> <li>• Removal of six trees, provision of 137 replacement trees and perimeter landscaping.</li> </ul>
Signage	<ul style="list-style-type: none"> <li>• A total of six signs comprising: <ul style="list-style-type: none"> <li>○ three free-standing digital blade signs facing Tallawong Road.</li> <li>○ one free-standing illuminated ELC building identification sign.</li> <li>○ two building mounted illuminated school building identification signs.</li> </ul> </li> </ul>
Jobs	<ul style="list-style-type: none"> <li>• Total Jobs over 10 construction and operational stages: <ul style="list-style-type: none"> <li>○ 280 construction jobs.</li> <li>○ 120 operational jobs.</li> </ul> </li> </ul>
CIV	<ul style="list-style-type: none"> <li>• \$167,533,780.</li> </ul>

## 2.1 Physical layout and design (final development – post Stage 9)

The built form of the ultimate development would have interconnected primary, secondary and Gurdwara building modules and standalone ELC and boarding accommodation buildings with a predominantly two to four-storey built form along the frontages of the site.

In particular:

- part four-storey primary and secondary schools with two building components located on the southern and northern side of the site and joined by the library / canteen buildings with a bridge connecting the multipurpose hall/Gurdwara.
- three -storey Gurdwara (including Langar and multi-purpose hall) building located at the Tallawong frontage of the site.
- two storey 'L' shaped ELC located at the south-western corner of the site.
- part three / four storey 'L' shaped building at the north-western corner of the site for the boarding accommodation.

The landscaping scheme for the development includes a range of multi-functional landscape spaces including a central playing field (Village Green), multipurpose courts with a sports pavilion, outdoor learning areas, a central paved area (Civic Heart), tree canopy areas with majority native species and rooftop gardens for passive and active recreation.

Car parking is proposed to be delivered in stages (**Table 3**) including a large basement beneath the eastern part of the site, a smaller basement beneath the boarding accommodation and two surface carparks at the north-east and south-west corners of the site. Three vehicle access points would be provided off Northern Road and one point off the Southern Road.

The main pedestrian entrances would be located off the Southern Road and Tallawong Road. A separate utility area is proposed near the north-western carpark (Service Pavilion) which would include a central waste bin storage area and would be serviced by large rigid vehicle from the Northern Road.

The site layout, main building elements, and proposed signage are identified in **Figure 8**. The basement carpark is identified in **Figure 9**. Views of various building elements are shown in **Figures 10 – 13**. The individual buildings are discussed later.

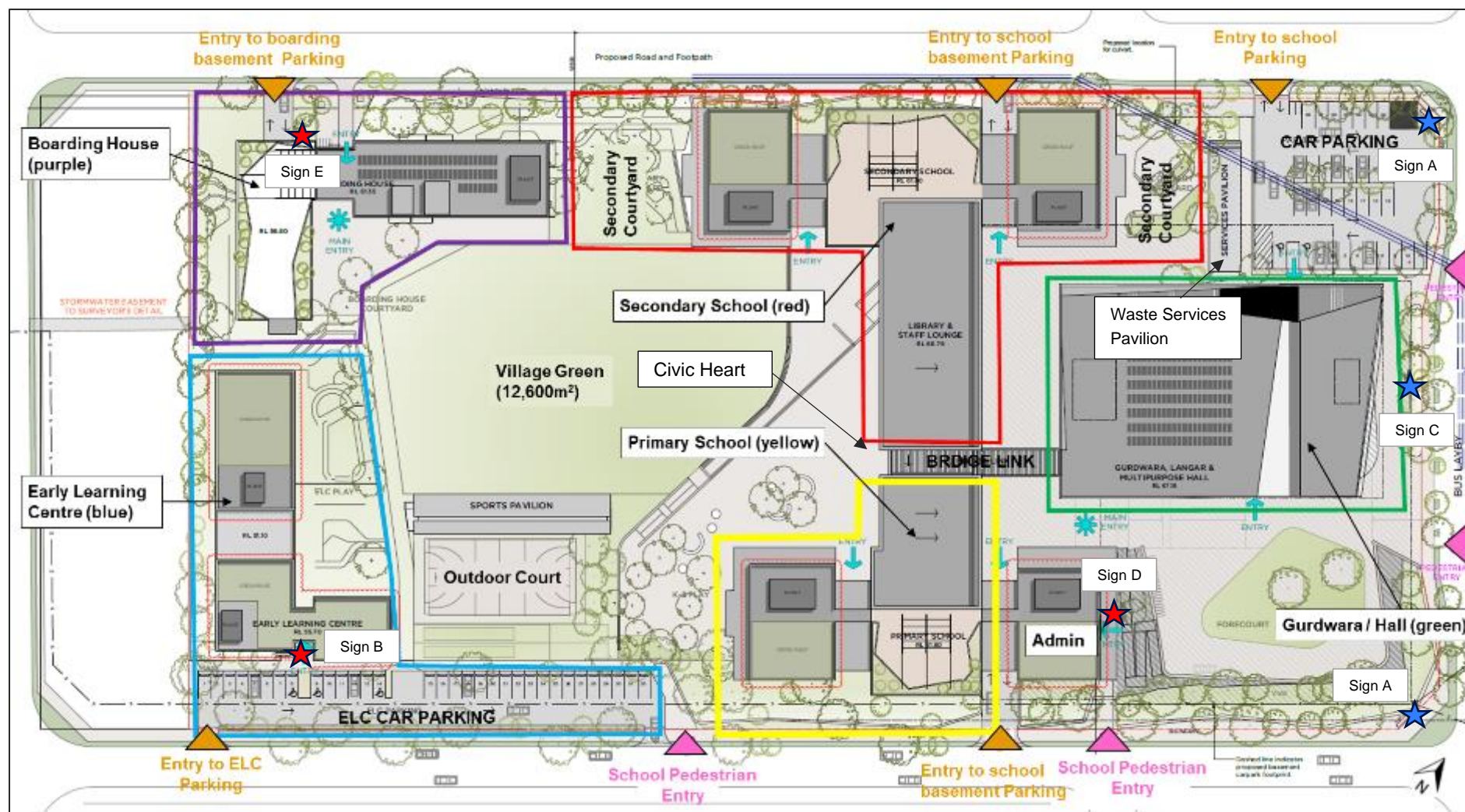
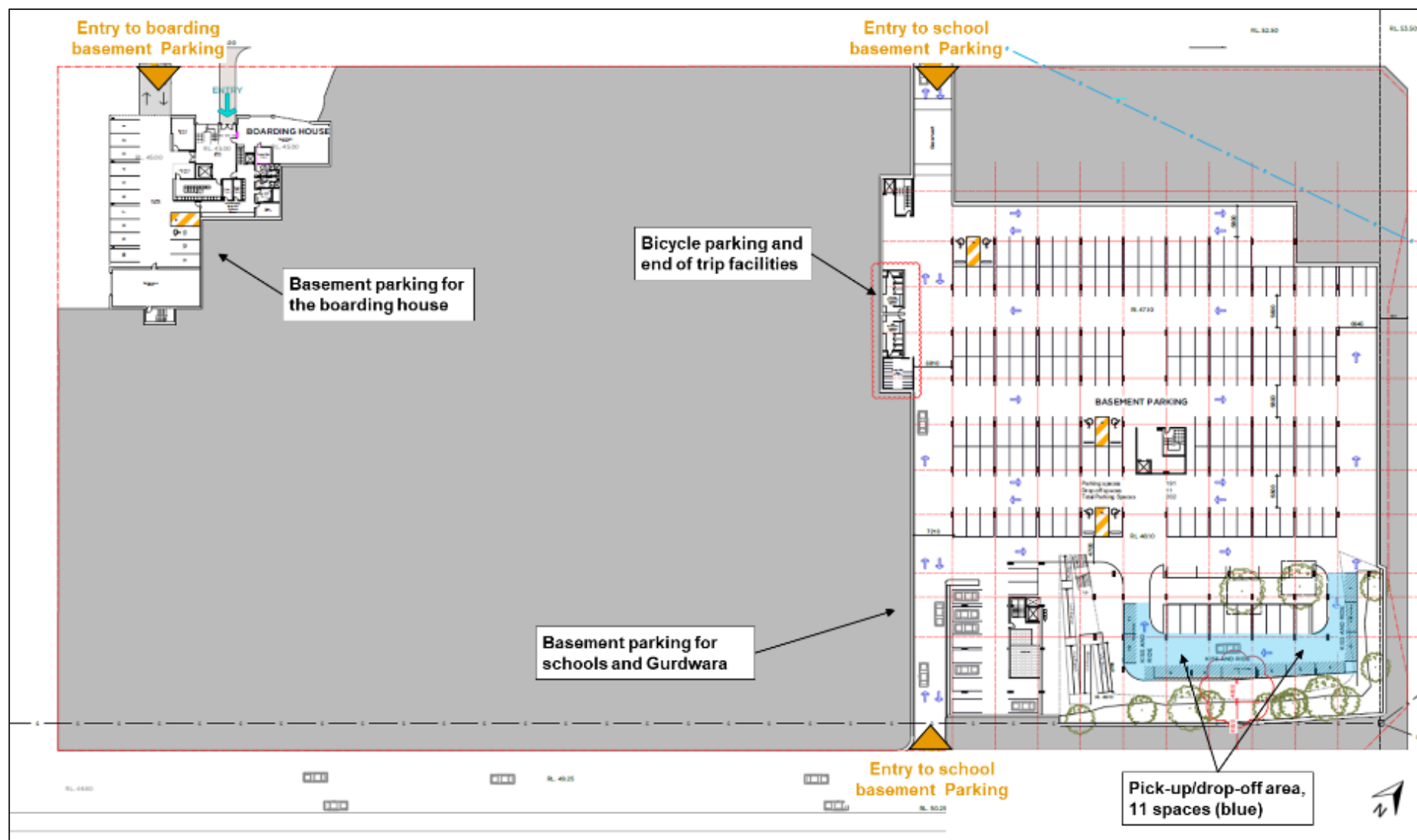


Figure 8 | Proposed site layout (Source: Applicant's RfS 2020)



**Figure 9 |** Basement parking plan showing school, Gurdwara and boarding accommodation parking (Source: Applicant's RtS 2020)





**Figure 10** | Perspective west across Tallawong Road towards the Gurdwara and the south-east corner of the site (Source: Applicant's RtS 2020)



**Figure 11** | Perspective north-east from Southern Road to the ELC building (Source: Applicant's RtS 2020)





**Figure 12** | Perspective south-west from Northern Road to the boarding accommodation (Source: Applicant's RtS 2020)



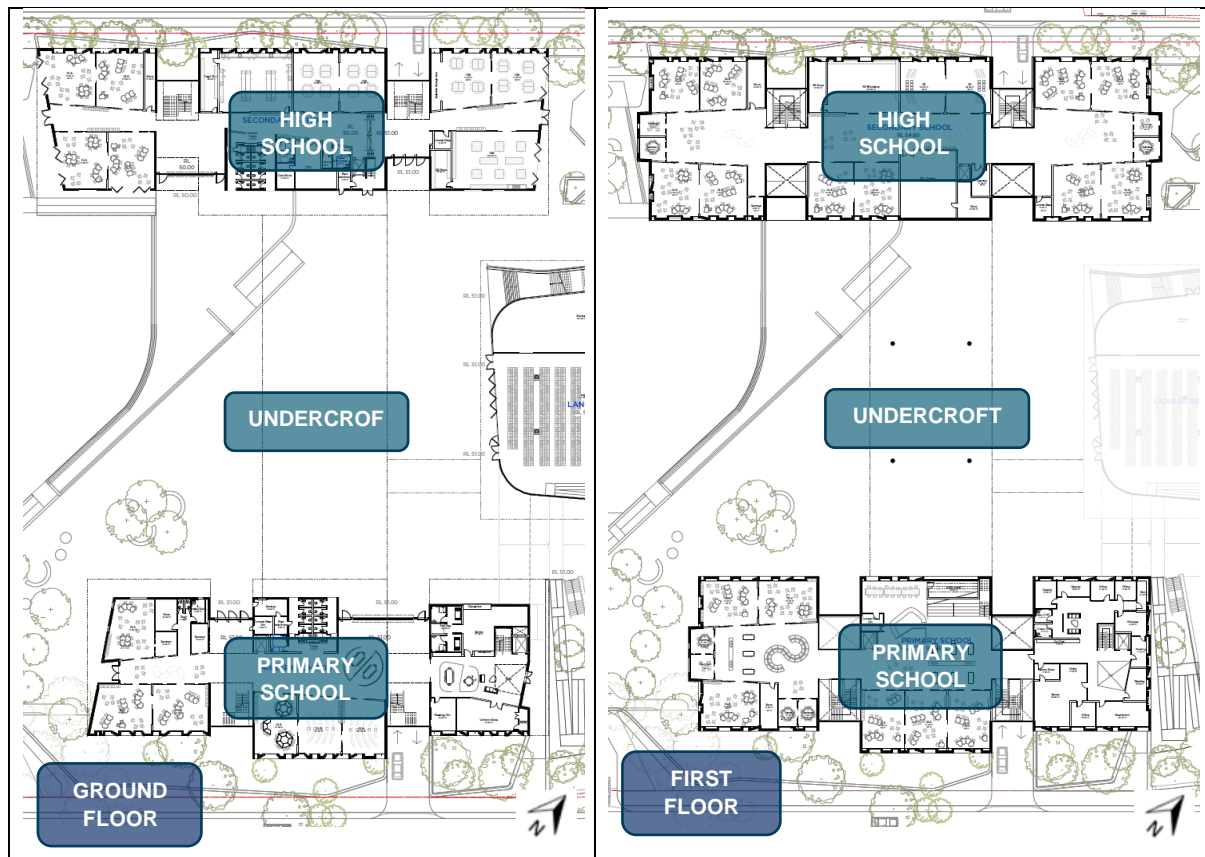
**Figure 13** | Perspective view - east from the Village Green to the secondary and primary school buildings, bridge link and undercroft (Source: Applicant's RtS 2020)

### 2.1.1 School building

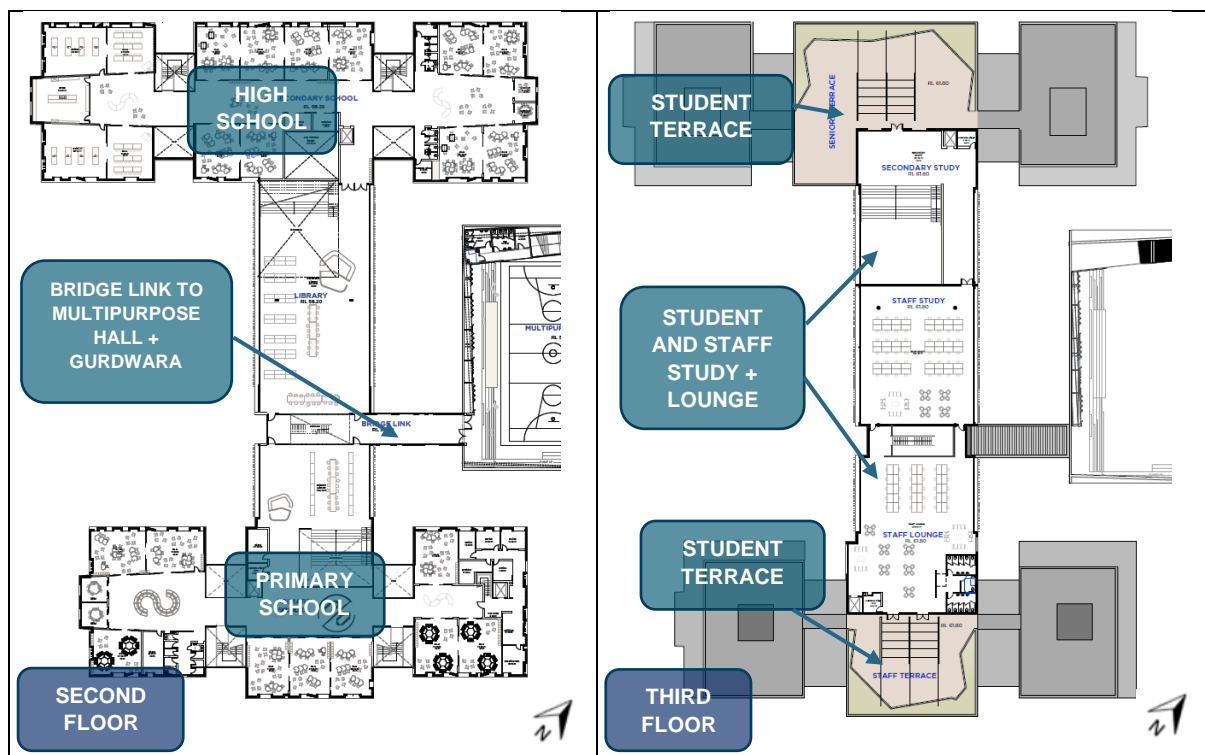
The school would be located in a building with three distinct components, three to four storeys in height. The three-storey primary school would be located along Southern Road frontage, whereas the three-storey high school would be along Northern Road frontage. These would be connected at the second-floor level forming a bridge above an undercroft. The central component would accommodate the library and staff areas and connect to the upper level of the Gurdwara via a bridge. The overall height of this section is four storeys.

The three building components would include general learning areas, science rooms, library, theatre room, office, administrative areas (adjoining the primary school), meeting rooms, uniform store, toilets, store, seminar rooms, student and staff study, staff lounge and cafe/canteen.

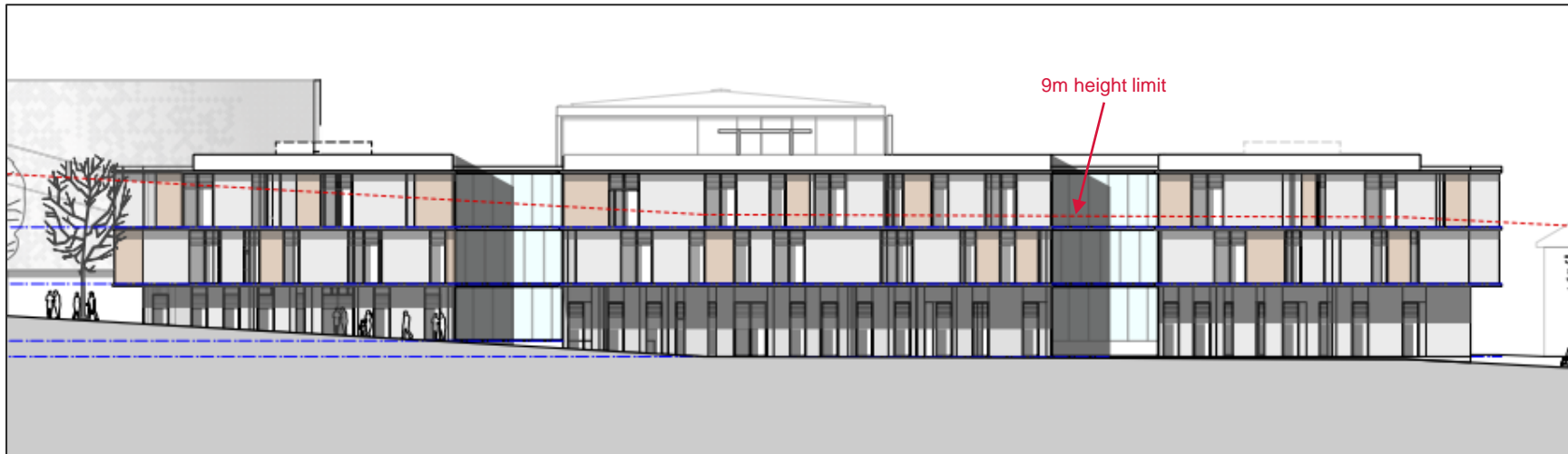
**Figure 14** and **Figure 15** identify the general layout of the school building. **Figure 16** and **17** and provide the elevations.



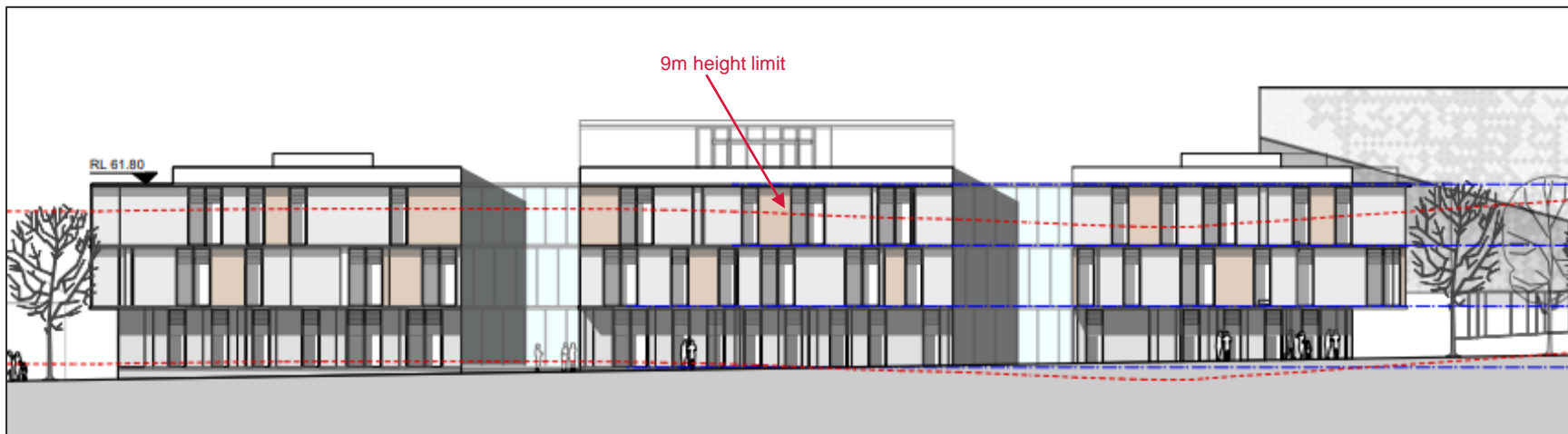
**Figure 14** | Ground and first floor plans (Source: Applicant's RtS 2020)



**Figure 15** | Second and third floor plan (Source: Applicant's RtS 2020)



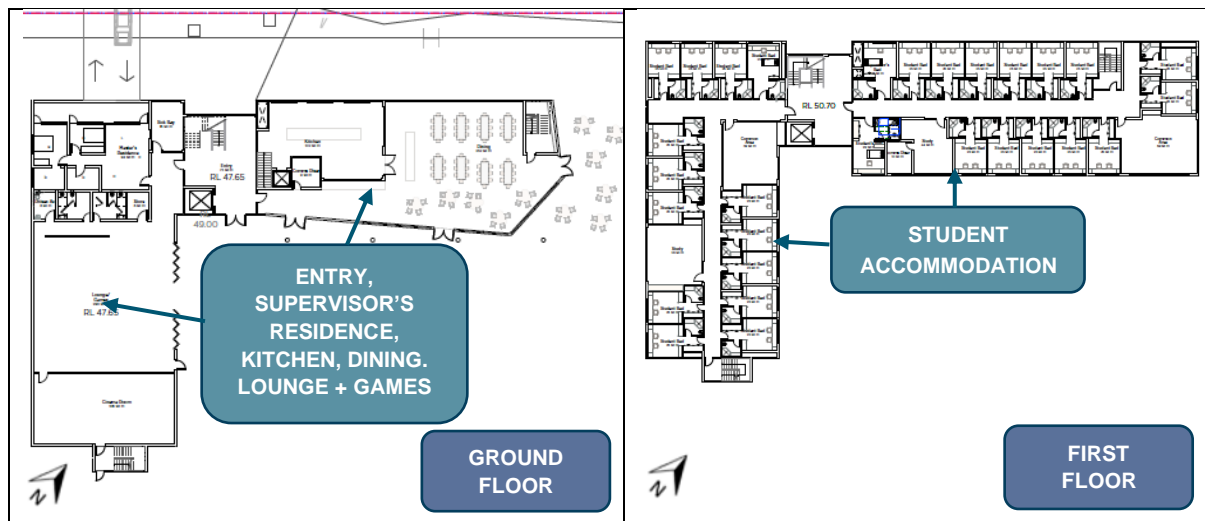
**Figure 16** | Northern elevation of high school building (Source: Applicant's RtS 2020)



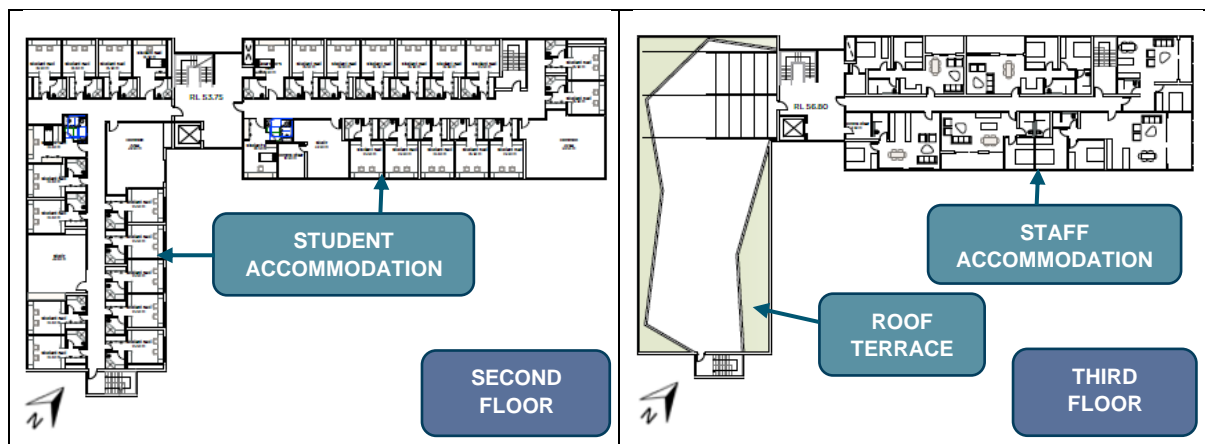
**Figure 17** | Southern elevation of primary school building (Source: Applicant's RtS 2020)

## 2.1.2 Student and staff boarding accommodation

The proposed student and staff boarding accommodation would be located on the north western side of the site. The boarding accommodation would be four-storeys on the eastern elevation and three-storeys on the western elevation. The boarding accommodation would provide for 58 shared student accommodation rooms (116 beds), six self-contained staff dwellings, and a supervisor's residence. The ground floor would include the common kitchen, lounge/games, cinema room, supervisor's/ caretaker's residence, sick bay, toilets and store. First and second floors would consist of student rooms, common study and common area. The third floor would consist of self-contained staff dwellings with bedrooms, kitchen, toilet, dining and living facilities. The third floor would include a roof top terrace on the western side (**Figures 18 – 21**).



**Figure 18** | Boarding accommodation - ground and first floor plan (Source: Applicant's RtS 2020)

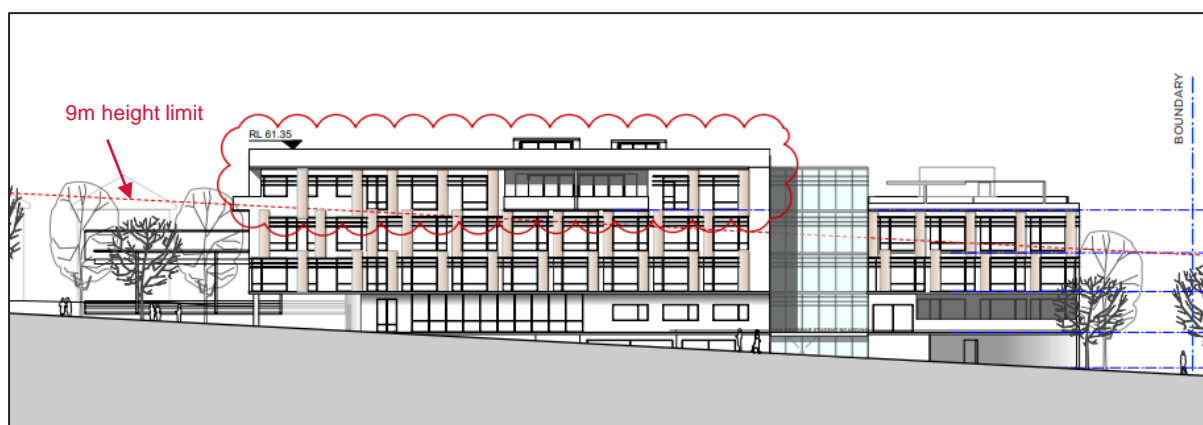


**Figure 19** | Boarding accommodation - second and third floor plan (Source: Applicant's RtS 2020)





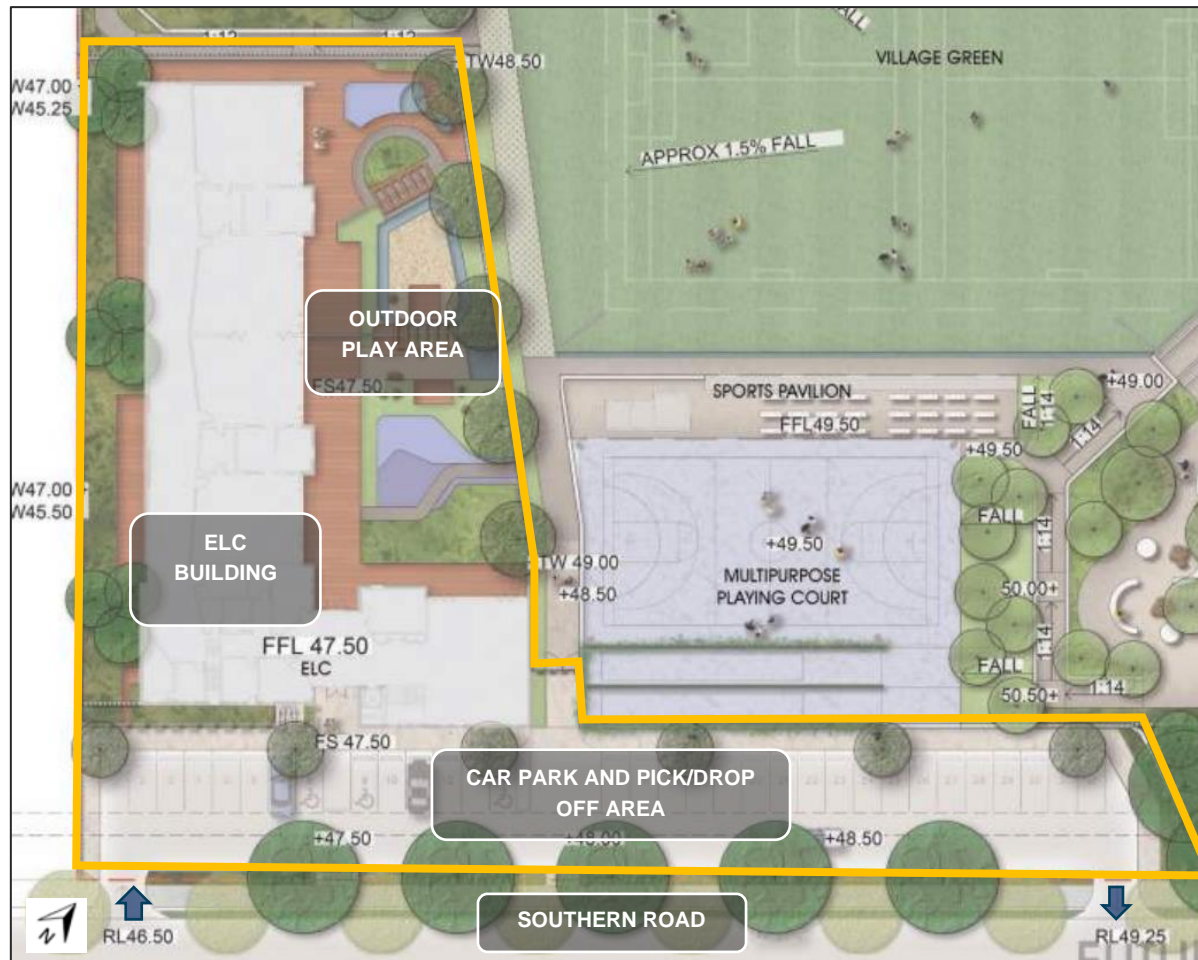
**Figure 20** | Southern elevation of boarding accommodation building (Source: Applicant's RtS 2020)



**Figure 21** | Northern elevation of boarding accommodation building (Source: Applicant's RtS 2020)

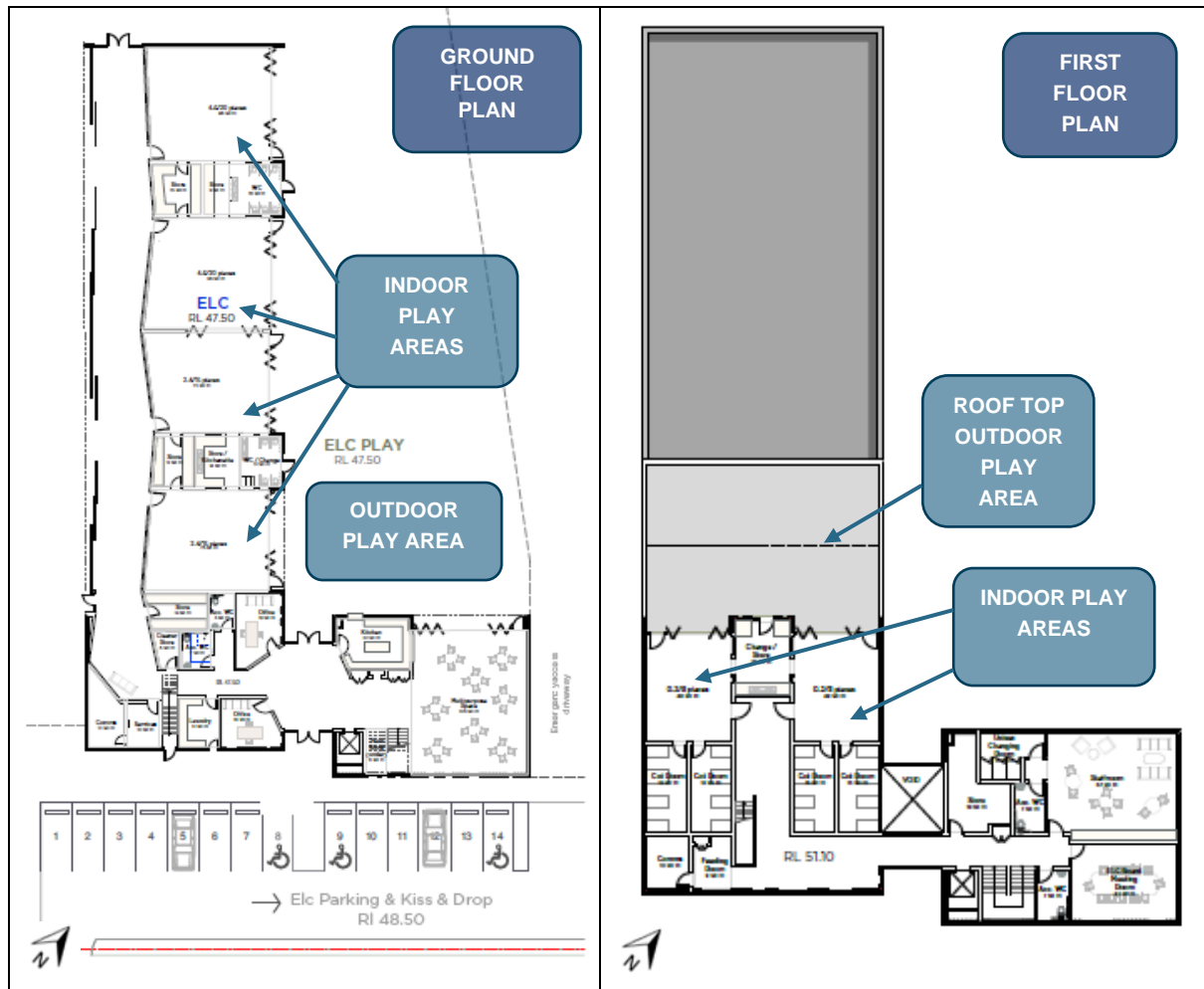
### 2.1.3 Early learning centre

The proposed development includes two-storey purpose-built ELC for 86 children aged 0-6 years. The design of the ELC would be for children aged 0-2 located on the first floor with partly shaded outdoor play space. Children aged 3-6 would be located on the ground floor and would have direct access to outdoor play areas and internal activity spaces. The entire outdoor play area has a northerly aspect. The ELC layout, floor plans and elevations are provided in **Figures 22 – 25**.



**Figure 22** | ELC layout (Source: Applicant's RtS 2020)

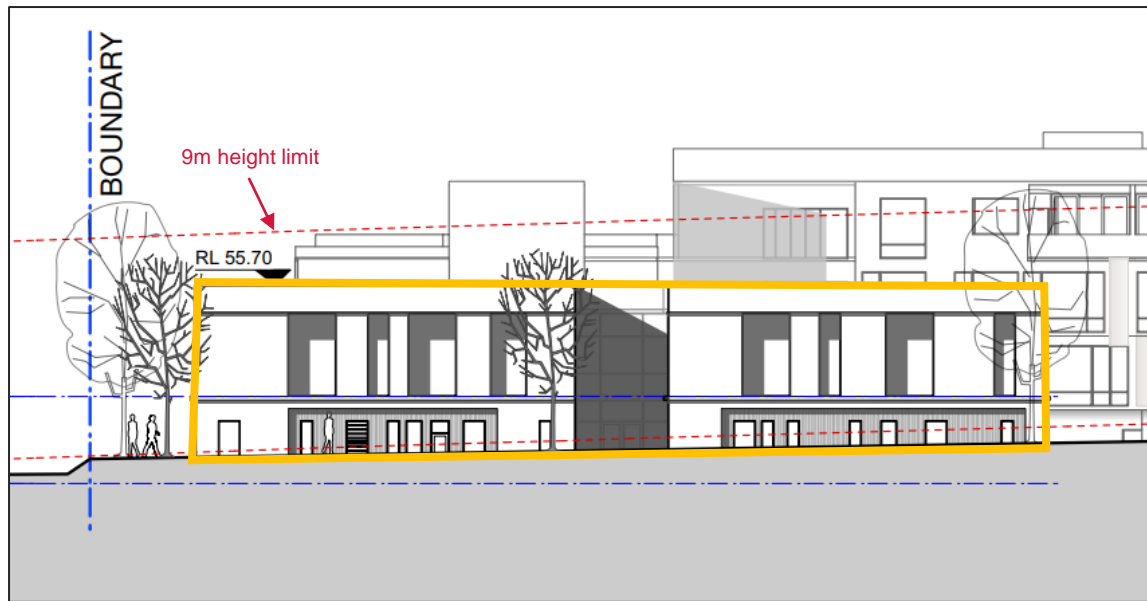




**Figure 23 | ELC floor plans (Source: Applicant's RtS 2020)**



**Figure 24 | Northern view of the ELC (Source: Applicant's RtS 2020)**



**Figure 25** | Southern elevation of the ELC (Source: Applicant's RtS 2020)

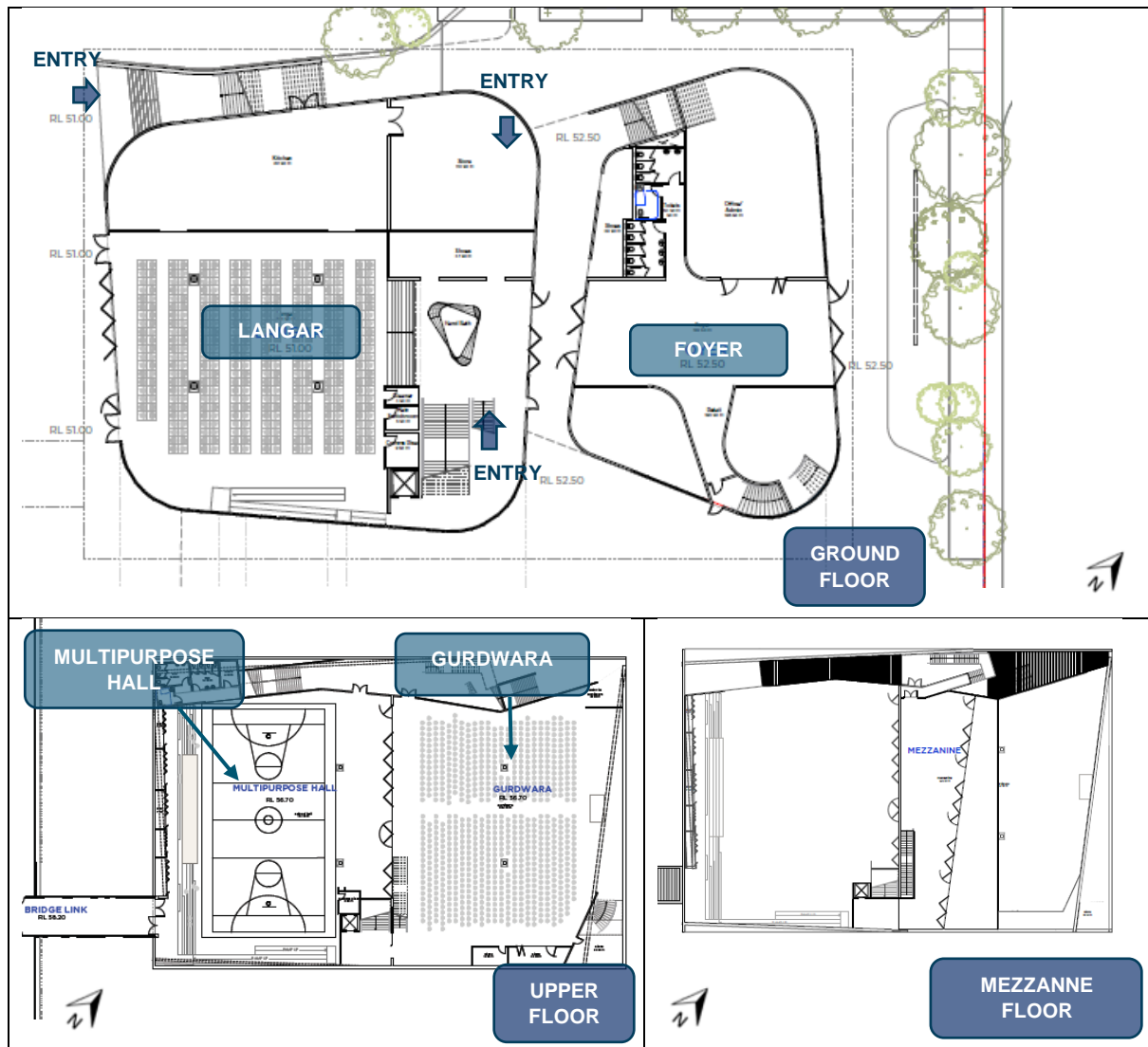
#### 2.1.4 Gurdwara and Langar

The Gurdwara is a place of worship and assembly for the Sikh community, providing facilities used in the provision of religious services and ceremonies. The Langar is the Sikh community kitchen located within the Gurdwara, where a free vegetarian meal is served to all visitors without distinction of religion, caste, gender, economic status or ethnicity. It is not uncommon for the Langar to draw large gatherings of people from the local and broader communities and other visitors.

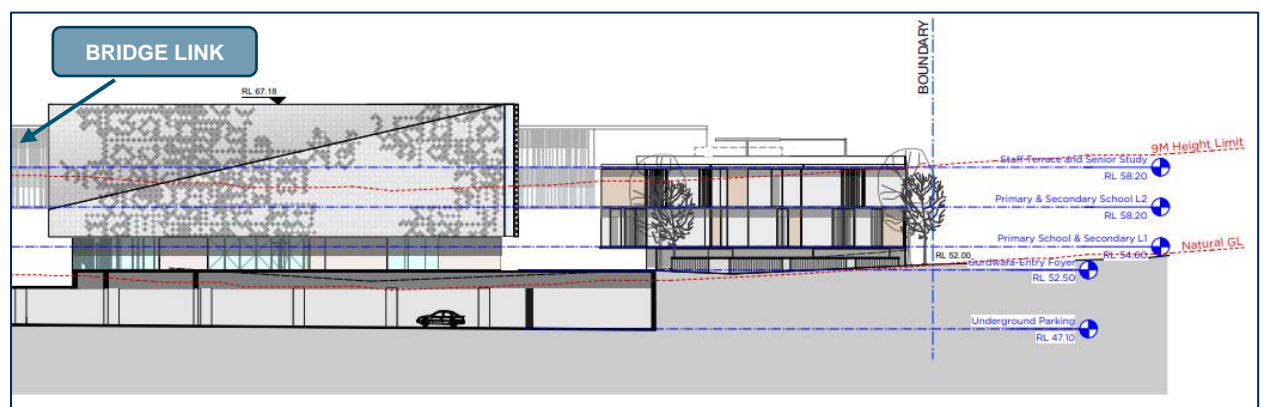
The proposed Gurdwara building within the site would be ancillary to the function of the school and would facilitate religious studies. It includes a:

- large entry foyer at ground level including office and amenity spaces.
- Langar, located opposite the foyer, including a kitchen, hand-bath, large open space for serving meals and storage.
- Gurdwara, at upper level, includes space for approximately 700 worshippers.
- multi-purpose hall located opposite the Gurdwara, providing indoor school hall facilities. The wall between the Gurdwara and multi-purpose hall can be collapsed and opened to create a single large space.

The floor plans and layout of the Gurdwara are provided in **Figure 26** and **27**. The basement carpark would be partly located under this building and partly under the school building.



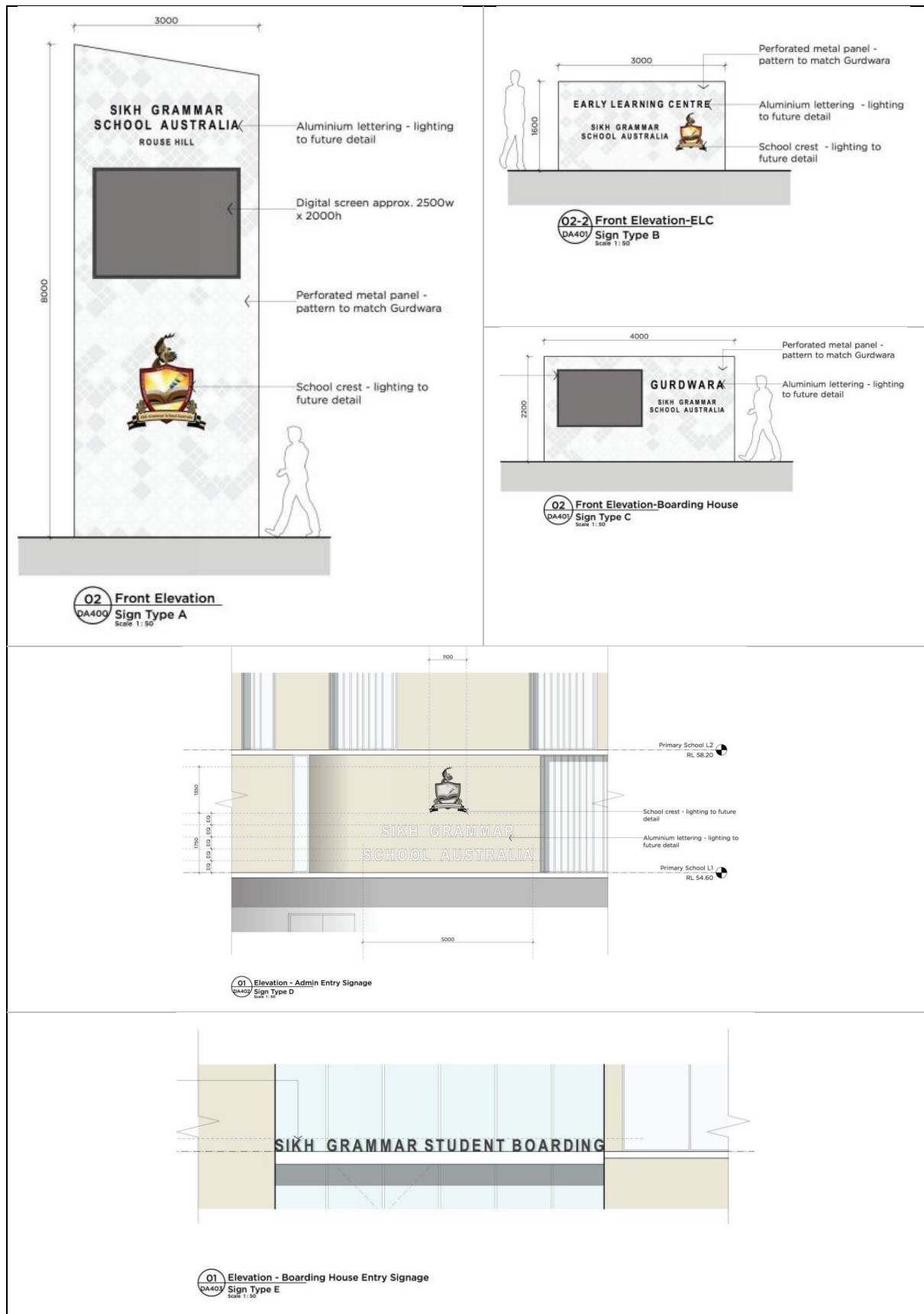
**Figure 26** | The ground and upper level layout of the Gurdwara, including Langar and multipurpose hall (Source: Applicant's Rts 2020)



**Figure 27** | Southern elevation of the Gurdwara, including Langar and multipurpose hall) Source: Applicant's Rts 2020)

### 2.1.5 Signage

The proposed signs would be located across the site as identified in **Figure 8**. Images of the signs are provided in **Figure 28**.



**Figure 28** | Proposed signs on site (Source: Applicant's RtS 2020)

## 2.2 Civil works and infrastructure

The proposal involves a range of civil works at various construction stages of the development.

No roads are proposed to be constructed under this development as they will be delivered partly by the subdivision application Is, with the remainder of the roads being delivered by other land owners developing subdivision within this precincts. Other road upgrades in the area would also be delivered as part of wider precinct work by Council.

The proposal would provide a bus bay on the western side of Tallawong Road, adjacent to the site, for the school bus drop-off and pick-up. Associated works, including a footpath and the drainage works underneath this area, are part of this application.

The proposal also involves the construction of a temporary aboveground on-site-detention (OSD) and bio-retention basin near the western end of the Village Green to cater for the development in Stage 1. Stage 2 to Stage 9 would rely on temporary below ground OSD tank within the site until such time as a regional downstream drainage basin is installed by others as required under the Precinct Plan.

## 2.3 Uses and activities

The primary uses within the site would be:

- a school for 1260 students and 120 staff (K – 12).
- a Gurdwara (place of worship), which would be used ancillary to the school.
- a child care centre (ELC) for 86 children (0 – 6 years).
- boarding accommodation for 116 school students and staff within the site.
- shared use of the Gurdwara / Langar outside the core school hours by the community.
- community use of the following open areas within the site (in addition to the Gurdwara / Langar).
  - Village Green.
  - ELC and secondary school playgrounds.
  - the outdoor court.

The proposed hours of operation of the premises would be:

- primary and secondary schools: 7am – 6pm.
- ELC: 7am – 7pm.
- community / public use of Gurdwara and Langar: 7am – 9pm (outside of school hours) and the carpark up to 11pm.
- use of Gurdwara by students and staff only: core school hours.
- community use of school facilities (in addition to Gurdwara): 7am – 6pm.
- out of school hours (OOSH) care including:
  - before school care 7am – 8:30am.
  - after school care 3pm – 7pm.

## 2.4 Staging

The construction and operation of the school is proposed to be delivered in 10 stages over 10 years. The 10 stages of the development are itemised below in **Table 2** and shown at **Figure 29** and **Figure 30**. Detailed plans of each stage are provided at **Appendix C**.

The proposed school population and parking in each construction stage are summarised at **Table 3**.



**Table 2 |** Key components of the staged development (Source: Applicant's SRtS 2020)

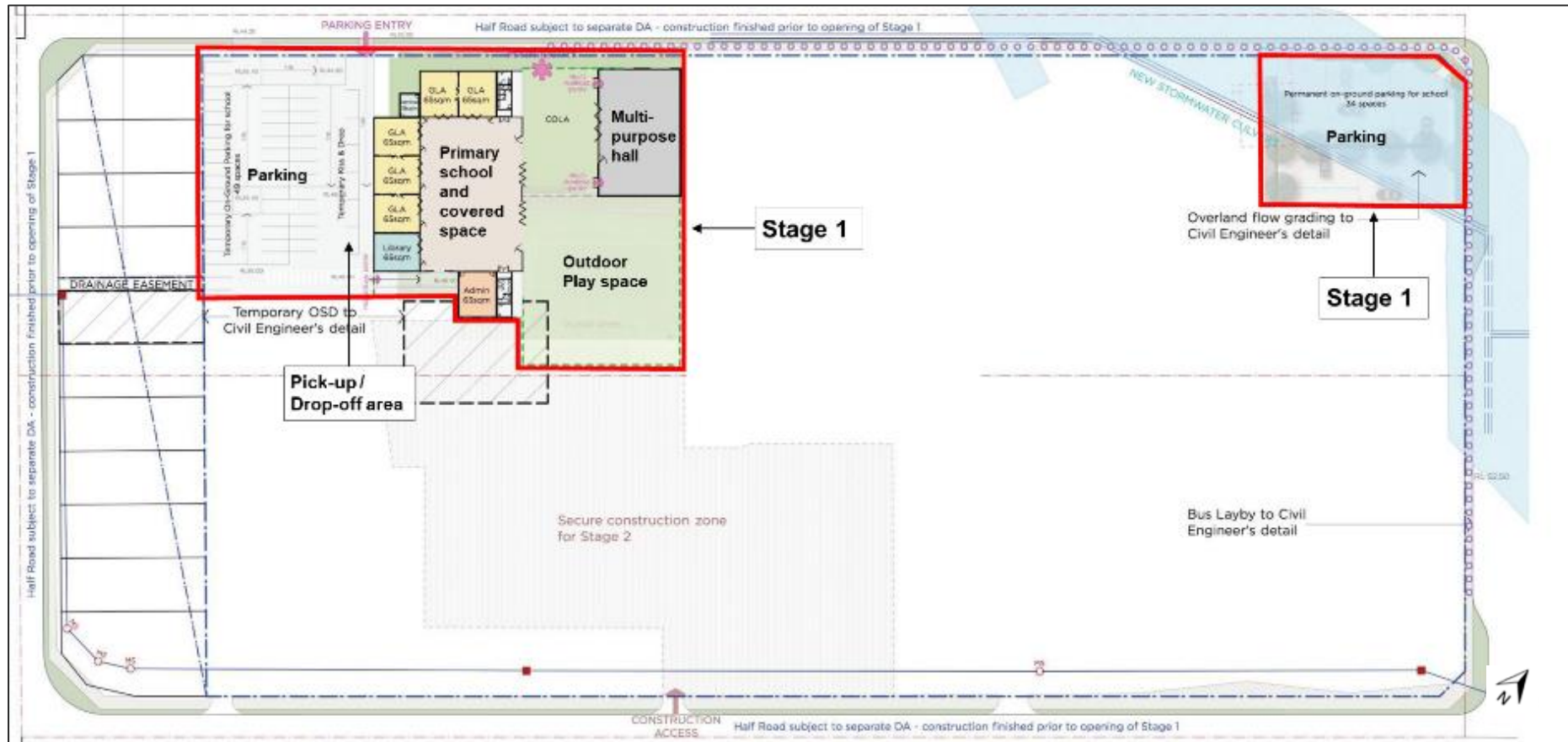
Stage	Description
1	<p>Demolition of:</p> <ul style="list-style-type: none"> <li>existing house at 161 Tallawong Road, Rouse Hill.</li> <li>existing on-ground car parking area.</li> </ul> <p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>play space (becomes part of the Village Green in later stages of construction).</li> <li>Tallawong Road upgrades.</li> <li>stormwater infrastructure to northeast corner of the site.</li> <li>northeast corner on-grade car parking area with access from Northern Road.</li> </ul> <p>Temporary construction of:</p> <ul style="list-style-type: none"> <li>single storey relocatable primary school building and multi-purpose hall.</li> <li>surface car parking and pick-up/drop-off areas.</li> <li>on-site stormwater detention.</li> </ul>
2	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>primary school building.</li> <li>part construction of Village Green.</li> <li>K-2 play space.</li> <li>multi-purpose outdoor court and cricket nets.</li> </ul>
3A	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>primary school building, including Library and staff room on the third and fourth floors.</li> <li>part Civic Heart construction under the library building.</li> <li>southern entry to future underground car parking area.</li> </ul> <p>Temporary construction of:</p> <ul style="list-style-type: none"> <li>play space along the southeast corner (to be used as a landscaped area adjoining the administrative building, when the Civic Heart and Village Green are completed in later stages).</li> </ul>
3B	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>ELC building.</li> <li>ELC outdoor play area.</li> <li>ELC car parking area and drop-off and pick-up.</li> </ul>
4	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>high school building with specialist science facilities.</li> <li>remainder of Village Green construction.</li> </ul>
5	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>high school building with café, performing and visual arts, secondary library and staff room.</li> <li>part Civic Heart.</li> <li>on-site stormwater detention converted to underground water storage.</li> </ul> <p>Temporary construction of:</p> <ul style="list-style-type: none"> <li>surface drop-off/pick-up area in the south-east corner of the site.</li> </ul>
6	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>high school building with specialist TAS facilities and remaining home bases.</li> <li>Performing and Visual Arts outdoor workshops.</li> <li>Waste storage Service pavilion.</li> </ul>



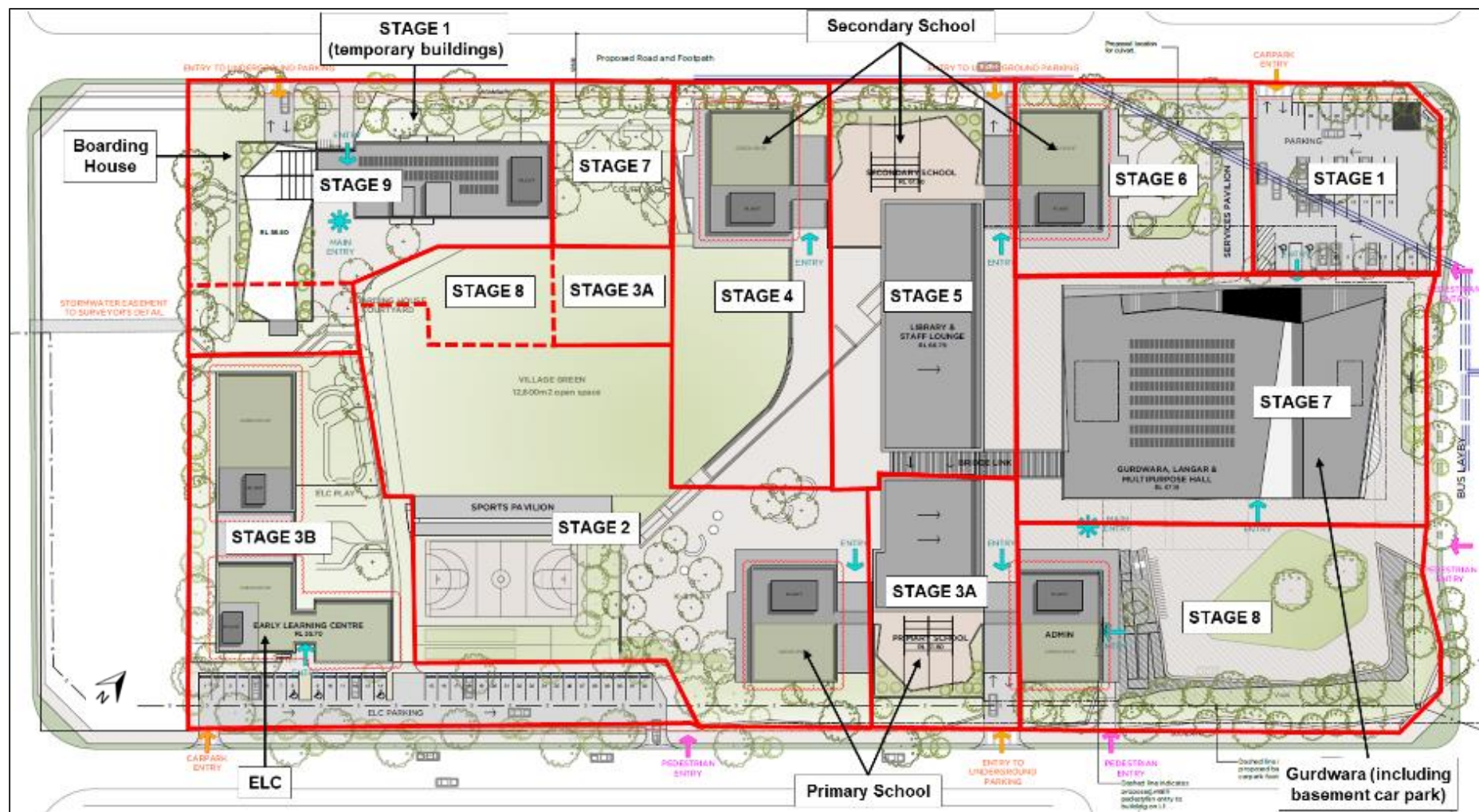
7	<p>Demolition of:</p> <ul style="list-style-type: none"> <li>• Stage 5 temporary parking to the southeast corner.</li> <li>• Stage 1 temporary multi-purpose hall.</li> <li>• Stage 3A temporary play space.</li> </ul> <p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>• Gurdwara, Langar, Multi-purpose hall and bridge link.</li> <li>• completed Civic Heart.</li> <li>• high school courtyard.</li> <li>• basement car parking area and pick-up/drop-off beneath the Gurdwara.</li> </ul>
8	<p>Demolition of:</p> <ul style="list-style-type: none"> <li>• Stage 1 temporary carpark to the northwest corner.</li> <li>• Stage 1 primary classrooms.</li> </ul> <p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>• administration section of the primary school building.</li> <li>• three general learning areas for primary school.</li> <li>• school reception and sick bay.</li> <li>• principal and support staff offices.</li> </ul>
9	<p>Permanent construction of:</p> <ul style="list-style-type: none"> <li>• student boarding accommodation including staff apartments.</li> <li>• basement car parking for the boarding accommodation.</li> </ul>

**Table 3 |** Key components of the staged development (Source: Applicant's SRtS 2020)

Stage	Total Student population	Total ELC population	Total Staff numbers	Total On-site Car Parking Spaces				Total bicycle numbers
				Pick-up / drop-off	School	ELC	Boarding	
Stage 1	112	0	8	6	84	0	0	5
Stage 2	168	0	12	6	84	0	0	5
Stage 3A	392	0	27	6	84	0	0	10
Stage 3B	392	86	27	6	84	32	0	14
Stage 4	672	86	51	16	163	32	0	22
Stage 5	952	86	74	16	163	32	0	29
Stage 6	1,092	86	85	16	163	32	0	34
Stage 7	1,092	86	85	16	226	32	0	38
Stage 8	1,260	86	102	11	226	32	0	38
Stage 9	1,260	86	102	11	226	32	13	43



**Figure 29** | Stage 1 of the development, including temporary primary school, multi-purpose hall and parking (Base source: Applicant's RtS 2020)



**Figure 30 | Stages 2 to 9 of the development (excluding temporary stages) (Base source: Applicant's RtS 2020)**

## 3 Strategic context

### 3.1 Project need and justification

The Applicant indicates the education sector is expected to experience significant growth in demand due to the increase in population in NSW, particularly within the North West Priority Growth Area. The Applicant advises the proposal provides social infrastructure for the Sikh community and would offer a high-quality learning environment and facilities to meet growing demands in Rouse Hill. Furthermore, the proposal would provide:

- reduced travel distances by improving the areas accessibility to new schools and improved infrastructure services close to people's homes.
- diversification of available schooling facilities experienced within the Rouse Hill area.
- new employment opportunities for the education sector.

The Department considers that the proposed school would provide an opportunity for a new educational facility in a growing area and cater for the social needs of the Sikh community in the broader locality.

### 3.2 Strategic context

Council forecasts that the population of the LGA would grow by 125,553 (33.06%) new residents over the next 16 years (from 379,725 in 2020 to 505,278 in 2036).

According to the Council's predictions, a large proportion of that population growth would be within the school age demographic of ages 5 to 19, which is expected to increase by 35,023 persons (27%). Council data also highlights that a significant portion of the existing local population are of school age (30.4% of the total population). The proposed school, student/staff boarding accommodation and the ELC would cater for the growing population in the locality and the broader region in the future.

The Department considers that the proposal is appropriate from a strategic context as it is consistent with:

- NSW State Priorities to provide a new education facility through the provision of new and improved teaching and education facilities.
- Greater Sydney Commission's (GSC) *Greater Sydney Regional Plan: A Metropolis of Three Cities*, as it proposes new school facilities to meet the growing needs of Sydney.
- the vision outlined in the GSC's *Central City District Plan*, as it would provide much needed school infrastructure conveniently located near existing public transport services and opportunities to co-share facilities with the local community.
- Transport for NSW's *Future Transport Strategy 2056* as it would provide a new educational facility and provide access to additional new employment opportunities.
- Infrastructure NSW's *State Infrastructure Strategy 2018 – 2038 Building the Momentum*, as it proposes:
  - facilities to support the growth in demand for early learning, primary and secondary student enrolments
  - a school designed to accommodate infrastructure and facilities sharing with communities.
- would provide direct investment in the region of estimated \$167,533,780 and support 280 construction jobs and 120 new operational jobs.



## 4 Statutory Context

### 4.1 State Significant Development

The proposal is SSD under section 4.36 (development declared SSD) of the *Environmental Planning and Assessment Act 1979* (EP&A Act), as the development is for the purpose of a new school under clause 15(1) of Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

Clause 8(2) of the SRD SEPP provisions confirm that where a single proposed development, in this instance the school component, is the subject of one development application and comprises development that is only partly State significant development declared under subclause 8(1), then the remainder of the development is also declared to be State significant development.

The proposed early learning centre, the staff and student accommodation, the Gurdwara (place of worship) and the Langar (community kitchen) are sufficiently related to the school. The entire development is considered to be SSD.

### 4.2 Consent Authority

The Minister for Planning and Public Spaces (the Minister) is the consent authority under section 4.5 of the EP&A Act.

In accordance with the Minister's delegation to determine SSD applications, signed on 9 March 2020, the Executive Director, Infrastructure Assessments may determine this application as:

- the relevant Council has not made an objection.
- there are less than 50 public submissions in the nature of objection.
- a political disclosure statement has not been made.

### 4.3 Permissibility

The SRGC SEPP is the principal environmental planning instrument that applies to the site. The Blacktown Local Environmental Plan 2015 (BLEP) is not applicable to the site as the provisions of the SRGC SEPP apply.

The site is located within the R2 Low Density Residential zone (**Figure 31**) under the SRGC SEPP.



**Figure 31 | Land zoning map (Source: Applicant's EIS 2019)**

The site is zoned R2 under the SRGC SEPP. Educational establishments are permitted with consent, including any development which is ordinarily incidental or ancillary to educational establishment. Centre-based childcare facilities are permitted with consent. The development is consistent with the objectives of the zone as it seeks to support the wellbeing of the community, including educational, recreational, community, religious and other activities.

The proposed student staff/student accommodation is not defined in the SRGC SEPP and are not prohibited in the R2 zone.

Places of worship are permitted in the R2 zone under the SRGC SEPP. Independent schools in Australia that have a religious affiliation frequently include within their campus places of worship as part of the school. The Department is satisfied that the proposed Gurdwara / Langar (a place of worship) is an integral part of the school's functions. The school would cater for the Sikh community in the locality and the curriculum would include religious studies. Noting the above, the Minister or a delegate may determine the carrying out of the development.

#### **4.4 Planning Secretary's Environmental Assessment Requirements**

On 6 August 2018, the Department notified the Applicant of the Planning Secretary's Environmental Assessment Requirements (SEARs). The Department is satisfied that the EIS and RtS adequately address the requirements of the SEARs to enable the assessment and determination of the application.

#### **4.5 Biodiversity Conservation Act 2016**

Under section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act), SSD applications are to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.

The site was biodiversity certified in 2007 as part of the certification of the north-west growth centre and is largely clear of native vegetation. Section 8.4(2) of the BC Act provides that a development application relating to land that has been biodiversity certified is not required to take into consideration the likely impact of the proposed development on biodiversity. Consequently, a BDAR is not required to be submitted with the application.

The Department has also reviewed the “Native Vegetation Protection Map” of the SRGC SEPP which includes specific areas of vegetation within biodiversity certified land that are required to be protected. The site does not include any native vegetation that is required to be protected by the SRGC SEPP. The proposal would result in the removal of all existing trees within the site. The Department has assessed the impacts in relation to tree removal at **Section 6**.

## 4.6 Mandatory Matters for Consideration

The following are the relevant mandatory matters for consideration:

- the matters in section 4.15(1) of the EP&A Act.
- relevant Environmental Planning Instruments (EPIs).
- objects of the EP&A Act.
- Ecologically Sustainable Development (ESD).
- Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).

### 4.6.1 Section 4.15(1) matters for consideration

**Table 4** identifies the matters for consideration under section 4.15(1) that apply to SSD in accordance with section 4.40 of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 6** and relevant appendices or other sections of this report and the application, referenced in the table.

**Table 4 | Section 4.15(1) matters for consideration**

Section 4.15(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Satisfactorily complies. The Department’s consideration of the relevant EPIs is provided below and in <b>Appendix B</b> of this report.
(a)(ii) any proposed instrument	Satisfactorily complies. The Department’s consideration of the relevant draft EPIs is provided in <b>Section 6</b> and in <b>Appendix B</b> of this report.
(a)(iii) any development control plan	The site is located within the Riverstone East Precinct and the Blacktown City Council Growth Centres Precincts Development Control Plan 2018 (GCDCP) includes provisions relating to development within the precinct. Under clause 11 of the SRD SEPP development control plans (DCPs) do not apply to SSD. However, consideration has been given to the controls under the GCDCP, where relevant, in <b>Section 6</b> and <b>Appendix B</b> .
(a)(iia) any planning agreement	Not applicable.
(a)(iv) the regulations Refer Division 8 of the EP&A Regulation	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to

	applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(b) the likely impacts of that development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	The impacts of the proposal have been appropriately mitigated or conditioned as outlined at <b>Section 6</b> .
(c) the suitability of the site for the development	The site is suitable for the development as discussed in <b>Sections 6</b> .
(d) any submissions	Consideration has been given to the submissions received during the exhibition of the proposal. Refer to <b>Sections 3 and 6</b> .
(e) the public interest	The proposal is in the public interest. Refer to <b>Section 6</b> .

#### 4.6.2 Environmental planning instruments

Under section 4.15 of the EP&A Act, the consent authority is required to take into consideration any EPI relevant to the development that is the subject of a development application. Therefore, the assessment report must include a copy of, or reference to, the provisions of any EPI(s) that substantially govern the project and that have been considered in the assessment of the application.

The Department has undertaken a detailed assessment of these EPIs in **Appendix B** and is satisfied the application is consistent with the requirements of the EPIs.

#### 4.6.3 Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects as set out in section 1.3 of that Act. The objects of the EP&A Act are the underpinning principles upon which the assessment is conducted. The statutory powers in the EP&A Act (such as the power to grant consent / approval) are to be understood as powers to advance the objects of the legislation, and limits on those powers are set by reference to those objects. Therefore, in making an assessment, the objects should be considered to the extent they are relevant.

The Department has considered the proposal to be satisfactory with regard to the objects of the EP&A Act as detailed in **Table 5**.

**Table 5** | Response to the objects of section 1.3 of the EP&A Act

Objects of the EP&A Act	Consideration
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	<p>The proposal involves the construction of a new school and ancillary uses to cater for demand in a developing urban area.</p> <p>The proposal is estimated to generate approximately 280 construction and 120 operational jobs.</p> <p>The site is located within an identified growth area, would have a positive impact on the social and economic welfare</p>



	<p>of the community and impacts on the natural environment can be mitigated.</p> <p>The development would have no significant adverse impact on the State's natural and other resources (Section 6) as it is not located within an environmentally sensitive area.</p>
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The proposal includes measures to deliver ecologically sustainable development ( <b>Section 4.6.4</b> ).
(c) to promote the orderly and economic use and development of land,	The proposal would be an orderly and economic use and development of land as it provides for new modern, fit-for-purpose educational facilities, while not significantly compromising efficient dwelling delivery in the locality. The merits of the proposal are considered in <b>Section 6</b> .
(d) to promote the delivery and maintenance of affordable housing,	The draft Housing Diversity SEPP proposes to categorise the proposed student and staff housing as affordable housing.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	<p>The application is not required to be accompanied by a BDAR in accordance with the BC Act (<b>Section 4.5</b>).</p> <p>The application proposes to remove six existing trees on the site. The proposal involves landscaping and the planting of 137 replacement trees, which would provide opportunities for new habitat areas on the site. The Department has considered the merits of the landscaping, tree removal and planting at <b>Section 6.4</b>.</p> <p>The proposal would not affect any protected or threatened species or vegetation communities.</p>
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	<p>The site does not contain any heritage items and is not within the vicinity of heritage items or conservation areas. The proposal would therefore not have an adverse impact on any heritage items.</p> <p>The application includes an Aboriginal Cultural Heritage Assessment Report (ACHAR), which identified Aboriginal cultural heritage values and sets out appropriate mitigation measures to protect these values. The Department has considered Aboriginal heritage at <b>Section 6.6</b>.</p>
(g) to promote good design and amenity of the built environment,	<p>The proposed buildings achieve a building with a contemporary design as discussed at <b>Section 6.3</b>. Amenity impacts in relation to surrounding (and future) residents can be managed / mitigated as detailed at <b>Section 6.6</b>.</p> <p>The proposed built form is acceptable subject to recommended conditions, as discussed in <b>Section 6</b>.</p>
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The proposal would promote proper construction and maintenance of buildings subject to recommended conditions of consent.

	The proposal has a modern functional design and would integrate with the surrounding (and future) built form, landscaping and public domain.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Department publicly exhibited the proposed development as outlined in <b>Section 5</b> , which included consultation with Council and other public authorities and consideration of their responses.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the application ( <b>Section 5</b> ), which included notifying adjoining landowners, placing a notice in newspapers and displaying the proposal on the Department's website and at Council's office during the exhibition period. Issues raised in the submissions have been addressed in <b>Section 6</b> .

#### 4.6.4 Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle.
- inter-generational equity.
- conservation of biological diversity and ecological integrity.
- improved valuation, pricing and incentive mechanisms.

The development proposes ESD initiatives and sustainability measures to target a 4 Star Green Star rating, including:

- incorporating passive design features to achieve measurable impacts on both services strategies and the thermal comfort of occupants.
- incorporating LED lighting, timers on lights, and sensors to reduce energy consumption.
- using natural ventilation via openable facades and ceiling fans for air movement.
- incorporating shading to reduce dependence on air conditioning in the building.
- solar photovoltaic panel arrays to supplement energy consumption / reduce operating costs.
- rainwater harvesting for use in landscape irrigation and flushing toilets.
- all water fittings and fixtures to meet high Water Efficiency Rating Scheme ratings.
- minimising construction generated waste by reusing or recycling.
- using construction products that meet the best practice guidelines.
- incorporating light coloured roof materials to reduce the urban heat effect.
- incorporating stormwater design and landscape solutions that achieve a high level of stormwater performance, improving water quality prior to discharge from the site.

The Department has considered the proposed development in relation to the ESD principles. The precautionary and inter-generational equity principles have been applied in the decision-making process via a thorough and rigorous assessment of the environmental impacts of the proposed development. The proposed development is consistent with ESD principles as described in Appendix

29 of the Applicant's EIS, which has been prepared in accordance with the requirements of Schedule 2 of the EP&A Regulation.

The Department has recommended a condition that requires the Applicant to obtain evidence from a suitably qualified Green Star Accredited professional demonstrating the development achieves all the ESD measures set out in Appendix 29 of the EIS prior to the commencement of building works.

Overall, the proposal is consistent with ESD principles and the Department is satisfied the proposed sustainability initiatives will encourage ESD, in accordance with the objects of the EP&A Act.

#### **4.6.5 Environmental Planning and Assessment Regulation 2000**

Subject to any other references to compliance with the EP&A Regulation cited in this report, the requirements for Notification (Part 6, Division 6) and Fees (Part 15, Division 1AA) have been complied with.

#### **4.7 Other approvals**

Under section 4.41 of the EP&A Act, a number of other approvals are integrated into the SSD approval process, and consequently are not required to be separately obtained for the proposal.

Under section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the proposal (e.g. approvals for any works under the *Roads Act 1993*).

The Department has consulted with the relevant public authorities responsible for integrated and other approvals, considered their advice in its assessment of the proposal, and included suitable conditions in the recommended conditions of consent (**Appendix D**).

## 5 Engagement

### 5.1 Department's engagement

In accordance with Schedule 1 of the EP&A Act, the Department publicly exhibited the application from 17 October 2019 until 13 November 2019 (28 days). The application was exhibited on the Department's website and at Council's office.

The Department placed a public exhibition notice in Rouse Hill Times on 16 October 2019 and notified landholders, Council and relevant public authorities in writing. Department representatives visited the site to provide an informed assessment of the development. The submissions received in response to exhibition of the EIS are summarised in **Section 5.2**.

The Department has considered the comments raised in the public authority and public submissions during the assessment of the application (**Section 6**) and/or by way of recommended conditions in the instrument of consent at **Appendix D**.

### 5.2 Summary of submissions

In response to the exhibition of the EIS the Department received a total of 25 submissions, comprising nine from public authorities (including one comment from Council), eight objections from special interest groups and eight individual public submissions. Of the individual public submissions, five raised objections, two provided comments and one supported the proposal.

A summary of the issues raised in the submissions is provided at **Sections 5.3** and **5.4**. Copies of the submissions may be viewed at **Appendix A**.

### 5.3 Submissions

#### 5.3.1 Public authority submissions to EIS

A summary of the issues raised in public authority submissions is provided at **Table 6**.

**Table 6** | Summary of Government authority submissions to the exhibition of the proposal

Council
<p>Council did not object to the proposal, but provided the following comments:</p> <p><u>Stormwater and flooding</u></p> <ul style="list-style-type: none"><li>the Concept Stormwater Management Plan and Preliminary Flood Study (the Stormwater/Flood Report) and drainage plan must be amended to:<ul style="list-style-type: none"><li>address the requirements under Part J of the Blacktown Development Control Plan 2015 (BDCP) and Council's Engineering Guide for Development 2005. In this regard, Council provided detailed stormwater/flooding design requirements.</li><li>include revised MUSIC drainage modelling to address impervious and bypass areas and stream erosion index.</li><li>provide for additional water conservation measures relating to fittings/fixtures, rainwater reuse and landscape irrigation.</li></ul></li><li>the proposed filling of land and redirection of stormwater by piped drainage is not supported and should be amended to a suitable drainage channel instead.</li><li>easements should be provided to all drainage pipes within the property intended to drain water from the road network.</li></ul>



- details of temporary on-site detention (OSD) and stormwater treatment measures (STM) are required for all stages.
- detailed plans of upstream catchment drainage are required together with flood impacts from flows from the upstream catchment.

#### Road design and construction

- the half road construction of Tallawong Road and the three adjoining (north, south and west) roads must be included within this application. Plans should include levels, sections, drainage infrastructure and minimum 3.5m verge widths.
- Tallawong Road levels should be in accordance with Council's current design and the extent of half road construction is for the full frontage of 151 and 161 Tallawong Road (inclusive of ancillary works).
- the new roads along on the northern and southern boundaries of the site must:
  - o include raised pedestrian crossings.
  - o have a minimum road reserve width of 18m and carriageway width of 11m to allow for parking on both sides and maintain 2 traffic lanes.
- road construction and dedication must be completed prior to any building construction certificates being issued.

#### Traffic

- the traffic report should confirm whether the proposed car parking at each stage of the development is consistent with the car parking controls for the site.
- the comparative schools used to estimate trip generation are located in the Inner West and are therefore not representative of the proposed school or its location.
- the catchment of the school is likely to be broader than currently predicted and the 30% bus travel mode is therefore unrealistic.

#### Open space and environment

- an Arboricultural Impact Assessment is required considering existing trees, tree removal and potential tree retention.
- the landscape plan should be updated to include street tree planting (in accordance with Council's species requirements) and maintenance details and take account of street lighting and sight lines.
- a dam dewatering plan is required. In addition, the development should include mitigation measures in accordance with the requirements of the Aquatic and Terrestrial Ecology Assessment NGH Environmental June 2019.

#### Urban design

- the development should address urban heat effects and include additional soft landscaping, shade trees and/or turfed areas in lieu of hardstand areas.
- the proposal should address overlooking issues to the residential lots proposed along the western boundary of the site (located within the Applicant's property).
- waste collection must be contained wholly within the site, appropriate screened and consideration be given to providing for waste collection at basement level. Collection should be in accordance with the Council's Waste Section operational waste requirements.
- the waste/services pavilion should be integrated into the design of buildings.

Council supported the contemporary interpretation of traditional architectural features into the Gurdwara design.

### **Transport for NSW (TfNSW including Roads and Maritime Services and Sydney Trains)**

TfNSW requested the following matters be addressed:

- the proposed mode share is not comparable to an Inner West High School (as suggested). Further evidence should be provided to more accurately reflect the expected mode share of the development.
- the Traffic and Parking Impact Assessment (TIA) should include the additional bus services which operate following the opening of Sydney Metro.

- the location and design of the proposed bus stops should be determined in consultation with TfNSW, the local bus operators and Council and should be consistent with the Guidelines for Public Transport Capable Infrastructure in Greenfield Sites.
- the bus bays should allow sufficient walking space along the footpath for students and the general public and comply with *Disability Discrimination Act* Standards and Guidelines.
- a public bus stop should be provided opposite the school on Tallawong Road (southbound) for public buses towards Tallawong Metro Station.
- pedestrian crossing facilities should be designed in consultation with Council and consider safe student access to and from the future bus stop opposite the school.
- future design iterations should demonstrate ways to encourage and cater for increased rates of walking, cycling and use of public transport.
- the Applicant should provide additional data including the proposed student catchment area to determine the likely demands on the transport network (all modes).
- any proposed changes to roadway speed limits and/or installation of school zone signage must be approved by TfNSW prior to implementation.
- the layout of the proposed car parking areas should be designed in accordance with relevant Australian Standards and all vehicles should enter and leave in a forward direction.
- sight distances from vehicular crossings to the local roads are to be in accordance with Austroads and Australian Standards and the development should consider pedestrian safety.

#### Environment Protection Authority (EPA)

EPA provided the following comments:

- an assessment of groundwater contamination is required.
- the proposal does not constitute a Scheduled Activity under Schedule 1 of the *Protection of the Environment Operations Act 1997* (POEO Act).
- the proposal will not require an Environment Protection Licence under the POEO Act.

#### Environment, Energy and Science Group of the Department of Planning, Industry and Environment (EESG)

EESG provided the following comments:

- the development is not likely to significantly affect any threatened species, population or ecological community or habitat. No offsets are required for the removal of vegetation.
- further details are required if a riparian corridor is to be planted on the site.
- plant and trees species should be characteristic of Cumberland Plain Woodland that would have been found on the site. *Angophora costata* should be removed from planting list and the development should consider increasing urban tree canopy cover.
- the synthetic lawn should be replaced with natural grasses and avoid removal of remnant and regrowth native vegetation.
- the proposal should prepare and implement a Fauna Relocation Plan relating to the dewatering of the dam.
- EESG supports the incorporation of green roofs, walls and light-coloured roof materials.
- further detail is required on whether the development results in potential flooding impacts on neighbouring properties. In addition, an Emergency Response Plan is required.

EESG recommended conditions relating to tree planting and landscaping.

#### NSW Rural Fire Service (NSW RFS)

NSW RFS confirmed although the site is not identified as a bushfire prone land, unmanaged vegetation exists to the north-east and south-west of the site. NSW RFS therefore recommended conditions requiring the design/construction of the development include management and mitigation measures to address bushfire risk.

#### Water NSW

- Water NSW confirmed that the proposal is not located near any Water NSW land, assets or infrastructure and therefore has no comments to provide.

#### Endeavour Energy

Endeavour Energy provided the following comments:

- the proposed electricity substations should meet Endeavour Energy's design standards and easement specifications and should not be subject to flooding inundation. The site should connect to future underground electrical supply.
- street lighting should be reviewed and if necessary upgraded.
- sensitive uses/rooms within the development should be located away from electrical infrastructure and buildings/structures should be appropriately earthed.
- redundant electrical infrastructure should be removed, and appropriate safety measures should be considered during demolition and construction.

Endeavour Energy recommended conditions requiring the Applicant has made necessary electricity connections arrangements prior to commencement of works.

#### Sydney Metro

- Sydney Metro confirmed the proposal would not have an adverse impact on the operation or safety of Sydney Metro Northwest rail corridor as the site is not near the corridor or within 400m of the Tallawong Station Precinct.

#### Sydney Water

- Sydney Water recommended that water, wastewater and stormwater infrastructure connections be provided to the site in accordance with Sydney Water requirements.

### 5.3.2 Public submissions to the EIS

A total of 16 public submissions (including eight from special interest groups) were received in response to the exhibition of the proposal comprising 13 objections, two comments and one in support of the proposal. However, following the exhibition, seven of the special interest group submitters requested that their submissions be withdrawn as their concerns had been addressed by the Applicant.

The key issues raised within the public submissions are summarised in **Table 7**.

**Table 7** | Public submissions made in response to the EIS exhibition

Issue	Raised in following number of submissions
<ul style="list-style-type: none"> <li>the proposal would result in adverse traffic and parking impacts.</li> </ul>	13
<ul style="list-style-type: none"> <li>the proposal would attract people from outside resulting in inconvenience.</li> </ul>	10
<ul style="list-style-type: none"> <li>there are already sufficient schools and school capacity in the area.</li> </ul>	10
<ul style="list-style-type: none"> <li>the proposal has inappropriate height and bulk of the development.</li> </ul>	10

The special interest group raised the following issues in addition to the issues raised above (**Table 7**):

- no owner's consent is provided for any required off-site works, vehicle movements or vehicle manoeuvres particularly in relation to 141 Tallawong Road.
- half roads would be inadequate to accommodate vehicle movements.
- flood mitigation should not result in flood impacts on adjoining properties.
- there are inadequacies and discrepancies in EIS documentation.
- the proposal sets an unacceptable development precedent.
- the proposal would result in devaluation of adjoining and nearby properties.

The one public submission in support of the proposal noted the development would support the Sikh community and encourages a balanced multi-cultural society.

## 5.4 Response to submissions

Following the exhibition of the proposal, the Department placed copies of all submissions received on its website, and requested the Applicant provide a response to the issues raised in the submissions and matters raised following the Department's preliminary review of the EIS.

On 12 November 2020, the Applicant submitted its Response to Submissions (RtS) (**Appendix A**). The RtS provides additional information and clarification in response to the issues raised in submissions. The RtS also included physical amendments to the proposal:

- minor realignment of the proposed Tallawong Road boundary allowing for 6.5m from the centre of the road to the new property boundary
- minor realignment of the northern boundary (at the north-eastern corner of the site) to be 8.5m offset from the adjoining R3 zone land
- reduction of five car parking spaces (to 271 spaces)
- reduction and reconfiguration of the Services Pavilion
- inclusion of six biodiversity green roofs above the primary and secondary school and ELC buildings.

The RtS was made publicly available on the Department website and was referred to Council and relevant public authorities. An additional seven submissions were received in response to the RtS, including from Council and six from public authorities. No submissions were received from the public. These are summarised in **Table 8**, and copies of the submissions may be viewed at **Appendix A**.



**Table 8 | Summary of Council and public authority submissions to the notification of the RtS**

#### **Council**

Council reviewed the RtS and recommended conditions of consent including deferred commencement conditions to include a revised DRAINS model, TUFLOW model and stormwater plans.

Council also provided conditions around future road widths, waste collection areas, street tree planting, fit out of food premises, development contributions under Section 94 Contributions Plan No.22L and 22W – Rouse Hill (Land) and (Works), stormwater drainage and water quality, on-site detention, flooding, earthworks and roads works.

#### **TfNSW**

TfNSW reviewed the RtS and advised the following:

- the traffic study should be updated to accurately reflect the Gurdwara weekday and weekend operation.
- the predicted trip generation is not appropriate given:
  - the reference schools surveyed are in an inner-city, medium density context connected with public transport whereas the site is low-density context and (although planned) there is no bus route along Tallawong Road.
  - the reference schools surveyed were only high schools, the proposal includes ELC and primary school.
  - a trip generation closer to 2 per student may be more appropriate, however should be confirmed via additional surveys.
- the traffic impacts at the following intersections must be considered: Windsor/Schofields Roads; Windsor/Commercial Roads; Windsor/Guntawong Roads and Schofields/Tallawong Roads.
- swept paths for the largest anticipated construction / operational vehicles to access the site are required.
- site concessions are required for the proposed bus bay on Tallawong Road.
- the TIA should be updated to correctly cite the Tallawong and Guntawong Road speed limits.

Notwithstanding the above, TfNSW confirmed the current traffic assessment is acceptable for Stage 1 of the development and the opening year of enrolment. However, further analysis of trip generation and intersections would be required for subsequent increase in student population.

#### **Endeavour Energy**

Endeavour Energy reiterated its comments provided in response to the exhibition of the EIS.

#### **Sydney Water**

Sydney Water confirmed the application has met its requirements and has no further comments in response to the RtS.

#### **EPA**

EPA confirmed it has no comments to make on the proposal.

#### **EESG**

EESG reiterated its comments provided in response to the exhibition of the EIS and provided some conditions around landscaping, tree planting and dewatering of the dam.

#### **NSW RFS**

NSW RFS reiterated their comments provided in response to the exhibition of the EIS.

## 5.5 Supplementary response to submissions

Following the receipt of the RtS and Council's comments, the Department requested further clarification regarding certain aspects of the development.

In response, on 7 December 2020 and 22 January 2020, the Applicant submitted a SRtS in response to the Department's request for additional information regarding traffic, pick-up/drop-off, construction staging and other minor matters of clarification (**Appendix A**). The SRtS provides additional information and clarification including:

- addendum to traffic assessment and details of waste collection for the boarding accommodation.
- detailed construction staging plan and schedule of community use of school facilities.
- revised site plan with widened Northern and Southern Roads.
- revised architectural design report, plans and BAISX certificate.

Noting the concerns raised by Council and the lack of details with regard to flooding and drainage, the Department has conducted a peer-review (advice from Alluvium Consulting) of the proposed drainage works and the impacts on the hydrology of downstream properties. The comments from the peer-review have been incorporated in the assessment of the proposal.

## 6 Assessment

The Department has considered the Applicant's EIS, RtS and SRtS and the issues raised in submissions in its assessment of the proposal. The Department considers the key assessment issues associated with the proposal are:

- traffic and parking
- flooding and drainage
- built form
- landscaping and trees
- noise.

Each of these issues is discussed in the following sections of this report. Other issues considered during the assessment are discussed at **Section 6.6**.

### 6.1 Traffic and parking

The site is in a low-density area surrounded by rural-residential and residential uses. The closest classified roads are Schofields Road and Windsor Road, with access to the site provided along collector and local roads including Tallawong Road. The site has access to public transport, including Metro services stopping at Tallawong Station and a future bus route is planned along Tallawong Road. However, the development is primarily reliant on the delivery of proposed future roads as identified under the Indicative Layout Plan (ILP), the provision of safe and efficient vehicle, pedestrian and public transport access

The application included a Traffic Assessment Report (TIA), Green Travel Plan (GTP) and a Construction Traffic Management Plan (CTMP), which consider the existing road and pedestrian conditions, transport mode share, sustainable transport measures and construction and operational impacts.

In response to the exhibition of the EIS, public authorities and the public raised concerns about the operational traffic impacts of the proposal. The Applicant responded to these concerns in the RtS and SRtS by including updated TIAs and a GTP to clarify impacts and mitigation measures.

Key assessment issues in relation to traffic and parking include:

- operational traffic
- car parking
- achievable mode share and Green Travel Plan (GTP) outcomes
- pick-up/drop-off facilities
- Tallawong Road bus layby area to facilitate public transport access and road delivery
- pedestrian crossings
- bicycle and end of trip facilities
- construction traffic.

#### 6.1.1 Operational traffic

The TIA identifies that the development of the Riverstone East Precinct was supported by a Transport Study (the RE Study) prepared by ARUP in 2015. The RE Study incorporated a large area modelling assessment to determine future infrastructure and road network needs. Forecast traffic volumes (to 2036) in the RE Study considered the future use of the site to be low-density residential use,

consistent with the ILP. Tallawong Road is identified for future upgrade to a four lane 'collector road' as identified in **Figure 32**.

The RE Study included SIDRA analysis of identified current and future intersections within the precinct and concluded that the majority of those intersections would operate at an acceptable level of service (LoS), subject to eight new signalisations and three upgrades of existing signals throughout the precinct, together with road widenings and intersection upgrades. The RE Study concluded that, subject to the implementation of the recommendations in the ILP (underpinned partly by the Contributions Plan), the precinct could provide adequate capacity into the future.



**Figure 32** | Future Riverstone East Precinct road network hierarchy (Source: Applicant's RtS 2020)

In forming its traffic modelling for the site, the TIA undertook mode of travel surveys for other schools, to provide a comparative analysis and inform an estimate of the likely impacts of the proposal:

- Sydney Secondary College, Leichhardt.
- JJ Cahill Memorial High School, Mascot.
- South Sydney High School, Maroubra.

Based on the traffic surveys, the TIA estimated that the development, when fully operational (with 1260 students and 120 staff), would generate 791 vehicle trips per hour in the school AM peak (8am – 9am) hour and 474 vehicle trips during the school PM peak (3pm – 4pm) as shown in **Table 9**.



**Table 9 | Predicted trip generation (Source: Applicant's RtS 2020)**

Use	AM peak hour traffic (8am – 9am)	School PM peak hour Traffic (3pm – 6pm)	Commuter PM peak hour traffic (5pm – 6pm)
ELC	69	60	61
Schools (self-drive)	130 (one way)	62 (one way) **	62 (one way) #
Schools (drop-off / pick-up)	592 (two way)	352 (two way)	0
Gurdwara	0	0	90
<b>Total</b>	<b>791</b>	<b>474</b>	<b>213</b>

\*\* Assuming driving age students leave during school afternoon peak hours.

# Assumes staff leave during road network peak hours.

The TIA calculates, if the site were developed fully for low-density residential use, it would generate approximately 102 trips during the AM peak and 107 trips in the PM peak. The TIA therefore concludes that the net increase in traffic generation would be:

- 689 (791 – 102) vehicle trips in the AM peak.
- 474 vehicle trips in the PM school peak.
- 106 (213 – 107) vehicle trips in the PM commuter peak.

The TIA notes that Tallawong Road is identified for upgrades to a collector road (by Council of TNSW) in the RE Study and such road-types allow for a capacity of up to 10,000 vehicles per day for the AM peak. The TIA updated the RE Study traffic modelling (2036) for Tallawong Road to include the proposed predicted trip generation and confirmed the forecast Tallawong AM peak hour would be 6880 to 7980. The TIA therefore concluded the proposal is well within the future Tallawong Road collector road capacity.

Based on the predicted traffic generation, the TIA considered the likely impact on the Tallawong Road intersections with the Northern Road and Southern Road and found that these intersections would operate at satisfactory levels (LoS A and B), as identified in **Table 10**.

**Table 10 | Predicted trip generation (Source: Applicant's RtS 2020)**

Intersection	Control	AM Peak		PM Peak	
		Avg. Delay	LoS	Avg. Delay	LoS
Tallawong Rd / Northern Road	Priority	22 sec.	B	12.1 sec.	A
Tallawong Rd / Southern Road	Priority	22 sec.	B	12.1 sec.	A

The TIA concludes that the traffic impacts of the proposal are acceptable and can be accommodated within the delivery of the future road network of the Riverstone East Precinct. The TIA did not recommend that the proposal be required to provide for any further road infrastructure / intersection improvements.

During the EIS exhibition, Council and TfNSW raised concerns that the TIA trip generation calculations are based on assumptions derived from inner-city school surveys, which are not

representative of the proposal or its location. Council also recommended the Northern Road and Southern Road be constructed as part of the subdivision application, prior to the construction of the school.

In response, the Applicant's RtS noted the subdivision application would deliver half width of the Northern Road and Southern Road, concurrent with Stage 1. The remaining half would likely be delivered by developers responsible for developing the adjoining properties. In addition, as no traffic generation rates are provided for educational facilities in the RTA *Guide to Traffic Generating Developments*, the traffic generation estimates have been undertaken based on the consultant's previous experience in similar projects, plus the conducted traffic surveys.

TfNSW reviewed the RtS and confirmed the current traffic assessment is acceptable for Stage 1 and the opening year of enrolment. However, TfNSW raised concern that the TIA reference schools are inappropriate as they comprise schools in a medium density context, with significantly higher public transport accessibility and consist only of high schools. TfNSW recommended updated / further traffic analysis / surveys should be undertaken and approved for subsequent stages (Stage 2 onwards where student increase is proposed) along with SIDRA analysis of three additional intersections:

- Windsor Road/Schofields Road.
- Windsor Road/Commercial Road.
- Windsor Road/Guntawong Road.

TfNSW also indicated that the TIA incorrectly assumes that the Gurdwara would not operate on weeknights. The traffic generation and demand should be reassessed considering the operation of the Gurdwara out-of-school hours on a typical weekday.

The Department has reviewed the information submitted by the Applicant and the RE Study. The Department notes Stage 1 of the development includes only a small school population (112 students and eight staff). The Department considers the impacts of Stage 1 would be minor and less than the impacts were the site developed fully for low-density residential use (i.e. 102 trips during the AM peak and 107 trips in the PM peak). The Department therefore agrees with TfNSW that the proposed traffic assessment is acceptable for the purposes of Stage 1 only and is satisfied that the proposal's Stage 1 traffic generation would be accommodated within the surrounding local network.

The Department notes the concerns raised by Council and TfNSW with regard to gaps in the traffic assessment with regard to surveyed schools and the operations of the Gurdwara. The Department agrees that the reference school surveys relied on by the TIA to prepare its traffic generation modelling may not represent the future scenario of the proposal or its location. The Department considers that the TIA's traffic generation forecasts for future Stages, in their current form, cannot be relied on to predict future traffic impacts. Consequently, the Department has recommended a condition requiring that prior to the increase of students beyond 112 (Stage 1), a further traffic assessment to be undertaken considering all of the pending issues and additional SIDRA modelling of intersections. The traffic is required to be approved by the Department and any proposed traffic mitigation measures to be implemented prior to any increase in the student population within the school.

The Department further notes the RE Study identified that the capacity of Tallawong Road would be upgraded (to a collector road), that the site is near a high frequency train station and future bus services are planned for Tallawong Road and the surrounding locality. This in turn would reduce reliance on private vehicles and thus the traffic generated by the development. In this context, the Department considers the surrounding road network would likely be able to accommodate the traffic

due to the development in the future, subject to the Applicant undertaking further traffic assessment for subsequent stages (Stage 2 onwards) and including any necessary management and mitigation measures (such as intersection upgrades, road widening or other management measures) based on the results of the assessment.

The Department notes that Stage 1 has its sole frontage to the Northern Road and Stages 2, 3A, 3B and 8 have frontages to the Southern Road. The Department considers the construction of both the Northern Road and Southern Road are critical infrastructure required to facilitate access to, and safe operation of, the development in the various construction and operational stages. The Department therefore agrees with Council that critical road infrastructure must be constructed prior to the completion of the relevant Stages (under a separate application). The Department, however, notes that the subdivision application would only deliver half width of the roads. Delivery of the remaining half of the roads would be reliant on adjoining developers and timely completion of the infrastructure. However, noting that the full width road infrastructure would be needed prior to occupation of the relevant stage of works, the Department has recommended a condition requiring:

- delivery of Tallawong Road infrastructure (as part of the subdivision application) prior to occupation of Stage 1 (details discussed later).
- full width construction of the Northern Road (prior to Stage 1 occupation) unless the Applicant demonstrates that the half road with is suitable for the development.
- full width construction of the Southern Road, prior to the issue of an occupation certificate for Stage 2 unless the Applicant demonstrates that the half road with is suitable for the development.

The Department concludes, subject to the Applicant undertaking further traffic assessment for Stage 2 onwards, and the timely construction of the Northern Road and Southern Road, that traffic impacts associated with the proposal can be suitably managed and mitigated with no significant adverse impacts on the surrounding road network.

### 6.1.2 Car parking

The development would provide on-site car parking progressively over the proposed construction stages. Once fully operational, the development would provide for a total of 271 on-site spaces located within the site in the basement car parks and on grade car parking areas (**Figure 9**). The staged sequence of car parking provision on the site includes:

- Stage 1 – 84 school spaces
- Stage 3B – 116 spaces (84 school and 32 ELC)
- Stage 7 – 258 spaces (226 school / Gurdwara and 32 ELC)
- Stage 9 – 271 spaces (226 school / Gurdwara and 32 ELC and 13 boarding accommodation).

The final proposal has been considered against the car parking requirements of the site under the GCDGP (**Table 11**).

**Table 11** | The proposed car parking and the GCDCP car parking requirements (Source: Applicant's SRtS 2020)

Use	GCDCP minimum car parking requirements	Proposed parking
Primary / secondary school	138 (102 staff / 36 student)	226
Gurdwara (Place of worship)	96	
ELC	27	32
Boarding accommodation	13	13
<b>Total</b>	<b>274</b>	<b>271</b>

The TIA states the Gurdwara and multipurpose hall would not be used by the community during school operating hours. Therefore, it is reasonable for car parking spaces be shared between both uses, which would in turn reduce the overall car parking requirement by 96 spaces. Consequently, the minor non-compliance (of 3 spaces) would be acceptable.

Concern was raised in public submissions that the proposal provided insufficient car parking.

During the EIS exhibition, TfNSW recommended the car parking layouts should be designed in accordance with relevant Australian Standards and all vehicles should enter and leave in a forward direction. Council recommended proposed car parking be provided in accordance with the GCDCP.

In response, the Applicant confirmed its agreement to meeting the relevant Australian Standards and for vehicles to leave in a forward direction. The Applicant provided additional information comparing the GCDCP recommended car parking rates with the proposal's car parking provision.

The Department agrees with the TIA, with regard to the sharing of car spaces between the Gurdwara and the school. Consequently, the 226 spaces (in **Table 11**) would be sufficient for the two uses in lieu of the required 234 spaces (138 + 96 spaces) required by the GCDCP.

The Department is satisfied the proposal makes adequate provision for permanent on-site car parking and exceeds the minimum GCDCP requirements for the site, subject to the sharing of spaces between the school and the Gurdwara.

The Department also notes the proposed on-site car parking would exceed the GCDCP minimum requirement at each stage of the development (**Table 12**).



**Table 12 | Proposed staged car parking and GCDGP car parking requirements**

Stage	CGDCP minimum car parking requirements	Total Proposed parking for each stage
Stage 1	10 school	84 school
Stage 3B	31 school / 27 ELC	84 school / 32 ELC
Stage 7	209 school and Gurdwara / 27 ELC	*226 school and Gurdwara / 32 ELC
Stage 9	234 school and Gurdwara / 27 ELC / 13 boarding	*226 school and Gurdwara / 32 ELC / 14 boarding
<b>Total</b>	<b>274</b>	<b>271</b>

*\* NOTE: assuming shared use of basement school and Gurdwara car parking spaces.*

The Department has recommended conditions requiring compliance of the parking spots with the relevant Australian Standards and provision of the adequate parking in each construction stage (as proposed in the table above).

However, the Department also notes that up to 500 attendees would attend the Gurdwara during large events. Therefore, it is likely that the parking demand for the site on a weekend or other peak use times may exceed the proposed number of car spaces and cause adverse impacts on the available on-street parking spaces on the surrounding streets.

Noting the uncertainties with regard to the surrounding developments in the future and the impact of the proposed out-of-school hours use of the Gurdwara on the available on-street parking, the Department has recommended the following conditions:

- the Applicant undertake periodic surveys of the number of attendees and the total number of car spaces occupied on site (or on the surrounding streets during the peak use) for the further 6 months of operation of the Gurdwara and provide the results of the Department.
- if the results of the parking surveys demonstrate that total demand exceeds the proposed parking spaces, the Applicant would have to provide additional traffic mitigation measures.
- a further parking survey (with the mitigation measures) and validation of results should be provided to the Department for the following 6-month period.

The Department is satisfied that subject to the implementation of the above condition and the implementation of an Operational Management Plan for the Gurdwara, the parking demands due to the proposed use can be appropriately managed.

### 6.1.3 Mode share and green travel plan

The Applicant's RtS was supported by a preliminary GTP for the development. The GTP considered reference travel modes extracted from the ABS Census data for 2016 for Rouse Hill (ABS) and suggests the development upon completion can reasonably achieve the travel mode share as summarised at Table 13.

**Table 13 | Anticipated travel mode of primary and secondary students (Source: Applicant's RtS 2020)**

Travel mode	Staff Travel Mode Share			Student Travel Mode Share		
	ABS	Target	Change	ABS	Target	Change
Car (driver)	94%	82%	-12%	5%	5%	Same
Car (passenger)	0%	0%	Same	67%	53%	-14%
Car (carpool)	0%	0%	Same	0%	1%	+1%
Bus	0%	5%	+5%	13%	20%	+7%
Train	0%	3%	+3%	7%	8%	+1%
Bicycle	0%	2%	+2%	0%	3%	+3%
Walk	6%	8%	+2%	8%	10%	+2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

To achieve the above staff and student travel mode share and encourage the use of sustainable transport the GTP also sets out a sustainable transport management strategy for future students and staff to assist in reducing private vehicle use, car parking demand and traffic congestion. Key measures include carpooling scheme, public transport use, school buses, provision of bicycle parking and end-of-trip facilities and transport access guides to promote alternative modes of transport.

TfNSW did not provide specific comment on the GTP or its initiatives.

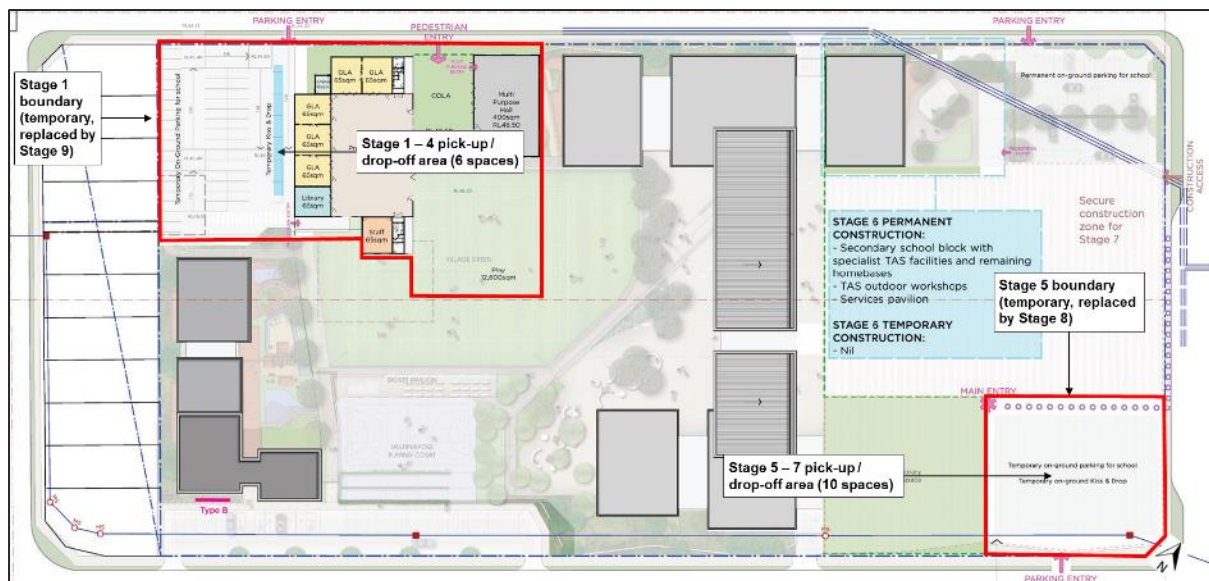
The Department has carefully considered the GTP and agrees that the proposed mode share targets are achievable in the long term through increased uptake of public transport, cycling and walking options when compared with the ABS.

However, noting the development is staged and that the mode share is dependent on the delivery of roads, footpaths and operational bus networks, the Department considers it important that the schools travel mode share continues to evolve and improve over time, to further reduce the number of trips made by private vehicles. Consequently, the Department recommends the GTP should be implemented after completion of Stage 1, updated prior to each of the subsequent stages of development and monitored and reviewed annually to provide improvements. Should adequate public transport be not available after completion of Stage 1, the school should provide shuttle buses and school buses at that time to ensure satisfactory transportation of children and reduce reliance on private vehicles. Conditions to this effect have been recommended.

#### 6.1.4 Pick-up/drop-off facilities

The development would provide on-site pick-up/drop-off facilities progressively over the proposed construction stages. Once fully operational (after Stage 9), the development would provide for 11 on-site spaces located within the basements beneath the Gurdwara and accessed from the Northern Road and Southern Road (**Figure 9**). The staged sequence of temporary and permanent pick-up/drop-off facilities on the site includes (**Figure 33** and **Figure 9**):

- Stage 1 to 4 – 6 spaces (temporary).
- Stage 5 to 7 – 16 spaces (temporary).
- Stage 8 onwards – 11 spaces (permanent).



**Figure 33** | Location of temporary Stage 1 to Stage 7 pick-up-drop-off spaces (Base source: Applicant's SRTS 2020)

The TIA and GTP include the following assumptions in relation to the pick-up/drop-off facility:

- an average car occupancy rate of 1.2 per vehicle.
- accommodation of 1 vehicle / 30 secs for drop-off and 1 vehicle / 2mins per pick-up.
- a long-term target of 53% car passengers (668 students in 573 vehicles) both ways.

Based on the vehicle occupancy rate and frequency, the TIA predicts the pick-up/drop-off facility at the completion of the development could accommodate 990 vehicles (1,188 students) in the AM peak and 248 vehicles (298 students) in the PM peak.

The Applicant advised the number of students would increase as Stages are constructed (**Table 3**) and the staged temporary and permanent pick-up/drop-off facilities would accommodate growing demand over time. In addition, the oversupply of on-site parking provision (by 96 permanent spaces) provides for overflow capacity should the pick-up/drop-off facilities be used beyond capacity at the final stage.

Council did not provide specific comment on the proposed temporary or permanent pick-up/drop-off arrangements.

The Department notes the TIA does not provide any justification for its assumption that only 30 seconds is required for drop off. In addition, the Department notes that 2 minutes for both pick-up and drop-off is the commonly accepted standard when considering such facilities. In the absence of supporting rationale for the 30 second assumption, the Department considers it is reasonable to adopt the 2-minute standard for AM and PM peaks. The Department therefore calculates the pick-up/drop-off facility at the final stage of the development would accommodate 248 vehicles (298 students) at both the AM and PM peaks.

In light of the above assessment, the Department is concerned the proposed permanent pick-up/drop-off facility (11 spaces located beneath the Gurdwara and accommodating 248 vehicles) would not provide sufficient capacity for the likely pick-up/drop-off demand (573 vehicles) during the AM and PM peaks for the final stage. The Department considers that an additional 14 spaces (total of 25 spaces) would be required to adequately address peak demands. Acknowledging the proposal includes an oversupply of 96 car parking spaces, the Department recommends a condition requiring the

permanent pick-up/drop-off facility at the final stage be amended to include an additional 14 pick-up/drop-off spaces (total of 25 spaces) to adequately address the peak demand and avoid queuing on Tallawong Road, or pick-up/drop-offs on the surrounding local roads.

Noting that the pick-up/drop-off is to occur within the basement, an area of high pedestrian activity as well, the Department's assessment has raised concerns regarding the safety of the users during school peak times. To ensure user safety, the Department has recommended a condition requiring the Applicant undertake a Road Safety Audit (RSA) on all the internal pedestrian crossing, sight lines and dimensions of spaces in the pick-up/drop-off areas within two months of commencement of operation of the basement carpark. Any recommendations, including measures to improve road safety, must be implemented within four months of commencement of the operation of the pick-up/drop-off area within the basement.

The Department also notes that the TIA does not include a comprehensive assessment of provision of pick-up/drop-off spaces in the intermediate stages. To ensure that adequate number of pick-up/drop-off spaces are provided on the site at all stages, the Department has recommended a condition requiring a submission of additional traffic analysis with the number of spaces required in each construction stage, and ensuring that those spaces are provided prior to occupation. Additionally, the Department has recommended conditions requiring the Applicant to prepare and implement an Operational Traffic and Access Management Plan (OTAMP) for the pick-up/drop-off spaces prior to the commencement of Stage 1 and update the OTAMP prior to the operation of each following stage.

Based on the above, the Department is satisfied that the proposal would provide suitable pick-up/drop-off facilities, subject to the implementation of the Department's recommended increase in spaces, provision of interim pick-up/drop-off areas, conducting an RSA and associated management and mitigation measures. The ELC would not require any pick-up/drop-off arrangements and parents would need to sign the children in and out of the centre.

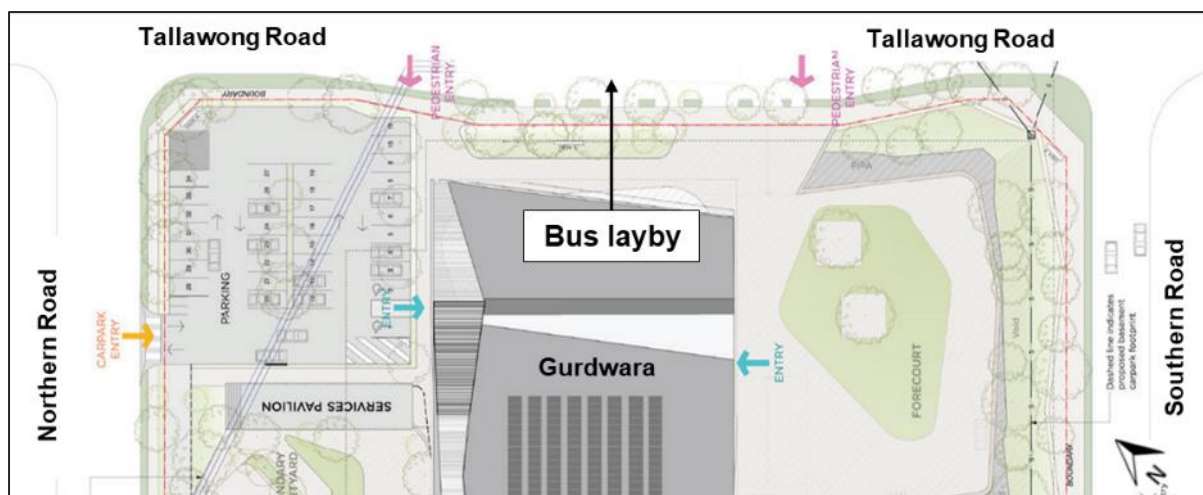
#### **6.1.5 Tallawong Road bus layby area**

The proposal includes the creation of an indented bus layby at the Tallawong Road frontage of the site capable of accommodating three full sized buses for use by the school (**Figure 34**).

TfNSW noted that site concessions are required to accommodate the proposed bus layby on Tallawong Road. TfNSW recommended the Applicant provide a southbound bus stop on the other side of Tallawong Road and consult with TfNSW, local bus operators and Council in determining the location and design of the proposed indented bus bays. In addition, the bus stop design should be in accordance with the *Guidelines for Public Transport Capable Infrastructure in Greenfield Sites*.

The Applicant has stated the bus layby has been designed in accordance with current policies and standards. In addition, the bus layby could accommodate nine buses within a 30-minute period and could move 540 to 585 students.





**Figure 34 | Location of proposed Tallawong Road bus layby (Base source: Applicant's SRtS 2020)**

In response to TfNSW's comments regarding the bus layby on the opposite side of Tallawong Road, the Applicant's RtS indicated that due to the presence of the indented bus bay combined with the four lane width of Tallawong Road in the future (after widening), provision of a southbound bus stop directly opposite the school may not be safe for students as they would try to illegally cross the road at this point. As such, the planning of future public bus routes is the responsibility of TfNSW or Council and the Applicant would support any future southbound bus stop on Tallawong Road. However, the Applicant did not commit to constructing this and indicated that a safe bus parking area adjacent to the site frontage, would satisfactorily cater for this proposal. Depending on future bus routes, the students may be able to utilise other southbound bus stops on local roads, rather than Tallawong Road.

The Department supports the provision of the bus layby noting:

- the GTP sets a bus mode share target of 30-40% for future students (being 480 students, excluding boarding students) and the layby provides excess capacity (for 540-585 students) to accommodate these movements.
- the provision of the bus layby on Tallawong Road ensures buses do not need to travel within adjacent residential streets.

The Department notes that TfNSW had initially asked for the bus layby on the other side of Tallawong Road, however the public authority did not include a specific requirement / condition for the Applicant to construct this bus stop, following review of the RtS. The Department agrees with the Applicant that the school has provided a safe bus-stop for students which may provide for shuttle buses / school buses and public buses in the future (as the bus layby would be dedicated). The students may be able to access southbound buses from this point, if the bus routes are managed appropriately via the local roads. The need for the southbound bus stop would be reliant on the future bus frequency on Tallawong Road and the demand due to development of surrounding sites. It is not entirely the responsibility of the Applicant to construct a southbound bus stop on Tallawong Road. Therefore, the Department has not required the Applicant to deliver this.

In order to ensure the satisfactory delivery of the bus layby, the Department has recommended conditions that the:

- Applicant consult with TfNSW and Council in determining the location and design of the proposed bus stops and that the design of stops is in accordance with relevant guidelines.

- bus layby be constructed to the satisfaction of TfNSW and Council prior to the issue of the occupation certificate for Stage 1.
- bus layby be dedicated to the relevant roads authority within six months of commencement of operation of construction Stage 1.
- boundary adjustments after dedication of the bus layby be registered with NSW Land registry Services.

#### **6.1.6 Pedestrian infrastructure**

The proposal does not include the construction of any pedestrian crossings or footpaths to surrounding local streets. It includes the construction of a footpath on Tallawong Road.

TfNSW noted it is likely that a southbound public bus stop would be constructed on the opposite side of Tallawong Road and the development would benefit from a pedestrian crossing on Tallawong Road to ensure safe access between the school and the bus stop. Council recommended that raised pedestrian crossings be provided to the Northern Road and Southern Road, to facilitate safe access to the site.

In response to the concerns raised, the Applicant's RtS stated that a pedestrian crossing would not be permitted on a four-lane road in the future, in accordance with Austroads guidelines. Consequently, the Applicant agreed to accept a condition requiring the provision of a pedestrian refuge on Tallawong Road to provide access to a future southbound bus stop (if any). The Applicant did not commit to constructing the southbound bus-stop. In addition, it stated that the traffic along the Northern Road and Southern Road is unlikely to meet the TfNSW requirements for the installation of pedestrian crossings.

The Department notes the application does not include a detailed assessment:

- to support the assertion that a refuge is the most appropriate crossing for Tallawong Road.
- to justify not providing pedestrian crossings to the Northern or Southern roads.

The Department notes that at present Tallawong Road is a narrow two-lane road which is not subject to significant traffic volumes. However, when complete Tallawong Road would be a four-lane road and is likely to be one of the main north/south roads within the suburb of Rouse Hill. While no specific timing of widening of Tallawong Road was provided in the RE Study, Council has requested the Applicant to construct a section of this road as part of the subdivision application. Noting this, the Department considers that Council would implement the road widening either through development contributions or requiring developers to construct sections of the road. As such, noting the 10-year timeframe of completion of this development, the widening of Tallawong Road would happen progressively over the precinct, as it transitions from semi-rural to urban over time and new subdivision and medium density housing in the area are developed.

The Department also considers, subject to appropriate assessment, the provision of a refuge crossing may be acceptable at Stage 1 of the development given the existing size and nature of Tallawong Road. However, noting the size and nature of the completed Tallawong Road, the Department is concerned that the provision of a pedestrian refuge may not provide a sufficiently safe crossing facility for the subsequent stages of the development.

The Department considers it is important that a detailed assessment of the need for pedestrian safety infrastructure (such as a crossing / refuge) is undertaken at each stage of the development. To

ensure the delivery of appropriate and safe pedestrian infrastructure on the surrounding streets, the Department recommends the following conditions:

- appropriate pedestrian safety infrastructure and / or management and mitigation measures are provided on Northern Road, Southern Road and Tallawong Road at the commencement of operation of Stage 1.
- appropriate endorsements are obtained from the public authorities, in case pedestrian infrastructure is proposed.
- warrants assessments be undertaken within one year of commencement of operation of each subsequent stages to ascertain the demand for raised pedestrian crossings on Northern Road and Southern Road, per Council's requirements and in consultation with TfNSW and Council.

Should any of the warrants assessments conclude that a pedestrian crossing is not required, the Applicant is required to provide alternate pedestrian safety measures / infrastructure to the satisfaction of the Department, prior to commencement of operation of that stage.

Subject to implementation of the above conditions, the Department is satisfied the proposal would provide for safe pedestrian routes to the site when it opens (Stage 1) and include adequate monitoring of those routes as subsequent stages are developed.

#### **6.1.7 Bicycle and end of trip facilities**

The proposal upon completion would include 43 bicycle parking spaces, and end of trip facilities including (**Figure 9**):

- 34 spaces plus end-of-trip facilities for the school located within the basement
- 5 spaces located within the basement of the boarding accommodation
- 4 spaces located at the entrance to the ELC.

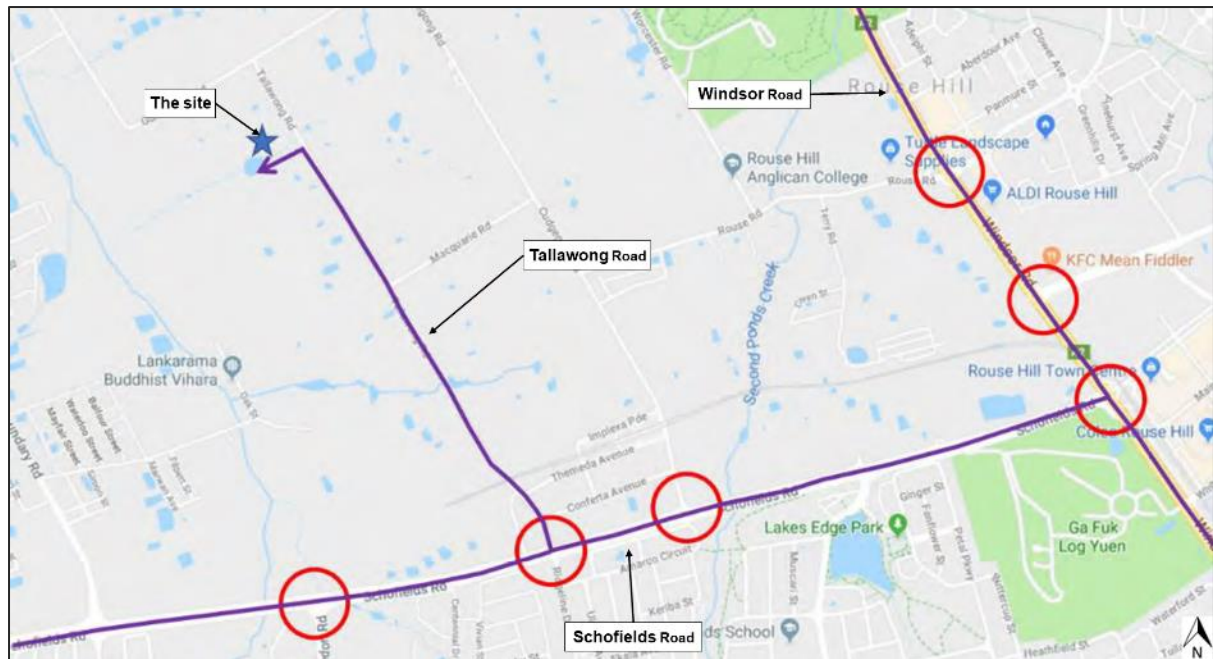
The Department notes the GCDP does not include a requirement for bicycle parking within educational establishments. Notwithstanding, the Department supports the provision of bicycle parking and end-of-trip facilities, and the end-of-trip facilities being conveniently located within the site and acceptable.

The Department has recommended conditions requiring the provision of the 43 bicycle parking spaces with end-of-trip facilities.

#### **6.1.8 Construction traffic**

The EIS includes a CTMP, which assessed the viability of the site being serviced by heavy vehicles during construction.

The CTMP identifies that construction traffic routes would primarily originate from Schofields Road and Windsor Road, before travelling north along Tallawong Road to the site. The proposal would generate additional light, medium and heavy vehicle movements to and from the site during construction. Possible construction traffic routes are shown in **Figure 35**.



**Figure 35 | Possible construction traffic routes (Base source: Applicant's EIS 2019)**

Vehicles are anticipated to enter the site from Northern Road and Southern Road and no loading/unloading of vehicles is proposed from the Tallawong Road frontage. Construction activity would commence in the west of the site and progress to the east.

The Department has recommended a condition that the Applicant prepare a swept path analysis to demonstrate the largest vehicle likely to be used during all stages of construction is able to enter and exit the site in a forward direction without traffic control measures and noting that only half road construction is proposed.

TfNSW and Council did not provide any comments on the proposed construction traffic. The Department has reviewed the matters in relation to construction traffic and is satisfied that construction traffic can be appropriately managed given:

- each stage of the development would occur in sequence over 10 years and would allow flexibility for construction traffic to be managed, scheduled and amended to respond to a detailed construction methodology.
- the site is large enough to allow construction activities for each stage to be managed and cordoned off from temporary structures and parking
- the current (and future) road geometry can accommodate construction vehicles.

The Department has recommended conditions requiring the Applicant:

- prepare a detailed CTMP, including construction methods, off-peak delivery times and traffic control procedures, to be updated prior to the commencement of each stage of the development
- prepare pre / post dilapidation reports to ensure any road damage is rectified
- notify the Department and Council prior to starting construction of each stage.

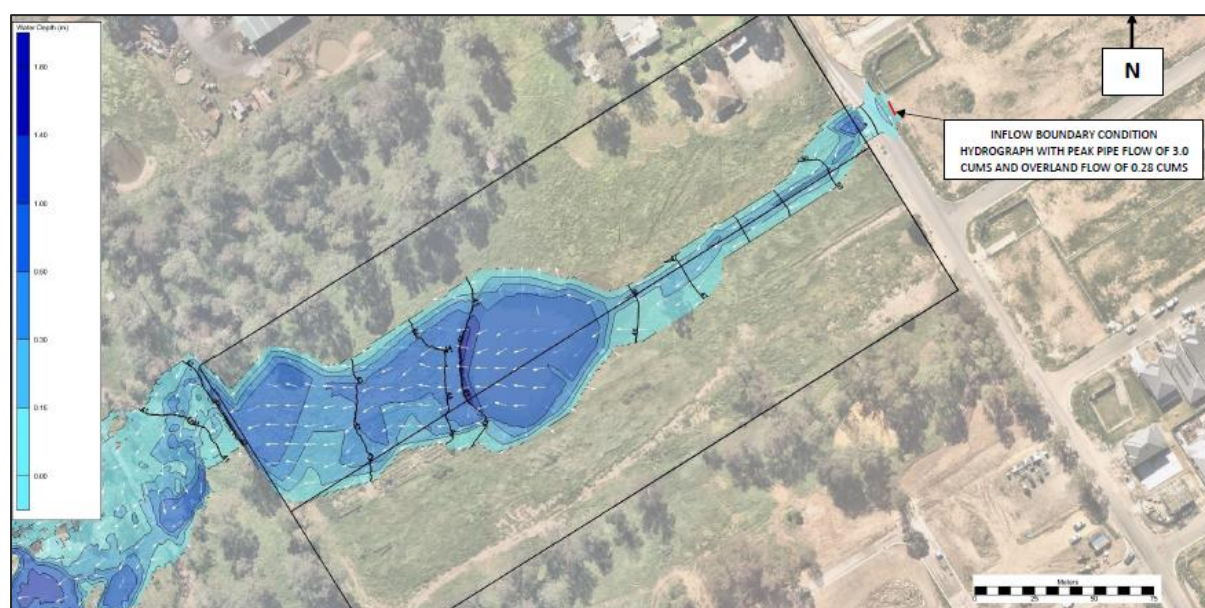


## 6.2 Flooding and drainage

### 6.2.1 The existing site condition and the subdivision approval

An upstream catchment of approximately 6.7ha drains through the site from the north-east above Tallawong Road. Under existing conditions, stormwater runoff from the eastern side of the site drains into the site through an existing box culvert under Tallawong Road and then along the existing overland flow path draining through the development site from north-east to south-west.

The EIS included a Concept Stormwater Management Strategy and Preliminary Flood Study with details of overland flows affecting the site for 1% annual exceedance probability (AEP) floods (with and without climate change) and the probable maximum flood (PMF) event. The report was also supported by hydraulic models (TUFLOW and DRAINS). The existing overland flow path and depths are provided below in **Figure 36**.



**Figure 36** | Existing 1% AEP flood depths and levels (Source: Applicant's Rts 2020)

The subdivision application that will create the development lot includes drainage works to connect the future lots to the existing / proposed drainage system in the locality. The infrastructure to be constructed under the subdivision application includes critical elements for the development of the site such as the adjacent road infrastructure with associated surface drainage, construction of major drainage infrastructure and drainage outlet works to manage the overland flows. The proposed subdivision drainage strategy in principle proposes a system that is likely to pass stormwater flows from catchments within and upstream of the site.

The approved subdivision application for the site and the Council approved development applications on adjoining sites incorporate the following major drainage works:

- construction of an approved 1800mm x 600mm box culvert (under a separate development application) at the existing sag point (north-eastern corner) in Tallawong Road immediately upstream of the site to collect stormwater from a separate approved residential subdivision and transfer this across Tallawong Road to a proposed 1500mm diameter pipe (under a separate application).
- creation of a 2.5m wide drainage easement (**Figure 5**) linking the site to the downstream public road reserve to its west.

- allowance for a temporary on-site detention easement that would ultimately be converted for residential use following construction of the downstream regional detention basin.
- construction of trunk drainage lines along Northern Road and the future road to the west to discharge stormwater from Tallawong Road to the south-west of the site.
- filling works and creation of a diversion swale within the site to enable the residential lots (to the west) to be developed prior to the completion of the school. The temporary diversion swale within the site is proposed to divert overland flows from regular runoff events up to the 1% AEP event in a northerly direction towards the future road.

### 6.2.2 The proposed stormwater system

The supporting reports acknowledged that the proposed development would result in about 65% impervious area within the site and hinder the existing overland flow path. The Applicant proposes to manage the upstream catchment flows through a combination of pit capture, pipe and culvert conveyance and diverted overland flow path as flood mitigation works. The drainage system and overland flow path are proposed to be diverted through the north-east extents of the site and this represents a significant redirection of the existing overland flow path. The stormwater management strategy would include a combination of flood mitigation works and the on-site detention systems that would be staged with the development. The relevant drainage systems are discussed below.

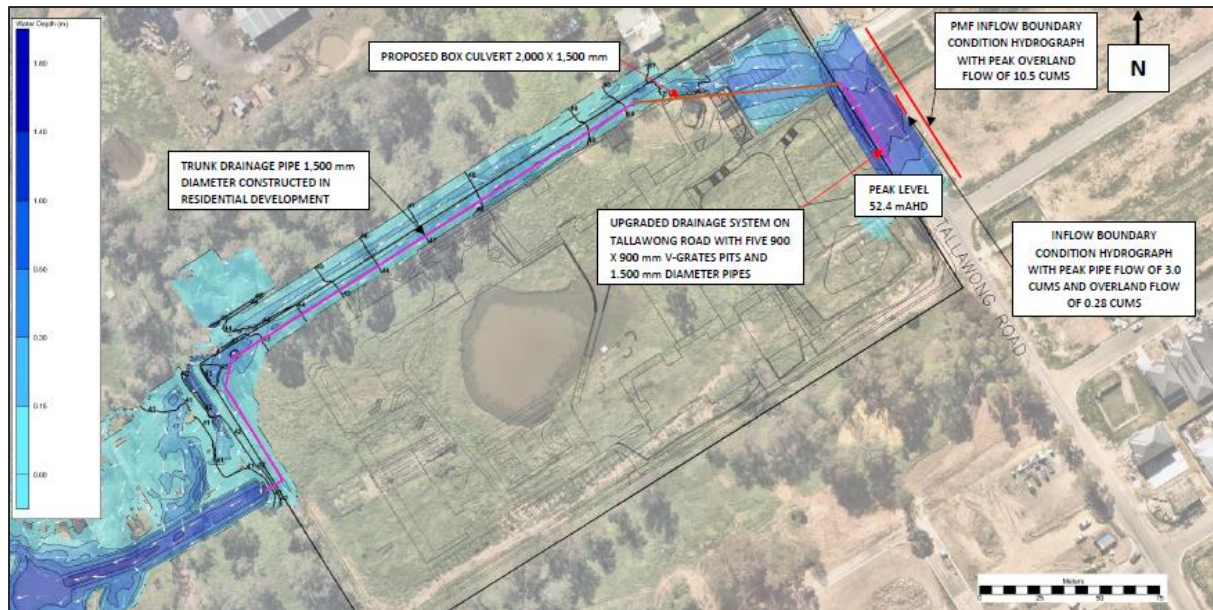
#### *Major drainage works*

The major drainage works (including works approved under separate consents) and the diverted overland flow paths, as updated by the RtS, are listed below:

- the drainage system on the low point on Tallawong Road adjacent to the northern site boundary to be upgraded with five 900 x 900 mm V-grates pits and 1.5m diameter pipes to fully capture 1% AEP flows.
- a proposed box culvert (2000mm x 1500 – 1800mm) to be installed under the on-grade carpark and connected to the 1.5m pipe via the V-grates pits.
- the culvert connected to the future 1.5m trunk drainage line within Northern Road.
- an emergency overland flow path to be provided through the proposed carpark to direct PMF flows towards the Northern Road boundary.

The Applicant's RtS advised that with the flood mitigation works described above, the site is generally flood free for all events up to and including the PMF event from Stage 1 to 9 of the development. The Applicant has also stated that the eastern boundary of the property would be raised to 52.5m AHD to avoid inundation of the buildings by floodwater.

**Figure 37** shows the proposed PMF flood depths and overland flow paths for the site along with the major drainage infrastructure works proposed.



**Figure 37 | Proposed PMF flood depths and levels (Source: Applicant's RtS 2020)**

### *Proposed on-site detention systems*

To mitigate peak discharges during a range of events up to 1% AEP design storm event, the Applicant would install OSD works to manage stormwater discharges in this flow range.

The Applicant's RtS states that two temporary basins (Basin 1 - 223kL/100m<sup>2</sup> and Basin 2 – 60kL/30m<sup>2</sup>) would treat the Stage 1 development. Stage 2 to Stage 9 would rely on a temporary below ground OSD tank with a total detention volume of 1412m<sup>3</sup>. The proposed temporary OSD and water quality treatment systems for Stage 2 to Stage 9 have been sized based on the eventual development footprint.

The Applicant's report notes that a temporary OSD and stormwater quality treatment system's requirements for the proposed development is proposed as Council's regional basin hasn't been completed. The stormwater quality treatment measures would be incorporated on the site including bio-retention basins to compensate for the lack of connection between the site and the regional basin.

### **6.2.3 Public authority comments on stormwater and flooding**

EESG has reviewed the application and provided no comments on flooding.

Council has reviewed the EIS and RtS and did not raise concerns regarding the proposed stormwater system and the diversion works in principle. However, Council raised several concerns and requested information regarding the proposed flood mitigation works, stormwater drainage system design as well as the supporting hydraulic models as listed below:

- plans of upstream drainage catchment together with flood impacts due to flows from the catchment are required for a full analysis of the flow rates.
- the assumed peak flow rates for 1% AEP are inconsistent in various documents, varying between 3.22 m<sup>3</sup>/sec and 41 m<sup>3</sup>/sec.
- the drainage infrastructure would be undersized, even when an estimated 1% AEP flow rate of 41.8 m<sup>3</sup>/sec is considered for the site.



- as such the 1% AEP flow rate of 41.8m<sup>3</sup>/s (the higher value) is significantly undersized and flows exceeding the capacity of the proposed drainage infrastructure would enter the property.
- the size of the box culvert at the north-eastern corner is inconsistent, varying between 2m x 1.5m and 2m x 1.8m.
- a revised hydraulic modelling including TUFLOW and DRAINS would be needed to ascertain the correct peak flows and then the capacity of the drainage infrastructure.
- additional water conservation measures, revised OSD capacities and staging of the on-site detention tanks are required.
- the proposed stormwater quality treatment measures are not adequate and should be supported by a revised MUSIC model to confirm at 80% non-potable water reuse.
- the on-site detention system should be wholly built prior to Stage 1.

Based on the above concerns, Council has requested a deferred commencement condition for this application to allow for revised drainage reports to be submitted and approved by the consent authority prior to the development consent being operative.

Additionally, Council has also provided detailed conditions in relation to stormwater pits, pipes, OSD capacities and bio-retention basin designs.

#### **6.2.4 Independent peer review**

Noting the discrepancies in the Applicant's documentation and the significant concerns raised by Council, the Department appointed an independent hydraulic consultant (Alluvium) to undertake a peer review of the submitted drainage report and strategies.

Alluvium's assessment noted in the modelling of the PMF event, that flows ponded in the trapped sag point within the Tallawong Road reserve would overtop the north-eastern side of the carpark and flow through the carpark to Northern Road. While Alluvium recognised that the diversion of overland flow instead of channelising the watercourse in-situ is not best practice, the approach to manage PMF flows in this case was considered reasonable in principle, subject to:

- the eastern property boundary being raised to 52.5m AHD.
- depth of ponding in the 1% AEP event at the sag point on Tallawong Road being less than 0.2m.
- the overland flow path being kept clear.
- the inlets in Tallawong Road being designed to minimise the potential for blockages and prevent overland flow in events up to the 1% AEP flow.

However, Alluvium agreed with Council regarding discrepancies in documentation in relation to peak flow rates and the box culvert size and raised several concerns / requested additional information in relation to flood mitigation works and stormwater management. The additional concerns and recommendations of Alluvium are discussed below:

- the proposed box culvert size of 2m x 1.8m is unusual as it would be connected to 1.5m diameter pipelines on either side (Northern Road and Tallawong Road). The proposed arrangement and varying pipe sizes within the same drainage system may create a potential 'choke' point in the system that could lead to surcharging at this location if blockages occur where the larger box culvert reduces to the smaller pipe, or where flows along the box culvert exceed the capacity of the pipe. If a 1.5m diameter trunk drainage line has been deemed satisfactory to carry stormwater for the stormwater, then a similar culvert (2m X 1.5m) should be sufficient for the site.

- the Applicant has only considered the upstream catchment to the north-east and not the north-west. While this catchment is smaller, the trunk drainage line on Northern Road would capture flow from this catchment in events up to the design flow (understood to be the 1% AEP). The contributing flows from this catchment should be accounted for in the flood modelling (currently unclear whether considered) and design of the major drainage system.
- noting the discrepancies in documentation, the flooding behaviour should be verified by providing the respective DRAINS and TUFLOW models based on correct catchments / flow rates / pipe sizes to demonstrate that each drainage element has sufficient capacity for the final design.
- design of the major drainage, flood protection works, and hazard mapping should be updated to account for the flows from the north-western catchment (if not already considered).
- revised and detailed hydrologic and hydraulic calculations and models for the entire major drainage line between Tallawong Road and the natural discharge point downstream of the development site should be provided to confirm the feasibility of the proposed system and the pipe size within Tallawong Road.
- the arrangement of the v-grates at the sag point on Tallawong Road is likely to be blocked by organic debris during large runoff events due to the small openings provided in the flush grates. Typically, sag points should be provided with larger raised inlets (e.g. kerb inlets or raised grates) that are less susceptible to blockage. Additional inlets formed in the kerb at a higher level to the v-grate inlets may assist to mitigate impacts of potential blockage.
- the proposed OSD capacities comply with Council's requirements of 455m<sup>3</sup> of detention per hectare of development. The staged upgrade of OSD is acceptable in lieu of Council's requirements to build the OSD prior to Stage 1. However, the multiple staged upgrades of the OSD system should be avoided as a particular staged upgrade may be inadvertently overlooked as the development proceeds. An acceptable compromise may be to reduce the staged upgrades of the OSD system to two or three agreed development stages.
- a significant internal sub-catchment would drain to the pit at low point/sag near the north-west corner of the OSD tank. This pit provides a critical element of the drainage network and is subject to blockage due to the vegetated catchment. Additional overflow pits to accept ponded flow should be provided, in the instance that the primary sag pit becomes blocked. The pit system should be designed to ensure adjacent property, infrastructure or critical access is not inundated, and unattenuated flows are not released from the site even after failure of one drainage pit, for events at least up to the 1% AEP event to achieve the required targets.
- the detailed design of the development should also consider overland flooding behaviour within the site during events exceeding the 1% AEP. The potential for any ponding to present safety concerns to the future school community or damage to infrastructure should be considered.
- ponding at the low point near the OSD tank may potentially result in inundation of adjacent below ground carparking, and in that case appropriate flood protection should be provided in these areas.
- the OSD provisions would mitigate the potential increase in peak flow rate from these events, though they would not mitigate the impact of increased total discharge volumes from the site. Therefore, additional water conservation measures would be needed to mitigate the impacts of additional discharges from the site and achieve a goal of 80% non-potable water reuse.
- the proposed development would alter the flow regime from the site. The concentrated flows from the headwall on the western side may impact the stability of the channel downstream and the waterway ecology. Consequently, the Applicant should confirm in the detailed design stage that the proposed 2.5m drainage easement through the residential lot downslope of the site would



have sufficient capacity to manage any overland flow from the school site for all events up to the 1% AEP event without impacting on the use of that lot and adjacent lots.

- the civil works plan in the subdivision application detail the proposed filling works and temporary diversion swale to be constructed across the site. In this regard the application does not provide sufficient detail as to how the overland flows would drain to Northern Road. There is a potential that this could cause nuisance in areas where flows discharge from the site overland into the footway area. The diversion swales should be replaced by a temporary stormwater retention basin/depression with a constructed inlet pit provided within the site to intercept overland flow before it enters the public road reserve.

### **6.2.5 Summary and Department's assessment**

Based on the independent peer review comments and Council's conditions, the Department concludes that the proposal has in principle considered the peak flows affecting the site and provided flood mitigation measures, drainage infrastructure and also OSD to mitigate the peak stormwater discharge from the site.

However, there are discrepancies in the documentation including the hydraulic modelling for the site, and as a consequence a conclusive assessment cannot be conducted that would ascertain that the proposed drainage infrastructure is sufficient for the development. Due to the above reasons and noting Council's request, the Department has recommended a deferred commencement condition requiring the Applicant to submit:

- a DRAINS and TUFLOW model with correct peak flows.
- a revised catchment study and correct culvert details to support the above models.
- a revised stormwater management report considering the results of the above models and including correct flow rates, piping details and details of alternatives to the proposed v-grates.

Given the recommended deferred commencement condition, the consent would not be operative until the above condition is satisfied. The Department would have an opportunity to review the documents in consultation with Council and ensure that the stormwater works are appropriately designed and managed upfront.

Upon the consent being operational, the Department has recommended a number of other conditions regarding the design of the stormwater system, updated MUSIC models, bio-retention basin design, flood protection and mitigation measures. Conditions of consent allow the OSD to be staged, but in maximum of three stages only. The Department has also recommended that a Flood Management and Evacuation Plan be prepared and implemented at the commencement of operation of the school.

The Department also recommended detailed conditions with regard the proposed drainage works within Tallawong Road. Conditions have also been recommend requiring that:

- the development be connected to Council's permanent drainage basin when it has been constructed and is operational.
- landowner's consent / legal rights be obtained prior to draining the site to the trunk drainage line under Tallawong Road (approved for construction under a separate development application).
- easements be legally created prior to draining to the future road on the western boundary through private properties to the west.
- restriction-as-to-user be created over the overland flow path and the on-site detention system.

Subject to the implementation of the above condition, the application is assessed as satisfactory with regard to flooding and drainage.

6.3 Built form

The proposal includes the construction of five buildings across the site. The existing environment is characterised as a mixture of semi-rural and low-density residential properties and is undergoing a significant transition to a more urbanised environment. New low-density residential developments (up to two storeys / 9m) are planned or being built to the south, east and west. Low and medium density residential developments ranging between 9m - 12m in height are anticipated to the north of the site.

The Applicant consulted Government Architect NSW (GANSW) through the State Design Review Panel (SDRP), prior to the lodgement of the EIS. The SDRP generally supported the proposed built form subject to additional details regarding building articulation, setbacks and the transition between buildings.

The EIS responded to the comments from the SDRP and included these details in the design of the development. No further comments were received from GANSW about built form during the EIS exhibition.

6.3.1 Height and scale

The site is subject to a maximum building height control of 9m (above ground) under the SRGC SEPP (Figure 38).



Figure 38 | Extract from the SRGC SEPP Height of Buildings Map (Base source: SRGC SEPP)

As summarised in Table 14 and Figure 39, all buildings (except the ELC) exceed the SRGC SEPP 9m building height control for the site.

Table 14 | Comparison of SRGC SEPP height of building development standard and proposed building heights

Development standard	SRGC maximum height control	Proposed maximum height (measured from ground level)	Difference (+/-)	Complies
Clause 4.3 Height of Buildings	9m	• 15.8m (primary school)	+ 6.8m	No
		• 16.3m (secondary school)	+ 7.3m	
		• 18.2m (Gurdwara)	+ 9.2m	
		• 16.4m (boarding accommodation)	+ 7.4m	
		• 8.2m (ELC)	- 0.8m	Yes



**Figure 39 |** Locations where the proposed buildings exceed the 9m height limit (purple) (Base source: Applicant's Rts 2020)

The Department notes clause 4.6 of the SRGC SEPP provides flexibility in the application of development standards if it can be demonstrated that compliance is unreasonable and unnecessary and there is sufficient environmental planning justification for contravention of the development standard. The Department also notes that clause 42 of the Education SEPP provides that:

*'Development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted'.*

Consequently, in accordance with clause 42 of the Education SEPP, development consent may be granted for the proposal, notwithstanding the breach in height control.

Objections were raised in public submissions that the height and scale of buildings is excessive and inappropriate given the low-density character of the surrounding area. Council did not raise any objection to the proposed height exceedances.

The Applicant has sought to vary the maximum building height development standard in accordance with clause 4.6 of the SRGC SEPP (as a guide) and supports that the proposed building heights are appropriate for the site and the variation would not result in any additional adverse environmental

impacts.

Notwithstanding clause 42 Education SEPP, the Department considered clause 4.6 in its assessment of the proposed building height, in addition to concerns raised in public submissions.

The Department considers that the height and scale of buildings is acceptable and the variation to the SRGC SEPP height development standards is reasonable and justified as the:

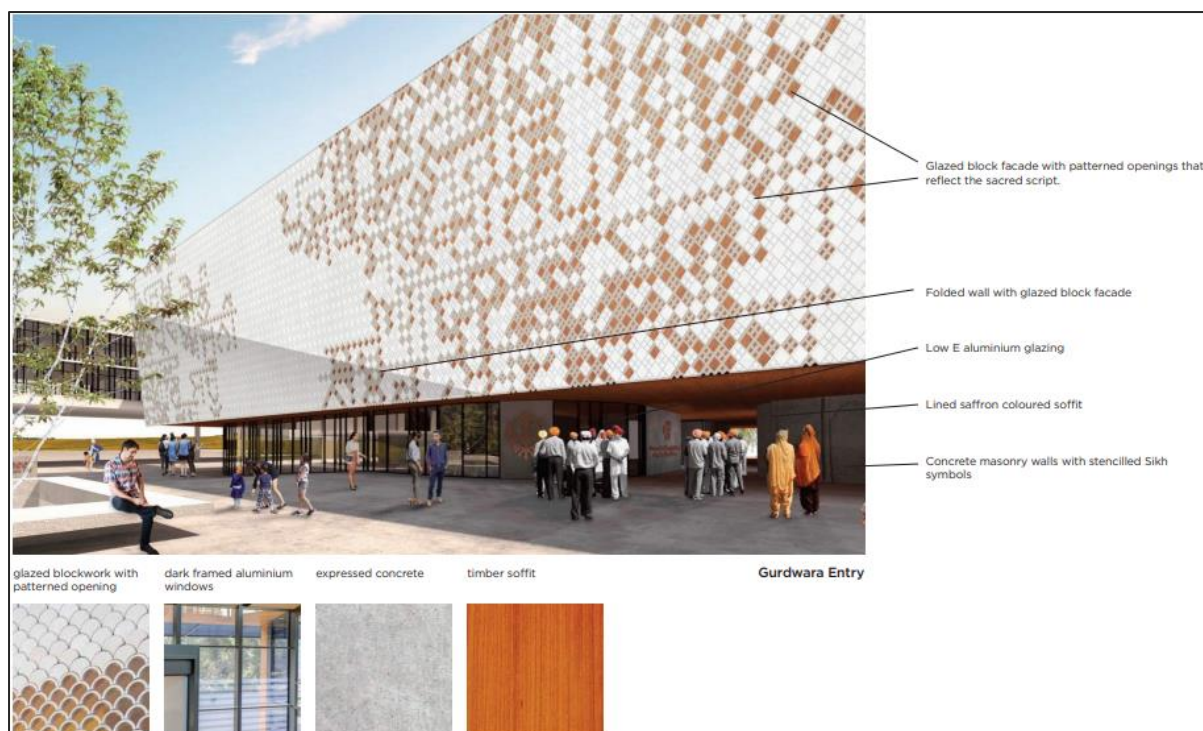
- primary and secondary school buildings step down in height to three storeys fronting Northern Road and Southern Road, which provides for an appropriate built form transition to future residential properties (up to two storeys) in the opposite side of those roads.
- Gurdwara and multipurpose hall building would be approximately four storeys and setback approximately 10m from Tallawong Road and between 35m and 45m from Northern Road and Southern Road. These generous setbacks, coupled with extensive landscaping proposed, would appropriately mitigate any adverse impacts due to the proposed height of this building on the surrounding residential developments.
- proposed building heights cater for the functional requirements of the school as well as the place of worship. Consistency in height between the primary and secondary school buildings is also needed to allow for accessible connection (via the bridge link). Any further reduction in height would lead to lower floor to ceiling heights of the GLAs and the multipurpose hall, which is not a desirable outcome for the development.
- boarding accommodation building is set back approximately 10m from Northern Road and its height steps down from four to three storeys following the topography of the site in this location. It provides for an appropriate transition to the future residential properties to the west.
- adjoining land to the north-east and further north are zoned for medium density residential with building heights up to 12m. The proposed building heights on the site would be consistent with the future development of the broader area and would provide an appropriate transition between the medium-density and low-density developments.
- amenity impacts including operational impacts, overshadowing and privacy have been minimised and are acceptable (see **Section 6.6**).

Based on the above, the Department is satisfied that the Applicant's clause 4.6 request to vary the height of buildings development standard is justified and compliance with the SRGC SEPP height control is unreasonable and unnecessary in this instance. Overall, the height and scale of the proposed buildings are appropriate having regard to the surrounding development and the design and landscaping approach for the site. The Department notes the benefits associated with the provision of new educational facilities and considers the proposed height exceedances have been justified in terms of the objectives of the development standard and can be supported.

### 6.3.2 Building design

The proposed five buildings have been arranged to address surrounding streets and frame the large central open spaces. The outward facing facades of the primary and secondary school, ELC and boarding accommodation buildings are all of a simple, unified and modern design that is articulated by windows and varied modulated facades. The Gurdwara and multipurpose hall building is of a bold and unique design, representing a modern architectural interpretation of cultural elements of Sikh community / influences (**Figure 40**).





**Figure 40** | Perspective showing the western elevation of the Gurdwara and multipurpose hall building (Source: Applicant's RtS 2020)

The buildings have been designed to open onto landscaped areas and play spaces. This design approach has maximised natural ventilation and solar access to classrooms and school facilities, while integrating landscaping. In addition, these measures seek to achieve a sustainable built form maximising occupant amenity.

Proposed materials include expressed concrete, timber cladding, render and glazed-block facades. The material colour palette is a combination of neutral and natural colour tones that instil the functions of the buildings. **Figure 10 – Figure 13** in **Section 2** provide views of the site from various locations and **Figure 40** provides detail of materials and finishes.

The Department notes that no objections were received in regard to the proposed building design from the public or GANSW. Council confirmed it supports the contemporary interpretation of traditional architectural features in the Gurdwara design.

The Department has considered the design of the building and, noting the above design approach, is satisfied the proposal would make a positive contribution to the emerging character of the surrounding area. Further the proposed materials, colour palette and design of the proposal are contextually appropriate.

The Department concludes that the proposed development has been designed to respond appropriately and positively to the site, its context and Sikh culture, while balancing the need to provide for the demand for additional educational facilities.

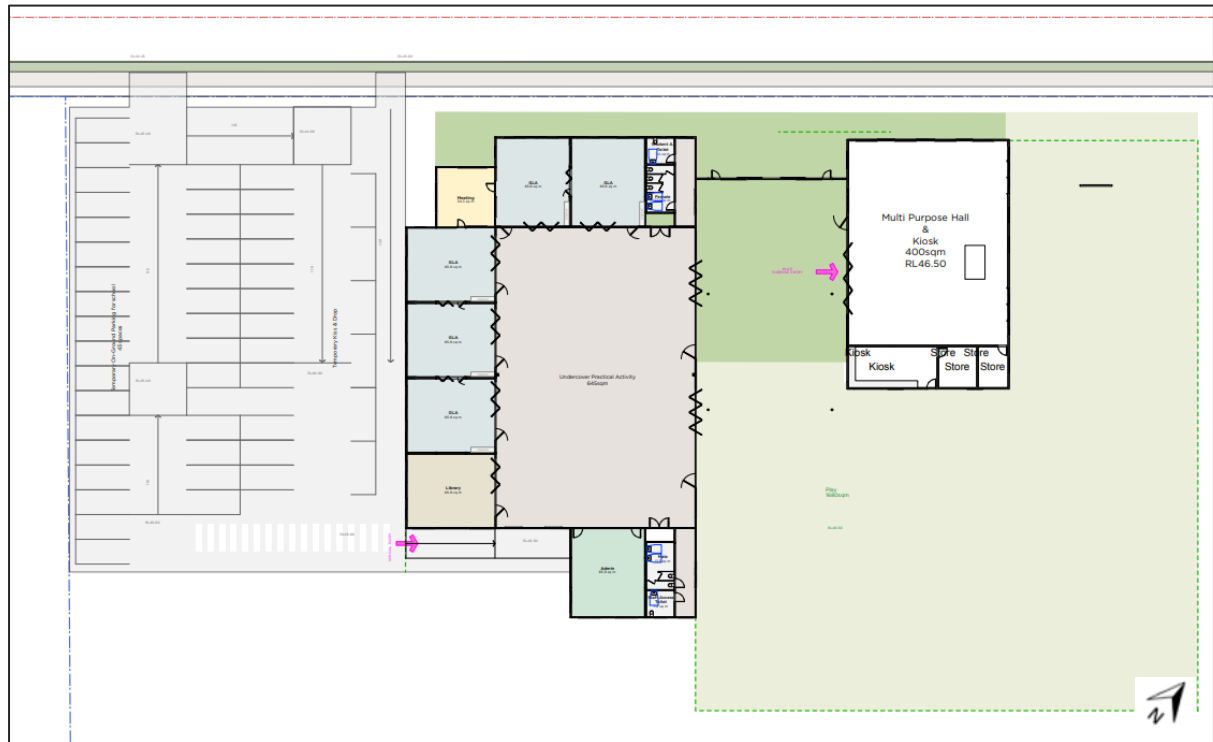
### 6.3.3 Stage 1 built form

The Stage 1 works involve construction of a single-storey temporary relocatable primary school building, temporary multipurpose hall and on grade car parking. **Figure 41** shows the floor plan for the Stage 1 buildings. **Figure 42** and **43** shows the streetscape elevation of the built form. The temporary multipurpose building is proposed to be demolished in Stage 7 and the primary school relocated to

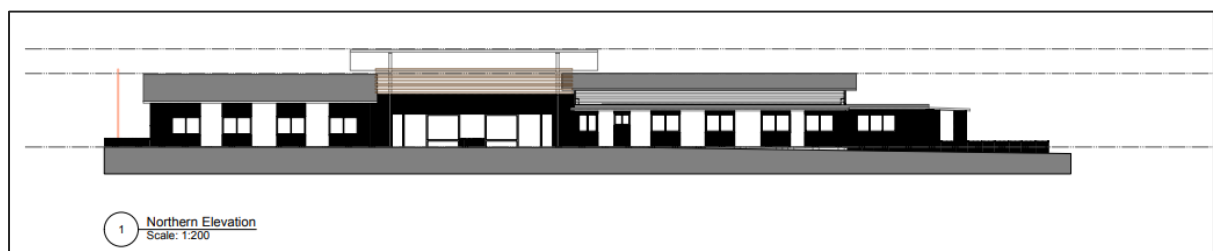


the permanent building in Stage 8. The Department has reviewed the proposed intermediate buildings and noting the small scale of the temporary buildings, considers that there would not be any unacceptable impacts to the adjoining residents.

However, in consideration of the long term adverse streetscape impacts due to temporary demountable buildings within the school site, the Department has recommended a condition that the demountable buildings proposed as part of Stage 1 must only be on the site for a maximum period of 10 years, after which they must be dismantled and removed.



**Figure 41** | Stage 1 floor plan (Source: Applicant's RtS 2020)



**Figure 42** | Northern elevation of the Stage 1 built form (Source: Applicant's RtS 2020)

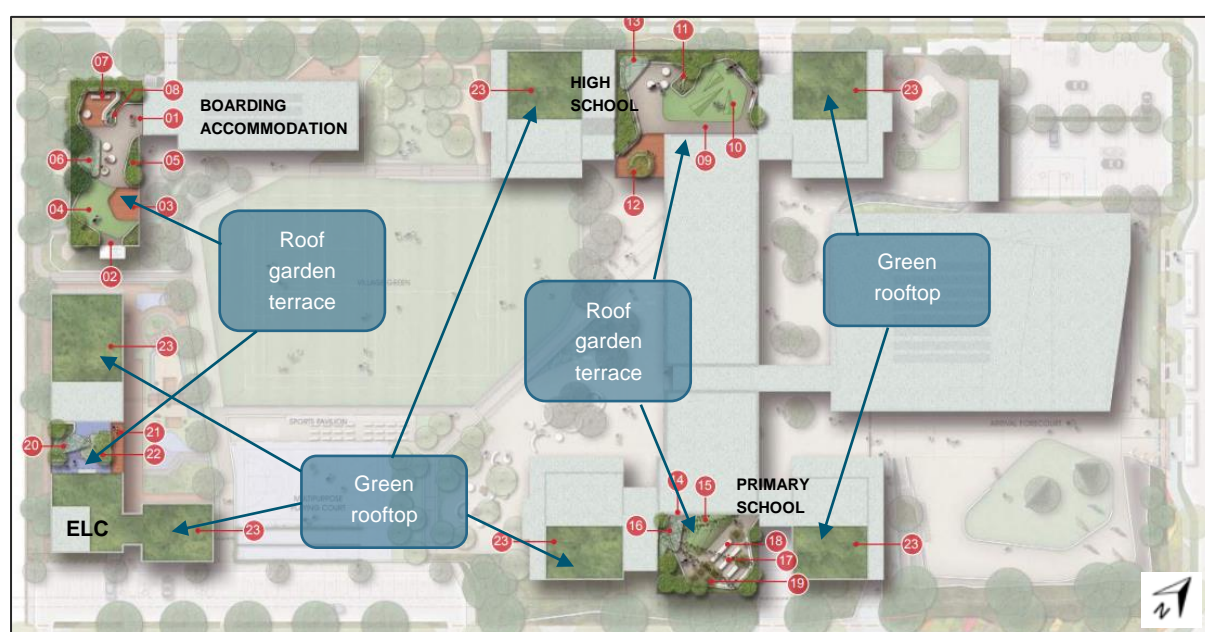


**Figure 43** | Northern streetscape view of the Stage 1 built form (Source: Applicant's RtS 2020)

## 6.4 Landscaping and trees

The proposal includes a variety of landscaping features (**Figure 44** and **45**) comprising:

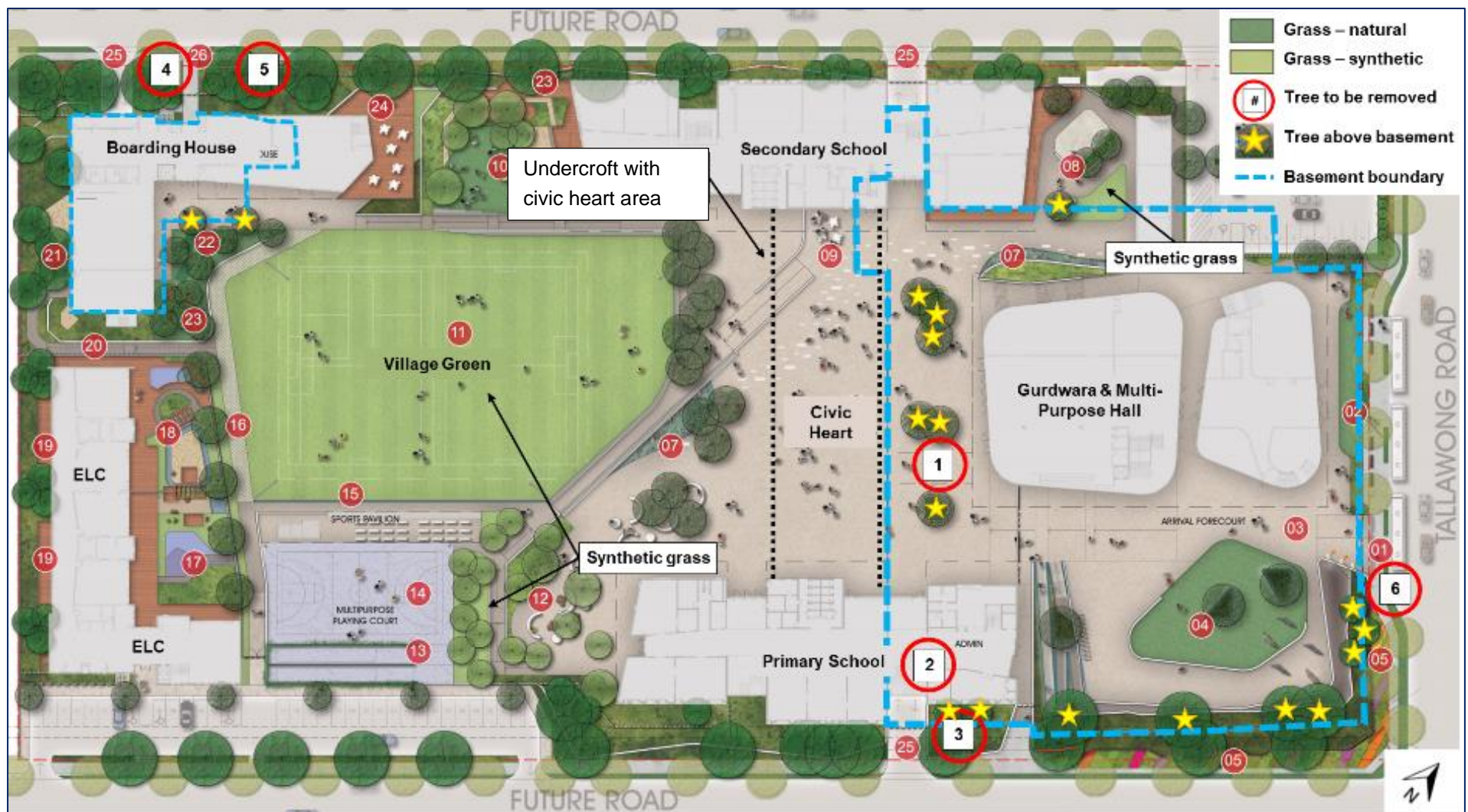
- school spaces including:
  - 12,600m<sup>2</sup> central oval/grassed area (Village Green) and four hard and soft landscaped courtyards
  - a hard-paved central area (Civic Heart) including undercroft area beneath the four-storey primary/secondary school building and the bridge link
  - multipurpose court with sports pavilion overlooking the Village Green
  - four roof top terraces and six inaccessible green roof tops located above the primary and secondary school, ELC and boarding accommodation buildings (**Figure 44**).
- courtyards associated with the ELC and the boarding accommodation
- perimeter planting around the entire site.



**Figure 44** | Roof top (garden) terraces and green rooftops (Source Applicant's EIS 2019)

The landscaped site layout is provided in **Figure 45**.

During the EIS exhibition, Council and EESG raised concerns about the proposed landscaped layout and its impacts on the urban heat effects. Concerns were also raised regarding the adequacy of the deep soil above basement carparks to support tree planting and street tree planting.



**Figure 45 |** Proposed landscaping and tree removal plan, including location of basements and tree plantings above basements (Source: Applicant's RtS 2020)



#### 6.4.1 Staging of the landscaping works and open space provisions

The Applicant's EIS indicates that the development would incorporate landscaping and open space provisions throughout Stages 1-9. The Applicant has stated that the landscaping and outdoor spaces achieve a high standard of design. In addition, the proposal complies with the Educational Facilities Standards Guideline (EFSG) of the Department of Education and achieves the minimum required 10m<sup>2</sup> outdoor play space per student (for greenfield sites).

A breakdown of open space provisions and landscaped areas in each stage are provided in **Table 15**.

**Table 15** | Breakdown of open space and landscaping for each construction stage and student numbers

Stage / Student Numbers	Open Space provision	Landscaping
1 / 112	1680m <sup>2</sup>	No
2 / 168	4,200m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets	Yes
3a / 392	6800m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets	Yes
3b / 392	6800m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets	Yes
4 / 672	9000m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets, Village Green	Yes
5 / 952	11500 m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets, Village Green	Yes
6 / 1092	12600 m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets, Village Green	Yes
7 / 1092	12600 m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets, Village Green	Yes
8 / 1260	12600 m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets, Village Green	Yes
9 / 1260	12600 m <sup>2</sup> including multipurpose court, sports pavilion, cricket nets, Village Green	Yes

No concerns were raised by Council, GANSW or EESG about landscaping design, layout or open space provisions. The Department notes that there are no numeric requirements on the quantity of open space per student for a school within the Education SEPP.

**Table 15** notes Stage 1 would not provide landscaped areas because Stage 1 involves the construction of temporary buildings. However, the EFSG guideline requires all stages provide a

minimum play space of 10m<sup>2</sup> per student within the site. Noting that sufficient open space would be provided for the amenity of the students in Stage 1, the lack of other permanent landscape features in this stage is considered acceptable.

Additionally, the Department notes in **Figure 44** that accessible roof top gardens have been provided for the boarding accommodation building and for the school which would provide for additional landscaped features and open space for the users (details of users have not been provided). The impacts of the roof top gardens on the amenity of the adjoining neighbours is discussed in **Section 6.5**.

The Department supports the landscaping plan for the site, noting the new buildings would provide for a seamless transition between indoors and outdoors. The proposal includes outdoor learning areas, sports and play spaces that are flexible and customisable (active, passive, covered and uncovered), safe and secure, and maximise outdoor learning opportunities.

The Department has recommended a condition requiring the Applicant to prepare an Operational Landscape Management Plan to manage proposed landscaping in the future.

#### **6.4.2 Urban heat effects**

Council stated urban heat is a significant issue in Western Sydney and recommended the proposal include a greater proportion of soft landscaping to hardstand / built areas, particularly to shade the Civic Heart where students are likely to congregate. EESG supported the incorporation of green roofs/walls and use of light-coloured roofing materials in response to urban heat effects, and recommended the synthetic lawn be replaced with natural grass.

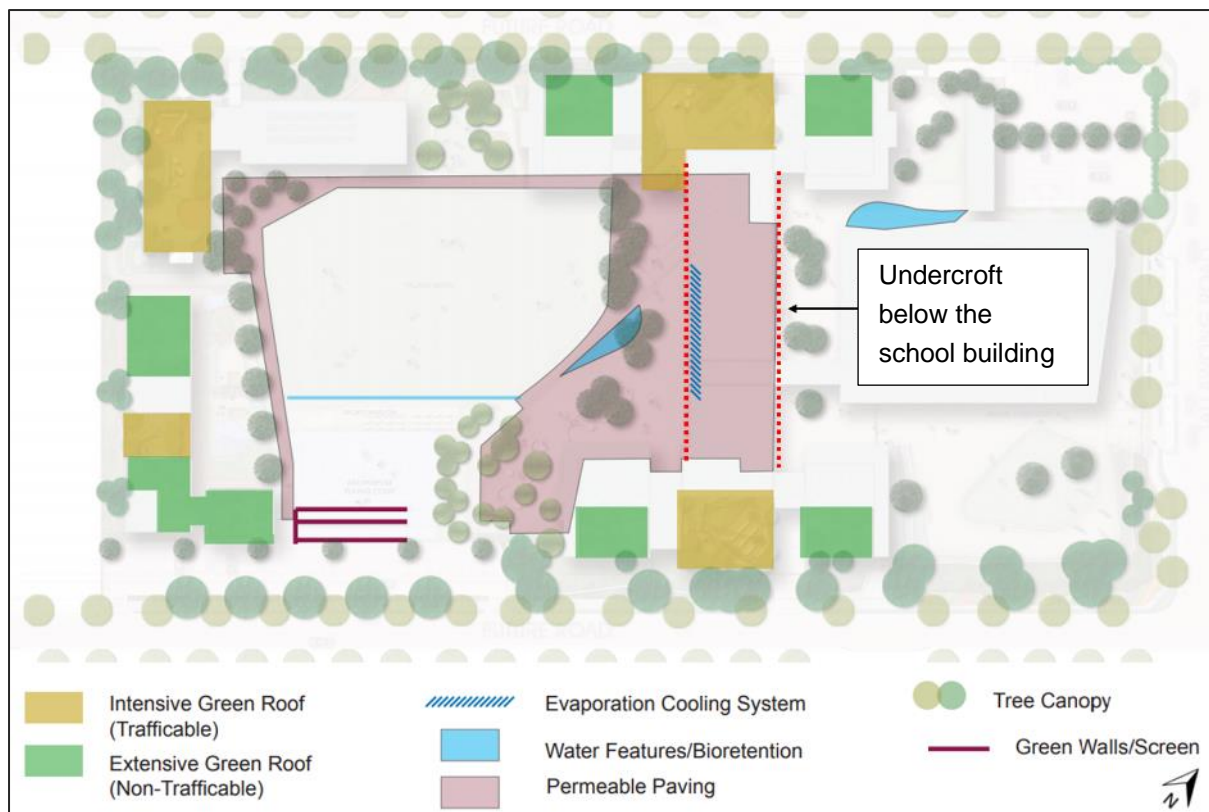
GANSW confirmed it supports the inclusion of green roofs and recommended the Applicant include permeable/semi-permeable treatments to complement hard surface areas.

In response to these concerns, the Applicant included green roofs above the primary and secondary school and ELC buildings. The Applicant advised the:

- proposal addresses urban heat effects through the inclusion of permeable paving (40%), light coloured materials, rooftop gardens, soft landscaping and evaporative cooling system.
- synthetic lawn design includes irrigation and moisture retaining layer, which would reduce peak summer temperatures by 1-5 degrees. In addition, the predicted intensive use of the Village Green (due to school, weekend community use and boarders) is likely to stress as natural lawn, resulting in bare soil patches.
- provision of synthetic lawns in schools in Sydney is not uncommon.

The proposed measures to control the urban heat effects is identified in **Figure 46**.





**Figure 46 |** Proposed features to address urban heat effects (Source: Applicant's RtS 2020)

The Department supports the Applicant's mitigation measures to address urban heat effects as the:

- inclusion of additional green roof areas significantly reduces the amount of exposed roof areas, further reducing urban heat effects.
- four-storey primary / secondary school buildings with the bridge link would overshadow a large portion of the Civic Heart throughout the day and provide a large shaded area for students.
- provision of 40% permeable paving ensures water is naturally retained on the site.

The Department notes the Village Green is a large and exposed grassed area, and although framed on its eastern and western boundaries by trees, no trees are provided to the northern and southern sides. The Department considers that the lack of trees along the southern boundary is acceptable given the need for unobstructed views from the sports pavilion. However, the Department considers that the Applicant should provide trees along the northern boundary. The Department recommends the planting of at least 10 canopy trees (20m high) in this location to provide additional shading, canopy cover and to further address urban heat.

The Department has considered the concerns raised by Council, GANSW and EESG, and the Applicant's justification for the provision of synthetic grass. The Department acknowledges that the inclusion of synthetic surfaces is not uncommon in school developments. However, the Department considers the proportion of synthetic grass provided in this proposal is excessive, noting the entire Village green (12,600m<sup>2</sup>) would be comprised of artificial grass and this is the only major grassed area proposed. The Department considers, subject to normal landscape maintenance/care practices, natural grass would be a successful and viable alternative to synthetic grass at the Village Green. In addition, the provision of natural grass would also contribute to addressing the urban heat effect and provide additional natural habitat. The Department therefore recommends a condition to this effect.

The Department concludes, subject to the above conditions requiring additional tree planting and the provision of natural grass at the Village Green, the proposal would effectively address urban heat effects.

#### *Street tree planting*

The Department notes that the Applicant has not provided any details on street tree planting. Given the concerns raised by Council, GANSW and EESG with respect to urban heat effect in an area with limited trees, the Department has recommended a condition that the Applicant consult with Council prior to issue of the relevant construction certificate and demonstrate to the Certifier that the streetscape design and treatment meets the requirements of Council, including provision of street tree planting along Tallawong Road, Northern and Southern Roads.

#### **6.4.3 Tree removal**

The application included an Arboricultural Impact Assessment (AIA), which surveyed the six existing trees on the site and stated all six trees would need to be removed to facilitate the development. The AIA provides the following assessment of the trees (**Figure 45**):

- Tree 1: Rough-Barked Apple, fair health, poor structural condition, low retention value. This tree contains a hollow that may provide habitat for wildlife.
- Trees 2 & 3: Narrow-leaved Ironbark, poor health and structural condition low retention value.
- Trees 4 & 5: Forest Red Gum, fair health, good structural condition, high retention value.
- Tree 6: Narrow-leaved Ironbark, good health and structural condition medium retention value.

The AIA concludes that there is no feasible option to retain Trees 1, 2 and 3 given their poor condition and position within the site and the extent of the development proposed. In addition, Trees 4, 5 and 6 are located along fence lines and bulk earthworks may compromise their survival. The proposal includes the planting of 137 new trees, shrubs / plants and other forms of soft landscaping around the site to compensate for the trees removed.

EESG stated the proposal is unlikely to have unacceptable biodiversity impacts and confirmed the proposal did not warrant a BDAR. EESG recommended plant and trees species should be characteristic of the Cumberland Plain Woodland, should be advanced stock (minimum pot size 100 litres), remnant vegetation should not be removed and the tree canopy should be increased. Council recommended inclusion of additional shade trees.

GANSW recommended the Applicant commit to delivering the proposed tree canopy cover target (27%). The NSW Government's draft Greener Places Design Guide 2020 (draft GPDG) suggests a tree coverage target of 40% in low density suburban residential areas.

The Applicant's RtS included a tree canopy assessment that identifies the site currently has a tree canopy coverage of 221m<sup>2</sup> (0.7%) and the proposal would increase the tree canopy cover to 8326m<sup>2</sup> (27%) when all 137 replacement trees are mature.

The Department supports the Applicant's reasons to remove Trees 1, 2, 3 and 6 and notes that:

- Trees 4 and 5 are in good overall condition and have a high retention value. Their location along a fence line is not considered sufficient justification for their removal, particularly given the site would otherwise retain no mature trees, and the line of future fencing could easily be set back from their trunks. Earthworks could also be sensitively carried out to ensure the trees

are sufficiently protected. The Department has recommended a condition requiring the protection of Tree 4 and 5.

- proposed site tree coverage (27%) is a significant increase above the current situation and although it is 13% less than the draft GPDG target (40%) it is considered acceptable noting the benefits arising from the provision of new educational facilities. The use of advanced tree stock would ensure rapid achievement of the 27% canopy cover.
- the 137 replacement trees appropriately reflect Cumberland Plan Woodland species.

The Department supports the proposed tree replacement commitment and has recommended the planting of an additional 10 trees along the northern boundary of the Village Green (**Section 6.4.2**). The Department concludes that, subject to the conditions regarding tree replacement, compliance with the recommended tree canopy cover, and retention and protection of nominated trees, the proposed tree removal is acceptable.

#### **6.4.4 Planting above basements**

The proposal includes planting 18 trees above the basement level (marked with stars in **Figure 45**). The Department requested the Applicant provide additional detail on the likely health, longevity and vigour of tree planting above basement levels. GANSW recommended where trees are planted above basements, they should be provided with soil to a depth of no less than 1.5m.

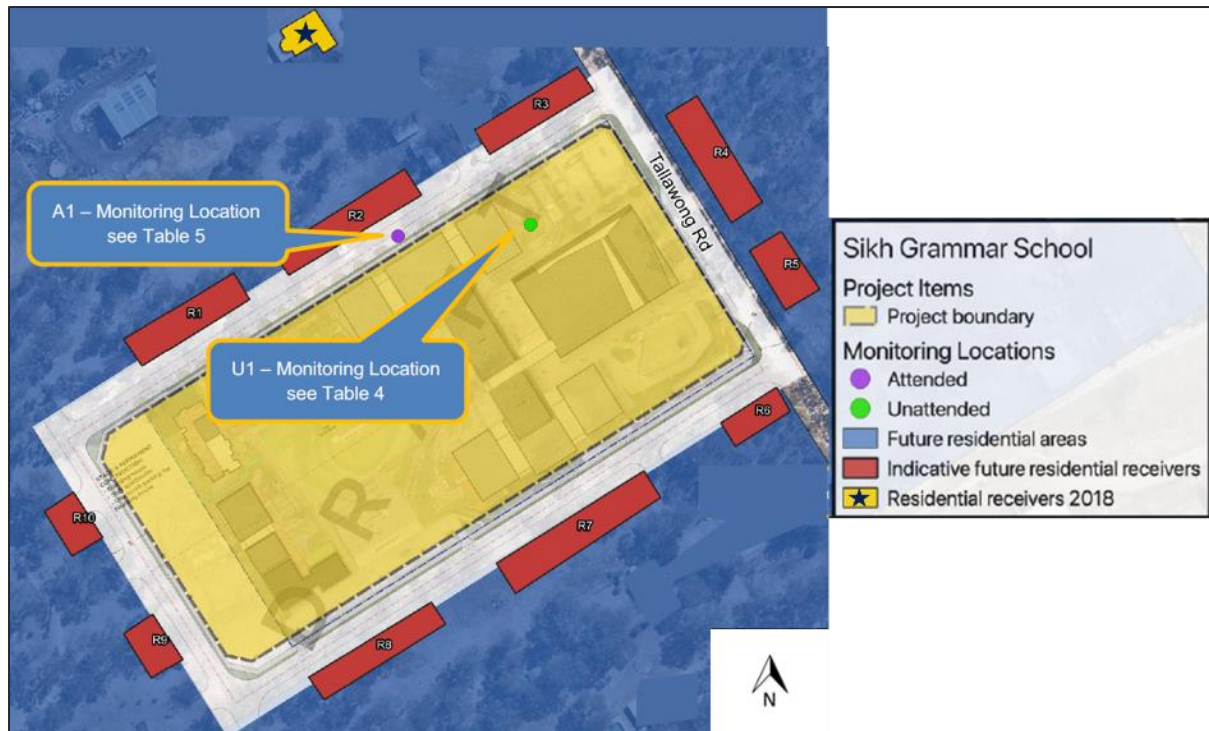
The Applicant updated the AIA to include an assessment of the feasibility of planting trees above basements. The AIA indicates that trees located entirely above the basement would be contained within raised planters, and those on basement boundaries would be planted within raised sloping areas. The updated AIA concluded that trees above and adjacent to the basement would be successful subject to each tree being provided with appropriate minimum soil volume and depth requirements relevant to the species (being between 30m<sup>3</sup> and 125m<sup>3</sup> of soil with a minimum depth of 1m). The AIA also recommended the trees be provided with structural soil cells for root stability and permanent irrigation infrastructure.

The Department has reviewed the above and agrees with the GANSW recommendation that soil depth should be increased to a minimum of 1.5m to ensure the health and longevity of trees above the basement. Conditions to this effect are recommended in addition to AIA recommendations.

### **6.5 Noise**

The EIS included a Noise and Vibration Assessment (NVA) assessing the operational and construction noise and vibration impacts on the nearest sensitive receivers. The NVA identified 163 Tallawong Road as the closest sensitive receiver to the site. However, since the preparation of the NVA, this dwelling has been demolished and 175 Tallawong Road (90m away) is now the closest sensitive receiver. Current and future subdivisions will create dwellings immediately opposite all four sides of the site located on the opposite side of future roads (approximately 20m away) and adjoining the western boundary of the site.

The existing and future residential context and the location of noise logger locations for unattended data collection are shown at **Figure 47**.



**Figure 47 | Location of noise monitoring loggers (Source: Applicant's RtS 2020)**

In response to submissions from public authorities during the EIS exhibition, the RtS included additional information and justification, clarifying the noise impact of the Gurdwara and community out of hours use, and measures to manage impacts.

#### 6.5.1 Construction noise and vibration

The development would be built in 10 stages over a 10-year period, involving demolition, earthworks and construction at each stage. The Applicant proposes to concurrently occupy and operate the school as each subsequent stage is constructed.

The Interim Construction Noise Guideline 2009 (ICNG) includes noise management level (NML) guidelines and standard hours of construction which apply in NSW. The ICNG confirms impacts above 75dB(A) represents the point where sensitive receivers are likely to be 'highly noise affected'.

The NVA has provided NML for the site in accordance with the ICNG of 47dB(A) for future residential properties fronting and adjoining the site.

The NVA found that construction noise from all likely construction equipment is predicted to exceed the highly noise affected criteria of 75dB(A) due to the proximity of future residential developments opposite and adjoining the site (expected noise levels up to 91dBA). To mitigate adverse impacts on future nearby residents and students on the site due to the predicted exceedances above the NMLs, the NVA recommends a Construction Noise and Vibration Management Sub-Plan (CNVMP) be prepared for the development. The CNVMP should include measures consistent with the ICNG including:

- the use of movable screens for specific construction tasks.
- specifying works must occur within standard construction hours with respite periods.
- no deliveries outside construction hours.
- minimum safe work distances.
- use of enclosed or silenced plant and equipment.

- appropriate stakeholder engagement.

Council did not provide comment on the NVA or potential construction noise impacts.

The Department notes that the NVA construction noise impacts are a worst-case scenario and have been prepared on the assumption that all potential future residential subdivision has occurred around the site and dwellings have been constructed and are occupied. Any noise impacts that occur prior to the development of the surrounding residential area would only impact the closest existing sensitive receiver, located 90m north of the site.

Regardless, the Department acknowledges that the middle-later stages of the development may be located in an established urban environment and result in construction noise impacts and considers that all reasonable measures should be implemented to minimise these impacts. To mitigate impacts of construction noise, the Department has recommended the following conditions:

- preparation of a final CNVMP prior to the commencement of construction of Stage 1
- the CNVMP must be updated prior to the commencement of each subsequent construction stage to enable progressive management of construction activities and identification on any new sensitive receivers in the new release area
- a requirement to comply with the ICNG NMLs where feasible and reasonable
- implementation of respite periods for excavation and construction works where works generate particularly annoying or intrusive noise
- a requirement to comply with standard ICNG construction hours
- all construction activities comply with best practice vibration management criteria to ensure no adverse impact to existing buildings or structures.

### 6.5.2 Operational noise

The NVA considered the potential noise impacts associated with operational noise. These include outdoor recreation spaces during recess and lunchtime, Gurdwara / multipurpose hall during school times and after-hours events, car parking areas and mechanical plant and public address (PA) systems and bells.

To assess the potential noise impacts of the school on the nearest future sensitive receivers, the NVA measured the:

- outdoor play space against the requirements of the Australian Acoustical Consultants Guideline for Child Care Centre Acoustic Assessment, October 2013 (AAAC) noise criteria (RBL +10db).
- the car parking and Gurdwara against the requirements of the Noise Policy for Industry (NPI) (RBL +5db).

The NVA section assessing the school assumed the following parameters for determining noise predictions:

- at full capacity there could be up to 1260 primary and secondary school students playing outdoors at recess/lunch at full operation for 2 hours between 7am – 6pm.
- play spaces assessed are those located at the periphery of the site and are predicted to have approximately 20 students playing at one time.
- the multipurpose court is predicted to have approximately 30 students playing at one time.

The outdoor play areas of the school are provided in **Figure 48**. A comparison of the predicted noise levels from the development against the AAAC and NPI requirements are provided in **Table 16**.





**Figure 48** | Outdoor play areas (Source: Applicant's RtS 2020)

**Table 16** | Predicted noise levels at sensitive receivers (Applicant's RtS 2020) (red font shows exceedances)

Scenario/Activity	Location	Period	AAAC Noise Level (dB)	NPI Noise Level (dB)	Predicted Noise Level (LAeq15)
Student recess/lunch	Multipurpose court	Day	47	-	47-48
	K-2 Play	Day	47	-	51-52
	Stage 3-6 temporary play	Day	47	-	52-52
	ELC Play	Day	47	-	27-41
	Innovation rooms	Day	47	-	43
Car Parking	Stage 1 Temporary	Day / Evening	-	42 / 43	42
	Stage 1	Day / Evening	-	42 / 43	41

Permanent					
	Stage 3B ELC	Day / Evening	-	42 / 43	41
	Stage 6 Temporary	Day / Evening	-	42 / 43	43
	Stage 8 Basement	Day / Evening / Night	-	42 / 43 / 37	47
	Stage 9 Boarding accommodation	Day / Evening	-	42 / 43	32
Gurdwara / Multipurpose Hall	Stage 1 Temporary	Day / Evening / Night	-	42 / 43 / 37	42 / 42 / 37
	Stage 7 Permanent	Day / Evening / Night	-	42 / 43 / 37	42 / 42 / 37

The NVA indicates the majority of the school play areas would be only used for 2 hours per day and comply with the AAAC guidelines (which allows for a higher noise generation). The NVA found all the modelled scenarios can comply with the relevant noise criteria (assuming up to two hours of play), except for exceedances up to 10dB relating to noise arising from the:

- K-2 play space and the Stage 3-6 temporary play space (up to 5dB).
- permanent basement carpark beneath the Gurdwara (between 5dB and 10dB).

#### *Consideration of sensitive receivers*

The Department notes that the NVA has not considered the future residential allotments on the western boundary as sensitive receivers. Given that these future neighbours would be the closest noise receivers, the Department has recommended a condition that a revised NVA be submitted prior to the issue of the construction certificate of Stage 1 including these residences as sensitive receivers and proposing any additional design/operational mitigation measures to ensure that the acoustic amenity of the future neighbours are maintained at all times.

#### *Play areas*

The NVA states that the ELC outdoor play area complies with the AAAC noise criteria, on the basis that the outdoor play areas are occupied not more than two hours on a typical school day. Accordingly, the Department has recommended a condition that the Operational Management Plan ensure that the ELC outdoor open play areas are occupied no more than two hours on a typical school day.

The NVA notes a 3.5m noise barrier erected adjacent to the K-2 play and Stage 3-6 temporary play spaces (in addition to play hours restricted to 2 hours per day) would reduce the noise impacts by up to 6dBA and ensure these spaces comply with the relevant noise criteria. The NVA then stated that alternatively, the play spaces should be relocated to avoid any adverse acoustic impacts on the neighbours. However, the Applicant has not provided detailed drawings of the 3.5m high noise barrier, an assessment of the impact of this structure to the streetscape or provided an assessment of the alternatives.

The Department also does not support a 3.5m noise barrier on the site's southern boundary as it would have a detrimental visual impact on the future streetscape. The Department agrees with the NVA that the K-2 play space and the temporary space (Stages 3 – 6) should be relocated elsewhere within the site to avoid adverse acoustic impacts on the neighbours. However, the Department recognises that the surrounding area is undergoing substantial change from a semi-rural to urban development context and that existing background noise levels would increase over time from increased residential population and associated traffic and background noise. If a noise assessment is conducted at a future date, the noise exceedance may be lesser.

On this basis of the uncertainties around new release areas in terms of background noise levels, the Department considers that a further noise assessment should be undertaken prior to the occupation of the relevant construction stages, when these play spaces would be built. Accordingly, the Department has recommended conditions that, prior to the issue of the relevant construction certificate of the affected play areas, the Applicant must reassess the noise impacts of the K-2 play area and the temporary play area (Stages 3-6 and demonstrate whether these play areas comply with the relevant noise criteria at their current proposed locations without the need for a 3.5m high noise barrier.

Should the revised noise assessment report show noise exceedances, the Applicant would be required to provide alternate locations for the play spaces within the site at that time. The Department notes that there is sufficient scope within the landscaped areas and the Civic Heart to relocate such activities.

Additionally, the Department notes that the play times of 2 hours may impose restrictions to the community use of the sports fields and school hours on a weekday. But noting the potential noise exceedances for extended play times, the Department has recommended a condition requiring playtime for school students to be restricted to two hours per day.

#### *ELC operational hours*

The Department notes that the NVA has identified noise generation levels for the ELC based on operating hours of 7am – 7pm. However, the Applicant has proposed the operating hours to be 6:30am – 6pm in the SRtS, which is inconsistent with the NVA. Given that no noise assessment has been done for the hours between 6:30am and 7am, the Department has recommended that the hours of operation for the ELC be consistent with the EIS.

#### *Basement carpark and Gurdwara operation*

The Department notes that the Gurdwara would operate until 9pm. However, the basement carpark would be in use until 11pm for the purpose of packing up and cleaning, which would trigger the night-time criteria of the NPI. However, no noise exceedances are identified in the NVA during the night-time due to use of the carpark. The Department is satisfied that the use of the carpark beyond 9pm would likely be by the staff and can be managed appropriately. The Department has recommended a condition that the use of the Gurdwara be restricted to 9pm with some additional time for packing and cleaning (till 10pm), while carpark use is restricted to 11pm.

The NVA states the noise exceedances associated with the permanent basement carpark are acceptable as this is the worst-case scenario and noise occurrences are likely to be over short periods. No comments were received from Council, EPA or in public submissions about operational noise impacts due to the basement carpark.

The Department is satisfied that the noise levels for the use of the car parking areas would occur over short periods of time (most likely during AM/PM peak periods). Therefore, the noise exceedances (up to 10dB) due to carpark use is unlikely to impact upon the amenity of the nearby residents.

### *Summary*

Overall, the Department is satisfied that the development would not generate unreasonable noise impacts on the surrounding locality due to general operational noise, the play areas use and the use of the carpark, subject to recommended conditions. To ensure that the site is effectively managed at all times, the Department has also recommended conditions requiring the Applicant to:

- operate the school in accordance with the hours specified in the EIS and mitigation measures set out in the NVA.
- undertake short term noise monitoring after the commencement of operation of each stage to confirm the development complies with the predicted noise levels in the basement or the play areas.

### **6.5.3 Mechanical plant and equipment and public announcement (PA) system**

The NVA noted that the design of the mechanical plant / equipment and the PA system / school bell would be finalised in detailed design. The NVA also indicates that rooftop mechanical plant would be located between 30m and 46m from the closest future sensitive receiver and is unlikely to result in any noise impacts. The NVA recommended the adoption of measures to reduce its noise impacts including selection of low noise generating equipment; shielding of the equipment; and the use of enclosures and screens (if necessary).

The Department has reviewed the proposed mitigation measures and agrees the detail can be confirmed at the design stage, subject to conditions requiring the Applicant to incorporate the recommended measures in the NVA.

### **6.5.4 Roof top terrace**

The proposal involves the use of four roof top terraces located above the primary and secondary school, ELC and boarding accommodation buildings (**Figure 44**). The Department notes that the Applicant has not carried out any noise assessment for the use of the four roof top terraces.

The Department raised concerns regarding the impacts of the use of the roof top terraces on the acoustic amenity of the future residences that would surround the site, noting the lack of detail of noise assessment of these areas.

To ensure that these areas are managed appropriately to reduce any noise impacts on the surrounding locality, the Department has recommended a condition requiring a revised noise assessment report be prepared prior to the issue of construction certificate for Stage 1. The noise assessment should include an assessment of the impacts of the use of all roof spaces on neighbours and include mitigation measures where necessary. Further, the Department recommends a condition that these spaces be used only between 7am and 6pm daily, unless the noise assessment can appropriately address all impacts and propose alternate timings. As such, conditions of consent restrict the usage of the roof top beyond 10pm (night-time criteria for NPI).

### **6.5.5 Community use**

The proposal involves the use of school facilities by the community (in addition to the Gurdwara), more specifically the Village Green, ELC and secondary school playgrounds and outdoor court. The



NVA does not include a detailed assessment of out-of-school hours use of facilities by the community (in addition to the Gurdwara).

The Department also notes discrepancies in the proposed community use in that the:

- application proposes a variety of conflicting hours of operation for community use.
- NVA has considered the use of outdoor spaces during between 7am and 6pm. The proposed noise impact from the use of outdoor areas beyond 6pm has not been assessed.
- the applicant has not confirmed the extent or nature of the community use of these spaces or their parking requirements.

In the absence of any justification or detailed assessment, the Department has recommended the following conditions:

- the Applicant to provide a detailed noise assessment prior to the issue of the construction certificate for Stage 1, including the impacts of use of school facilities by community.
- Include design / operational mitigation measures where necessary, to maintain the acoustic amenity of the neighbours.
- restriction the use of school facilities to 6pm (by school and the community) and for a total of two hours (school and community use).
- restriction of the overall play times within the site to be a total of two hours, unless otherwise demonstrated by the revised noise assessment.

## 6.6 Other issues

The Department's consideration of other issues is provided at **Table 17**.

**Table 17 | Department's consideration of other issues**

Issue	Findings	Department's consideration and recommended condition(s)
<b>Community use of Gurdwara</b>	<ul style="list-style-type: none"> <li>• The Applicant's EIS proposes the Gurdwara would be available for community use during and after school hours including weekends (up to 9pm) with the carpark available till 11pm (mainly for staff).</li> <li>• The Applicant stated that the availability of these amenities and services provides efficient use of school facilities and would build the school's relationship with the community.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department supports the use of the Gurdwara outside of school hours until 9pm, noting the NVA concludes there would no adverse noise impacts and there would be sufficient car parking available on the site.</li> <li>• The Department has recommended a condition that community use is only permitted outside school hours. In addition, to ensure the impact of the community use of the Gurdwara is minimised as much as possible, the Department recommends the Applicant prepares an Out of Hours Event Management Plan for any events involving over 100 patrons.</li> <li>• The Department has recommended a condition limiting the use of the Gurdwara to outside school hours until 9pm for</li> </ul>

community and up to 10pm for packing and cleaning. The conditions also limit the use of carpark by community to be up to 10pm and that by staff to be up to 11pm.

## ELC

- The Education SEPP takes precedence over Council's DCP controls contained in the Child Care Planning Guideline 2017.
- The proposal includes an 86-place capacity ELC located at the south-western corner of the site.
- The Applicant has stated the ELC has been designed in accordance with all detailed design requirements of the above guidelines.
- The Department has considered the proposal and concludes that the unencumbered outdoor and indoor play areas comply with the Education SEPP guidelines listed below.

Control	CPG	Indicative Proposal
Internal GFA	279.5m <sup>2</sup>	350m <sup>2</sup>
Outdoor space	602m <sup>2</sup>	605m <sup>2</sup>
Car parking	27 spaces	32 spaces
Hours	7am-7pm weekdays	7am-7pm weekdays

- Given the above, the Department considers that the proposed childcare centre is acceptable subject to conditions requiring the maximum number of children to be capped to 86 places.

## Signage

- The application seeks approval for six signs.
- The details of the signs are provided in **Section 2** in **Figures 8** and **28**.
- Additionally, the Applicant has advised non-digital signage would be illuminated by either unobtrusive halo lighting or by up-lighting that could be directed away from neighbouring properties.
- Digital signage displays are proposed to be a maximum of 2.5m x 2m and light intensity is capable of being controlled.
- The Applicant has not indicated whether the digital signage includes speakers.
- The Department has assessed the proposed signs against the provisions of State Environmental Planning Policy 64 – Advertising Signage (Appendix B) and considers the signs to be satisfactory in size, design and the overall scale of the development.
- The Department also notes that the illuminated signs would not have adverse light spill impacts as each of them would be located more than 20m away from existing and future residential properties. The LED displays would not result in any adverse glare to the surrounding area, subject to recommended conditions. The Department has recommended a condition to ensure the signage illumination does not operate beyond 10pm.
- To ensure any speakers on signage do not result in adverse noise impacts, the Department recommends a condition preventing the use of any speakers.

### Operational waste

- The application includes a Waste Management Plan (WMP), which confirms that operational waste would be stored in the Services Pavilion at the north-eastern corner of the site, in the basement of the boarding accommodation, and at the western elevation of the ELC.
- Waste vehicles (large rigid vehicles) would service the site at the loading bay at the on grade carpark at the north-east corner (Figure 8).
- Council raised concerns regarding waste truck manoeuvring, integration of the Services Pavilion into the design of buildings or alternative basement waste collection. TfNSW requested swept path analysis for the largest vehicles expected to access the site.
- The Applicant provided a swept path analysis that demonstrated a waste collection vehicle can enter and exit the on-grade waste collection areas of the site in forward direction for the purpose of waste collection.
- with regard to the boarding accommodation, the Applicant has indicated that waste collection would occur on the kerbside with no truck access proposed at the basement level.
- The Applicant did not amend the design of the Services Pavilion in response to Council's comments.
- The Department notes that although the Services Pavilion is in a prominent location at the north-east corner of the site, it is a single storey structure set within the site and surrounded by landscaping. In this context, the building would not be readily visible or noticeable from the surrounding streets.
- Consequently, the Department agrees with the Applicant that the Services Pavilion can be satisfactorily used as a waste storage area with no adverse visual or odour impacts on the neighbours.
- To ensure that the waste collection in the boarding accommodation, and other parts of the site, are adequately managed the Department has recommended a condition requiring the submission of an operational WMP, in consultation with Council and in accordance with Council's waste management requirements.
- The operational WMP is also required to include measures for service vehicle access to the site and details of frequency of waste collection in the boarding accommodation.

### Boarding accommodation amenity and management

- The proposed student boarding accommodation includes the provision of 58 shared student boarding rooms (25m<sup>2</sup> in size) for 116 students, a cinema room, lounge/games room, dining and kitchen area and eight study/common areas.
- Council raised a concern that the western elevation of the boarding accommodation building should be treated to prevent overlooking of future residential properties
- The Department is satisfied that the proposed boarding and staff accommodation are incidental and ancillary to the proposed school.
- The Department is satisfied that the building has been sited and designed to minimise the potential for amenity impacts on neighbouring residential properties. In particular the:
  - outdoor courtyard is located away from neighbouring properties.
  - building is setback approximately 10m from Northern Road and the western

	<p>adjoining the western boundary of the site.</p> <ul style="list-style-type: none"> <li>• In response to these concerns, the Applicant amended the application to include screens to windows above ground floor level on the western elevation.</li> <li>• The Application includes a rooftop garden above the boarding accommodation. However, no details with regard to this use has been provided in the application. The matter was discussed in <b>Section 6.4</b>.</li> <li>• The Application includes an assessment of the boarding accommodation against the draft Housing Diversity SEPP and considers it to be satisfactory.</li> </ul>	<p>boundary with a landscaped buffer.</p> <ul style="list-style-type: none"> <li>○ incorporation of visual screens ensure future occupants of the boarding accommodation would not be able to overlook the future adjoining residential properties.</li> <li>• To ensure the operation of the boarding accommodation does not have adverse impacts on the amenity of adjoining residents, the Department has recommended a condition requiring the preparation of a boarding accommodation OMP, including measures relating to management, student code of conduct, complaints handling, induction and signage.</li> <li>• Noting the above design features, and subject to appropriate management through the OMP, the Department is satisfied the operation of the boarding accommodation would not have an unreasonable impact on the amenity of adjoining properties.</li> <li>• The Department has undertaken an assessment of the amenity of the boarding accommodation against the provisions of the Housing Diversity SEPP in <b>Appendix B</b> and considers it to be satisfactory.</li> </ul>
<b>Future residential amenity (staff apartments)</b>	<ul style="list-style-type: none"> <li>• The Applicant stated the six staff accommodation apartments located on the top floor of the boarding accommodation building comply with the State Environmental Planning Policy No. 65 (Design Quality of Residential Apartment) (SEPP 65) and Apartment Design Guide (ADG) recommended residential standards.</li> <li>• The Applicant has also submitted a compliant BASIX certificate in conjunction with the proposed dwellings.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department has considered the proposal against the objectives of SEPP 65 and the requirements of the ADG at <b>Appendix B</b>.</li> <li>• The Department concludes the apartments meet or exceed the ADG requirements and are satisfactory having regard to SEPP 65. In particular, the apartments: <ul style="list-style-type: none"> <li>○ meet or exceed the various ADG minimum apartment sizes.</li> <li>○ have access to an approximately 600m<sup>2</sup> communal terrace.</li> <li>○ achieve at least 2 hours of solar access in mid-winter, exceeding the ADG 70% requirement for metropolitan areas.</li> <li>○ achieve 66% natural ventilation, exceeding the ADG 60% requirement</li> <li>○ are greater than 20m away from future residential properties, exceeding the ADG minimum of 12m.</li> </ul> </li> </ul>
<b>Overshadowing</b>	<ul style="list-style-type: none"> <li>• The Applicant provided shadow diagrams which confirm that the proposal would not result in significant overshadowing of neighbouring future residential</li> </ul>	<ul style="list-style-type: none"> <li>• The Department reviewed the shadow diagrams and is satisfied the proposal would not have any adverse overshadowing impacts on the neighbouring properties.</li> </ul>



	<p>properties between 9am and 3pm during mid-winter.</p> <ul style="list-style-type: none"> <li>No concerns were raised in public submissions that the proposal would overshadow adjoining properties.</li> </ul>	
<b>Overlooking</b>	<ul style="list-style-type: none"> <li>Concern was raised by Council with respect to potential overlooking into adjoin developments due to the use of the roof terraces.</li> </ul>	<ul style="list-style-type: none"> <li>The Department notes that the roof top terraces on the boarding accommodation building would be set back to approximately 9.6m from the western side boundary, and the Early Learning Centre would be 5.5m from the western boundary. The Department considers that there is appropriate separation between these roof top terraces and the future lots.</li> <li>Furthermore, the Department has recommended conditions that the use of the terraces be restricted to 6pm daily unless impacts are adequately assessed by the noise assessment report. In any case the roof tops are restricted from being used beyond 10pm.</li> </ul>
<b>Dam dewatering</b>	<ul style="list-style-type: none"> <li>EESG and Council recommended the Applicant prepare a Dewatering and Fauna Relocation Plan relating to the dewatering of the existing dam. DPI recommended any native fish should be relocated to nearby streams and exotic fish euthanised.</li> <li>The Applicant has agreed to prepare a plan as recommended above to address any existing fauna encountered during the dewatering of the dam.</li> </ul>	<ul style="list-style-type: none"> <li>The Department supports the preparation of a Dewatering and Fauna Relocation Plan to appropriately relocate any native fauna and address exotic fauna associated with the dewatering of the dam.</li> <li>Conditions to this effect are recommended.</li> </ul>
<b>Construction environmental management plan</b>	<ul style="list-style-type: none"> <li>The Department acknowledges proposed earthworks, remediation and construction works will have impacts in terms of traffic, waste, sediment, erosion, and air and water quality.</li> </ul>	<ul style="list-style-type: none"> <li>To address these impacts, the Department has recommended a condition requiring the preparation of a Construction Environmental Management Plan, together with other environmental management and mitigation measures.</li> </ul>
<b>Contamination</b>	<ul style="list-style-type: none"> <li>The EIS included a Preliminary Site Investigation Phase 1 (PSI), which was updated by a Detailed Site Investigation (DSI) submitted with the RtS.</li> <li>The EPA confirmed the proposal does not constitute a Scheduled Activity under Schedule 1 of the</li> </ul>	<ul style="list-style-type: none"> <li>The Department has reviewed the PSI, DSI and considers that the site would be suitable for the development, subject to a RAP being prepared and implemented in accordance with the recommendations of the DSI.</li> <li>However, in order to ensure students can use all parts of the site in their enrolment year, the Department has recommended a</li> </ul>

POEO Act and does not require an Environmental Protection Licence under the POEO Act. The EPA recommended the Applicant consider ground water contamination.

- The PSI and DSI identified the site was previously used for intensive agriculture including market gardens and a piggery up to the 1970s, and was subsequently used as a rural/residential property.
- The DSI included a review of historical data, aerial photography and previous site investigations, undertook a site walkover, laboratory testing and data analysis investigations of soils (including 34 test pits).
- Certain chemicals (Total recoverable hydrocarbons, Benzene, toluene, ethylbenzene, xylene, Polycyclic aromatic hydrocarbons and Organochloride pesticides) were identified on the site.
- However, these chemicals were not in concentrations above adopted site acceptability criteria.
- In response to EPA comments, the DSI considered the site and concluded an investigation into groundwater contamination is not warranted.
- The DSI identified three areas of environmental concern, including:
  - asbestos containing materials located on the surface and in the areas of fill beneath the dwelling and former piggery
  - faecal coliforms in dam water.
- The DSI concluded the site has a generally low risk of contamination, but recommended:
  - a Remedial Action Plan (RAP) to guide remediation of identified asbestos
  - post remediation, a Site Validation Report is required
  - an unexpected finds protocol during site works
  - where soil is removed from the

condition requiring the entire site to be remediated prior to the commencement of construction of Stage 1.

- The Department has also recommended a condition requiring the Applicant to submit a Site Audit Statement to confirm that the site has been appropriately remediated, prior to commencement of operation of Stage 1.
- The Department considers it appropriate that an unexpected contamination procedure is put in place to manage any unexpected contamination during construction works for each stage and provide subsequent Site Audit Statements validating the contamination status prior to commencement of operation of each construction stage following Stage 1 and up to Stage 9.
- The Department is satisfied that the site can be made suitable for the development and the application is consistent with State Environmental Planning Policy No. 55 – Remediation of Land, subject to the implementation of the above recommended conditions and the submission of Site Audit Statements at each stage.

	<p>site, a formal waste classification assessment</p> <ul style="list-style-type: none"> <li>○ based on the surface water results, a dewatering plan should be prepared, and the water should be chemically treated prior to discharge or being applied to land, ensuring no run-off leaves the site.</li> </ul>	
<b>Aboriginal archaeology</b>	<ul style="list-style-type: none"> <li>• The EIS was supported by an ACHAR, which concluded no Aboriginal objects, sites or areas with potential for archaeological deposits are within the study area.</li> <li>• EESG did not provide any comments on impacts on Aboriginal archaeology.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department reviewed the ACHAR and considers that no Aboriginal heritage is present within the site and no further assessment is required.</li> <li>• Although the ACHAR indicates the potential for archaeological finds is limited, the Department considers it appropriate that an unexpected finds protocol is put in place to manage any unexpected finds of any archaeological artefacts. Conditions to this effect are recommended.</li> </ul>
<b>Bushfire protection</b>	<ul style="list-style-type: none"> <li>• NSW RFS confirmed the site is not identified as being bushfire prone land.</li> <li>• According, no further assessment is required.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional conditions or amendments are necessary.</li> </ul>
<b>Development contributions</b>	<ul style="list-style-type: none"> <li>• Development in the locality is subject to developer contributions payable to Council in accordance with the Section 94 Contributions Plan No.22L – Rouse Hill (Land) and Section 94 Contributions Plan No.22W – Rouse Hill (Works) (the Contribution Plans) as well as Special Infrastructure Contributions payable to the State Government.</li> <li>• In accordance with a Ministerial Direction dated 14 February 2011, schools are exempt from payment of Special Infrastructure Contributions.</li> <li>• Therefore, only development contributions to Council apply to this development.</li> <li>• Council has confirmed, based on the developable area (3.13 ha), the development contribution payable equates to \$2,451,986.</li> <li>• The Applicant has agreed to pay the development contribution, but requested that the payment:</li> </ul>	<ul style="list-style-type: none"> <li>• The Department agrees with Council that a development contribution is required to be paid.</li> <li>• Noting that the entire site is to be developed in 10 stages, the Department considers the Applicant's request to defer and stage the contribution fees to be reasonable.</li> <li>• Additionally, the Department notes that in June 2020 a new Ministerial direction was made to temporarily defer the payment of local infrastructure contributions and levies until issuing of an occupation certificate. This direction would be applicable to all development consent granted between its publication in the Gazette until the COVID-19 prescribed period ends on 25 March 2021.</li> <li>• Consequently, the Department has recommended that the development contributions be paid prior to the issue of the occupation certificate for Stage 1.</li> <li>• The conditions of consent also provide the opportunity for a deferral or staging, subject to Council agreement.</li> </ul>

	<ul style="list-style-type: none"> <li>○ be staged for each construction stage, based on a development area of 0.3ha per stage.</li> <li>• timing be deferred to be prior to occupation certificate of a construction stage.</li> </ul>	
<b>Food preparation</b>	<ul style="list-style-type: none"> <li>• The proposal includes the provision of food preparation areas within the Langar, school kitchens and a canteen.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department recommends conditions requiring food preparation areas be designed in accordance with relevant legislation.</li> </ul>
<b>Utility and services</b>	<ul style="list-style-type: none"> <li>• New water, sewer, gas and electricity services need to be extended and connected to the site.</li> <li>• The Applicant advised existing infrastructure has sufficient capacity to accommodate the requirements of the site.</li> <li>• Endeavour Energy provided recommendations on the design and electricity supply connection.</li> <li>• Sydney Water provided comments regarding water and sewer connections.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department considers the site can be sufficiently serviced by necessary utility connections and electricity supply, subject to further consultation with, and approvals from, the relevant public authorities in each construction stage.</li> <li>• Conditions to this effect are recommended.</li> </ul>
<b>Groundwater</b>	<ul style="list-style-type: none"> <li>• Water and Natural Resources Access Regulator of the Department of Planning, Industry and Environment advised the project would require a Water Access Licence if surface or ground waters are encountered during construction or operation.</li> <li>• In addition, stormwater outlets should be designed in accordance with the Guidelines for Working on Waterfront Lane (Water NSW 2012).</li> </ul>	<ul style="list-style-type: none"> <li>• The Department has recommended a condition in this effect.</li> </ul>
<b>Site suitability and relationship with the subdivision application</b>	<ul style="list-style-type: none"> <li>• Concern was raised in public submissions that the site was not previously identified for school use and there are more appropriate alternative sites for the provision of educational facilities.</li> <li>• The EIS states that the proposal responds to the rapidly changing character of Sydney's north-west,</li> </ul>	<ul style="list-style-type: none"> <li>• The Department notes the submissions but recognises that while the site was not identified for school use in the ILP, the proposal meets the objectives of the R2 Low Density Residential zone to: <ul style="list-style-type: none"> <li>○ enable other land uses that provide facilities or services to meet the day to day needs of residents.</li> <li>○ support the wellbeing of the community, by enabling educational, recreational,</li> </ul> </li> </ul>



	<p>which is experiencing significant population and housing growth.</p> <ul style="list-style-type: none"> <li>• The EIS also states that the proposed development would provide employment-generating opportunities during both the construction and operational phases of the development, which would demonstrate positive economic impacts, by contributing to the enhanced growth and development of the North West Priority Growth Area, particularly the Riverstone East Precinct.</li> <li>• The EIS states that the proposal is not inconsistent with the ILP and would not significantly comprise the economic delivery of residential a land in the locality or the residential yield expected in the area, nor would it result in any adverse impacts on the future road layout of the Riverstone East precinct.</li> <li>• Council did not raise concerns regarding the relationship of the proposal with the ILP and recommended conditions regarding the timely construction of the roads approved under the subdivision application.</li> </ul>	<p>community, religious and other activities where compatible with the amenity of a low-density residential environment.</p> <ul style="list-style-type: none"> <li>• As discussed in <b>Section 2</b> and <b>Section 6</b>, the proposed development would be located on a site created as a result of the subdivision for two lots to create and subdivision into one super lot (the site) and 11 residential lots.</li> <li>• While not within the scope of the application, the Department considers that the proposed site configuration would retain all the planned local roads within the precinct. This would enable convenient vehicular access between the future blocks surrounding the site.</li> <li>• The Department agrees with the Applicant that the proposal would not have a significant impact on the residential yield in the locality.</li> <li>• As a result of the assessment in <b>Section 6</b>, the Department is satisfied that a suitably designed school can be accommodated on the site, and residual impacts can be managed by conditions of consent.</li> <li>• The development of the site relies on the subdivision development being operative (it is currently not operative due to deferred commencement). The school site cannot be physically developed unless the subdivision application is finalised.</li> <li>• Accordingly, the Department has recommended a deferred commencement condition which requires the Applicant to provide written evidence from Council to demonstrate that subdivision DA-19-01597 is operative prior to this consent being operative in addition to the drainage requirements (see <b>Section 6.2</b>).</li> </ul>
<p><b>Development precedent and property values</b></p>	<ul style="list-style-type: none"> <li>• Concern was raised in public submissions that the proposal may set a precedent for other intensive non-residential developments within the locality.</li> <li>• Concern was raised in the public submissions that the proposal would have an adverse impact on property values.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department notes the development of surrounding land is subject to separate development applications (including public consultation), subject to height and other planning controls under the LEP and each application is assessed on its merits.</li> <li>• The Department does not consider the proposal would set a development precedent.</li> <li>• The Department notes that matters relating to the private contracts of sale and/or value of properties are not planning matters.</li> </ul>

- Objections based on loss of property value are not able to inform the assessment of the application.

<b>Discrepancies in the architectural drawings</b>	<ul style="list-style-type: none"> <li>• Concern was raised in a public submission that there are discrepancies in and between the architectural drawings.</li> <li>• In response to the concerns raised, the Applicant provided updated architectural drawings to resolve any discrepancies.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department is satisfied the final set of drawings are now generally acceptable.</li> <li>• No additional conditions or amendments are necessary.</li> </ul>
<b>Social impacts</b>	<ul style="list-style-type: none"> <li>• Concern was raised in a public submission that the proposal would attract people from other suburbs.</li> </ul>	<ul style="list-style-type: none"> <li>• The social impacts of the proposal are assessed as satisfactory. The Department acknowledges that people from other suburbs would be visiting the site out of school hours and on the weekends due to the place of worship. Conditions of consent are recommended to ensure that the operation of the Gurdwara is managed appropriately to minimise impacts on the neighbourhood.</li> <li>• On balance, the Department considers that the development would have a positive social impact on the community subject to the implementation of recommended conditions.</li> </ul>
<b>Public Interest</b>	<ul style="list-style-type: none"> <li>• The Applicant has advised that the proposal is in the public interest.</li> </ul>	<ul style="list-style-type: none"> <li>• The Department is satisfied that the proposal would be in the public interest.</li> <li>• The proposal would benefit the community as it would provide for new primary and secondary schools and ELC including contemporary teaching and learning facilities with adaptable and collaborative learning spaces that would improve educational outcomes.</li> <li>• When completed the proposal would result in direct investment in the area of \$167,533,780 and is predicted to generate 280 construction and 120 operational job opportunities.</li> </ul>

## 7 Evaluation

The Department has reviewed the Environmental Impact Statement, Response to Submissions and Supplementary Response to Submissions and assessed the merits of the proposal, taking into consideration advice from the public authorities, including Council and special interest groups. Issues raised in public submissions have been considered and all environmental issues associated with the proposal have been assessed.

The Department concludes the impacts of the proposal are acceptable and can be appropriately mitigated through recommended conditions of consent. Consequently, the Department considers the proposal is in the public interest and should be approved, subject to conditions.

The proposal is consistent with the objects of the *Environmental Planning and Assessment Act 1979*, including facilitating Ecological Sustainable Development, and with the State's strategic planning objectives, in particular the Central City District Plan, as it would provide for new educational facilities to meet the growing needs of the population of Rouse Hill and the broader growth area.

The proposal is suitable for the site and the identified traffic and parking, flooding and drainage, built form, landscaping and noise impacts are considered satisfactory on balance and in the context of the benefit the proposal would provide for the local community.

The Department has recommended a deferred commencement condition requiring the Applicant to provide evidence of the Council confirming that the subdivision application is operative and providing satisfactory hydraulic models to the Department, prior to the operation of this consent. Additionally, the Department has recommended conditions to manage the operational impacts of the school on the surrounding and future land uses as the subsequent stages are delivered.

The proposal is in the public interest as it would provide public benefits including:

- delivering contemporary school teaching and learning facilities to cater for the Blacktown LGA with additional social infrastructure for the Sikh community.
- providing educational facilities in a strategic area and in proximity to existing public transport facilities.
- delivery of 280 construction jobs and 120 new operational jobs when completed.

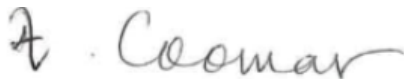
## 8 Recommendation

It is recommended that the Executive Director, Infrastructure Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report.
- **accepts and adopts** the findings and recommendations in this report as the reasons for making the decision to grant consent to the application.
- **agrees** with the key reasons for approval listed in the notice of decision.
- **grants consent** for the application in respect of the Sikh Grammar School Rouse Hill (SSD-9472) subject to the conditions in the attached development consent.
- **signs** the attached development consent (**Appendix D**).

Prepared by  
**Prity Cleary**  
Senior Planning Officer

Recommended by:



**Aditi Coomar**  
Team Leader  
School Infrastructure Assessments

Recommended by:



**Karen Harragon**  
Director  
Social and Infrastructure Assessments

## 9 Determination

The recommendation is **Adopted** by:

**Erica van den Honert**

Executive Director

Infrastructure Assessments



# Appendices

Appendix A – Relevant Supporting Information

Appendix B – Consideration of Environmental Planning Instruments

Appendix C – Construction Staging and Timing

Appendix D – Independent hydrological review by Alluvium

Appendix E – Recommended Conditions of Consent

## Appendix A – Relevant Supporting Information

The following supporting documents and supporting information to this assessment report can be found on the Department's website as follows.

1. Environmental Impact Statement

<https://www.planningportal.nsw.gov.au/major-projects/project/9871>

2. Submissions

<https://www.planningportal.nsw.gov.au/major-projects/project/9871>

3. Response to Submissions

<https://www.planningportal.nsw.gov.au/major-projects/project/9871>

4. Electronic copies of documents received outside the portal

[Separate copies provided under separate cover](#)

## Appendix B – Consideration of Environmental Planning Instruments

To satisfy the requirements of section 4.15(a)(i) of the EP&A Act, this report includes references to the provisions of the EPIs that govern the carrying out of the project and have been taken into consideration in the Department's environmental assessment.

Controls considered as part of the assessment of the proposal are:

- State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP).
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP).
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55).
- Draft Remediation of Land State Environmental Planning Policy (Remediation SEPP).
- State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64).
- State Environmental Planning Policy No. 65 – Residential Apartment Development, including Apartment Design Guide.
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 (BASIX SEPP).
- State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (SRGC SEPP).
- Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River (SREP 20).
- Draft Education SEPP.
- Draft Housing Diversity State Environmental Planning Policy (Housing Diversity SEPP).

Other relevant EPIs

- Blacktown City Council Growth Centres Precincts Development Control Plan 2018 (GCDCP).

### State Environmental Planning Policy (State and Regional Development) 2011

The aims of the SRD SEPP are to identify SSD, State significant infrastructure (SSI), critical SSI and to confer functions on regional planning panels to determine development applications.

The proposal is SSD as summarised at **Table B1**

**Table B1** | SRD SEPP compliance table

Relevant Sections	Department's consideration	Compliance
3 Aims of Policy The aims of this Policy are as follows: (a) to identify development that is State significant development,	The proposed development is identified as SSD.	Yes
8 Declaration of State significant development: section 4.36 (1) Development is declared to be State significant development for the purposes of the Act if: (a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and (b) the development is specified in Schedule 1 or 2.	The proposal is SSD in accordance with section 4.36 of the EP&A Act as it is development for the purpose of an educational establishment with a CIV in excess of \$20 million, under clause 15(2), of schedule 1 of the SRD SEPP.	Yes

## State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

The Education SEPP simplifies and standardises the approval process for schools, TAFEs, universities and childcare centres, while minimising impacts on surrounding areas and improving the quality of facilities. The Education SEPP includes planning rules for where these developments can be built, which development standards apply and construction requirements. The application has been assessed against the relevant provisions of the Education SEPP.

The Education SEPP defines the ELC as a centre-based child care facility. Clause 22 Education SEPP states that concurrence is not required for a 'centre-based child care facility' if:

- a) *the floor area of the building or place does not comply with regulation 107 (indoor unencumbered space requirements) of the Education and Care Services National Regulations, or*
- b) *the outdoor space requirements for the building or place do not comply with regulation 108 (outdoor unencumbered space requirements) of those Regulations.*

The proposal for the ELC satisfies the numeric play space requirements for 86 children. Therefore, separate concurrence of the Regulatory Authority is not required (see **Section 6.6**).

The consent authority is also required to consider the relevant provisions of the Department's Child Care Planning Guideline prior to determining an application for a centre-based child care centre. Consideration of the relevant planning provisions of the Guidelines is provided below in **Table B2**.

**Table B2** | Consideration of the Child Care Planning Guideline

Matter	Consideration/Comment
<b>Design quality principles</b>	
Context	The proposed ELC is located within the school to take advantage of its location within a developing town centre and build on the cultural relationship between early learning and primary and secondary education.
Built form	<p>The ELC has been integrated into the design of the school to ensure the younger students form part of the broader school community.</p> <p>The ELC does not adversely contribute to the bulk and scale of the proposal and occupies a small area of the total school development.</p>
Adaptive learning spaces	The design of the ELC provides a large, unobstructed indoor space with opportunities for adaptive learning. The design also incorporates an indoor / outdoor play area that offers an opportunity to create a unique and exciting play space environment for younger children.
Sustainability	<p>The unencumbered internal space provides opportunities for cross ventilation between the proposed northern and eastern outdoor play space areas.</p> <p>Outdoor play space areas have access to satisfactory levels of natural daylight, while similarly providing areas for shade and weather protection.</p>

Additional sustainable measures are proposed to be incorporated into the overall design and operation of the school.

Landscape	<p>The landscape design for the ELC has been integrated into the proposed layout of the facility to provide a diverse and functional environment.</p> <p>The roof top outdoor play space visually integrates with the first-floor play space of the school, while the eastern outdoor play space area provides for the establishment of a line of trees along the eastern boundary contributing to the green connection within the centre.</p>
Amenity	<p>The centre has been designed to ensure suitable indoor and outdoor play spaces are provided that would have suitable access to daylight and natural ventilation.</p> <p>The siting of the centre in the south-western of the site minimises its exposure to public places and would ensure that occupants are not exposed to adverse amenity or privacy impacts.</p> <p>The users of the boarding accommodation would have limited opportunity to overlook on to the outdoor play space for the ELC, due to the distance between the two buildings and vegetative buffer.</p>
Safety	<p>The layout of the proposed ELC incorporates a secure single-entry point through the proposed reception area of the centre adjacent to the ELC carpark.</p> <p>The design incorporates secure fence lines around the outdoor play space areas to ensure safety is maintained.</p>
<b>Matters for consideration</b>	
Site selection and location	<p>The proposed ELC forms part of the larger school development. The site's location is within the new land release area.</p> <p>The centre will be surrounded by future residential development. The buildings are appropriately sited to ensure no adverse acoustic, privacy or amenity impacts arise at the land use interface. A separate dedicated ELC carpark is proposed enabling drop-off / pick-up for young children at the entrance to the centre, minimising potential safety or traffic concerns.</p> <p>The location of the centre within the school would strengthen the relationship between the pre-school and school students.</p> <p>The site does not hold any preceding site contamination, flooding or bushfire constraints that would unnecessarily limit the ability for a centre-based child care centre from being established.</p>
Local character, streetscape and the public domain interface	<p>The proposed integration of the ELC with the school would ensure it remains compatible with the future character of the locality.</p> <p>The centre has been designed to ensure it is not unreasonably exposed to the public domain and provides for a clear delineation between the boundaries of the school and centre.</p>



The proposed location of the centre reception and staff room would ensure that visibility of the centre carpark is maximised.

Building orientation, envelope, building design and accessibility	<p>The Applicant has demonstrated that the design and location of the ELC along the southern-western boundary of the site would not result in any adverse environmental or amenity impacts.</p> <p>The centre is proposed to be setback 5.5m from the western boundary to provide sufficient building separation between any future residential development on the adjoining lot.</p>
Landscaping	<p>The proposed ELC landscape design incorporates several passive and active landscape elements to help create a diverse and interesting learning environment.</p> <p>Appropriate screen tree planting is proposed along the western boundary of the site to help minimise privacy impacts on the outdoor play space.</p>
Visual and acoustic privacy	<p>The ELC is located away from the public domain with its primary northern boundary facing the internal play area of the school. Accordingly, privacy impacts are minimised by reducing the exposure of the centre.</p> <p>The predicted noise impacts associated with the operation of the centre are generally satisfactory and would not result in adverse amenity impacts, subject to recommended conditions of consent (see <b>Section 6</b>).</p>
Noise and air pollution	<p>The location of the ELC is not near any noise or odour generating sources that would produce adverse emissions.</p>
Hours of operation	<p>The ELC is proposed to operate between 7am to 7pm, Monday to Friday.</p>
Traffic, parking and pedestrian circulation	<p>32 parking spaces have been allocated for the ELC staff and visitors which is proposed immediately adjacent to the centre entrance.</p> <p>The Applicant's assessment concludes the staff parking proposed would sufficiently cater for the demand generated and the future road network to be delivered would operate at a satisfactory level of service.</p>

### National Regulations

Indoor space requirements	<p>A minimum 279.5m<sup>2</sup> of unencumbered indoor space is required based on the proposed 86 spaces. The proposal provides for 350m<sup>2</sup>.</p>
Laundry and hygiene facilities	<p>Laundry facilities are proposed to be provided on-site.</p> <p>Sufficient space is available for the provision of these facilities, although limited details are provided on the architectural plans. Accordingly, the Department recommends a condition be imposed requiring detailed drawings to be certified prior to the issue of a construction certificate.</p>

Toilet and hygiene facilities	<p>The Applicant confirms that the design of the ELC provides for adequate toilet and hygiene facilities appropriate to the developmental stage and age of children being cared for within the centre.</p> <p>Sufficient space is available for the provision of these facilities, although limited details are provided on the architectural plans. Accordingly, the Department recommends a condition of consent be imposed requiring detailed drawings to be certified prior to the issue of a construction certificate.</p>
Ventilation and natural light	<p>Details submitted by the Applicant demonstrate that the outdoor play space would receive sufficient natural daylight throughout the day. The large indoor play space is flanked on either side by proposed outdoor areas which provides cross ventilation opportunities.</p>
Administrative space	<p>The internal layout of the proposed administrative functions of the ELC has considered the interaction of staff, parents and children and visitors to ensure interactions are appropriately managed.</p>
Nappy change facilities	<p>The Applicant confirms that the design of the ELC provides for adequate nappy change facilities within the centre.</p> <p>Sufficient space is available for the provision of these facilities, although limited details are provided on the architectural plans. Accordingly, the Department recommends a condition of consent be imposed requiring detailed drawings to be certified compliant prior to the issue of a construction certificate for the proposal.</p>
Premises designed to facilitate supervision	<p>The internal layout of the centre, including staff rooms and toilet facilities, has been designed to facilitate supervision between educators and children.</p>
Emergency and evacuation procedures	<p>The Applicant states details surrounding emergency and evacuation procedures would be confirmed later.</p> <p>The Department has recommended a condition requiring details be provided prior to the issue of a construction certificate and certified by a suitably qualified access consultant.</p>
Outdoor space requirements	<p>A minimum 602m<sup>2</sup> of unencumbered indoor space is required based on the proposed 86 spaces.</p> <p>The proposal provides for two areas of outdoor space, comprising a 150m<sup>2</sup> roof top play area and a 455m<sup>2</sup> eastern play area, providing for a total of 605m<sup>2</sup> of unencumbered space.</p>
Natural environmental	<p>The landscape design for the ELC incorporates opportunities for outdoor play that engage with the natural environment and encourage inquiry and exploration.</p>
Shade	<p>The roof top and eastern outdoor play areas have different characteristics, with the roof top space as uncovered roof top.</p> <p>The eastern outdoor play space is at grade with shade sails and would provide sufficient shade and weather protection all year round.</p>

Fencing	The proposal includes provision of a 1.8m high fence around the ELC.
Soil assessment	The site can be made suitable subject to the recommended site remediation and validation conditions.

Clause 35(1) of the Education SEPP states development for the purpose of a school may be carried out with development consent on land in a prescribed zone. For the purposes of this clause, clause 33 identifies the site's B2 Local Centre zoning as being a prescribed zone. Accordingly, the school proposal is permissible with development consent on the site.

In accordance with clause 35(5), the Applicant proposes to allow the use of the school and its associated facilities for the purpose of the “...*physical, social, cultural or intellectual development or welfare of the community*...”.

Clause 35(6)(a) requires that the design quality of the development should be evaluated in accordance with the design quality principles set out in Schedule 4 of the Education SEPP. An assessment of the development against the design principles is provided at **Table B3**.

**Table B3** | Consideration of the Education SEPP Design Quality Principles (clause 35(6)(a))

Design Principles	Department's consideration
Principle 1 Context, built form and landscape	<p>The configuration and siting of the new buildings has regard to the site constraints, particularly topography, flooding and future surrounding development.</p> <p>The design of the development includes the provision of new landscaping (including tree planting), which would establish an appropriate landscaped setting for the school.</p> <p>The proposed layout maximises solar access and ventilation to the classrooms and the outdoor learning areas.</p> <p>The proposal has negligible impacts on adjoining residential lots, which are mostly located on the opposite side of planned roads. The proposal has been amended to ensure it would not have an adverse impact on the residential lots proposed along its western boundary.</p> <p>The design responds appropriately to its context and would result in a positive impact on the streetscape via the proposed materials / finishes and additional streetscape planting.</p>
Principle 2 Sustainable, efficient and durable	<p>The proposal includes ESD elements sufficient to achieve a 4-star Green Star rating.</p> <p>The materials chosen are durable, have considered a lower embodied energy outcome and require low maintenance. The final school building modules incorporate passive heating and cooling measures to facilitate cross ventilation in conjunction with mechanical heating and cooling systems. The school buildings are orientated to provide high levels of solar access to classrooms and outdoor areas.</p> <p>Bicycle parking is provided within the two basement car parks. Conditions are recommended requiring the preparation and implementation of a GTP prior to the operation of Stage 1 and reviewed annually after that.</p>
Principle 3 Accessible and inclusive	<p>The Access Report has assessed the proposal against the requirements of the Building Code of Australia 2016 (BCA), Disability (Access to Premises) Standards 2010 and <i>Disability Discrimination Act 1992</i>. The Applicant concluded that the proposal can comply with the relevant statutory requirements being via a Deemed to Satisfy provision or satisfying the relevant performance requirements of the Building Code of Australia (BCA).</p>

Principle 4 Health and safety	The proposal has considered the Crime Prevention through Environmental Design principles in its design, including clear demarcation and separation of pedestrian and vehicle areas, maximising clear sightlines and external lighting for improved surveillance. The buildings maximise access to natural light and ventilation, include appropriate sport and playing courts/fields and provide for a landscaped environment to benefit the health and well-being of occupants.
Principle 5 Amenity	As discussed in <b>Sections 6.3 and 6.6</b> , the proposal would not unreasonably impact the amenity of adjoining residents through operational noise or overshadowing or overlooking of neighbouring future residential properties. The Department has recommended conditions regarding the operation of the school.
Principle 6 Whole of life, flexible and adaptive	The proposed primary and secondary school facilities are flexible and provide open plan and a variety of spaces that can be adapted to suit a wide range of uses and changing needs over the long term.
Principle 7 Aesthetics	<p>The proposal responds to the topographic context and presence of existing nearby development.</p> <p>The development achieves an appropriate standard of design, appearance and materiality and would not have an adverse impact on the future character of the locality. The use of materials and modern design and interpretation of traditional architectural elements for the Gurdwara is supported. The proposal provides a coherent overall architectural composition and makes a positive contribution to the evolving character of the surrounding area.</p> <p>The proposal includes additional tree planting and includes extensive site landscaping that maximises the efficiency of open spaces and includes appropriate hard and soft landscaping treatments. The Department has recommended the landscaping plan for the site be amended to include the retention of two existing trees and incorporation of 10 additional new trees.</p>

## State Environmental Planning Policy No. 64 – Advertising and Signage

SEPP 64 applies to all signage that under an EPI can be displayed with or without development consent and is visible from any public space or public reserve.

The development includes the provision of six signs. Under clause 8 of SEPP 64, consent must not be granted for any signage application unless the proposal is consistent with the objectives of the SEPP and with the assessment criteria that are contained in Schedule 1. The Department has considered the proposal against SEPP 64 assessment criteria at **Table B4**.

**Table B4** | SEPP 64 compliance table

Assessment Criteria	Department's consideration	Compliance
1 Character of the area		

Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed signs are compatible with the existing character of the area and not expected to have any adverse impacts.	Yes
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	N/A.	N/A
<b>2 Special areas</b>		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The site is not located within an environmentally sensitive area and does not contain a heritage item. The signs would not detract from the amenity or visual quality of the surrounding area.	Yes
<b>3 Views and vistas</b>		
Does the proposal obscure or compromise important views?	The signs are proposed to be free-standing and set within the proposed landscaped areas. The proposal would not obscure or compromise any important views.	Yes
Does the proposal dominate the skyline and reduce the quality of vistas?	The signs would not dominate the skyline or reduce the quality of vistas.	Yes
Does the proposal respect the viewing rights of other advertisers?	The signs are not proposed in proximity to any other advertisements and would therefore not impact on the viewing rights of other advertisers.	Yes
<b>4 Streetscape, setting or landscape</b>		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The signs are modest for the size of the site and would not detract from the character of the streetscape or setting.	Yes
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	The proposed signs would be of a high quality and would complement the built form.	Yes
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The signs are simple in design and would not result in visual clutter.	N/A
Does the proposal screen unsightliness?	N/A.	N/A
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The signs are free-standing and would not protrude above any buildings, structures or tree canopies.	Yes
Does the proposal require ongoing vegetation management?	No ongoing vegetation management is needed.	Yes



## 5 Site and building

Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The signs are compatible with the scale and proportion of the proposed development.	Yes
Does the proposal respect important features of the site or building, or both?	The proposed size of the signs is appropriate and respect design of the building.	Yes
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The purpose of the signs is to identify the building and assist with wayfinding. All signs are visually acceptable.	Yes

## 6 Associated devices and logos with advertisements and advertising structures

Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	Signage located above building entrances has been appropriately integrated into the design of the buildings. Free-standing signs are in keeping with the overall design of buildings.	Yes
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## 7 Illumination

Would illumination result in unacceptable glare? Would illumination affect safety for pedestrians, vehicles or aircraft?	The proposed illumination is not expected to result in any unacceptable glare and would not affect safety for pedestrians, vehicles or aircraft.	Yes
Would illumination detract from the amenity of any residence or other form of accommodation?	The Department has recommended a condition requiring any up-lighting be directed away from any adjoining residences.	Yes
Can the intensity of the illumination be adjusted, if necessary?	The Department recommends a condition requiring signage illumination operate in accordance with relevant Australian Standards.	Yes
Is the illumination subject to a curfew?	The Department has recommended a condition requiring no signage illumination after 10pm.	Yes.

## 8 Safety

Would the proposal reduce safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The signage is located wholly within the site and would not reduce safety or obscure sightlines from public areas.	Yes
Would the proposal reduce safety for any public road?	The proposed signage is set back from the roadway and would not reduce road safety.	Yes

## State Environmental Planning Policy No. 65 – Residential Apartment Development, including Apartment Design Guide

State Environmental Planning Policy 65 – Residential Apartment Development (SEPP 65) seeks to improve the design quality of residential developments and encourage innovative design. The ADG is closely linked to the principles of SEPP 65 and sets out best practice design principles for residential developments.

The Department has assessed the proposal against the SEPP 65 aims / objectives at **Table B5** and **B6**.

**Table B5 | Consideration of the aims and objectives of SEPP 65**

SEPP 65 Principle	Department's Response
1. Context and Neighbourhood Character	The Department has considered the height and scale of the development at <b>Section 6.3</b> and concludes the proposal is acceptable in terms of its form and relationship to the future character of the area. The Department has recommended conditions to ensure the proposal does not have adverse impacts on residential amenity.
2. Built form and scale	Department has considered the proposed maximum building heights against the SRGC SEPP height controls and concludes compliance the SRGC SEPP maximum height controls are not necessary in the circumstances of the case and the height exceedances are acceptable.
3. Density	The density of the development has strategic merit and the proposal has demonstrated that it would not have adverse built form, traffic or amenity impacts.
4. Sustainability	The Department has recommended conditions requiring the development achieve minimum sustainability targets (4 Star Green Star).
5. Landscape	Rooftop gardens have been provided for the boarding accommodation in addition to the ground level landscaped areas on the site available for use by boarders and staff. The Department considers the landscaping to be satisfactory subject to recommended conditions (see <b>Section 6.4</b> ).
6. Amenity	The boarding accommodation has been amended to include visual screens to the west facing windows, to prevent overlooking of future adjoining residential properties. Subject to the Department's recommended noise conditions and the installation of visual screens, the proposal would not have an adverse impact on neighbouring residential amenity. The proposal complies with the requirements of the ADG as summarised at <b>Table B5</b> .
7. Safety	The boarding accommodation building provides for passive and active surveillance of the surrounding area.
8. Housing diversity and social interaction	The staff accommodation includes a mixture of one- and two-bedroom apartments, which the Applicant has confirmed would address the future needs of the school.
9. Architectural expression	The boarding accommodation is of a simple modern design that is in keeping with the overall design of the remaining school buildings. The resulting palette of materials and finishes would appropriately articulate the building form. The architectural detail

responds appropriately to the site's opportunities and constraints and would provide for a visually interesting contemporary building.

An assessment of the proposal against the ADG best practice design principles is provided below.

**Table B6 | Consideration of the ADG best practice design principles**

ADG – Relevant Criteria	Proposal	Consistency
<b>3B Orientation</b>		
<ul style="list-style-type: none"> <li>• Building type/layouts respond to streetscape, optimising solar access</li> <li>• Overshadowing of neighbouring properties is minimised</li> </ul>	<ul style="list-style-type: none"> <li>• Direct access is provided from the street and solar access is maximised.</li> <li>• Overshadowing is minimised.</li> </ul>	Yes
<b>3C Public Domain Interface</b>		
<ul style="list-style-type: none"> <li>• Transition between public/private without compromising security</li> <li>• Amenity of public domain is retained and enhanced</li> </ul>	<ul style="list-style-type: none"> <li>• Active frontage is provided and the entrance lobby is easily identifiable.</li> <li>• Public domain landscaping is provided.</li> </ul>	Yes
<b>3D Communal and Public Open Space</b>		
<ul style="list-style-type: none"> <li>• minimum 25% of the site</li> <li>• minimum 50% direct sunlight to principal usable part of the communal open space for a minimum of 2 hours in mid-winter</li> </ul>	<ul style="list-style-type: none"> <li>• Approximately 600 m<sup>2</sup> of roof terrace communal open space is provided.</li> <li>• North facing communal open space achieves 100% solar access and would not be overshadowed.</li> </ul>	Yes
<b>3E Deep Soil Zones</b>		
<ul style="list-style-type: none"> <li>• For sites greater than 1,500sqm a minimum of 7% to 15% of the site should provide for deep soil zone(s)</li> </ul>	<ul style="list-style-type: none"> <li>• The site provides for extensive deep soil areas and exceeds the 7% minimum requirement.</li> </ul>	Yes
<b>3F Visual Privacy</b>		
<ul style="list-style-type: none"> <li>• Separation distances from buildings to boundary (double for internal site building separation) up to 12m (4 storeys):               <ul style="list-style-type: none"> <li>- 6m from habitable rooms.</li> <li>- 3m from non-habitable rooms.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Windows are located greater than 20m from future residential properties on the opposite side of Northern Road.</li> <li>• No windows face west towards the future adjoining residential properties.</li> </ul>	Yes
<b>3G Pedestrian Access to Entries</b>		
<ul style="list-style-type: none"> <li>• Building entries and pedestrian access connects to and addresses the public domain</li> <li>• Access, entries and pathways are accessible and easy to identify</li> <li>• Large sites provide pedestrian links for access to streets and connection to destinations</li> </ul>	<ul style="list-style-type: none"> <li>• Entries are well located, designed and easily identifiable.</li> </ul>	Yes

### 3H Vehicle Access

<ul style="list-style-type: none"><li>• Vehicle access points are to be designed to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.</li></ul>	<ul style="list-style-type: none"><li>• Vehicle access to the basement is provided with appropriate sight lines, and the carpark entry is well designed.</li></ul>	Yes
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### 3J Bicycle and Car Parking

<ul style="list-style-type: none"><li>• Minimum parking requirement as set out in the Guide to Traffic Generating Developments or local Council requirement, whichever is the less</li><li>• Parking is available for other modes of transport</li><li>• Car parking design access is safe and secure</li><li>• Visual and environmental impacts of underground, at grade or above ground car parking are minimised</li></ul>	<ul style="list-style-type: none"><li>• 13 car parking spaces are provided, which meet car parking requirements.</li><li>• Bicycle parking is provided at ground floor level.</li><li>• The basement carpark is well designed.</li></ul>	Yes
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### 4A Solar and Daylight Access

<ul style="list-style-type: none"><li>• Minimum of 70% of apartments' living rooms and private open spaces receive 2hrs direct sunlight between 9am-3pm in mid-winter in the Sydney Metropolitan Area</li><li>• Maximum of 15% of apartments have no direct sunlight between 9am-3pm in mid-winter</li><li>• Shading and glare control is provided</li></ul>	<ul style="list-style-type: none"><li>• 100% of apartments achieve direct solar access during mid-winter, subject to the clerestory roofs/windows to the southern apartments.</li><li>• External shading devices are proposed.</li></ul>	Yes
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### 4B Natural Ventilation

<ul style="list-style-type: none"><li>• At least 60% of apartments are cross ventilated in the first nine storeys (apartments 10 storeys or greater are deemed to be cross ventilated)</li><li>• Overall depth of a cross-over or cross-through apartment does not exceed 18m</li></ul>	<ul style="list-style-type: none"><li>• 66% of apartments achieve cross ventilation, subject to the clerestory roofs/windows to the southern apartments providing natural light.</li></ul>	Yes
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### 4C Ceiling Heights

Measured from finished floor level to finished ceiling level, minimum ceiling heights are: <ul style="list-style-type: none"><li>- Habitable rooms 2.7m</li><li>- Non-habitable rooms 2.4m</li></ul>	<ul style="list-style-type: none"><li>• Rooms have a minimum ceiling height of 2.7m.</li></ul>	Yes
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### 4D Apartment Size and Layout

<ul style="list-style-type: none"><li>• Minimum apartment sizes<ul style="list-style-type: none"><li>- 1-bedroom 50sqm</li><li>- 2-bedroom 70sqm</li></ul></li><li>• Every habitable room must have a window in an external wall with a total glass area of not</li></ul>	<ul style="list-style-type: none"><li>• Minimum proposed apartment sizes:<ul style="list-style-type: none"><li>- 1-bedroom 57m<sup>2</sup></li><li>- 2-bedroom 79m<sup>2</sup>.</li></ul></li><li>• Every habitable room has a window.</li><li>• Maximum apartment depth is 6.3m.</li></ul>	Yes
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<p>less than 10% of the floor area. Daylight and air may not be borrowed from other rooms</p> <ul style="list-style-type: none"> <li>• Habitable room depths are limited to 2.5 x the ceiling height</li> <li>• In open plan layouts the maximum habitable room depth is 8m from a window</li> <li>• Master bedroom have a minimum area of 10sqm and other bedrooms have 9sqm</li> <li>• Bedrooms have a minimum dimension of 3m (excluding wardrobes)</li> <li>• Living rooms have a minimum width of 3.6m for studio and one bed and 4m for 2 and 3 bed.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum master bedroom area is 10.4m<sup>2</sup>.</li> <li>• Minimum combined living/dining room widths is 4.2m.</li> </ul>
<h4>4E Private Open Space and Balconies</h4>	
<ul style="list-style-type: none"> <li>• Primary balconies are provided to all apartments providing for: <ul style="list-style-type: none"> <li>- 1-bedroom min area 8sqm min depth 2m</li> <li>- 2-bedroom min area 10sqm min depth 2m</li> </ul> </li> <li>• Private open space and primary balconies are integrated into and contribute to the architectural form and detail of the building</li> <li>• Primary open space and balconies maximises safety</li> </ul>	<ul style="list-style-type: none"> <li>• Balconies are provided to all apartments, minimum balcony area is 8.5m<sup>2</sup>.</li> <li>• Balcony sizes are consistent with the area and depth guidelines.</li> <li>• All balconies are integrated into the architectural form/detail of the building.</li> <li>• Balcony design avoids opportunities for climbing and falls.</li> </ul> <p>Yes</p>
<h4>4F Common Circulation and Spaces</h4>	
<ul style="list-style-type: none"> <li>• Maximum number of apartments off a circulation core is eight – where this cannot be achieved, no more than 12 apartments should be provided off a single circulation core.</li> <li>• For buildings 10 storeys and over, the maximum number of apartments sharing a single lift is 40</li> <li>• Natural ventilation is provided to all common circulation spaces where possible</li> <li>• Common circulation spaces provide for interaction between residents</li> <li>• Longer corridors are articulated</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum number of apartments off a single core is six.</li> <li>• The common parts are capable of natural ventilation.</li> </ul> <p>Yes</p>
<h4>4G Storage</h4>	
<ul style="list-style-type: none"> <li>• The following storage is required (with at least 50% located within the apartment): <ul style="list-style-type: none"> <li>- 1-bedroom apartments 6m<sup>2</sup></li> <li>- 2-bedroom apartments 8m<sup>2</sup></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Storage in the one and two bedroom apartments either meet or exceed the ADG recommended minimum standard.</li> </ul> <p>Yes</p>



#### 4H Acoustic Privacy and 4J Noise and Pollution

<ul style="list-style-type: none"><li>• Noise transfer is minimised through the siting of buildings and building layout and minimises external noise and pollution.</li><li>• Noise impacts are mitigated through internal apartment layout and acoustic treatments.</li></ul>	<ul style="list-style-type: none"><li>• The apartments are separated from the boarding accommodation on the levels below.</li><li>• Apartments are appropriately laid out to prevent noise transfer.</li></ul>	Yes
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#### 4K Apartment Mix

<ul style="list-style-type: none"><li>• Provision of a range of apartment types and sizes</li><li>• Apartment mix is distributed to suitable locations within the building.</li></ul>	<ul style="list-style-type: none"><li>• The proposal includes a mixture of one and two bedroom apartments, which the Applicant has confirmed would be appropriate to meet future needs.</li></ul>	Yes
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#### 4L Ground Floor Apartments

<ul style="list-style-type: none"><li>• Street frontage activity is maximised where ground floor apartments are located</li><li>• Design of ground floor apartments delivers amenity and safety for residents</li></ul>	<ul style="list-style-type: none"><li>• N/A.</li></ul>	
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#### 4M Facades

<ul style="list-style-type: none"><li>• Building facades provide visual interest along the street while respecting the character of the local area</li><li>• Building functions are expressed by the facade</li></ul>	<ul style="list-style-type: none"><li>• The architectural design of the building is simple yet modern, is in keeping with the overall design of the other school buildings and would provide for visual interest.</li></ul>	Yes
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#### 4N Roof Design

<ul style="list-style-type: none"><li>• Roof treatments are integrated into the building design and positively respond to the street</li><li>• Opportunities to use roof space for accommodation and open space is maximised</li><li>• Roof design includes sustainability features</li></ul>	<ul style="list-style-type: none"><li>• The roof design is integrated into the overall design of the building.</li><li>• Part of the roof is used for a 600m<sup>2</sup> communal roof terrace, which would include hard and soft planting.</li></ul>	Yes
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#### 4O Landscape Design and 4P Planting on Structures

<ul style="list-style-type: none"><li>• Landscape design is viable and sustainable</li><li>• Landscape design contributes to streetscape and amenity</li><li>• Appropriate soil profiles are provided, and plant growth is maximised (selection/maintenance)</li><li>• Plant growth is optimised with appropriate selection and maintenance</li><li>• Building design includes opportunity for planting on structure</li></ul>	<ul style="list-style-type: none"><li>• The site includes extensive landscaping, which would be viable and sustainable and would contribute to the streetscape and amenity.</li><li>• The Department has recommended planting on and adjacent to basement levels be carried out in accordance with the AIA recommendations.</li><li>• Plants have been selected to reflect the Cumberland Plain Woodland ecology.</li></ul>	Yes
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#### 4Q Universal Design

<ul style="list-style-type: none"><li>• 20% of apartments meet the Universal Design Guidelines.</li><li>• A variety of apartments with adaptable designs are provided</li><li>• Apartments layouts are flexible and accommodate a range of lifestyle needs</li></ul>	<ul style="list-style-type: none"><li>• The Department has recommended a condition requiring 20% of apartments meet the Universal Design Guidelines.</li><li>• Apartment layouts are flexible.</li></ul>	Yes
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#### 4S Mixed Use

<ul style="list-style-type: none"><li>• Mixed use development are provided in appropriate locations and provide street activation and encourage pedestrian movement</li><li>• Residential levels are integrated within the development, safety and amenity is maximised.</li></ul>	<ul style="list-style-type: none"><li>• The location of the staff accommodation above the boarding accommodation is considered appropriate in this instance.</li><li>• The residential levels of the development are integrated into the building.</li></ul>	Yes
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#### 4T Awning and Signage

<ul style="list-style-type: none"><li>• Awnings are well located and complement and integrate with the building</li><li>• Signage responds to the context and design streetscape character</li></ul>	<ul style="list-style-type: none"><li>• N/A</li></ul>	Yes
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#### 4U Energy Efficiency

<ul style="list-style-type: none"><li>• Development incorporates passive environmental and solar design</li><li>• Adequate natural ventilation minimises the need for mechanical ventilation</li></ul>	<ul style="list-style-type: none"><li>• The development has been designed in accordance with ESD principles and the Department has recommended conditions requiring the development achieve appropriate sustainability targets.</li></ul>	Yes
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#### 4V Water Management and Conservation

<ul style="list-style-type: none"><li>• Potable water use is minimised</li><li>• Urban stormwater is treated on site before being discharged to receiving waters</li><li>• Flood management systems are integrated into the site design</li></ul>	<ul style="list-style-type: none"><li>• The Department has considered flooding and drainage at <b>Section 6</b> and concludes, subject to conditions, the flooding and drainage impacts can be managed and/or mitigated.</li></ul>	Yes
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#### 4W Waste Management

<ul style="list-style-type: none"><li>• Waste storage facilities are designed to minimise impacts on streetscape, building entry and residential amenity</li><li>• Domestic waste is minimised by providing safe and convenient source separation and recycling</li></ul>	<ul style="list-style-type: none"><li>• The Department has considered operational waste at <b>Section 6.6</b> and concludes, subject to further investigation and preparation of a management plan, the site is capable of providing appropriate operational waste management.</li></ul>	Yes
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#### 4X Building Maintenance

<ul style="list-style-type: none"><li>• Building design detail provides protection from weathering</li></ul>	<ul style="list-style-type: none"><li>• The building has been appropriately designed to allow ease of maintenance.</li></ul>	Yes
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- Systems and access enable ease of maintenance
  - Material selection reduced ongoing maintenance cost
  - The materials are robust.
- 

### **State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004**

The BASIX SEPP applies to all residential development and accordingly applies to the proposed six staff apartments. BASIX aims to deliver equitable, effective water and greenhouse gas reductions across the State.

BASIX certificates were submitted with the SRtS, demonstrate that the staff accommodation is compliant with the BASIX water, energy and thermal comfort requirements. The Department recommends a condition of consent requiring compliance with the BASIX certificates.

### **Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities) (Draft Education SEPP)**

The Draft Education SEPP will retain the overarching objectives of the Education SEPP to facilitate the effective delivery of educational establishments and child care facilities across the State.

The provisions of the Draft Education SEPP aim to improve the operation, efficiency and usability of the Education SEPP and to streamline the planning pathway for schools, TAFEs and universities that seek to build new facilities and improve existing ones. The exhibited Explanation of Intended Effects (EIE) also proposes changes to the requirements that need to be met for an application to be SSD.

The Department is satisfied that the proposal will be consistent with the objectives of the Draft Education SEPP and continues to meet the requirements for SSD in accordance with the EIE.

### **State Environmental Planning Policy No. 55 - Remediation of Land**

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application.

As detailed at **Section 6.6**, the Department is satisfied that, subject to appropriate remediation and validation, the site can be made suitable for the proposed use and recommends conditions requiring engagement of a site auditor, submission of site audit statements, remediation, validation and asbestos management on the site. Subject to the implementation of conditions, the application is satisfactory with regard to SEPP 55.

### **Draft Remediation of Land State Environmental Planning Policy**

The Department is reviewing all State Environmental Planning Policies to ensure they remain effective and relevant and SEPP 55 has been reviewed as part of that program. The Department has published the draft Remediation of Land State Environmental Planning Policy (Remediation SEPP), which was exhibited until April 2018.

Once adopted, the Remediation SEPP will retain elements of SEPP 55, and add the following provisions to establish a modern approach to the management of contaminated land:

- require all remediation work that is to be carried out without development consent, to be reviewed and certified by a certified contaminated land consultant.
- categorise remediation work based on the scale, risk and complexity of the work.

- require environmental management plans relating to post-remediation management or ongoing management of on-site to be provided to Council.

The new SEPP will not include any strategic planning objectives or provisions. Strategic planning matters will instead be dealt with through a direction under section 117 of the EP&A Act.

The Department considers the development is consistent with the draft Remediation SEPP subject to the recommended conditions discussed above.

### Draft State Environmental Planning Policy (Housing Diversity)

The Draft Housing Diversity SEPP was exhibited from 29 July to 9 September 2020. It introduces a new definition for student housing and provides controls for Student Housing Development. The proposed development would constitute Student Housing under the draft SEPP.

**Table B7** provides an assessment of the proposal against the key development standards for Student Housing.

**Table B7** | Consideration of student housing development standards under Draft Housing Diversity SEPP

Housing Diversity SEPP Development Standard	Department Comment/Assessment
Height of Buildings: in accordance with the LEP	Building height exceeds the LEP control but is considered acceptable, see <b>Section 6.3</b> .
Floor Space Ratio: in accordance with the LEP	There is no applicable FSR control.
Car Parking: No minimum spaces required	13 spaces provided
Bicycle Parking: 1 space minimum per 3 bedrooms	19 spaces required and 10 spaces proposed. This is considered acceptable.
Motorcycle parking: 1 space per 2 bedrooms	No motorcycle parking provided. The proposal did not include motorcycle parking as there were no applicable planning controls which required motorcycle parking throughout the design and assessment process. The Draft SEPP which recommends provision of parking was only exhibited at the end of the assessment process and therefore little weight can be given to the recommendations for motorcycle parking.
Room Size: Minimum 10sqm but smaller areas permitted where there is adequate internal amenity and shared facilities	All rooms comply.
Communal Area Indoor: 15sqm per 12 students	145sqm required, and 936sqm proposed.
Communal Area Outdoor: No requirement where	Communal outdoor areas are provided.

located within a University  
Campus with other outdoor  
space

### State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (SRGC SEPP)

The SRGC SEPP is the principle EPI governing the site (the BLEP is not applicable).

The SRGC SEPP aims to co-ordinate the release of land for urban development and provide comprehensive planning within identified Growth Centres. It seeks to foster the establishment of vibrant, sustainable, liveable and high-amenity neighbourhoods and provide for orderly and economic provision of infrastructure. The SRGC SEPP also aims to provide development controls to protect/enhance waterways, natural and cultural heritage and contribute to the conservation of biodiversity.

The SRGC SEPP identifies the land as being within the North West Growth Centre – Riverstone East Precinct, which forms part of the Blacktown Growth Centres Precinct Plan. The land is zoned R2 Low Density Residential.

The Department has consulted with Council and relevant government agencies throughout the assessment process and considered all relevant provisions of the SRGC SEPP and matters raised by Council and government agencies in its assessment of the development (see **Section 5**). The Department concludes that the development is consistent with the relevant provisions of the SRGC SEPP. Consideration of the relevant clauses of the SRGC SEPP is provided at **Table B8**.

**Table B8** | Consideration of the relevant provisions of SRGC SEPP

SRGC SEPP clause	Control	Department's consideration	Compliance
Appendix 12 Blacktown Growth Centres Precinct Plan			
Clause 2.3 - Zone objectives and Land Use Table	The proposed development is on land zoned R2 Low Density Residential	Educational establishments (including ancillary childcare facilities, boarding accommodation, staff accommodation and place of worship) and business identification signs are permissible with consent and the proposal meets the objectives of the zone	Yes
Clause 4.1AB – Minimum lot size	A minimum lot size development standard of 300m <sup>2</sup> applies to the land	The application site exceeds the minimum lot size.	Yes
Clause 4.3 – Height of buildings	A maximum height of buildings development standard of 9m applies to the land	The proposed development has a maximum building height of 18.2m and exceeds the maximum height of buildings control for the site by 9.2m.	<b>No</b> <b>(refer to clause 4.6)</b>
Clause 4.6 – Exceptions to	Development consent may be granted for development that	The Applicant has provided a clause 4.6 variation request.	Yes



development standards	contravenes a development standard subject to consideration of a written request justifying the contravention.	The Department has considered the exceedance of the height of buildings development standard, and concludes the proposed height of buildings is acceptable (see <b>Section 6.3</b> ).	
Clause 5.3 – Development near zone boundaries	The site adjoins the R3 Medium Density Residential zone	The Applicant has confirmed the proposal does not rely on provisions within the adjoining zone as the land is appropriately zoned for the proposed development.	Yes
Clause 5.9 – Preservation of trees or vegetation	Preserve the amenity of the area through the preservation of trees and other vegetation	The Department has considered the proposed removal of trees, replacement trees and landscaping for the site at <b>Section 6.4</b> . The Department concludes, subject to the retention of two trees and provision of an additional 10 replacement trees, the proposal would adequately preserve trees and provide appropriate replacement trees.	Yes
Clause 5.10 – Heritage conservation	To conserve the environmental heritage of the Blacktown Growth Centres Precinct, the significance of heritage items and heritage conservation areas, including associated fabric, settings and views, archaeological sites, Aboriginal objects and Aboriginal places of heritage significance.	The site does not contain any State or locally listed heritage items, and no heritage items are located near to the site. There is a low potential to encounter Aboriginal and non-Aboriginal archaeological relics (see <b>Section 6.6</b> ). The Department concludes the proposal would not result in adverse heritage impacts.	Yes
Clause 6.1 – Public utility infrastructure	Public utility infrastructure that is essential for the proposed development is to be available when it is required	The proposal would be connected to essential services/infrastructure, including augmenting existing infrastructure where required. The Department has recommended a condition requiring service connection prior to first occupation of the development ( <b>Section 6.6</b> ).	Yes

### State Regional Environmental Plan No. 20 – Hawkesbury Nepean River

SREP 20 contains various provisions aimed at protecting the environment of the Hawkesbury-Nepean River system.

Clause 4 of the SREP requires that certain ‘General Provisions’ under clause 5 and ‘Special Planning Policies and Recommended Strategies’ under Clause 6 must be taken into consideration by a consent authority determining an application for development on land to which the SREP applies. The provisions relevant to the assessment of this application relate to managing water quality and

quantity, protecting flora and fauna, and protecting cultural heritage. These matters have been addressed in the EIS and in **Section 6** of this report, and the Department is satisfied that consideration has been given to all relevant matters under the SREP.

### Other relevant policies

#### Blacktown City Council Growth Centres Precincts Development Control Plan 2018 (GCDCP)

In accordance with Clause 11 of the SRD SEPP, development control plans do not apply to SSD. Notwithstanding, the Department notes that the GCDCP identifies the site is within the Riverstone Precinct East and includes standards and guidelines that relate specifically to the site. These guidelines would apply to the site if the development was not SSD.

The BDCP provides non-statutory guidance for development in the LGA that is on land zoned under the BLEP. The site is not zoned under the BLEP, therefore the BDCP is not applicable.

The Department considers, in the absence of other detailed planning controls (beyond those in the SRGC SEPP) applying to the site, the GCDCP represents a useful guide to inform assessments of the merits of the proposal. The Department has considered the proposal against the relevant controls and guidelines within the GCDCP at **Table B9** and **B10**.

**Table B9** | Consideration of the relevant provisions of GCDCP

GCDCP objectives and controls	Department's consideration	Compliance
<b>Section 4.4 – Other Development in Residential Areas</b>		
<b>4.4.1 General Requirements</b>		
<u>Objectives</u>		
<ol style="list-style-type: none"> <li>To establish appropriate controls to minimise the adverse effects of non-residential development on surrounding residential development.</li> <li>To maintain consistency in development standards between non-residential and residential land uses and ensure that buildings are similar in height, bulk and scale to surrounding buildings.</li> <li>To ensure that non-residential development is appropriately located.</li> <li>To avoid concentrations of non-residential uses in any particular area where the cumulative impact on residential amenity would be unacceptable</li> </ol>		
<u>Specific Controls</u>	<u>Response</u>	Yes
<ol style="list-style-type: none"> <li>Non-residential development on residential zoned land is to comply with the requirements of <b>Section 4.1</b> and <b>clauses 4.2.9 to 4.2.10</b> of this DCP in relation to residential amenity and sustainable building design.</li> <li>For all non-residential development, the controls relating to lots with frontages greater than 15 metres in the following clauses of this DCP apply: <b>Clause 4.2.3</b> Front setbacks; <b>Clause 4.2.4</b> Side and rear setbacks; <b>Clause 4.2.5</b> Dwelling height, massing and siting; and <b>Clause</b></li> </ol>	<ol style="list-style-type: none"> <li><b>Section 4.1</b> and <b>clauses 4.2.9 to 4.2.10</b> of the DCP are considered below.</li> <li>Clauses are considered in the following sections.</li> </ol>	

- 4.2.8** Garages, site access and parking.
- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>4. The maximum site coverage of buildings is 60% of the total site area.</li> <li>5. The minimum landscaped area for non-residential development is 20% of the total site area of the allotment.</li> <li>6. Provision of car parking for non-residential uses will be assessed by council on an individual basis but must be sufficient to meet demand generated by staff and visitors.</li> <li>8. Council will have particular regard to the effects of non-residential development in the residential zones.</li> <li>9. Non-residential development in residential zones should be similar in bulk, scale, height and siting to the surrounding buildings.</li> <li>10. Finishes, materials, paving and landscaping are to be consistent with those of surrounding residential development.</li> </ol> | <ol style="list-style-type: none"> <li>4. Complies</li> <li>5. Complies</li> <li>6. The proposal includes car parking in excess of the minimum requirements.</li> <li>8. The proposal is not considered to result in adverse visual, built form, amenity or traffic impacts.</li> <li>9. The Department has considered the height and scale of buildings at <b>Section 6.3</b> and concludes the proposal is acceptable.</li> <li>10. The Department has considered the design of buildings at <b>Section 6.3</b> and concludes the proposal is acceptable.</li> </ol> |
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#### 4.4.3 – Educational establishments and places of worship

##### Objectives

- a. To ensure appropriate provision and equitable distribution of education, establishments and places of public worship within the Precinct.
- b. To ensure that buildings are not out of character with the type, height, bulk and scale of surrounding buildings.
- c. To encourage the appropriate location of facilities to create community focal points, centres of neighbourhood activity and enhance community identity.
- d. To mitigate the impacts of noise, privacy, increased traffic and nuisance on surrounding residential development.
- e. To foster iconic and landmark building design within each Precinct.

<u>Controls</u>	<u>Response</u>	Yes
1. Places of worship are to be located within centres or co-located with other community facilities in residential areas so as to create a community focal point, to share facilities such as parking, and to minimise impacts on residential areas.	1. The Gurdwara is located within the school site would create a community focal point, would share on-site facilities and minimise impacts on residential areas.	
2. Places of public worship and educational establishments are preferably to be located on land with frontage to a collector road. Corner sites are preferred.	2. The development is on a corner site.	
3. In assessing applications, council will consider the following: <ul style="list-style-type: none"> <li>the privacy and amenity of adjoining developments;</li> </ul>	3. All these aspects have been considered in the Department's assessment at <b>Section 6</b> of this report.	
	4. The Application includes a TIA, which has assessed traffic impacts.	
	5. The Application includes a landscape plan, which details the landscaping masterplan for the site.	
	6. Car parking exceeds the minimum car	

- the need and adequacy for provision of buffer zones to surrounding residential development;
  - urban design;
  - location;
  - the size of the land where the development is proposed;
  - traffic generation and the impacts of traffic on the road network and the amenity of nearby residents;
  - the availability of parking;
  - the scale of buildings and their capacity; and
  - hours of operation and noise impacts.
4. A traffic and transport report/statement are to accompany the Development Application addressing the impact of the proposed development on the local road system and defining car parking requirements.
  5. A landscape plan and associated documentation is to be submitted with the Development Application identifying existing vegetation and community plant species and/or existing design elements of the site layout, and the proposed landscaping treatment of the development.
  6. Car parking spaces shall be provided on site in accordance with Table 4-11.
  7. For certain uses, the provision of overflow parking may be necessary particularly where such developments incorporate halls used for social gatherings. Overflow parking areas could be provided on open grassed areas and need not be formally sealed or line-marked. Proposed overflow parking areas are to be clearly shown on plans submitted with the Development Application.
  8. Development must be designed to minimise the possibility of noise disturbance to the occupants of adjoining or neighbouring dwellings.
  9. Where it is likely that a development may cause an adverse noise impact on nearby residential areas, an acoustic report will be required to be submitted to council with the Development application, parking requirements.
  7. The proposal does not include overflow parking and it is not considered necessary.
  8. The NVA has confirmed the operation of the development would not have an adverse noise impact on existing/future adjoining residential properties.
  9. The application includes a NVA, which assessed the likely construction and operational noise impact and proposed mitigation measures.
  10. The Applicant has confirmed it would comply with DECCW noise guidelines.
  11. Two noise barriers are proposed to address noise outbreak from two outdoor play areas.
  12. Noise generating operational requirements have been sited away from adjoining properties.
  13. The secondary and primary schools and ELC would operate between 7am and 7pm. The Department has considered the noise impact of the operation of the Gurdwara at **Section 6.5.2**.

10. Development must comply with DECCW noise guidelines in clause 4.2.9.
11. Where appropriate buffers should be put in place to limit noise impacts on the surrounding area.
12. Sources of noise such as garbage collection, machinery, parking areas and air conditioning plants are sited away from adjoining properties and screened/ insulated by walls or other acoustic treatment. Noise levels are not to exceed specified limits at the most affected point of the property boundary.
13. The general hours of operation for places of public worship and educational establishments are between 7 am and 9 pm.

**Table B10** | Consideration of the relevant residential provisions of GCDGP

GCDGP objectives and controls	Department's consideration	Compliance
<b>Section 4.1 – Site-responsive design</b>		
<b>4.1.2 Cut and fill</b>		
<u>Objectives</u>		
<ol style="list-style-type: none"> <li>a. To minimise the extent of cut and fill within residential allotments.</li> <li>b. To protect and enhance the aesthetic quality of the area by controlling the form, bulk and scale of land forming operations.</li> <li>c. To ensure that fill material is not contaminated and does not adversely affect the fertility or salinity of soil, or the quality of surface water or groundwater.</li> <li>d. To ensure that the amenity of adjoining residents is not adversely affected by any land forming operation.</li> </ol>		
<u>Specific Controls</u>	<u>Response</u>	Yes
1. DAs are to illustrate where it is necessary to cut and/or fill land and provide justification for the proposed changes to the land levels.	1. The application includes an earthworks plan and has confirmed the works are necessary to address the varied existing site topography.	
2. Earthworks shall be undertaken to a maximum of 500mm excavation or fill from the present surface level of the property.	2. Earthworks exceeds 500mm but is not adjacent land owned by other parties and is part of an integrated bulk earth works strategy for the site.	
3. Council will assess proposals for excavation or fill greater than 500mm having regard to the visual impact of the proposed earthworks.	3. Council has not raised concerns about the amount of earthworks.	
4. A Validation Report is required to be submitted to council prior to the placement of imported fill on site. All fill shall comply with the Department of Water and Energy – 'Site Investigation for Urban Salinity' and	4. A final RAP will be prepared to address site contamination. Site validation would occur at each stage of the development. 5. This will be considered during the excavation stage. 7. No cut is proposed at site boundaries,	



- the DECC Contaminated Sites Guidelines – ‘Guidelines for the NSW Site Auditor Scheme (2nd edition) – Soil Investigation Levels for Urban Development Sites in NSW’.
5. Earth moved from areas containing noxious weed material must be disposed of at an approved waste management facility and transported in compliance with the Noxious Weeds Act 1993.
  7. Where cut is proposed on the boundary of a lot, retaining walls are to be constructed with side fence posts integrated with its construction (relevant construction details are required with retaining wall approval). Otherwise retaining walls must be located a minimum of 450mm from the side or rear boundary of the lot containing the cut.
  8. Retaining walls within residential allotments are to be no greater than 600mm high at any point on the edge of any residential allotment.
  10. All retaining walls proposed for the site are to be identified in the development application.
- sloped and battered land is proposed.
8. No retaining walls are proposed.
  10. No retaining walls are proposed.

#### 4.1.2 Sustainable building design

##### Objectives

- a. To maximise microclimate benefits to residential lots.
- b. To enhance streetscape amenity.
- c. To minimise energy usage and greenhouse emissions and encourage the adoption of renewable energy initiatives.
- d. To minimise the use of non-renewable resources and minimise the generation of waste during construction.

##### Controls

1. New residential dwellings, including a residential component within a mixed-use building and serviced apartments intended, or capable of being, strata titled are to be accompanied by a BASIX Certificate and are to incorporate all commitments stipulated in the BASIX Certificate.
2. Indigenous species are to make up more than 50% of the plant material mix.
3. The majority of plant species are to be selected from the preferred species listed.
4. A landscape plan is to be submitted with every application for multi-dwelling housing and residential flat buildings.
5. The provisions of BASIX will apply with

##### Response

1. The six staff apartments are supported by a BASIX Certificate and will incorporate all commitments stipulated in the BASIX Certificate.
2. The majority of plant species are native.
3. The majority of plant species are from the Cumberland Plain Woodland ecology.
4. A landscaping plan was submitted with the application.
5. Refer to response to point 1.
6. 66% of staff apartments would achieve natural cross flow ventilation.
7. The proposal does not include open fireplaces, wood fired heaters or combustion stoves.

Yes

- regards to water requirements and usage.
6. The design of dwellings is to maximise cross flow ventilation.
  7. Open fireplaces, wood fired heaters and slow combustion stoves are not permitted.
  8. The positioning and size of windows and other openings is to take advantage of solar orientation to maximise natural light penetration to indoor areas and to minimise the need for mechanical heating and cooling.
  9. Outdoor clothes lines and drying areas are required for all dwellings and can be incorporated into communal areas for multi-dwelling development and residential flat building developments.
  10. Design and construction of dwellings is to make use of locally sourced materials where possible.
  11. Residential building design is to use, where possible, recycled and renewable materials.
  8. All staff apartments have access to direct sunlight.
  9. Each apartment is provided with a balcony, which could be used as a drying area.
  10. This will be considered during the construction phase.
  11. This will be considered during the construction phase.

#### 4.1.4 Salinity, acidity and aggressivity

##### Objectives

- a. To manage and mitigate the impacts of, and on, salinity

<u>Controls</u>	<u>Response</u>	Yes
1. All development must comply with the Salinity Management Plan developed at the subdivision phase. The actions/works from the Salinity Management Plan must be certified upon completion of the development.	1. The proposal does not include subdivision.	
2. Salinity shall be considered during the siting, design and construction of dwellings including: drainage, vegetation type and location, foundation selection and cut and fill activities, to ensure the protection of the dwelling from salinity damage and to minimise the impacts that the development may have on the salinity process.	2. The site is not identified as acid sulfate soils.	

#### 4.2.3 Front setbacks and 4.2.4 Side and rear setbacks

##### Objectives

- a. To enable the integration of built and landscape elements to create an attractive, visually consistent streetscape.
- b. To encourage simple and articulated building forms.
- c. To ensure garages do not dominate the streetscape

<u>Controls</u>	<u>Response</u>	Yes
1. Minimum front setback of 4.5m to building line (3.0m setback to a 1.5m building articulation zone).	1. The Tallawong Road front setback is a minimum of 10m.	
2. On corner lots, setbacks to secondary streets are to be 2m.	2. The site setbacks to the northern and southern roads range between 5m and 46m.	
3. To achieve a desired streetscape character, the building façade front setback for a series of lots can be more or less than the setbacks required at 1 and 3.	3. The front setbacks along the northern and southern roads are varied, which adds visual interest and articulates the frontage.	
4. Elements permitted in the articulation zone include, entry feature or porch; awnings or other features over windows; balcony treatment to any first-floor element; recessing or projecting architectural elements; bay windows or similar features; or verandahs, pergolas or similar features above garage doors.	4. Complies	

#### 4.2.9 Visual and acoustic privacy

##### Objectives

- a. To site and design dwellings to meet user requirements for visual and acoustic privacy, while minimising the visual and acoustic impacts of development on adjoining properties.
- b. To minimise the impact of noise of other non-residential uses such as parking and sport areas, restaurants and cafes and waste collection and goods deliveries.

<u>Controls</u>	<u>Response</u>	Yes
2. Development will require an acoustic report where it is adjacent to arterial or sub-arterial roads.	2. The site is not adjacent to an arterial or sub-arterial road	
3. Direct overlooking of main habitable areas and the private open spaces of adjoining dwellings should be minimised through building layout, window and balcony location and design, and the use of screening devices, including landscaping.	3/4 The Department has recommended a condition requiring the installation of visual screens to windows in the western elevation of the Boarding accommodation to prevent any overlooking.	
4. Living area windows with a direct sightline to Principal Private Open Space of the habitable room windows in an adjacent dwelling within 9.0 metres are to: <ul style="list-style-type: none"> <li>• be obscured by fencing, screens or appropriate landscaping, or</li> <li>• be offset from the edge of one window to the edge of the other by a distance sufficient to limit views into the adjacent window; or</li> <li>• have sill height of 1.7 metres above floor level; or</li> <li>• have fixed obscure glazing in any part of the window below 1.7 metres above floor level.</li> </ul>	5. The NVA has confirmed the development would not have unacceptable noise impacts. The Department has recommended operational noise conditions to address noise impacts.	
	7. Mechanical plant would not result in excessive noise impact. The Department has recommended operational noise conditions.	
	8. The site is not located on a main road.	
	9. The internal layout of the six staff apartments have been designed to minimise noise transmission.	
5. The design of dwellings must minimize the	10. Noise walls are not proposed to address noise from the residential / boarding accommodation component of the	

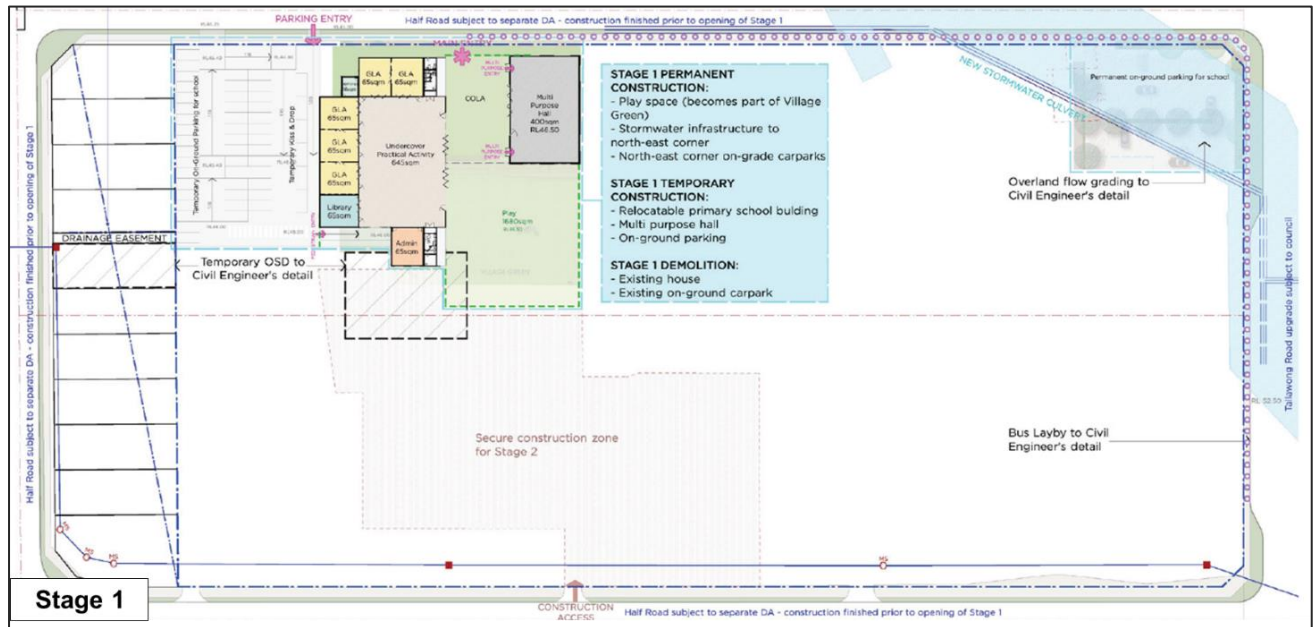
opportunity for sound transmission through the building structure, with particular attention given to protecting bedrooms and living areas.

7. No electrical, mechanical or hydraulic equipment or plant shall generate a noise level greater than 5dBA above background noise level measured at the property boundary during the hours 7.00 am to 10.00 pm and noise is not to exceed background levels during the hours 10.00 pm to 7.00 am.
  8. Dwellings along main roads, or any other noise source, should be designed to minimize the impact of traffic noise.
  9. The internal layout of residential buildings, window openings, the location of outdoor living areas (i.e. courtyards and balconies) and building plant should be designed to minimise noise impact and transmission.
  10. Noise walls are not permitted.
  11. Development effected by noise from rail or traffic noise is to comply with AS2107-2000 Acoustics: Recommended Design Sound Levels and Reverberation Times for Building Interiors.
  12. Residential development shall aim to comply with the criteria in Table 4-7.
- 

development. A sound barrier is proposed to address noise from two play areas (**Section 0**), which is considered necessary and acceptable.

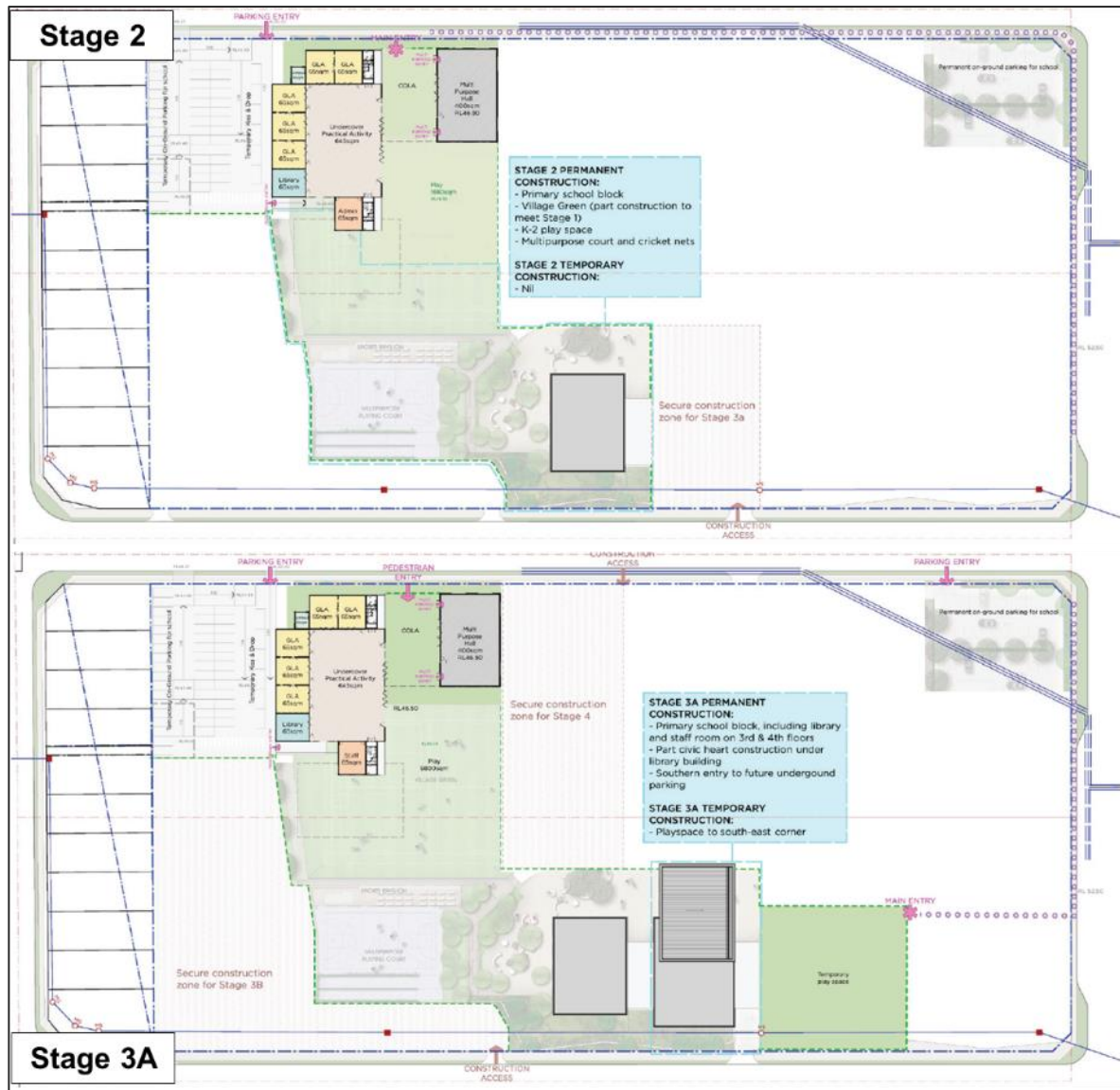
11. The development would not be affected by road or rail noise.
12. The site is not impacted by traffic noise and the noise criteria is therefore not relevant to the proposal.

Construction is predicted to occur over a 10-year period and divided into 10 stages and includes temporary and permanent works. The staging program is summarised at **Table 3** of the Assessment Report. The individual Stages are provided in **Figures C1 to C6**.



**Figure C1 | Stage 1 (Source: Applicant's SRtS)**





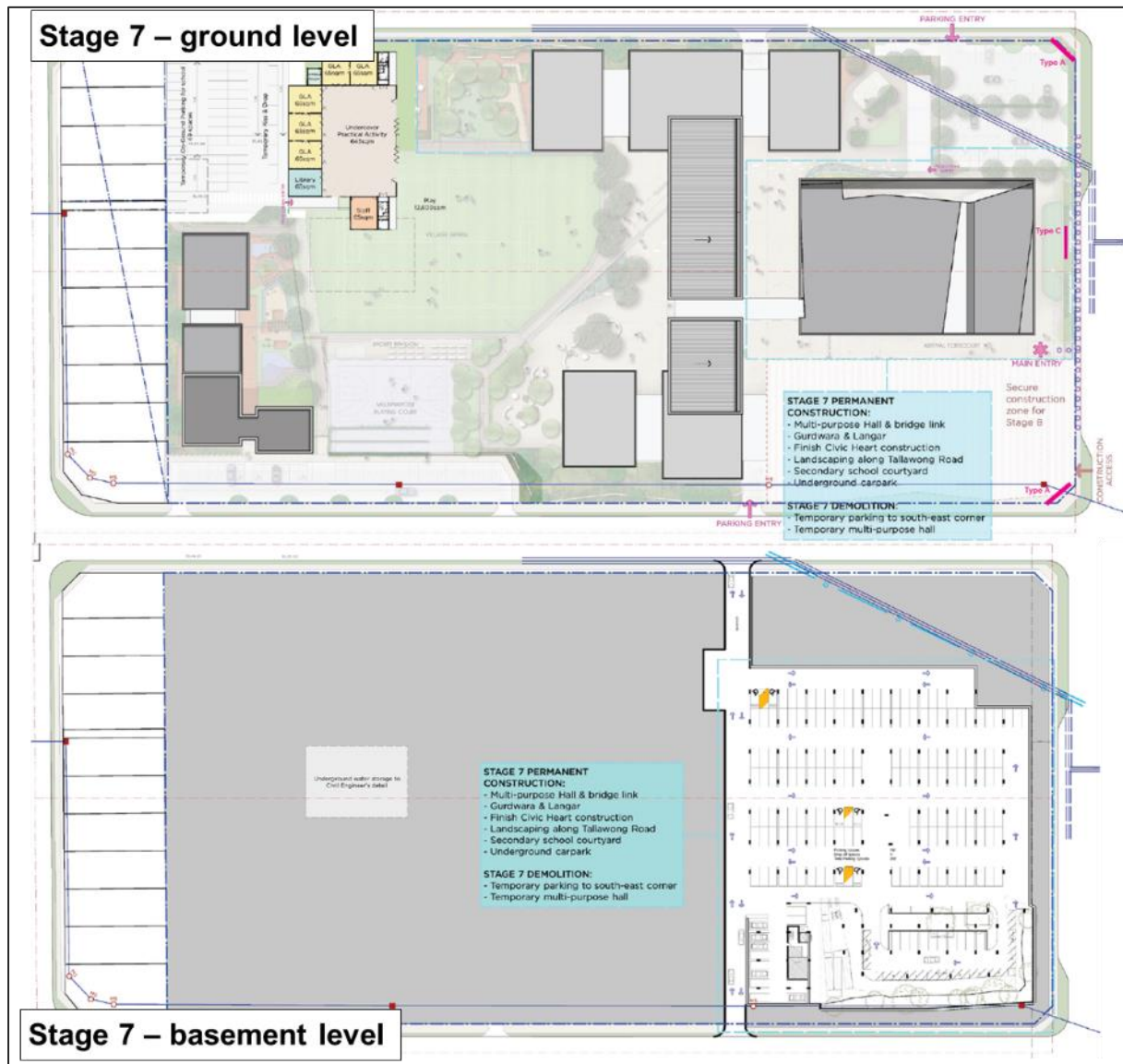
**Figure C2 | Stages 2 and 3A (Source: Applicant's SRtS)**



**Figure C3 | Stages 3B and 4 (Source: Applicant's SRTs)**







**Figure C5 | Stage 7 ground and basement levels (Source: Applicant's SRtS)**





## **Appendix D – Independent Hydrological review**

<https://www.planningportal.nsw.gov.au/major-projects/project/9871>

## **Appendix E – Recommended Instrument of Consent**

The recommended instrument of consent can be found on the Department's website as follows.

<https://www.planningportal.nsw.gov.au/major-projects/project/9871>