



# Lindfield Learning Village - Phase 2 and 3

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State Significant Development SSD 8114

November 2020



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*Cover image: Internal courtyard to home bases (Source Applicant's Supplementary Response to Submissions 2020)*

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# Glossary

Abbreviation	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
Applicant	Department of Education
AS	Australian Standard
APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BAR	Biodiversity Assessment Report
BCA	Building Code of Australia
BC Act	<i>Biodiversity Conservation Act 2016</i>
BEMEP	Bush Fire Emergency Management and Evacuation Plan
CIV	Capital Investment Value
Consent	Development Consent
CMP	Conservation Management Plan
CEMP	Construction Environmental Management Plan
Council	Ku-ring-gai Council
DCP	Development Control Plan
Department	Department of Planning, Industry and Environment
Education SEPP	State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
EESG	Environment, Energy and Science Group
EFSG	Educational Facilities Standards and Guidelines
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FSRtS	Further Supplementary Response to Submissions
GTP	Green Travel Plan
GFA	Gross Floor Area
HIS	Heritage Impact Statement
ICNG	Interim Construction Noise Guidelines

Infrastructure SEPP	State Environmental Planning Policy (Infrastructure) 2007
IPA	Inner Protection Area
KDCP	Ku-ring-gai Development Control Plan 2015
KLEP	Ku-ring-gai Local Environmental Plan 2015
LGA	Local Government Area
Minister	Minister for Planning and Public Spaces
NML	Noise Management Level
NPI	Noise Policy for Industry
OPA	Outer Protection Area
PBP 2019	Planning for Bush Fire Protection 2019
REF	Review of Environmental Factors
NSW RFS	NSW Rural Fire Service
RNIA	Revised Noise Impact Assessment
RtS	Response to Submissions
SEARs	Planning Secretary's Environmental Assessment Requirements
Secretary	Planning Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SEPP 55	State Environmental Planning Policy No. 55 – Remediation of Land
SFPP	Special Fire Protection Purpose
Site	Lots 2 and 4 DP1151638, Eton Road, Lindfield
SoS	Statement of Significance
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
SRtS	Supplementary Response to Submissions/Amended Proposal
STP	School Travel Plan
TIA	Transport Impact Assessment
TfNSW	Transport for New South Wales
TfNSW (RMS)	Transport for New South Wales (Roads and Maritime Services)
TSC Act	<i>Threatened Species Conservation Act 1995</i>
UTS	University of Technology Sydney
UTS Campus	University of Technology Sydney, Ku-ring-gai Campus
WSUD	Water Sensitive Urban Design



# Executive Summary

This report provides an assessment of a state significant development (SSD) application for Lindfield Learning Village, 100 Eton Street, Lindfield (SSD 8114) following the submission of the Phase 2 and 3 Response to Submissions (RtS). The application has been lodged by the Department of Education (the Applicant) and the site is located within the Ku-ring-gai local government area.

## Introduction

On 14 June 2017, an SSD application and Environmental Impact Statement (EIS) (SSD 8114) was lodged for alterations and additions to the former University Technology Sydney Ku-ring-gai Campus to create Lindfield Learning Village, a Kindergarten to Year 12 school for up to 2000 students over three phases. The EIS was exhibited from 22 June 2017 to 7 August 2017. The Department of Planning, Industry and Environment (the Department) received a total of 26 submissions, comprising 16 submissions from the public, five of which objected to the development, comments from one public interest group and nine submissions from public authorities, including Council.

Due to site constraints and outstanding bush fire issues that required resolution, the Applicant proposed an alternative approach involving a partial approval pathway for Phase 1 of the development to deliver a school of 350 students for the commencement of Term 1, 2019. Consideration of Phase 2 and 3 would be deferred and subsequently considered at a later date and would be subject to the submission by the Applicant of further documentation addressing outstanding issues.

On 24 October 2018, the Executive Director, Priority Projects Assessments approved Phase 1 (350 students) in a partial development consent granted under section 4.38 and 4.16(4)(c) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Details of the Phase 1 proposal and the Department's associated assessment and determination are available in the Department's Assessment Report dated October 2018 (**Appendix A**). On 29 January 2019, Phase 1 operations commenced on site.

On 21 November 2019, following further consultation and investigations by the Applicant, a Phase 2 and 3 Response to Submissions (RtS) was submitted addressing the outstanding matters for Phase 2 and 3 of the development. Phase 2 includes works to accommodate an additional 700 students, including revised access arrangements to facilitate drop-off/pick-up movements within the site and landscaping to the southern section of the site. Phase 3 seeks approval for works to accommodate a further 950 students in the western wing of the main campus building on the site.

Phase 2 and 3 of the development have a Capital Investment Value (CIV) of \$81,025,897 and is predicted to generate 186 construction jobs and 264 full time equivalent operational jobs. The proposed development is SSD under clause 4.36 State and Environmental Planning Policy (State and Regional Development) 2011, as it involves alterations and additions to a school with a CIV of more than \$20 million. Therefore, the Minister for Planning and Public Spaces is the consent authority.

## Community Engagement

The Phase 2 and 3 RtS was publicly exhibited from 22 November 2019 to 18 December 2019 (27 days). The Department received a total of 125 submissions, including six submissions from public authorities, two submissions from interest groups in objection and 117 submissions from the public

(102 being in objection). The public submissions raised concerns in relation to traffic congestion, road safety, car parking, noise, tree removal, heritage and bush fire.

On 1 July 2020, the Applicant submitted its Supplementary Response to Submissions/Amended Proposal (SRtS) that amended the Phase 2 and 3 RtS design to include a further revision of the proposed internal access road design, tree removal to facilitate access road works and amendments to the scope of internal demolition within the main campus building. The SRtS was notified between 14 July 2020 to 28 July 2020 (14 days) and 10 submissions were received, four from public authorities, including Council, and six from the public (three in objection). The public submissions generally stated that the SRtS had not resolved concerns raised in relation to the RtS and reiterated those concerns raised previously.

On 1 August 2020, the Applicant submitted a Further Supplementary Response to Submissions (FSRtS) which clarified a number of matters and included detailed plans and documentation in response to the issues raised in the SRtS submissions. The FSRtS did not involve any further amendments to Phase 2 and 3 as was refined and detailed by the SRtS. Public authorities were notified of the FSRtS and invited to provide comment. Four responses were received to the FSRtS.

The Department representatives visited the site on multiple occasions during 2019 and 2020 to inform the assessment of the development.

### **Assessment**

The Department is satisfied that the key issues have been appropriately addressed by the Applicant or have been taken into account through recommended conditions of consent. The Department concludes that the proposal is in the public interest and is able to be approved, subject to conditions.

The Department identified bush fire, heritage and traffic access and parking, as the key issues for assessment. The Department considered the merits of the proposal, 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 have been considered, along with the issues raised in submissions as well as the Applicant's response to these.

The Department's assessment concludes that:

- the proposed sustainable transport measures and recommended conditions of consent would ensure that the proposal would not have significant adverse impacts on the local traffic network.
- the proposed travel mode share, which seeks to encourage sustainable travel modes (walking, cycling and public transport) and reduce car dependency, is achievable subject to implementation of the proposed initiatives and consistent review and management of these.
- the total number of car parking and drop-off/pick-up spaces provided is sufficient, subject to ongoing management and sustainable travel strategies.
- proposed pedestrian access to/from the site is generally convenient, safe and efficient. The Department also recommends additional pedestrian infrastructure improvements on Eton Road to provide more efficient bush fire evacuation routes.
- mitigation measures have been proposed to minimise construction impacts on nearby residential properties.
- the removal of the 48 additional trees proposed is unavoidable and justified to facilitate the adaptive reuse of the site and provide for new/improved educational facilities (including access) to meet growing enrolment demand.



- the proposal includes offsetting of biodiversity impacts, the provision of three replacement trees and understorey bush fire resilient landscaping. The Department recommends investigation of additional replacement planting opportunities to further offset the impacts of the proposal, subject to investigation to ensure compliance with bush fire requirements.
- the proposal would have acceptable amenity impacts regarding operational noise, visual setting, overshadowing and privacy.
- external works for the proposal would be minimal and respectful of the heritage characteristics of the main campus building and bushland setting of the site.
- the site is suitable for the proposed development and would provide high standard, contemporary teaching and learning facilities on site that would improve educational outcomes within the locality/region.

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# 1 Introduction

On 14 June 2017, state significant development (SSD) application SSD 8114 was lodged for alterations and additions to the former University of Technology (UTS) Sydney Ku-ring-gai Campus (UTS campus). This sought to create Lindfield Learning Village, a Kindergarten to Year 12 school for up to 2000 students over three phases. The Applicant is Department of Education (the Applicant) and the site is located at 100 Eton Road, Lindfield within the Ku-ring-gai local government area (LGA).

The SSD application and accompanying Environmental Impact Assessment (EIS) was exhibited from 22 June 2017 to 7 August 2017. The Department received a total of 26 submissions, comprising 16 submissions from the public, five of which objected to the development, comments from one public interest group and nine submissions from public authorities including Council.

Due to site constraints and outstanding bush fire issues that required resolution, the Applicant proposed an alternative approach involving a partial approval pathway for Phase 1 to deliver a school of 350 students for the commencement of Term 1, 2019. Consideration of Phase 2 and 3 would be deferred and subsequently considered at a later date and would be subject to the submission of further documentation which addresses the outstanding issues.

On 24 October 2018, the Executive Director, Priority Projects Assessments approved Phase 1 in a partial development consent granted under section 4.38 and 4.16(4)(c) of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The approved Phase 1 development comprised the following works:

- adaptive re-use of part of the existing main campus building to construct one home-base for 350 students.
- construction of all administrative and technical spaces to support a full primary and secondary curriculum for 350 students.
- construction of a fire trail for bush fire management purposes.
- traffic and transport infrastructure.
- tree removal to establish a 100 metre (m) Asset Protection Zone (APZ) around the home-base on the site.

Further details of the Phase 1 project and the Department's assessment and determination is available in the Department's Assessment Report dated October 2018 (**Appendix A**). On 29 January 2019, Phase 1 operations commenced on site.

On 21 November 2019, following further consultation and investigation by the Applicant, a Phase 2 and 3 Response to Submissions (RtS) was submitted addressing the outstanding matters for Phase 2 and 3 of the development. The proposal for Phase 2 and 3 seeks approval for the following works:

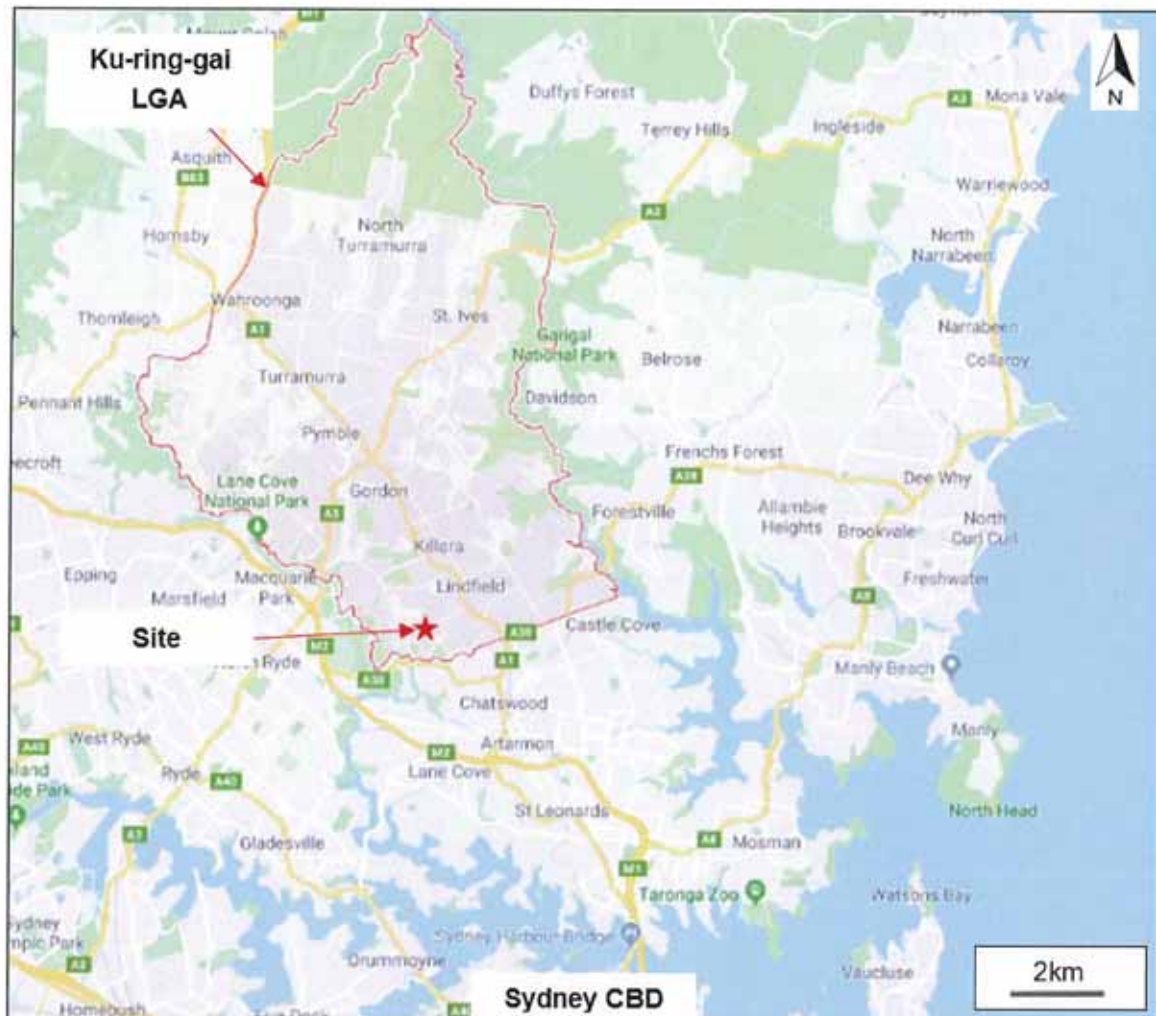
- Phase 2 construction:
  - works to accommodate 700 additional students (a total of 1050 students including the previously approved 350).
  - repurposing of the Phase 1 area to accommodate Phase 2 activities and functions.
  - construction of an internal access road that extends to the southern portion of the site for emergency vehicles, buses and drop-off and pick-up vehicles.
  - new fire trail that connects to the internal access road and provides access to and from Dunstan Grove, via a path under the existing elevated footbridge link.



- Phase 3 construction:
  - works to accommodate an additional 950 students in the western wing of the main campus building, bringing the overall capacity of the school to 2000 students.

## 1.1 Site description

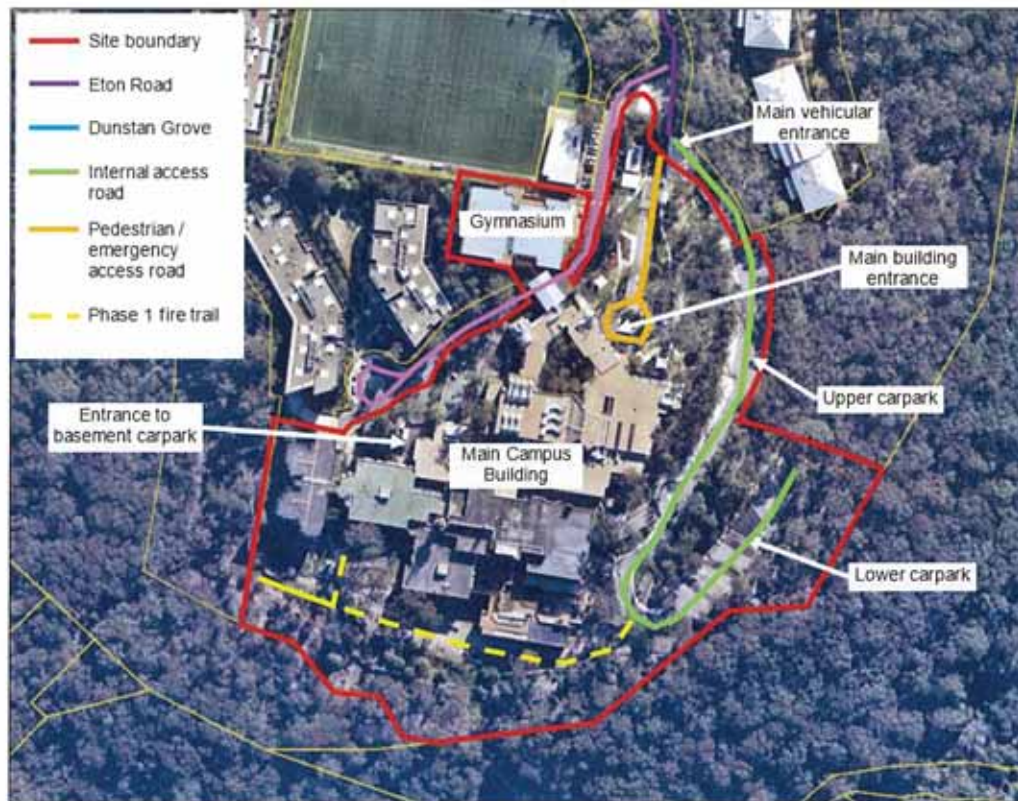
The subject site is located approximately 13 kilometres (km) north-west of the Sydney central business district in the Ku-ring-gai LGA (Figure 1).



**Figure 1 | Regional/Local context map (Source: Google Maps 2020)**

The subject site comprises two lots, legally described as Lots 2 and 4, Deposited Plan (DP) 1151638 and is commonly known as 100 Eton Road, Lindfield.

The site currently accommodates two existing buildings connected by a footbridge, being the former gymnasium building and the main campus building (Figure 2) that partially form the operational Phase 1 component of the school.



**Figure 2 | Aerial view of the site (Source: Nearmap 2020)**

The topography of the site is steep with a fall of 6m from north to east and 9m from north to south. The ground is characterised by sandstone outcrops with various level changes and steep-sided gullies that slope to the west, east and south at slopes greater than 15 degrees.

The main campus building follows the natural slope of the land varying up to six storeys with the overall building height ranging from 6.3m in the north to 24m in the south. The main campus building has an existing gross floor area (GFA) of 28,900 square metres (sqm) and prior to the Phase 1 works, comprised:

- an auditorium with a capacity of 750 seats.
- a large lecture theatre with a capacity of 180 seats.
- a small lecture theatre with a capacity of 100 seats.
- a library/resource centre.
- science laboratories, wood and metal technology rooms as well as drama and music facilities.

The main campus building also comprises roof top plant rooms and an astronomy observation tower. The building mass is intercepted by open courtyards, plazas and is linked by elevated footbridges.

The site, including the main campus building, the gymnasium and footbridge connecting the two buildings over Dunstan Grove, form a locally listed heritage item under the Ku-ring-gai Local Environmental Plan 2015 (KLEP 2015). The main campus building is an example of Brutalist style of architecture, characterised by exposed poured concrete and brickwork within a rigid geometric style.

Vehicular and pedestrian access provided in relation to the Phase 1 development is available from Eton Road and Dunstan Grove. A total of 166 marked parking spaces are currently available within the site. These comprise 35 basement spaces along the southern edge of the main campus building accessed off Dunstan Grove and 131 at-grade spaces on two levels of open car parking accessed from the internal access road that runs along the eastern boundary of the site.



The landscaped areas of the site comprise remnant vegetation, intercepted by modified areas with cleared understorey vegetation and ornamental planting. There are also some large stands of Flooded Gum (*Eucalyptus grandis*) in close proximity to the main campus building. A number of threatened flora species occur close to the site within the Lane Cove National Park. The site is located on bush fire prone land.

Images of the site are included in **Appendix E**.

## 1.2 Surrounding development

The site is located and gains access from the southern end of Eton Road (**Figure 3**). This runs north then east from the site, connecting to the surrounding road network and Pacific Highway approximately 1.1km to the east. Eton Road is connected to Grosvenor Road by Austral Road and Ortona Road. Grosvenor Road forms the main access to two nearby classified roads, the Pacific Highway to the east and Lady Game Drive to the west.

The site is located approximately 2km west of Lindfield and Roseville railway stations and 4km north-west of Chatswood railway station. The Epping to Chatswood metro line passes under the western boundary of the site at a minimum depth of 25m below ground level.

The Lane Cove National Park adjoins the site to the east, west and south and Blue Gum Creek is located to the south of the site. Medium density residential uses immediately adjoin the site to the north-east and north-west. The buildings on the north-eastern side are four-storeys in height. However, these are situated lower than the site as a result of the topography of the area. The buildings to the north-west are five-storeys high and share vehicular access with the site via Eton Road and Dunstan Grove.

The broader area to the north is characterised by low density residential development primarily comprising one and two storey dwelling houses, with bushland part of Lane Cove National Park to the east, south and west.



Figure 3 | Access and surrounding land uses (Source: Nearmap 2020)

## 2 Project

### 2.1 Project Details

The key components and features of Phases 2 and 3 of the proposal (as revised by the Further Supplementary RtS August 2020 (FSRtS)) are provided in **Table 1** and are shown in **Figure 4** to **Figure 7**.

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

Aspect	Description
Project Summary	Further refurbishment and redevelopment of the former UTS Ku-ring-gai Campus at Lindfield to support a full primary and secondary curriculum to cater for up to 2000 students from Kindergarten to Year 12.
Demolition	<ul style="list-style-type: none"> <li>Partial demolition to specified internal concrete walls and slabs.</li> <li>Demolition and removal of all temporary walls and partitions used in the Phase 1 areas.</li> </ul>
Built form	<ul style="list-style-type: none"> <li>Phase 2 and 3 would occupy the areas of the existing main campus building and gymnasium not used in Phase 1 as well as repurposing existing Phase 1 areas as follows:               <ul style="list-style-type: none"> <li>Phase 2 involves the repurposing of the approved Phase 1 area and occupation of the eastern and southern wings of the main campus building.</li> <li>Phase 3 involves the occupation of the western wing of the main campus building.</li> </ul> </li> <li>No new substantial built form to be undertaken as part of Phase 2 or 3.</li> <li>Minor works to the existing main campus building as part of Phase 2 and 3 include:               <ul style="list-style-type: none"> <li>construction of a Covered Outdoor Learning Area (COLA) at ground level.</li> <li>construction of a new egress stair and balustrade to an internal facing courtyard.</li> <li>installation of mechanical plant, solar photovoltaic panels and exhaust flues to rooftop level.</li> <li>new balustrades/screening.</li> <li>window and door upgrades, including removal of asbestos-lined external glazing.</li> </ul> </li> <li>All external changes are proposed to be undertaken in a contemporary manner to distinguish from the original heritage fabric within the site.</li> <li>Internal works include:               <ul style="list-style-type: none"> <li>removal of internal brick and framework walls, removal of carpet and other existing internal surfaces and fixtures.</li> <li>internal fit-out.</li> </ul> </li> </ul>



Site area	<ul style="list-style-type: none"> <li>• Lot 2 DP 1151638: 3.6 hectares.</li> <li>• Lot 4 DP 1151638: 1.218 hectares.</li> </ul>
Gross floor area (GFA)	<ul style="list-style-type: none"> <li>• Total GFA of 30,620sqm.</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Educational establishment for up to 2000 students.</li> <li>• Relocating the existing Out of School Hours services (OOSH) to the gymnasium.</li> <li>• Weekend and after-hours access for the community to the existing auditorium and theatres.</li> </ul>
Access	<ul style="list-style-type: none"> <li>• Vehicular access to the site is to be maintained from Eton Road that extends up to the entrance of the main campus building and the existing internal access road that extends along the eastern side of the site. This internal access road would be: <ul style="list-style-type: none"> <li>○ altered to the east the main campus building to convert (and extend) the existing Phase 1 parent/carer drop-off/pick-up area into a new bus drop-off/pick-up area and provide a new bus turnaround loop.</li> <li>○ extended to the south of the main campus building to provide a replacement parent and carer drop-off/pick-up and turnaround facility. This extension would replace the fire trail provided to the south of the main campus building as part of the Phase 1 works.</li> <li>○ connected to a new fire trail that would pass underneath an existing elevated footbridge link at the western end of the main campus building to connect to Dunstan Grove. Alterations would be made to the footbridge to provide minimum vertical clearance.</li> </ul> </li> <li>• Secondary vehicular access is to be maintained to the basement carpark off Dunstan Grove.</li> <li>• Principal pedestrian access to continue to be from Eton Road. Access is also available from various locations on all frontages of the school site.</li> <li>• To improve traffic flow at the intersection of Eton Road and Dunstan Grove, the intersection would be altered to prioritise direct traffic movement along Elton Road into the site, rather than Dunstan Grove.</li> <li>• To accommodate predicted traffic generation from Phase 2 and 3, the right hand turn bay on the Pacific Highway leading into Grosvenor Road intersection is to be extended from 70m to 170m.</li> </ul>
Car parking and drop-off/pick-up	<ul style="list-style-type: none"> <li>• Utilisation of the existing basement and at grade car parking comprising 166 car parking spaces. 27 spaces are used for bus drop-off/pick up in the morning and afternoon peak periods.</li> <li>• 10 drop-off/pick-up spaces provided off the extended internal access road to the south of the main campus building.</li> <li>• Public buses would drop-off/pick up students from the existing bus bay on Eton Road approximately 100m walk from the main campus building. Dedicated school buses would drop-off/pick-up students from a new drop-</li> </ul>

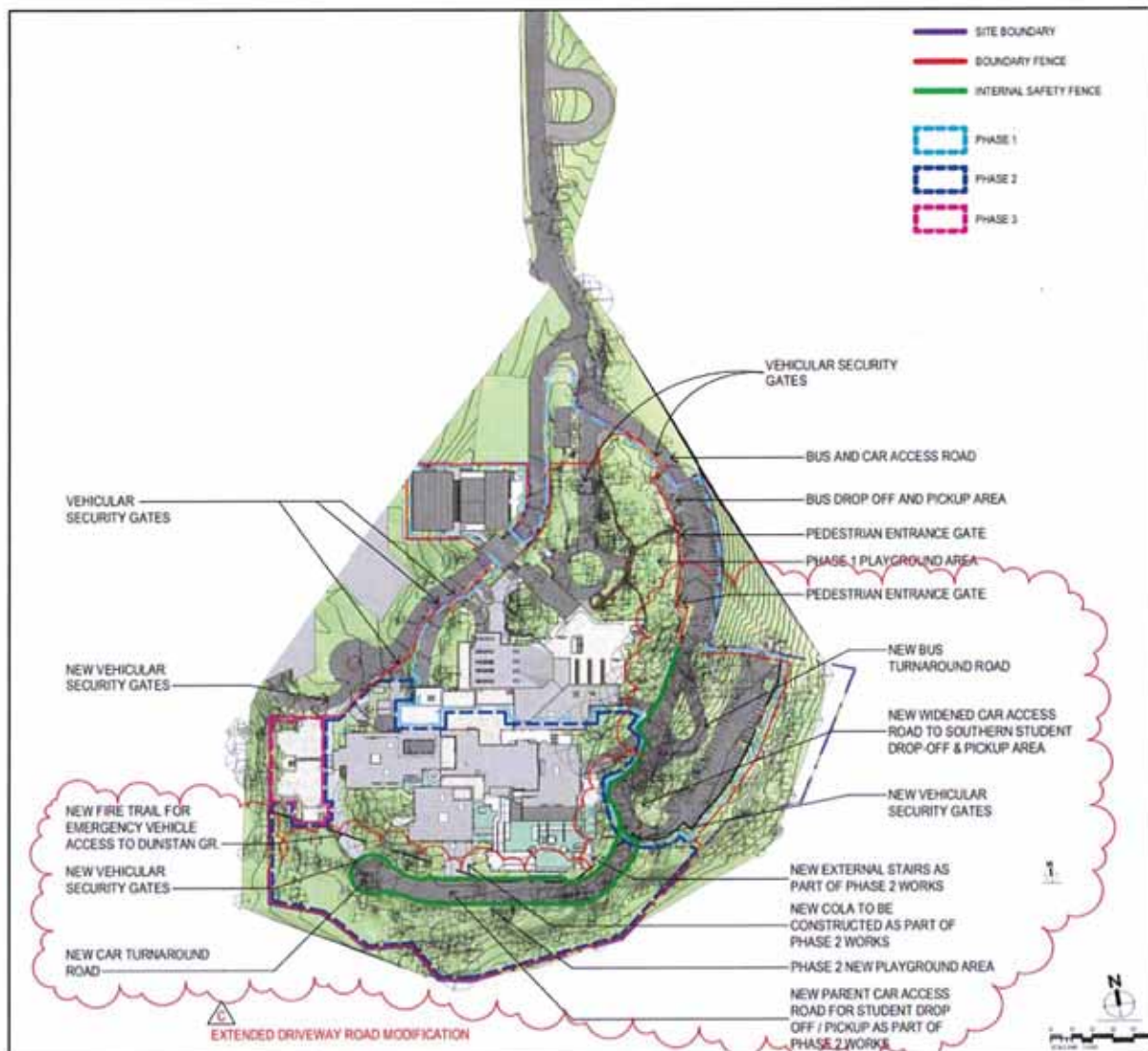


off/pick-up area on the altered internal access road to the east of the main campus building.

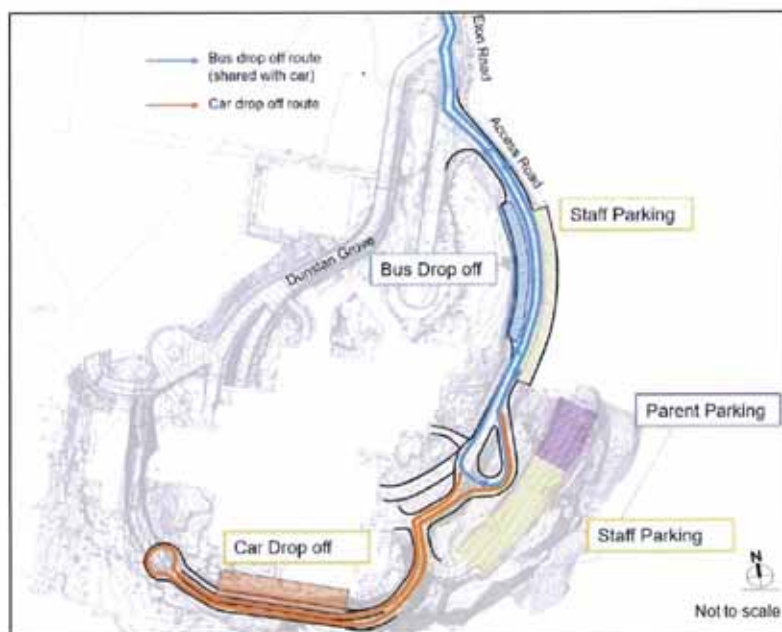
Bicycle parking	<ul style="list-style-type: none"> <li>• Relocation of existing 42 bicycle parking spaces.</li> </ul>
Public domain and landscaping	<ul style="list-style-type: none"> <li>• 48 trees to be removed as part of Phase 2 and 3 in order to facilitate alterations to the internal access road and landscape design at the southern end of the main campus building.</li> <li>• Three trees are proposed to be planted. A further four trees are proposed for planting subject to further investigation and compliance with bush fire management requirements.</li> <li>• Varied outdoor play spaces and landscaping to be provided to the external perimeter of the buildings, primarily to the north and south of the main campus building, including:               <ul style="list-style-type: none"> <li>○ sandstone log amphitheatre.</li> <li>○ open lawns and shelters.</li> <li>○ parkour trail.</li> <li>○ vegetation and bioretention swales.</li> <li>○ running loops.</li> <li>○ informal outdoor learning plazas with sandstone steps.</li> <li>○ in-ground trampolines.</li> <li>○ viewing deck and learning platform into national park.</li> <li>○ vegetable gardens.</li> </ul> </li> </ul>
Hours of operation	<ul style="list-style-type: none"> <li>• School hours: 7:30am to 3:30pm.</li> <li>• Community and OOSH uses: 4pm to 10pm Monday to Friday, 7am to 10pm Saturday and Sunday.</li> </ul>
Jobs	<ul style="list-style-type: none"> <li>• 186 construction jobs.</li> <li>• 264 full time equivalent (FTE) operational jobs.</li> </ul>
CIV	<ul style="list-style-type: none"> <li>• \$81,025,897.</li> </ul>

## 2.2 Physical layout and design

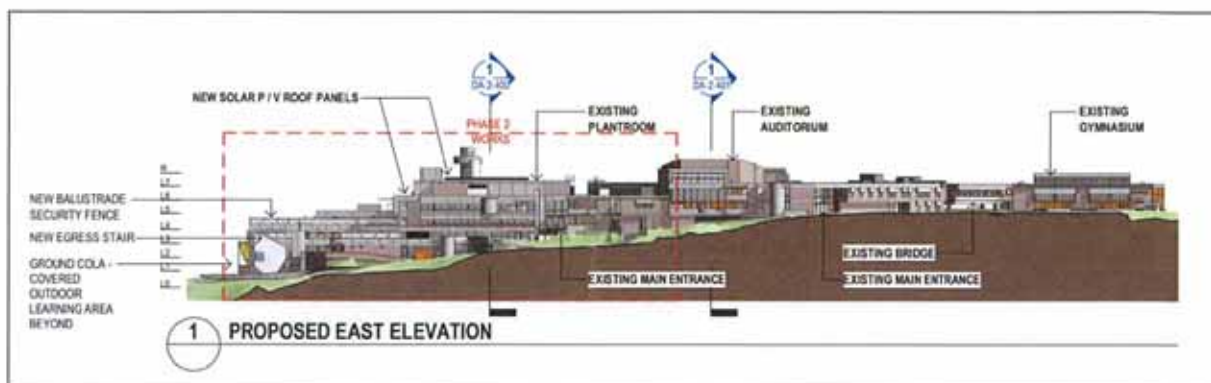
The proposed layout of the site is shown in **Figure 4** and proposed access arrangements are shown in **Figure 5**. Elevations are shown in **Figure 6** and **Figure 7**.



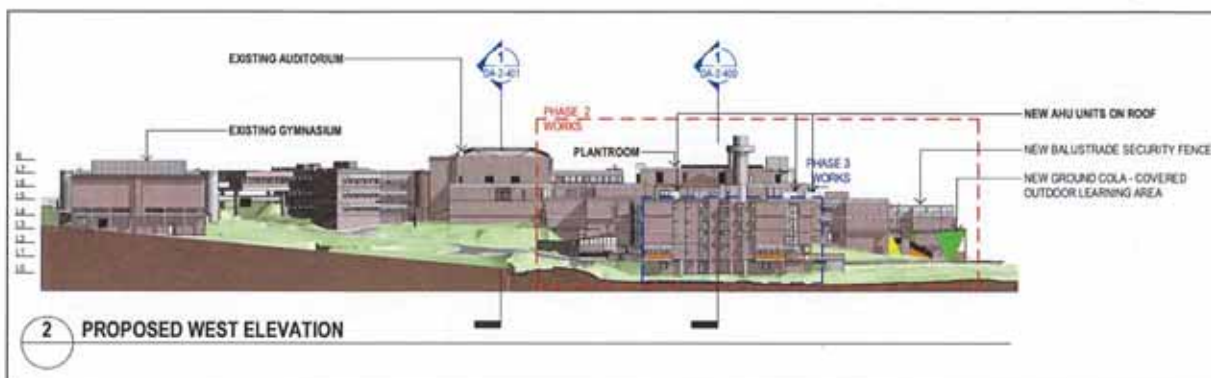
**Figure 4 | Site Layout (Source: Applicant's FSRtS 2020)**



**Figure 5 | Phase 2 and 3 access arrangements (Source: Applicant's FSRtS 2020)**



**Figure 6 | East elevation – Phase 2 outlined in red (Source: Applicant's SRtS 2020)**



**Figure 7 | West elevation – Phase 2 (red) & Phase 3 (blue) (Source: Applicant's SRtS 2020)**

## 2.3 Uses, Activities and Timing

The primary use of the approved Phase 1 area would remain as an educational establishment but would be repurposed for new school functions and activities. Phase 2 and 3 as detailed in the RtS seeks approval for the remainder of the main campus building and overall site to reflect this educational establishment use. In addition to standard school activities, the proposal includes revised OOSH facilities and community use of school facilities.

The Applicant has advised that Phase 2 and 3 works would be undertaken in one consolidated construction stage and are anticipated to be completed and operational by Day 1, Term 1, 2021.

## 2.4 Related development

The existing buildings on the site were built circa early 1970s, and initially formed the William Balmain Teachers College, later known as the Ku-ring-gai College of Advanced Education. In 1989 the college amalgamated with UTS, becoming the UTS Ku-ring-gai Campus. The UTS campus accommodated 300 full time staff and had a student capacity of 3500.

### 2.4.1 Concept Plan

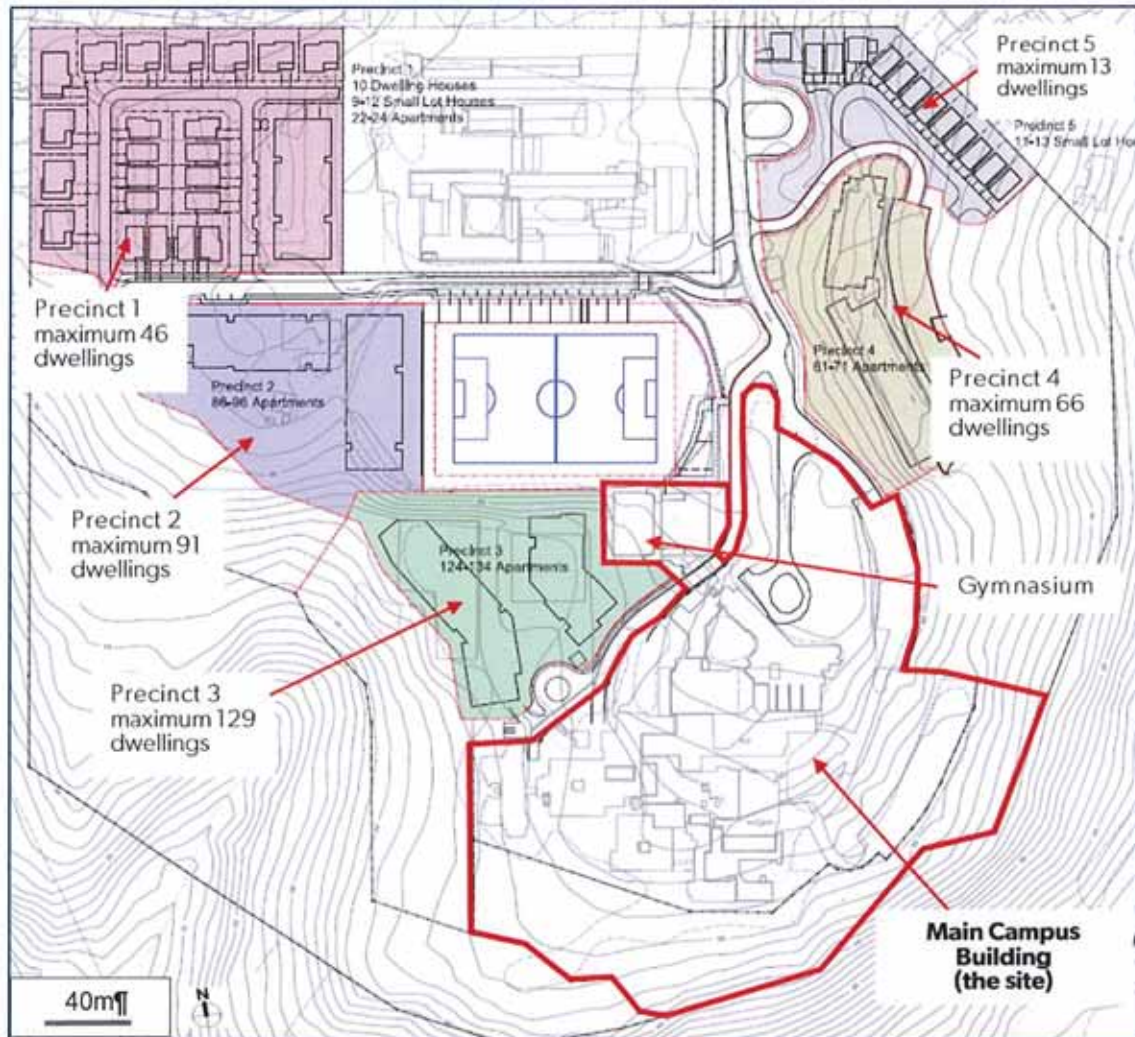
On 11 June 2008, the then Minister for Planning approved a Concept Plan (MP 06\_130) for the redevelopment of the UTS campus. The Concept Plan approved the redevelopment of the site to include:

- residential development of up to 345 dwellings.
- adaptive reuse of the main campus building as a mixed-use development.
- demolition of the gymnasium building.



- dedication of the Charles Bean Oval, a community space and internal roads to Council.
- dedication of bushland zoned E1 to the state or Council.
- provision of a 50-60m asset protection zone (APZ) along the eastern, western and southern boundaries of the site.

The approved Concept Plan (MP 06\_130) (**Figure 8**) established the fundamental design and built form parameters applicable to the future development of the UTS campus.



**Figure 8 | Concept Plan (as modified) (Source: Applicant's original EIS 2017)**

On 11 July 2008, the then Minister for Planning gazetted an amendment to Schedule 3 of the then State Environmental Planning Policy (Major Projects) 2005 to list the UTS campus as a state significant site and concurrently rezone the site and facilitate the Concept Plan.

The Concept Plan has been modified on five occasions, as summarised in **Table 1**.

**Table 2 | Summary of modifications to the Concept Plan**

<b>Modification (MOD) number.</b>	<b>Summary of Modifications</b>	<b>Approval Date</b>
MOD 1	Correct minor typographical errors and clarify contribution requirements.	7 November 2008
MOD 2	<ul style="list-style-type: none"> <li>Retain the existing gymnasium and footbridge which had been approved for demolition.</li> <li>Reconfigure Precinct 2 in response to dwelling yield reductions and setback requirements by consolidating blocks B, C and D into one building (91 dwellings).</li> <li>Reconfigure Precinct 3 to delete block F (where the existing gymnasium is located), and enlarge proposed block E (129 dwellings) to incorporate dwellings originally proposed within block F.</li> <li>Change the Concept Plan to satisfy modifications imposed by the Minister.</li> </ul>	21 May 2010
MOD 3	<ul style="list-style-type: none"> <li>Make community facilities permissible in the RE1 Public Recreation Zone to allow for a two storey community facility.</li> <li>Remove a height control over the recreation land and make subdivision and demolition permissible with development consent.</li> </ul>	19 December 2011
MOD 4	Revise the maximum dwellings allowed within each precinct and allow interim land use for 'Exhibition Sales Office' in the RE1 Public Recreation Zone.	22 May 2012
MOD 5	Corrected errors and allowed for the submission of development-specific technical reports with future applications for the reuse of the main campus building.	23 October 2018

It is noted that all precincts have now been developed in accordance with the Concept Plan approval. An assessment of consistency of the SSD proposal with the Concept Plan is provided in **Appendix C**.

#### **2.4.2 Phase 1 SSD Modification**

On 15 January 2020, the Director, Social and Infrastructure Assessments approved a modification (SSD-8114-Mod-1) to the Phase 1 partial consent allowing for the accommodation of an additional 35 students within the approved Phase 1 area for a period of two years. Approval of Phase 2 and 3 would allow the accommodation of the additional 35 students on site on an ongoing basis.

#### **2.4.3 Review of Environmental Factors**

A Review of Environmental Factors (REF) was completed by National Parks and Wildlife to facilitate clearing in Lane Cove National Park for the implementation of APZs to protect the school. On 19 June 2020, a licence was granted under section 151 of the *National Parks and Wildlife Act 1974* to allow the ongoing management of the APZs by the Applicant within adjoining land.



## 3 Strategic context

### 3.1 Project need and justification

It is anticipated that there will be a 21% growth in student numbers in NSW by 2031 compared to 2017. This means that NSW schools would need to accommodate an extra 269,000 students, with 164,000 of these students in the public system. In response to the need for additional public education infrastructure because of increased demand, the NSW Department of Education is investing \$6.7 billion to deliver new schools and upgrade existing schools.

The proposal is located in an area where population growth has placed significant demand on existing public schools. The proposed school would take enrolment pressure off surrounding schools exceeding student capacity and accommodate future population growth within the Ku-ring-gai LGA.

The Department considers that the proposal is appropriate for the site given it is consistent with the:

- Greater Sydney Region Plan, A Metropolis of three cities, as it proposes new contemporary and equitable school facilities to meet the growing needs of Sydney.
- vision outlined in the Greater Sydney Commission's North 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.
- NSW Future Transport Strategy 2056 as it would provide a new educational facility in an accessible location and provide access to additional new employment opportunities close to public transport.
- State Infrastructure Strategy 2018 – 2038 Building the Momentum as it would further integrate school and community facilities and proposes:
  - new facilities to support the growth in demand for primary and secondary student enrolments as well as opportunities for facilities sharing with communities.
  - a school design to accommodate infrastructure and facilities sharing with communities.

The Phase 2 and 3 proposal would also provide direct investment in the region of approximately \$81,025,897, which would support approximately 186 construction jobs and up to 264 FTE operational jobs.

#### 3.1.1 Concept Plan

The proposal is consistent with the approved Concept Plan for the site which included adaptive reuse of the main campus building for mixed use purposes, including education (**Appendix C**). The proposal provides for the adaptive and sustainable use of the existing educational facilities with high quality classrooms, collaborative learning spaces, open play spaces, sports courts and associated facilities. The proposed works are generally limited to the internal spaces of the buildings to minimise adverse impact on the identified ecological and heritage qualities of the site.

## 4 Statutory Context

### 4.1 State significant development

The proposal (Phase 1, 2, and 3) is SSD under section 4.36 (development declared SSD) of the EP&A Act as the development involves alterations and additions to a school with a CIV in excess of \$20 million under clause 15 Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011.

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

### 4.2 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 project, and included suitable conditions in the recommended conditions of consent (see **Appendix D**).

### 4.3 Permissibility

The site is zoned R1 (General Residential), B4 (Mixed Use) and E3 (Environmental Management) under the Ku-ring-gai Local Environmental Plan 2015 (KLEP 2015). The land use zones for the site and surrounds are shown in **Figure 9**.



Figure 9 | Zoning of the site (Source: KLEP 2015)



An educational establishment is permissible with consent within the B4 (Mixed Use) zone. The proposed use is also permissible within the R1 (General Residential) zone pursuant to Clause 28(1) of the State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP). Educational establishments are prohibited within the E3 Environmental Management zone, however only ancillary works such as changes to the internal access road and fire trail connection to Dunstan Grove are proposed in the zone. Notwithstanding, consent may still be granted as per section 4.38(3) of the EP&A Act as the development is only partly prohibited on the site. Further consideration of the Infrastructure SEPP and KLEP 2015 are provided in **Appendix B**.

Notwithstanding the above, the Concept Plan approval also provides for the adaptive reuse of the former campus for education or mixed use purposes. The development is consistent with the terms of the approval as discussed in detail in **Appendix C**.

Based on the above, the Minister for Planning and Public Spaces may determine the carrying out of the development.

## 4.4 Mandatory Matters for Consideration

### 4.4.1 Environmental planning instruments

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

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.

### 4.4.2 Objects of the EP&A 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. A response to the objects of the EP&A Act is provided at **Table 3**.

**Table 3 | 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	The proposal involves the adaptive reuse of an existing, underutilised, locally listed heritage building for a new school and would provide for the current and future needs of the community. The proposal would also provide for employment opportunities close to public transport and would result in economic and social benefits for the locality.

	The extent of the proposed works has been limited to minimise impacts on the state's natural or other resources.
(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 ESD and the adaptive reuse of an existing facility would considerably reduce the use of resources required ( <b>Section 4.4.3</b> ).
(c) to promote the orderly and economic use and development of land,	The proposed development would facilitate the adaptive reuse of a site as an educational establishment and associated ancillary uses including shared community use of the facilities.
(d) to promote the delivery and maintenance of affordable housing,	Not applicable
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	<p>Phase 2 and 3 would impact a further 0.17ha of vegetation on site including 48 trees. This is in addition to the 1.74 hectares of vegetation removed for the establishment of an APZ as part of the Phase 1 partial consent.</p> <p>The site does not include any threatened species, populations or ecological communities. The Applicant has provided supporting documentation including an assessment on biodiversity to demonstrate that the proposed development would not impact upon threatened species, the merits of which are considered in <b>Section 6</b>. It is noted that the clearing would impact on native vegetation communities. However, these are proposed to be offset in accordance with the <i>Threatened Species Act 1995</i>.</p> <p>It is acknowledged that the further loss of vegetation is undesirable. However, on balance the benefit gained by the adaptive reuse of the existing education facility in an area of high demand is favoured in this instance.</p>
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	<p>The proposal would have acceptable impacts on historic heritage which is discussed in detail in <b>Section 6</b>.</p> <p>Aboriginal cultural heritage would not be detrimentally affected by the proposed development as discussed in <b>Section 6.4</b>.</p>



(g) to promote good design and amenity of the built environment,	The proposal includes minor external works and would promote good internal design of the spaces, consistent with the design principles associated with an educational establishment.
(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 maintenance of the existing heritage listed buildings. The design of the proposal incorporates energy and water efficient design initiatives that would minimise the consumption and use of natural resources. The proposal has been designed to ensure compliance with minimum building standards required to ensure the health and safety of students and other occupants.
(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 proposal ( <b>Section 5.1</b> ), which included consultation with Council and other public authorities, and considered their responses ( <b>Section 5</b> ).
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the proposal ( <b>Section 5.1</b> ), which included notifying adjoining landowners/occupiers, placing a notice in newspapers and displaying the proposal on the Department's website and at Council during the exhibition period.

#### 4.4.3 Ecologically sustainable development

The EP&A Act adopts the definition of 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 Applicant has identified the following ESD initiatives that would be incorporated into the detailed design of the proposal. These initiatives include:

- adaptive re-use of the shell of the remainder of the main campus building to reduce the use of additional construction materials and avoid demolition waste.
- majority of the teaching spaces to be naturally ventilated and receive natural daylight, reducing energy consumption.
- energy efficient lighting and use of solar photovoltaic arrays.



- rainwater harvesting to be utilised for landscape irrigation.
- water sensitive urban design measures to be incorporated into the stormwater system.
- recyclable water storage facilities.

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.

In order to ensure that ESD is incorporated into the proposed development, the Department has recommended a condition that requires the Applicant to register for a minimum 4-star Green Star rating with the Green Building Council Australia, or an alternative certificate process as agreed by the Planning Secretary, prior to the commencement of construction. Subject to this condition, the proposed development is consistent with ESD principles as described in Appendix R of the Applicant's Phase 2 and 3 RtS, which has been prepared in accordance with the requirements of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).

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

#### 4.4.4 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.

#### 4.4.5 Planning Secretary's Environmental Assessment Requirements

The Phase 2 and 3 RtS is compliant with the Planning Secretary's Environmental Assessment Requirements (SEARs) and is sufficient to enable an adequate consideration and assessment of the proposal for determination purposes.

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

**Table 4** identifies the matters for consideration under section 4.15 of the EP&A Act 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 Phase 2 and 3 RtS, 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 in <b>Appendix B</b> .
(a)(ii) any proposed instrument	Satisfactorily complies. The Department's consideration of the relevant proposed EPIs is provided in <b>Appendix B</b> .
(a)(iii) any development control plan (DCP)	Under clause 11 of the SRD SEPP, DCPs do not apply to SSD. Notwithstanding this, consideration has been given to relevant DCPs in <b>Section 6</b> .

(a)(iia) any planning agreement	Not applicable.
(a)(iv) the regulations	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.
(a)(v) any coastal zone management plan	Not applicable.
(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 proposed development have been appropriately mitigated or conditioned. See <b>Section 6</b>
(c) the suitability of the site for the development	The site is suitable for the development. See <b>Section 3</b> and <b>6</b> .
(d) any submissions	Consideration has been given to the submissions received during the exhibition period. See <b>Sections 5</b> and <b>6</b> .
(e) the public interest	The proposal is in the public interest. See <b>Sections 5</b> and <b>6</b> .
(f) Biodiversity values impact assessment not required if:	The application includes a Biodiversity Assessment Report (BAR) and the impacts of the proposal on biodiversity values are discussed in <b>Section 6</b> .
(a) On biodiversity certified land	
(b) Biobanking Statement exists	

#### 4.5 Threatened Species Conservation Act 1995 (TSC Act) (now repealed)

The SEARs for the proposal were issued and the environmental assessment was substantially completed prior to the repeal of the *Threatened Species Conservation Act 1995* (TSC Act). As provided by the Biodiversity Conservation (Savings and Transitional) Regulation 2017, the provisions of the TSC Act continue to apply to the proposal.

A BAR was included in the EIS lodged with the original application and was considered in the Department's assessment and approval of the Phase 1 partial consent (**Appendix A**).

The impact of the Phase 2 and 3 proposal on biodiversity values has been assessed in an addendum BAR accompanying the Phase 2 and 3 RfS and further amended in the SRfS. The addendum BAR has been considered in detail. The Department concludes that biodiversity values would not be significantly detrimentally impacted on by the proposal, subject to the retirement of ecosystem credits and for the implementation of management strategies. Impacts of the proposal are further discussed in **Section 6**.



# 5 Engagement

## 5.1 Department's engagement

Details of the Department's engagement activities following submission of the original application and EIS leading to the Phase 1 partial approval are set out in the Department's Assessment Report dated October 2018 (**Appendix A**).

The Department publicly exhibited the Phase 2 and 3 RtS from 22 November 2019 to 18 December 2019. The Phase 2 and 3 RtS was exhibited at the Department, on its website, at the NSW Service Centre and at Ku-ring-gai Council's (Council) office. The Department placed a public exhibition notice in the North Shore Times on 21 November 2019 and notified adjoining landowners/occupiers and relevant state and local government authorities in writing. The Department representatives visited the site to provide an informed assessment of the development.

Following the exhibition of the Phase 2 and 3 RtS, the Department placed copies of the submissions received on its website and requested the Applicant to respond to the comments made. On 1 July 2020, the Applicant submitted a Supplementary Response to Submissions and Amended Proposal (SRtS). The SRtS was made publicly available on the Department's website. The Department notified previous submitters, public authorities and landowners/occupiers that received notice of the Phase 2 and 3 RtS. The notification period occurred for 14 days from 14 July 2020 to 28 July 2020.

The Applicant submitted a further Supplementary Response to Submissions (FSRtS) to respond to the comments made in the submissions to the SRtS. This was referred to Council and public agencies for comment. It was also made on public on the Department's website.

The Department has considered the comments raised in the public authority and public submissions during the assessment of the application, including those received prior to the Phase 1 partial approval, (**Section 6**) and/or by way of recommended conditions in the instrument of consent at **Appendix D**.

## 5.2 Summary of submissions – Phase 2 and 3 RtS

The Department received a total of 125 submissions. This included six submissions from public authorities providing comments, two submissions from interest groups (Dunstan Grove Owners Strata and action for Public transport NSW) in objection and 117 submissions from the public (102 being in objection) to the exhibited Phase 2 and 3 RtS. A summary of the issues raised in the submissions is provided at **Section 5.2.1** and **Section 5.2.2** and copies of the submissions may be viewed at **Appendix A**.

### 5.2.1 Public authority submissions

A summary of the issues raised in the public authority submissions is provided at **Table 5** below and copies of the submissions may be viewed at **Appendix A**.

**Table 5 | Summary of public authority submissions**

**Ku-ring-gai Council (Council)**

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Council provided comments in relation to:

- internal and external alterations and additions:
  - the omission of the rooftop COLAs provides an aesthetic improvement to the main campus building in retaining "hillside village" design.
  - the removal of the concrete wall adjacent to the spiral stair is not supported.
  - the removal of highly significant fabric to allow for level four reception window is unfortunate but can be accepted in the greater scheme.
  - the existing planters are graded as having exceptional significance. Any works which conserve these planters while improving their function is supported. The use of native plants is encouraged.
  - COLA design and colours need to be refined to better relate to the existing main campus building.
- bush fire:
  - while no objection is held to the fire trail provided as part of the Phase 1 works as it is a necessity, objections are held to the realignment and widening of it proposed in the Phase 2 and 3 RtS to form a wider, all-vehicle access loop road around the site (note that these works were subsequently removed in the SRtS and less substantial changes are now proposed to the fire trail connection from Dunstan Grove to the southern internal access road).
  - no objection is held to the options formulated for the fire shutters and replacement steel frame windows and doors.
  - concerns are raised over the reliance on APZs imposed on National Park land which ideally should be contained entirely within the site. Council notes that this may be considered as a performance-based solution.
  - the bush fire radiation assessment has been carried out by a consultant who does not appear to have expertise in bush fire behaviour or bush fire protection measures.
  - concerns remain about the reliance on radiant heat shielding provided by escarpments downslope of the development site to reduce required APZ widths.
  - modelling of radiant heat alone is generally not sufficient where the effective slope exceeds 18 degrees, as canopy fuels become much more involved in fire behaviour and convective heat starts to become a substantial factor.
  - due to the very steep slopes, an increased flame height and the effects of convective heat on this development should be considered.
- flooding and stormwater:
  - detailed mainstream and overland flow flood mapping has not been completed by Council for this area.
  - as the site is situated near the ridge line, mainstream flow flooding is not a concern. However, overland flow is a potential issue which should be addressed through the stormwater drainage system.
  - it is unclear how the proposed Water Sensitive Urban Design (WSUD) features would operate in practice.



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- additional details are requested in relation to the proposed bioretention basin.
  - biodiversity and tree impacts:
    - concerns are raised regarding the impact of extensive recreational structures within areas marked as managed bushland, including the parkour trail.
    - design, construction and management of assets should minimise impacts on trees through appropriate footing design and location, as well as consideration of future ground maintenance requirements.
    - concern is raised regarding the additional impacts to local biodiversity and vegetation from the proposed loop road circling the site.
    - whilst the local plant community is not mapped as a threatened ecological community, this area provides important habitat and directly adjoins core bushland areas. Any additional impact to trees or habitat (such as hollows) should be offset.
  - landscape plan:
    - paved surfaces should be better integrated into the playground.
    - use of coloured concrete is recommended as it is more sympathetic with the natural landscape and reduces the heat island effect (given the loss of canopy cover).
    - impediments to free movement of play such as fencing should be reduced.
    - gates and fences have not been well integrated into the playground and do not align with paths and desire lines.
    - tree species should be selected that are better suited to bush fire prone areas.
    - bus movements should not dominate the design of the playground given the limited space and flat play areas for the children.
    - the relationship between the main campus building and the immediate landscape is a key element of the original design and should be retained.
  - traffic and transport:
    - trip generation assumptions are not appropriate given the site is highly car dependent.
    - footpath upgrades are required on the local road network, notably Abingdon Road.
    - failure to achieve the proposed 43% car based trip mode share target would result in staff parking on streets.
    - Council would like to further engage with the Applicant and school to come to an arrangement for community access to the car park (by completion of Phase 2 works).
    - additional bus services, cycling and pedestrian infrastructure need to be confirmed prior to Phase 2 and 3 operation.
    - the extension of the right turn bay on Pacific Highway at Grosvenor Road from 70m to 120m is supported. The rationale behind the optional extension of the right turn bay to 170m is unclear.
    - there is extensive queuing and delay as a result of the proposed loop road design.
    - drop-off/pick-up queues must be managed so as not to cause congestion and queuing in Dunstan Grove.
  - proposed loop road:

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- the heritage impacts from the proposed loop road are not justified or explained in the Conservation Management Plan (CMP) in context of the original heritage assessment for rezoning the site (MP 06\_130).
  - in terms of heritage impact the proposed loop road is not supported as the preferred solution. While the loss of trees is low, the continued incremental loss, first from the APZ and now to build the road, is creating a denuded space in the landscaped area closest to the southern façade.

### **Environment Protection Authority (EPA)**

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The EPA provided the following comments relating to the site:

- the submitted Noise Impact Assessment (NIA):
  - does not include the most up to date noise logging results.
  - includes noise limits that are higher than they would be if the most recent noise logging was utilised. All assessments of noise impacts, including derivation of project specific noise levels, should be undertaken with reference to the most recent noise logging data.
  - does not contain any predicted noise or vibration levels from the construction stage.
  - does not include an assessment of mechanical plant noise. This should be updated to achieve noise levels of no greater than the background (RBL) noise level + 5 dB.
  - includes noise sources associated with the development that do not comply with the nominated criteria.
  - does not include discussion of reasonable and feasible mitigation measures.
- noise impacts from the proposed loop road for drop off/pick up are predicted to exceed the NSW Road Noise Policy (DECCW, 2011) and Noise Policy for Industry (NPI).
- where exceedances of the NPI and NSW Road Noise Policy are expected, consideration of all reasonable and feasible mitigation must be included in the assessment.

### **Transport for New South Wales (TfNSW) including Transport for New South Wales (Roads and Maritime Services) TfNSW (RMS)**

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TfNSW provided the following comments:

- further information is required in relation to:
  - operation of the proposed loop road passes through the proposed two-way drop-off/pick-up area (note that the all-vehicle loop road was removed in the SRtS).
  - pedestrian infrastructure for safe movement is required.
  - traffic management measures given that parking spaces are located and would operate adjacent to the drop-off/pick-up area.
  - further swept path analysis that covers the entire site.
  - how lane changing could be practically managed on the proposed loop road, noting that bus and car movements are going in the same direction and would continue simultaneously throughout peak periods.



- adequate space must be provided for buses to safely pass on the outside lane along the section of proposed loop road where bus drop-off/pick-up bays and bus queuing bays are located.
- prior to construction, a comprehensive Traffic Management Plan should be prepared to provide details of how the proposed loop road would operate in conjunction with proposed drop-off/pick-up area.
- a Stage 2 (Concept Plan) Road Safety Audit must be undertaken by an independent TfNSW accredited road safety auditor of the current proposal.
- the Applicant should ensure that ongoing discussions occur with Transdev so that increases in bus service demand can be appropriately considered.
- a Green Travel Plan (GTP) is to be prepared and implemented prior to occupation.
- consideration must be given to the operation of drop-off/pick-up area and subsequent construction vehicle traffic impact.
- the proposed upgrades for the intersection of Pacific Highway and Grosvenor Road should be designed to meet TfNSW requirements and be endorsed by a suitably qualified practitioner.

### **Heritage Council of NSW (Heritage NSW)**

Heritage NSW made the following comments:

- the removal of the previously proposed rooftop structures is supported.
- the proposed loop road can be supported as it would not significantly detract from the ability to interpret the main campus building within the bushland setting.
- the partial demolition of the elevated footbridge link to provide minimum clearance to the proposed fire trail connection to Dunstan Grove would have a limited heritage impact but can be supported.
- landscape works in the southern section of the site should be finalised in consultation with Bruce Mackenzie (the original landscape architect who prepared the landscape scheme for the site) to ensure a sympathetic approach is taken in accordance with the landscape philosophy.
- the following proposed works would have an irreversible physical and visual impact on the significance of the item:
  - removal of brickwork to slightly enlarge the light well on the south façade.
  - removal of a section of floor slab that includes a section of original tiles.
  - removal of a substantial area of the existing concrete wall adjacent to the spiral stair.
  - removal of a section of the concrete wall adjacent to the Level 4 entry.
- to avoid the above impacts, conditions of consent requiring the following are recommended:
  - an alternative fenestration design for the south façade of Level 1 to ensure that the existing masonry wall is preserved intact.
  - an alternative light source is designed to ensure that the highly significant courtyard is preserved intact.
  - an alternative location for the reception is found to ensure that the off-form concrete walls and the existing visual connections between floors, are preserved intact.
- the revised COLA design, drainage systems and replacement tiles are consistent with the CMP and can be supported.

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- a condition of consent should require that the proposed works and operation of the school do not detrimentally impact upon the heritage significance of the site.

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

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NSW RFS provided the following comments:

- the following additional information is required:
  - updated plans denoting the proposed off-site APZs and confirmation from National Parks and Defence Housing Australia regarding the ongoing management of the APZs within the former UTS precinct.
  - details on the radiant heat modelling inputs and calculations in the Bushfire Radiation Assessment Report.
  - detailed radiant heat modelling calculations for long sections 1 to 11.
  - justification for any variations in input, including reduced flame temperature and dispensation in considering flame length.
- off-site APZs have been relied on as part of the performance based solution in the Bushfire Radiation Assessment Report to demonstrate compliance of the existing structure with the provisions for special fire protection purpose development in Planning for Bush Fire Protection 2006. The application does not include approval for the management of these off-site APZs.

#### **5.2.2 Public submissions**

The public and interest group submissions raised the following concerns and matters for consideration:

- detrimental traffic and transport impacts associated with the proposed loop road, notably to properties on Dunstan Grove.
- vehicle and pedestrian safety on internal roads and the surrounding road network.
- existing roads are insufficient to cope with increased traffic movements.
- impacts from buses travelling close to residential properties (noise, safety and other amenity related impacts).
- insufficient car parking.
- bush fire risk.
- further tree removal proposed in Phase 2 and 3 adds to already significant tree loss as a result of Phase 1 works.
- limited public exhibition timeframe and inadequate community consultation.
- construction management impacts (noise, dust, vibration, duration and traffic).
- detrimental impacts to the heritage characteristics of the site (built form and landscaping).
- whether proposed vegetation clearing is permissible within the National Park.
- additional public transport infrastructure such as a metro station should be investigated to take load off the road network.
- the site is not an appropriate location for a school for 2000 students due to significant traffic, transport and bush fire related impacts.



### 5.3 Supplementary Response to Submissions/Amended Proposal (SRtS)

Following exhibition of the Phase 2 and 3 RtS, the Department placed copies of all submissions received on its website and requested the Applicant to respond to the comments made.

On 1 July 2020, the Applicant provided a SRtS (**Appendix A**). The SRtS included the following amendments to the proposal:

- revisions to the access arrangements proposed in the RtS including the removal of the previously proposed all-vehicle loop road circling the site and replacement of this with alterations to the existing internal access road along the eastern side of the site. This internal access road would be:
  - altered to the east of the main campus building to convert and extend the existing Phase 1 parent/carer drop-off/pick-up area into new a new bus drop-off/pick-up area and provide a new bus turnaround facility.
  - extended to the south of the main campus building to provide a replacement new parent and carer drop-off/pick-up and turnaround facility.
- revisions to the landscape design and removal of 16 additional trees to accommodate the revised car and bus access arrangements to the east and south of the main campus building.
- deletion of a previously proposed penetration through the building slab in the Zone F Level 4 courtyard.
- changes to the extent of the proposed opening through the concrete wall adjacent to spiral stairs near the Level 4 entrance.
- changes to the colour palette for the COLA.

The SRtS was made publicly available on the Department's website and notices were sent to previous submitters and landowners/occupiers in the same area notified of the Phase 2 and 3 RtS. The notification period occurred for 14 days from 14 July 2020 to 28 July 2020. As a result of the notification, a further four submissions were received from public authorities, including Council, and six public submissions were received (three in objection).

#### 5.3.1 Public authority submissions - SRtS

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

**Table 6 | Summary of public authority submissions to SRtS**

##### **Council**

Council provided the following comments:

- assessment of the impacts of the proposed APZ within the Lane Cove National Park should not be deferred to a separate assessment through a Review of Environmental Factors (REF) as proposed in the addendum BAR. As a result of this deferment, the addendum BAR fails to address the impact of the proposed APZ within the adjacent Lane Cove National Park and therefore fails to offset all biodiversity impacts of the proposal.
- flooding and stormwater:
  - an appropriately qualified hydraulic engineer should be consulted in the design and planning of the stormwater treatment system.

- 
- the school must be provided with an approved operation and maintenance schedule for any water sensitive urban design components or other stormwater treatment measures.
  - bush fire:
    - the parameters used in the radiant heat modelling in the Applicant's bush fire reports were simplistic and would not reflect the many biophysical and environmental variables that determine heat fluxes during the course of a short-run bush fire event.
    - alternative bush fire modelling with more dynamic variables than that used by the Applicant's bush fire consultant would result in heat flux outcomes that would be more representative of likely bush fire attack.
    - Council would be satisfied that due diligence has been taken if bush fire modelling is undertaken in compliance with a research paper on bush fire modelling provided by Council.
  - transport and traffic:
    - the car based mode share target of 43% for staff proposed in the Applicant's Transport Impact Assessment (TIA) should be reviewed as it cannot be realistically achieved by Phase 3.
    - further consideration should be given to afterhours use of the on-site car parking by users of the Blair Wark Community Centre and Charles Bean Oval. Council would like to further engage with the Applicant and the school to come to an agreement for wider community access to the car park during after hours.
    - investigations should be undertaken to assess the suitability of Symons Track as a southerly access point. Upgrading it and/or incorporating it into the school's pedestrian access routes would add a substantial area into the school's walking catchment from Lady Game Drive.
    - the revised access arrangements address previous issues raised in regard to traffic volumes and queues on Dunstan Grove.
    - the primary pedestrian main entry gate opening should be widened to match the width of the footpath.
    - occupation for Phase 2 and 3 should be conditional on the appropriate bus services having been allocated.
    - further advice should be obtained from TfNSW in regard to the impacts on future options for improvements at the intersection of Pacific Highway and Strickland Avenue should the optional extension to the Pacific Highway and Grosvenor Road turn bay be extended to 170m.
  - heritage:
    - previous concerns regarding the loss of vegetation have been addressed by the Applicant's detailed response.
    - although the relatively substantial removal of vegetation is very unfortunate from a heritage perspective, the proposal is put forward as part of a much wider project, which enables the future proofing of the adaptive reuse of the heritage item through its ongoing use as an educational precinct.
    - the revised COLA colour palette incorporates more natural hues and is acceptable.
    - detailed drawings of the demolition adjacent to the spiral stair is required prior to commencement of works on site.



- 
- conditions of consent are recommended regarding design details, archival recording, archaeology and indigenous heritage.
  - landscape drawings:
    - a number of deficiencies and inconsistencies within the landscape drawings should be rectified.
    - options should be considered to extend the hard road pavement of the internal access road to mirror the turning circle at the school entry plaza.
    - changes should be made to remove overlaps between active recreation zones and managed bushland areas as they contradict each other.

## **EPA**

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The EPA provided the following comments:

- further changes are required to the revised NIA provided with the SRtS to satisfactorily address noise impacts to:
  - correct the procedures used to derive the project noise trigger levels.
  - include an in-depth assessment of mechanical plant to identify the likely scope and severity of the noise control measures.
  - include an assessment of the revised on-site traffic arrangements against NPI criteria.
  - incorporate a quantitative assessment of off-site impacts from internal noise activity and cumulative noise levels.
  - confirm whether existing building facades would require upgrades to meet acceptable off-site noise levels.
  - revise noise predictions to include the cumulative impact of Phase 1, 2 and 3.
  - confirm that the increased outdoor play areas have been considered.
- adequate community consultation is required in the construction noise mitigation strategy.

## **TfNSW and TfNSW (RMS)**

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TfNSW advised that the SRtS has largely addressed TfNSW's previous comments, in particular the issues associated with the previously proposed widened and realigned internal access road.

TfNSW recommended conditions of consent relating to:

- the preparation of a Construction Pedestrian and Traffic Management Plan (CTMP).
- undertaking a Road Safety Audit (RSA).
- preparation of an operational management plan, preparation of a Green Travel Plan (GTP).
- the design and approval of works related to the upgrade of the intersection of Pacific Highway and Grosvenor Road.

## **Heritage NSW**

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Heritage NSW made the following comments:

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- the revised access arrangements remove larger portions of natural bushland. Further investigation must be undertaken by the Applicant for replacement tree planting within the context of the landscape works at the site to mitigate the removal of the 26 trees associated with the revised access arrangements.
  - the removal of brickwork graded as having high significance should be avoided.
  - all proposed works which have the potential to reduce the internal and external significant fabric of the item must be designed to be reversible.
  - conditions of consent are recommended that require:
    - a suitably qualified landscape architect to provide input into the landscape works to ensure that they are sympathetic to the original landscape philosophy for the site devised by Bruce Mackenzie.
    - an alternative fenestration design to be prepared for the South Façade Level 1 to ensure that the existing masonry wall is preserved intact.
    - an alternative light source is designed to ensure that significant fabric and views are preserved intact to allow retention of two portions of concrete wall for increased light penetration would require the removal of a substantial amount of original fabric, identified in the CMP as of high significance.

## NSW RFS

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NSW RFS reviewed the updated bush fire evacuation, management and fire design documentation and identified discrepancies and deficiencies that should be addressed. NSW RFS also recommend that once amended, all relevant bush fire documentation be collated into one accessible document to ensure that all bush fire protection measures have been addressed appropriately.

### 5.3.2 Public Submissions - SRtS

The six public submissions raised the following concerns and matters for consideration:

- the revised access arrangements do not address previous concerns regarding noise impacts and congestion on the overall road network raised in previous submissions.
- vehicle and pedestrian safety concerns on Dunstan Grove and Eton Road.
- bush fire risk has not been appropriately addressed.
- inadequate and illegal car parking already occurring as part of Phase 1 operation and activities on Charles Bean oval would be exacerbated with Phase 2 and 3 operations.
- staggered commencing and finishing school times for different year groups is requested.
- bus routes should be shared with other schools in the locality to take pressure of other buses and trains.
- a metro station should be built to reduce congestion on the road network.
- road network improvements should be undertaken, such as upgrading Lady Game Drive and implementing no stopping on Eton Road.
- the site is still not suitable for 2000 students.



## 5.4 Further Supplementary Response to Submissions (FSRtS)

On 1 August 2020, the Applicant provided a FSRtS (**Appendix A**) addressing issues raised during the notification of the SRtS. The FSRtS provided further clarification, detailed plans and documentation in response to the issues raised in the submissions. The FSRtS did not involve any further amendments to Phase 2 and 3 as was refined in the SRtS.

On 1 September 2020, the FSRtS was provided to Council and public authorities for 14 days for review and comment. As a result of this notification three responses were received from TfNSW, EPA and Heritage NSW.

TfNSW stated that the FSRtS appropriately responded to comments raised to the SRtS. TfNSW recommended that the conditions of consent provided with the SRtS submission be implemented in any approval for Phase 2 and 3. The conditions related to the intersection upgrade for Pacific Highway and Grosvenor Road, conducting a road safety audit, preparation and implementation of a construction traffic management plan and GTP.

EPA stated that the Revised Noise Impact Assessment (RNIA) provided with the FSRtS had addressed the technical noise and acoustic assessment concerns raised in response to the Phase 2 and 3 RtS and SRtS. EPA also advised that when the road noise is assessed against the NPI, noise levels would exceed the PNTLs. However, this would only be for brief periods on weekday mornings and afternoons during school terms.

Heritage NSW stated that the FSRtS was acceptable subject to conditions of consent requiring:

- investigations of opportunities for additional replacement tree planting within the site.
- the landscape design to be developed in conjunction between the Applicant's design team and qualified landscape architects.
- the removal of the brick facade to Level 1 must only remove every other brick to allow light to enter the new toilet block.
- all proposed works which have the potential to reduce the internal and external significant fabric of the item must be designed to be reversible.
- the schedule of conservation works prepared as part of the Phase 1 partial consent be implemented as a condition of consent.
- prior to any demolition of fabric, consultation must occur with Heritage NSW and Council through detailed design drawings for review and comment.

Following initial NSW RFS comments on the updated bush fire reports provided in the FSRtS, the Applicant submitted further revised reports to support the FSRtS. Following a review of the further revised reports, the NSW RFS advised that it had no objection to the project proceeding on the basis of the recommendations and findings of those reports.

## 6 Assessment

The Department's assessment of the construction works associated with Phase 1 is set out in its Assessment Report dated October 2018 (**Appendix A**). The Department's assessment of the Phase 2 and 3 construction works, and overall school operations as amended in Phase 2 and 3, is set out below.

The Department has considered the Phase 2 and 3 RtS, the issues raised in submissions and the Applicant's SRtS and FSRTS in its assessment of the proposal. The Department considers the key issues associated with the proposal are:

- bush fire.
- heritage and urban design.
- traffic, access and parking.

Each of these issues is discussed below. Other issues considered during the assessment are discussed at **Section 6.4**.

### 6.1 Bush fire

The site is identified as bush fire prone land (**Figure 10**) and the proposed school use is identified as a Special Fire Protection Purpose (SFPP) under Planning for Bush Fire Protection (PBP) 2019.

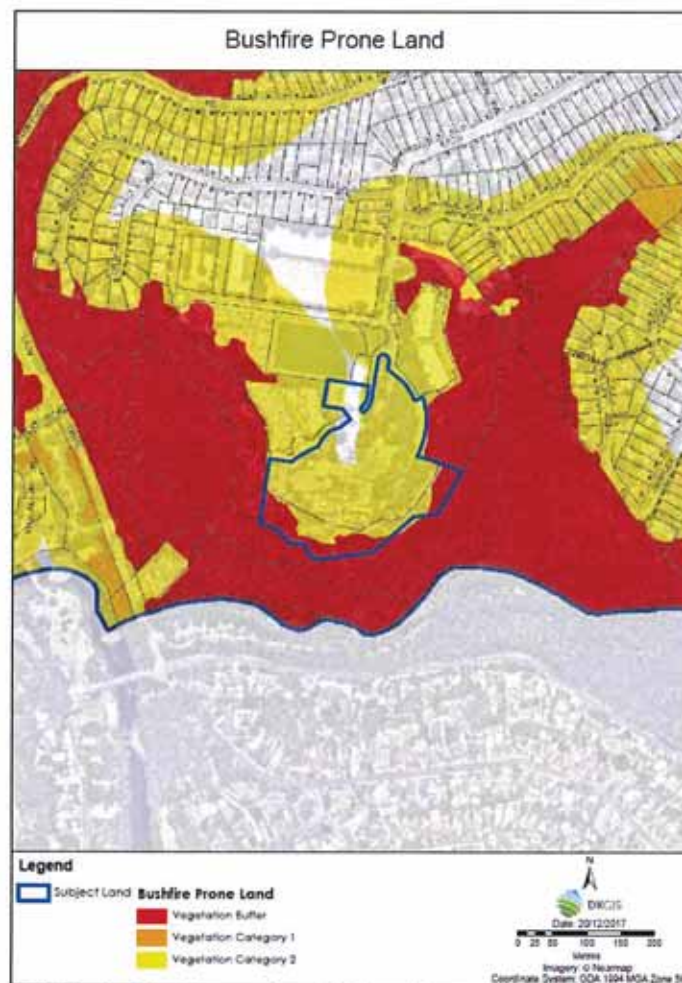


Figure 10 | Bush Fire Prone Land Map (Source: Applicant's RtS 2020)



The site is heavily vegetated, bound to the east, west and south by Dry Sclerophyll Forests including the vegetation in Lane Cove National Park. Additionally, the location of the main campus building is elevated with the land sloping downward to the east, west and south influencing fire behaviour. The Applicant's bush fire consultants acknowledge that the configuration of the development and surrounding environment results in the potential risk of a high intensity bush fire impact, or prolonged bush fire attack in the form of an ember attack, smoke and radiant heat.

The EIS submitted in 2019 for all phases of the development proposed extensive asset protection zones (APZ) to the south-east, south and south-west of the main campus building outside of the site boundaries within the Lane Cove National Park. In response to exhibition of the EIS, objections were received from both EESG and the NSW RFS to the proposed APZs as no agreement had been obtained from National Parks and Wildlife for their legal implementation. As a result, the Applicant was advised that any APZs that included land within Lane Cove National Park would not be supported. The phasing of the development was subsequently proposed by the Applicant to allow for the progression of Phase 1 that did not require APZs within Lane Cove National Park, given the greater distances from the Phase 1 areas to the boundaries of the site. This also allowed the Applicant further time to resolve bush fire protection measures required for Phase 2 and 3, including APZs to the south-east, south and south-west of the main campus building.

The Department subsequently concluded that the proposal included appropriate bush fire protection measures for Phase 1, in compliance with the then Planning for Bush Fire 2006 to enable Phase 1 to proceed (see the Department's Assessment report dated October 2018 for further details – **Appendix A**). These measures included:

- provision of APZs for a distance of 100m around the Phase 1 operational areas, extending to the southern boundary of the site and including bush fire management areas approved in the Concept Plan for the former UTS Campus to the north-east and west of the main campus building.
- construction of a fire trail along the southern side of the main campus building with a turning area at the western end of the fire trail to allow for fire fighting vehicles to turn around.
- alterations to the main campus building to fire separate Phase 1 areas from the remainder of the building.
- upgrades of the elevations and roof of the Phase 1 areas of the main campus building to comply with Bushfire Attack Level (BAL) - Flame Zone standards.
- preparation of a Bush Fire Emergency Management and Evacuation Plan (BEMEP) for the school.
- pedestrian infrastructure improvements between the site and Lindfield Public School to facilitate evacuation.

These measures were implemented in support of the commencement of Phase 1 operations on day 1, term 1 2019.

Following the issue of the Phase 1 partial consent, the Applicant further investigated the bush fire protection measures required for Phase 2 and 3 and consulted with National Parks and Wildlife in relation to provision of APZs in Lane Cove National Park. On 19 June 2020, a Review of Environmental Factors (REF) was prepared which approved the clearing of land within the National Park to facilitate the provision of revised APZs from the south west to the south east of the main campus building identified by the Applicant's bush fire consultant. The APZ to the south west extends passed the neighbouring residences on Dunstan Grove. A licence was also issued by NSW National

Parks and Wildlife Service under section 151 of the *National Parks and Wildlife Act 1974* to allow the ongoing management of these APZs by the Applicant.

The Phase 2 and 3 Rts included a series of related reports assessing the impacts of bush fire on the proposed development and compliance of the proposal with PBP 2019. These were subsequently updated in the FSRts and include a revised package of bush fire protection measures to protect the Phase 2 and 3 areas using a performance-based approach. The package of bush fire protection measures includes:

- provision of additional APZs around the Phase 2 and 3 areas.
- upgrades to the facades and roof of the main campus building to BAL-Flame Zone standards.
- preparation of an updated BEMEP to incorporate the changed and expanded operations as a result of Phase 2 and 3.
- revised and improved fire trail access that passes underneath the elevated footbridge link towards the western end of the main campus building and connects to Dunstan Grove.

### 6.1.1 Asset Protection Zones (APZ)

APZs have already been established to the west, north and north-east of the main campus building as part of the commencement of Phase 1 operations. This includes management of the entire site as an APZ and ongoing management of bush fire management areas on adjoining land approved under the Concept Plan for the former UTS Campus.

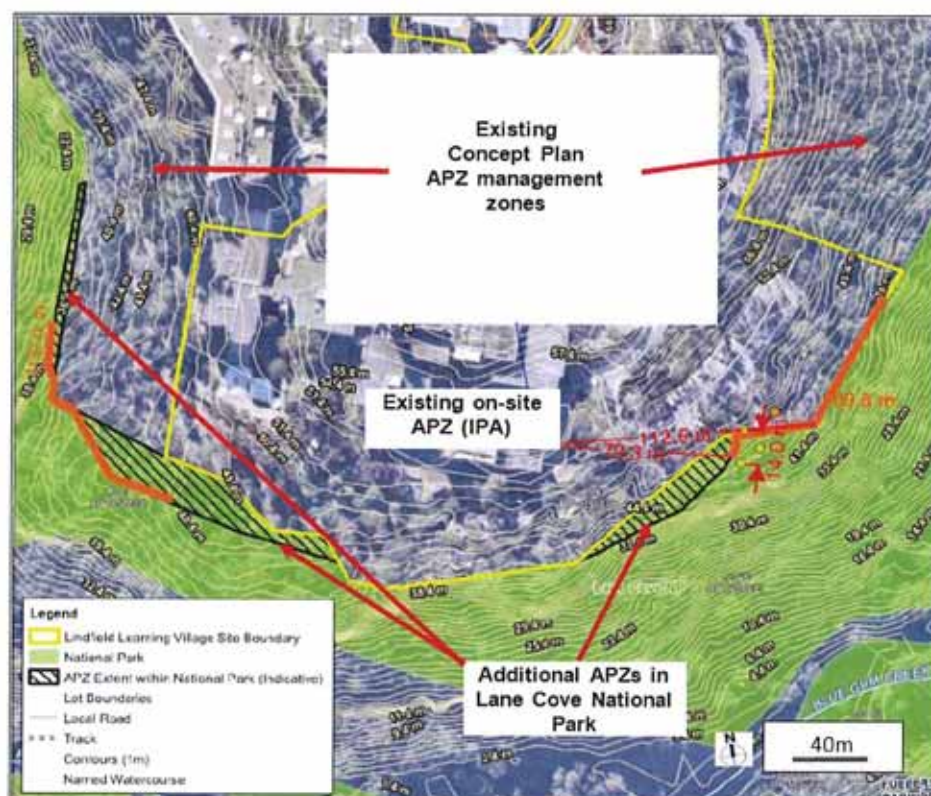
The bush fire management strategy approved under the Concept Plan and subsequent consents for the adjoining residential uses established bush fire management areas as mutually beneficial APZs (Figure 11).



Figure 11 | Existing APZ management zones (Source: Applicant's SRts 2020)







**Figure 13 | APZ and radiant heat load (Source: Applicant's FSRtS 2020)**

### 6.1.2 Building upgrades

The Bushfire Design Fire Engineering Report, as revised by the FSRtS, proposes that the main campus building façade (in consideration of heritage values) be upgraded as required to achieve BAL - Flame Zone levels of protection. This has been proposed in order to assist the school in the instance the last resort option of shelter-in-place is required. These works include:

- openings for windows, skylights and doors are protected by bush fire shutters or fire resisting windows/doors are installed where heritage considerations do not permit shutters.
- all openings greater than 2mm are treated with ember mesh or sealed.

The report noted that no changes were required to external walls or roof as these are concrete and anticipated to have a fire resistance level of greater than 30 minutes (exceeding the Australian Standard for non-combustible walls, identified above). In addition, the rubber waterproofing layer on top of the roof is protected by a 20mm aggregate ballast to shield from ember attacks and avoid melting or igniting the waterproofing layer.

The Bushfire Design Fire Engineering Report notes that construction to BAL-Flame Zone levels is considerably more resilient than what would be required to resist radiant heat levels predicted in the bush fire modelling. In addition, it notes that the overall strategy is to ensure that fire containment measures are in place (such as sprinklers and compartmentation of the main campus building) so that any potential fire spread is mitigated.

### 6.1.3 Emergency Evacuation

A Bush Fire Emergency Management and Evacuation Plan (BEMEP) has been prepared for the school and would be updated to reflect the expanded and changed operations as a result of Phase 2



and 3. The BEMEP includes pre-emptive measures such as the school principal liaising with the NSW RFS to determine whether evacuation is required when a total fire ban is declared or a catastrophic fire danger rating is issued. The BEMEP also provides that in the case of imminent bush fire, the school would prioritise off-site evacuation through either:

- immediate evacuation.
- pre-warned/managed evacuation.
- self-managed evacuation/relocation.

Remaining on-site or shelter-in-place would only be considered as an alternative when the risk associated with evacuation is seen as being greater than that of sheltering in place or as an outcome of an immediate threat to individuals where evacuation cannot be initiated in a safe manner.

In relation to off-site evacuation, students and staff would evacuate to Lindfield Primary School, located at 218 Pacific Highway, Lindfield, approximately 1.3km from the site (**Figure 14**). Evacuation is likely to take place on foot, however time permitting, buses may be organised.



**Figure 14 | Egress route to Lindfield Public School (Source: Applicant's FSRtS 2020)**

The Phase 1 partial consent included a condition of consent to upgrade the footpath infrastructure along this route. This was to be undertaken in consultation with Council to ensure that a continuous footpath is provided along the route. The completed upgrades have resulted in a footpath along Eton Road that connects to Grosvenor Road, subject to multiple crossings. Opportunities for further upgrades to the pedestrian infrastructure is discussed further in **Section 6.1.6**.

#### **6.1.4 Access arrangements**

Changes are proposed to the existing fire trail established in Phase 1, the fire trail runs to the south of the main campus building, connecting the existing internal access road to the east of the main campus building. This has a turning bay at its western end so that fire fighting vehicles can undertake forward and reversing manoeuvres when required.

Phase 2 and 3 would replace the fire trail with an extension of the existing internal access road that would provide a new parent drop-off and turnaround area to the south of the main campus building. A new fire trail connection would be provided from the western end of the extended internal access road. This would pass under the elevated footbridge link at the western end of the main campus building to join with Dunstan Grove. This would mean that fire fighting vehicles would not need to stop and undertake reversing actions as they could enter and exit the site in a forward direction. This is discussed further in **Section 6.3.4** and depicted in **Figure 23**.

#### **6.1.5 Summary**

Overall, the bush fire reports concluded that Phase 2 and 3 would satisfy the requirements of the relevant provisions of PBP 2019 through the implementation of the package of bush fire protection measures that form a performance-based approach to managing bush fire risk on the site.

#### **6.1.6 Department's Assessment**

Council reviewed the submitted bush fire documentation and raised a number of concerns in relation to the accuracy of the assessment and acceptability of off-site APZs. The public submissions also raised concerns regarding bush fire risk, notably as a school is a sensitive land use.

The NSW RFS also identified deficiencies with the bush fire reports provided with the Phase 2 and 3 RfS and subsequent updates. Following an initial review of the updated bush fire reports provided in the FSRfS, the Applicant submitted further revised reports to support the FSRfS. Following a review of the further revised reports, the NSW RFS advised that it had no objection to the project proceeding on the basis of the recommendations and findings of those reports.

The Department has carefully considered the information provided by the Applicant, comments made by Council and public submitters, and the advice of NSW RFS. The Department recognises that the proposal incorporates a performance-based solution comprising a package of measures to ensure that bush fire risk is appropriately addressed and managed. This includes significant redundancy in building construction as the building would withstand bush fire conditions above that expected to affect the building given the APZs to be provided.

As concluded with the Phase 1 determination, the Department acknowledges that the proposal relies on APZs outside of the site. However, the Department is satisfied that suitable mechanisms are in place to enable the APZs to be implemented on an ongoing basis, including through bush fire management zones required in the Concept Plan for the former UTS campus and the licence from National Parks and Wildlife Service.

To ensure that APZs are managed on an ongoing maintenance basis, the Department has recommended conditions that incorporate the preparation of a Vegetation Management Plan for the site and for the annual monitoring and certification of APZs.

The Department notes that the Applicant has not submitted one comprehensive plan showing all APZs that would support the school, including those currently in place as part of Phase 1, the existing bush fire management zones on adjoining land, and those proposed as part of Phase 2 and 3. The Department has recommended a condition that such a plan be prepared within three months of the commencement of construction and that this form part of the Vegetation Management Plan.

The Department notes that in the event of a bush fire event, the BEMEP proposes the evacuation of staff and children to the Lindfield Primary School on foot. While a continuous footpath has been



provided from the site to Lindfield Public School as required, in the Phase 1 partial consent (**Figure 15**), it requires multiple crossings across Eton Road in order to achieve this. The Applicant has acknowledged that further improvements could be made to maximise efficiency of the route in the event of an evacuation and ensure the safety of staff and students. Council has advised that it supports further improvements to pedestrian infrastructure between the two sites.

The Department considers that further improvements are warranted along Eton Road, Austral Avenue and Grosvenor Road. As such, conditions of consent have been recommended to require provision of the following subject to consultation with Council:

- a pedestrian crossing on Abingdon Road at its intersection with Eton Road.
- a footpath on the southern side of Eton Road from the existing end of the footpath north of Abingdon Road to Austral Avenue.
- a pedestrian crossing on Eton Road at Austral Road.
- a footpath along the southern side of Grosvenor Road between Austral Avenue and Bent Street.

These works (**Figure 15**) would ensure that there is a continuous, intuitive, safe and efficient walking route to Lindfield Public School that minimises the need to cross Eton Road, Austral Avenue or Grosvenor Road multiple times. Where crossing a road is required, the works would ensure that this is undertaken at formalised locations with sufficient traffic calming measures.



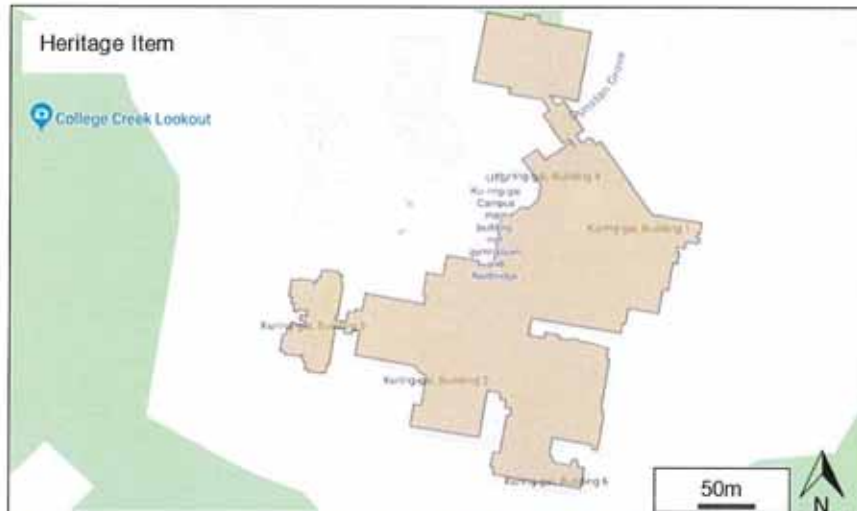
**Figure 15 | Section of footpath to be upgraded (Source: Nearmap 2020)**

Based on the above comments, the conditions recommended by the NSW RFS and the recommendations of the Applicant's bush fire reports, the Department is satisfied that the proposal is consistent with the aims and objectives of PBP 2019 and would incorporate suitable bush fire protection measures to ensure the safety of students and staff during operation of the school.



## 6.2 Heritage and urban design

The 'UTS Ku-ring-gai Campus main building, including the gymnasium and footbridge' at 100 Eton Road, Lindfield, is identified as a locally listed heritage item under KLEP 2015 (**Figure 16**). In response to the exhibition of the EIS for all phases, Heritage NSW has also advised that the site was included on the priority list in 2013 for progression to listing on the State Heritage Register.



**Figure 16 | Heritage listed item under the KLEP (Source: NSW Planning Portal 2020)**

The addendum Heritage Impact Statement (HIS) for the Phase 2 and 3 RtS provided a Statement of Significance (SoS) for the site. The SoS identifies the site to have a high level of historic, associative and aesthetic significance at a State and local level. The heritage values of the site as provided in the SoS are summarised as follows:

- the campus had an important role in the development of Australian architecture in the second half of the 20<sup>th</sup> century (historic).
- the campus had a significant role in the development of Australian landscape architecture and appreciation of bushland settings revered by the influential Sydney School (historic).
- the campus influenced the use of spatial planning to provide a social environment in the design of education buildings (historic and aesthetic).
- the campus represents substantial investment by the state and federal governments into higher education and is significant for its role in the development of teachers' education in NSW and the provision of education generally on the north shore (historic).
- the campus has important links to both Government and private architects and retains the important landscape design and techniques employed by Bruce Mackenzie, an influential landscape designer (associative).
- the campus is a seminal example of Australian Neo-Brutalist architecture influenced by the Sydney School, and is the recipient of numerous awards including the Sulman Medal in 1978 (aesthetic).
- the integration of the building with the natural bushland setting and topography of the site is of particular significance (aesthetic).

The SoS also concludes the following:

- the site is both a representative example of the design influences present in the building and its landscaped setting, and also rare in the combination of Neo-Brutalist and Sydney School influences on such a scale and with such a high degree of success.



- the presence of protected, rare, vulnerable and uncommon indigenous plant species in the vegetation of the site and its surroundings adds to the rarity value.

The Department's Phase 1 assessment (**Appendix A**) established the consideration of the heritage impacts of the proposal. While Phase 1 did not involve significant alterations to the fabric of the building, significant vegetation removal (872 trees) was required to facilitate APZs and landscaping for open play spaces. In summary, the Phase 1 assessment concluded that:

- the adaptation of the building for the purposes of a school provides an opportunity for its preservation in a manner that is consistent with its historical use as an education facility.
- the Phase 1 additions are well designed to preserve the architectural character of the building through the adoption of contemporary, contrasting elements that provide clear delineation from the existing, significant Brutalist style architecture but remain sympathetic to the established geometry of the building.
- although tree removal across the site would have a significant impact on the setting of the building and compromise the established bushland setting, the Department recognises the benefits of the proposed school in the preservation of the building and acknowledges that bush fire protection for the safety of staff and students is essential to the adaptive reuse.
- in order to ensure that there are no detrimental heritage impacts, conditions of consent were imposed requiring the preparation of a Conservation Management Plan (CMP), HIS and a Schedule of Conservation Works (SCW) prior to the commencement of construction.
- the Phase 1 assessment concluded that on balance, the public benefit of the development justifies the heritage impact of the proposal in the context of delivering much needed school places in a safe environment.

Proposed Phase 2 and 3 works have the potential to impact on the heritage significance of the item. Works include internal and external works to the building for functional and safety purposes and associated tree removal, landscaping and access improvement works.

Internal modifications primarily include the reconfiguration of existing spaces requiring demolition, heritage salvage, upgrade of bathrooms and replacement of brick and lightweight partition walls with fire rated internal walls and windows. Existing non-significant fabric internal walls would be replaced with glazed walls to achieve visibility into classrooms and allow widening of spaces. In the significant public areas such as the circulation spine, the atrium and the auditoriums, many of the walls would follow the same alignment of the existing brick walls to preserve and interpret the essential heritage layout of these spaces and the off-form concrete planes and columns would be retained.

The HIS indicated that the significant original staircases and waffle slab ceiling would be preserved, and original materials of high significance would be preserved where possible. The existing bathrooms in the building would be replaced with new facilities to meet current Australian Standards. The HIS noted the fittings are not significant in their own right but recommended use of a similar colour scheme to the existing fittings. The green carpets which are prominent throughout the building were also recommended for retention or replacement with a similar coloured carpet to protect the design intent to bring the outside in. The HIS also recommended the retention of all built-in furniture and planter boxes.

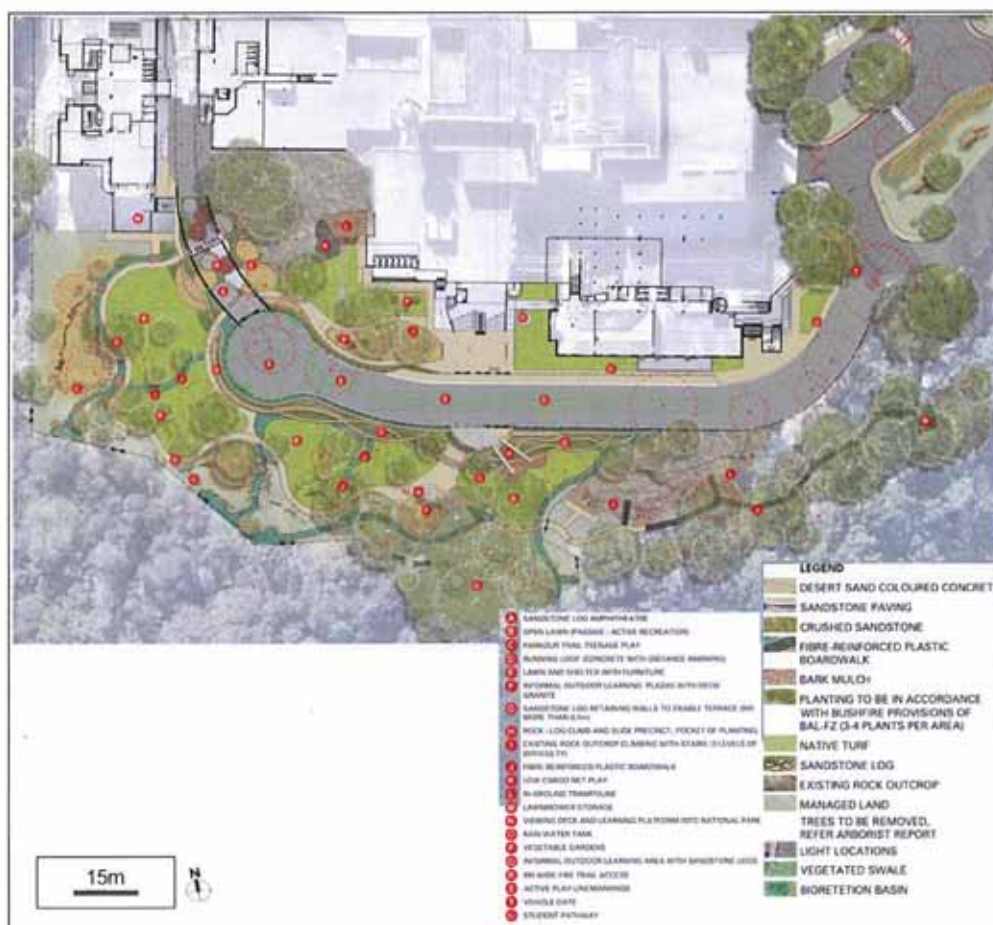
Further addendums to the HIS were provided in the SRtS and FSRtS to address the heritage impacts of Phase 2 and 3 highlighted in the submissions (**Section 5**). In addition, an extensive CMP was finalised, drawing on the interim CMP prepared under the Phase 1 partial consent, to guide the conservation and management of the significant elements of the site throughout for all three

development phases of the site. The HIS included a careful analysis of the site in terms of heritage significance and conservation policies to assist the Applicant to manage maintenance and new works to the site.

Externally, Phase 2 and 3 works are limited to façade works such as the balustrades to the internal courtyard, construction of the COLA, egress stairs to the roof level and works to the building to provide vertical clearance to the revised fire trail connection to Dunstan Grove. The external works would be contemporary in nature and seek to continue the design narrative established in Phase 1. The HIS concluded that the existing building is of such a robust character that it lends itself well to necessary contemporary additions whilst still presenting as a unified series of modulated elements which culminate in a fine representation of the Brutalist style. The HIS concluded that the external modifications would not obscure important elements of the existing structure and would not notably change the form of the building thus preserving its significant character.

The HIS and CMP also identify that the bushland setting is an important feature of the site's heritage characteristics. As discussed in **Section 2**, Phase 2 and 3 requires additional tree removal to facilitate the alterations and extension of the internal access road to the east and south of the main campus building. This equates to the removal of a further 48 trees (Phase 1 included the removal of 872 trees).

Proposed landscaping includes areas to the east, south and west of the main campus building. The main play areas would be located to the south of the building around the extended internal access road (Figure 17).



**Figure 17 | Landscape design to the south of the site (Source: Applicant's FSRtS 2020)**

The areas between the building and the access road would continue to be managed as an inner protection area (IPA) in a parkland style as is currently the case. This would comprise retained trees



with mown buffalo lawn underneath. Active and passive outdoor play spaces are proposed in addition to vegetated and bioretention swales to the south and west of the extended access road. 1.2m black palisade fencing is proposed around the internal access road in keeping with existing fencing around the site.

Additional information submitted with the FSRTS provided an assessment of the impacts resulting from the proposed vegetation removal, landscaping, fencing and extended internal access road on the heritage significance of the site and building.

The HIS stated that the original design intent for the site was that the building responded to and was nestled within an untouched landscape setting. The significance of the site is therefore directly vested in the relationship between the building and the landscape. The HIS noted that the use of native grasses to provide an unmanicured and natural appearance is preferred but acknowledged that this may conflict with the APZ requirements.

In terms of impacts on the landscape, the SRtS concluded that while the reuse of the site without alteration is preferred, the proposed meaningful adaptive reuse (where possible) would ensure conservation and ongoing maintenance. Furthermore, the SRtS argues that genuine effort has been made to retain the landscape setting (albeit altered) to continue to contribute to the significance of the site.

Public submissions raised concerns with the potential detrimental impacts that would occur to the heritage characteristics of the site. In response to the SRtS, Heritage NSW and Council advised they are supportive of the adaptive reuse of the building. Council advised that the SRtS addressed concerns raised about the landscape impacts of the proposal but required further design details of the partial demolition of internal significant fabric proposed. Council also recommended conditions of consent requiring submission of design details and undertaking of archival recording.

Heritage NSW raised concerns with the additional removal of natural bushland as a result of the revised internal access road. Heritage NSW did not object to the proposal but identified parts of the building fabric that should not be removed and advised that any internal works to other significant fabric should be designed to be reversible. Heritage NSW provided recommended conditions to ensure that the matters raised do not detrimentally impact upon the site. These required consultation with the original landscape architect for the site, preparation of an alternate fenestration design to preserve masonry walls and light sources to Level 4 to be designed to avoid the removal of high significant fabric.

The Applicant's FSRTS responded to the Council and Heritage NSW comments, outlining why certain design decisions were made and that out of all the available options, the ones chosen were those that minimised impacts on significant heritage fabric.

In response to the FSRTS, Heritage NSW recommended that the Applicant's commitments be implemented as conditions of consent, including that:

- the landscape design be developed by Applicant's design team in conjunction with qualified landscape architects.
- the removal of the brick facade to Level 1 must only remove every other brick to allow light to enter the new toilet block.
- opportunities for additional replacement tree planting be investigated.
- works that remove the internal and external significant fabric be designed to be reversible.

- the Applicant submit construction details and demolition methodologies to Heritage NSW and Council for review and comment prior to the commencement of demolition of significant heritage fabric on the site.

Council did not provide further comments in response to the FSRtS.

The Department has considered the information provided by the Applicant and comments made by Council and Heritage NSW. The Department agrees that the continued adaptation of the site for the purposes of a school provides an opportunity for its preservation in a manner that is consistent with its historical use as an education facility. The Department considers that the proposed additions have been designed to preserve the architectural character of the building. The proposed contemporary, contrasting elements provide clear delineation from the existing, significant Brutalist style architecture but remain sympathetic to the established geometry of the building.

The Department notes that the extended internal access road would not be a visually prominent feature as it is primarily at-grade. Whilst one section of the road (the bus turnaround facility) would be cantilevered, it would set against the natural topographical landscape and would be screened by vegetation, in keeping with the surrounds.

The Department considers that the proposed internal alterations would not have detrimental heritage impacts subject to conditions. In addition, the proposed external alterations are sympathetic to the heritage characteristics of the site, respond appropriately to the CMP and incorporate materials and a recessive colour scheme that is in keeping with the site.

It is recognised that the additional tree removal proposed would have a further impact on the bushland setting of the site. However, the Department recognises that the proposal would preserve the building and that tree removal is necessary to allow the proposed access improvements that are an essential feature to the adaptive reuse of the site. The Department also considers that additional tree removal and revised landscaping on site would be required to facilitate almost all possible alternative reuse scenarios for the site.

The Department considers that the landscape design would provide additional and varied landscaped areas adjacent to the Phase 2 and 3 teaching and learning spaces that can be used as protected outdoor play areas that incorporate soft and porous surfaces. The proposal seeks to retain trees where possible and incorporates the retained trees and proposed tree, shrub and ground cover planting into the student environment.

The Department supports the conditions recommended by Heritage NSW and has subsequently recommended these as conditions of consent. The Department has considered Council's recommendation for archival recording as a condition of consent but notes that extensive archival recording of the building and site was undertaken under conditions of the Phase 1 partial consent. Therefore, the Department considers that the required archival recording has been completed and does not consider it necessary to be undertaken for Phase 2 and 3.

The Department also notes that the Phase 1 partial consent required the preparation of a schedule of conservation works. The Department has reviewed this document and considers that the continued application of it during Phase 2 and 3 would further ensure that detrimental heritage impacts are avoided where possible. Therefore, a condition of consent has been recommended for this to be implemented as part of Phase 2 and 3.

Overall, the Department considers the continued adaptive reuse of the site for educational purposes is essential to the preservation of the architecturally significant building. The proposed Phase 2 and 3



works would minimise intrusive intervention on significant building fabric and the natural bushland setting. Subject to the conditions recommended above, the Department is satisfied that the heritage and urban design impacts of the proposal are acceptable and are justified in the context of delivering much needed school places.

### 6.3 Traffic, Access and Parking

An updated Traffic Impact Assessment (TIA) was included with the Phase 2 and 3 RtS. The TIA assessed the performance of the road network with the Phase 1 operations in place as well as the altered and expanded school operations proposed as part of Phase 2 and 3. The TIA was supplemented with additional information in the SRtS and FSRtS in response to the comments made in submissions received during exhibition and notification (see **Section 5**).

#### 6.3.1 Existing conditions

The site is located and gains access from the southern end of Eton Road (**Figure 18**). This runs north then east from the site, connecting to the surrounding road network and Pacific Highway approximately 1.1km to the east. Eton Road is connected to Grosvenor Road by Austral Road and Ortona Road. Grosvenor Road forms the main access to two nearby classified roads, the Pacific Highway to the east and Lady Game Drive to the west.



**Figure 18 | Local and regional road network (Source: Nearmap 2020)**

The TIA found that Pacific Highways operates efficiently during school peak periods and evening peak. Surveys found that southbound vehicles were prevented at times from turning from the Pacific Highway into Grosvenor Road due to queues and the limited length of the existing right turn lane. The TIA noted that right turn queues exceeded the length of the existing right turn bay on occasion.

Lady Game Drive provides access to North Ryde via Delhi Road and to Chatswood via Millwood Avenue. The Lady Game Drive/Grosvenor Road intersection consists of a three-leg roundabout, currently performing at capacity. The high southbound traffic demand during the morning peak can result in significant queues from Millwood Avenue extending through the roundabout.

The local roads directly to the site are mainly single-lane carriageways, with unsignalised intersections and roundabouts within low density residential areas. Eton Road provides direct access to the site as



well as access into and out of the adjoining medium density residential areas. Eton Road directly links with the internal access road on the site and the existing drop-off/pick-up areas and car parking. The TIA concluded that the local roads operate efficiently, with no delays observed during surveys.

The site is serviced by public bus route 565, with the bus stop located approximately 100m to the north of the site at the existing bus loop on Eton Road. Route 565 is an hourly service between Chatswood and Macquarie University, predominantly travelling along the Pacific Highway and services the residential areas around the site. The school is also serviced by dedicated school bus services. The site is also located approximately 2km (approximately 20 minute walk) from both Lindfield and Roseville Railway Stations, on the T1 North Shore Line.

As a result of required pedestrian infrastructure improvements in the Phase 1 partial consent, pedestrian accessibility has improved to the site with additional sections provided on Eton Road. However, along Eton Road, there are still sections of narrow, uneven and non-compliant footpaths and limited appropriate formalised pedestrian crossings. Cycling routes and infrastructure providing access to the site is primarily characterised by on-road mixed traffic options.

### 6.3.2 Construction impacts

The TIA assessed the impacts of construction works and provided an outline of the proposed construction traffic management measures. As the Phase 2 and 3 school is to operate within the existing main campus building, construction activities were considered to be minor and would not include bulk earthworks or construction. Therefore, the works would be unlikely to generate traffic movements that would impact significantly upon the efficiency of the surrounding road network.

An outline of the areas of the site to be utilised to facilitate construction works is provided within Figure 19.

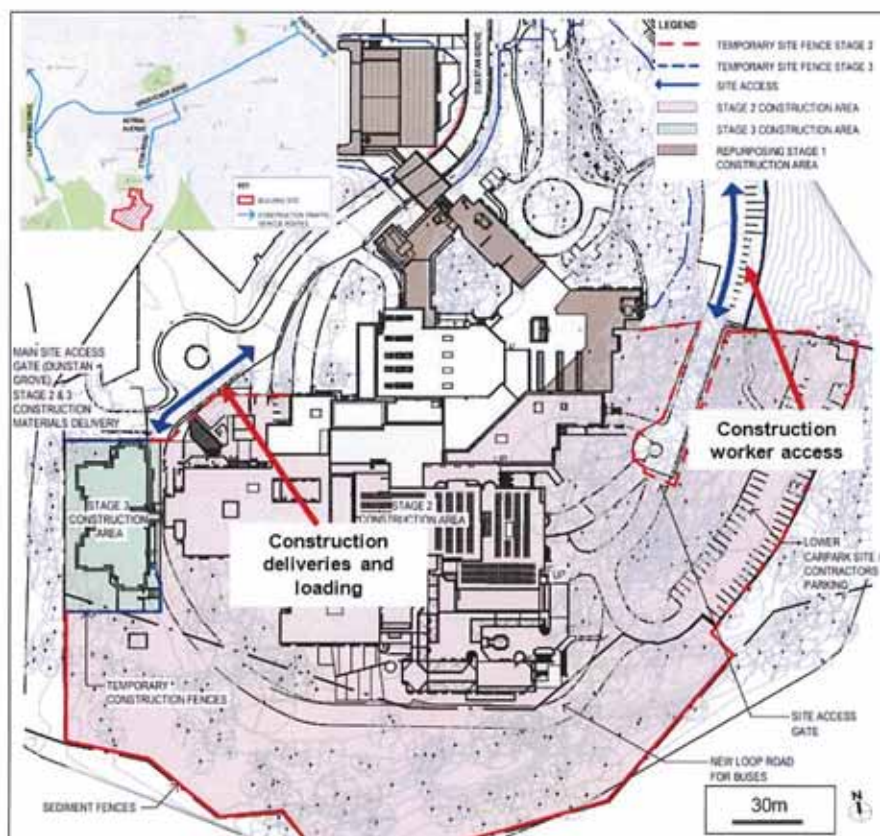


Figure 19 | Construction traffic management (Source: Applicant's SRtS 2020)



The TIA identifies that construction traffic routes would primarily originate from Pacific Highway and Lady Game Drive (inset in **Figure 19**). The works proposed as part of Phase 2 and 3 would generate additional light, medium and heavy vehicle movements to and from the site during construction and operation.

Loading and deliveries would be undertaken from Dunstan Grove to the west of the main campus building, while construction worker access would be via the internal access road on the eastern side of the main campus building. This would minimise interactions between the heavy construction traffic and construction worker traffic. Loading and deliveries are proposed to be undertaken during Interim Construction Noise Guideline (DECCW, 2009) (ICNG) standard construction hours only (7am to 6pm Monday to Friday, 8am to 1pm on Saturdays and no work on Sundays or public holidays) to minimise impacts on neighbours.

The Applicant has sought to ensure that construction vehicle access issues encountered as part of Phase 1 are not repeated. The SRTS reviewed issues encountered in the Phase 1 construction vehicle movements and identified that these primarily occurred as a result of queuing due to insufficient turning space adjacent to the roundabout on Dunstan Grove. To avoid this issue, Phase 2 and 3 includes construction of a new access point at the end of Dunstan Grove which would connect through to the existing fire trail and internal access road to the south and east of the main campus building. This would act as a loop with construction vehicles able to enter the site at different points to perform deliveries without having to queue.

Construction works are unlikely to generate significant large vehicle movements, with up to two truck movements anticipated per hour during peak construction times for removal of demolished materials and delivery of new materials to the site. Contractors and construction workers would utilise the lower carpark of 63 spaces for on-site parking as was the case for Phase 1.

Public submissions raised concerns regarding the construction traffic movements relating to safety, internal road capacity and queuing along Dunstan Grove. TfNSW reviewed the application and recommended conditions regarding the preparation of a construction pedestrian and traffic management plan.

The Department has reviewed the information provided by the Applicant and comments made in the submissions and is satisfied that construction traffic can be appropriately managed given:

- construction traffic impacts would be short term and the scale of construction works and traffic generated as a result would be relatively minor.
- the site is large enough to accommodate all construction activities separately from delivery areas and parking.
- construction vehicle access would be improved over Phase 1 as Phase 2 and 3 provide multiple access points and use of the internal access road as a loop.

Conditions of consent are recommended requiring the Applicant to prepare a detailed Construction Traffic and Pedestrian Management Plan with construction methods, off-peak delivery times and traffic control procedures. The plan would be updated as necessary should Phase 2 and 3 be delivered separately to manage construction works on the site and reduce impacts on the ongoing operation of the school. The Department has also recommended that the Applicant prepares pre and post dilapidation reports to ensure any road damage is rectified as construction of the school progresses.

The Department notes that the Applicant has sought to make improvements to ensure that traffic and pedestrian issues encountered as part of the original Phase 1 construction would be better managed and considers this would further mitigate any detrimental impacts. Subject to the above conditions of

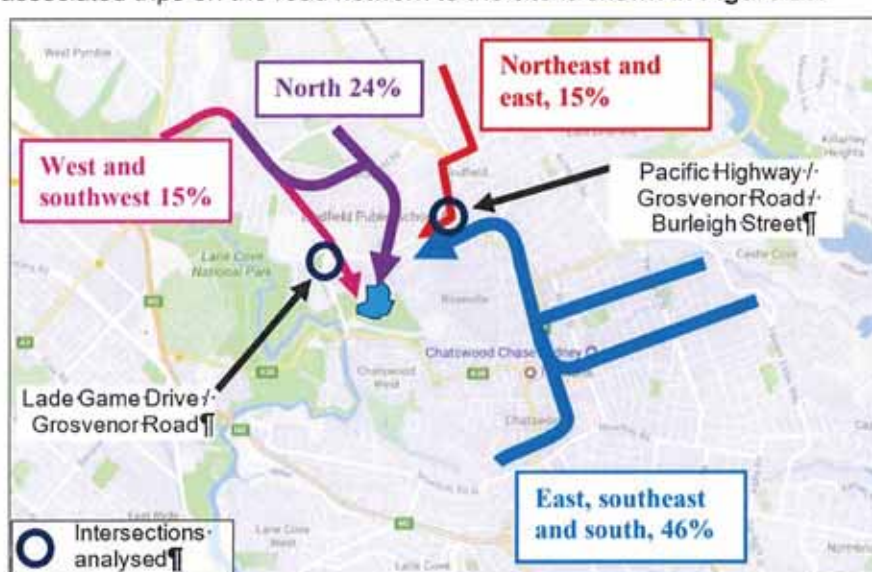
consent, the Department is satisfied with the proposed construction access and parking arrangements.

### 6.3.3 Operational impacts

#### 6.3.3.1 Traffic generation

The Department's Phase 1 assessment concluded that there would not be detrimental traffic generation impacts on account of the limited enrolments numbers (350 students). Phase 2 and 3 would result in an increase in potential traffic impacts on due to the increased student and staff capacity.

The TIA estimated that peak traffic generation would occur between 8am and 9am in the morning and 2:30pm and 3:30pm in the afternoon. The TIA included a detailed analysis of the expected traffic generation considering trip generation impacts from future surrounding uses. The expected distribution of the school-associated trips on the road network to the site is shown in **Figure 20**.



**Figure 20 | Trip Distribution (Source: Applicant's Phase 2 and 3 RtS 2020)**

The TIA considered the existing (including Phase 1 operation) and forecast performance of the road network with Phase 2 and 3 operations of the following key intersections:

- Pacific Highway, Grosvenor Road and Burleigh Street (signalised).
- Lady Game Drive and Grosvenor Road (unsignalised roundabout).

The SIDRA analysis for the Pacific Highway/Grosvenor Road/Burleigh Street intersection indicated that it would continue to perform satisfactorily at Level of Service (LoS) C during the morning peak and would operate at LoS B during the afternoon peak in all scenarios (**Table 7**).

**Table 7 | Existing and proposed LoS for Pacific Highway/Grosvenor Road/Burleigh Street intersection**

Peak	Degree of saturation, north approach	Average Delay (seconds)	LoS
Existing (Phase 1) morning	0.698	29.4	C
Phase 2 morning	0.697	30.3	C
Phase 3 morning	0.803	30.8	C
Existing Phase 1 afternoon	0.747	23	B



Phase 2 afternoon	0.758	23.9	B
Phase 3 afternoon	0.790	25.4	B

The TIA identified that the Lady Game Drive and Grosvenor Road intersection is already close to capacity at the morning peak with queues extending up to 300m from the roundabout. For the remainder of the day the intersection operates at a satisfactory level. The TIA identifies that by Phase 3 operation it is anticipated that of the 322 vehicles accessing the school during the morning peak, 48 would be utilising this intersection. The TIA also identifies that the majority of these vehicles would be already travelling along this route as part of a commute.

Due to the constrained capacity of the Lady Game Drive and Grosvenor Road intersection, the Applicant has focussed road network improvements works on Pacific Highway as this has the potential to draw traffic away from Lady Game Drive.

The TIA undertook a capacity assessment of the local road system that would likely be utilised and confirmed that expected vehicle trips during peak periods fall within the traffic volume guidelines provided by TfNSW (RMS). Bent Street would expect to receive 369vtpm which is between the 300-500vtpm guideline. Eton Road (expected to be the busiest) would see a two way traffic (arrivals and departures) volume of 700vtpm during the morning peak which is consistent with a collector road function.

During the exhibition of the Phase 2 and 3 RfS and notification of the SRfS, the majority of submissions received from the public raised issues with the traffic congestion in the area, with a third of submissions requesting intersection upgrades to facilitate the proposed development.

As part of the original EIS prepared for all phases of the development, the Applicant reviewed the transport arrangements of nearby schools and concluded that reliance on private vehicle use could be considerably reduced by providing effective travel options. In order to minimise traffic generated by Phase 2 and 3 and consequential impacts to the surrounding road network, the Applicant proposes the continued implementation of initiatives to encourage travel to the site using public and active transport (as established as part of Phase 1). The Applicant considers that the establishment of sustainable travel habits from inception of Phase 2 and 3 would be crucial to the successful adoption of these habits. As such, the Applicant proposes to:

- establish appropriate additional school bus routes in consultation with TfNSW, bus companies and surrounding schools to factor in the increased demand as a result of Phase 2 and 3.
- improve the frequency of the existing 565 bus route in consultation with TfNSW.
- establish a carpooling program and encourage active transport as part of a School Travel Plan (STP).

The Applicant undertook an analysis of the anticipated trip distribution having regard to the indicative school catchment, modal split of nearby schools and the effect of proposed sustainable travel initiatives. The results indicated that at least 46% of traffic flows would most likely occur travelling to the site from the east, south-east and south via the Pacific Highway. The TIA noted that additional traffic could be directed to Pacific highway from the from the north-west as the Lady Game Drive/Grosvenor Road intersection is operating at capacity and alternate routes would be used. To accommodate additional traffic on the Pacific Highway and improve the efficiency of the intersection, it is proposed that the southbound right hand turn lane leading into Grosvenor Road is to be extended to 170m. To enable design of the works and approval by TfNSW, the works are to be undertaken prior to the school population reaching 1050 students.

TfNSW did not raise concerns in relation to traffic impacts of Phase 2 and 3, subject to the proposed intersection upgrade at Pacific Highway and Grosvenor Road. Council, while not raising concern with the intersection upgrade as a concept, questioned the length of the extension and requested confirmation it would not have impacts on future upgrades of the Pacific Highway / Strickland Avenue signalised intersection.

The Applicant's FSRtS confirmed that if the Pacific Highway right turn bay were to be extended to 170m, the existing northbound right turn bay on Pacific Highway leading into Strickland Avenue would not be reduced in length. In fact, that turn bay would be extended to include an additional one or two cars storage over the existing layout. The FSRtS advised that the rationale and adoption of an extension to 170m had been determined in consultation with TfNSW and confirmed that it would not impact a concept design for the upgrade of the Pacific Highway/Strickland Avenue intersection prepared by TfNSW.

TfNSW reviewed the proposed intersection design and recommended conditions of consent for the submission and approval of technical design details to TfNSW prior to the commencement of the works for the intersection. TfNSW also confirmed that the works are to be at the cost of the Applicant.

The Department has considered the concerns raised by submitters and the information provided by the Applicant. The Department concludes that the potential operational traffic impacts of Phase 2 and 3 can be managed, particularly with the continued application of the sustainable travel initiatives proposed by the Applicant.

The Department has considered the results of the Applicant's SIDRA analysis and accepts that it demonstrates that there would be no substantial decrease in performance of the Pacific Highway / Grosvenor Road intersection. The Department notes that while the upgrade of the right turn lane at this intersection proposed by the Applicant is not required to achieve satisfactory intersection performance, the upgrade would improve the efficiency of the intersection. Therefore, the Department has recommended conditions requiring the upgrade to the Pacific Highway to be undertaken to the satisfaction of TfNSW prior to the school population reaching 1050 students. This would allow time for the detailed design of the upgrade to be undertaken to the satisfaction of TfNSW while ensuring that the upgrade is completed prior to a substantial growth in student numbers at the school.

The Department also considers that the local road network has volume capacity to cater for Phase 2 and 3 and that the Applicant has proposed measures to encourage private vehicles to use alternative routes (including Pacific Highway) and to avoid Lady Game Drive. Therefore, the Department considers that the proposed development would have acceptable impacts on the peak hour traffic movements of the surrounding road network and that the road network would have capacity to accommodate the proposed development.

The Department supports the Applicant's approach to encouraging alternative sustainable transport options to the site and has recommended a condition for the implementation of a School Transport Plan to incorporate sustainable travel measures, including the continued monitoring of these initiatives to establish their success or otherwise. Noting the intersection upgrades that are to be undertaken, the Department is satisfied that traffic impacts on the road network have been appropriately addressed.

#### **6.3.3.2 Access**

Primary vehicular and pedestrian access to the site is provided by Eton Road which directly leads into the site's internal access road network. A number of access points also exist off Dunstan Grove to the



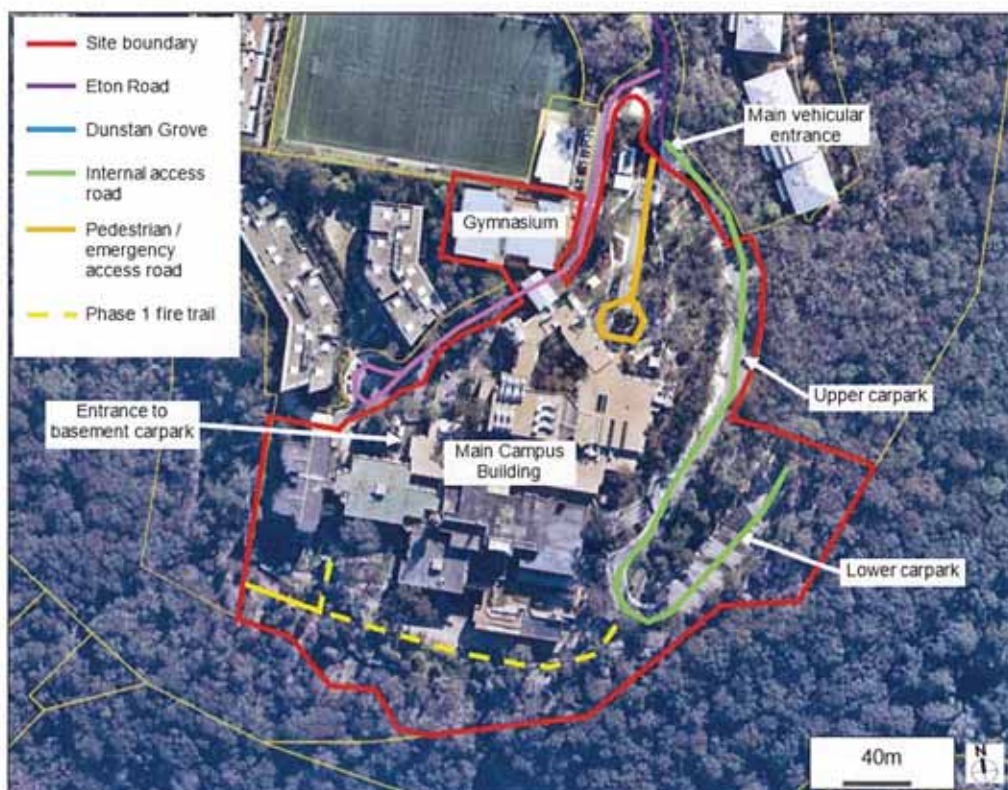
north-west of the site. However, only the car park entrance is being used for operational access as part of Phase 1 operations.

Phase 1 included the installation of a gate at the end of Eton Road to separate it from the short access road that leads to the roundabout at the main building entrance to minimise any potential interactions between students, staff and vehicles. This road now acts as a pedestrian and emergency access route.

Improvements were also undertaken in Phase 1 to footpaths on the wider surrounding road network to facilitate the use of Lindfield Public School as an evacuation point. These improvements and the Department's consideration of further required improvements is discussed in **Section 6.1.4**.

No vehicular access is provided to the site from Lane Cove National Park, but there is pedestrian access from Symons Track that links the southwest corner of the site to Lady Game Drive.

The existing access arrangements (as modified by Phase 1 works) are shown in **Figure 21**.



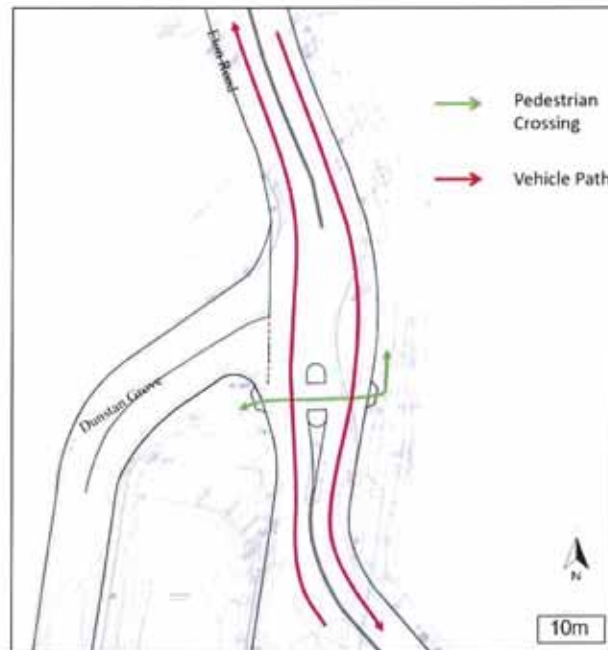
**Figure 21 | Existing access arrangements (Source: Nearmap 2020)**

Phase 2 and 3 include a number of improvements to access arrangements, including:

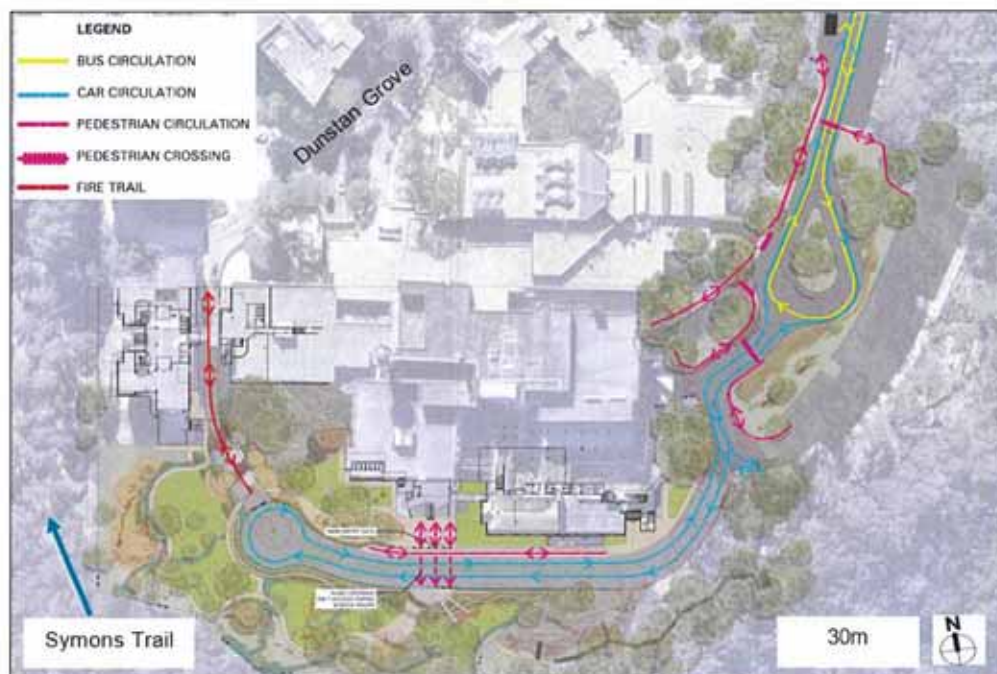
- alterations to the intersection of Eton Road and Dunstan Grove to prioritise continued movement along Eton Road into the site rather than Dunstan Grove as is currently the case. The incorporation of a pedestrian refuge would be considered as part of these works.
- alterations to the internal access road to the east of the main building to provide a new bus drop-off/pick up and turning area.
- extension of the internal access road to provide a new parent and carer drop-off/pick-up facility and turning area to the south of the main campus building. This would replace the fire trail provided in Phase 1.

- construction of a new 8m wide fire trail connecting the western end of the extended internal access road to Dunstan Grove. This would also serve as a new key pedestrian entry from Dunstan Grove to the southern section of the main campus building.

The key changes are shown in **Figure 22** and **Figure 23**. Further discussion of drop-off/pick-up facilities is provided in **Section 6.3.3.3**.



**Figure 22 | Changes to Eton Road / Dunstan Grove intersection (Source: Applicant's FSRtS 2020)**



**Figure 23 | Site access and circulation by vehicle type (Source: Applicant's FSRtS 2020)**

Public submissions lodged in response to exhibition of the Phase 2 and 3 RtS raised significant concerns with the then proposal for construction of an all-vehicle access road connection to Dunstan Grove to provide a continuous all-vehicle loop road around the site. As detailed in **Section 5.3**, the Applicant significantly revised the proposed access arrangements in the SRtS. As a result, Phase 2



and 3 no longer includes the provision of a loop road. The fire trail that is now proposed to connect to Dunstan Grove would only be used in the event of an emergency.

Public submissions also raised concerns with pedestrian safety on Dunstan Grove, particularly in light of the Applicant's proposed changes to the intersection of Eton Road and Dunstan Grove. In response to those concerns, the Applicant has advised that it would investigate the option to install a pedestrian refuge island on Eton Road to assist Dunstan Grove residents to cross the road. This would be confirmed in the finalisation of the design in consultation with Council.

TfNSW or Council did not raise concerns with the proposed access arrangements as modified in the SRtS, including the proposed works to the intersection of Eton Road and Dunstan Grove. However, Council recommended that the Applicant consider incorporating Symons Track into the walking catchment in the School Travel Plan (STP) and investigate any necessary upgrades to the track. The Applicant confirmed in the FSRTS that the track has been incorporated into the STP and measures would be considered to further improve sustainable transport options to and from the site.

The Department has reviewed the proposed changes to access arrangements for the site and is satisfied that the changes as proposed in the SRtS and FSRTS would locate school traffic away from entrances to residential properties, particularly on Dunstan Grove. The Department acknowledges the concerns raised in the public submissions about pedestrian safety and considers that the provision of a pedestrian refuge at the intersection of Eton Road and Dunstan Grove is appropriate.

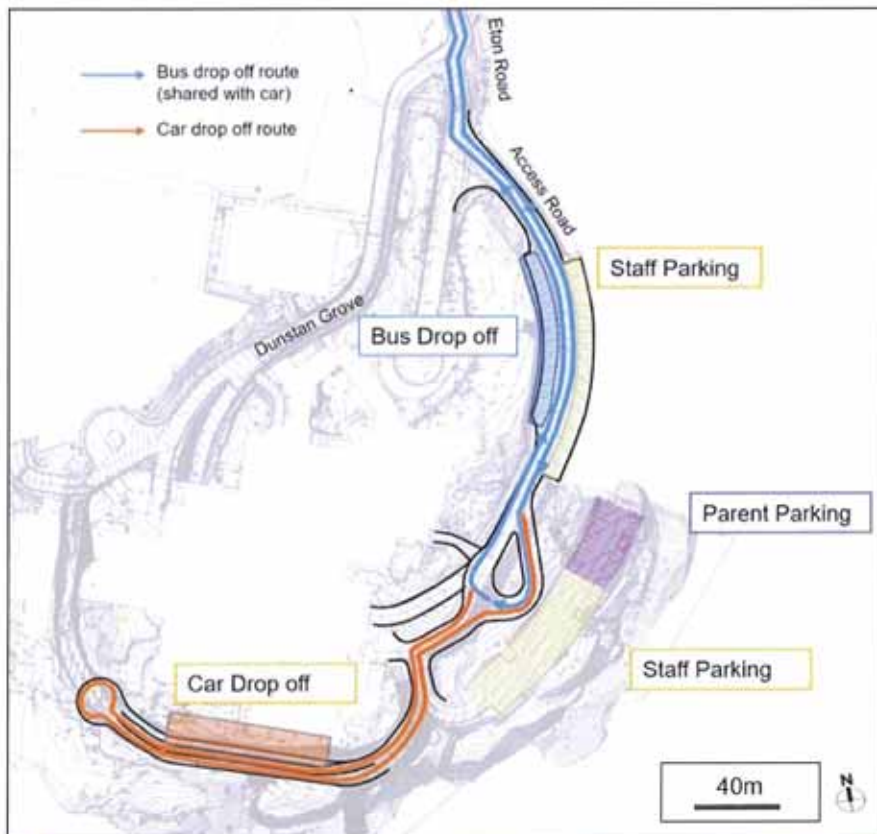
The Department has recommended a condition requiring the Applicant to finalise details of the alterations to the intersection of Eton Road and Dunstan Grove to the satisfaction of Council. Further conditions require these works and other access upgrades to be completed prior to the commencement of operation of Phase 2.

#### **6.3.3.3 Drop-off/pick-up**

Phase 1 operations use the existing bus bay on Eton Road approximately 100m from the main school entry for bus drop-off/pick-up, including for public and school bus services. Phase 1 parent and carer drop-off/pick-up occurs in the upper level car park with provision for 10 vehicles and nearby queuing capacity for up to 60 vehicles. Outside of peak drop-off/pick-up periods, the upper level car park is used for staff and visitor parking.

The Phase 1 drop-off/pick-up arrangements were originally proposed to be used for all three phases of the development subject to alterations to the Eton Road bus bay to allow for queuing and manoeuvring of buses. As detailed in **Section 6.3.3.2**, the Phase 2 and 3 SRtS proposed revised drop-off/pick-up arrangements, with both bus and parent/carers drop-off/pick-up provided on site.

The proposed revised arrangements seek to ensure that there are no detrimental noise, traffic or safety impacts on the public road network, notably Dunstan Grove and Tubbs View. The proposed layout locates the bus drop-off/pick-up on the upper car park area away from a proposed new parent/carers drop-off/pick-up to the south of the main campus building, ensuring that both vehicle types use dedicated turnaround areas. A schematic of the proposed arrangements is included in **Figure 24** and **Figure 25**.



**Figure 24 | Site access and circulation by vehicle type (Source: Applicant's FSRtS 2020)**



**Figure 25 | Parent drop-off/pick-up facilities (Source: Applicant's FSRtS 2020)**

The Applicant advises that the proposed parent/carer drop-off/pick-up area has been designed with a dedicated stopping lane to allow for cars to pull in and out without impairing the free-flow of remaining vehicles. This decreases the clearing time for each space as cars would not need to operate in single file or have to wait for all cars ahead to move out.

The SRtS included a concept Road Safety Audit (RSA) in response to TfNSW and the Department's concerns as well as a swept path analysis that confirmed that buses could safely and efficiently manoeuvre/pass other buses and vehicles in the revised design. The RSA identified a number of potential safety management risks within the internal access road design and recommended mitigation and management measures. These include operational/vehicle behavioural management strategies



such as traffic supervision, targeted signage and fencing. The swept path analysis confirmed that bus movements could occur without the need for queuing into vehicle routes and that the bus turnaround area (designed for 14.5m coach buses) would ensure that potential detrimental conflicts between bus and parent/carer vehicle movements would be minimised.

The TIA included a queuing analysis which showed that by virtue of the internal access road design being completely internalised on -site, no queuing is expected on Eton Road. The TIA also detailed that drop-off/pick-up management procedures that would be communicated to drivers to facilitate efficient, timely and safe drop-off and pick-up of students.

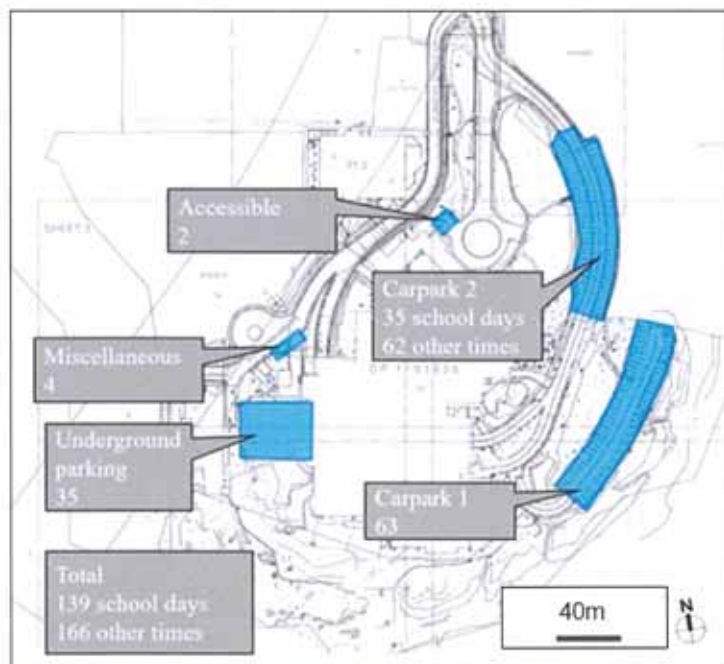
Council advised that the internal access road design as revised in the SRtS addresses Council's previous concerns regarding drop-off/pick-up activities on site. TfNSW raised no concerns with the internal access road subject to the completion and implementation of recommendations from the final RSA.

The Department is satisfied that the Applicant has adequately demonstrated that sufficient drop-off/pick-up facilities are proposed to cater for the demand generated by Phase 2 and 3. The Department has recommended a condition requiring the provision of the drop-off/pick-up spaces and bus bays prior to the commencement of Phase 2 operation. Furthermore, the Department is satisfied that the concept RSA has identified risks associated with the internal access road design. In order to ensure that the improvements are undertaken, the Department has recommended a condition requiring a final RSA to be undertaken and the findings implemented prior to Phase 2 operation.

The Department has also recommended a condition that requires the Applicant to prepare a School Transport Plan to manage access arrangements including the monitoring of the performance of the drop-off/pick-up zones and implementation of measures to address any issues that arise.

#### 6.3.3.4 Parking

The site currently contains 166 car parking spaces on site (**Figure 26**).



**Figure 26 | Existing car-parking (Source: Applicant's Phase 2 and 3 RtS 2020)**

Phase 1 currently utilises 65 of the car parking spaces on-site, with 35 spaces for teaching staff, 27 for staff/visitors and one accessible space.

In granting the Phase 1 partial consent, the Department required the establishment of parking restrictions on one side of Eton Road in consultation with Council. This was required to improve access to the site by public transport and school bus services and discourage use of on-street parking to manage any overflow parking. Parking restrictions were subsequently implemented along the southern side of Eton Road, restricting parking during the hours of 7am to 9.30am and 2.30pm to 4.30pm on school days. This impacted 15 on-street spaces.

No additional parking spaces are proposed on-site as part of Phase 2 and 3 works.

While 166 spaces currently exist on site, 27 spaces in the upper car park (known as carpark 2) are to be used as the bus drop-off/pick-up bays in the morning and afternoon drop-off/pick-up times. Therefore, only 139 car parking spaces would be available on-site during school times. The Applicant has indicated that the bus drop-off/pick-up area would be made available for parking outside of drop-off/pick-up times, meaning 27 additional spaces would be available for part of the school day.

The Ku-ring-gai Development Control Plan 2015 (KDCP 2015) provides parking guidelines for the minimum number of parking spaces required for a school. As per the KDCP 2015, the school would require 218 spaces (for staff and students) with the increase to 2000 students proposed in Phase 2 and 3. Based on 139 spaces being available across the full school day, the proposal would have a shortfall of 79 car parking spaces. However, if the 27 spaces in the bus drop-off/pick-up area were made available in the middle of the school day for visitors or part-time staff as proposed by the Applicant, the shortfall would reduce to 52 spaces.

The KDCP 2015 also provides parking guidelines for public halls which is relevant to proposed after hours community use of the gymnasium and theatre facilities. Based on these guidelines, 195 spaces would be required for the proposed community use. Given the 166 spaces available on-site after hours, the proposal would have shortfall of 29 spaces.

The TIA noted that the provision of 139 spaces for 312 staff would require a private vehicle mode share of 43% based on an assumption that 90% of staff attend the school site on a typical day. The TIA outlines that the primary way to ensure that this low staff car mode is achieved is through the continued active promotion of alternative travel strategies, identified in the School Travel Plan (STP), which focuses on the use of public transport, active transport and carpooling (**Section 6.3.3.5**).

The Applicant advised the following in support of the proposed parking provision:

- no car parking is required for students as parking would not be made available to secondary school students on-site. The Applicant has committed to implement strategies to discourage students from driving in order to minimise parking demand and ensure safety on and round the site.
- sustainable travel measures set out in the preliminary STP would encourage sustainable travel to the site and reduce the demand for both on-site and on-street parking.
- parking demand for larger events could be managed through several measures such as providing a shuttle bus or restricting maximum patronage. Alternatively, additional spaces could be made available throughout the site, for example at loading dock areas.
- the provision of additional parking on-site is not practical or desirable due to the constraints of the site, including the topography, native vegetation, Lane Cove National Park and heritage considerations.



Public submissions argued that the site has insufficient car parking for the number of users and noted that there is already illegal on-street car parking that has occurred during the Phase 1 operation of the school. This included instances of parents utilising visitor parking spaces on residential properties at Dunstan Grove and Tubbs View.

Council questioned the feasibility of the Applicant's proposed 43% mode share of staff driving to the site. It also requested that after hours use of parking on-site should be extended to users of the neighbouring community centre and Charles Bean Oval.

The Applicant's FSRtS confirmed that discussions between representatives from the Applicant and Council occurred in February 2020, at which time Council advised that it no longer requested the use of the car park for after-hours parking.

The Department has considered the information provided by the Applicant and comments made by submitters, including Council, and recognises that:

- the provision of the dedicated parent/carer drop-off/pick-up facility at the south of the main campus building and associated improvements to the internal access road, along with continued traffic management by the school, would reduce the potential detrimental impacts overspill parking, including for the residences at Dunstan Grove and Tubbs View.
- the site is well connected by regular bus services and surrounding streets would have capacity to cater for any short fall (for example if required during out of hours events).
- the ability to provide additional parking on-site is very limited given the highly constrained nature of the site due to its topography, heritage values and location abutting the Lane Cove National Park.
- additional parking could be made available for part-time staff within the bus drop-off and pick-up area, subject to suitable management arrangements.
- the preliminary STP targets increased sustainable travel mode share to further promote non-private vehicle travel as a more attractive and accessible option for commuting to school.

Given the above comments, the Department considers on balance, that the proposed car parking provision for during and after school hours is acceptable. The Department notes the Applicant's commitment to implementing sustainable transport options for staff and students to the site and to achieving a mode share target of 43% private vehicle usage for staff. The Department has recommended a condition that requires the Applicant to prepare a School Transport Plan prior to commencement of operation of Phase 2, that includes measures to encourage sustainable travel to the school based on the preliminary STP included with the FSRtS.

The Department has also recommended a condition to review the performance of the parking arrangements and management measures on site within 12 months of the commencement of each stage of operation. Where the parking demand is shown to exceed the capacity on site, the Applicant would be required to identify measures to address the demand and avoid impacts onto the surrounding road network and residential properties.

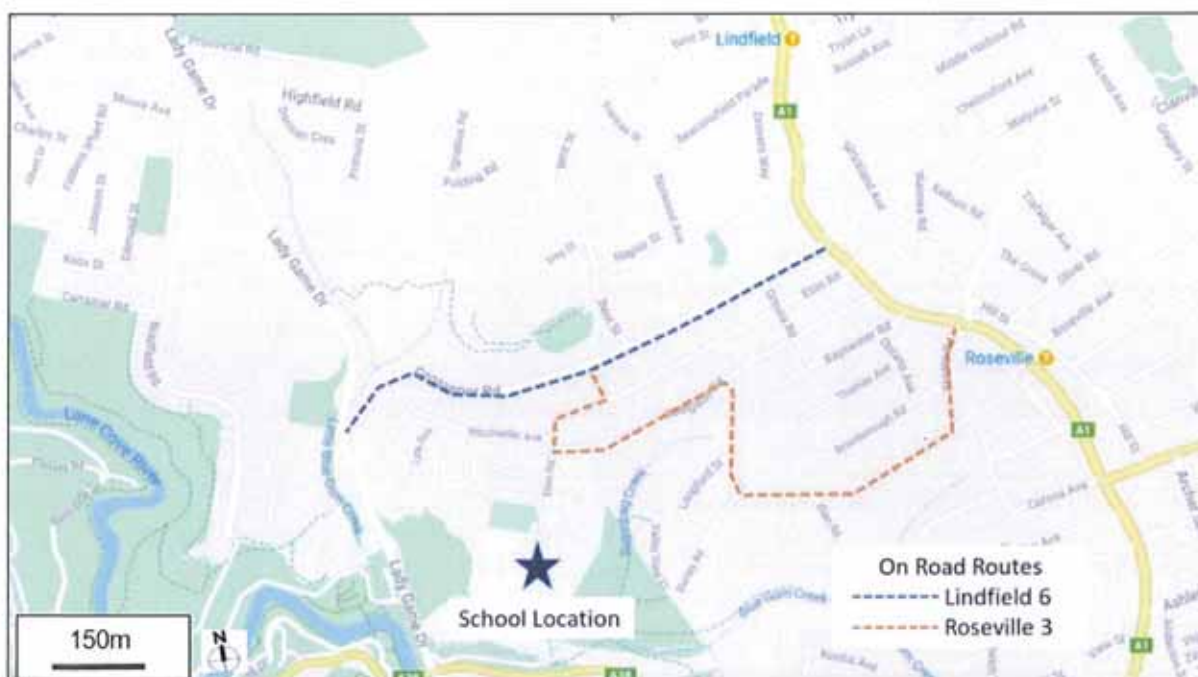
#### **6.3.3.5 Active transport**

The site and surrounds have access to public transport, cycling and pedestrian infrastructure as detailed in **Section 1**.

In order to ensure that there are sufficient active transport options for the school, the Phase 1 partial consent required a condition for the preparation of a Green Travel Plan (GTP). The GTP outlined a number of management and infrastructure provisions that would be utilised to improve non-private vehicle trips to the school. These included identifying alternative modes of transport such as bus

services as well as ensuring that the pedestrian and cycling access was promoted. This GTP has been further developed and refined into the preliminary STP that forms part of Phase 2 and 3. For Phase 2 and 3, the Applicant reviewed the results of the Phase 1 GTP to take informed steps to ensure that appropriate bus services, cycling infrastructure, pedestrian access and other alternative transport modes are convenient and available as the success of the STP relies upon this.

The Applicant's SRtS confirmed that further discussions have been undertaken with Council regarding the continued provision of appropriate cycling infrastructure for students as part of Phase 2 and 3. The SRtS outlined that Council stated it was not appropriate for cycling to occur on on-road routes and that school students should rely on the footpath in the intermediate term until more dedicated cycling infrastructure is provided in the area. **Figure 27** identifies the two likely key routes from Pacific Highway and Lady Game Drive, for upgraded bicycle paths.



**Figure 27 | Selected proposed bike routes from Ku-ring-gai Council's 2012 Bike Plan (Source: Applicant's SRtS)**

The Department considers that the STP plays a critical role in promoting a greater share of non-car based travel modes, provided it is appropriately drafted, implemented and monitored.

The STP, as refined by the FSRTS, outlines a number of specific objectives, initiatives and strategies to reach an overall non-private vehicle use mode share target of 43%. The STP provides an overview of the baseline mode share percentages achieved during Phase 1 operation and outlines where these can be improved through the STP for Phase 2 and 3. Subsequently, the STP confirms that the mode share targets can be achieved through improved and more frequent bus services to the site, implementation of carpooling initiatives and further upgrades to pedestrian and cycling infrastructure to make non-private vehicle trips a more attractive option.

TfNSW and Council did not raise any concerns about the existing public transport network's ability to cater for the increase in student and staff population, subject to formal reviews being maintained with Transdev (local bus operator) and TfNSW. The Applicant's TIA confirmed that ongoing review and consultation has been occurring to ensure sufficient bus services are provided for Phase 2 and 3. Furthermore, TfNSW in response to the SRtS requested that the implementation and annual review of the STP be a condition of consent.



The Department considers that the proposed active transport arrangements would be sufficient to cater for the expansion associated with Phase 2 and 3. The implementation of a formal School Transport Plan that includes specific mode share targets, in combination with the improved ability to walk and ride to school, would encourage students and staff to choose active transport modes for their journey (especially in the context of future residential development in the surrounding locality). The Department has recommended a condition requiring the School Transport Plan to be finalised and implemented at commencement of operation and reviewed and updated annually.

#### 6.4 Other issues

The Department's consideration of other issues is provided at **Table 8** below.

**Table 8 |** Department's consideration of other issues

Issue	Findings	Department's Consideration and Recommendations
Noise	<p>The Phase 2 and 3 RtS and SRtS included a NIA which assessed the potential construction and operational noise and vibration impacts of the proposal on the nearest sensitive uses.</p> <p>The Department and EPA initially raised concerns regarding the manner in which the assessment of construction and operational amenity impacts within the Phase 2 and 3 RtS and SRtS was conducted. As discussed in Section 5, EPA identified that the assessments had technical failures in data collation, establishment of project noise trigger levels, types of noise generating activities assessed and noise predictions for the cumulative impacts of all three phases of the development.</p> <p>In response to the above concerns, the Applicant's FSRtS included a further revised NIA (RNIA).</p>	See below in relation to consideration and operational impacts.
Construction noise and vibration	<p>The RNIA established construction noise management levels for the site as perceived at the noise sensitive receivers, in accordance with ICNG.</p> <p>The RNIA confirmed that construction and deliveries would be limited to ICNG standard construction hours only.</p>	The Department notes the information provided and commitments of the Applicant within RNIA as well as the comments from the EPA. The Department considers that the construction noise impacts associated with Phase 2 and 3 can be adequately managed in accordance with the ICNG through the

Subject to recommended management and mitigation measures, the RNIA concluded that construction noise emissions would not exceed the noise management levels on account of types of machinery used on site, and the short duration periods expected.

The RNIA concluded that while there would be perceived vibration impacts to classrooms and residential type receivers, these are expected to be compliant with the ICNG.

The RNIA recommended the preparation of a detailed construction noise and vibration management plan to further ensure that there are no significant detrimental impacts from construction noise or vibration.

Further, the RNIA proposed the following construction management strategies to mitigate impacts:

- maintenance of plant and equipment in good working order.
- utilising best practice construction measures.
- notification to receivers before and during construction.
- implementation of complaints handling procedures.
- percussive and concrete sawing to be undertaken behind a closed façade when possible.
- limiting use of high noise generating equipment including hydraulic hammers, rock cutters or the like to after 8am Monday to Friday or 8:30am Saturdays.
- traffic management of trucks to avoid queuing adjacent to the residences on Dunstan Grove or Tubbs view.
- squawkers (or similar) to be used in place of reversing alarms.

adoption of mitigation measures and adherence to the specified noise limits.

To ensure that potential construction impacts are appropriately managed, the Department has recommended conditions of consent requiring the preparation of a detailed construction and noise vibration management plan, prior to the commencement of works that includes:

- mitigation measures and notification/complaints arrangements.
- a requirement that all construction activities comply with best practice vibration management criteria to ensure no adverse impact to existing buildings or structures.
- the implementation of respite periods during high noise generating construction activities.
- a requirement for the installation and monitoring of noise monitoring equipment at sensitive receiver locations, including alert triggers to stop works when sensitive receivers become 'highly noise affected' as defined by ICNG.
- a requirement to comply with the ICNG construction noise management levels where feasible and reasonable.



EPA did not raise any concerns with the assessment undertaken in the RNIA, subject to the management and mitigation measures being implemented.

## **Operational Noise**

Typical hours of operation of the proposed development would be from 7.30am to 3.30pm with community uses (use of the auditorium, gymnasium, theatre spaces and squash courts) proposed from 4pm to 10pm Monday to Friday and 7am to 10pm Saturday and Sunday.

The RNIA included an assessment of operational noise including increased students and activities as a result of Phase 2 and 3 having reference to the existing Phase 1 operations.

The RNIA considered the relevant provisions of the Noise Policy for Industry, relevant guidance issued for the former UTS precinct and the EPA Road Noise Policy.

The RNIA established Project Noise Trigger Levels (PNTL) using NPI.

The RNIA concluded that noise emissions from the typical primary and secondary school activities expected on site are not predicted to result in adverse noise emissions. Overall, predicted emissions from typical school activities (outdoor play, internal activities and mechanical plant) were generally consistent with the existing Phase 1 operations on site and would comply with the PNTL, subject to recommended management and mitigation measures.

EPA advised that the RNIA incorrectly assessed noise from the use of the internal road during drop-off/pick-up against the Road Noise Policy, rather than against the NPI.

The Department is satisfied that the intensified use of the site would not result in significant adverse amenity impacts and that the Applicant has satisfactorily demonstrated that the use would comply with the PNTLs, subject to appropriate management.

The Department notes that Phase 2 and 3 operations would not result in noise levels appreciably above the existing Phase 1 operations.

The Department also notes that the proposed out of hours use of the gymnasium, squash courts theatre and auditorium would have acceptable impacts, subject to appropriate management as recommended in RNIA.

As outlined by the EPA, the Department notes that exceedances to the PNTLs for the operation of the drop-off/pick-up facilities would occur during brief periods. The Department considers that this would not result in significant detrimental amenity impacts for the following reasons:

- the use of these areas would be restricted to limited periods during school term operation.
- the vehicle drop-off/pick-up locations are to the south of site, which is furthest away from residential receivers and screened by the main campus building.
- the RNIA includes recommended management and mitigation measures to reduce amenity impacts to residences, including that bus drivers turn the ignition off while waiting.

EPA also advised that when road noise is assessed against the NPI, noise levels would exceed the PNTLs. However, this would only be for brief periods on weekday mornings and afternoons during school terms.

EPA did not raise concerns with any other component of the RNIA's assessment of operational noise and recommended conditions to mitigate noise impacts.

As discussed in **Section 5**, public submissions to the Phase 2 and 3 RtS raised significant concerns regarding the operation of buses and vehicles adjacent to Dunstan Grove residences. The Applicant's SRtS addressed these concerns by redesigning the internal access road so that private vehicles and buses do not have access to Dunstan Grove.

The Department has recommended conditions of consent requiring:

- compliance with the recommendations in the RNIA.
- proper maintenance of plant and equipment.
- noise associated with plant, machinery or other equipment does not exceed the established PNTL.
- short-term noise monitoring.
- the provision of additional noise attenuating measures should noise monitoring identify exceedance of PNTL.

The Department considers that the above conditions would ensure that there are no significant detrimental amenity impacts to the surrounding residential properties.

## Contamination

The EIS for all phases of the development included a Detailed Site Investigation and a Remediation Action Plan (RAP). These considered contamination on the site and set out actions to remediate the site. Further details are available in the Department's Phase 1 Assessment Report dated October 2018 (**Appendix A**).

Conditions of the Phase 1 partial consent required the Applicant to:

- undertake additional site assessment for targeted contaminants across the site.
- undertake a site assessment for unexploded ordnance, exploded ordnance and exploded ordnance waste.
- update the RAP to include the results and recommendations of the above, a cost benefit analysis of remediation options, estimates of contaminated

The Department considers that the Applicant has demonstrated that the site is suitable for the continued use as an educational establishment.

The Department has recommended a condition for unexpected finds protocol and that a further Site Audit Statement be issued if any additional contamination is found.



material to be removed of the site,  
and an Asbestos Management Plan.

- implement an unexpected finds protocol.
- engage an independent site auditor.
- obtain site audit report from an EPA-accredited auditor prior to operation of Phase 1.

The above actions were satisfied prior to the commencement of Phase 1 operations on day 1, term 1 2019. The Phase 2 and 3 RtS was accompanied by a copy of the Section A Site Audit Statement confirming that the site is suitable for the continued use as an educational establishment.

#### **Aboriginal Cultural Heritage**

The EIS for all phases of the development included an Aboriginal Cultural Heritage Assessment Report (ACHAR) that assessed the whole site.

The ACHAR identified the location of the Aboriginal Heritage Information Management System registered items and included consultation with the Local Aboriginal Land Council.

The ACHAR concluded that:

- there are no Aboriginal objects and/or places registered within the footprint of the proposed works.
- previous investigations have found no Aboriginal objects or archaeological sites within the proposed footprint.
- the area has been heavily impacted by historical land use, including the development of the school and associated infrastructure.
- construction of the existing internal road that runs along the eastern perimeter of the site and leads to the lower car park has already impacted the original environment and caused significant disturbance.

The Department notes that the site has been substantially disturbed in some locations, however, does contain rock outcrops and natural features of potential Aboriginal importance in undisturbed areas.

Notwithstanding this, the Department notes the conclusions in the addendum ACHAR letters regarding the limited potential for Aboriginal cultural heritage impacts of the proposed development and supports the implementation of the ACHAR.

The Department also considers that an unexpected finds protocol should be implemented during Phase 2 and 3 construction and that works should cease on the site and relevant stakeholders consulted if any objects are found.

The Department has recommended conditions requiring the Applicant:

- to cease works if any unexpected archaeological relics or skeletal remains are uncovered during the work and contact Heritage NSW immediately.

- the area is located on the sandstone bedrock and there is no original soil left that would have potential for retaining of any Aboriginal objects. The location has very low to nil potential for Aboriginal archaeological resources.
- to protect any discovered objects as required by the NPW Act.
- have a representative from the Local Aboriginal Land Council in attendance when undertaking any excavations greater than 1m in depth.

Conditions of the Phase 1 partial consent required the recommendations of the ACHAR to be implemented.

Further to the above, the Phase 2 and 3 RtS and SRtS included addendum ACHAR letters to incorporate areas of new work related to the revised internal access road construction.

The addendum letters confirm that proposed works could proceed subject to the ACHAR recommendations relating to immediate cessation of work should Aboriginal objects be identified or if skeletal remains are uncovered. Overall, the Applicant advised that the potential for Aboriginal cultural heritage impacts as a result of the proposed development are negligible.

Council recommended conditions of consent relating to unexpected finds protocols and protection of objects of potential indigenous significance (as required by the *National Parks and Wildlife Act 1974* (NPW Act)).

Neither EESG nor Heritage NSW made comment in relation to the ACHAR.

#### **Open space provision**

Phase 2 and 3 would increase the number of students on-site to 2000 students. Upon reviewing the SRtS and the subsequent modifications to the landscape design, the Department raised queries regarding the amount and configuration of open space proposed for students.

The Department notes that Education SEPP does not include a numerical requirement for the quantity of open space per student for a school. The Department of Education's Educational Facilities Standards and Guidelines (EFSG) recommends that a minimum play space of 10sqm per student be provided in a new government school on



The Applicant's FSRtS stated that Kindergarten to Year 1 would utilise the northern playground (away from the drop-off/pick-up area) and that the southern playground would be used by older primary and secondary students. These areas include soft and hard play information and formal play areas.

The Applicant advised that each student would be provided with 13.6sqm of play space. Charles Bean Oval, which is within a short walk of the site, would be used for sporting activities.

a greenfield site. When located off-site, a playing facility should be close to the school, easily accessible, safe and secure.

Utilising the ESFG as a guide and considering the information provided by the Applicant, the Department concludes that the proposed open space provisions are acceptable.

#### **Tree Removal/ Biodiversity**

Phase 1 included the removal of 872 trees to establish on-site asset protection zones (APZs).

A Biodiversity Assessment Report (BAR) was included in the EIS for all phases of the development which concluded that 71 ecosystem credits were required to offset the impacts of the proposal. These credits were retired prior to the commencement of Phase 1 operations in accordance with the Phase 1 partial consent.

Following the granting of the Phase 1 partial consent, a Review of Environmental Factors (REF) was issued to facilitate additional APZs within the Lane Cove National Park to the south-west, south and south-east (**Section 2.4.3**). This clearing has since been undertaken.

An additional 48 trees are to be removed to facilitate the revised internal access road improvements and proposed landscape design.

An addendum Biodiversity Assessment Report (BAR) was provided as part of the FSRtS.

The BAR identified that 0.17 hectares of the site would be impacted and identified

The Department acknowledges that further tree removal is required to accommodate the amendments to the revised internal access road layout and landscape design.

The Department notes that the biodiversity impacts of the additional tree removal have been assessed in the BAR and that appropriate offsets have been identified.

The Department acknowledges that the further tree removal would potentially modify views of the site and the heritage significance of the site, though the tree removal would not affect views from the Eton Road frontage of the site.

While the Department considers that additional tree removal is not desirable, the Department considers that ensuring the safety of staff and students (through the revised access arrangements), and the resulting public benefit resulting from the delivery of school places justifies the proposed loss of vegetation, subject to offsets.

With the offset strategy in place and recommended conditions requiring the retiring of ecosystem credits, the Department is satisfied that the

two native vegetation types (Dwarf Apple – Broad-leaved Scribbly Gum and Smooth-barked Apple – Red Bloodwood) on the site that would be impacted by the proposal.

The BAR determines that a further 16 ecosystem credits are required to offset the impacts of the proposal. The offset strategy includes payment into the biobank scheme.

The Applicant also proposed replanting three trees to offset the loss as well as potential additional planting (four trees have already been identified) subject to consultation with NSW RFS for compliance with APZ requirements.

EESG did not raise concerns with the BAR or proposed offset strategy.

Council and Heritage NSW raised concerns regarding tree removal and additional heritage significance impacts that would result. Council also raised concerns with the scope of the BAR assessment in that it fails to address the loss of biodiversity as a result of clearing within Lane Cove National Park.

In response to Council's comments, the Applicant's FSRTS argues that the tree clearance within the Lane Cove National Park was assessed appropriately under the REF by NSW National Parks and Wildlife Service as both a public authority proponent and the determining authority for the activity. A Flora and Fauna Assessment was prepared as part of the REF which concluded that the proposed works would not have a significant impact on relevant threatened species, populations and ecological communities.

In addition, the clearing was licenced under section 151 of the NPW Act. Section 151 of NPW Act allows the

biodiversity impacts of the proposal would be appropriately offset.

However, the Department considers that further investigation of opportunities for additional tree replacement should occur in consultation with NSW RFS. A condition has been recommended for this to occur within six weeks of operation.



Minister to grant a lease or licence of land within a reserve.

The Applicant further argued that the licence is compatible with the management values established under the Lane Cove National Park Plan of Management. The biodiversity impacts of the proposed activity within Lane Cove National Park have been assessed in accordance with Part 5 of the EP&A Act, as the NSW National Parks and Wildlife Service is both a public authority proponent and the determining authority for the activity.

On the basis that the clearance works do not form part of the SSD works, the Applicant advised that it is appropriate that the BAR does not include the clearance works within the Lane Cove National Park.

#### **Utilities and Services**

Upgrades to the gas, water and electricity service to the site were undertaken prior to the commencement of Phase 1 operations.

An Infrastructure and Services Report was included in the Phase 2 and 3 RtS that considered whether augmentations were required to existing services to facilitate Phase 2 and 3. This concluded that the existing services, as upgraded in Phase 1, would be sufficient to accommodate Phase 2 and 3.

However, the Infrastructure and Services Report notes that it is anticipated that service renewal would be required to the following systems:

- energy metering and sub-monitoring metering system.
- distribution boards and sub-mains.
- earthing and surge protection.

The Department considers the site can be sufficiently serviced by necessary utility connections and electricity supply, subject to approvals from the relevant service authorities.

- internal and external lighting, including controls telecommunication services.
- emergency and exit lighting system.

## Stormwater drainage

The Applicant's SRtS concluded that the existing drainage network on site has sufficient capacity to cater for Phase 2 and 3. Drainage works in Phase 2 and 3 include provision of drainage infrastructure to the new works, including changes and extension to the internal access road.

Water quality measures are to be installed as part of landscaping of the site, including vegetated and bioretention swales.

Council recommended that an appropriately qualified hydraulic engineer be consulted in the design and planning of the stormwater treatment system. Council also recommended that the school be provided with an approved operation and maintenance schedule for any water sensitive urban design components or other stormwater treatment measures.

The Department is satisfied that appropriate stormwater drainage arrangements can be put in place to ensure that the proposal would not result in downstream stormwater impacts.

The Department has recommended a condition requiring an operational stormwater management system to be finalised for the development by a suitably qualified hydraulic engineer. The Department has also recommended a condition requiring the preparation and implementation of a Stormwater Operation and Maintenance Plan.

## Flooding

Phase 1 of the development involved an increase in impervious surfaces and vegetation clearing on site.

As a result, the potential to increase stormwater runoff was identified. The Department's Phase 1 Assessment Report dated October 2018 (**Appendix A**) concluded that the flooding risk was acceptable subject to the finalisation of a flood study (undertaken by an appropriately qualified engineer) and preparation of a final Flood Emergency Management Plan prior to commencement of operations.

Phase 2 and 3 was supported by a Flood Emergency Management Plan that was

The Department is satisfied that flood risk would be appropriately managed.

The Department has recommended a condition of consent requiring the implementation of the Flood Emergency Management Plan.



All phases of the proposed development would also provide direct investment of \$81,025,897 and support approximately 186 construction jobs and 264 FTE operational jobs.

## 7 Evaluation

The Department has reviewed the Phase 2 and 3 RtS, SRtS and FSRtS and assessed the merits of the proposal, taking into consideration advice from the public authorities, including Council, as well as from community organisations. Issues raised in the public submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed. The Department concludes that the impacts of the proposal are acceptable and can be appropriately mitigated through the implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved subject to recommended conditions of consent.

The Phase 2 and 3 RtS is consistent with the objects of the EP&A Act, including facilitating ESD and with the State's strategic planning objectives, in particular the Greater Sydney Region Plan – A Metropolis of Three Cities as it would improve education results through the provision of new and improved facilities to meet the growing needs of the population in the Ku-ring-gai LGA.

The proposal is also consistent with the vision outlined in the Greater Sydney Commission's North District Plan as it would deliver a new and improved educational facility with opportunities for primary and secondary enrolments, contribute to social infrastructure that would meet the educational needs of the community and provide opportunities to co-share facilities with the local community in the future.

The proposal is suitable for the site and the identified key issues associated with Phase 2 and 3 including bush fire, heritage, traffic, access and parking can be appropriately managed, subject to recommended conditions. The proposed landscaping scheme has been designed to fit within the context of the heritage and bushland setting of the site.

The delivery of proposed road infrastructure upgrades, in conjunction with appropriate management of vehicle movements would ensure that the local traffic network can accommodate the additional school traffic with no unacceptable impacts on the surrounding built environment. The noise generated by the construction and expanded operations can also be managed via appropriate acoustic treatments and recommended mitigation measures.

On balance, the Department considers the proposal to be in the public interest as it would deliver contemporary educational facilities to improve educational outcomes, social infrastructure that can be utilised by other groups within the community, would generate up to 186 construction jobs, 264 FTE operational jobs and direct investment in the region of approximately \$81,025,897.



## 8 Recommendation

It is recommended that the Minister for Planning and Public Spaces:


- **considers** the findings and recommendations of this report.
- **accepts and adopts** all of 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 (**Appendix F**).
- **grants** consent for the application in respect of Lindfield Learning Village - Phase 2 and 3 (SSD-8114).
- **signs** the attached development consent and recommended conditions of consent (**Appendix D**).

**Recommended by:**



**Karen Harragon**  
Director  
Social and Infrastructure Assessments

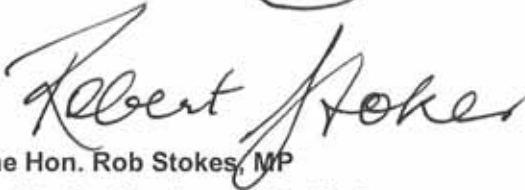
**Recommended by:**



**Erica van den Honert**  
A/Executive Director  
Infrastructure Assessments

## 9 Determination

The recommendation is Adopted / ~~Not adopted~~ by:

A handwritten signature in black ink, appearing to read 'Robert Stokes', written over the printed name.

**The Hon. Rob Stokes, MP**

Minister for Planning and Public Spaces



# Appendices

## Appendix A – List of referenced documents

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

1. Phase 1 assessment report and development consent

<https://www.planningportal.nsw.gov.au/major-projects/project/4416>

2. Phase 2 and 3 RtS

<https://www.planningportal.nsw.gov.au/major-projects/project/4416>

3. Phase 2 and 3 RtS and SRtS Submissions

<https://www.planningportal.nsw.gov.au/major-projects/project/4416>

4. FSRtS

<https://www.planningportal.nsw.gov.au/major-projects/project/4416>

## Appendix B – Statutory Considerations

To satisfy the requirements of section 4.15(a)(i) *Environmental Planning and Assessment Act 1979* (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 (Infrastructure) 2007 (Infrastructure 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).
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (Sydney Harbour SREP).
- Draft State Environmental Planning Policy (Remediation of Land) (Draft Remediation SEPP).
- Draft State Environmental Planning Policy (Environment) (Draft Environment SEPP).

### 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
<b>3 Aims of Policy</b>  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
<b>8 Declaration of State significant development: section 4.36</b>  (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 under section 4.36 (development declared SSD) of the EP&A Act as the development is for the purpose of alterations and additions to a school with a value over \$20 million under clause 15(1) of Schedule 1 of the SRD SEPP.	Yes



## Infrastructure SEPP

The Infrastructure SEPP aims to facilitate the effective delivery of infrastructure across the state by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

Educational establishments are no longer covered under the traffic generating development provisions of the Infrastructure SEPP as they are considered under the Education SEPP. However, the application was referred to Transport for NSW (Roads and Maritime Services) (TfNSW (RMS)).

The Department is satisfied that the proposed development meets the requirements of Infrastructure SEPP.

## Education SEPP

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

Clause 42 of the Education SEPP states 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.

Clause 57 of the Education SEPP requires traffic generating development that involves addition of 50 or more students to be referred to the TfNSW (RMS). The Application was referred to TfNSW (RMS) in accordance with this clause.

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. An assessment of the development against the design principles is provided in **Table B2**.

**Table B2** | Consideration of the design quality principles

Design Principles	Department's consideration
Context, built form and landscape	<p>The proposed works have been designed to respect and enhance the heritage values and landscape setting of the site. External interventions to the existing buildings include durable materials and finishes with natural tones with varied articulation through material scale, placement and use. Changes to the internal access road seek to fit in with the layout and topography of the site.</p> <p>The Department has recommended conditions of consent to ensure that future works are of a design quality that has regard to the existing buildings on site and the character of surrounding development.</p>

Sustainable, efficient and durable	<p>The proposal includes measures to achieve ESD (<b>Section 4</b>). The materials chosen are durable and require low maintenance.</p> <p>The application details active transport initiatives to encourage sustainable travel modes. The application also seeks to reduce waste and encourage recycling particularly through the reuse and adaption of existing buildings and encouragement of reuse or recycling of materials during construction works.</p> <p>Water sensitive urban design measures such as bio-retention basins are proposed for the site to ensure rainwater harvesting, reuse and maintenance of stormwater quality.</p>
Accessible and inclusive	<p>The Phase 2 and 3 RtS included an updated Access Report that 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 achieve compliance with the relevant statutory requirements.</p> <p>The proposal includes the provision of a more prominent entry feature through the realignment of Eton Road entry to the internal access road. This alteration also provides improved wayfinding into the site.</p> <p>The proposal also provides an opportunity for significant improvement of accessibility on the site through additional vehicle and pedestrian accessibility points. This would ensure that the site has a high level of permeability for users.</p>
Health and safety	<p>The proposal is directly designed to improve the amenity and safety of the school facilities for existing staff and students. The proposal includes a variety of engaging and functionable playground spaces and seeks to enhance the amenity of the internal spaces by guaranteeing light and winter sun access. Varied landscaping across the site would provide shade during summer months as well as active play areas.</p> <p>Fences and gates are proposed at all access points and boundaries to provide access control. The setbacks between the main campus building and the fencing would be accessible by the students. Spaces that would be used for community uses can be secured from the remainder of the school grounds during out of hours use.</p>
Amenity	<p>The proposal provides improved learning and recreational facilities to students at the school..</p> <p>High levels of amenity will be achieved for students and staff. Improved storage, service and other amenities are also included in the proposal.</p>



	The proposal would not unreasonably impact upon the amenity of adjoining residents by way of overshadowing, overlooking or noise. The Department has recommended conditions to mitigate environmental impacts.
Whole of life, flexible and adaptive	The proposed school facilities would be 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. The proposal incorporates ecological sustainable development measures to reduce the environmental impacts of the school towards the local community.
Aesthetics	<p>The development would achieve a high standard of internal design and appearance, the proposed design and materiality is appropriate given the heritage characteristics of the existing main campus building and site.</p> <p>The proposal responds to the topographic context and presence of existing nearby development and includes landscaping that would maximise the efficiency of open spaces and includes appropriate hard and soft landscaping treatments.</p> <p>The Department considers that the proposed development would have a positive impact on the quality and sense of identity of the neighbourhood.</p>

#### **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. The Phase 2 and 3 RfS included a Section A Site Audit Statement confirming that the site is suitable for the continued educational establishment use.

The Department is satisfied that the Applicant has adequately demonstrated that the site is suitable for the continued use as an educational establishment as required by SEPP 55 (**Section 6.4**).

#### **Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005**

The Sydney Harbour SREP provides planning principles for development within the Sydney Harbour catchment. The site is located within the Sydney Harbour Catchment area.

The proposal is consistent with the relevant planning principles of the Sydney Harbour SREP and would not have any significant adverse impact on the Sydney Harbour catchment.

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

The Draft Remediation SEPP retains the overarching objective of SEPP 55 promoting the remediation of contaminated land to reduce the risk of potential harm to human health or the environment.

Additionally, the provisions of the Draft Remediation SEPP require all remediation work carried out without development consent to be reviewed and certified by a certified contaminated land consultant. Remediation work is to be categorised based on the scale, risk and complexity of the work. Environmental management plans relating to post-remediation management of sites, including the ongoing operation, maintenance and management of on-site remediation measures (such as a containment cell) are to be provided to Council.

The Department is satisfied that the proposal would be consistent with the objectives of the Draft Remediation SEPP.

### Ku-ring-gai Local Environmental Plan (KLEP) 2015

The KLEP 2015 aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the Ku-ring-gai LGA. The KLEP 2015 also aims to conserve and protect natural, heritage and cultural resources and foster economic, environmental and social well-being.

The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of the KLEP 2015 and those matters raised by Council in its assessment of the development (**Section 5**). The Department concludes the proposed development is consistent with the relevant provisions of the KLEP 2015. Consideration of the relevant clauses of the KLEP 2015 is provided in **Table B3**.

**Table B3** | Consideration of the design quality principles

KLEP 2015	Department Comment/Assessment
Clause 4.3 Building height	The footprint of the existing main campus building is subject to a maximum height limit of 20m. The remainder of the site is subject to a maximum height limit of 9.5m. The proposed additions that form part of Phase 2 and 3 are all located within the footprint of the main campus building and have a maximum height limit of 12.694m.
Clause 4.4 Floor Space Ratio	The proposal does not increase floor space within the existing building.
Clause 5.10 Heritage conservation	Heritage has been considered in <b>Section 6.2</b> of this report. It is noted that the loss of vegetation would impact on the bushland setting of the main campus building. However, the heritage impacts of the development were found to be acceptable subject to conditions of consent requiring the retention of significant fabric within the main campus building, and the preparation of various conservation documents.
Clause 6.2 Earthworks	No significant earthworks are proposed to facilitate Phase 2 and 3.
Clause 6.3 Biodiversity	<p>The subject site is identified as 'Biodiversity' on the Terrestrial Biodiversity Map. Biodiversity impacts and tree removal have been considered in <b>Section 6.5</b> of this report. A Biodiversity Assessment Report (BAR) was submitted with the application to address the proposed loss of vegetation across the site and subsequent impacts on flora and fauna habitat.</p> <p>Two native vegetation communities were identified on the site and would be affected by the tree removal. In accordance with the <i>Threatened Species Conservation Act 1995</i>, the BAR established that 16 ecosystem credits are to be retired to mitigate the loss.</p>



EESG has also considered the proposal and is satisfied with the proposed offset.

The Department has recommended conditions requiring the Applicant to retire the ecosystem credits prior to commencement of works, and a flora and fauna management plan is to be developed for the construction and operational phases of the development.

Clause 6.5 Stormwater and  
Water Sensitive Urban  
Design

The only stormwater and drainage work proposed to that provided in Phase 1 include vegetated and bioretention swales. These are provided to manage water runoff quality before it discharges into the Lane Cove River Catchment. The Department has recommended conditions requiring the installation of a rainwater reuse/harvesting system, and management of stormwater in accordance with The Blue Book – Managing Urban Stormwater: Soils and Construction (2004).

**Other policies**

In accordance with clause 11 of the SRD SEPP, Development Control Plans do not apply to SSD. Notwithstanding this, the objectives of relevant controls under the Ku-ring-gai Development Control Plan 2020, where relevant, have been considered in **Section 6**.

## Appendix C – Consistency with Concept Plan

Consistency of the proposed development with the Concept Plan Approval is examined in **Tables C1, C2 and C3** below.

**Table C1 |** Consideration of the Relevant Concept Plan Conditions

Condition	Department Comment/Assessment
<b>PART A. TERMS OF APPROVAL</b>	
<b>A1. Development Description</b>	
(1) Except as modified by this Consent, Concept Plan approval is granted only to the carrying out of development solely within the Concept Plan area as described in the document titled Preferred Project Report and Statement of Commitments UTS Kuring-Gai Campus Lindfield, SEPP Major Projects and Concept Plan Volumes 1 and 2 dated February 2008 and prepared by JBA Planning Consultants and DEM Architects.	The proposed development is consistent with that described in the Concept Plan approval.
<b>A2. Development in Accordance with Plans and Documentation</b>	
(1) Except as modified by this approval, the development shall generally be in accordance with the following plans and documentation (including any appendices therein): (a) Preferred Project Report and Statement of Commitments UTS Kuring-Gai Campus Lindfield, SEPP Major Projects and Concept Plan Volumes 1 and 2 dated February 2008 and prepared by JBA Planning Consultants and DEM Architects; and (b) Modification report by JBA Urban Planning Consultants dated February 2010 and its revised appendices, including University of Technology Sydney Ku-ring-gai Campus State Significant Site Amendment Concept Plan, DEM, April 2010, letter from JBA Urban Planning Consultants dated 24 March 2010 and its attachments; (c) Modification report by JBA Urban Planning Consultants dated 26 July 2011 and its appendices; and (d) Modification report by JBA Urban Planning Consultants dated 26 April 2012 and its appendices.	The proposed development is consistent with that described in the Concept Plan approval.
(2) In the event of an inconsistency between: (a) the modifications of this approval and any document listed from clause A2(1)(a) to A2(1)(b) inclusive of this	



Instrument, this approval shall prevail to the extent of the inconsistency;

- (b) any document listed from condition A2(1)(a) to A2(1)(b) inclusive, the most recent document shall prevail to the extent of the inconsistency; and
- (c) the Statement of Commitments, referenced in condition A2(1)(a) and this approval, then the approval shall prevail to the extent of the inconsistency.

## **PART B MODIFICATIONS TO THE CONCEPT PLAN**

### **B2. Landscaping**

- (1) The Landscape Management Plan referred to on page 5 of the revised Statement of Commitments is to be integrated with the urban design guidelines referred to in B1 (1) of this Consent and is to demonstrate:
  - (a) maintenance of the bushland setting of the Site;
  - (b) heavy landscaping between the access road and proposed adjoining development; and
  - (c) heavy landscaping between the existing main building and any future development on its northern side.
- (2) The Plan referred to in B2(1) is to be provided prior to or with the first application for development on the Site.
- (3) Development is to be in accordance with the Landscape Management Plan referred to in the revised Statement of Conditions.

The submitted Landscape Management Plan is generally consistent with the urban design guidelines that have been established for the site.

Notwithstanding this, tree removal is required for changes to the internal access road. Replacement tree planting is proposed where possible to retain a bushland setting.

### **B7. Stormwater Management**

- (1) The Concept Plan is modified such that the Stormwater Management Plan referred to on page 6 of the revised Statement of Commitments is:
  - (a) integrated with the Threatened Species Management Plan referred to on page 3 of the revised Statement of Commitments; and
  - (b) revised in accordance with any modifications undertaken as part of this Consent.
- (2) The Plan referred to in B7(1) of this Consent is to be provided prior the first application for development on the Site.
- (3) The Concept Plan requires Stormwater Plans are to be prepared for any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).
- (4) The Concept Plan requires a Flood Emergency Management Plan is to be prepared for any future application for the

It is noted that minimal stormwater works are proposed. However, the Department has recommended a condition of consent requiring appropriate management and design of stormwater infrastructure.

A Flood Emergency Management Plan has been submitted with the application and reinforced by recommended conditions of consent.

reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

#### **B8. Bush fire Protection**

- (1) The Concept Plan is to be modified in consultation with Rural Fire Service to include:
  - (a) an appropriately located and sized turning circle;
  - (b) an appropriately located staging area for emergency vehicles;
  - (c) the provision of a reservoir of 50,000 Litres central to the Site entrance; and
  - (d) the detailed Fire/ Emergency Evacuation Plan referred to on page 7 of the revised Statement of Commitments.
- (2) The modifications referred to in B7(1) of this consent are to be undertaken prior to the lodgement of the first application for development on the Site.
- (3) The Bush fire Management Plan referred to on page 7 of the revised Statement of Commitments is to address the management of existing vegetation islands and is to be prepared to the satisfaction of the NSW Rural Fire Service.
- (4) Development is to be in accordance with the Bush fire Hazard Assessment and Bushfire Emergency Management and Evacuation Plan referred to in the revised Statement of Commitments.

A Bush Fire Emergency Management and Evacuation Plan (BEMEP) and Bushfire Design Fire Engineering Report was submitted with the application specific to the use of the building as a school.

Even so, both reports are generally consistent with that approved for the wider Concept Plan site with increased protection purposes and asset protection zones (APZ) in place for the reuse of the building.

NSW RFS reviewed the information provided and advised that it had no objections to the proposal subject to the implementation of the recommended bush fire protection measures.

#### **B10. Traffic, Transport and Parking**

- (1) A TMAP is to be prepared, in consultation with the RTA, in accordance with Ministry of Transport Guidelines, prior to or with the lodgement of an application for any future works on the site.
- (2) The Proponent must, in consultation with RTA undertake further modelling in order to improve phasing efficiencies to benefit local traffic prior to the lodgement of an application for the development of habitable space on the Site.
- (3) Development is to be in accordance with the Transport Impact Assessment and Green Travel Plan referred to in the revised Statement of Commitments.

A Transport Impact Assessment and School Travel Plan for Phase 2 and 3 was submitted with the application and considered satisfactory. The Department has recommended conditions of consent requiring the preparation of a School Transport Plan prior to the commencement of operations for Phase 2 and 3.

#### **B11. Staging, Construction and Demolition**

The Department has recommended a condition



- |  |   |
|--|---|
| <p>(1) The Staging Plan referred to on page 1 of the revised Statement of Commitments is to apply to the approved Concept Plan and is to detail bulk earthworks proposed.</p> <p>(2) A Construction Management Plan must be submitted prior to or with an application for the first development on the Site to the satisfaction of Council and is to:</p> <p>(a) be integrated with the Threatened Species Management Plan referred to on page 3 of the Revised Statement of Commitments; and integrated with the Staging Plan referred to in B11(1) of this Consent</p> | <p>requiring the preparation of a flora and fauna management sub-plan to form part of the construction management plan for Phase 2 and 3.</p> |
|--|---|

## **B12. Utilities**

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|---|--|
| <p>(1) The Concept Plan is modified to ensure all electricity and gas lines shall be accommodated underground where ecological or landscape outcomes are not compromised.</p> | <p>Existing utilities are available to the site.</p> |
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## **B16. Gymnasium Building**

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| <p>(1) The retained gymnasium building shall not be used for any use other than indoor recreation, related community activities, and educational uses.</p> | <p>Complies</p> |
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## **SCHEDULE 3 – FUTURE APPLICATIONS**

### **A2. Design Guidelines**

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| <p>(1) Future development applications are to be in accordance with the design guidelines referred to on page 2 of the revised Statement of Commitments.</p> | <p>Complies.</p> |
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### **A4. Flora and Fauna**

- |  |   |
|--|---|
| <p>(1) All future development is to be undertaken in accordance with the '<i>Guidelines for Developments Adjoining Department of Environment and Conservation Land</i>' by DECC dated August 2006.</p> | <p>EESG has considered the application and has not raised any issues with the application in this regard.</p> |
|--|---|

### **A5. Bush fire Protection**

- |  |  |
|--|--|
| <p>(1) Future uses are not to require the extension of Asset Protection Zones provided in the PPR.</p> | <p>As the proposed school is identified a 'Special Fire Protection Purpose', appropriate bushfire management measures have been identified in consultation with NSW RFS.</p> |
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- (2) Uses constituting 'Special Fire Protection Purposes' as defined in *Planning for Bush Fire Protection 2006* are to be undertaken in consultation with the NSW Rural Fire Service.

**Table C2 | Consideration of the Statement of Commitments**

<b>Commitment</b>		<b>Department Comment/Assessment</b>
Planning Agreements	A Voluntary Planning Agreement (VPA) will be negotiated that addresses the current plans to offset section 94 contributions by the provision of the soccer field and the community space which can accommodate a childcare centre.	N/A. This measure related to the staged delivery of residential development identified under the Concept Plan.
Ecological Sustainable Development	Any proposed dwellings within the site will comply with BASIX requirements for water conservation and thermal and energy efficiency.	Ecological sustainable development (ESD) measures have been incorporated into the development ( <b>Section 4.4.3</b> ).
Staging	<p>Consideration will need to be given to the staging and delivery of the development of the Concept Plan. The staging of the development components will need to have regard to:</p> <ul style="list-style-type: none"> <li>• Minimisation of construction impacts upon adjoining properties;</li> <li>• Protection of existing public benefits and access;</li> <li>• Construction access; and</li> <li>• Timing of infrastructure provision.</li> </ul> <p>A detailed project staging plan will be submitted with the first project application.</p> <p>A separate Construction Management Plan for the existing UTS Building (Lots 2 and 4 DP1151638) will be prepared prior to construction.</p>	A draft Construction Environmental Management Plan was submitted with the application and the Department has recommended the preparation and submission of a final Construction Environmental Management Plan as a condition of consent.
Built Form	<p>Floor to ceiling heights will be limited to 3.5 metres.</p> <p>Urban design guidelines will be developed for single lots, integrated lots, and residential flat buildings prior to the first stage of development, to be outlined in the project staging plan to be submitted with the first project application.</p>	Phase 2 and 3 occupies the remainder of the existing buildings on site. The proposal seeks to undertake this with minimal alterations or additions proposed.



Contamination	<p>A hazardous material audit which will include sampling and identification of asbestos and Polychlorinated Biphenyls (PCBs) will be completed to determine the extent and integrity of the hazardous building materials which exist on the site; Any demolition/removal of Polychlorinated Biphenyls (PCBs) and asbestos containing material will be conducted in accordance with current NSW EPA waste classification and disposal guidelines, and WorkCover occupation health and safety procedures: At the project or development application stage, a limited and targeted Phase 2 intrusive contamination assessment at the northern property boundary will be undertaken to assess whether any contamination, from potential sources identified on the Film Australia site, has migrated onto the UTS property. This would involve the drilling and collection of soil samples as the installation of ground water wells. In addition, limited surface soil sampling will be conducted across the sports oval and any other sporting fields which may have been treated with organochlorine/organophosphate pesticides. The results of Phase 2 soil and groundwater investigation will be assessed against the relevant land use criteria stated by NSW EPA, NEPM and ANZECC guidelines. If concentrations of contaminants exceed the relevant land use guideline a remedial action plan will be developed, with remediation and validation works completed in accordance with NSW EPA guidelines, CLM Act (1997) and SEPP 55.</p> <p>Notwithstanding the above, a separate Remediation Action Plan is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).</p>	<p>Contamination has been addressed in <b>Section 6.4</b> and <b>Appendix B</b>. The Department notes that the site is suitable for the continued use as an educational establishment.</p>
Flora and Fauna	<p>Indirect impacts on bushland such as weeds, feral and domestic animals and fire will be managed by the implementation of</p>	<p>An updated BAR and Landscape Management Plan were submitted with the application which generally address</p>

management plans and strategies including:

A Threatened Species Management Plan that will address:

- Feral and domestic management strategies to minimise habitats post construction for feral animals and restrictions and controls for domestic cats and dogs.
- Retention of areas of native vegetation and habitat for threatened flora and fauna within the site, including retention of *D.biflora* plants and habitat;
- Fencing and flagging of all *D.biflora* plants to be retained within the development area. A minimum of two *D.biflora* habitats will be retained to the east and west of the village green. Any *D.biflora* habitats located in the APZ will be managed accordingly;
- Translocation of soil and seeds from *D.biflora* habitat where this will be impacted by the development area. Translocation will be detailed within a plan prior to any works beginning on the site;
- A monitoring program will be developed to ensure the viability of the *D.biflora* and determine the success of translocation of seeds.

A Weed Management Plan will be prepared as part of project applications to link into storm water control strategies.

An Erosion and Sedimentation Control Plan will be developed to address both the construction phase and subdivision phase to ensure erosion and sedimentation controls will be put in place prior to any works beginning to ensure that any potential increase in runoff from removal of vegetation or leaf litter does not impact on downstream or off-site environments and development does not contribute to environmental damage of the waterways, bushland or air quality.

the flora and fauna requirements and are considered to be acceptable. The Department has also recommended the preparation of Flora and Fauna management plans for the construction and operational phases of the development.

The Department has recommended the preparation of erosion and sedimentation control plans as part of each construction phase.



A Vegetation Management Plan for the site that will address:

- Retention and protection of trees, particularly hollow bearing trees within the development area where possible;
- Retention of existing understorey vegetation within landscaped areas. These pockets will be rehabilitated as required to remove exotic species and enhance native shrubs and ground covers;
- Pre-clearance surveys will be conducted by ecologists to ensure all fauna are removed prior to clearance and ecologists on site during all vegetation clearance activities to capture any displaced fauna;
- Harvesting of seed banks for the purposes of on-site regeneration. Greening Australia would be consulted regarding the best way to salvage soil seeds and canopy held seeds. These could be used in landscaping or regeneration of disturbed bushland areas adjacent to developed areas.
- All riparian corridors will be protected and maintained.
- The Red Crowned Toadlet breeding habitat and surrounding habitat will be protected and managed.
- Fencing during construction of all areas of native vegetation that will not be removed for development, as protection from machinery and personnel.

Before future residents move in, information packages detailing the environmental sensitivity of the site including information on the threatened species and habitats will be provided to ensure greater awareness and involvement.

In addition, no activities will be undertaken within DECC land.

All non-APZ bushland on the site, south west of the 50 metre APZ will be dedicated to DECC with their approval and will be initiated with the approval of the first Project or Development Application. Notwithstanding the above, a separate Landscape Management Plan (including vegetation management, threatened species management and weed management) is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

#### Trees

A Landscape Management Plan for the site that will address:

- Retention or replacement of planting around the oval.
- Long term preservation and maintenance of tree assets.
- Retention and maintenance of planting along the entry road from Eton Road.
- Retention of the planted retaining wall between the existing oval and tennis courts retained.

Notwithstanding the above, a separate Landscape Management Plan is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

A Landscape Management Plan was submitted with the Phase 2 and 3 RtS which reflects the constraints of the existing site, Phase 1 operation area and APZs that are required to be established and identified trees for retention.

#### Infrastructure

A comprehensive infrastructure delivery plan will be prepared to ensure that the site can be adequately serviced with all utility services including gas, electricity, water, sewer and telecommunications, etc. The Plan will demonstrate that:

- Sewer infrastructure will be augmented to service the new development.
- Gas, Power and Potable water will be augmented where required to meet the requirements of new development.

A comprehensive stormwater management plan will be prepared which addresses:

- Water flow;
- Water quality;
- Water catchments;

A report on existing drainage infrastructure was submitted with the Phase 2 and 3 RtS certifying its adequacy and outlining maintenance upgrades that may be required once construction is underway.

The Phase 2 and 3 RtS also proposed bio-retention swales to further reduce the load on drainage infrastructure on the site.

No cut and fill is proposed as part of the development.

A separate Infrastructure and Services report was submitted with the Phase 2 and 3 RtS in accordance with the commitments.



- Water conservation;
- Water retention; and
- Water treatment and re-use.

Above ground swales are to be constructed and vegetated with native species and indigenous flora conserved wherever possible.

Water detention areas are to be provided within the development area.

Cut and fill will be balanced across the site, any fill that is required will be clean fill.

Notwithstanding the above, a separate Infrastructure & Services Report is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

#### Bush fire

All development on the site will be carried out in accordance with *Planning for Bush Fire Protection 2006* guidelines.

An APZ to be incorporated and maintained, as per the requirements of the *Planning for Bush Fire Protection 2006*, and the recommendations of the consultant report prepared by Barry Eadie Consulting.

An APZ of a minimum width of 50 metre will be maintained between the south-east edge of the existing building and the north-west edge of the site;

An APZ of a minimum width of 60 metres is to be maintain to the east of the residential development, to the north east of the site.

Detailed management practices will be outlined in a Bush fire Management Plan including management practices within the APZ prior to occupation of the site.

Detailed Fire Emergency/ Evacuation plan will be developed prior to occupation of the site.

The existing fire trail will be upgraded to meet Planning for Bush Fire Protection 2019 and will be extended to connect with proposed residential development to the northwest at Dunstan Grove to provide

Bush fire is discussed in detail in **Section 6.1** of this report. The Department is satisfied that the Applicant has demonstrated that the proposal complies with the relevant provisions of Planning for Bush Fire Protection 2019.

adequate access for fire fighting and management procedures.

Prior to any clearance for the Asset Protection Zone (APZ) and fire trail creation, a survey will be conducted to identify any hollow bearing trees or trees considered to provide important fauna habitat. Such trees will be flagged, and locations recorded with a GPS and mapped. These trees will be avoided. Small shrubs and ground cover to 50cm will be retained within the APZ. Large shrubs can be retained in vegetation clumps where they will not result in fore spreading to tree canopies; Rocky outcrops and rock will be avoided by the fire trail. No rock will be removed from the APZ or fire trail areas; and Wooden bridges will be built over the drainage lines for construction of the fire trail so that these environments are not disturbed.

Significant trees will be retained within the development area where possible and all trees will be retained in the APZ.

All *D.biflora* will be flagged and locations recoded with a GPS and protected. A map and works plan will then be devised prior to any vegetation clearance or modification for the APZ creation. Areas within the APZ where soil seed banks or plants could be translocated will also be investigated and identified prior to any works beginning; Construction of all buildings will be Level 3 construction.

Notwithstanding the above, a separate bush fire assessment and emergency management evacuation plan is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

#### Transport

A minimum of 184 car-parking spaces to be retained for the adaptive re-use of the existing UTS building.

The application proposes to retain 166 car-parking spaces on site. As part of Phase 2 and 3, a significant decrease in the reliance on private vehicles is targeted. This is to be undertaken



Car-parking for the reuse of the existing building will be fully assessed in the future Project Application.

Retention of existing access and bus turnaround loop to ensure public transport services are retained, where practical.

A Sustainable Transport Plan will be prepared at the Project (or Development) Application Stage which examines methods to promote the use of non-motorised and public transport to access the site for the reuse of the main campus building. This could include the development of Transport Behavioural Program to be distributed to future residents to encourage objectives outlined in the Sustainable Transport Plan.

A separate Transport Impact Assessment and Green Travel Plan (or similar) is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

through infrastructure improvements and implementation of a School Transport Plan that includes sustainable transport measures. The 166 spaces are considered sufficient to cater for these phases.

A Transport Impact Assessment (with addendums) has been submitted with the application, as has a draft Green Travel Plan (School Travel Plan) in accordance with the Statement of Commitments.

#### Heritage

A copy of UTS Kuring-Gai, Rezoning Application Indigenous Heritage Issues Report prepared by Jo McDonald Cultural Heritage Management Pty Ltd will be made available to Metropolitan Local Aboriginal Land Council and three copies to Cultural Heritage Division of the Sydney Zone of the Department of Environment and Climate Change.

The Metropolitan Local Aboriginal Land Council will be requested to monitor surface works during initial construction phase and promoted.

The adaptive reuse of the main building is to respect the architectural integrity and quality and not adversely affect the significance of the building including retention of external materials

Any future use of the building is to be in accordance with the Heritage Impact Assessment, as well as the Conservation Strategy for the site, prepared by Graham Brooks and Associates, heritage consultants.

Heritage is discussed in detail in **Section 6.2** of this report. A separate Heritage Impact Statement and a Conservation Management Plan was submitted with the application, and the Department has recommended a number of conditions to ensure retention of significant fabric and general consistency with the Concept Plan.

Original light fittings will be retained and upgraded  
 Planter boxes on roof terraces will be recovered and maintained, where possible  
 Interim heritage listing of the Site to be progressed.  
 Further recognise the architectural and heritage values of main campus of UTS complex on the National Trust Register.  
 Any archaeological findings will be referred to Heritage Office.  
 Notwithstanding the above, a separate Heritage Impact Statement is to be submitted with any future application for the reuse/redevelopment of the existing UTS Building (Lots 2 and 4 DP1151638).

Geotechnical	A detailed geotechnical investigation will be submitted with the first Project Application.	N/A
Community Facilities	A full-size adult soccer field that is capable of accommodating either two junior cricket fields or two junior soccer fields will be provided and dedicated to Council. Use of the playing field will be consistent with other playing fields in the Ku-ring-gai local government area to ensure uses are compatible and conflicts do not arise. Council will be responsible for the maintenance of the playing field to the current standard and provision of appropriate facilities.	N/A. This was a matter for the delivery of the existing residential development.

The subject site forms part of the Edglea Estate which was established under the Concept Plan approval. The development of the associated urban design guidelines was a requirement of the approval. **Table C3** below provides an assessment of the provisions relevant to the proposed school.

**Table C3 | Consideration of the Edglea Urban Design Guidelines**

Section	Department Comment
3.1 Landscape for Biodiversity and Bushfire Management	Vegetation removal is proposed to facilitate changes to the internal access road. The trees to be removed have been chosen in consultation with an ecologist, to ensure trees of the highest significance or quality are retained where possible. The Applicant is



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	<p>required to retire 16 ecosystem credits as recommended by the addendum BAR, to offset the loss.</p> <p>The Department considers the proposal to be generally consistent with this section.</p>
3.2 Earthworks and Slope	No significant changes are proposed to the topography of the site.
3.3 Materials, Finishes and Colours	The proposed alterations and additions to the building are considered minor and the colours, material and finishes have been chosen to respect the historic character of the heritage listed building consistent with the Urban Design Guidelines.
3.4 Sustainability of Building Materials	The school is proposed to occupy the existing building and maximises reuse of the existing fabric consistent with this clause.
3.6 Vehicle Access	The proposed school would make use of the existing vehicular access points into the site with only minor upgrades proposed.
3.9 Parking for People with a Disability	Complies.
3.10 Pedestrian Movement within Car Parks	Subject to conditions, the proposed pedestrian pathways between the car parking, drop off areas, and bus bay are acceptable.
3.11 Bicycle Parking and Facilities	Satisfactory subject to conditions requiring compliance with relevant Australian Standards.
3.12 Building Services	Existing services are available to the site.
3.13 Waste Management	Complies, subject to conditions of consent.
5.1 Landscape Character	Vegetation removal (48 trees) is required to establish changes to the internal access road to support Phase 2 and 3. However, attempts have been made to retain some trees in reference to the existing bushland setting and investigate further opportunities for replanting on the site (noting the bush fire risk).
5.5 Tree Canopy	Tree canopy is to be reduced in accordance with the requirements of the APZs. Small areas of tree canopy are proposed to be retained away from the school building where possible.

## Appendix D – Recommended Instrument of Consent



## Appendix E – Site Photos



Figure E1 | View of main entry from Eton Road (internal access road to left) (Source: DPIE 2020).



Figure E2 | Phase 1 drop-off/pick-up provisions (Source: DPIE 2020).



Figure E3 | View of site from upper carpark looking westwards (Source: DPIE 2020).



Figure E4 | Southern section of main campus building (Source: DPIE 2020).





**Figure E5 | Southern view along internal access road (Source: DPIE 2020).**



**Figure E6 | View from upper carpark of Lane Cove National Park and lower carpark (Source: DPIE 2020).**





**Figure E7 | Upper carpark and Phase 1 drop-off/pick-up provisions, looking north carpark (Source: DPIE 2020).**



**Figure E8 | Vegetation adjacent to upper carpark (Source: DPIE 2020).**





**Figure E9 | View eastwards up Dunstan Grove at bridge connecting main campus (left) to gymnasium (right) (Source: DPIE 2020).**



**Figure E10 | View from Dunstan Grove of pedestrian footbridge link and access point for fire trail (Source: DPIE 2020).**