

# RESPONSE TO SUBMISSIONS REPORT

Hawkesbury Centre of Excellence - SSD 15001460



PR148874

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10 November 2021

## RESPONSE TO SUBMISSIONS REPORT

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### Approval for issue

Rob Dwyer



10 November 2021

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## EXECUTIVE SUMMARY

### *Preliminary*

This Response to Submissions (RTS) Report has been prepared by RPS Australia East Pty Ltd (RPS) on behalf of the Department of Education in support of a State Significant Development (SSD) Application (SSD-15001460) for the construction and operation of the new Hawkesbury Centre of Excellence in agricultural education herein referred to as Centre of Excellence (CoE) at Richmond, NSW. The CoE will provide new agricultural/ STEM teaching facilities for secondary students with general learning and administration spaces to be utilised by rural, regional, and metropolitan school students. The CoE will be a state-wide resource for up to 325 students, including short-term accommodation facilities for up to 62 visiting students and teaching professionals. It will provide online project/ subject content, to enable students from both the locality and across the state to access facilities, classes, research and joint work with the Western Sydney University, TAFE and industry. The CoE will be located on part of 2 College Street Richmond which is land to be leased from Western Sydney University to the Department of Education on a long-term basis.

The exhibition of the Environmental Impact Statement (EIS) for the proposal ended on 14 September 2021. This RTS should be read in conjunction with the submissions received from government authorities and members of the public. Supporting technical documents are provided in **Appendix A – Appendix R**.

### *Planning Framework and Assessment*

On 21 September 2021, DPIE issued correspondence to Department of Education requesting a response to submissions, pursuant to Regulations 82 of the *Environmental Planning and Assessment Act Regulation 2000*. This RTS seeks to address each of the issues raised from the exhibition period by government authorities and members of the public.

### *Submissions Received*

This RTS provides a response to submissions received from Hawkesbury City Council, Penrith City Council (neighbouring council), Transport for NSW (TfNSW), NSW Government Architect, Heritage NSW, NSW EPA, Sydney Water, NSW Rural Fire Service, Environment, Energy and Science and Endeavour Energy. One public submission was received.

### *Changes as a result of the development*

Minor changes to the development are proposed as a consequence of addressing the issues raised in the submissions which are reflected in the amended plans and updated specialist reports which accompany the RTS. The proposed actions and changes made to the project since public exhibition are outlined below.

- **Vines Drive** - Removal of the proposed bus stop and signalised pedestrian crossing along Londonderry Road. Buses will now enter the Western Sydney University site and reach the CoE site via Vines Drive which is proposed to be widened to a carriage width of seven (7) metres. A roundabout will be provided at the eastern end of Vines Drive at the intersection with Maintenance Lane / Resources Road to facilitate bus turn around. Works along Vines Drive will include the construction of a new bus bay west of the CoE entry site as well as construction of new raised pedestrian crossings, improvement of existing at-grade pedestrian crossings, and associated improvements to drainage and services infrastructure.
- **Civil Engineering Design Changes** – including:
  - The re-sizing of two on-site detention basins.
  - Increasing the length of the car park (staff car park) adjacent to Block F and changes to culvert design for rear access.
  - Converting the swale bridge adjacent to Block G to a culvert structure.
- **Architectural Design Changes** – including:
  - Roof form adjustments to all buildings – Blocks A to F.
  - Reconfiguration of glazing in Buildings B, C and D.
  - Internal design changes and creation of an additional egress within Building E.
  - Main switchboard relocation.

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- Minor building footprint reduction of Building C and D.
- Marginal increase in building height for (Block E from 29.32m AHD to 29.35m AHD).
- **Road widening of a segment of Maintenance Lane** - for a distance of approximately 70 metres in the vicinity of the entrance to the proposed staff car park access point to allow for two-way traffic. The lane will be widened by approximately 1.5 metres tapering at either end to the existing pavement.

### ***Assessment of Development Application***

The RTS responds to the issues raised in all authority and public submissions received for this application. The RTS Report summarises these responses and has provided further detail through consultant reports where required. The RTS for the proposed development has demonstrated that the new educational facility will not generate environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.

The material provided in the original EIS, and the supporting assessment material provided in this RTS Report are submitted to DPIE to complete the assessment of the DA. The report provides sufficient documentation to enable the determination of SSD-15001460 to proceed.

# 1 INTRODUCTION

This Response to Submissions Report (RTS) has been prepared by RPS Australia East Pty Ltd (RPS) on behalf of Department of Education (the 'Proponent') in support of State Significant Development Application SSD- 15001460 for the proposed development (the 'Proposal') of a new Centre of Excellence in agricultural education (CoE) located on part Lot 2 DP1051798, 2 College Street Richmond.

The Environmental Impact Statement (EIS) was exhibited from 18 August 2021 to 14 September 2021. A total of eleven (11) submissions were received, all of which were categorised as either "comments" or "supports" to the proposal. No objections to the proposal were received. Of the eleven submissions received, ten were from public authorities and one submission was from a member of the public.

In addition, the Department of Planning, Industry and Environment (DPIE) has prepared a letter to the Department of Education dated 21st September 2021 outlining key issues to respond to including a response to the submissions received during exhibition of the EIS.

The RTS addresses the issues raised in DPIE's letter and the issues and comments raised in the submissions received during exhibition and outlines the minor changes to the proposal made since exhibition of the EIS. The RTS has been prepared generally in accordance with the DPIE *State significant development guidelines – preparing a submissions report, July 2021*.

## 1.1 Overview of the project

The CoE will provide new agricultural / STEM teaching facilities for secondary students with general learning and administration spaces to be utilised by rural, regional, and metropolitan school students. The CoE will be a state-wide resource for up to 325 students, including short-term accommodation facilities for up to 62 visiting students and teaching professionals. It will provide online project/subject content, to enable students from both the locality and across the state to access facilities, classes, research, and joint work with the Western Sydney University, TAFE and industry. The CoE will be located on part of 2 College Street Richmond which is land to be leased from Western Sydney University to the Department of Education on a long-term basis.

The CoE will involve farming enterprises, learning facilities to support teaching and learning to students in agricultural education. In addition, the CoE will support teaching and learning for industry and educators in NSW. This will be delivered through programs facilitated directly through the CoE with other high schools in NSW.

The CoE will work in collaboration with Richmond High School (RHS) to establish "Richmond Agricultural College". The project will work as an operational model that will encompass the educational streams at RHS and the new CoE. Students will enrol directly through RHS and will attend the CoE on a basis as part of their regular curriculum. Students from other schools across the State will access the CoE through their school initiating engagement in an agricultural program or project-based learning opportunity managed by the CoE.

The site is approximately 11.37ha in area and is currently vacant. To the north of the site are a number of university student residential townhouses, known as the Western Sydney University Hawkesbury Village. The Carol Alen Aged Care Facility adjoins the site's north-western boundary. Adjoining the site's north-eastern boundary is the Western Sydney University Microbiology Department. Rural land uses adjoin the majority of the remaining site boundaries. The site has a frontage onto an internal university road, Vines Drive. Refer to **Figure 1**.

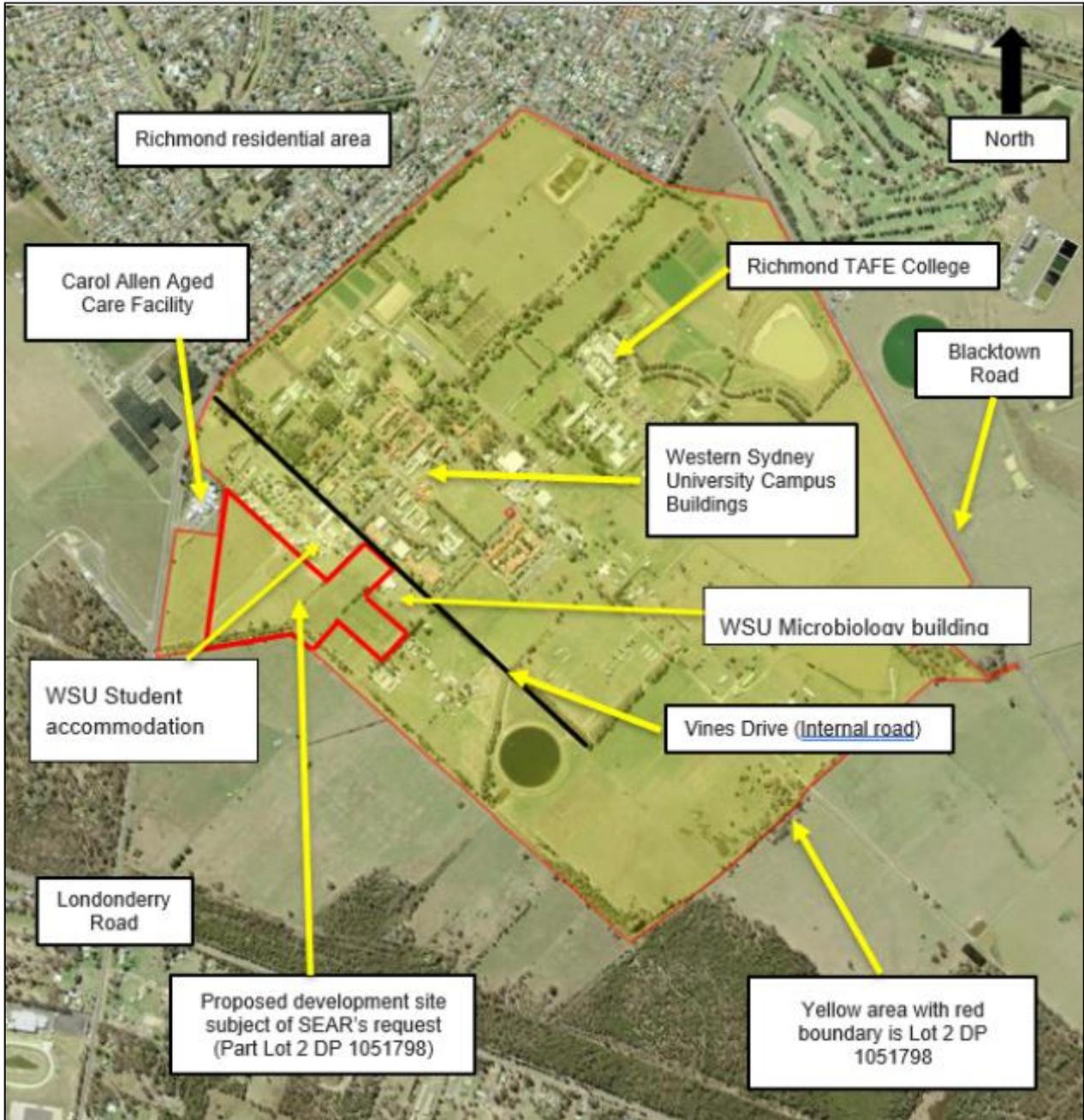


Figure 1 Site Context and Location Plan

(Source SixMaps)

## 1.2 The EIS as exhibited

The EIS as exhibited sought development consent for the following works:

- Three academic blocks (Block B, C and D).
- Short-term, dormitory site accommodation with capacity for 62 patrons (Block F).
- Dining hall, Conference space and canteen (Block E).
- Administrative building (Block A).
- Support facilities for management and maintenance of site.
- External works to accommodate circulation and covered walkways between buildings.
- Pedestrian walkways.
- Student and staff amenities.
- Covered Outdoor Learning Areas.
- Staff car parking area and minibus drop off and pick up area. The parking located in front of block A is for visitors.
- Upgrading of the Londonderry Road / Vines Drive intersection and the intersection approaches to accommodate traffic signals, turning lanes, bus stops and pedestrian footpaths.
- Short-term accommodation car parking area. The parking near Block F is for staff.
- Green house.
- Various agricultural and animal plots and associated agricultural workshop.
- Provision of waste facility area.
- Installation of all essential services including stormwater management devices where required.
- Landscape treatment.
- Signage and other ancillary infrastructure and utilities works.
- Operation of the CoE site.

## 2 ANALYSIS OF SUBMISSIONS

This section of the RTS analyses the submissions that have been received. It identifies the groups and people who made submissions and categorise the issues raised in submissions. The analysis of submissions is for information purposes only.

### 2.1 Breakdown of submissions

A breakdown of the submissions received (eleven in total), and key details are outlined in **Table 1** below. **Figure 2** provides a summary of the total number of submissions who support, oppose, or commented on the project.

**Table 1 Breakdown of Submissions**

Submission Category	Submission Group/Person	Community Interest Level	Submission Type
Public Authorities	Council – Hawkesbury City Council	Local (<5km from site)	Comment
	Neighbouring Council – Penrith City Council	Regional (5-100km from the site)	Comment
	Transport for NSW	Local (<5km from site)	Comment
	Heritage NSW	Local (<5km from site)	Comment
	NSW EPA	Local (<5km from site)	Comment
	Sydney Water	Local (<5km from site)	Comment
	NSW Rural Fire Service	Local (<5km from site)	Comment
	DPIE (Environment, Energy and Science Group)	Local (<5km from site)	Comment
	Endeavour Energy	Local (<5km from site)	Comment
	Government Architect NSW	Local (<5km from site)	Comment
Organisations	Nil.	Not applicable	Not applicable
Special Interest Groups	Nil.	Not applicable	Not applicable
Individuals	Londonderry Road resident	Local (<5km from site)	Support



**Figure 2 Total number of submissions that oppose, support, or commented on the project**

### 3 ACTIONS TAKEN SINCE EXHIBITION

The proposed actions and changes made to the project since public exhibition are outlined in **Table 2**. Additional detailed information of the actions and minor changes to the design are located in the applicable plans and reports located in the appendix section. In summary the actions and changes made relate to the following.

- **Vines Drive** - Removal of the proposed bus stop and signalised pedestrian crossing along Londonderry Road. Buses will now enter the Western Sydney University (WSU) site and reach the CoE site via Vines Drive which is proposed to be widened to a carriageway width of seven (7) metres. A roundabout will be provided at the eastern end of Vines Drive at the intersection with Maintenance Lane / Resources Road / Clydesdale Road to facilitate bus turn around. Works will include the construction of a new bus bay west of the CoE site on the southern side of Vines Drive, as well as new raised pedestrian crossings, improvement of existing at-grade pedestrian crossings, and associated improvements to drainage and services infrastructure along Vines Drive.
- **Civil Engineering Design Changes** – including:
  - The re-sizing of two on-site detention basins.
  - Increasing the length of the car park (staff car park) adjacent to Block F and changes to culvert design.
  - Converting the swale bridge adjacent to Block G to a culvert structure.
  - Road widening along Maintenance Road at either end of the proposed staff car park access point to allow for two-way traffic.
- **Architectural Design Changes** – including:
  - Roof form adjustments to all buildings – Blocks A to F.
  - Reconfiguration of glazing in Buildings B, C and D.
  - Internal design changes and creation of an additional egress within Building E.
  - Main switchboard relocation.
  - Minor building footprint reduction of Building C and D.
  - Minor increase in building height for (Block E from 29.32m AHD to 29.35m AHD).
- **Road widening of a segment of Maintenance Lane** - for a distance of approximately 70 metres in the vicinity of the entrance to the proposed staff car park access point to allow for two-way traffic. The lane will be widened by approximately 1.5 metres tapering at either end to the existing pavement.

Table 2 Actions taken since exhibition

Proposed Action / Change	Reason for Action / Change
<b>Widening of Vines Drive – Refer to Appendix A, B, C, D and E</b>	
<p>Ongoing consultation with TfNSW has determined that the proposed bus stop and pedestrian crossing along Londonderry Road will not be supported. The current sealed width of Vines Drive is 6m.</p>	<p>In response to the concerns raised during ongoing consultation and detailed discussions with TfNSW and WSU buses will now enter the WSU site via Vines Drive and set down and pick up at a proposed bus bay within Vines Drive. This will necessitate the widening of Vines Drive to a 7-metre-wide carriageway from Londonderry Road through to the intersection with Maintenance Lane / Resources Road / Clydesdale Road at which point a roundabout will be provided to facilitate the turning of buses. The widening of Vines Drive will occur along the southern side of the road in order to minimise impact to existing trees and landscape. The design changes include the following works:</p> <ul style="list-style-type: none"> <li>• Improvements to the interface between Vines Drive and Londonderry Road.</li> <li>• Installation of guard rail along certain sections of Vines Drive.</li> <li>• Associated drainage adjustments.</li> <li>• Widening to 7m wide pavement and 15 m radius roundabout at the intersection with Maintenance Lane / Resources Road / Clydesdale Road.</li> <li>• Reconstruction of vehicular crossings from the existing student accommodation precinct, Horticulture Road, Stable Square Place and impacted building entrances.</li> <li>• Reconstruction of two (2) existing on-grade pedestrian crossings and installation of three (3) new pedestrian crossings along Vines Drive.</li> <li>• Construction of a new bus bay along Vines Drive with new concrete to match existing.</li> <li>• Widening of Maintenance Lane – approximately 70 metres in length at the entrance to the proposed staff car park area to allow for two-way traffic.</li> </ul> <p>The proposed widening of Vines Drive and Maintenance Lane also addresses the general requirements of Table 5.3b of <i>Planning for Bushfire Protection 2019</i> by providing an alternate solution that achieves the relevant performance criteria. The proposed access driveways and internal property access roads would be able to provide safe operational access for emergency service personnel while occupants of the campus are evacuating.</p> <p>The widening of Vines Drive has been detailed and assessed for traffic impacts in the updated TAIA contained in <b>Appendix B</b>. The proposed changes are deemed suitable on consideration of the traffic and transport elements of the site and its surrounds, and the transport strategy proposed for its management.</p> <p>The impacts of the proposed widening of Vines Drive upon biodiversity have been considered by NARLA consultants particularly with respect to threatened species, populations, and ecological communities. An advice letter is contained in <b>Appendix D</b> and concludes that the proposed works will likely require the removal of largely inconsequentially roadside grassland. However, a site assessment should be conducted to determine the ecological value of the vegetation present, especially in the areas where trees are present as it is possible that the trees may form part of one the threatened ecological communities which are located in the locality. Whilst all trees should be avoided, if possible, it is considered the removal of this small stretch of vegetation is unlikely to result in a significant impact to any threatened ecological communities or threatened species.</p>

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Proposed Action / Change	Reason for Action / Change
	<p>The impacts of the widening of Vines Drive upon Aboriginal heritage have been considered and an advice letter prepared by AMAC Group is contained in <b>Appendix E</b>. Consistent with the recommendations of the Aboriginal Cultural Heritage Assessment Report (ACHAR) exhibited with the EIS, it is anticipated that an Archaeological Heritage Management Plan will be prepared as a condition of consent. The advice contained in <b>Appendix E</b> indicates that the area subject of the widening is very disturbed and past test excavation adjacent to the area has revealed no Aboriginal archaeological material. The advice concludes that future investigation, prior to works commencing, can be done under the guidance of the Archaeological Heritage Management Plan and a short assessment and unexpected finds procedure should address this matter.</p>
<b>Design Changes - Civil Engineering – Refer to Appendix I</b>	
OSD Basin 2 increasing in size.	More balanced cut and fill.
OSD Basin 3 increasing in size.	Rainwater harvesting purposes.
Increasing the length of the car park/ Block F culvert.	To allow rear access to Block F.
Converting the swale bridge, adjacent to Block G into a culvert.	To facilitate drainage.



Proposed Action / Change

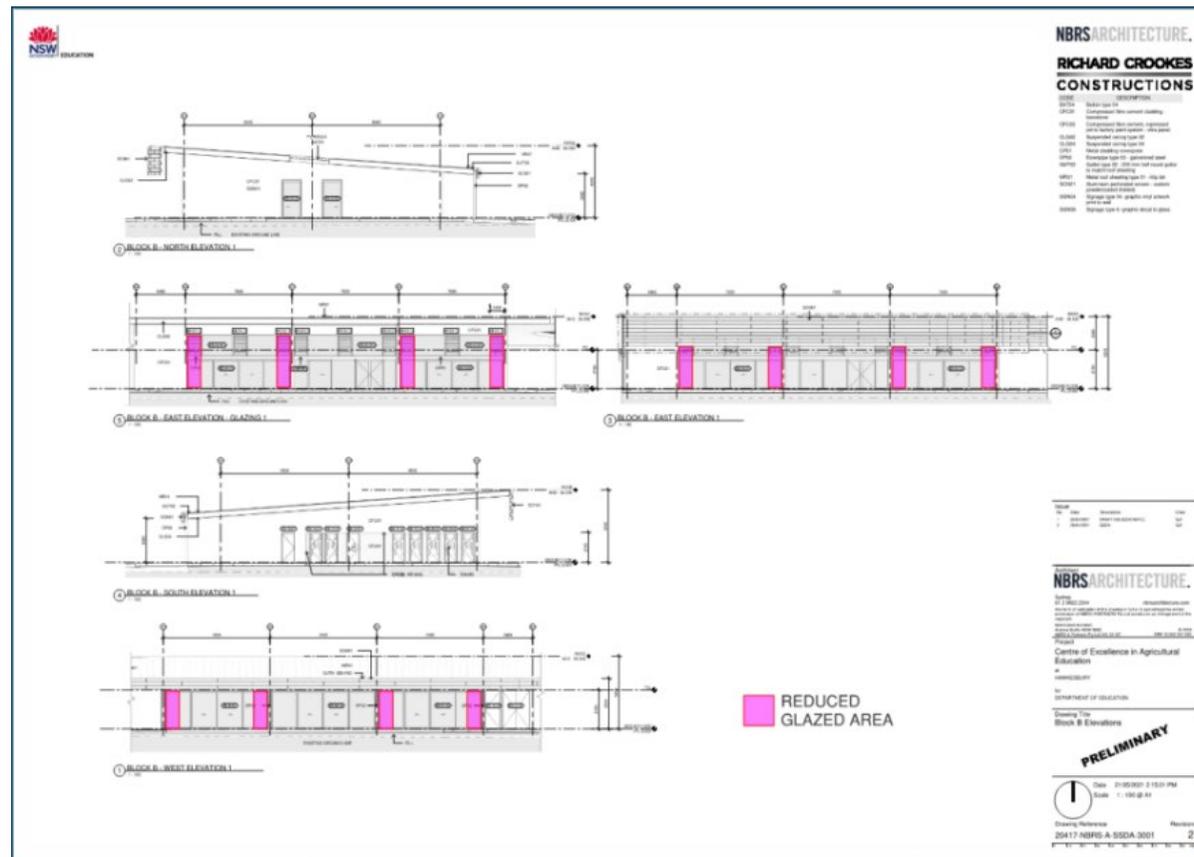
Reason for Action / Change

Reduction in Glazed Areas

The three learning blocks, Building B, C and D, display a 15% reduction in glazing of walls.

This improves the overall structural design by providing additional structural support zones along the building facades. The highlighted areas in the elevation figures below illustrate the proportion of glazed façade that has been replaced with metal cladding with batt insulation. It should be noted that the glazed area remains over and above the BCA requirement for daylight harvesting.

Building B



Building C



Building D

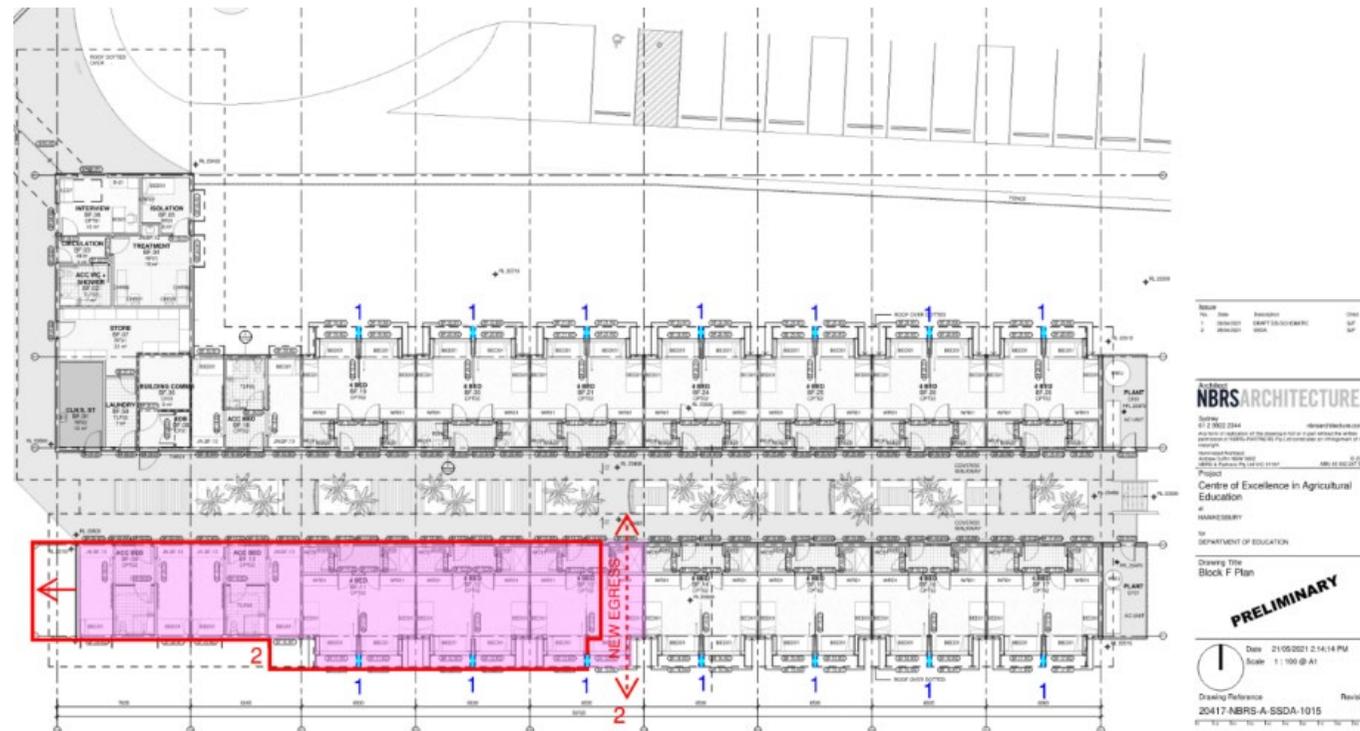


**Proposed Action / Change** **Reason for Action / Change**

**Accommodation Block, Building E**

Design change 1 – Removal of external protrusion of the recessed retractable doors as highlighted in light blue on the drawing to the right.

Design change 2 – Create an additional egress at mid-point of the southern portion of the Accommodation Block as highlighted in red lines & hatch on the drawing to the right.



The benefits of the changes include:

1. The new egress reduces the travel route to an open area from mid-point of the building.
2. The new egress path enables a direct access from the accommodation building to the open field located to the south of this building.

**Main Switchboard Relocation**

In mid-August 2021, Western Sydney University & School Infrastructure NSW reached an agreement for a shared use of the existing sub-station located on the northern side of Vines Drive near

This agreement necessitates the following changes:

1. The proposed new substation for sole use by COE is no longer required
2. Relocation of COE's Main Switchboard Room to the northern end of Building A to be closer to the existing WSU's Substation.
3. A small additional area has been created for the Staff Study to compensate the loss of usable area as a result of the relocation of the main switchboard room.

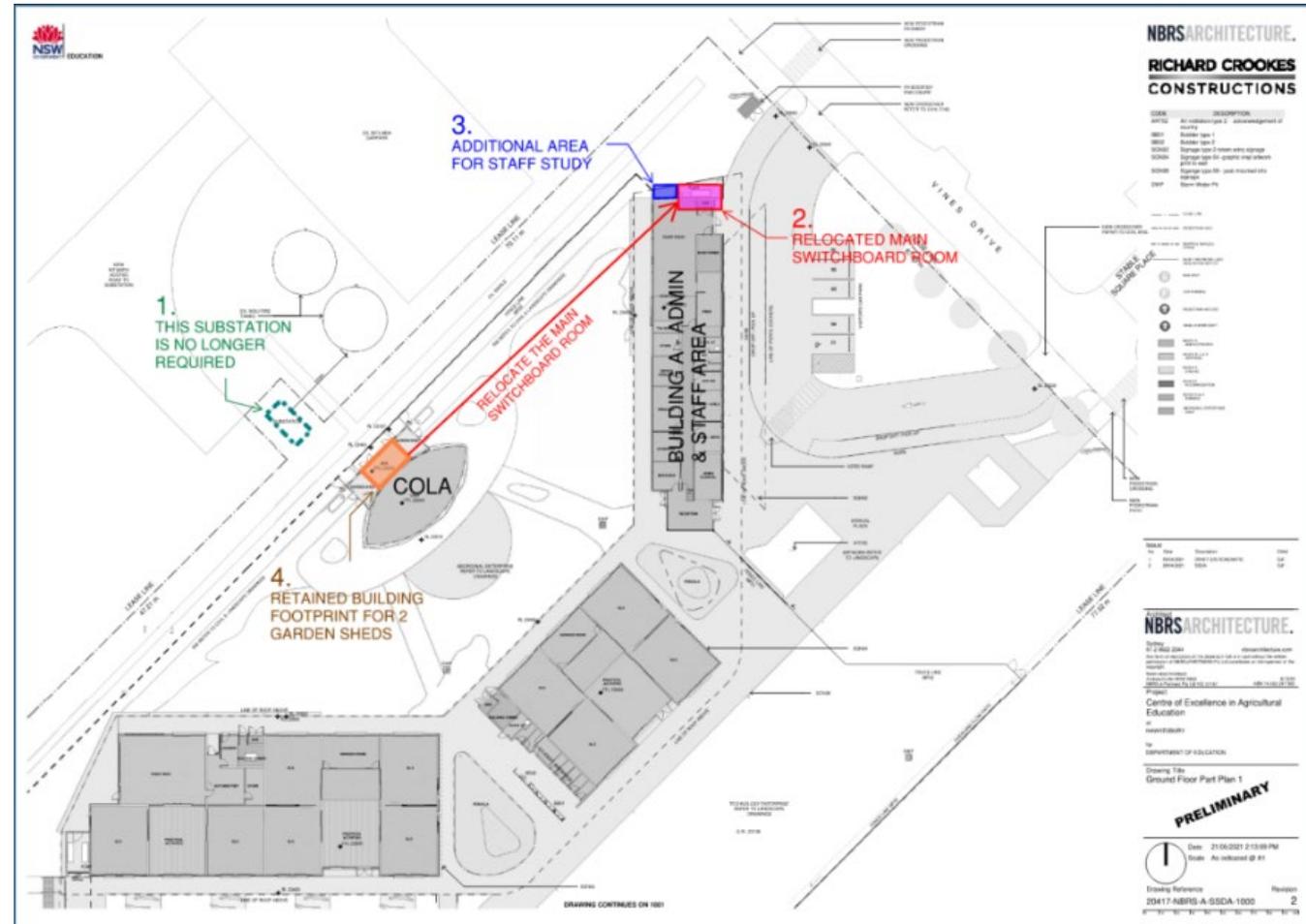
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### Proposed Action / Change

### Reason for Action / Change

the entry to the proposed Centre of Excellence. 4. A smaller building area as highlighted in orange on the following drawing represents the remaining building footprint suitable for two garden sheds.

The relocation of the main switch board is illustrated below:



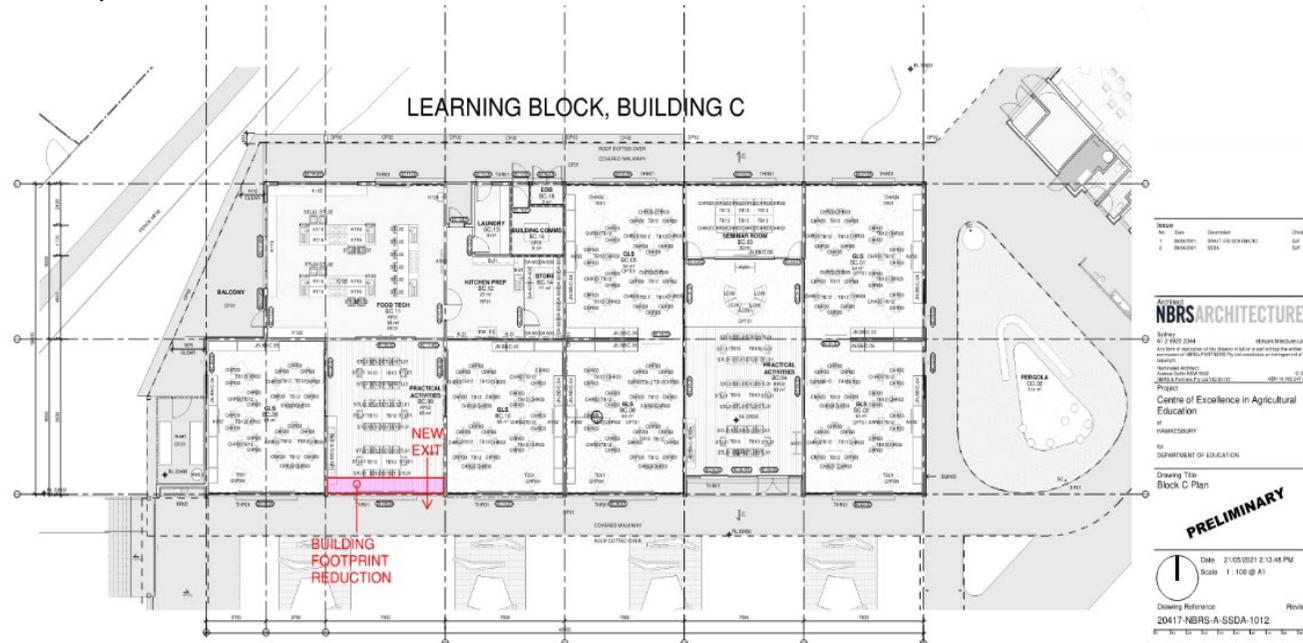
Proposed Action / Change

Reason for Action / Change

Minor Building Footprint Reduction – Building C & D

1. The inclusion of an additional recessed section of the southern façade alters the southern elevations of building C and D.
2. The functionality of the science area in Building D will significantly improve by flipping the Botany/ Zoology with the neighbouring Practical Activity Area. This provides the opportunity for better daylight harvesting & ventilation into the Botany and Zoology facilities.

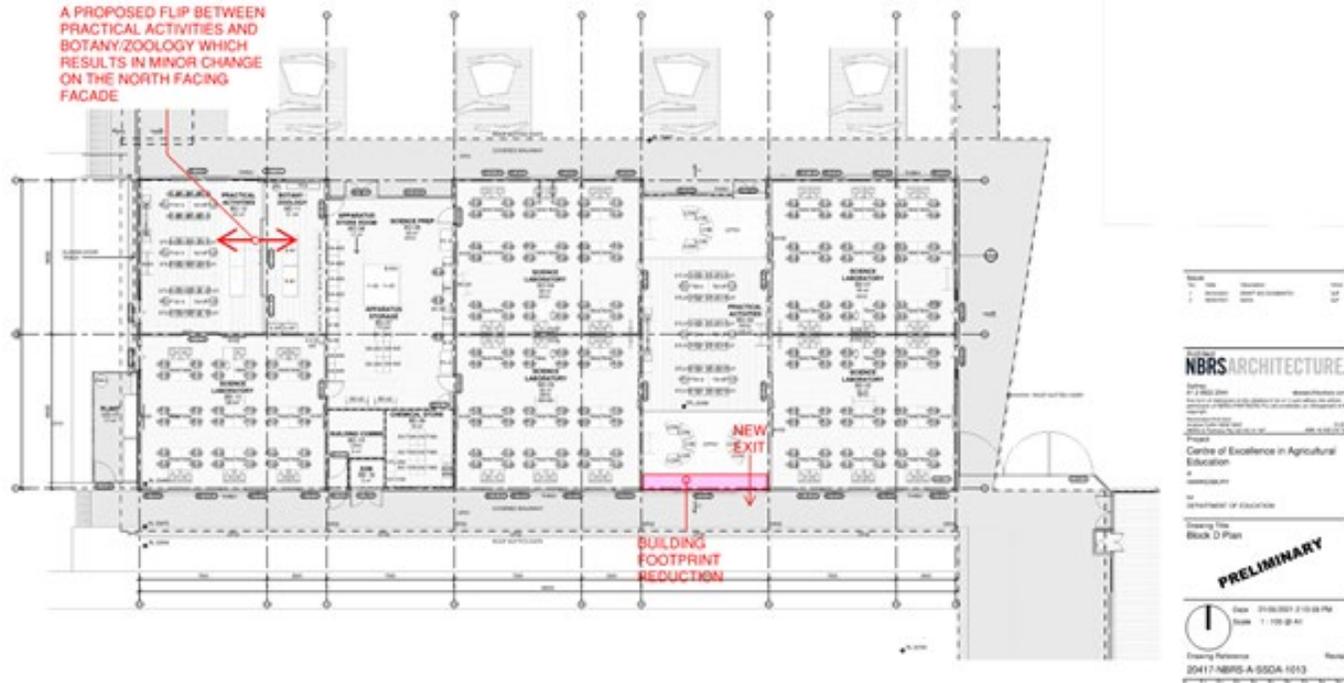
BUILDING C Footprint Reduction:



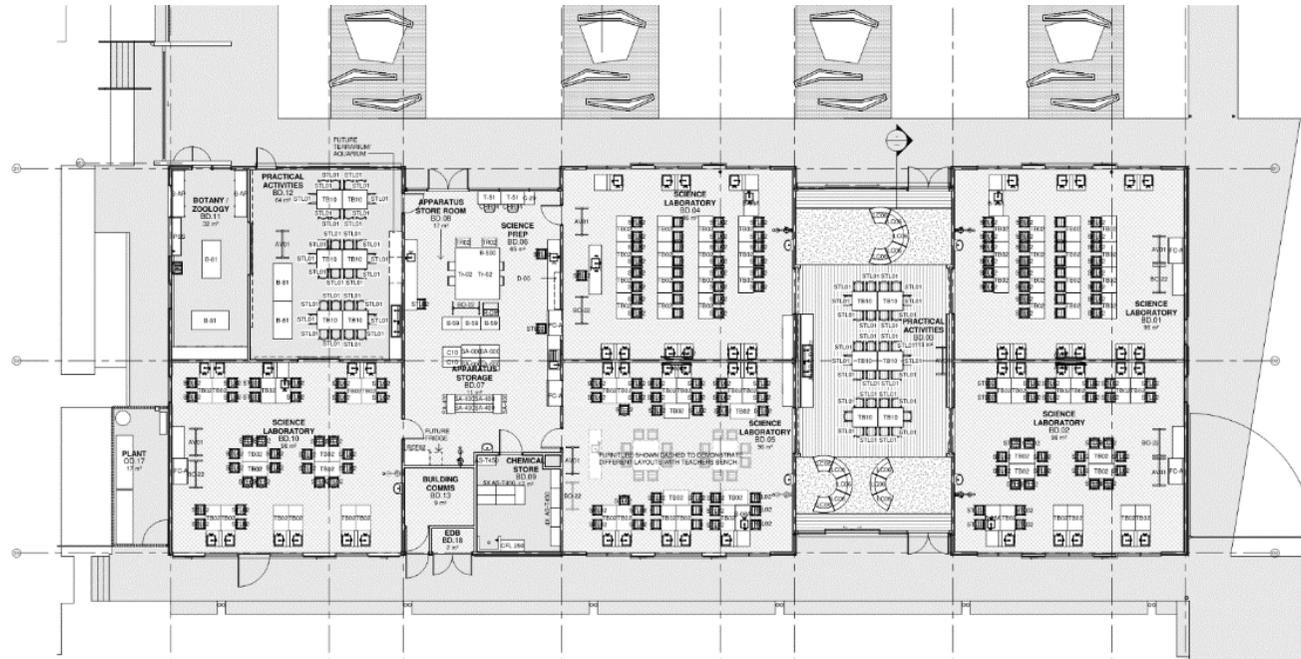
Proposed Action / Change

Reason for Action / Change

**BUILDING D BEFORE THE BOTANY/ ZOOLOGY & PAA SWITCH:**



**BUILDING D POST THE BOTANY/ ZOOLOGY & PAA SWITCH:**



**Increase in Building height**

An updated Aeronautical Assessment is provided under **Appendix O**.

In order to accommodate minor design change and a minor increase in fill in this location, the finished height of Building A will reach 28.45 AHD (an increase of 130mm). CoE will remain 35.77 metres clear of the Obstacle Limitation Surface (OLS) for RAAF Base Richmond. Temporary construction cranes at the maximum height of 168.5m AHD will penetrate the OLS by up to 103.38 metres. All permanent buildings will be clear of the OLS.

## 4 RESPONSE TO SUBMISSIONS

### 4.1 Response to DPIE key Issues

Following its assessment of the proposal, DPIE provided comment on key issues in a letter to the Department of Education dated 21<sup>st</sup> September 2021. **Table 3** below provides a response to each of the key issues raised.

**Table 3** Response to DPIE key issues

Comment/Issue	Response
<b>Traffic, Transport and Access</b>	
<p>The EIS proposes a signalised intersection at Londonderry Road and Vines Drive. Transport for NSW (TfNSW) states that a signalised intersection at this location would not be supported and that alternative crossing facilities should be proposed.</p> <p>The RTS must address the comments made following further consultation with TfNSW and consider alternative pedestrian crossing facility, where required, to ensure safe and efficient movement of users, particularly considering the expected use of nearby bus stops by students at the school.</p>	<p>The proposed signalised Londonderry Road and Vines Drive intersection has been deleted.</p> <p>Consultation with TfNSW has resulted in a proposal for buses to be brought onto the site via a widened Vines Drive and the construction of a new bus bay in the vicinity of the CoE. Pedestrian pathway from the bus bays will connect to the CoE site and provide safe and efficient access for students. The proposed arrangement addresses the safety concerns raised by TfNSW and DPIE.</p>
<p>The RTS must include an updated Traffic Impact Assessment (TAIA) that reflects the non-signalisation of the intersection of Londonderry Road and Vines Drive if it is not supported by TfNSW. This must include (but not limited to) traffic modelling, trip distribution assumptions and associated management and mitigation measures.</p>	<p>An updated TAIA has been provided under <b>Appendix B</b>. Traffic modelling, trip distribution assumptions and associated management and mitigation measures have been provided in the following sections of the TAIA: <i>4.1 – Travel Mode, 4.2 – Trip Distribution and 4.3 – Future Traffic Condition</i>.</p>
<p>The RTS must include an updated TAIA that considers potential traffic impacts as a result of weekend conference events on the surrounding road network and include management and mitigation measures where required.</p>	<p>An updated TAIA has been provided under <b>Appendix B</b>. The traffic impacts as a result of weekend conference events are addressed under <i>Section 4.3 – Future Traffic Condition</i>.</p>
<p>The RTS must include measures to ensure that further shifts towards the cycling mode share for users of the site can be achieved. Given the distance from Richmond Station and the provision of bicycle racks on site, the Department considers that a mode share higher than 0% for cycling could be feasible and should be further promoted.</p>	<p>Future shifts towards cycling mode share for staff and students at the site have been prioritised by providing bicycle storage at the site. Future mode share targets are outlined in <i>Section 5.1.2 Mode Share Target</i> of the TAIA under <b>Appendix B</b>.</p>
<p>The RTS must further detail measures to mitigate the identified bus service shortfall during peak demand, including consultation with relevant bus service providers and/or investigating short trip bus shuttle options. A summary of consultation with bus providers must be included in the RTS.</p>	<p>The revised concept for an on-site bus bay was presented to TfNSW (refer to <i>Section 3.9</i> of the TAIA for consultation details). During consultation with TfNSW, the project team was advised that no further information was required at this stage to inform future service planning.</p>
<p>The RTS must be supported by a road safety audit report, prepared by an appropriately qualified traffic or transport engineer and must include (but not limited to) the operation of the following areas:</p> <ul style="list-style-type: none"> <li>The operation of the drop-off/pick-up and car park facilities during all stages of development.</li> </ul>	<p>The Road Safety Audit has been provided under <b>Appendix C</b> of this report.</p>

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Comment/Issue	Response
<ul style="list-style-type: none"> <li>Potential safety risks and hazards caused by the operation of the drop-off/pick-up and car park facilities for other users on Vines Drive and Maintenance Lane.</li> <li>Footpath sightlines.</li> <li>Adequacy of the surrounding network to enable buses and other vehicles to pass simultaneously.</li> </ul>	
<p>The RTS must provide an updated assessment on the proposed pedestrian footpath network servicing the walking catchment of the development and identify appropriate upgrades on the southern side of Vines Drive to provide direct access from Londonderry Road bus facilities and Maintenance Lane.</p>	<p>Due to the lack of school catchment for CoE, most students will be travelling long distances and local pedestrian movements are expected to be minimal.</p> <p>Additionally, demand for pedestrian movement between Richmond HS and CoE is expected to be low. Students will be timetabled to attend one school or the other on particular days. Minibus services may be operated by the school from time to time.</p> <p>No upgrade requirements outside the site have been identified at this time. Pedestrian improvements are provided within the WSU campus in the form of footpaths and pedestrian crossings for internal movements and/ or access to buses.</p>
<h3>Built Form and Urban Design</h3>	
<p>The RTS must further address the Government Architect NSW State Design Review Panel (SDRP) advice for the project and Government Architect comments dated 15 September 2021, in particular advice relating to:</p>	<p>NRBS has and will continue to consult with Centre of Excellence (CoE) and appointed Aboriginal Representatives throughout the detailed design stage of the project.</p>
<ul style="list-style-type: none"> <li>Demonstrating how the indigenous culture and heritage has been integrated with the architectural and landscape design strategy in an integrative manner.</li> <li>Demonstrating that the site has suitable, safe and efficient pedestrian connectivity and access, particularly from Londonderry Road.</li> <li>Further technical details on the size and species of flora, opportunities to increase tree canopy cover across the site and that permeable surface areas are maximised across the site.</li> </ul>	<p>The Designing with Country intent has been captured in the Designing with Country Statement contained in <b>Appendix H</b>.</p> <p>A revised connectivity and access to public transport proposal has been developed in consultation with WSU. The proposal includes the widening of Vines Drive to facilitate bus access and drop off on Vines Drive. Please refer to the appended TAIA under <b>Appendix B</b>.</p>
<h3>Biodiversity and Flooding</h3>	
<p>The RTS must address the Environment, Energy and Science Group comments, including on the following matters:</p>	<ul style="list-style-type: none"> <li>Confirm compliance with section 6.15 of the Biodiversity Conservation Act 2016, so that it can be verified that the date of submission of the Biodiversity Development Assessment Report (BDAR) is within 14 days of the date on the credit report.</li> <li>Provide the spatial data used as part of the BDAR assessment.</li> <li>Provide the assessment undertaken in the Biodiversity Offsets and Agreements Management System (BOAMS).</li> <li>Address the evacuation capacity of the school site, in consultation with the Hawkesbury Nepean Floodplain Risk Management Directorate of Infrastructure NSW, to ensure that it would not impact on the broader</li> </ul>
	<p>The date of the submission of the Biodiversity Assessment Report (BDAR) will be within 14 days of the date on the credit report.</p>
	<p>Noted.</p>
	<p>Noted.</p>
	<p>Woolacotts have addressed the flood evacuation strategy of the school site, within the context of the broader area wide evacuation. The Flood Emergency Management Report (Revision B, dated 3 May 2021) was prepared in consultation with the SES Principal Advisor of the Hawkesbury Nepean Flood Management Taskforce (meeting held on the 26 April 2021).</p>

Comment/Issue	Response
evacuation of others within the region during a regional flood event.	Refer to Section 6 of the Flood Evacuation Strategy in <b>Appendix M</b> .

Bushfire	
<ul style="list-style-type: none"> <li>The RTS must address the NSW Rural Fire Services (NSW RFS) requirements and where necessary, include revised technical drawings to demonstrate compliance.'</li> <li>The RTS must include an updated bushfire emergency management and evacuation plan in accordance with:</li> <li>The NSW RFS document: A Guide to Developing a Bushfire Emergency Management and Evacuation Plan.</li> <li>The NSW RFS Schools Program Guide and/or Australian Standard AS 3745:2012 Planning for emergencies in facilities.</li> </ul>	<p>The measures required by the RFS are able to be implemented with limited design changes to the buildings. Bushfire Advice is contained in <b>Appendix P</b>.</p> <p>The Bushfire Emergency Management and Evacuation Plan will be consistent with the RFS guide and Schools Program guide will be provided prior to the occupation of the facility.</p>

## 4.2 Response to public authorities

The following section provides a response to each of the ten submissions received from public authorities during exhibition. No objections to the project were received with comments only provided.

### 4.2.1 Council – Hawkesbury City Council

**Table 4** outlines the comments and issues raised by Hawkesbury City Council and the associated responses by the Department of Education.

**Table 4 Response to Hawkesbury City Council issues**

Comment/Issue	Response
<b>Traffic</b>	
<p>Transport for NSW should be consulted to ensure that any works in this location will not impact upon the future delivery of works associated with the Richmond Bridge Duplication Project.</p> <p>Any works within the road reserve will require an approval under the Roads Act 1993. A performance, damage and defects bond would also be required to cover any restoration required to roads resulting from deterioration caused by construction traffic.</p>	<p>A meeting was held on 14 October with TfNSW to present and discuss the new concept strategy.</p> <p>Noted.</p>
<b>Parking</b>	
<p>The parking assessment included within Section 4.7 of the Traffic and Accessibility Report does not address the maximum potential student numbers within WSU. The argument that the shortfall in parking provided for the proposal may be accommodated within existing parking facilities within the university is not adequately justified.</p>	<p>Parking shortfall (at DCP rates) during typical usage is negligible at only 4 spaces which could be easily accommodated by university parking. Anticipated actual demand is lower and would be accommodated onsite.</p> <p>Peak usage of the CoE (i.e., for school related events) would occur in off-peak times for the university (such as weekends or evenings).</p> <p>The main car park off Maintenance Lane is proposed with a capacity of 34 parking spaces including 1 accessible parking space. Additionally, 5 visitor parking spaces including 1 accessible parking space are provided outside the main administration block, with access to Vines Drive.</p>

Comment/Issue	Response
	<p>The total onsite provision is 39 parking spaces.</p> <p>The total parking capacity on the WSU campus is 1,516 spaces, which is substantially higher than even the highest demands expected for the CoE (73 spaces in highest scenarios).</p> <p>Refer to Section 4.7.2 - <i>Car Parking Provision</i> of the TAIA in <b>Appendix B</b>.</p>
<b>Private Bus Service</b>	
<p>Bus service will be required to provide transportation between the Centre of Excellence and Richmond High School/ Richmond Agricultural College and Richmond/ East Richmond Train stations. A bus parking and manoeuvring area is to be provided within the property to accommodate any school buses.</p>	<p>New bus bays on Vines Drive within WSU campus will be provided and will accommodate both public and private bus services. Bus services from the WSU campus to Richmond and Penrith train stations form a key part of the transport strategy for the site.</p> <p>In addition, the Centre of Excellence site will accommodate parking for up to two minibuses and associated vehicle manoeuvring.</p> <p>Larger buses would have sufficient stopping and manoeuvring space on the widened Vines Drive and roundabout arrangement, however, would not park at the site.</p> <p>Refer to Section 3.6 – <i>Bus Zones</i> and Section 3.7 – <i>Pick-up and Drop-off</i> from the TAIA in <b>Appendix B</b>.</p>
<b>Active Transport</b>	
<p>Safe pedestrian and cyclist connectivity for students between Richmond High School and Centre of Excellence. Further detail of the pedestrian and cycle upgrades to provide safe connectivity need to be identified in particular in the Traffic and Accessibility Report.</p>	<p>Demand for pedestrian movement between the Richmond High School and Centre of Excellence is expected to be low. Students would be timetabled for attendance at one school or the other on particular days.</p> <p>Minibus services may be operated by the school from time to time.</p> <p>A shared path or cycleway along Londonderry Road is not considered to be consistent with the scale of the proposal and the expected pedestrian/ cyclist demand to be generated.</p> <p>Due to lack of school catchment, most students will be travelling long distances and local pedestrian movements are expected to be minimal.</p>
<b>Contamination</b>	
<p>The Remediation Action Plan (RAP) recommends the use of containment cells to store and contain asbestos onsite. The containment of asbestos onsite would be contrary to Council's Asbestos Policy. Council's asbestos policy outlines that any asbestos containing materials should be safely removed and disposed of prior to any works commencing.</p>	<p>The recommendations of the RAP will be implemented and at Council's request a Site Auditor will be engaged to review the remediation strategy and issue a Site Audit Statement. The Environmental Management Plan for the containment cell will be registered on the title of the property and the Site Audit Statement will be provided to Council.</p>
<b>Section 7.12 Contributions</b>	
<p>The proposed development is exempt from the payment of Section 7.12 Contributions under Section 2.7 of the Hawkesbury Section 7.12 Contributions Plan 2015.</p>	<p>Noted.</p>

Comment/Issue	Response
<p><b>Other Matters</b></p> <ul style="list-style-type: none"> <li>Maximum operating hours should be specified for the conference hall.</li> <li>A 'Farm Management Plan' should be provided for the agricultural activities to be undertaken onsite. The plan would address operating hours, animal numbers, water use, irrigation, water licensing, fertiliser use, chemical management, dust management, noise management, manure management and disposal, spray drift, complaints handling etc.</li> </ul>	<p>Maximum operating hours of the Hall outside school hours is between 9am and 11pm, Monday to Sunday inclusive.</p> <p>Hawkesbury Council was consulted after the receipt of the submission to determine the appropriate timing and execution of the Farm Management Plan. Council agreed that the development of the Farm Management Plan would be a beneficial educational tool and promote interactive learning and collaboration from the students. This could realistically occur in the 12 months of operation of CoE.</p> <p>Scibus Pty Ltd has been engaged to provide an overview of the inputs required for the preparation of a farm management plan. Advice on the preparation of the Farm Management Plan is contained in <b>Appendix N</b> and details the need for a detailed farm plan, the identification of proposed agricultural uses, the identification of management methods to reduce risks of dust, odour, noise and the like and the identification of a process for handling complaints. It is suggested that the Farm Management Plan be finalised within 12 months from the commencement of operations. The following condition of consent is recommended.</p> <p><i>"The Applicant must prepare and submit to the Planning Secretary within 12 months of commencement of operations a Farm Management Plan."</i></p>

## 4.2.2 Neighbouring Council – Penrith City Council

**Table 5** outlines the comments and issues raised by Penrith City Council and the associated responses by the Department of Education.

**Table 5 Response to Penrith City Council issues**

Comment/Issue	Response
<p>The proposed site will support the use of existing public bus and rail infrastructure however, additional consideration should be given to planning of appropriate and readily available transport services for students, professionals and visitors accessing the facility. High priority should be placed on transport routes from Richmond High School including how these routes connect to the proposed development and other services.</p>	<p>Further consultation has taken place with TfNSW. Revised design includes an on-site bus bay along Vines Drive to facilitate bus service. Bus routes and servicing details would be developed by TfNSW and the local operator through the life of the development. It is anticipated that students would travel directly to the CoE site rather than from RHS.</p>
<p>The proposal should ensure there is clear way finding signage, well-lit and direct routes for people walking and cycling to transport stops, clear crossing points, adequate lighting and surveillance for night-time use.</p>	<p>The project's provision for wayfinding includes providing adequate signage within the CoE campus as outlined on the attached updated Architectural Plans contained in <b>Appendix F</b>. Safety measures such as illuminated path and carpark have been considered for night-time use of the facilities within the secured boundary of Centre of Excellence and especially between the Hall and the Accommodation building.</p> <p>Footpath to the Vines Drive bus bay and other internal footpath connections will be provided. Wayfinding to be developed in consultation with WSU.</p>

Comment/Issue	Response
	Please note that wayfinding signage and lighting allowances does not extend beyond the CoE lease boundary.
It has been mentioned in the proposal that cycling requirements are low, however consideration should be given to promoting opportunities for people to cycle and walk around the site as transport options, but also to encourage principles of healthy lifestyle.	The fully secured and weather protected bicycle parking facility is located between equal distance from Vines Drive and Maintenance Drive site entrance. The bike parking facility has been provided for staff and student use. Visitors will be arriving to school by private vehicles or shuttle buses. The location of the bike park enclosure, away from the public domain, prioritise the convenience of staff and students. On-site bicycle storage to be provided, and usage to be encouraged as part of the School Transport Plan.

### 4.2.3 Transport for NSW

**Table 6** outlines the comments and issues raised by Transport for NSW (TfNSW) and the associated responses by the Department of Education.

**Table 6 TfNSW issues**

Comment/Issue	Response
<p>The proposed signalised pedestrian crossing at Londonderry Road does not meet the traffic signal warrant of "vehicular flow exceeds 600 vehicles/hour in each direction" during the peak hours.</p> <p>The existing WSU shuttle bus service operates with 30-minute frequency during peak periods with a stop at Vines Drive. It is suggested that the shuttle bus service could provide a more attractive option to students with a shorter walking distance from the bus stop to the proposed development.</p> <p>TfNSW does not support the proposed signalised crossing on Londonderry Road under the Roads Act, 1993 as the traffic signal warrant is not met. An alternative pedestrian crossing facility at this location (i.e., Pedestrian refuge island) is recommended. It is noted that TfNSW suggests that the TAIA seems over-estimated.</p>	<p>New bus bays on Vines Drive within WSU campus will be provided and can accommodate both public and private bus services. Bus services from the campus to Richmond and Penrith train stations form a key part of the transport strategy for the site.</p> <p>The proposed signalised pedestrian crossing has been deleted.</p>
<p>The estimated demand in the TAIA for bus movements, including bus connections to and from Richmond and Penrith train stations, is approximately 300 students. This will result in the demand of approximately six additional bus services during each peak period. The current public bus operation is apparently unable to cater for the proposed patronage demand.</p> <p>The applicant will need to provide further detail of measures to mitigate the bus service shortfall. If</p>	<p>New indented bus bay is now proposed along Vines Drive and a concept has been presented to TfNSW. The bus bay could accommodate 3-4 buses, which would facilitate terminating services close to the school entrance as requested by TfNSW.</p> <p>During consultation with TfNSW, the project team was advised that no further information was required at this stage to inform future service planning.</p> <p>Bus services will terminate at the proposed bus bays along Vines Drive, adjacent the CoE site. The new location will improve safety and access to the school entrance and will significantly reduce the pedestrian demand crossing Londonderry Road. A turning circle is to be installed at the intersection to the east of the proposal along Vines Drive to facilitate better route transition outcomes.</p>

Comment/Issue	Response
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additional short-route public bus services between the Richmond Station and the proposed school are required to accommodate the patronage, bus services should be terminated at the stop located as close as possible to the school entrance. This will significantly reduce the pedestrian demand crossing Londonderry Road. A bus turnaround facility should be provided on Vines Drive, as the result of the need of additional short-route bus services specifically for the proposed development.

Refer to Section 3.6 – *Bus Zones*, 3.7 – *Pick-up and Drop-off* and 3.0 *Infrastructure and Safety Improvements* of the TAIA under **Appendix B**.

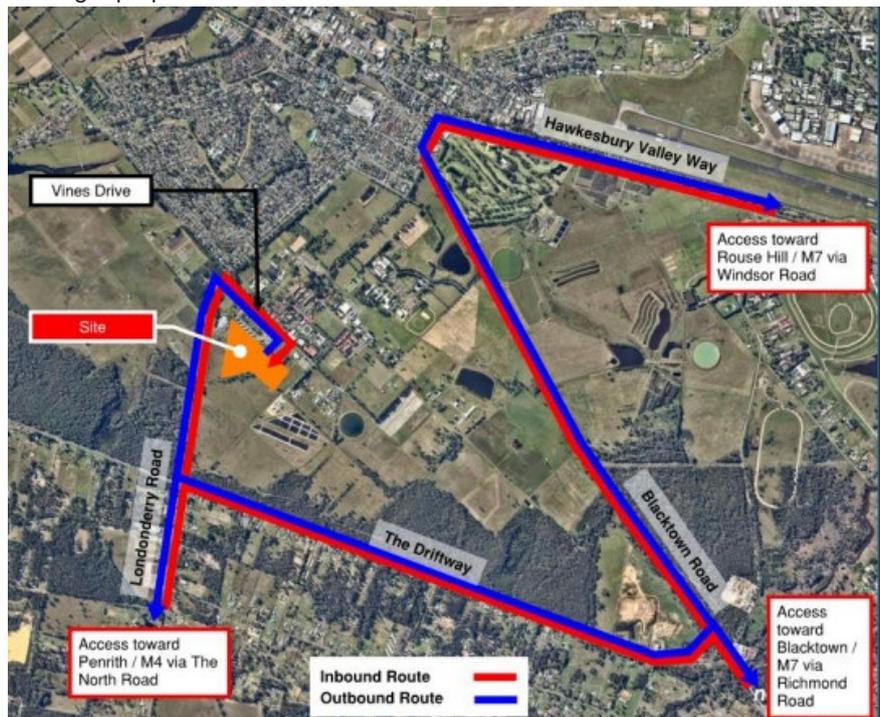
There is discrepancy regarding the construction vehicle haulage route information provided within the TAIA and Construction Management Plan.

The TAIA and CEMP have been updated with corrected information. Refer to Section 6.2.2 – *Truck routes* in the TAIA under **Appendix B**.

It is requested that the applicant update the Environmental Impact Assessment with consistent information.

Construction access has been changed to be from Vines Drive. Therefore, concept plans are required. Due to this change, access from Londonderry Road is no longer proposed.

If access from Londonderry Road is proposed for construction vehicles, concurrence is required from TfNSW under Section 138 of the Roads Act 1993, as Londonderry Road is a classified road. Concept design plans of the proposed temporary Londonderry Road access are to be submitted to TfNSW for approval. The redundant access when construction is completed shall be removed and replaced to match existing. A sight distance assessment should be undertaken and submitted to TfNSW for review.



TfNSW has identified recommendations for the School Travel Plan (STP):

- Prior to occupancy, the proponent is to provide a STP for TfNSW's consideration that:
- Provides an audit of the public and active transport in the vicinity of the site and potential recommendations, including the permeability of the UWS campus and the links between the two sites.

The Road Safety Audit has been provided under **Appendix C** of this report.

The proponent has no issues with the recommended conditions of consent. Ongoing consultation would occur with TfNSW following approval of the SSDA. It should be noted that the potential incentives and initiatives listed in the condition would be indicative only, and the project would be responsible for developing a final list of initiatives prior to occupancy, which may or may not include those suggested by TfNSW.

## RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<ul style="list-style-type: none"> <li>Notes how the nearby bus stops will be upgraded to facilitate public transport use.</li> </ul>	<p>New bus bays are to be installed along Vines Drive and will encourage public transport use.</p>
<ul style="list-style-type: none"> <li>Provides details of the access and permeability of the site for active transport, including the location and number of “end of trip” facilities; total number of secure bike parking spaces, casual bike parking, provision of e-bike charging points, number of showers and lockers.</li> </ul>	<p>Visitors will be arriving to school by private vehicles or shuttle buses. The location of the bike park enclosure, away from the public domain, prioritise the convenience of staff and students.</p>
<ul style="list-style-type: none"> <li>Ensure that bike parking is sheltered, accessible and convenient, with passive surveillance for casual parking.</li> </ul>	<p>The fully secured and weather protected bicycle parking facility is located between equal distance from Vines Drive and Maintenance Drive site entrance. The bike parking facility has been provided for staff and student use.</p>
<ul style="list-style-type: none"> <li>Identifies what provisions there are for motor bike parking and EV parking.</li> </ul>	
<ul style="list-style-type: none"> <li>Considers additional incentives for staff to use active and public transport such as:</li> </ul>	
<ul style="list-style-type: none"> <li>Pre-loaded opal cards during orientation</li> </ul>	
<ul style="list-style-type: none"> <li>Providing paniers or backpacks for staff committed to active travel.</li> </ul>	
<ul style="list-style-type: none"> <li>Salary sacrifice options for purchases of bikes or other micro-mobility options.</li> </ul>	
<ul style="list-style-type: none"> <li>Wayfinding at the school for End of Trip facilities.</li> </ul>	
<ul style="list-style-type: none"> <li>Bike maintenance equipment for use onsite and bike lights for emergency loans.</li> </ul>	
<ul style="list-style-type: none"> <li>Considers pool bikes for visitors and other appropriate users and provides extra parking to cater for these bicycles.</li> </ul>	
<ul style="list-style-type: none"> <li>Considers whether an additional stop for the WSU shuttle bus (or use of existing stop of Vines Drive) would be an option for use by staff, students and visitors of CoE, demonstrate how this arrangement will work.</li> </ul>	
<ul style="list-style-type: none"> <li>Considers additional incentives for students to use active and public transport such as:</li> </ul>	
<ul style="list-style-type: none"> <li>Promotes combining train and bicycle travel to the site, with information on how to carry your bicycle on the train, including the recommended route from the station.</li> </ul>	
<ul style="list-style-type: none"> <li>Establishing a bicycle user group in collaboration with WSU and potentially organising bicycle maintenance sessions and other activities, such as excursions by bicycles to places of interest such as other nearby</li> </ul>	

Comment/Issue	Response
<p>locations with innovative agricultural practices.</p> <ul style="list-style-type: none"> <li>• More frequent events promoting active transport.</li> <li>• Includes a comprehensive communications plan and Travel Access Guide (TAG).</li> </ul>	
<p>It is understood that the proposed school facility will be used by occasional weekend conference events on weekends. However, there is no further analysis undertaken to assess the impact of traffic generated by the proposed weekend conference events on the surrounding road network.</p> <p>TfNSW has identified the need for a traffic impact assessment for the weekend conference events.</p>	<p>Additional traffic modelling has been undertaken for weekend conference usage. Further detail is provided under <i>Section 4.3 – Future Traffic Condition</i> of the TAIA under <b>Appendix B</b>.</p>

#### 4.2.4 Heritage NSW

**Table 7** outlines the comments and issues raised by Heritage NSW and the associated responses by the Department of Education.

**Table 7 Heritage NSW issues**

Comment/Issue	Response
<p>The EIS has fulfilled the SEARs to Heritage NSW satisfaction.</p>	<p>Noted.</p>
<p>While the proposed development appears to have nil to low potential to impact on Aboriginal cultural heritage, we support the need for appropriate mitigation and management measures to be adopted to accommodate unexpected finds during the site preparation and construction process.</p> <p>We note the mitigation measures for Aboriginal cultural heritage outlined in section 7.8.3 of the EIS (page 78) only reference recommendations 1 – 4 of the ACHAR. We recommend that the ACHMP outline the unexpected finds procedures for Aboriginal objects and human remains in detail.</p>	<p>The ACHMP that will be prepared will outline the unexpected finds procedures for Aboriginal objects and human remains in detail.</p> <p>A letter has been prepared by Archaeological Management and Consulting Group in support of the proposed changes to Vines Drive. The letter has been appended to this report under <b>Appendix E</b>.</p>

#### 4.2.5 NSW EPA

**Table 8** outlines the comments and issues raised by NSW EPA and the associated responses by the Department of Education.

**Table 8 NSW EPA issues**

Comment/Issue	Response
<p>NSW EPA has no comments to provide on this project. No follow-up consultation is required.</p>	<p>Noted.</p>
<p>Hawkesbury City Council should be consulted as the appropriate regulatory authority for the Protection of the <i>Environment Operations Act 1997</i> in relation to the proposal.</p>	<p>Hawkesbury City Council has been consulted.</p>

## 4.2.6 Sydney Water

**Table 9** outlines the comments and issues raised by Sydney Water and the associated responses by the Department of Education.

**Table 9 Response to Sydney Water issues**

Comment/Issue	Response
Sydney Water have no objection to the proposal.	Noted.
Once development consent is received, the proponent should submit a copy of this to their Account Manager under CN 191273. If there are significant changes then a new Anticipated notice of requirement should be lodged.	Noted.
Detailed requirements, including any potential extensions or amplifications, will be provided to the Department of Education once a Section 73 application has been submitted to Sydney Water.	Noted.

## 4.2.7 NSW Rural Fire Service

**Table 10** outlines the comments and issues raised by NSW Rural Fire Service and the associated responses by the Department of Education.

**Table 10 Response to NSW Rural Fire Service issues**

Comment/Issue	Response
NSW Rural Fire Service provides the following conditions.	
<p>1.From the start of building works, the property around the proposed Building Blocks A, B, C, D, E and F must be managed as an inner protection area (IPA) for a distance of 50 metres in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019. When establishing and maintaining an IPA the following requirements apply:</p> <ul style="list-style-type: none"> <li>• Tree canopy cover should be less than 15% at maturity.</li> <li>• Trees at maturity should not touch or overhang the building.</li> <li>• Lower limbs should be removed up to a height of 2 metres above the ground.</li> <li>• Tree canopies should be separated by 2 to 5 metres.</li> <li>• Preference should be given to smooth barked and evergreen trees.</li> <li>• Large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings.</li> <li>• Shrubs should not be located under trees.</li> <li>• Shrubs should not form more than 10% ground cover.</li> <li>• Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.</li> <li>• Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height).</li> <li>• Leaves and vegetation debris should be removed.</li> </ul>	<p>Noted and application of this condition is considered acceptable.</p> <p>There are no additional works required to establish the APZ. Planting design and schedule indicated on the Landscape Plan prepared by NRBS Architecture is able to satisfy the RFS requirements for IPA.</p> <ul style="list-style-type: none"> <li>• Trees have been offset from buildings.</li> <li>• Under pruning of all trees recommended and covered in the landscape specification.</li> <li>• Clusters/ groups of trees with spaces between groups have been adopted.</li> <li>• Clusters/ groups of planting types with spaces between groups have been adopted.</li> <li>• Where possible shrubs will be avoided under trees.</li> <li>• Shrub coverage will be limited to 10% ground cover.</li> <li>• Clusters/ groups of shrubs with spaces between groups have been adopted.</li> <li>• Native grasses have been selected across the design and will include a regular maintenance regime.</li> </ul> <p>Ongoing maintenance will likely be limited to regular mowing of grass/ ground cover to keep grass less than 100mm in height. The area of land identified outside of the lease area as an IPA shall be managed by WSU in accordance with the existing Bushfire Mitigation Strategy.</p>
<p>2.From the start of building works, the property around the proposed Building Blocks G and H must be managed as an inner protection area (IPA) for a distance of minimum 10 metres in accordance with the requirements of Appendix 4 of Planning</p>	<p>Noted and application of this condition is considered acceptable.</p>

Comment/Issue	Response
<p>for Bush Fire Protection 2019. When establishing and maintaining an IPA the following requirements apply:</p> <ul style="list-style-type: none"> <li>• Tree canopy cover should be less than 15% at maturity.</li> <li>• Trees at maturity should not touch or overhang the building.</li> <li>• Lower limbs should be removed up to a height of 2 metres above the ground.</li> <li>• Tree canopies should be separated by 2 to 5 metres.</li> <li>• preference should be given to smooth barked and evergreen trees.</li> <li>• Large discontinuities or gaps in vegetation should be provided to slow down or break the progress of fire towards buildings.</li> <li>• Shrubs should not be located under trees.</li> <li>• shrubs should not form more than 10% ground cover.</li> <li>• Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.</li> <li>• Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height).</li> <li>• Leaves and vegetation debris should be removed.</li> </ul>	<p>As above.</p>
<p>3. The proposed Building Blocks A, B, C, D, E and F must provide ember protection by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.</p>	<p>Noted and application of this condition is considered acceptable. The building is rated BAL-LOW and will be built to an acceptable standard.</p>
<p>4. The proposed Building Blocks G and H must be constructed entirely of non-combustible materials and provide ember protection. This must be achieved by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any sub floor areas, openable windows, vents, weepholes and eaves. External doors are to be fitted with draft excluders.</p>	<p>Noted and application of this condition is considered acceptable, having regard to the following.</p>
<p>5. Proposed access to parking lots adjacent to Building Blocks A and F must comply with the general requirements of Table 5.3b of Planning for Bush Fire Protection 2019 and the following:</p> <ul style="list-style-type: none"> <li>• Are two-way sealed roads with minimum 8 metre carriageway width kerb to kerb.</li> <li>• A minimum vertical clearance of 4 metre to any overhanging obstructions, including tree branches, is provided.</li> <li>• Parking is provided outside of the carriageway width.</li> <li>• Curves of roads have a minimum inner radius of 6 metre.</li> <li>• The maximum grade road is 15 degrees and average grade of not more than 10 degrees.</li> <li>• The road crossfall does not exceed 3 degrees.</li> <li>• Traffic management devices are constructed to not prohibit access by emergency services vehicles.</li> <li>• Dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length, incorporate a minimum 12 metres outer radius turning circle, and are clearly sign posted as a dead end.</li> <li>• The capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles; bridges/causeways are to clearly indicate load rating.</li> </ul>	<p>Noted and application of this condition is considered acceptable.</p> <p>The access driveway to building A is designed as a one-way road. The entire length of the road is less than 80m and it is in an urban area with unobstructed path. The road is 7m wide and provided with bus drop off bays and vehicle parking outside of the primary carriageway.</p> <p>All vegetation surrounding the road is managed landscape land and not considered a bushfire hazard. This road will operate as a driveway and drop off road rather than a perimeter/ non-perimeter road. Building A will be used as a teaching building and the front driveway would operate as an evacuation path during an emergency.</p> <p>The driveway to building F is greater than 5.5m wide and all parking is outside the carriageway. the driveway can be considered a non-perimeter road and adjoins landscaped curtilage around the campus. The driveway is provided within a cul-de-sac turning head in addition to several reversing bays suitable for large vehicles to turn around.</p>

Comment/Issue	Response
<ul style="list-style-type: none"> <li>Hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression.</li> <li>Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - Fire hydrant installations System design, installation and commissioning.</li> </ul>	
<p><b>6.</b> Proposed service road for access to agricultural/animal plots must comply with the general requirements of Table 5.3b of Planning for Bush Fire Protection 2019 and the following:</p> <ul style="list-style-type: none"> <li>Minimum 5.5 metre carriageway width kerb to kerb.</li> <li>A minimum vertical clearance of 4 metre to any overhanging obstructions, including tree branches, is provided.</li> <li>Parking is provided outside of the carriageway width.</li> <li>Curves of roads have a minimum inner radius of 6 metre.</li> <li>The maximum grade road is 15 degrees and average grade of not more than 10 degrees.</li> <li>The road crossfall does not exceed 3 degrees.</li> <li>Traffic management devices are constructed to not prohibit access by emergency services vehicles.</li> <li>Dead end roads are not recommended, but if unavoidable, are not more than 200 metres in length, incorporate a minimum 12 metres outer radius turning circle or turning heads compliant with A3.3. Vehicle turning head requirements and are clearly sign posted as a dead end.</li> <li>The capacity of perimeter and non-perimeter road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles; bridges/causeways are to clearly indicate load rating.</li> <li>Hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression.</li> </ul>	<p>The proposed development does not include any new public roads. Vehicle access to the various areas of the site is provided by several property access roads and will be used by persons attending the school for a valid reason. Application of this condition is considered acceptable subject to the comments below.</p> <p>Table 5.3b of PBP 2019 is not considered relevant to the proposed development as Section 5 of PBP 2019 applies to residential and rural residential subdivisions. Notwithstanding, the proposed teaching facility and on-site accommodation have previously been confirmed as a Special Fire Protection Purpose (SFPP). SFPP developments are required to satisfy the bushfire protection measures contained in Section 6.8 of PBP 2019; including Table 6.8b which relates to access.</p> <p>The access driveway to Building A is designed as a one-way road. The entire length of the road is less than 80m and it is in an urban area with an unobstructed path. The road is 7m wide and provided with bus drop off bays and vehicle parking outside of the primary carriageway. All vegetation surrounding the road is managed landscaped land and not considered a bushfire hazard. This road operates as a driveway and drop-off road rather than a Perimeter/Non-perimeter road. Building A will be used as a teaching building and the front driveway would operate as an evacuation path during an emergency.</p>
<p>Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005 - Fire hydrant installations System design, installation, and commissioning.</p>	<p>The driveway to Building F is greater than 5.5m wide and all parking is outside the carriageway. The driveway can be considered a non-perimeter road and adjoins landscaped curtilage around the campus. The driveway is provided within a cul-de-sac turning head in addition to several reversing bays suitable for large vehicles to turn around.</p>
	<p><b>Appendix A</b> illustrates the section of Vines Drive between Londonderry Road up to the intersection of Maintenance Lane will be increased to 7m in width to facilitate the movement of public buses. In addition, a new roundabout will be constructed at the intersection of Vines Drive and Maintenance Lane to facilitate the turning around of a public bus. An additional turning area will also be provided at the southwestern end of Maintenance Lane.</p>
	<p>The service road to the agricultural and animal plots is not a high traffic volume public road. It is intended for deliveries and transporting materials. A passing bay 20m long will be provided at the corner between the dam and the orchard to increase the total width of the road to 6m for 20m. The service road traverses along managed recreational areas and an orchard. The fire</p>

Comment/Issue	Response
	<p>hazard is considered low and the need to suppress a fire in this area is deemed to be rare.</p> <p>All driveways and internal property access roads are surrounded by actively landscaped gardens and open space. There are no bushfire hazards adjoining any of the access driveways and it is unlikely any active firefighting operations would be required along the driveways as there is no interface with an unmanaged bushfire hazard. As there is a low likelihood of emergency services personnel being required to suppress a bushfire alongside the access driveways, the driveways will be used for the evacuation of occupants while emergency services personnel are arriving to the campus. All new roads and driveways are of sufficient width (or provided with passing bays) to ensure vehicles (including Category 1 appliances) are able to utilise the access driveways unobstructed.</p> <p>The development as indicated in the proposed plans and assessed in the Bushfire Assessment Report prepared by BPA is able to meet the Intent of Measures for Access by providing an Alternate Solution that achieved the relevant Performance Criteria. In this instance, the proposed access driveways and internal property access roads are able to provide safe operational access for emergency services personnel while occupants of the campus are evacuating.</p>
<p>7. The provision of water, electricity and gas must comply with the following in accordance with Table 6.8c of Planning for Bush Fire Protection 2019:</p> <ul style="list-style-type: none"> <li>• Reticulated water is to be provided to the development where available.</li> <li>• Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.</li> <li>• All above-ground water service pipes are metal, including and up to any taps.</li> <li>• Where practicable, electrical transmission lines are underground.</li> <li>• Where overhead, electrical transmission lines are proposed as follows: <ul style="list-style-type: none"> <li>• (a) lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas; and</li> <li>• (b) no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.</li> </ul> </li> <li>• Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used.</li> <li>• All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 metres and shielded on the hazard side.</li> <li>• connections to and from gas cylinders are metal; polymer-sheathed flexible gas supply lines are not used.</li> <li>• Above-ground gas service pipes are metal, including and up to any outlets.</li> </ul>	<p>Noted and application of this condition is considered acceptable.</p> <p>All services will be provided in accordance with the requirements of the relevant service or utility provider, including connecting the facilities to a reticulated water supply.</p>

## RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p><b>8.</b> Landscaping within the required asset protection zone must comply with Appendix 4 of Planning for Bush Fire Protection 2019. In this regard, the following principles are to be incorporated:</p> <ul style="list-style-type: none"> <li>• A minimum 1-metre-wide area, suitable for pedestrian traffic, must be provided around the immediate curtilage of the building.</li> <li>• Planting is limited in the immediate vicinity of the building.</li> <li>• Planting does not provide a continuous canopy to the building (i.e., trees or shrubs are isolated or located in small clusters).</li> <li>• Landscape species are chosen to ensure tree canopy cover is less than 15% (IPA), and less than 30%.</li> <li>• (OPA) at maturity and trees do not touch or overhang buildings.</li> <li>• Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies.</li> <li>• Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown.</li> <li>• Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e., leaf litter).</li> <li>• Avoid climbing species to walls and pergolas.</li> <li>• Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building.</li> <li>• Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building.</li> <li>• Low flammability vegetation species are used.</li> </ul>	<p>Noted and application of this condition is considered acceptable.</p> <p>The current design complies, detailed planting plans will comply.</p> <p>The current design complies, detailed planting plans will comply.</p> <p>Tree clusters/ groups of trees and planting to be adopted to comply with this requirement.</p> <p>The current design complies with the 15% tree canopy cover.</p> <p>The species selections will accommodate this where possible.</p> <p>The species selections will accommodate this where possible.</p> <p>The orchard area includes deciduous plantings. Regular maintenance will be performed to maintain the fuel loads.</p> <p>The current design complies.</p> <p>These materials will be stored in Block H and the adjacent bulk storage area.</p> <p>Species selections to favour low flammable species. However, the school will have regular maintenance to maintain the fuel loads.</p>
<p><b>9.</b> Bush Fire Emergency Management and Evacuation Plan is prepared consistent with the:</p> <ul style="list-style-type: none"> <li>• The NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan.</li> <li>• NSW RFS Schools Program Guide and/or Australian Standard AS 3745:2010 Planning for emergencies in facilities.</li> </ul> <p>The Bush Fire Emergency Management and Evacuation Plan should include planning for the early relocation of occupants.</p> <p>Note: A copy of the Bush Fire Emergency Management and Evacuation Plan should be provided to the Local Emergency Management Committee for its information prior to occupation of the development. An Emergency Planning Committee needs to be established to consult with residents (and their families in the case of schools) and staff in developing and implementing an Emergency Procedures Manual. Detailed plans of all emergency assembly areas including on-site and off-site arrangements as stated in AS 3745:2010 are to be clearly displayed and an annual emergency evacuation exercise is to be conducted.</p>	<p>Noted and application of this condition is considered acceptable.</p> <p>A Bushfire Emergency Management and Evacuation Plan consistent with the RFS guide will be provided by the consultant prior to the occupation of the facility.</p>

## 4.2.8 Environment, Energy and Science Response

**Table 11** outlines the comments and issues raised by the Environment, Energy and Science (EES) Group of DPIE and the associated responses by the Department of Education.

**Table 11 EES Group Response**

Comment/ Issue	Response
<p>The EIS notes the SSD is expected to impact one Plant Community Type (PCT) 835: Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion which conforms to the endangered ecological community (EEC) River-flat eucalypt forest on coastal floodplains of the NSW North Coast, Sydney Basin and Southeast Corner bioregions (RFEF). It indicates the development will require removal of approximately 4.19ha of PCT 835 across the site.</p>	<p>Three (3) ecosystem credits for PCT 835 are required to be offset to mitigate the impacts upon biodiversity because of the development (section 7.12.3). The landscape design will use plant species from the nominated plant communities.</p>
<p>Comparing the Proposed Site Plan in Appendix D with Figures 11, 14 and 15 from the BDAR shows PCT 835 – remnant canopy and hollow bearing trees occur where it is proposed to locate agricultural plots and a dam/OSD and that the remnant canopy is to be impacted. EES seeks clarification as to whether the proposed agricultural plots and a dam/OSD can be relocated and/or reconfigured on the site to avoid and/or minimise clearing of the PCT 835 – remnant canopy and the hollow bearing trees. While EES acknowledges the vegetation in this zone is degraded, all efforts should still be made to avoid impacting endangered communities and threatened species habitats, unless such losses can be adequately justified.</p>	<p>The proposed dam/OSD will remain in the proposed location. The northern-most agricultural plot has been realigned in the top western corner to reduce the impact on remnant canopy and hollow bearing trees.</p>
<p>The AIAR indicates 7 trees will need to be removed for the proposed development (trees 5, 6, 7, 8, 9, 26 and 27) and a further five juvenile street trees can either be removed or transplanted (see section 4.2 and Table 1). The AIAR indicates trees 5-9 are native <i>Casuarina glauca</i> (Swamp Sheoak) and trees 26 and 27 are non-native trees <i>Pyrus ussuriensis</i> (Manchurian Pear) (see Appendix 3). The AIAR differs to the BDAR which states all vegetation in Vegetation Zone 3 will be removed to allow for the proposed development (section 3.3.1) and that “native canopy species consist of <i>Angophora subvelutina</i> and <i>Eucalyptus tereticornis</i>” (Table 3). Plate 3 in the BDAR also shows regrowth eucalypt trees occur in Vegetation Zone 3.</p>	<p>The AIAR makes no reference to the removal of <i>Angophora subvelutina</i> and <i>Eucalyptus tereticornis</i>.</p>
<p>Table 1 of the BDAR states there is no PCT 849 on site because this PCT occurs on shale, and the subject land is located on alluvial soils. However, there is a patch of PCT 849 within 170m of the site and both the site and the PCT 849 patch are on the same soil type (Berkshire Park). While EES acknowledges the vegetation on site is very degraded, which makes choosing the appropriate PCT difficult, further justification is needed in this case to demonstrate why vegetation on site does not accord with PCT 849.</p>	<p>Existing site plant communities will be incorporated into the proposed plant list. Narla has not assigned this PCT to the vegetation within the subject land. This PCT is known to occur on the shale soils of the Cumberland Plain. However, the subject land is mapped as occurring on alluvial soils. Furthermore, this community is described as dominated by <i>Eucalyptus moluccana</i> (Grey Box), <i>Eucalyptus tereticornis</i> (Forest Red Gum) and ironbarks such as <i>Eucalyptus crebra</i> or <i>Eucalyptus fibrosa</i>. Whilst <i>Eucalyptus tereticornis</i> was identified within the Subject Land it was codominant with <i>Angophora subvelutina</i>. As this PCT does not account for <i>Angophora subvelutina</i> and is listed as occurring in shale soils, this PCT was not assigned as the best fit.</p>
<p>EES notes fifteen threatened species have been assumed present because surveys could not be carried out at the appropriate time of year. Species polygons have been prepared for these species and credits have been calculated. It is noted that further surveys are to be undertaken during the appropriate survey period. If appropriate surveys cannot be conducted, then offsets are to be purchased for these</p>	<p>The updated BDAR stated that there are five (5) species credit species with suitable habitat within the Subject Land that have not been surveyed for and were therefore assumed present. Targeted surveys will be conducted within the DPIE approved survey periods to</p>

Comment/ Issue	Response
<p>species. EES considers that while this approach is permissible under the BAM, it is not ideal.</p> <p>EES recommends that if consent is to be granted, it should be conditional on additional surveys being undertaken and no clearing or ground works can take place until this has occurred.</p>	<p>avoid purchasing offset credits for these species.</p> <p>The following species credits are required to be offset to mitigate the impacts upon these species as a result of the proposed development (pending the results of targeted surveys):</p> <ul style="list-style-type: none"> <li>• Ten (10) species credits for <i>Callocephalon fimbriatum</i> (Gang-gang Cockatoo)</li> <li>• Eighteen (18) species credits for <i>Litoria aurea</i> (Green and Golden Bell Frog)</li> <li>• Two (2) species credits for <i>Lophoictinia isura</i> (Square-tailed Kite)</li> <li>• Eighteen (18) species credits for <i>Myotis Macropus</i> (Southern Myotis) and</li> <li>• Twenty-six (26) species credits for <i>Ptilularia novae-hollandiae</i> (Austral Pillwort).</li> </ul>
<p>EES has undertaken this review of the BDAR without access to the assessment in BOAMS. In future, the assessor should 'submit to consent authority'.</p> <p>The date of the BDAR is July 2021. The BDAR should include an accurate date, so that it can be verified that the date of submission of the BDAR is within 14 days of the date on the credit report (as per section 6.15 of the Biodiversity Conservation Act 2016).</p>	<p>Noted.</p> <p>An updated BDAR has been provided under <b>Appendix K</b>. The amended BDAR has been prepared within 14 days of the date on the amended credit report.</p>
<p><b>Pre- clearing of vegetation</b></p>	
<p>EES recommends that prior to the removal of any native vegetation:</p> <ul style="list-style-type: none"> <li>• seed from the native plants including trees, shrubs, and groundcover species approved for removal are collected and propagated and used in the SSD plantings.</li> <li>• a new mitigation measure is included for a native vegetation seed collection program to be developed.</li> </ul>	<p>Seed collection will be dependent on the season/ seed availability. Existing species to be recorded and specified in the design (subject to availability).</p>
<p><b>Translocation of juvenile plants</b></p>	
<p>EES recommends that any juvenile native plants to be removed by the SSD should be replanted in the landscaped planting areas. The juvenile plants must be translocated prior to any earthworks and clearing of native vegetation commencing. The plants should be relocated when plant growth conditions are ideal to give the native plants the best possible opportunity to survive and should be maintained until established.</p>	<p>In general, there is limited success with transplanting native species. With success being dependent on the time of year and weather conditions and having suitable locations to store plants for re-use. Seed collection or replacement species is preferred. The project team intends to transplant four (4) existing Crepe myrtles along Vines Drive.</p>
<p>EES supports the inclusion of the mitigation measure for a qualified and experienced ecologist to undertake extensive pre-clearance surveys but recommends the mitigation measure is amended as follows:</p> <p>Prior to removing any vegetation and/or construction, the applicant should commission the services of a qualified and experienced Ecologist Consultant (minimum 3 years' experience) with a minimum tertiary degree in Science, Conservation, Biology, Ecology, Natural Resource Management, Environmental Science or Environmental Management. The Ecologist must be licensed with a current Department of Primary Industries Animal Research Authority permit and New South Wales Scientific License issued under the BC Act. The Ecologist will be commissioned to:</p> <p>Undertake any required targeted searches for threatened flora prior to vegetation clearing.</p> <ul style="list-style-type: none"> <li>• Undertake an extensive pre-clearing survey, delineating to delineate, map, tag and mark habitat-bearing trees and shrubs to</li> </ul>	<p>The AIAR has been amended to amend the mitigation measure as outlined.</p>

Comment/ Issue	Response
<p>be retained/removed and other fauna habitat features and determine the presence of any resident native fauna using nests, hollows, logs etc</p> <ul style="list-style-type: none"> <li>Supervise the clearance of trees and shrubs (native and exotic) in order to capture, treat and/or relocate any displaced native fauna to an appropriate nearby location.</li> <li>Remove sections of a tree containing a hollow or habitat prior to clearing and felling the tree.</li> </ul>	<p>Nesting boxes and habitat (from felled trees) to be adopted. Following confirmation of the number required locations can be suggested and monitored by the school. Further detail is provided in the Updated BDAR under <b>Appendix K, Section 6, Table 17: Mitigation and minimisation of impacts associated with the proposed development, 'Hollow development'</b>.</p> <p>If hollow dependent native fauna is found using existing hollows, compensatory tree hollows would be provided prior to removing the tree hollows and prior to the release of the hollow dependent fauna unless the removed tree hollows can be relocated and installed on the same day they are removed.</p>
<p><b>Replacement nest boxes/tree hollows/habitat improvement:</b></p> <p>It is suggested the nest boxes are monitored on an ongoing basis to determine if they are being used by native fauna. The installation of habitat features such as the nest boxes and the monitoring of them provides a great educational opportunity for the school.</p> <hr/> <p><b>Reuse and removed trees and hollows</b></p> <p>To enhance habitat, EES recommends the project reuses native trees that are to be removed including hollows and tree trunks (greater than approximately 25-30cm in diameter and 2-3m in length) and root balls within the areas on-site that are to be replanted with local native species.</p> <p>EES recommends the project includes the following condition, that the CEMP requires that:</p> <ul style="list-style-type: none"> <li>The Proponent must where it is practicable reuse any of the native trees that are to be removed as part of this project, including tree hollows, tree trunks (greater than 25-30 centimetres in diameter and 2-3 metres in length), and root balls to enhance habitat:</li> <li>Any hollow sections of wood removed should be salvaged and re-located to appropriate locations to provide natural nest boxes prior to the release of any native fauna found using the tree hollows.</li> <li>If removed native trees are not able to be entirely re-used by the project, the proponent should consult with local community restoration/rehabilitation groups, Landcare groups, and relevant public authorities including NSW National Parks &amp; Wildlife Service, local councils, and Greater Sydney Local Land Services prior to removing any native trees to determine if the removed trees can be reused in habitat enhancement and rehabilitation work. This detail including consultation with the community groups and their responses must be documented in the CEMP.</li> </ul>	<p>Where suitable, tree limbs will be located in the design to provide habitat. Suitable site boulders may also be stockpiled for use in landscape areas to provide habitat.</p> <p>Suitable tree limbs could be sourced from elsewhere on the Western Sydney University campus in addition to the local community groups.</p>
<p><b>Tree replacement ratio</b></p> <p>EES recommends any trees removed are replaced at a ratio greater than 1:1 (for trees not covered by a biodiversity offset strategy) and considers that a tree replacement ratio of 2:1 is preferable to 1:1 to mitigate the urban heat island effect and enhance habitat particularly as a number of threatened species have been assumed present within the subject land.</p> <p>The RTS should provide details on:</p> <ul style="list-style-type: none"> <li>the total number of trees to be removed by the project, the tree species, and whether the trees to be removed are exotic, invasive, non-local natives or local native species</li> <li>the number of replacement trees, the replacement planting locations, and the replacement plant species.</li> </ul>	<p>The landscape design has adopted the recommended tree replacement ratio. Where possible a 2:1 ratio will be implemented.</p> <p>The species of removed trees are documented in the Arborist report and will be included in the landscape documentation.</p>

Comment/ Issue	Response
<p><b>Use of local native provenance species</b></p> <p>EES recommends the landscape planting uses a diversity of local provenance native species from the relevant native vegetation community (or communities) that occur, or once occurred on the site (rather than use exotic species or non-local native species). It is recommended the proposed landscaping plan is amended and where possible the area of native plantings is increased.</p> <p>EES recommends the following conditions of consent are included:</p> <ul style="list-style-type: none"> <li>Any planting/ landscaping, rehabilitation associated with the project shall use a diversity of local provenance native trees, shrubs and groundcover species (rather than exotic species or non-local native species) from the relevant native vegetation community (or communities) that occur or once occurred along the rail alignment / local area where agricultural plantings are not required.</li> <li>Tree planting shall use advanced and established local native trees with a minimum plant container pot size of 100 litres, or greater for local native tree species which are commercially available. Other local native tree species which are not commercially available may be sourced as juvenile sized trees or pre-grown from provenance seed.</li> <li>Enough area/space is provided to allow the trees to grow to maturity.</li> </ul> <p>A Landscape Plan is to be prepared and implemented by an appropriately qualified bush regenerator and include details on:</p> <ol style="list-style-type: none"> <li>seed collection – the location of all native seed sources should be identified</li> <li>the type, species, size, quantity, and location of replacement trees</li> <li>the species, quantity and location of shrubs and groundcover plantings</li> <li>the plan demonstrates replacement trees plantings will deliver a net increase in trees for trees that are not covered by a biodiversity offset strategy</li> <li>the native vegetation community (or communities) that once occurred in this area are to be planted and the plan demonstrates that the plant species consist of local provenance</li> <li>a list of local provenance species to be used</li> <li>the quantity and location of plantings</li> <li>The pot size of the trees to be planted</li> <li>the area/space required to allow the planted trees to grow to maturity</li> <li>plant maintenance regime. The planted vegetation must be regularly maintained and watered for 12 months following planting. Should any plant loss occur during the maintenance period the plants should be replaced by the same plant species.</li> </ol>	<p>Plant species from the identified plant communities will be used in the design where appropriate (subject to RFS conditions, EFSG guidelines and species availability). Areas outside the Inner protection Area (IPA) will be nominated for feature planting using the identified plant communities.</p> <p>The landscape design has adopted the recommendations and is found in <b>Appendix J</b>.</p> <p>100 litre pot size will be used for tree planting in high priority areas. A mix of smaller pot sizes will be used in lower priority areas (subject to availability).</p> <p>Species selections will include species from the identified communities and will be used where possible.</p>
<p><b>Flooding</b></p> <p>The proposed development site is impacted by the Hawkesbury Nepean regional flood, though it is not impacted by the 1% AEP event. The existing site is expected to be impacted by the 1% AEP localised floods. The proposed development site will be isolated during the HN PMF regional event.</p> <p>The proposal should address the evacuation capacity of the site and whether it may impact on the evacuation of other sub-sectors of the HNV. The proponent should consult the Hawkesbury Nepean Floodplain Risk Management Directorate in this regard.</p>	<p>Woolacotts has addressed the flood evacuation strategy of the school site, within the context of the broader area wide evacuation. The Flood Emergency Management Report (Revision B, dated 3 May 2021) was prepared in consultation with the SES Principal Advisor of the Hawkesbury Nepean Flood Management Taskforce (meeting held on the 26 April 2021). Refer to Section 6 of the Flood Evacuation Strategy Report in <b>Appendix M</b>.</p>

## 4.2.9 Endeavour Energy Response

**Table 12** outlines the comments and issues raised by the Endeavour Energy on 14 September 2021 and the associated responses by the Department of Education.

**Table 12 Endeavour Energy Response**

Comment/Issue	Response
<b>Electrical High Voltage Services</b>	
<b>1. Existing High Voltage Supply</b>	
<p>The existing WSU campus is supplied with an HV meter near the intersection of Londonderry Road and Vines Drive. A high voltage network reticulated through the WSU campus to several private substations, which provide LV to the various buildings on site. However, WSU has previously stated that the campus's supply is at capacity and there is insufficient spare power available to supply the new development.</p>	<p>The Centre of Excellence development will be located within the footprint of the University of Western Sydney. The required additional load shall be supplied at the customer embedded network.</p>
<b>2. Proposed High Voltage Supply</b>	
<p>A new electrical supply to the campus is proposed from an Endeavour Energy pad mount substation.</p> <p>The substation is proposed to be located adjacent to the site with a new access road constructed.</p> <p>The maximum demand for the site 462kVa and a 500 kVA Endeavour Energy pad mount substation will be required to be installed for the development.</p> <p>The consumer mains cabling reticulation will be via underground electrical conduits and pits to the school's main switchboard room (MSR). It is proposed that the MSR will be located in an adjacent building closer to the substation's location.</p> <p>A high voltage easement will be required from Londonderry Road to the new transformer location.</p>	<p>Endeavour Energy recognises that the proposed development will require load 500kVA and determines that the primary 11kV feeder from ER1132 ex East Richmond ZS has sufficient capacity to support the proposed development and hence the total required load of WSU Richmond will be increased up to 3.22MVA.</p> <p>This significant agreement necessitates the following planning changes:</p> <ol style="list-style-type: none"> <li>1. The proposed new substation for sole use by COE is no longer required</li> <li>2. Relocation of COE's Main Switchboard Room to the northern end of Building A to be closer to the existing WSU's Substation.</li> <li>3. A small additional area has been created for the Staff Study to compensate the loss of usable area where the main switchboard room is relocated to.</li> <li>4. A smaller building area as highlighted in orange on the following drawing represents the remaining building footprint suitable for two garden sheds.</li> </ol>

## 4.2.10 Response to Government Architect NSW key Issues

Following its assessment of the proposal, DPIE commented on a number of key issues in a letter to the Department of Education dated 16 September 2021. **Table 13** below provides a response to each of the key issues raised.

**Table 13 Response to GANSW**

Comment/ Issue:	Response
<b>Connection with Country</b>	
Consultation with the AECG (Durag) is positive, but the submission has not demonstrated how this has informed any changes or the approach to Country.	NRBS has and will continue to consult with Centre of Excellence (CoE) and appointed Aboriginal Representatives throughout the detailed design stage of the project.
It has not been demonstrated how the Indigenous Culture and Heritage has been integrated with the architectural and landscape design strategy in a holistic way.	<p>The architectural and landscape designs take cues from the local agricultural and historical narratives. Those narratives have influenced the design of the Aboriginal Enterprise area which includes a courtyard with native planting, a meeting point and an outdoor covered area that is suitable for teaching and learning of the local indigenous history and culture. The campus will also feature an Acknowledgement of Country statement on a boulder stone, indigenous 2D artwork and bilingual building naming.</p> <p>The above Designing with Country intent has been captured in the appended "DRAFT" Designing with Country Report in <b>Appendix H</b>. This report is to be finalised to ensure the ongoing commitment for integration of Indigenous Culture in both the physical and operational aspects of the project.</p>
<b>Connectivity and Access</b>	
There does not appear to be a viable option to provide a safe, accessible, and legible connection from the Centre to public transport. It is recommended that this be provided.	<p>Further consultation with WSU has resulted in amendments to the proposed access to and from the proposed development.</p> <p>Vines Drive will be widened, and turnaround facilities provided to accommodate the safe movement of buses to and from the facility.</p> <p>Further detail in this regard is provided in the revised TAlA which is located under <b>Appendix B</b>.</p>
The bicycle parking is not located in the vicinity of the entry and will not be visible from the public domain. It is recommended that this location be reviewed to ensure that it is in the vicinity of the entry, and is safe, accessible, and weather protected.	<p>The fully secured and weather protected bicycle parking facility is located an equal distance from Vines Drive and the vehicular entry off Maintenance Lane. The bike parking facility is designed to be used by staff and students.</p> <p>Visitors will be arriving to school by private vehicles or shuttle buses. The location of the bike park enclosure, away from the public domain, prioritises the convenience and security for both staff and students.</p>
<b>Masterplan and Landscape</b>	
<p>The addition of trees to partially define the western boundary and the southern edge of Block F is positive; although in general it does not appear that tree canopy has been maximised to define edges and for shade and amenity:</p> <ol style="list-style-type: none"> <li>The Landscape drawings have not identified proposed tree species or sizes, and the proposed canopies appear small. It is recommended that this detail be provided.</li> <li>There are also zones that appear capable of supporting additional canopy, such as: the courtyard between blocks C and D, the carpark edges, the area south of Block F, the Entry and the 'kick about lawn.'</li> </ol>	<p>The current RFS Asset Protection zones restriction specify plant species to be avoided/ included and limits the amount of tree canopy to 15% within the Inner Protection Area (IPA). For example, 50m from the buildings. The current design has been arranged to meet these requirements.</p> <ol style="list-style-type: none"> <li>Planting zones, quantities and pot sizes have been developed. The species are under development, the intent is to provide species from the endemic plant communities and specific species relevant to indigenous stakeholders. The traditional fruit tree to the orchard space will be selected and installed by</li> </ol>

## RESPONSE TO SUBMISSIONS REPORT

Comment/ Issue:	Response
It is recommended that tree canopy be maximised throughout the site.	the school. The design provides the locations and infrastructure to accommodate the trees. b. As stated above, due to bushfire restrictions the canopy cover outside of the IPA can increase to 30% canopy coverage; where possible this has been accommodated.
It does not appear that permeable surfaces have been maximised, as a large proportion of the proposed surfaces appear to be impermeable. The Landscape Drawings do not identify a surface for the carpark. It is recommended that permeable surfaces be maximised throughout the site.	Permeable surface has been maximised where possible, landscape drawings show the extents of permeable surfaces.
Buildings	
The disconnection between the commercial kitchen Block C from the Dining Hall in Block H does not appear to have been reconsidered. The Architectural Design Statement stated that this location 'works with the pedagogy of the school'. It is recommended that more information be provided to explain why these facilities couldn't be co-located.	The Semi Commercial Food Technology Studio in Block C and the Hall in Block E must be able to operate independently during school hours. The Semi Commercial Food Technology Studio is an educational facility focusing on 'paddock to plate' teaching and learning philosophy. Thus, the Food Technology Studio is best located within a short distance to a kitchen garden and the indigenous planting garden. The Hall functions in conjunction with the accommodation building during and outside of school hours. The Hall has a separate canteen/ kitchen which serve as a canteen during school hours and as a prep-kitchen to prepare food for visitors. Food will be catered based on the daily order for students, staff and visitors.

### 4.3 Response to public submissions

Table 14 outlines the comments and issues raised by the public submission and the associated response by the Department of Education.

Table 14 Response to public submission

Individual	Comment/Issue	Response
Londonderry Road Resident	<ul style="list-style-type: none"> <li>- Supportive of the proposed development</li> <li>- The Hobartville/ Richmond section of Londonderry Road is currently a main road and will feed traffic onto/ absorb traffic from the Hawkesbury CoE.</li> <li>- - In addition to road traffic, there is also a high volume of foot traffic from University students and residents who use Londonderry Road as a pedestrian route into Richmond town centre. This is expected to increase given the development. The current situation is very unsafe as students often walk on the road and there is no existing footpath. Younger school students will be at an even greater risk of injury or death from collision with traffic.</li> <li>- -The Hobartville/ Richmond section of Londonderry Road has drainage issues and results in localised flooding on either side of the road following heavy rain.</li> <li>- It is proposed that a footpath, kerb and gutter and drainage should be installed along the highlighted green area below:</li> </ul>	<p>The bus bays have been relocated to Vines Drive, offset from the CoE site. Ongoing consultation with TfNSW has determined that this location is favourable to the initially proposed stop along Londonderry Road. The Vines Drive bus bays will ensure the safety of students and pedestrians.</p>



## 5 CHANGES TO THE PROPOSED DEVELOPMENT

A number of minor amendments to the proposed development have been made primarily in response to issues raised through the submissions. These amendments include:

- **Vines Drive** - Removal of the proposed bus stop and signalised pedestrian crossing along Londonderry Road. Buses will now enter the Western Sydney University site and reach the CoE site via Vines Drive which is proposed to be widened to a carriageway width of seven (7) metres. A roundabout will be provided at the eastern end of Vines Drive at the intersection with Maintenance Lane / Resources Road / Clydesdale Road to facilitate bus turn around. Works will include the construction of a new bus bay west of the entrance to the CoE site, which will accommodate up to four buses, as well as new raised pedestrian crossings, improvement of existing at-grade pedestrian crossings, and associated improvements to drainage and services infrastructure along Vines Drive.
- **Civil Engineering Design Changes** – including:
  - The re-sizing of two on-site detention basins.
  - Increasing the length of the car park (staff car park) adjacent to Block F and changes to culvert design for rear access.
  - Converting the swale bridge adjacent to Block G to a culvert structure.
- **Architectural Design Changes** – including:
  - Roof form adjustments to all buildings – Blocks A to F.
  - Reconfiguration of glazing in Buildings B, C and D.
  - Internal design changes and creation of an additional egress within Building E.
  - Main switchboard relocation.
  - Minor building footprint reduction of Building C and D.
  - Increase in building height for (Block E from 29.32m AHD to 29.35m AHD).
- **Road widening of a segment of Maintenance Lane** - for a distance of approximately 70 metres in the vicinity of the entrance to the proposed staff car park access point to allow for two-way traffic. The lane will be widened by approximately 1.5 metres tapering at either end to the existing pavement. This is illustrated on the General Arrangement Overview Plan (Sheet 5) prepared by TTW and included at **Appendix A**.

A detailed response to each submission is provided in Section 4 of this RTS and the response should be read in conjunction with the following attached documentation.

- Appendix A – General Arrangement Overview Plan and Concept Plan for Vines Drive upgrade, prepared by TTW.
- Appendix B - Updated Traffic Accessibility and Impact Assessment, prepared by TTW.
- Appendix C - Road Safety Audit, prepared by TTW.
- Appendix D – Desktop Biodiversity Review of Vines Drive and Londonderry Road interface, prepared by Narla Environmental.
- Appendix E – Archaeologist Advice Letter, prepared by AMAC Group.
- Appendix F – Updated Architectural Plans, prepared by NRBS Architecture.
- Appendix G - Updated Architectural Design Report, prepared by NBRS Architects.
- Appendix H - Designing with Country Statement, prepared by NBRS Architects.
- Appendix I - Civil Engineering Design Change, prepared by Woolacotts.
- Appendix J - Updated Landscape Design Plans, prepared by NBRS Landscape.
- Appendix K – Updated BDAR, prepared by Narla Environmental.
- Appendix L - Updated Aborigicultural Impact Assessment Report, prepared by Sturt Noble.

## RESPONSE TO SUBMISSIONS REPORT

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- Appendix M - Flood Evacuation Strategy, prepared Woolacotts.
- Appendix N – Outline of CoE Farm Management Plan, prepared by Scibus.
- Appendix O - Updated Aeronautical Impact Assessment, prepared by Avlaw Consulting.
- Appendix P - Bushfire Advice Letter, prepared by Bushfire Planning Australia.
- Appendix Q – Bushfire Vehicle Manoeuvring Plan.
- Appendix R - Aboricultural Impact Assessment Report for Vines Drive prepared by Sturt Noble.

The description of the proposed development remains the same as originally documented but now includes works associated with the upgrading of the private road known as Vines Drive between its intersections with Londonderry Road and Maintenance Lane. For completeness the description of the proposed development (as revised) is as per below.

- Three academic blocks (Block B, C and D).
- Short-term, dormitory site accommodation with capacity for 62 patrons (Block F).
- Dining hall, Conference space and canteen (Block E).
- Administrative building (Block A).
- Support facilities for management and maintenance of site.
- External works to accommodate circulation and covered walkways between buildings.
- Pedestrian walkways.
- Student and staff amenities.
- Covered Outdoor Learning Areas.
- Staff car parking area and a visitor parking located in front of Block A.
- Widening of Vines Drive to facilitate bus access to the site. The proposed widening of Vines Drive includes upgrade of the Maintenance Lane / Resources Road / Clydesdale Road intersection to a roundabout. A bus bay is proposed in Vines Drive westbound direction near the Campus Living Village with new concrete to match existing. Other road infrastructure works include:
  - Improvements to the interface between Vines Drive and Londonderry Road.
  - Installation of guard rail along certain sections of Vines Drive.
  - Associated drainage services adjustments.
  - Widening to 7m wide pavement and 15m radius roundabout at the intersection with Maintenance Lane / Resources Road / Clydesdale Road.
  - Reconstruction of vehicular crossing from the student accommodation, Horticulture Road, Stable Square Place and impacted building entrances.
  - Reconstruction of two (2) on-grade pedestrian crossing and installation of three (3) new pedestrian crossings along Vines Drive.
  - Road widening of a segment of Maintenance Lane - for a distance of approximately 70 metres in the vicinity of the entrance to the proposed staff car park access point to allow for two-way traffic. The lane will be widened by approximately 1.5 metres tapering at either end to the existing pavement.
- Short-term accommodation car parking area. The parking near Block F is for staff.
- Green house.
- Various agricultural and animal plots and associated agricultural workshop.
- Provision of waste facility area.
- Installation of all essential services including stormwater management devices where required.
- Landscape treatment.

## RESPONSE TO SUBMISSIONS REPORT

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- Signage and other ancillary infrastructure and utilities works.
- Operation of the CoE site.

## 6 UPDATED PROJECT JUSTIFICATION AND CONCLUSION

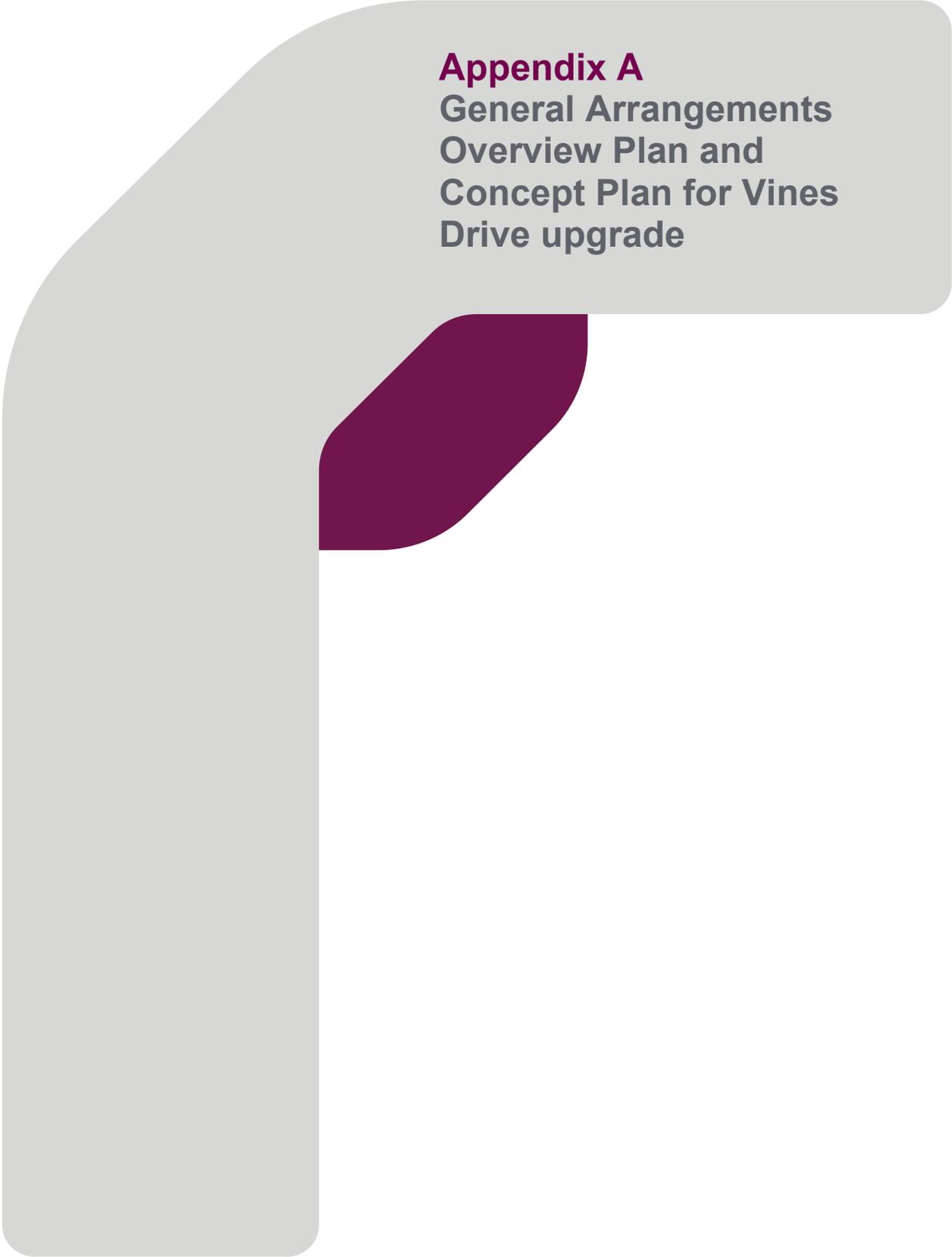
The CoE will provide a significant new piece of social and educational infrastructure to the area, with permanent teaching spaces to accommodate 325 students and short-term on-site accommodation facilities for up to 62 visiting students and teaching professionals from regional and rural NSW.

This RTS has considered the submissions received in response to the public exhibition of SSD-15001460. Submissions were received from ten public authorities and one member of the public. Additional information has been provided and minor design changes have been made to address these matters in response to the submissions.

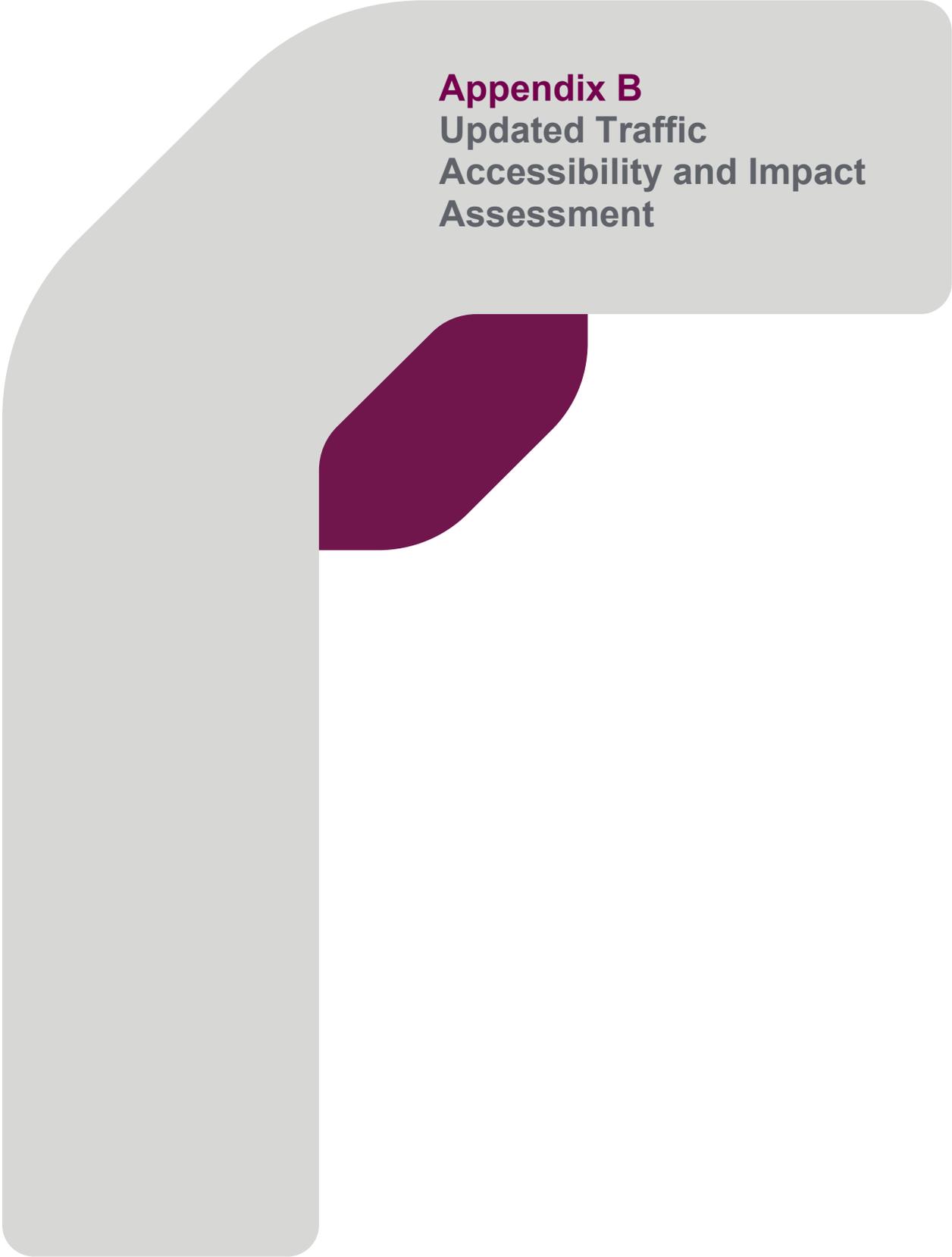
The proposed design changes are considered to provide greater amenity to the school and comply with relevant legislation. The upgrades to Vines Drive provide an alternative solution in response to the submissions from TfNSW and RFS regarding the Londonderry Road pedestrian crossing and bus stop.

The RTS has responded to all authority and public submissions received in regard to this application. The RTS Report summarises these responses and provides further detail through consultant reports where required. The RTS for the proposed development has demonstrated that the new educational facility will not generate environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.

The material provided in the original EIS, and the supporting assessment material provided in this RTS Report are submitted to DPIE to complete the assessment of the DA. The report has provided sufficient documentation to enable the assessment of SSD-15001460 to proceed.



**Appendix A**  
General Arrangements  
Overview Plan and  
Concept Plan for Vines  
Drive upgrade



**Appendix B**  
Updated Traffic  
Accessibility and Impact  
Assessment

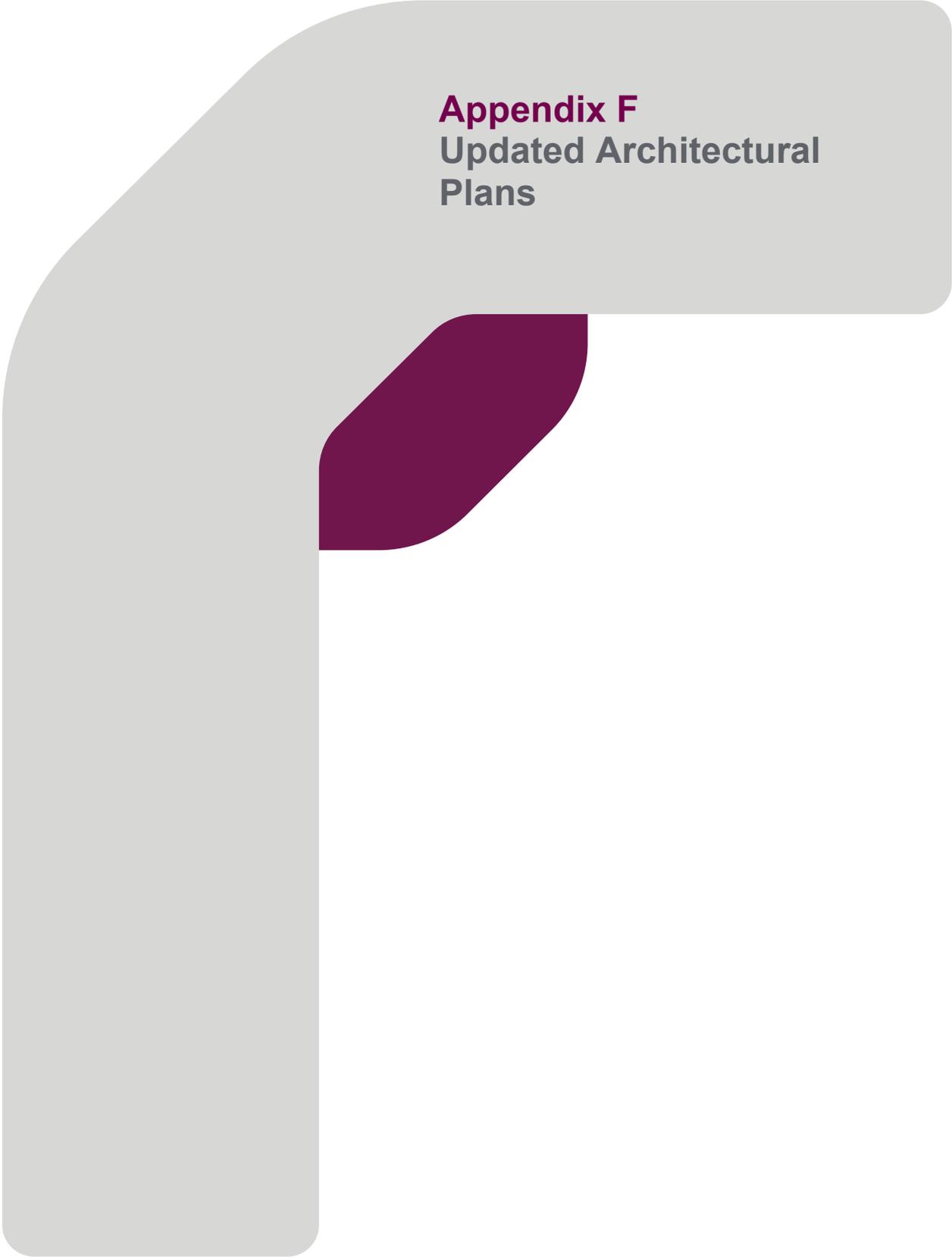


## Appendix C Road Safety Audit

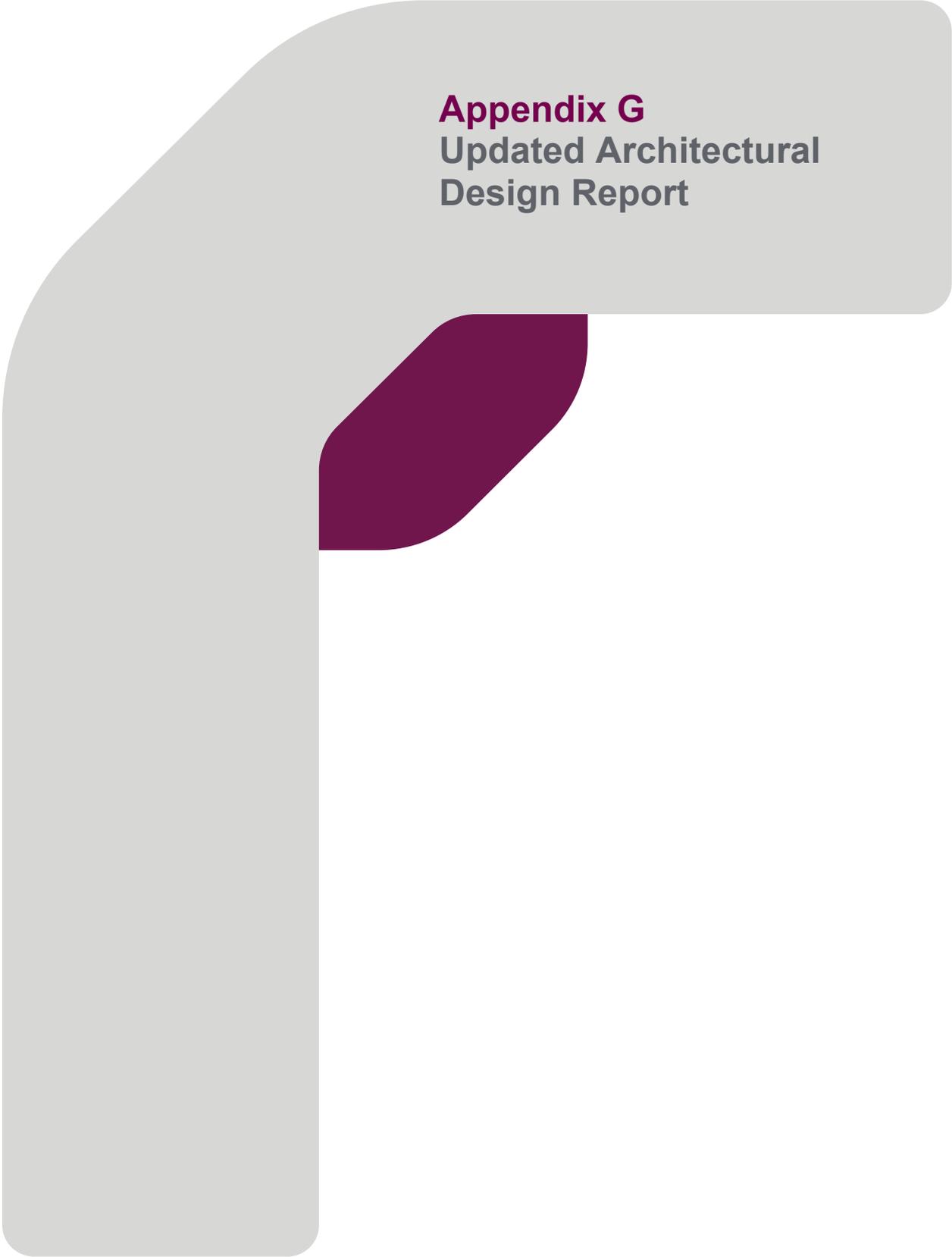
**Appendix D**  
**Desktop Biodiversity**  
**Review of Vines Drive and**  
**Londonderry Road**  
**interface**



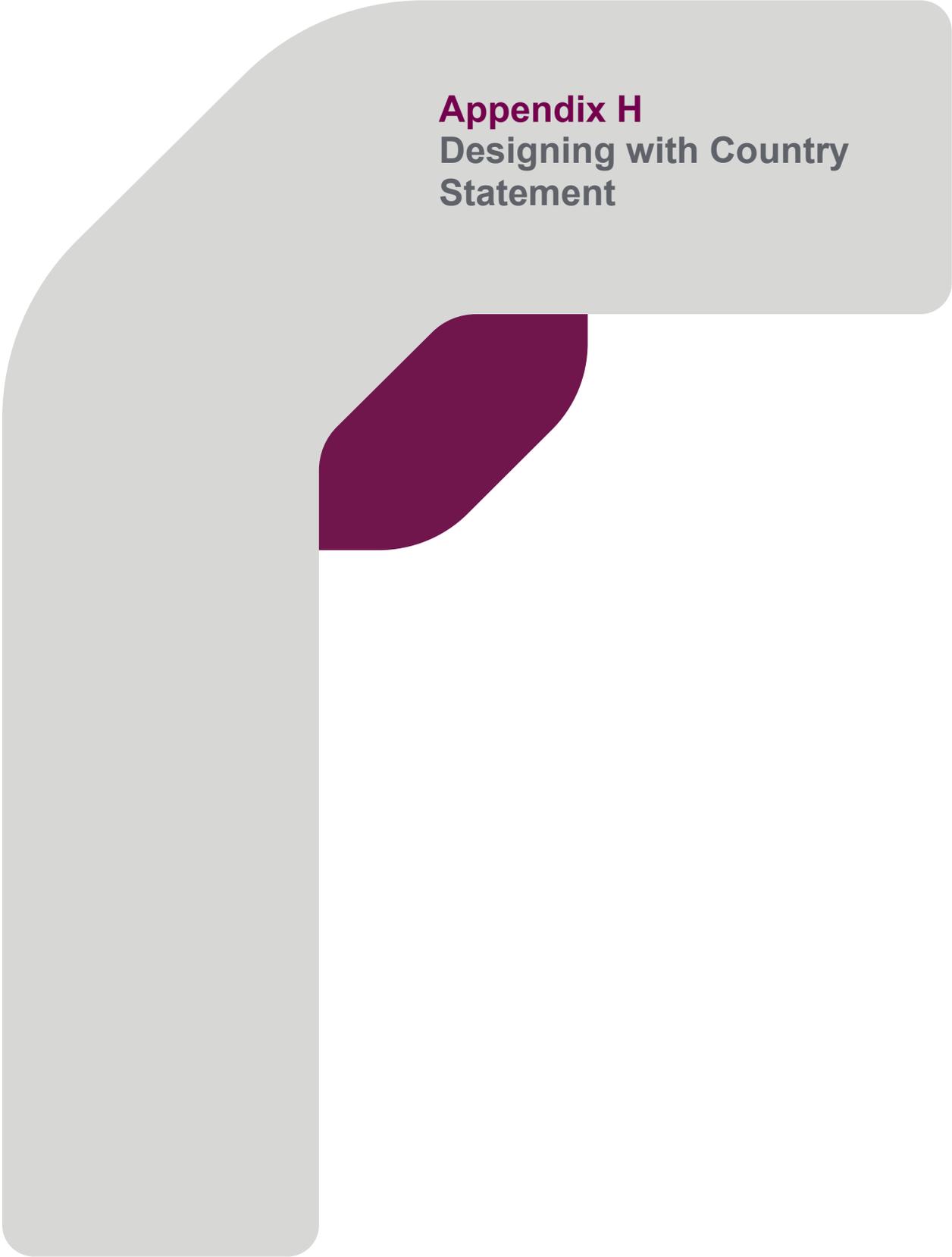
**Appendix E**  
Archaeological Advice  
Letter



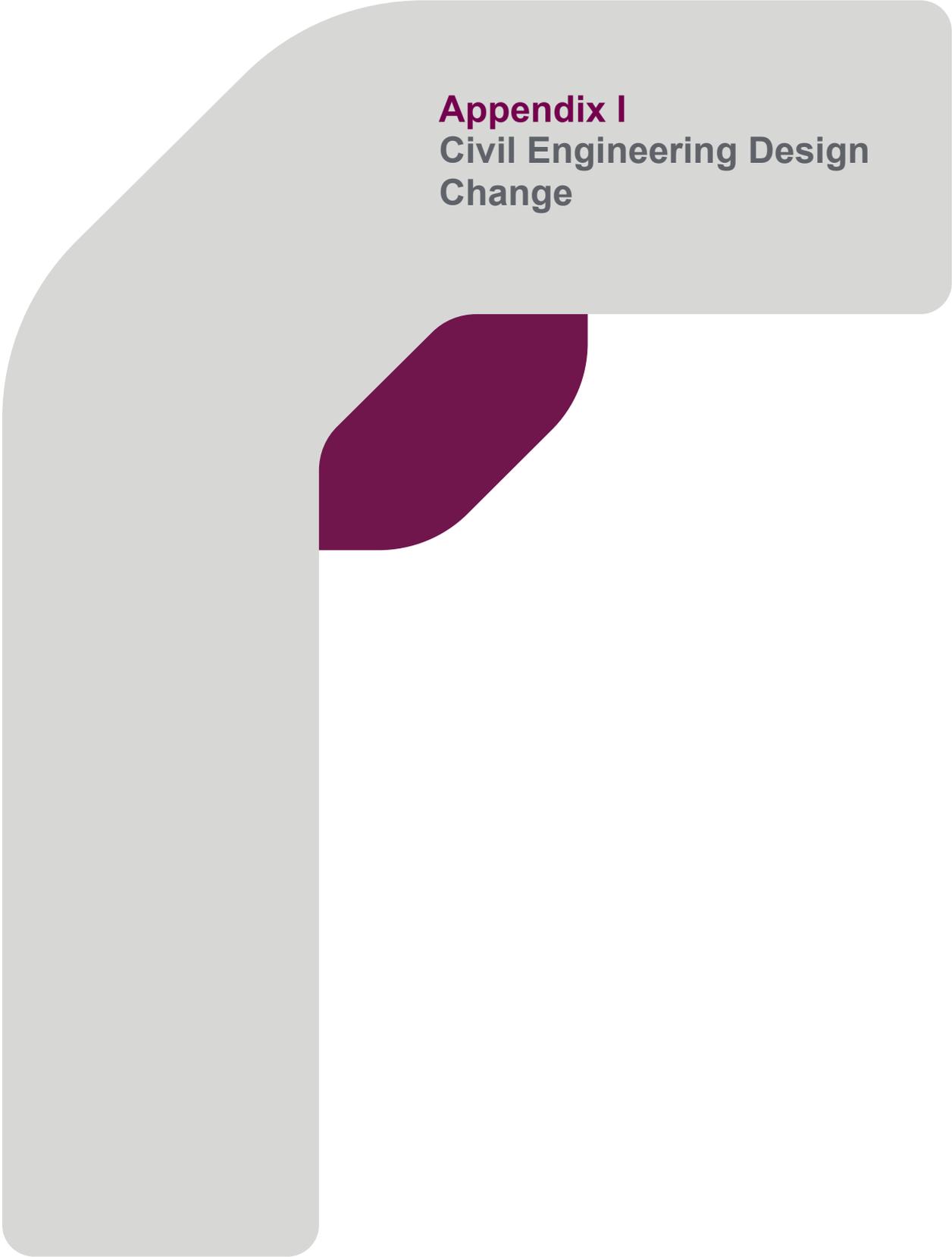
**Appendix F**  
**Updated Architectural**  
**Plans**



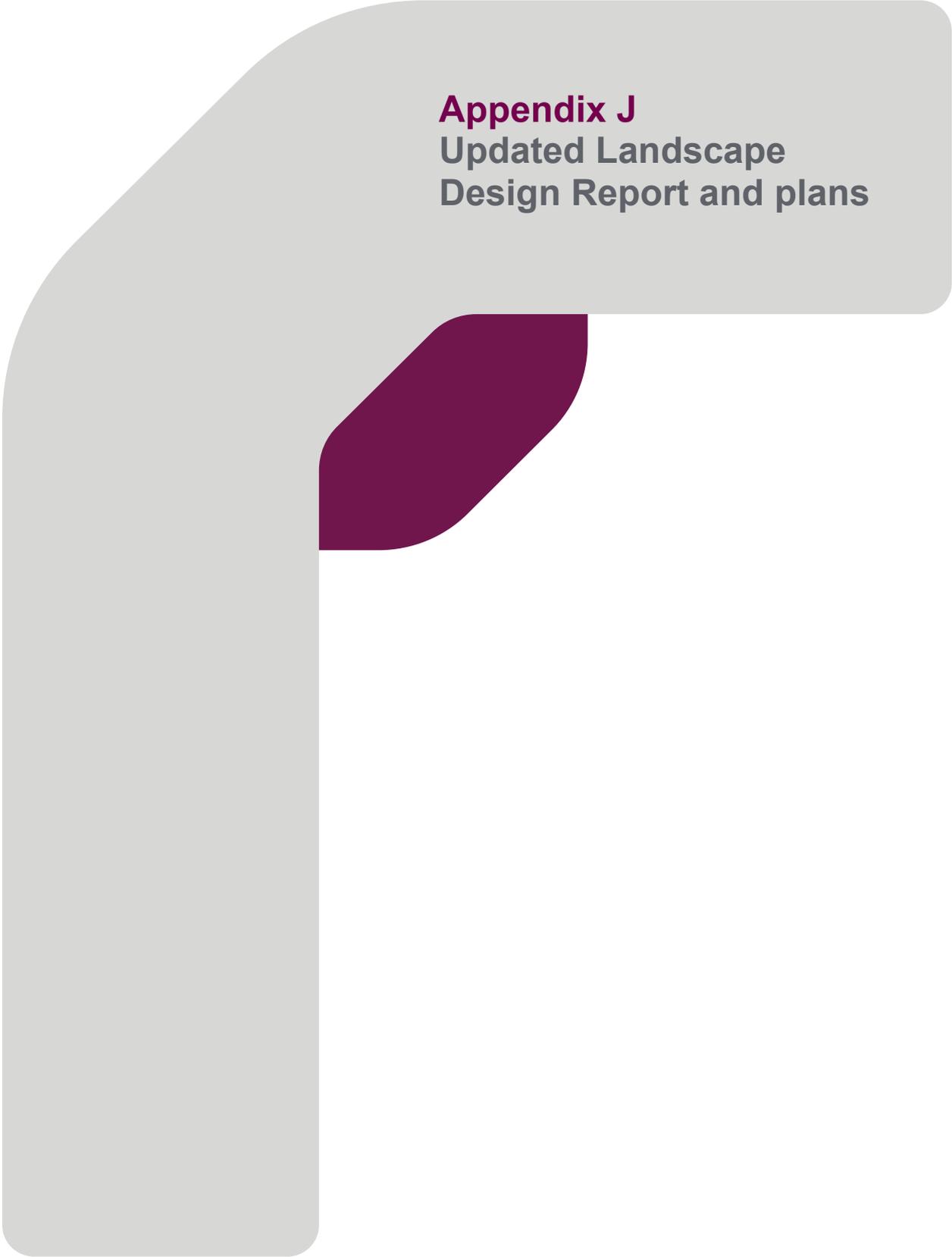
**Appendix G**  
Updated Architectural  
Design Report

A large, light grey graphic element with rounded corners and a maroon-colored cutout on its right side. The cutout is a rounded, irregular shape that extends from the top right towards the bottom left.

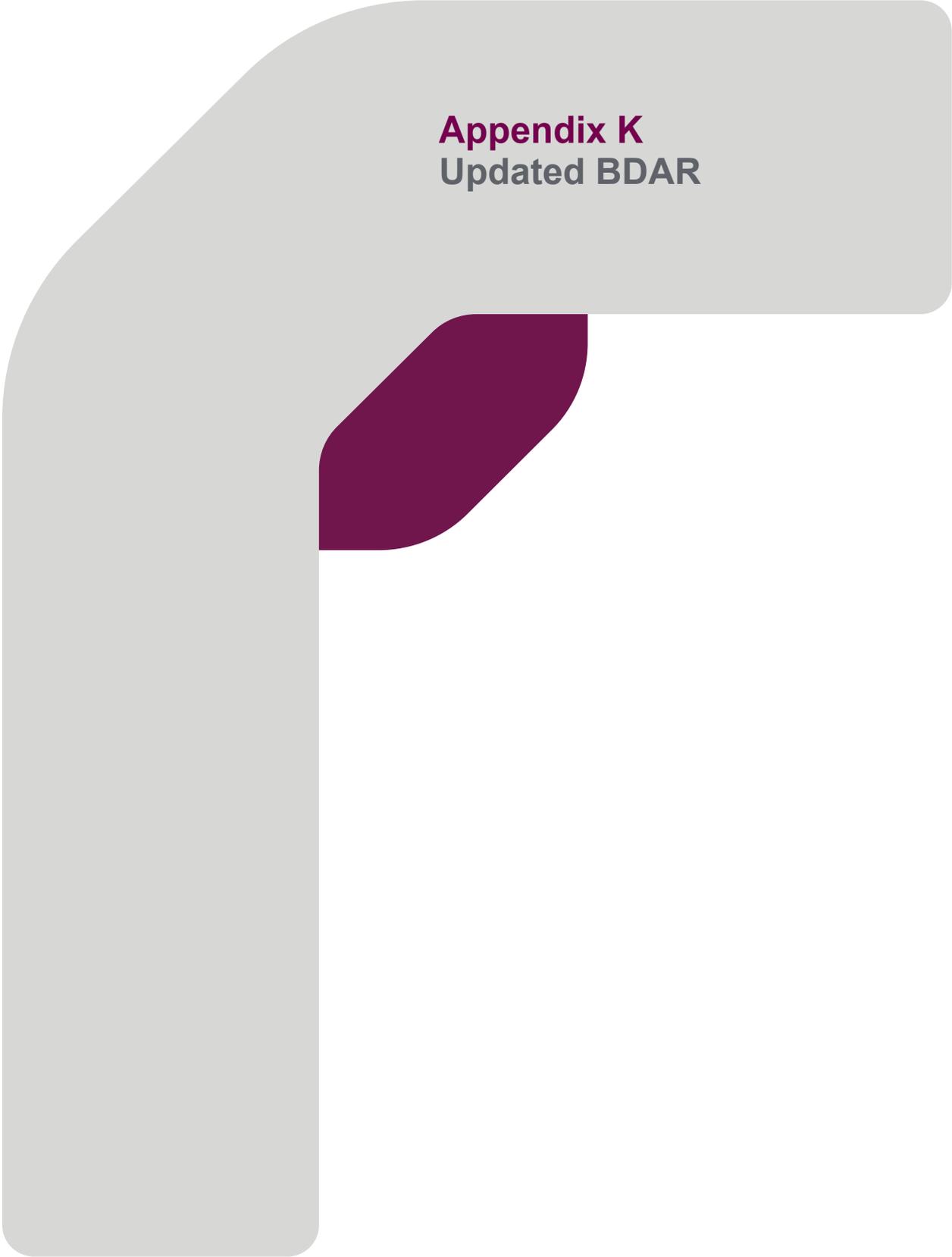
## Appendix H Designing with Country Statement



**Appendix I**  
**Civil Engineering Design  
Change**



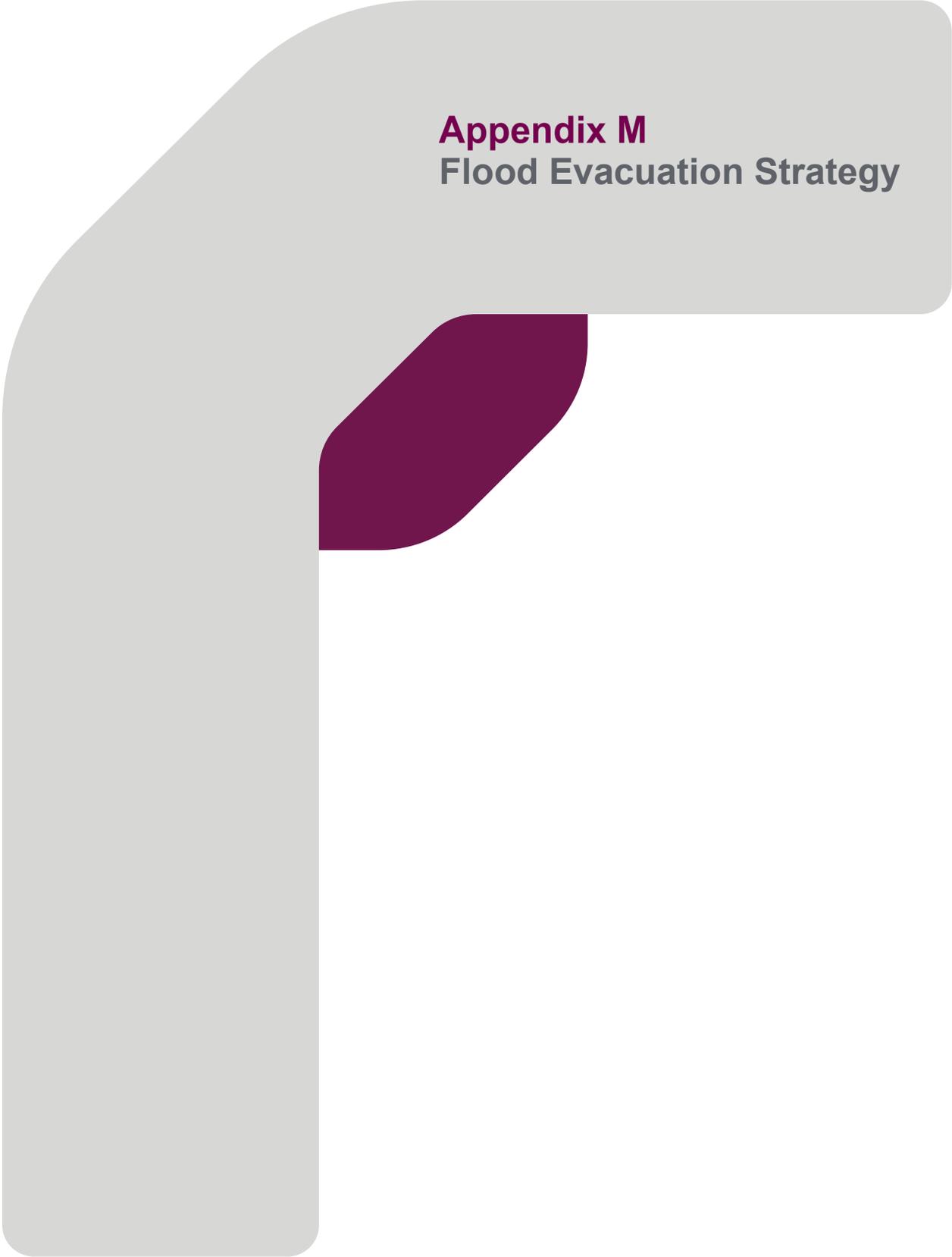
**Appendix J**  
Updated Landscape  
Design Report and plans



**Appendix K**  
Updated BDAR



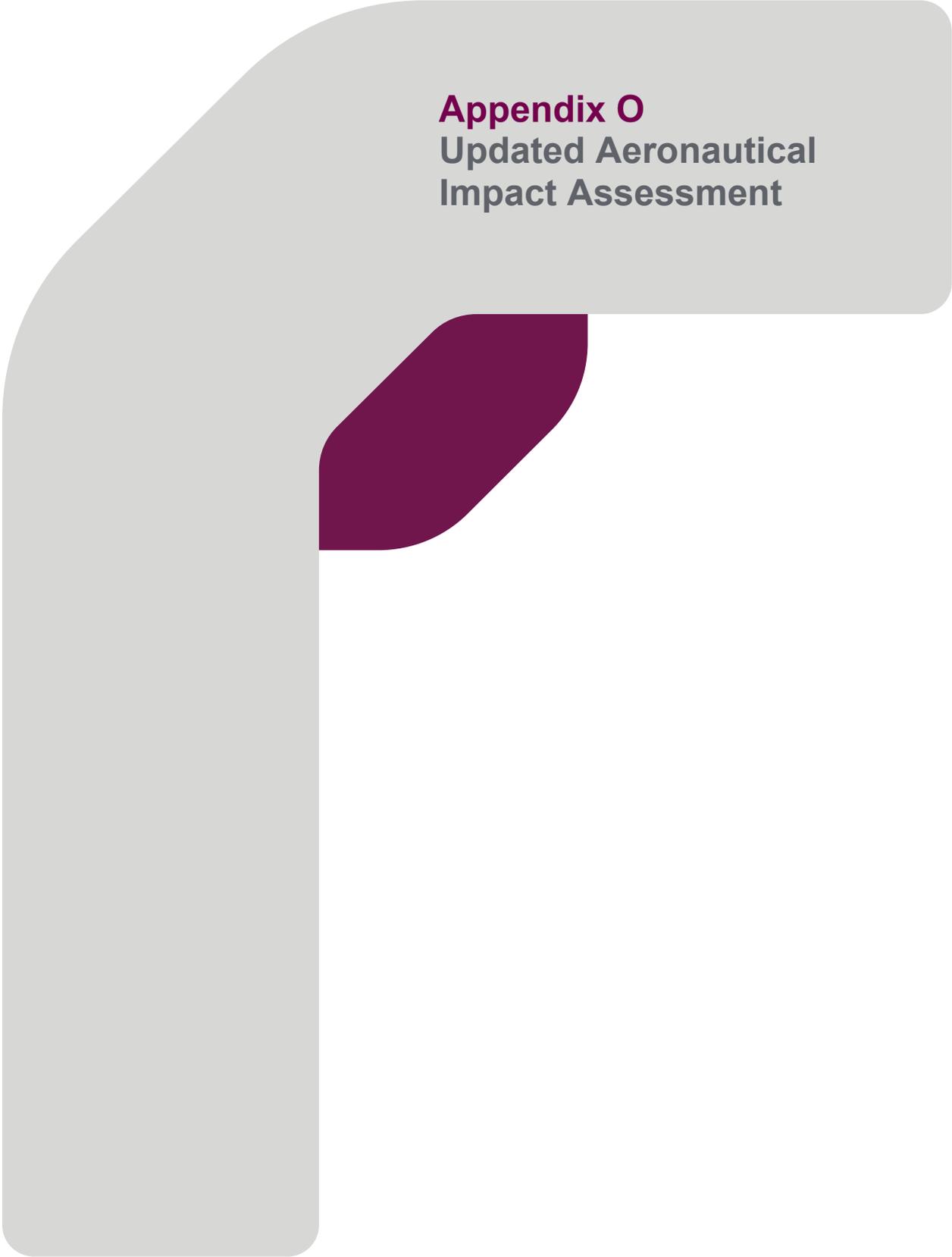
**Appendix L**  
Updated Arboriculture  
Impact Assessment  
Report



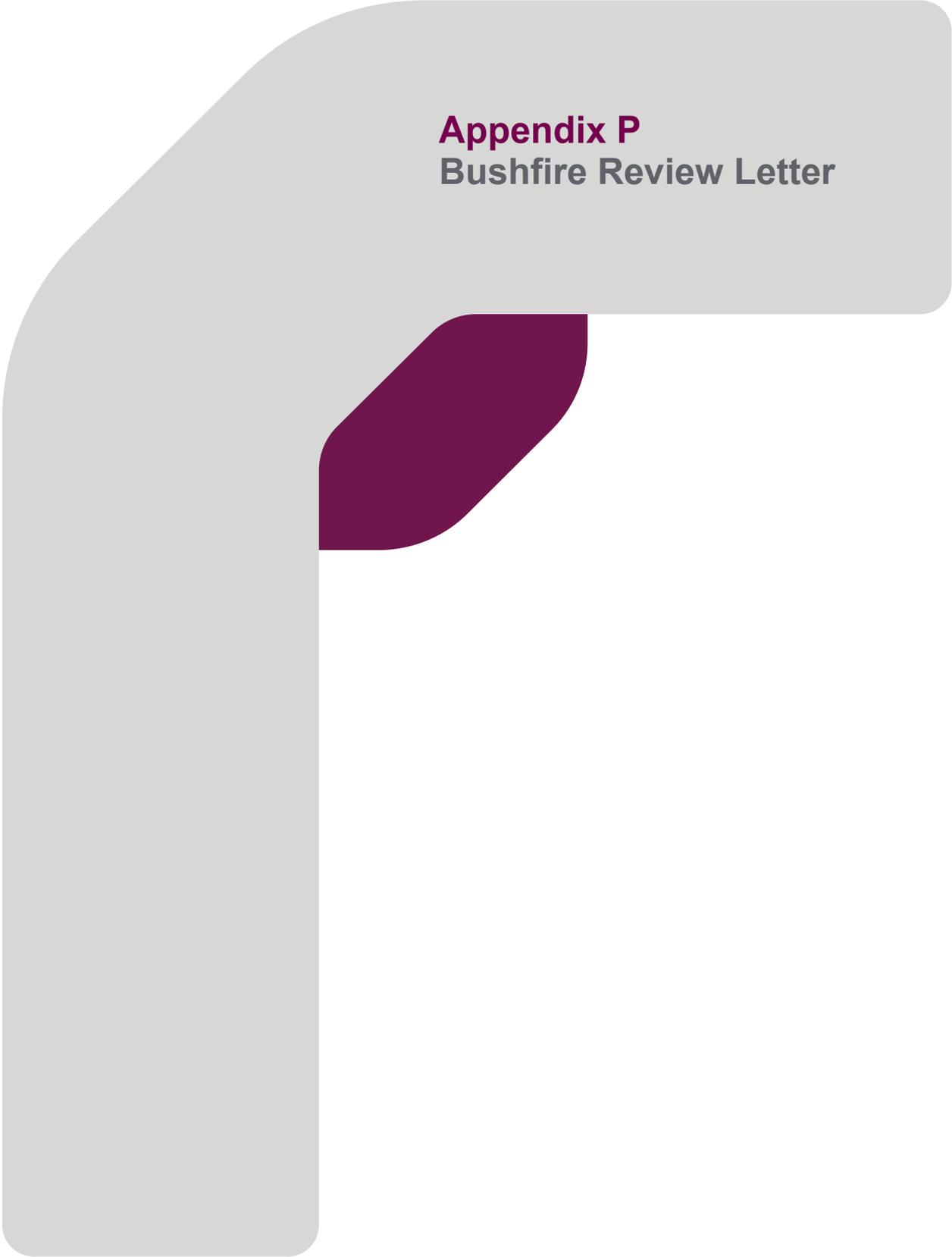
## Appendix M Flood Evacuation Strategy



**Appendix N**  
**Outline of CoE Farm**  
**Management Plan**



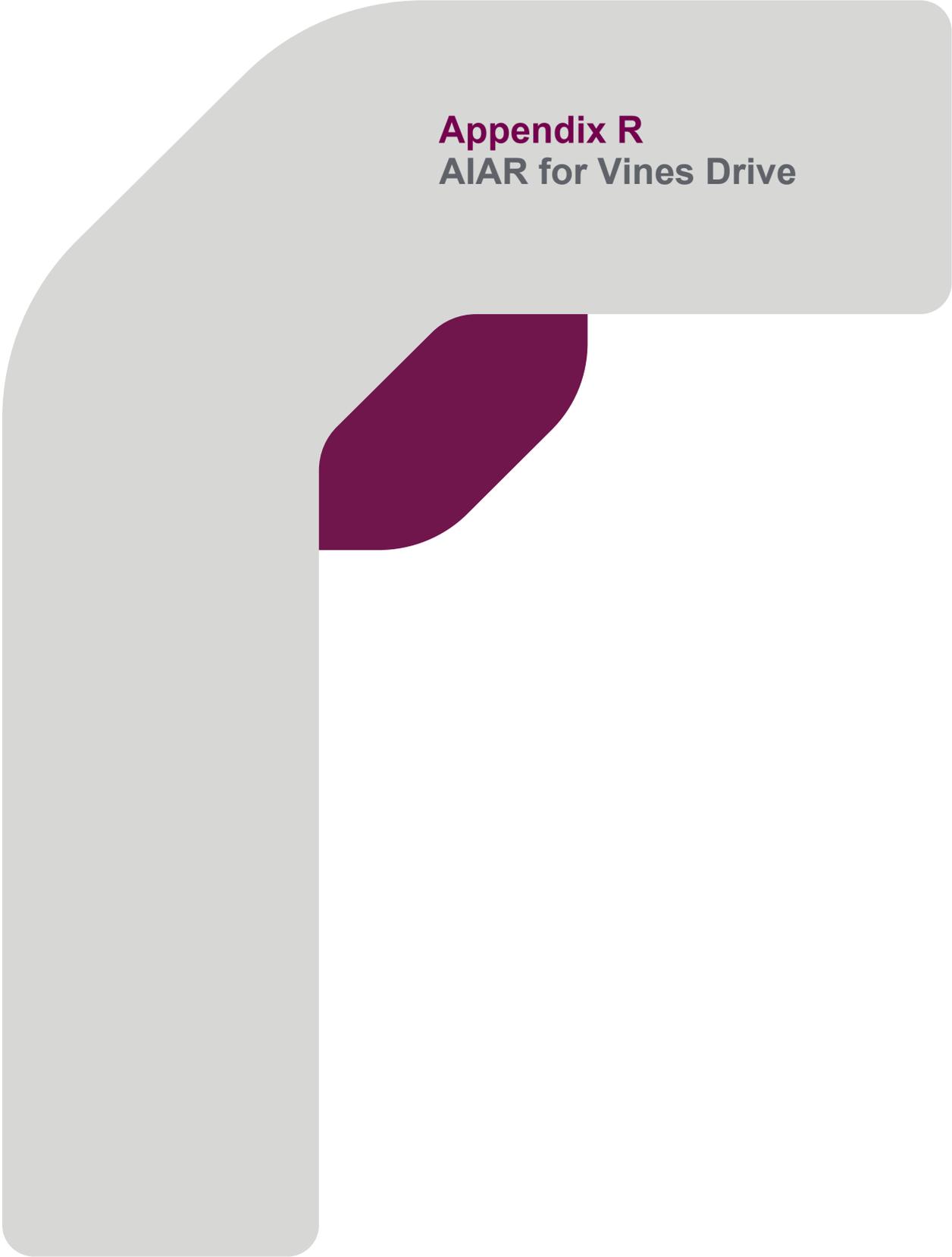
**Appendix O**  
**Updated Aeronautical  
Impact Assessment**



**Appendix P**  
**Bushfire Review Letter**

A large, light grey graphic element with rounded corners and a maroon-colored cutout on its right side. The cutout is a curved, irregular shape that extends from the top right towards the bottom left.

**Appendix Q**  
**Bushfire Vehicle**  
**Manoeuvring Plan**



**Appendix R**  
AIAR for Vines Drive