

RESPONSE TO SUBMISSIONS REPORT

The New Primary School in Mulgoa Rise - SSD-11070211



PR148873

1

17 November 2021

RESPONSE TO SUBMISSIONS REPORT

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17 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-11070211) for the construction and operation of the New Primary School in Mulgoa Rise, Glenmore Park.

Glenmore Park and surrounding areas are undergoing significant housing development and population growth resulting from large infrastructure projects (Western Sydney Airport as an example). The increasing number of students have four schools located on the northern border of Glenmore Park, leaving more than a third having to travel larger distances to school from outside the catchment areas. The New Primary School in Mulgoa Rise will be closer to the current and projected demand growth. It will reduce travel time for students and parents and will support the use of active movement transport such as walking and cycling.

The school is designed and will be built to significantly improve educational outcomes and address the capacity shortfall across the area for an approximate 414 students initially, with the expansion to 1000 (subject to later planning approval) as demand grows.

The exhibition of the Environmental Impact Statement (EIS) for the proposal ended on 30 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 M**.

Planning Framework and Assessment

On the 6th of October 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 Penrith City Council, Transport for NSW (TfNSW), Sydney Water Corporation, Environment, Energy and Science Group, NSW Government Architect, Endeavour Energy, NSW Rural Fire Service, NSW EPA, Heritage NSW and the Civil Aviation authority.

Two public submissions were 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.

Architectural Design Changes

- Reduction and change in canopy sizes, locations, and form.
- Relocation of the COLA and adjustments to Block C Hall.
- Updated layout and external awnings of Block B3S.
- Changes and adjustment to fence locations.
- Layout of the main entry has been redesigned.
- Replacement of external vertical fins with sun shading hoods.
- Relocation of services plant spaces.
- Changes to external materials and finishes.

Landscape Design Changes

- Rationalisation of hard paved area.
- Consolidated seating areas.
- Revised play areas.

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- Changes reflecting building adjustments.
- Consolidated materials palette.

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-11070211 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 NSW (the 'Proponent') in support of State Significant Development Application SSD-11070211 for the proposed development (the 'Proposal') of a New Public School (The New Primary School in Mulgoa Rise) at 1-23 Forestwood Drive, Glenmore Park as identified in **Figure 1**.

The Environmental Impact Statement (EIS) was exhibited from 3 September 2021 to 30 September 2021. A total of twelve (12) submissions were received, all of which were either "comments" or "supports". No objections were received.

The Department of Planning, Industry and Environment (DPIE) addressed a letter to DoE dated 12 October 2021 outlining key issues and requesting a response to the submissions received during exhibition of the EIS.

This RTS addresses the issues raised in DPIE's letter and 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 in general accordance with the DPIE State significant development guidelines – preparing a submissions report, July 2021.

1.1 Overview of the project

A Government election commitment in 2012 to build 190 new schools across the state, was implemented with the aim to address the issues of overcrowding and ensuring all students are given equal access to quality educational opportunities. School Infrastructure NSW has committed to building a new primary school at Mulgoa Rise, one of 4 new schools in the Glenmore Park Primary School Community Group (SCG).

The New Primary School in Mulgoa Rise is designed and will be built to significantly improve educational outcomes and address the capacity shortfall across the area for an approximate 414 students initially, with the expansion to 1000 as demand grows.

The site is a cleared rectangular greenfield site in a relatively new residential subdivision in Glenmore Park, known as Mulgoa Rise. The site is surrounded by a vacant site (to be a mixed-use commercial and residential precinct) to the north, Council playing fields to the east, and low-density residential dwellings to the west and south. The site sits on land above what was previously a quarry.

The site layout for the new school will see the buildings arranged along Deerubbin Drive and Darug Avenue, playground, shared sensory play area and assembly area within the site behind these buildings and a games court and staff car park on the eastern edge of the site. The school buildings have been designed with respect to the new educational standard of the Design for Manufacture and Assembly (DFMA) method of construction.

The school has been designed to facilitate future expansions should additional demand materialise. Considerations of investment options led to the following:

- Design of a school to facilitate a Core 21 school with 18 learning spaces (LS) + 2 support classes, with the selected core facilities at Core 35, for the Hall, Library, Staff facilities and Admin. This will accommodate an initial 414 students.
- A future development on the site, that does not form part of this application and not considered at this time, will complete the build to a Core 35, resulting in up to 44 learning spaces and 4 support classes.

The New Primary School in Mulgoa Rise will incorporate Best Practice Pedagogy for the Learning Spaces (LS), these will be fit-for-purpose, incorporate the use of technology and providing flexibility in design to allow for the delivery of modern pedagogies that are focused on creating learning environments that students may encounter in the workforce, where there is an enhanced focus on self-direction, self-reflection, evaluation and collaboration.

Glenmore Park and surrounding areas are undergoing significant housing development and population growth resulting from large infrastructure projects (Western Sydney Airport as an example). The increasing number of students have four schools located on the northern border of Glenmore Park, leaving more than a third having to travel larger distances to school from outside the catchment areas. The New Primary School in Mulgoa Rise will be closer to the current and projected demand growth. It will reduce travel time for students and parents and will support the use of active movement transport such as walking and cycling.

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The New Primary School in Mulgoa Rise will provide the surrounding community access to the school's core facilities - the communal hall, the library and the outdoor sports court. The school will also provide Outside School Hours Care (OSHC) services to assist dual-working families with parents commuting and working long hours.

The construction of the New Primary School in Mulgoa Rise is programmed to open on Day 1, Term 1 2023.



Figure 1 Site Context
(Source SixMaps)

1.2 The EIS as exhibited

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

- General learning areas.
- Multipurpose communal hall.
- Covered Outdoor Learning Areas (COLA).
- Administration area.
- Staff area including amenities.
- Student amenities.
- Library.
- Canteen.
- Storage.
- Assembly Area.
- Games Court.
- Shared sensory play area.
- Landscaping.
- Pedestrian circulation.
- Pedestrian access points.
- Internal open space.
- Staff car park with access off Forestwood Drive.
- Bike and scooter parking.
- Bus zone and drop off/pick spaces.
- Pedestrian crossings on Forestwood Drive, Darug Avenue, and Deerubbin Drive.
- Waste collection area.
- Connection of site services, including gas, potable water, sewer, power (including a new sub-station), and the NBN.

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

Table 1 Breakdown of Submissions

Submission Category	Submission Group/Person	Community Interest Level	Submission Type
	Council – Penrith City Council	Regional (5-100km from the site)	Comment
	Transport for NSW	Regional (5-100km from the site)	Comment
	Sydney Water	Regional (5-100km from the site)	Comment
	NSW Rural Fire Service	Regional (5-100km from the site)	Comment
	Civil Aviation Safety Authority	Regional (5-100km from the site)	Comment
	DPIE - Environment, Energy and Science Group	Regional (5-100km from the site)	Comment
	NSW Environment Protection Authority	Regional (5-100km from the site)	Comment
	NSW Government Architect	Regional (5-100km from the site)	Comment
	Heritage NSW	Regional (5-100km from the site)	Comment
Organisations	Endeavour Energy	Regional (5-100km from the site)	Comment
Individuals	Name withheld, Glenmore Park	Local (<5km from site)	Support
	Name withheld, Glenmore Park	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.

3.1 Architectural design changes

The Detailed Design of the project has progressed since the SSDA was submitted. However, the overall master plan, design philosophy and general planning has been maintained. Early input on constructability from the contractor, Richard Crookes Construction, and additional stakeholder input has resulted in design changes as detailed below:

- Reduction and change in canopy sizes, locations, and form.
- Relocation of the COLA and adjustments to Block C Hall.
- Updated layout and external awnings of Block B3S.
- Changes and adjustment to fence locations.
- Layout of the main entry has been redesigned.
- Replacement of external vertical fins with sun shading hoods.
- Relocation of services plant spaces.
- Changes to external materials and finishes.

Updated Architectural Plans are contained in **Appendix A** and an addendum to the Architectural Design Report is contained in **Appendix B**.

3.2 Landscape design changes

Design of the landscape has progressed since the exhibition of the SSDA. The overall design philosophy, general planning and aesthetics have been maintained throughout the design stages.

Recent design development and ongoing consultation with stakeholders has resulted in the following design changes since exhibition:

- Rationalisation of hard paved area.
- Consolidated seating areas.
- Revised play areas.
- Changes reflecting building adjustments.
- Consolidated materials palette

Updated Landscape Plans are contained in **Appendix C** and an addendum to the Landscape Design Report is contained in **Appendix D**.

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Table 2 **Actions taken since exhibition**

Proposed Action / Change	Reason for Action / Change
Architectural Design Changes	
<p>Canopies – size, location & form</p> <p>The area highlighted in Diagram 1 and Diagram 2 in the adjacent column illustrates the extent of additions and reductions of roof area.</p> <p>Skylights have been removed.</p> <p>The lower canopy to the west of Block C Hall has been relocated to the southern side of Block C and is now identified as the COLA.</p> <p>Further discussion on the COLA is outlined below.</p> <p>The proposed revised roof plan is illustrated on page 10.</p>	<p>This design rationalisation provides structural design efficiency for a more economical solution while still maintaining the canopies as an identifying design feature at the pedestrian entries along Deerubbin Dr and Darug Ave. Skylights have been removed due to complexity of maintenance.</p> <p>Awning placements have been rationalised to prevent overlapping with high-level canopies.</p>
<p>DIAGRAM 1 - Overall Ground Floor Covered Structure Diagram – Superseded Design (NTS)</p>	

Proposed Action / Change Reason for Action / Change

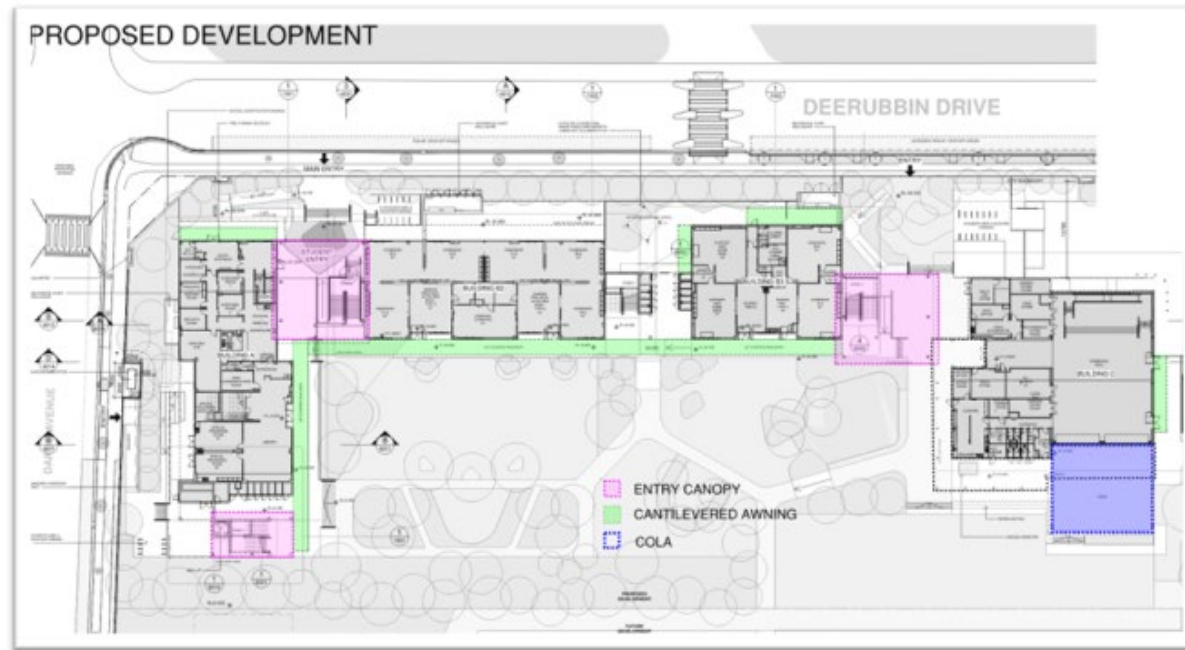
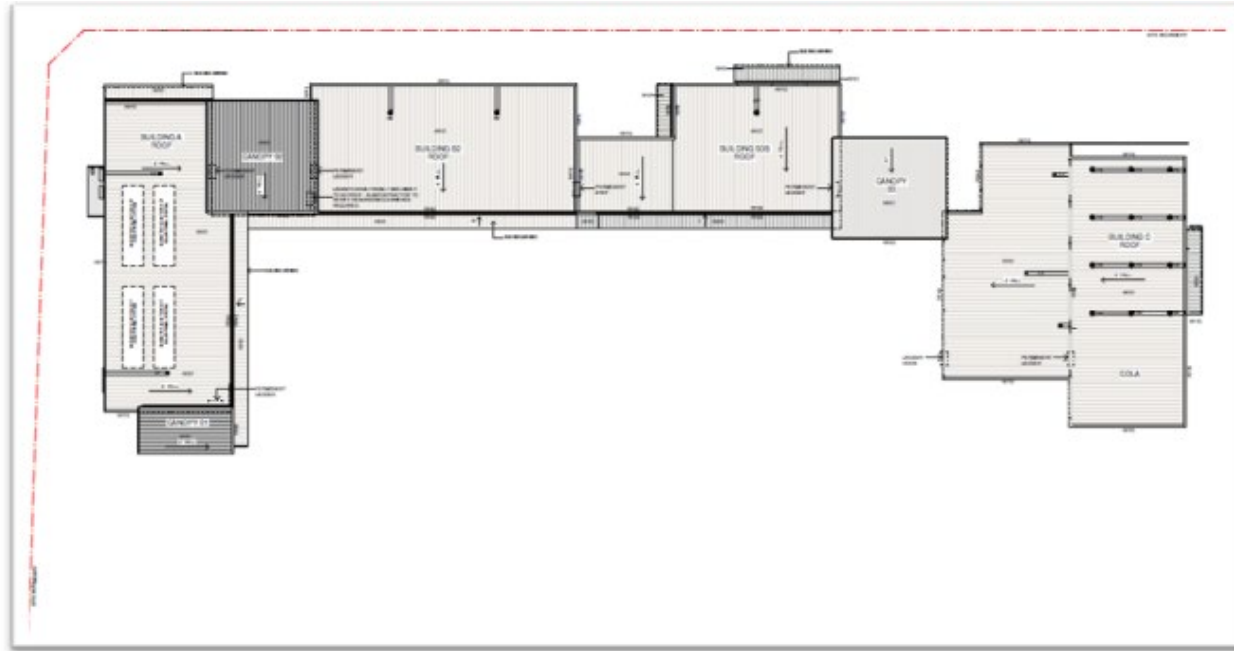


DIAGRAM 2 - Overall Ground Floor Covered Structure Diagram – Proposed Development (NTS)

Proposed Action / Change Reason for Action / Change



Proposed Roof Plan (NTS)

Proposed Action / Change Reason for Action / Change

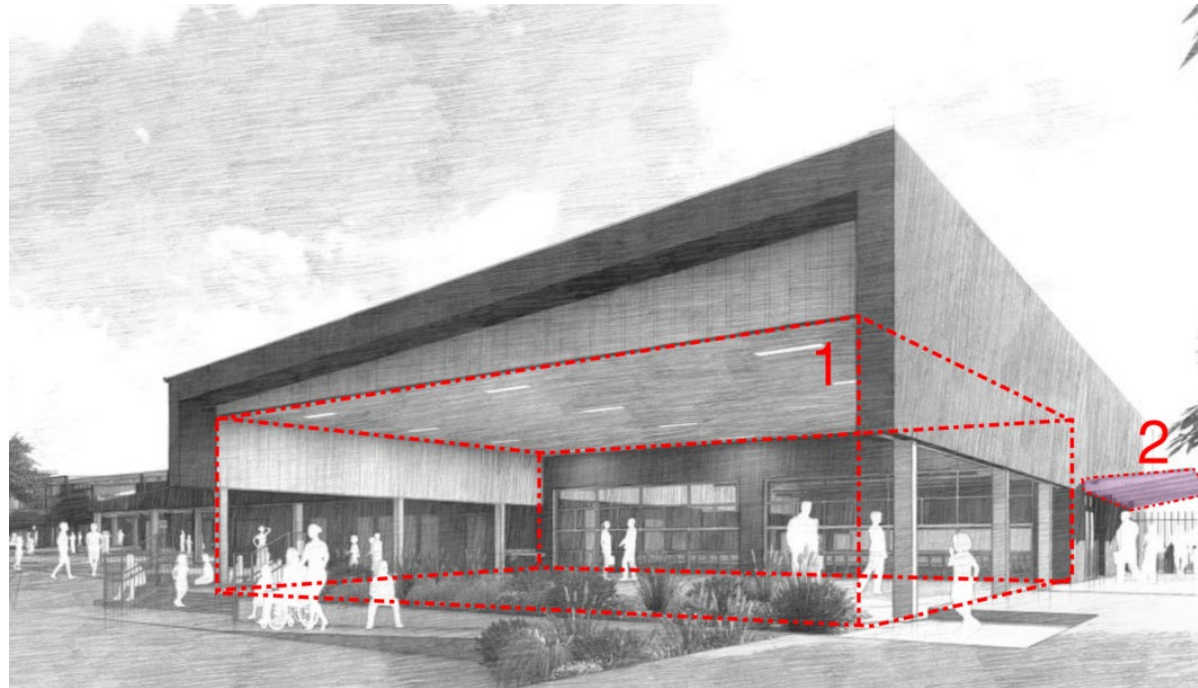
Relocation of the COLA and adjustments to Block C Hall

Changes include:

- The COLA has been relocated.
- The doors on the eastern façade have been downsized and relocated with external cladding adjusted.
- Block C roof - roof pitch is now proposed at 4° throughout.

The changes are illustrated in the diagram in the adjacent column.

1. The COLA has been relocated to the southern end of Block C, refer to Area 1 in the figure below, to better accommodate spill over from the hall during events and together with the tiered seating provide better connection to the future sports field.
2. The doors on the eastern façade have been downsized and relocated for egress purposes with a sheltering awning above – refer to Area 2 in the figure below. External cladding was adjusted to suit.
Block C roof has been rationalised and roof pitch is now proposed at 4° throughout for better drainage.



Updated layout and external awnings of Block B3S

Changes include:

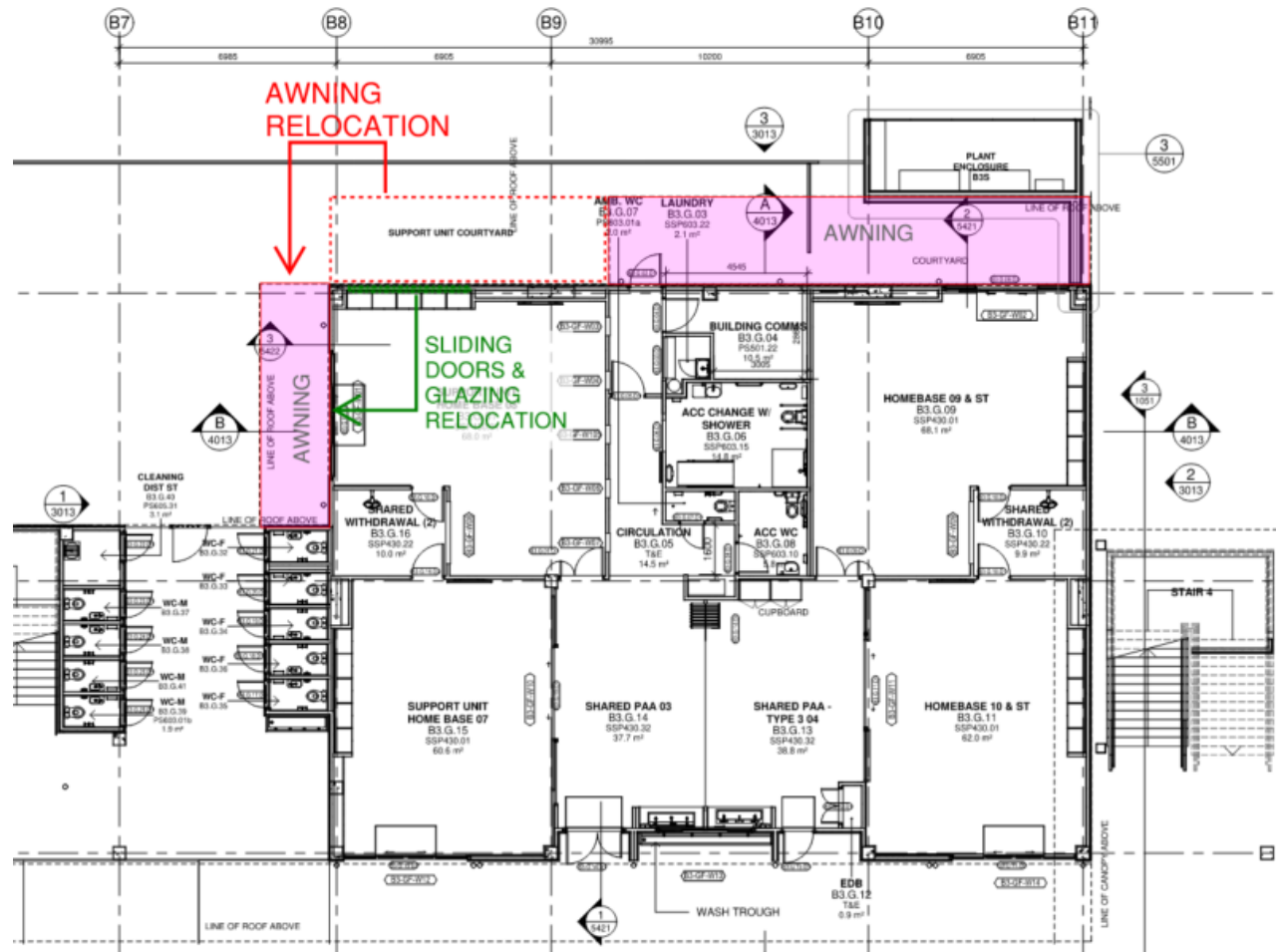
- Minor adjustment to the North & West Elevation of Block B3S.
- Change to glazed sliding door location.

The glazed sliding door connecting the support unit to the outdoor learning area has been relocated from the northern façade to the western façade including associated awnings above to align with the movement of the awning to the western side of Block 3.
The location of Stair 3 and student amenities between Block B2 and Block B3S have been swapped to achieve better circulation between Level 1 and the play area. These changes have subsequently required minor adjustment to the North and West Elevation of Block B3S.

Proposed Action / Change Reason for Action / Change

- The location of Stair 3 and student amenities between Block B2 and Block B3S have been swapped.

The changes are illustrated in the diagram in the adjacent column.



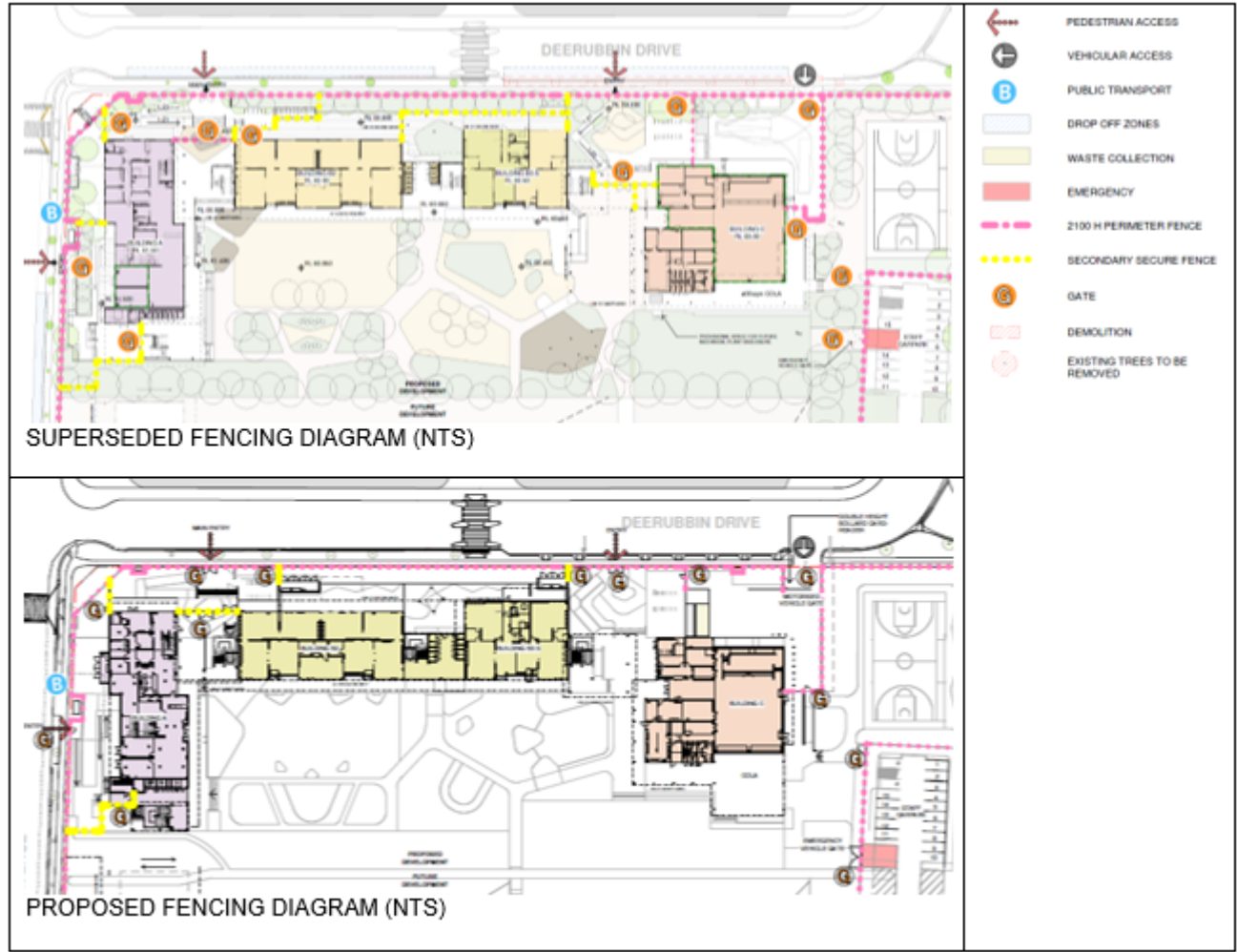
Building B3 – Diagram to depict changes to Building B3 (NTS)

Proposed Action / Change Reason for Action / Change

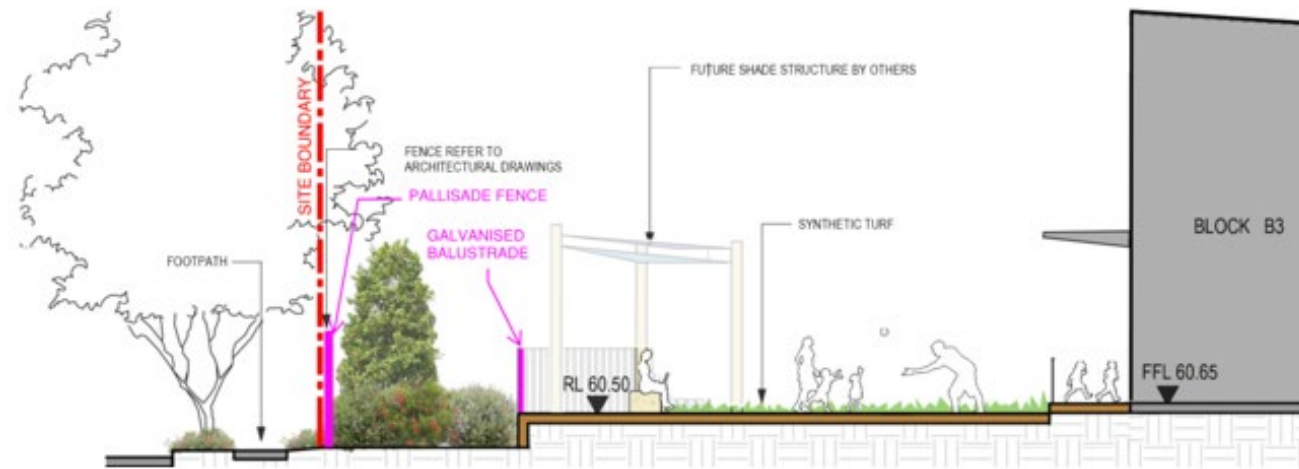
Security and fencing

Elimination of secondary fencing. The changes are illustrated in the diagrams in the adjacent column.

Further design development of the outdoor learning area between home base blocks B2 and B3S resulted with the elimination of much of the secondary security fence parallel to the boundary. Level changes in these areas will be managed via balustrades.



Proposed Action / Change Reason for Action / Change



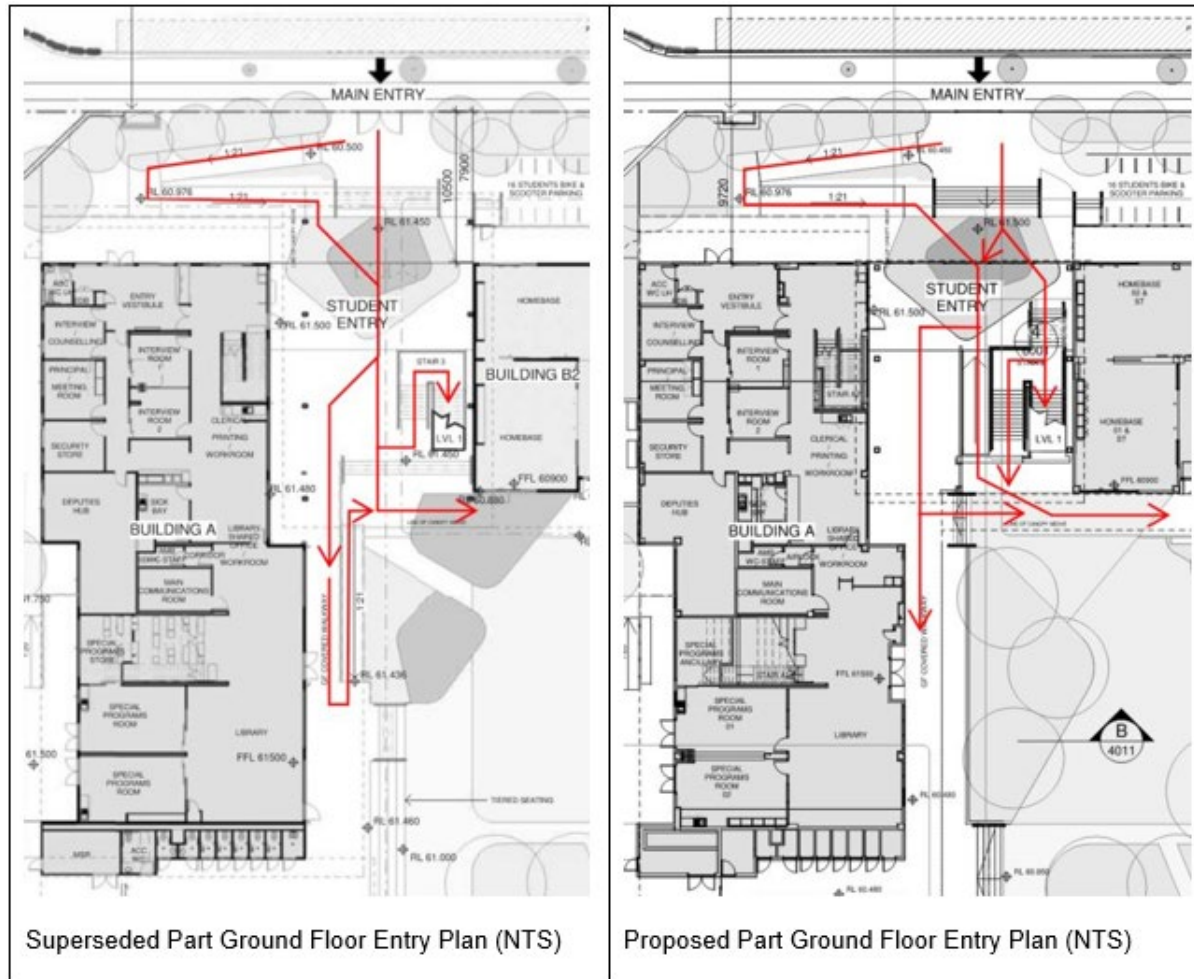
Proposed fencing section diagram (NTS)

Main entry layout

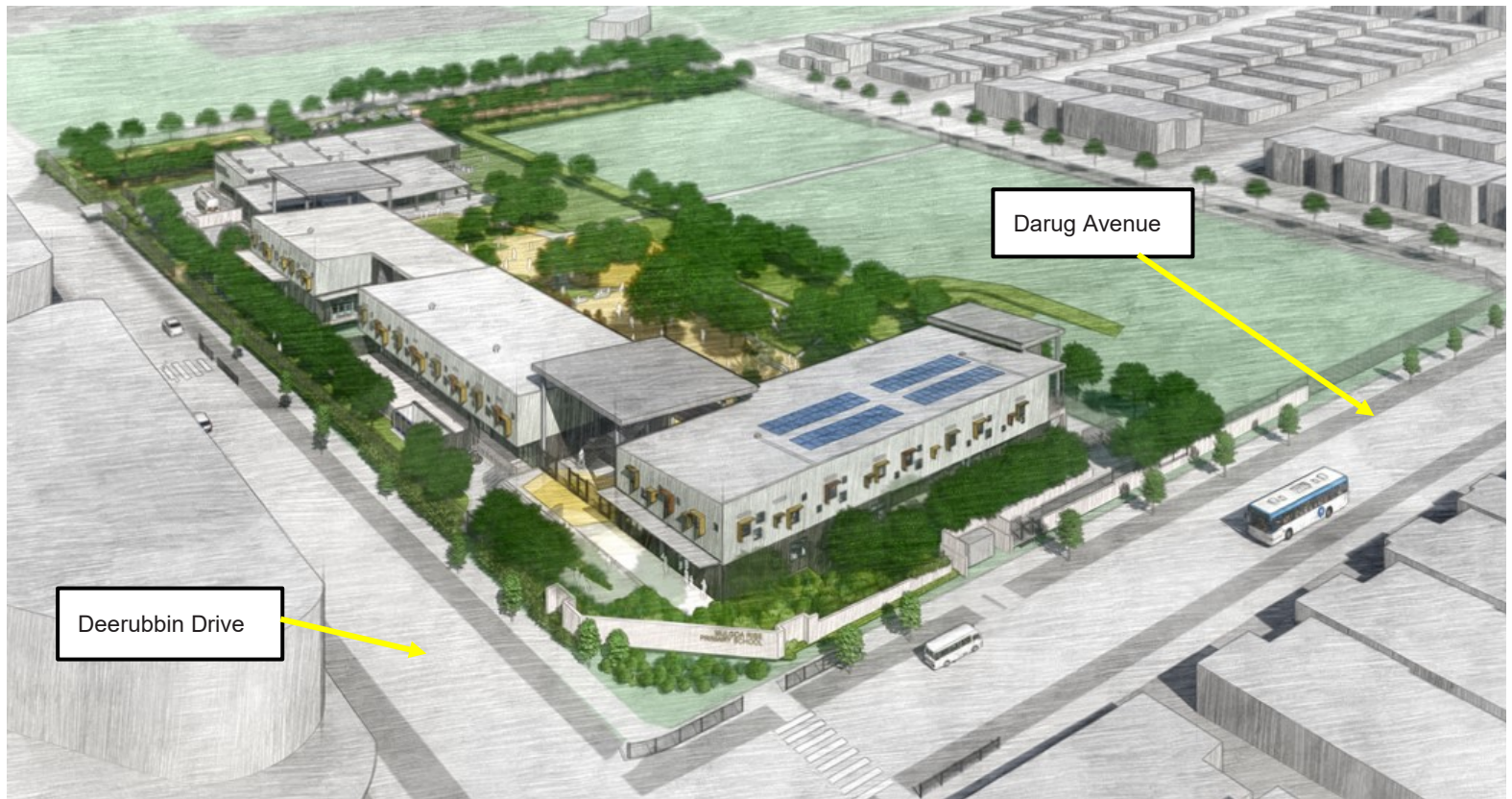
Layout of the main entry has been redesigned. The changes are illustrated in the diagrams in the adjacent column. An aerial perspective of the school, incorporating the proposed changes, is provided on page 16. Street level images of the school, incorporating the proposed changes, as viewed from Deerubbin Drive, are provided on pages 17 and 18. An Updated Visual Impact Assessment is contained in **Appendix F.**

Redesigned has occurred to better comply with egress paths and minimise travel distances; improve the circulation and student flow at peak times; ensure a covered path is always maintained.

Proposed Action / Change Reason for Action / Change



Proposed Action / Change Reason for Action / Change



Aerial perspective of the proposed development looking south-east

Proposed Action / Change Reason for Action / Change



View of proposed development looking east along Deerubbin Drive

Proposed Action / Change Reason for Action / Change



View of proposed development looking west along Deerubbin Drive

Proposed Action / Change Reason for Action / Change

Replacement of external vertical fins with sun shading hoods

The decorative vertical-fins-screen on the northern facades of Block B2 and B3S and on the western façade of Block A have been replaced with 600mm deep coloured sun hoods. The changes are illustrated in the diagrams in the adjacent column.

The sun hoods are utilised for better solar protection from noon to mid-afternoon when solar heat gain is at a maximum. Fresh air louvres which used to be behind the screen have been rationalised to follow window pattern on the façade.



Superseded Design
Decorative Vertical Fins Screen

Proposed Design
Coloured sun hoods over larger windows and all openable windows

Proposed Action / Change Reason for Action / Change

Relocation of services plant spaces

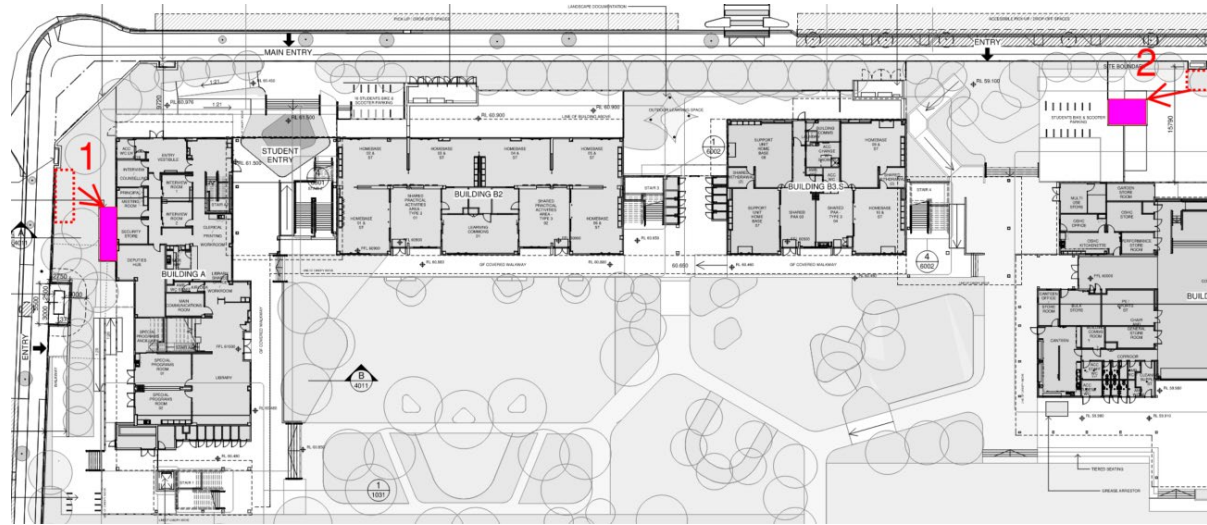
Changes include:

- Change 1 - The mechanical plant of Block A has been relocated from the site boundary on Darug Ave to sit adjacent to the building, on the western façade.
- Change 2 - The cold-water pump and fire hydrant pump have been set back from the boundary of Deerubbin Drive, closer to Block C.

The changes are illustrated in the diagram in the adjacent column.

Relocation of the mechanical plant was to facilitate better services reticulation. All windows located immediately adjacent to and directly above the plant will be upgraded to using thicker laminated glass for better acoustic attenuation.

Relocation of the cold-water pump is to allow more intensive landscape along the street frontage.



External materials and finishes

Replacement of materials and/or finishes. The changes are illustrated in the diagram in the adjacent column. An updated Visual Impact Assessment is contained in **Appendix F**.

Some of the external finishes have been replaced with more robust materials which can easily be maintained. Final colour selection will be in consultation with the RAPs as part of Connecting with Country consultation. Changes to materiality include:

- Replacement of plywood soffit panels with pre-finished metal sheets.
- Replacement of metal cladding along walkways with Prefinished CFC.
- Change of specification for the external metal cladding on Level 1 facing Deerubbin Drive and Darug Ave, from a flat metal cladding to ribbed metal panel cladding.

Proposed Action / Change Reason for Action / Change



Proposed External Finishes Selection

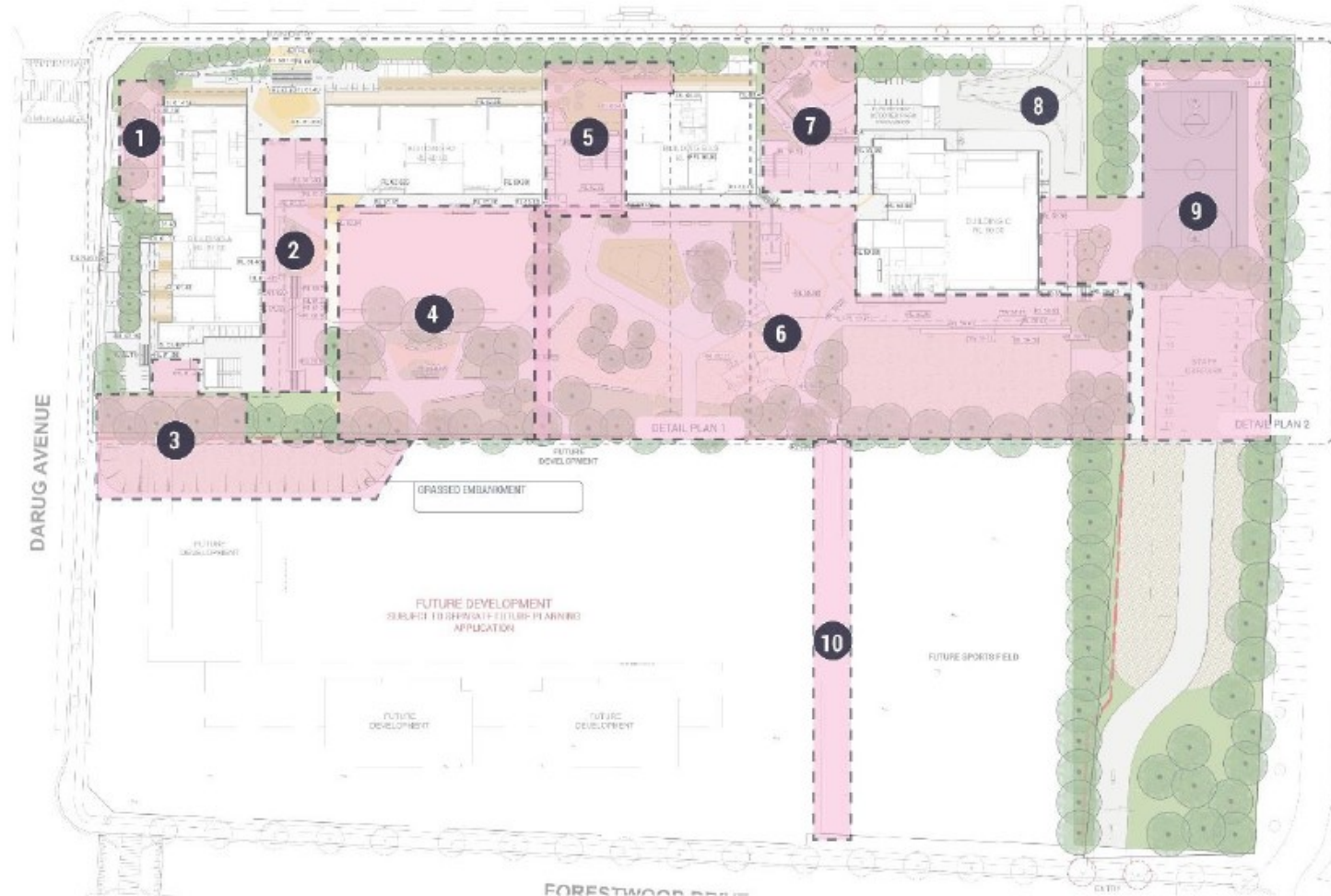
Proposed Action / Change Reason for Action / Change

Landscape Design Changes

The areas highlighted on the diagrams in the adjacent column illustrate the extent of change to the Landscape area. Further details are outlined in **Appendix D**.

The below legend details the changes of each area:

1. Mechanical location revised; lawn area replaced with mass planting
2. Access to Block A from main entry, Block B2, B3S and Block C revised, details as follows
 - A. 1:14 ramp in lieu of 1:21 walkway (previously in front of Block A) to allow for a shorter route and more direct access
 - B. Increase in landscape area in lieu of 1:21 walkway
 - C. Bleacher seating omitted; stair width increased to accommodate for circulation.
3. Temporary landscaped embankment reduced in size, additional landscaped area in lieu of concrete paving to the west side of stair 1.
4. Assembly area developed
 - A. Pocket landscape area with trees introduced.
 - B. Interpretive Line marking incorporated
 - C. Outdoor learning area updated for Yarning Circle opportunities



Landscape Plan - Previous SSDA (NTS)

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Proposed Action / Change Reason for Action / Change

- D. Educational Trail / Explorative Play in lieu of concrete paths
- 5. Outdoor play area to support unit
 - A. Timber decking omitted
 - B. Access ramp revised to suit the new location of toilet block
- 6. Consolidated sensory play
 - A. Synthetic turf mound location revised
 - B. Yarning Circle opportunities included at mulched play area
 - C. Turf open play area increased
 - D. Revised Bleacher Seating to revised COLA extent
 - E. Incidental Nature play
- 7. New accessible ramp introduced to allow for a more direct access
- 8. Services area revised
- 9. Sports & Carpark
 - A. Hard paving reduced around basketball court
 - B. Coloured concrete finish for basketball court in lieu of plexipave
 - C. Emergency vehicle access revised
- 10. Access to Forestwood Drive revised.



Landscape Plan - Current Design (NTS)

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Proposed Action / Change Reason for Action / Change

An extract from a Landscape Elevation illustrating the landscaping treatment that will be implemented on Deerubbin Drive at the interface with the entry to the waste area is provided in the figure in the adjacent column.

Extensive landscaping is proposed along the Deerubbin Drive interface with the proposed waste area.

The Landscape Elevation can be found in **Appendix C**.



4 RESPONSE TO SUBMISSIONS

This section provides a detailed summary of the Department of Educations' response to the issues raised in submissions.

4.1 Response to DPIE key issues

Following its initial assessment of the proposal, DPIE commented on a number of key issues in a letter to the applicant dated 12 October 2021. **Table 3** below provides responses to these key issues.

Table 3 Response to Department of Planning, Industry & Environment key issues

Comment/Issue	Response
Student Numbers	
<ul style="list-style-type: none"> The proposal is for a school to accommodate 414 students, however the EIS indicates the school will accommodate up to 1000 students in the future subject to separate planning approval. Please clarify the following: <ul style="list-style-type: none"> Are the proposed school buildings of a size that would accommodate 1000 students, or is that only with the construction of the additional future buildings? Please provide definitions or a description of the terms 'Core 21' and 'Core 35'. Given the demand for school places in similar land release areas, how is it intended the proposed maximum of 414 students will be complied with/managed? 	<p>The administration, staff, library, and hall have all been designed to accommodate a school with ~1000 students plus staff - all part of this proposal.</p> <p>Core 35 describes the schedule of facilities required for a school containing more than 36 home bases. This aims at the maximum capacity of the school once future stages are completed.</p> <p>Core 21 describes the schedule of facilities required for a school containing 18-24 home bases. This aims at the capacity of this SSDA application only.</p>
Design Excellence	
<p>Noting the comments provided by the Government Architect of NSW (GANSW), the application is to be returned to the State Design Review Panel (SDRP) for further review, and any issues raised are to be responded to prior to the lodgement of the RtS.</p>	<p>Response to the advice and recommendations that arose from the design review session held on 20th October 2021 by the NSW Government Architect are located in Table 8 below.</p>
Hours of Operation	
<ul style="list-style-type: none"> Please confirm the hours of operation for the outside of school hours care. Provide details of the community use of the school including proposed hours, schedule of buildings/areas to 	<p>The school, including out of school hours (OOSH) care, will operate between 6.30 am and 6.30 pm, Monday to Friday. Vacation care hours will be 7.00 am to 6.00 pm, Monday to Friday, during school holidays.</p>

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Comment/Issue	Response
be made available, and anticipated events. It is noted the EIS indicates the school and library are likely to be made available for community uses up until 10pm, however the acoustic report identifies they may be available up until midnight. Please clarify.	Additional activities or events (by school or by the community) may be held in the Communal Hall in Building C and within the library in Building A after 6.30 pm up until 10 pm. These additional activities or events may occur during school term, during school holidays and on weekends.
Acoustic Report	
<ul style="list-style-type: none">The Department acknowledges the response provided by EPA which provided limited comments. Notwithstanding, concern is raised with the placement of noise loggers around the site not including a noise logger in the vicinity of the western residential receivers along Darug Avenue given they are located closest to the school buildings. As such, additional noise monitoring is to be undertaken at the residential uses alongside the western side of Darug Avenue, to accurately establish background levels and impacts in this location.The construction hours provided in the EIS differ to those considered in the acoustic report. It is recommended that the construction hours be limited to those recommended in the NSW Interim Construction Noise Guideline. However, if extended hours are sought on a Saturday as outlined in the EIS, the acoustic report is to be amended to consider the impacts of the extension.Please note that further review of the acoustic report by the EPA is pending, and any further comments will be forwarded for your review and response.	<p>Additional noise monitoring has been undertaken and an updated Noise and Vibration Assessment is contained in Appendix J.</p> <p>Additional noise measurements were conducted at a residence located at 21 Darug Avenue, between 21 October and 29 October 2021. Measured ambient noise levels for this location were consistent with results obtained for No. 30 Forestwood Drive and 90-98 Glenmore Ridge Drive.</p> <p>The Updated Noise and Vibration Assessment contained in Appendix J considers extended construction hours on Saturdays (up to 5 pm). The Assessment determined that residential receivers will be highly noise affected outside of standard construction hours (i.e. Saturdays, between 1:00 pm and 5:00 pm). As a result, conceptual management procedures have been provided within the Updated Noise and Vibration Assessment and should be developed into a detailed construction noise and vibration management plan (CNVMP). This includes community consultation and engagement, particularly for the construction activities to be conducted outside of construction hours.</p> <p>Noted.</p>
Traffic and Parking	
<ul style="list-style-type: none">Further consideration should be given to the provision of additional staff parking on site given the limited availability of public transport opportunities providing connections from outside of the school catchment. It is noted that the area identified as 'future carpark expansion' could potentially be used.	<p>SINSW has recently put processes in place to ensure that all school developments investigate measures that can be implemented to increase active and public transport and decrease car usage for both staff and students.</p> <p>A School Transport Plan has been prepared outlining measures to promote active and public transport and carpooling. SINSW is committed to implementing these plans across all new developments; A travel plan coordinator will be employed to coordinate the implementation of these measures and monitor the mode shift.</p> <p>It is proposed to provide 17 car parking spaces on-site, which accounts for 63% of staff. This provision is to promote active transport and a means to shift towards alternative transport modes.</p> <p>The proposed school development is a greenfield site with no pre-existing travel behaviours. Therefore, by implementing the School Transport Plan low private car usage can be promoted from commencement of operations.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<ul style="list-style-type: none"> All comments provided by TfNSW and Council are to be addressed in the RtS as previously advised. However, the Department reinforces the importance of undertaking a comparison of other schools in the area with similar characteristics, to determine if the mode share target is achievable. 	Noted. For responses to travel mode and comparison to other schools refer to the responses contained in Table 4 and Table 5 .
Future Development	
<ul style="list-style-type: none"> Please clarify if the area identified as 'future development' will be accessible to students or made available for outdoor play until the 'future development' is realised. 	The area identified as 'future development' will not be accessible to students due to difficulties associated with supervision of students over such a large area and potential access issues for the future Stage 2 works.

4.2 Response to public authorities

The following section provides response to ten (10) submissions received from public authorities during or closely after closure of exhibition. There were no opposition to the project in the responses with only comments provided.

4.2.1 Council – Penrith City Council

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

Table 4 Response to Penrith City Council key issues

Comment/Issue	Response
Planning Considerations	
The proposal seeks to provide water meters, fire hydrant pump and plant room infrastructure within the front setback which erodes available landscaping and provides a poor public domain interface treatment. Given this is the location of proposed street tree removal and the waste area, it is critical that planting within the front setback at this location is proposed where there are no street trees. This is to achieve continuous canopy tree planting around the periphery of the development to screen the hard stand / manoeuvring area associated with the waste facilities. The plant and infrastructure should be relocated away of this location and could be reorientated and relocated to the east of the waste / loading area.	<p>The cold-water pump and fire hydrant pump are proposed to be set back and have relocated closer to Block C away from the site boundary to allow intensive landscaping and shading trees along the public footpath.</p> <p>The water meter is small and is required to be located on the boundary.</p>

Comment/Issue **Response**

Planning Considerations
 The application foreshadows additional parking for Stage 2 works however this parking should be provided up front as part of the stage 1 works. This will negate unnecessary reliance on the public road network for parking and reduce potential overflow into Council's adjacent car parking facilities.

Car parking generated by future development will be provided for in future development applications when required. No changes are proposed to the car park. The proposed number of parking spaces has been assessed against the requirements of AS2890.1:2004, with reference to Class 1A (employee) facilities. The School Transport Plan (STP) included in the Transport and Traffic Assessment (TTA) promotes active transport to the site, supporting mode shares and sustainable management of the transport needs of staff and students to the development to reduce the need for onsite parking. Conversely, by providing the number of parking spaces as proposed, a culture of active transport usage will be realised at the commencement of school operation.

Traffic Management and Pedestrian Safety Considerations

The proposed use of the existing bus stops each side of Darug Street and the existing public bus route services is undesirable. A dedicated school bus service with dedicated bus service drop-off and pick up area fronting the school is recommended with no student crossing of Darug Avenue or other roads to access buses. This should be reflected via an amended proposal. If this is not able to be achieved, then the following should be addressed and demonstrated:

The existing bus stops on Darug Avenue are currently being serviced by only one bus (794 bus service). The frequency of the bus service is 27-73 minutes during the school peak hours. As the existing bus frequency is very low, the bus stops can accommodate additional bus services if the timetables are managed by departure / arrival times. Therefore, a dedicated bus drop-off area only for the school is not seen as required.

It is noted that this was not requested at any previous Transport Working Group meetings.

- a. The bus stops are to have the required TfNSW Complimentary Guide complying setbacks and sight line setbacks from the proposed pedestrian crossing (which is required to be relocated further south as set out in following dot points).
- b. Both bus stops must have bus zone signage.
- c. The existing bus stop boarding points should be related to align with the adjust 'Bus Zone' boarding point location and replaced with Council and DDA complying bus stop boarding points and bus shelters to Council satisfaction. Consultation shall be undertaken with Busways, TfNSW Bus Section and effected nearby residents and their acceptance or other comments provided with the application.

- a. Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads Guide) stipulates the pedestrian sight distance requirements at pedestrian crossing facilities to provide a clear view between the approaching drivers and pedestrians waiting to cross the road. The document stipulates that a Crossing Sight Distance Requirement (CSD) is:
 - o necessary to ensure that the pedestrian can see approaching traffic in sufficient time to judge a safe gap and cross the roadway
 - o calculated from the critical safe gap (in the traffic stream) and the speed of approaching traffic
 The CSD requirement is shown in Figure 3.7 of Austroads Guide which is presented in Figure 1 below.

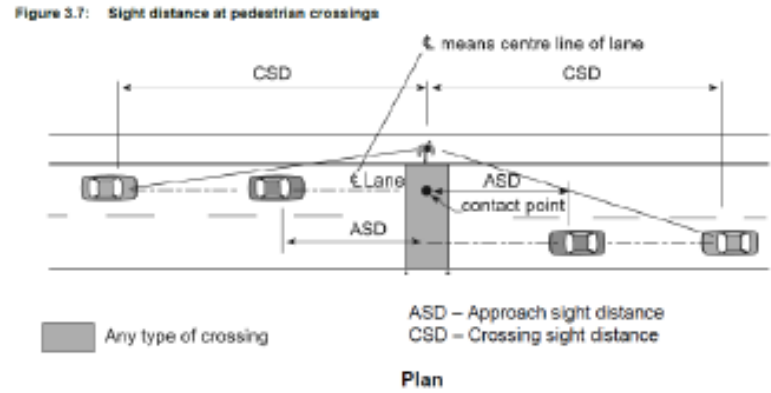


Figure 1 – Sight Distance at pedestrian crossings (Source: Austroads Guide to Road Design Part 4A)
 The CSD is calculated using the following equation:

Comment/Issue **Response**

$$CSD = t_c \times \frac{V}{3.6}$$

where,

CSD = sight distance required for a pedestrian to safely cross the roadway

t_c = critical safe gap (sec) = crossing length/walking speed)

V = 85th percentile approach speed (km/h)

Likewise, NSW Government Transport Roads and Traffic Authority Technical Direction 2002/12c (TDT 2002/12c) ensures the signposting of intersection and crossing treatments. The standardised signposting formats for pedestrian crossings at unsignalized intersection and midblock according to the TDT 2002 are presented in Figure 2 and Figure 3 respectively.

The figures show that the 'No Stopping' sign should be installed at 20m vehicle approach distance and 10m vehicle exit distance from the zebra crossing unless a kerb extension is provided, for which a reference is made to the Pedestrian Refuge Technical Direction (See Note 5).

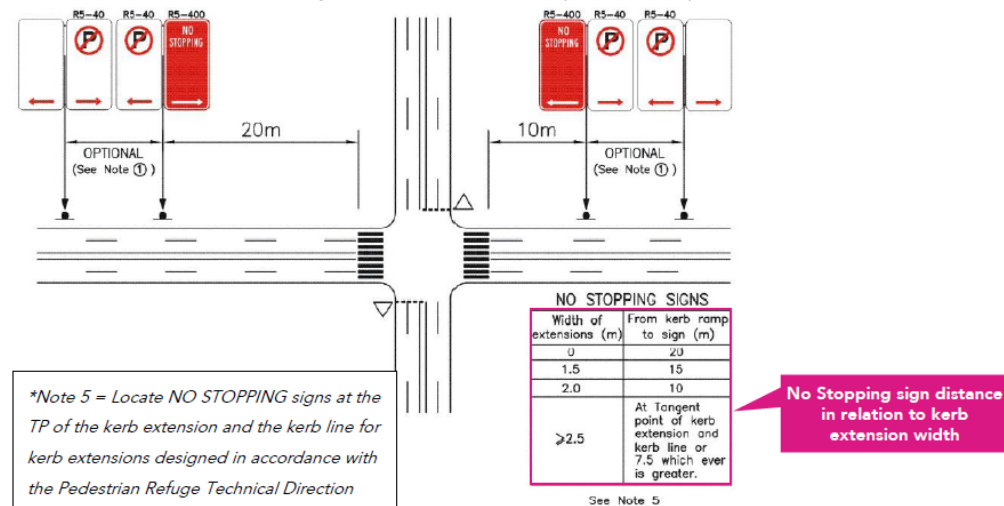


Figure 2 – Unsignalised intersection with pedestrian crossings (Source: Transport Roads and Traffic Authority Technical Direction 2002/12c, Figure 4)

Comment/Issue

Response

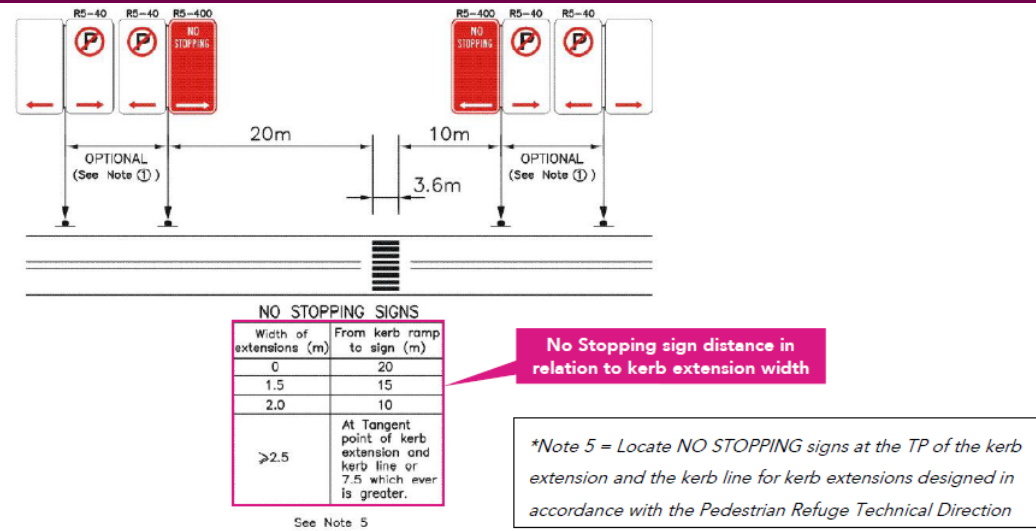


Figure 3 – Mid block pedestrian crossing (Source: Transport Roads and Traffic Authority Technical Direction 2002/12c, Figure 6)

TDT 2002/12c also provides standardised signposting formats for children’s crossings, which is presented in Figure 4.

The ‘No Stopping’ sign should be installed at 24m vehicle approach distance from the children’s crossing unless a kerb extension is provided, for which a reference is made to the Pedestrian Refuge Technical Direction (See Note 7). The ‘Children Crossing’ (stop) line is to be installed at 6m from the crossing.

Comment/Issue

Response

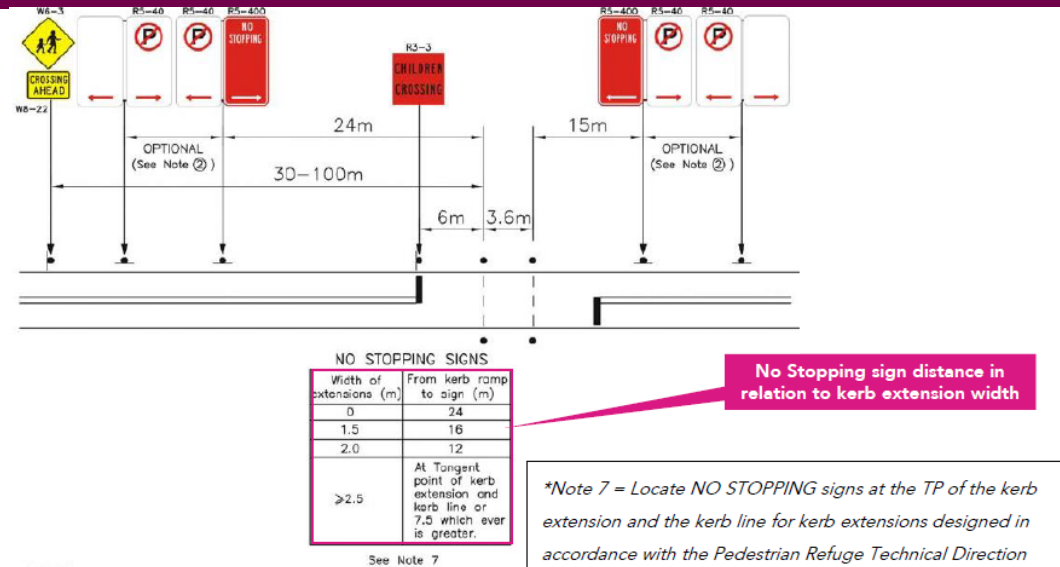


Figure 4 – Children’s Crossing with Red and White Posts (Source: Transport Roads and Traffic Authority Technical Direction 2002/12c, Figure 7)

NSW Government Transport Roads and Traffic Authority Technical Direction 2011/01a (TDT 2011/01a) shows that the location of ‘No Stopping’ sign on refuge island is reliant on the width of the kerb extensions as shown in Figure 5. The same distance can be adopted to pedestrian crossings according to TDT 2002/12c (as stated above).

Comment/Issue

Response

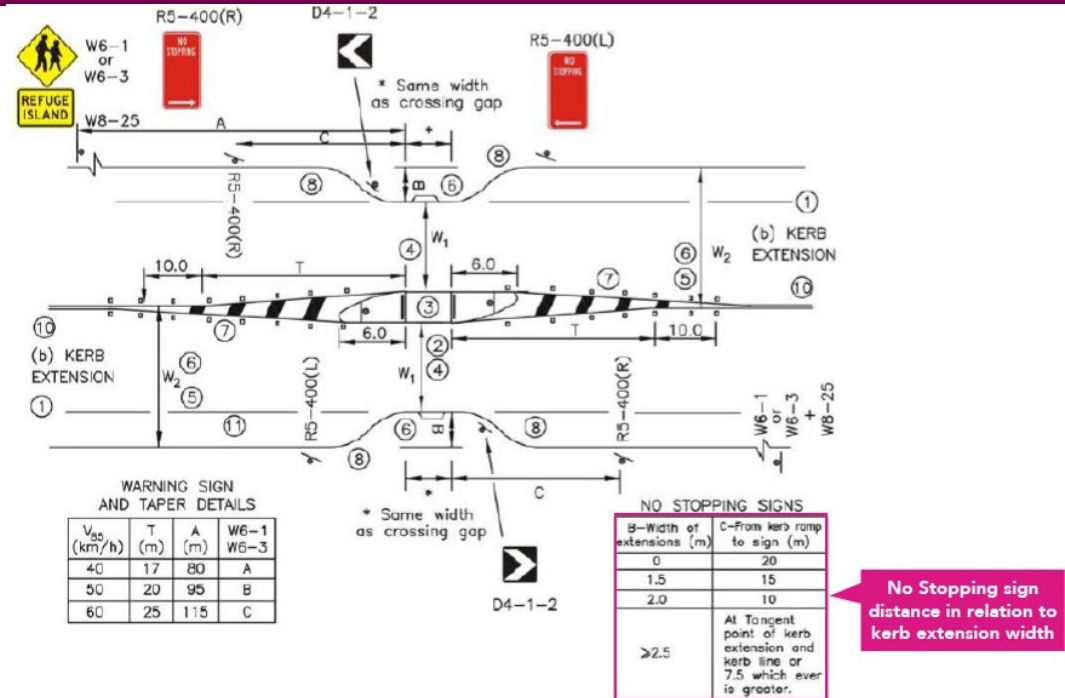


Figure 5 – Pedestrian refuge island two lane, two way with kerb extension (Source: Transport Roads and Traffic Authority Technical Direction 2011/01a, Figure 2)

Discussion and location of ‘No Stopping’ sign

Based on the Austroads Guide, the CSD at the zebra crossing at Darug Avenue is calculated as follows:

- o $t_c = 7 \text{ m crossing length} / 1 \text{ sec/m walking speed for children (assumed)} = 7 \text{ sec critical safe gap}$
- o V is assumed to be 50km/h as the worst-case scenario for the 85th percentile school zone speed
- o $\text{CSD} = 97 \text{ m}$

The proposed sight lines and ‘No Stopping’ sign for Darug Avenue are presented in Figure 6. The blue arrow represents the 97 m long CSD. The green line represents the sight line between the vehicle and the pedestrian approaching the zebra crossing. Due to the 2.5m wide “kerb extension”, a pedestrian would stand at the edge of the traffic lane before s/he crosses the road and therefore be always visible to an approaching vehicle.

The orange hatched area represents the bus stop including the draw in and out areas. The green sight line is not obstructed by the bus.

Comment/Issue

Response

Based on the TDT 2002/12c and TDT 2011/01a, the 'No Stopping Sign' would be located at a distance of 7.5m from the zebra crossing where the kerb extension is $\geq 2.5m$. Hence, the proposed 'No Stopping' signs at the proposed zebra crossings on Darug Avenue, Deerubbin Drive and Forestwood Drive meet the minimum requirement. The 'No Stopping' sign on the western side of Darug Avenue is proposed at 11m from zebra crossing as shown in to coincide with the "Bus Zone" sign.

The Children Crossing sign is provided at 6m from the zebra crossing as per the TDT 2002/12c.



Figure 6 – Proposed Pedestrian Crossing at Darug Avenue, CSD and Signposting

Comment/Issue **Response**

- b. Bus zone signage has been proposed as part of the SSDA submission, refer to the Transport and Traffic Assessment. The amended signage plan is presented in Attachment 1 of **Appendix E**.
- c. It is not proposed to relocate the boarding point on the western side of Darug Avenue, as there is no requirement to do so. Refer to Section 2.2 for the relation between the zebra crossing and the bus stops. The eastern boarding point has already been addressed in the SSDA TTA, where it was relocated south by 5m due to the zebra crossing design. The location of existing bus stops and boarding points at Darug Avenue are presented in Figure 7.

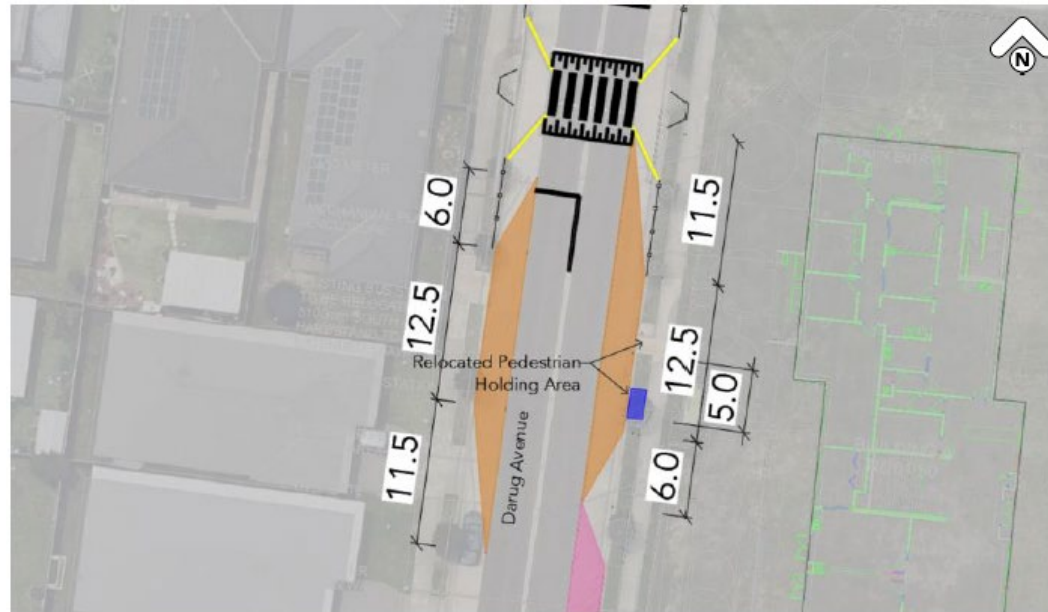


Figure 7 – Bus Zones at Pedestrian Holding Area

The following traffic management and pedestrian safety design amendments are requested to be addressed:

- a. The 'No Stopping' zone along the northern side of Forestwood Drive should extend along the bend to the start of the 90 degree parking in Parkway Avenue.
- b. The proposed fencing at the corner of Darug Avenue and Deerubbin Drive should terminate at the start of the kerb ramp to cross Deerubbin Drive.

- a. The location of the 'No Stopping' sign has been amended as shown in the following figure. A detailed amended signage plan is presented in Attachment 1 of **Appendix E**.

Comment/Issue **Response**

- c. The raised combined pedestrian / children’s crossings are to be provided in the proposed pedestrian crossing locations in the fronting streets, including Deerubbin Drive in the first stage of this development.
- d. The proposed at grade pedestrian crossings must be raised and conform to Council’s general design for raised combined pedestrian / children’s crossings. The crossings must be a combined raised pedestrian crossing and children’s crossing with raised shoulder medians, no fencing on the shoulders as shown proposed, with red and white poles, approach TF holding lines, children crossing flags and No Stopping zones complying with TfNSW guidelines.
- e. There should also be pedestrian fencing provided on the verge at the back of the kerb, at the crossing ‘No Stopping’ zones on each side to direct pedestrian to the crossing.
- f. The proposed crossing in Darug Avenue and in Forestwood Drive should be relocated to provide at least 13m of queuing clearance (to allow for two cars or one HRV or bus) from the Deerubbin Drive and Forestwood Drive through traffic to the TF holding line which should be located 6m from the edge of marked pedestrian crossing.
- g. The ‘No Stopping’ zones and traffic controls at the proposed combined raised pedestrian / children’s crossing shall comply with AS 1742 and TfNSW Supplement to Australian Standards As 1742 including TfNSW Technical Direction TDT 2002/12c.
- h. The proposal should include the provision of street lighting at all pedestrian crossings that complies with Australian Standards. Details should be submitted for assessment or this should be addressed via conditions of consent, to the satisfaction of Council as the relevant roads authority.
- i. An amended application shall include the provision of a continuous footpath treatments across the school driveways to highlight to motorists that pedestrians have right of way when walking on the footpath/driveway.

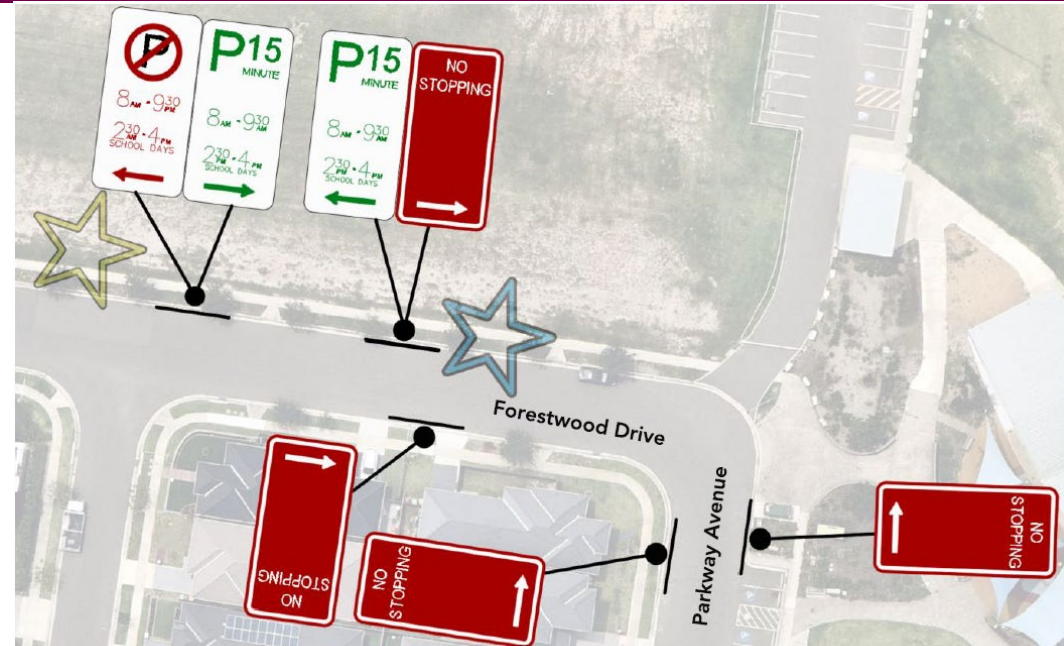


Figure 8 – Proposed Signages at Forestwood Drive and Parkway Avenue bend

- b. The fencing at the corner of Darug Avenue and Deerubbin Drive has been amended to terminate at the start of the kerb ramp, as shown in Figure 9.

A detailed amended signage plan is presented in Attachment 1 of **Appendix E** and illustrates the extent of works within the public domain.

Comment/Issue **Response**

- j. The application should include all details and dimensions of all on-street signage and line marking and all off street parking signage and line marking. This includes the spaces and aisles and appropriate 'Shared Zone' signage, 'Stop' or 'Give Way' signage, accessible parking signage, 'No Stopping' signage and line marking within the staff car park.
- k. The application should include a review of the location and number of school gates for students. Appropriate internal pathways and all weather protection should be provided, especially for gates that are used for students waiting to catch the bus and while waiting to be picked up by car.

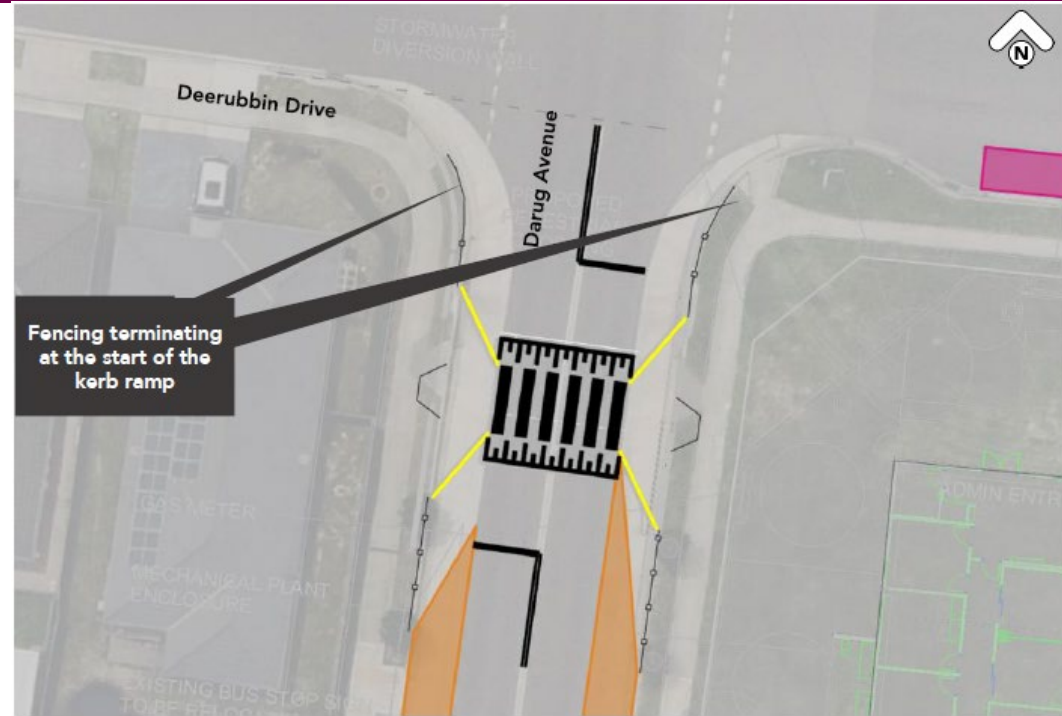


Figure 9 – Proposed Pedestrian Fencing at Darug Avenue and Deerubbin Drive intersection

- c. Crossings along Darug Avenue and Forestwood Drive will be provided prior to commencement of the school. The Deerubbin Drive crossing will be delivered by the mixed-use development across the road, of which the timing is unknown at this time. The project will get in contact with the mixed-use developer to enquire about timing of delivery to ensure that the crossing is constructed prior to commencement of the school.
- d. As per information provided to the authorities and discussions held as part of the TWG meetings, there is a flooding issue within the surrounding roads which prevents from implementing any raised infrastructure within the carriageways.
 A discussion on various at grade pedestrian crossing designs, including the implementation of middle islands, was submitted as part of the SSDA, refer to Attachment 3 of the TTA.
 A revised at grade zebra crossing design is shown in the below figure and in Attachment 1 of **Appendix E**, with the yellow lines representing fencing (or any other structure i.e. bollards that would be deemed acceptable) to imitate the kerb build outs. This is so that the impact on the water flow within the carriageway is minimised.

Comment/Issue

Response

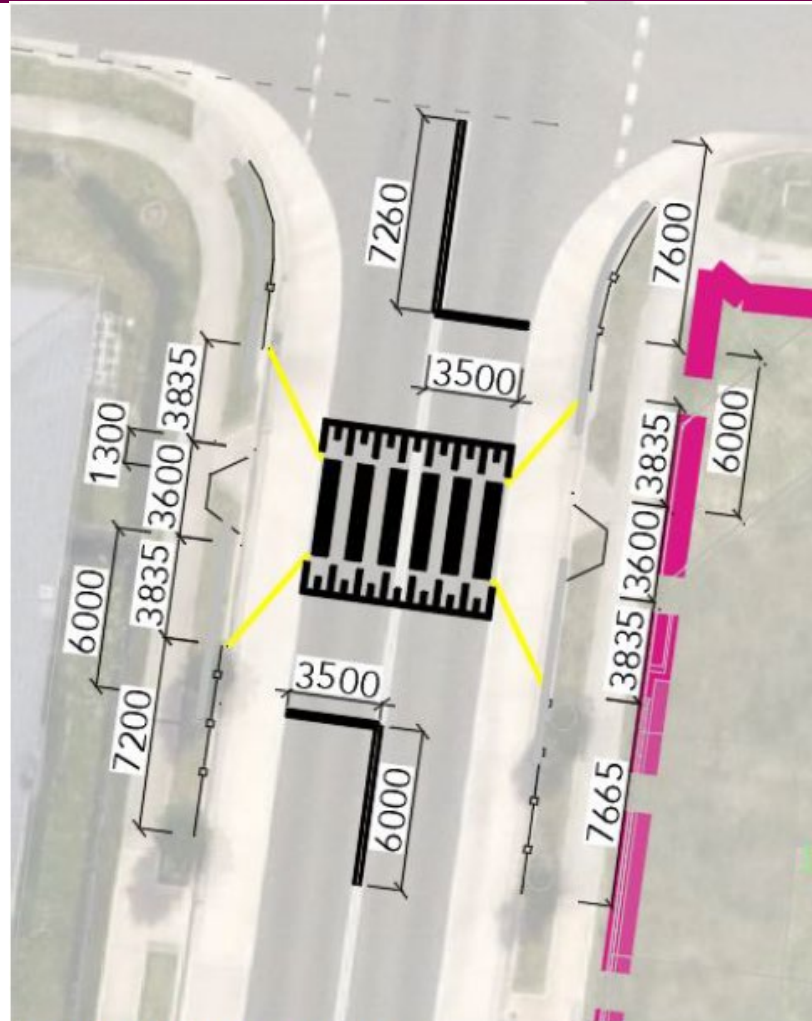


Figure 10 – Proposed Zebra Crossing Design

- e. AS 1742.10 – 2009 Pedestrian Control and Protection stipulates the following:

Comment/Issue	Response
	<p>9.6 Pedestrian fencing</p> <p>Fencing may be used at the kerb side to direct pedestrians to a crossing point and to prevent pedestrians from crossing at other nearby points. It discourages motorists from parking close to a crossing point.</p> <p>Fencing may also be used on medians and loading islands to control pedestrian movements. When used at staged crossings, it should be so aligned that pedestrians will face oncoming traffic as they are about to leave the median.</p> <p>Particular attention should be given to the height and placement of the fence, and to the material used in its construction so as to minimize the potential sight obstruction between drivers and children about to cross the road. Fence material and construction should also be such as to minimize injuries to road users in the event of a collision. The risk of the fence preventing exit from a vehicle parked close to it needs also to be assessed.</p> <p>Fencing is proposed on the verge at the back of the kerb from the zebra crossings to the pram ramps at intersections, from zebra crossings to 'No Stopping' or a distance of 7.5m at the midblock, at the start or end of bus bays and up to the driveways of the adjacent properties. The proposed fencing at Darug Avenue, Deerubbin Drive and Forestwood Drive are presented in Figure 11, Figure 12 and Figure 13 respectively.</p> <p>f. The zebra crossings have been relocated following the detailed design and they are now located as follows (refer to Figure 14 and Figure 15):</p> <ul style="list-style-type: none"> ○ 7.6 m long vehicle holding area is provided on Darug Avenue allowing for 1 car to wait, and ○ 14.7m long vehicle holding area is provided on Forestwood Drive allowing for 2 cars or 1 truck to wait. ○ Additional 6m distance from the zebra crossing to the stop line is provided at both crossings, as per the guidelines for children's crossing. <p>Lengthening the distance of the Darug Avenue crossing to a distance of 13m from the intersections is not seen as required and is not recommended for the following reasons:</p> <ul style="list-style-type: none"> ○ The crossings would be moved away from the pedestrian desire lines, which would in turn likely result in more pedestrians crossing the roads unsafely closer to the intersections. ○ Existing bus stops on either side of Darug Avenue would need to either be removed or relocated further south, which is not feasible for the bus route going northbound. ○ It is expected that only the occasional truck, if any, would travel during the pick-up and drop-off times. ○ There is no guideline or standard that prescribes an offset of a zebra crossing from an intersection. The project proposes to locate the crossings at least 12m from the intersections to allow a 6m distance to a stop line plus a waiting space for 1 car, which is considered suitable. <p>This design was accepted by Council and TfNSW during the Transport Working Group meeting held on 3rd November 2021.</p>

Comment/Issue

Response

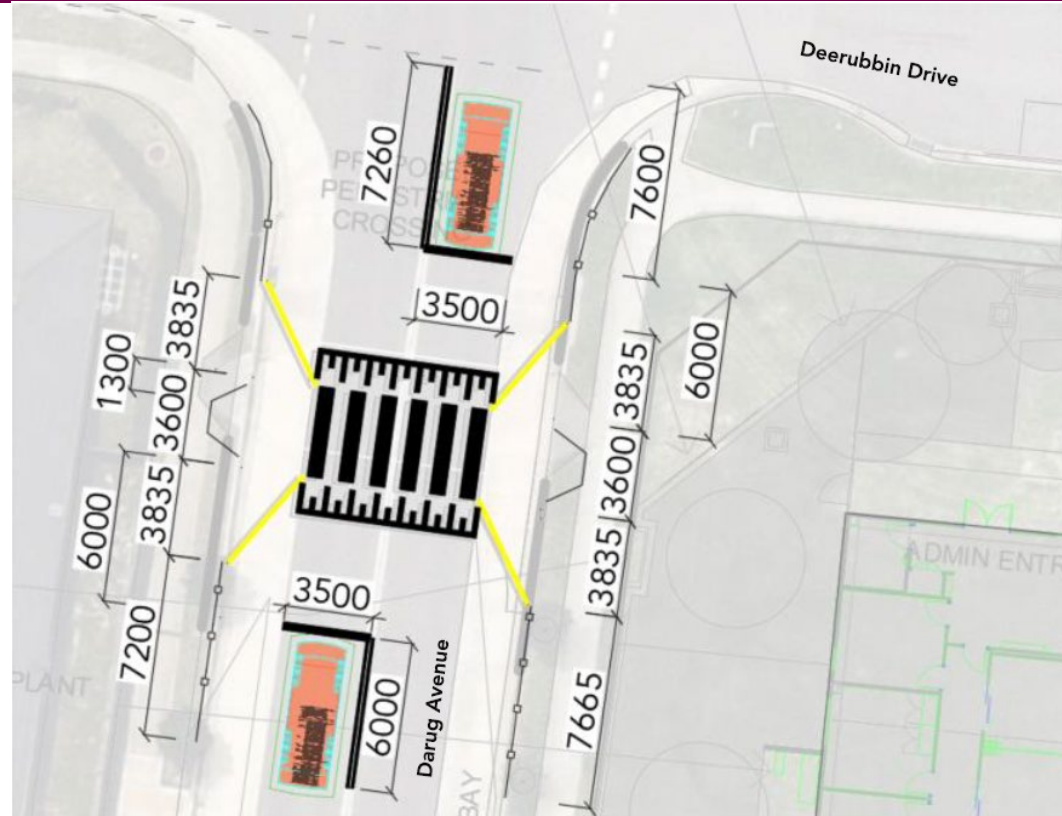


Figure 14 – Vehicle Holding Area at Darug Avenue

Comment/Issue

Response

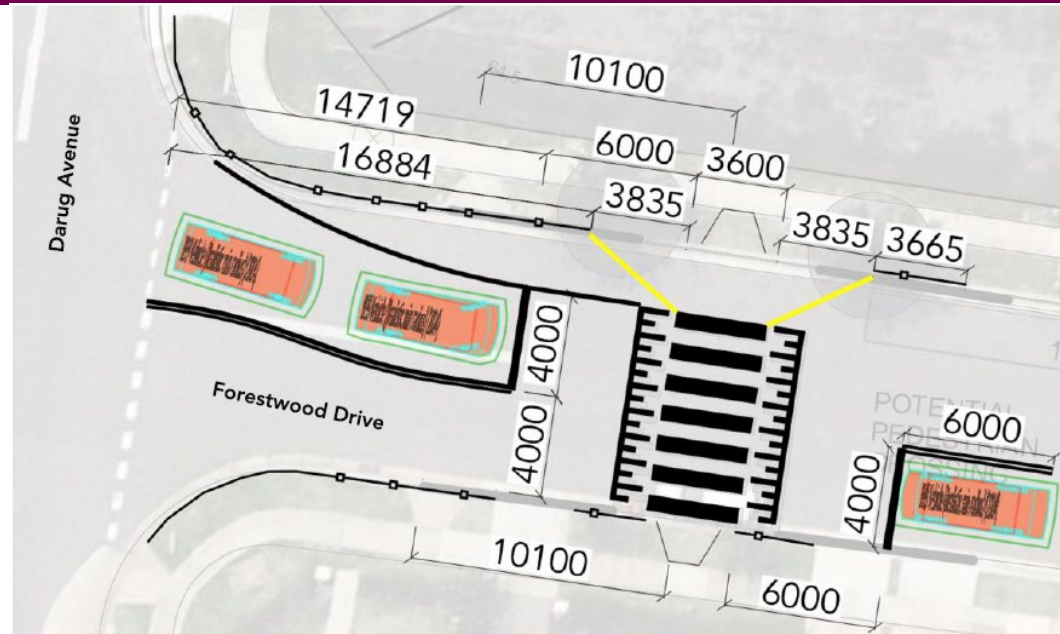


Figure 15 – Vehicle Holding Area at Forestwood Drive

Refer to the above sections for details regarding 'No Stopping' zones and **Attachment 1** of **Appendix E** for detailed drawings.

Comment/Issue

Response

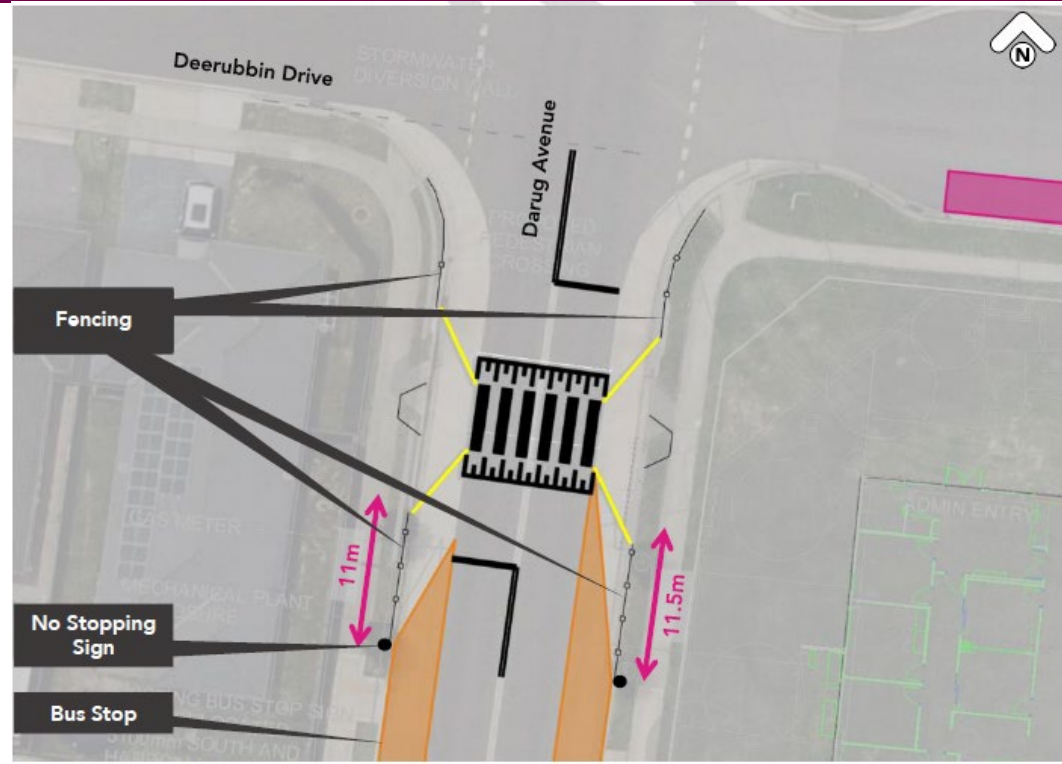


Figure 11 – Proposed Pedestrian Fencing at Darug Avenue

Comment/Issue

Response

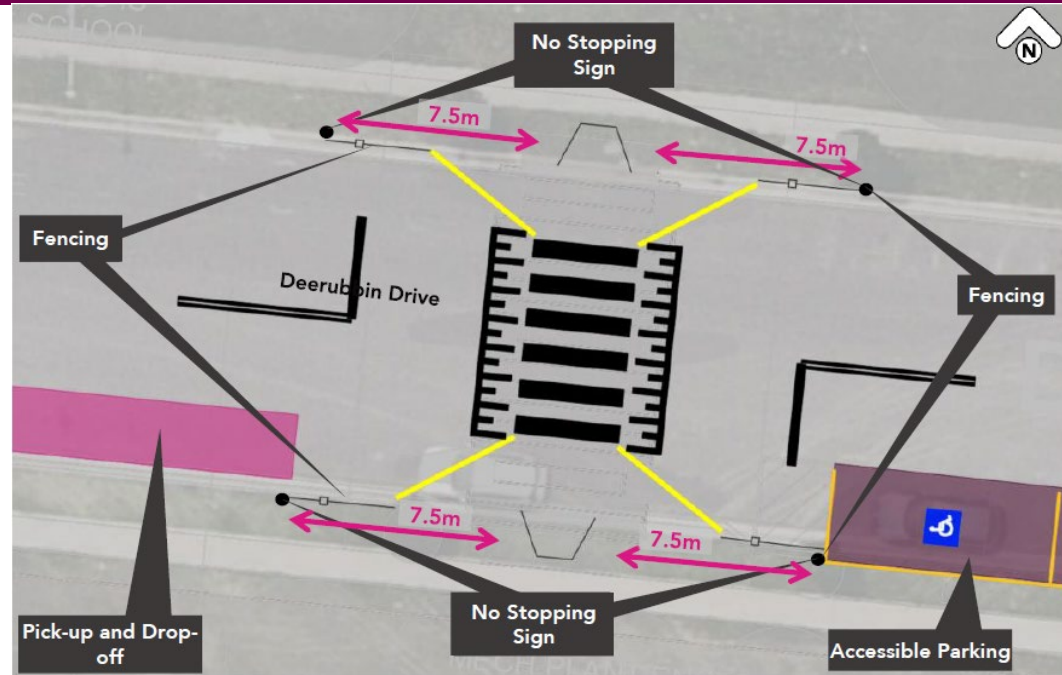


Figure 12 – Proposed Pedestrian Fencing at Deerubbin Drive

Comment/Issue Response

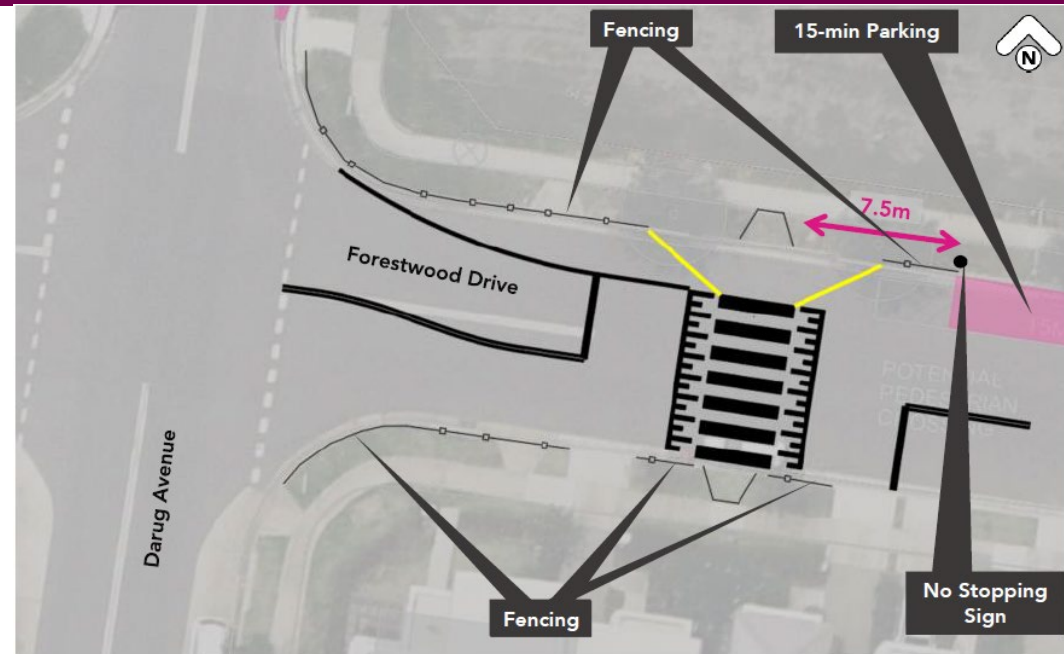


Figure 13 – Proposed Pedestrian Fencing at Forestwood Drive

- a. Refer to the above sections for details regarding 'No Stopping' zones and **Attachment 1 of Appendix E** for detailed drawings.
 - b. Street lighting will be required at pedestrian crossings and will comply with the relevant Australian Standards.
 - c. A continuous footpath treatment will be provided in accordance with TD2013/05; Refer to the civil detailed design.
 - d. A plan outlining all relevant on-street signs and line marking has been provided as part of the SSDA. The updated plans are provided in **Attachment 1 of Appendix E**.
 - e. A review of the location and number of school gates has occurred however the location and number of gates as exhibited in the SSDA is considered appropriate. The location and number of school gates has been discussed in ptc.'s Traffic and Transport Assessment report submitted as part of the SSDA. No concerns were raised during any previous Transport Working Group meetings.
- Large canopies provide all weather protection within the boundary and in proximity to main entry gates on Deerubbin Drive and Darug Avenue.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>In addition to the above design amendments, on- street accessible parking is not acceptable due to user conflict with through traffic, ramps and clearances required on-street. All accessible “Assisted Pick-Up and Drop-Off” spaces and all accessible parking must be provided on-site which has been outlined to the applicant throughout numerous pre-lodgement engagement sessions. Noting the location of the current proposed car park, consideration should be given to onsite accessible parking that is located within close proximity to the school entrance and facilities.</p>	<p>Discussions regarding providing on-street accessible parking spaces was undertaken during the meeting with Council in March 2021. The following is the excerpt from the meeting minutes dated 25th March 2021).</p> <p>“It is Council’s preference that any accessible parking drop off areas be provided on-site. If the accessible parking bays are to be provided on the street, then the bays shall comply with AS2890.6, requiring widening of the existing parking bay by approximately 0.7m resulting in the loss of street trees.”</p> <p>While Council’s preference is acknowledged, the on-street accessible parking has been designed in accordance with the Australian Standards and the spaces will be signposted as such. Therefore, conflicts with through traffic or pram ramps are not considered as an issue.</p>
<p>The applicant is requested to review Transport for NSW’s Policy on the provision of Subsidised School Transport Scheme and School Term Bus Pass as a way of encouraging increased bus uptake in the local school catchment. Parents may be more supportive to allow children to use a school bus service compared with walk or ride the whole way between home and school.</p>	<p>The Subsidised School Transport Scheme and School Term Bus Pass have already been analysed and discussed in ptc.’s Traffic and Transport Assessment report submitted as part of the SSDA.</p> <p>Any changes to the SSTS arrangements lie in the responsibility of TfNSW.</p>
<p>The applicant is requested to confirm the feasibility to fast track the assessment and approval of a School Crossing Supervisor (SCS) to ensure a SCS is appointed as soon as possible. It is recommended that this appointment should be a requirement prior to the issue of any Occupation Certificate.</p>	<p>According to TfNSW Centre for Road Safety¹, the following is required in order to apply for a School Crossing Supervisor:</p> <p>“The School Crossing Supervisor Program will assess the nominated site against set criteria. For a site to be eligible for a school crossing supervisor it must meet the following criteria:</p> <p>The site must have an existing children’s crossing, pedestrian crossing (zebra) or combined crossing (children’s and zebra)</p> <ul style="list-style-type: none">○ The crossing must be used by infant and/or primary school children○ The site must be located within a 40km/h school zone○ In the morning or afternoon, the crossing must register counts of either:<ul style="list-style-type: none">● 50 or more unaccompanied infant and/or primary school children, or● 300 or more passenger car units (heavy vehicles over three tonnes unladen are counted as two passenger car units)○ The site must be considered a safe working environment for a school crossing supervisor.”<p>Further reference has been made to TfNSW website, as it seems that there is a program to fast-track the application for the school crossing supervisor. The project would welcome if it could take part in this program.</p>
<p>The applicant is requested to consider the need or appropriateness of TfNSW crash rated pedestrian fencing along the back of kerb at the ‘No Stopping’ zones at all of the proposed raised combined pedestrian /children’s crossings including Deerubbin Drive. The review should include careful consideration to the location of the school gates and</p>	<p>Refer to the above sections for details on pedestrian fencing.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>requirement for pedestrian fencing (or possibly dense landscaping) to minimize the risk of children and other pedestrians running out of the school gate and out onto the roadway.</p>	
<p>The application and parking analysis should include a review of the usage of the Council sports ground adjoining car park for parking generated by the school. This car park is highly likely to be used for student drop off and pick up. This development should include improved parking and pedestrian safety and access including provision of a 'Shared Zone' or low speed environment with continuous footpath, school gate and connection path.</p>	<p>The TTA submitted as part of the SSDA outlines the expected demand for parking, and as part of this it has been determined that sufficient on-street parking for the purpose of pick-up and drop-off will be provided along the surrounding road network. Appropriate signage and line marking, as well as re-alignment of kerbs has been proposed to provide an appropriate and sufficient pick-up and drop-off facility.</p> <p>Furthermore, it is considered unlikely that the adjacent Council car park would be utilised for student pick up and drop off as the access points to/from the school are designed to correspond with the proposed pick up and drop off areas on the local streets and there is no direct or convenient access between the school and the adjacent council car park.</p>
<p>Evidence of a commitment of funding to ensure the part time Travel Coordinator is able to commence in the first year of the schools operation should be sought.</p>	<p>A business case has been approved by NSW treasury with funding available for a part-time travel coordinator to commence in the school's first year of operations.</p>
<p>An Operational Traffic, Parking and Pedestrian Management Plan is recommended, that includes arrangements for School Principal to nominate staff (or adult volunteers) to provide supervision at the designated on-street 'No Parking' student pick up zones. Having staff supervision may support increased staggering of student pick up during the busy afternoon peak time by providing parents/carers a short period (e.g. 15 minutes) of student supervision within school grounds or at the pick-up zone.</p>	<p>The School Transport Plan will be updated to address the above once a principal has been appointed.</p>
<p>The Traffic Report - Traffic Plan / School Transport Plan indicates 414 students (mainstream and supported) and 27 staff. Confirmation is requested that these predicted student numbers are realistic for the current and future growth of the school catchment. The recent opening at Jordan Springs Public School reportedly had a doubling of growth within 12 months that resulted with significant burden on the surrounding road network and a high number of complaints including illegal parking and unsafe driving.</p>	<p>The Business Case for 414 student was based on the population projections only requiring 414 enrolment placements. Subsequent stages (that will be the subject of future planning approvals) are to be confirmed as demand materialises.</p> <p>The analysis for projecting population growth is generated by SINSW's planning tool Eagle Eye and is considered adequate.</p>
<p>The Traffic Report - School Transport Plan indicates mode of travel will be:</p> <ul style="list-style-type: none"> - 15% - walk - 35% - cycle/scoot - 10% - public transport 	<p>SINSW has recently put processes in place to ensure that all school developments investigate measures that can be implemented to increase active and public transport and decrease car usage for both staff and students.</p> <p>A School Transport Plan has been prepared outlining measures to promote active and public transport and carpooling. SINSW is committed to implementing these plans across all new developments; A travel plan coordinator will be employed to coordinate the implementation of these measures and monitor the mode shift.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>– 40% - car</p> <p>Confirmation is required that this is a realistic representation of mode of travel compared to local schools such as Glenmore Park Public School and Surveyors Creek Public School. Both these schools have very high car dependency with ‘park and walk’ and use of the ‘No Parking’ student drop off and pick up zones. Council would estimate about 70% drive would be more realistic.</p>	<p>In any case, the “as crow flies” and actual 400 / 800 / 1200m walking catchments are presented in Figure 16 of Appendix E, which also outlines the small enrolment catchment. Within the enrolment catchment, 14% of students reside within the 400m walking catchment, 21% within the 401m - 800m catchment and 40% within the 801m - 1200m catchment. Additionally, the surrounding area has been well developed with reasonable pedestrian infrastructures including footpaths, shared paths and pram ramps.</p> <p>Furthermore, this project is a green field site where the principal will have a chance to develop an active and public transport culture amongst the school community from the commencement of the school.</p> <p>The project has been designed to promote active transport, with bike and scooter spaces provided close to the school entries and pedestrian crossings planned to surround the school.</p>
<p>The Traffic Report - Chapter 5 – on street car parking estimation does not appear to have included the ‘No Stopping’ distances at the pedestrian crossings. This should be addressed and may require adjustments to crossing and zone locations, and will reduce the number of on-street car parking spaces that are available (20m + 10m; also 10m at intersections; bus zones; driveways). The installation of the pedestrian crossings will also remove current on-street parking on the other side of the streets.</p>	<p>Refer to the above sections for details regarding ‘No Stopping’ distances.</p>
<p>The Traffic Report - 5.2.8 - Pick-up and Drop-off Quantity of 40% of students being driven is not considered appropriate. While not all families will use the designed student drop off and pick up zone, there will be families that park and walk. Council consider that 70% of students being driven is more realistic. This would equate to in the order of $289 / 1.2 = 241$ cars. The peak pick up time should be based on this higher number.</p>	<p>As per discussions with Council, 15minP parking spaces have been incorporated in the design to accommodate “Park & Walk” behaviour.</p> <p>Refer to the above sections for a response regarding the travel mode.</p>
<p>The Traffic Report - 6.7.1 Demand Assessment requires further clarification / review with zone length dimensions and detailed not stopping requirements for the following:</p> <ol style="list-style-type: none"> 12 “Pick-up and Drop-off” spaces along Deerubbin Drive 12 “Pick-up and Drop-off” spaces along Forrestwood Drive 14 “15min Parking” spaces along Darug Avenue 16 “15min Parking” spaces along Deerubbin Drive 8 “Assisted Pick-up and Drop-off” spaces for accessible student along Deerubbin Drive – noting that this is not supported by Council with all accessible parking provided on-site. 	<p>For demand assessment refer to the above sections and the TTA submitted as part of the SSDA.</p> <p>Refer to the above sections for ‘No Stopping’ requirements and Attachment 1 of Appendix E for an updated signage plan.</p> <p>A discussion regarding the on-street provision of accessible parking is provided in the above sections.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>The Traffic and Transport Assessment – Signage and Line Marking Plans and the Civil Plans should be amended to include the required adjusted arrangements and include details of all signage and line marking, dimensions and lengths suitable for referral to Council’s Local Traffic Committee for approval and conditions by Council.</p>	<p>The signage and line marking plans have been amended and are presented in Attachment 1 of Appendix E.</p>
<p>Details of the proposed 40 km/hour School Zone signage, line marking and flashing lighting should be submitted to TfNSW for approval and conditions.</p>	<p>A ‘School Zone’ signage plan was submitted as part of the SSDA TTA. An amended indicative plan has been prepared and is presented in Attachment 1 of Appendix E.</p>
<p>Environmental Management Considerations</p>	
<p>There is an existing substation on the western side of the site on Darug Avenue. There does not appear to be an Electromagnetic Energy (EME) report in support of the application which is recommended given the nature of the proposal. It is recommended that an EME report be submitted detailing the electromagnetic energy likely to be produced by the proposed substation at the development. The EME report would need to be prepared by a suitably qualified and practicing person in accordance with the methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), Energy Australia and any other relevant standards or policies. The report is to consider the location of the proposed substation and whether it is appropriate or what mitigation measure are required to protect the health of the school students, staff, and visitors.</p>	<p>Traca Group Pty Ltd was commissioned by Richard Crookes Constructions to prepare a report for the assessment of the impact of Extremely Low Frequency (ELF) Electromagnetic Fields/Energy (EME) associated with the existing Endeavour Energy 315kVA Padmount Substation (No. 29097) that is planned to be upgraded to 1000kVA substation. A summary of the findings and recommendations from the report are below:</p> <ul style="list-style-type: none"> • There will be no issues with magnetic field mitigation with regard to the Endeavour Energy Padmount substation, as it is at least 7m away from the building and the field strength is less than 4mG at a distance of 5m from the Padmount location. • This report confirms that EME generating equipment within the proposed design complies with all applicable standards, regulations and guidelines, including the National Health & Medical Research Council’s Interim Guidelines on the limits of exposure to 50/60Hz electric and magnetic fields (1989). <p>The Electromagnetic Energy (EME) report is located in Appendix K.</p>
<p>The Environmental Impact Statement indicates that the construction hours will be 9am to 5pm on a Saturday, whereas the acoustic report indicates that the construction hours on a Saturday will be 8am to 1pm. The discrepancy needs to be addressed by the applicant. If the construction hours are sought to be 9am to 5pm on a Saturday, the Acoustic Report will need to be amended and an assessment undertaken to reflect these hours. It is however Council’s view that the construction hours on a Saturday are limited to between 8am to 1pm with no work on Sundays or Public Holidays. This is consistent with standard limitations on construction activities in residential areas.</p>	<p>In relation to the construction hours extending outside standard construction hours (i.e. Saturdays, from 8:00 am to 5:00 pm), the Noise and Vibration Report has been updated to address these additional hours (refer to Sections 4 and 6 of this report) located in Appendix J.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>There are no substantive recommendations to prevent or mitigate potential noise issues. This should be further considered in the assessment of the application with an operational Plan of Management submitted in relation to addressing potential acoustic impacts on the surrounding residences.</p>	<p>Regarding substantive recommendations to mitigate potential noise issues, please note that the aim of the report is to address mitigation measures for these potential issues, and these are discussed in detail in Sections 5, 6 and 7 of the updated Noise and Vibration Report located in Appendix J.</p>
<p>The Detailed Site Investigation (DSI) recommends that a Fill Import Protocol be prepared as part of the Construction Environmental Management Plan. Council recommends that this occurs prior to any works commencing on the site. The FIP should include appropriate measures (including visual inspections and/or validation sampling) to ensure that all materials imported to the site (i.e. road-base and gravel, sandstone, general fill, topsoil, mulch etc) are free of contamination and are aesthetically suitable. The DSI also recommends that an Unexpected Finds Protocol (UFP) is also to be developed and integrated into the CEMP as a conservative measure.</p>	<p>Noted. The CEMP will be prepared prior to any works occurring on site and will include a fill import protocol and a UFP.</p>
Landscape Design Considerations	
<p>With respect to canopy coverage, it is requested that the proposal include a tree planting plan to understand siting of large canopy trees. This could be address via conditions of consent. It will be essential that all of the trees are provided sufficient root soil volume to ensure future health of the trees, capacity to reach maximise size and most importantly the stability & safety of the trees in school grounds, particularly in regard to the large canopy trees.</p>	<p>Tree Planting plan has been included in the application, please refer Drawing L-SSDA-0010 for information. Standard soil depth will apply to new trees to ensure sufficient soil volume for establishment and growth of trees.</p>
<p>With respect to tree Species selection, it is recommended that alternative tree species be identified to replace Angophora costata. An alternate species is requested that is more consistent with Shale Plains woodland as Angophora costata will not thrive in this location. More broadly, it should be demonstrated that the selected species are compatible to local site conditions, specifically selecting species that are tolerant to Cumberland plain soils and Western Sydney heat.</p>	<p>Noted. Eucalyptus crebra will be used. Majority of the planting species selected are compatible to the site conditions of the Cumberland region, trees and planting species are based on Native Plant Species in Street and Park Tree Management Plan by Penrith City Council, for more information please refer to planting schedule on Drawing L-SSDA-0011.</p>
<p>Synthetic turf and rubber soft fall are proposed and located such that they are very exposed, particularly to hot summer afternoon sun. Additional canopy should be provided for these areas, particularly along western edges. Alternatively,</p>	<p>Shade structures have been indicatively shown on the updated Landscape Design Plans in Appendix C and the school is to install these at a later date. Synthetic turf and rubber Sofffall play areas are proposed to allow for shade structures to be installed by school in the future.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
shade canopy/ structures should be provided over these surfaces to protect students from the extreme heat these materials can emit. Ideally the playground with playground mulch should also be provided with additional canopy.	Two shade structures have been proposed to the Mulched playground, please refer to Drawing L-SSDA-007; One shade structure proposed to the outdoor learning area to the Block 3.S Support Unit, please refer to Drawing L-SSDA-006.
Public Health Considerations	
A school canteen and additional kitchen for Out of School Hours Care is proposed in Block C. The construction, fit out and finishes of the kitchen, canteen, and food storage areas must ensure compliance with Standard 3.2.3 of the Australian and New Zealand Food Standards Code, and AS46742004: Design, Construction and Fitout of Food Premises. The mechanical ventilation for the kitchen and canteen will also need to be compliant with the Building Code of Australia and Australian Standard Parts 1 & 2.	Noted. The canteen is naturally ventilated via openings directly to outside in compliance with BCA and AS1668.4. There is no equipment installed in the canteen that requires kitchen exhaust, therefore AS1668.1 and 2 are not applicable. The canteen is designed in consultation with a kitchen consultant and will comply with all relevant standards.
Toilets used by food handlers should have free standing hand basins, serviced with hot and cold water through a single outlet, able to be mixed at a temperature of at least 40°C and fitted with a hands-free operation. Disposable paper hand towels and soap must be provided and serviced from dispensers adjacent to each hand basin.	Noted. All staff toilets (including those used by food handlers) and sick bay fixtures are provided with tempered water as per EFSG. Disposable paper hand towels have been specified for these rooms.
Block A (Admin and Library) includes a single Sick Bay. Consideration could be given to the adequacy of only one Sick Bay in these times and the need to potentially isolate and separate multiple students in the current climate.	Noted. The provision of one sick bay is in line with the business case for the school, EFSG & funding available.
Sick bays should be fitted out so that they have smooth and impervious walls and floors to enable adequate cleaning and disinfection. A sick bay must have a free-standing hand basin, serviced with hot and cold water through a single outlet, able to be mixed at a temperature of at least 40°C and fitted with a hands-free operation. Disposable paper hand towels, soap, and sanitiser must be provided and serviced from dispensers adjacent to the hand basin.	Noted. All staff toilets (including those used by food handlers) and sick bay fixtures are provided with tempered water as per EFSG. Disposable paper hand towels have been specified for these rooms. Fit out and finishes of the sick bay take into account easy maintenance and follow EFSG requirements.
Water Quality Management Considerations	
Water conservation measures and rainwater tanks are proposed however the proposal should demonstrate provision of a minimum of 80% non-potable water use with harvested rainwater, in line with Council's WSUD Policy.	NDY has carried out a review of the site demand and historical rainfall data for the closest weather station (Orchard Hills Treatment Works) contained in Appendix G – Engineering Advice – Rainwater tank sizing. The review indicated that based on the capacity analysis showing the benefit of rainwater reuse plateauing past 100kL and the 30 year simple payback calculation equating to a tank size of 120kL, NDY recommend the installation of a 120kL tank for the Mulgoa school.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
	<p>This tank size would satisfy, on average, 60.7% of the potable water demand. Indicative location, size, and calculation justification is provided in Appendix G.</p>
<p>During construction, erosion and sediment control measures are to be provided in accordance with the requirements of "Managing Urban Stormwater Soils and Construction, 4th Edition (Blue Book)". It is recommended that adequate conditions be imposed to ensure the sediment and erosion measures are implemented and maintained during the development of the site and that they are sufficient to manage and control sediment discharge from the site. This will be of particular importance due to the downstream bioretention systems are already in place.</p>	<p>Noted. Adequate conditions to be imposed to ensure the sediment and erosion measures are implemented and maintained during the development of the site.</p>
BCA and Accessibility Considerations	
<p>An access report by BCA Access has been provided indicating that there will be a "Performance Solution" for the provision of facilities for persons with disabilities. The report also mentioned the provision of lifts, but the plans do not indicate any lift locations. These details should be clarified /confirmed ensure compliance with the BCA. In addition, access and facilities for persons with disabilities are to be provided in accordance with AS1428.1.</p>	<p>The school is a two-storey building and requires a lift located at Block A, as shown on the design plans. In relation to the Performance Solutions, the Report identifies the items being addressed with a Performance Solution. The sanitary facilities for persons with a disability will comply fully with AS 1428.1. The Performance Solutions are solely to address the use of the ambulant sanitary facilities for unisex use in lieu of separate Male & Female facilities in specific circumstances.</p>
Tree Management Considerations	
<p>In the event that the application is favourably determined, the following conditions of consent are requested to be imposed regarding tree management and protection requirements:-</p> <p>a. "Prior to the commencement of works on the site, a site-specific Tree Protection Plan (Drawing and Specification) (TPP) is to be provided for the retention and protection of street trees. The TPP is to be written by an Arborist with a minimum AQF (Australian Qualification Framework) Level 5 qualification. At a minimum the TPP is to:</p> <p>a. Clearly identify those trees that will be directly impacted by the proposed works (e.g those adjacent to driveway entries, those where goods might be stored, where services are to be laid, where heavy foot traffic may occur etc).</p> <p>b. Provide a fenced protection zone for a minimum distance of 2.0 metres from the trunk of a tree as bounded by the footpath and the curb. If this distance</p>	<p>Noted and application of this condition is considered acceptable.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>cannot be achieved (e.g. access is required adjacent to the tree) then the protection fence can be reduced in size and ground protection provided but this needs to be clearly indicated in the plan.</p> <p>c. A requirement that the Tree protection fencing is not to be moved or altered without the permission of the Project Arborist.</p> <p>d. Reflect the tree protection measures provided in Section 5.0 of the Arboricultural Impact Assessment Report, prepared by Sturt Noble Arboriculture, Author Guy Sturt, Doc No ARB-2108-001, Job No 2108, Revision E, dated 18.08.2021.</p> <p>e. Require assessment of roots with a diameter of 20mm in diameter or greater equal to be retained in an undamaged condition for assessment by the Project Arborist before any root pruning is undertaken.</p> <p>f. Identify that no pruning of street trees is to be undertaken unless approved by the Penrith Councils Tree Management Assets Team.”</p>	
<p>b. A site audit of the street trees to be retained and protected shall be undertaken no less than one week before works are proposed to commence. The audit shall contain (but not be limited to):</p> <p>a. A GPS location/identification of each tree to be retained;</p> <p>b. A tree inventory recording size (e.g. dimensions, diameter at breast height (DBH), health and structure of the tree</p> <p>c. (including photos);</p> <p>d. Photos to show that tree protection measures have been appropriately installed for each tree.</p>	Noted and application of this condition is considered acceptable.
<p>c. At the conclusion of the development and before the issue of the Occupation Certificate, a final site audit to record the condition of the trees is to be undertaken. Any trees found to be dead or in worse condition than previously recorded shall be replaced. For details regarding replacement species, pot sizes and replanting conditions Penrith Councils Tree Management Assets Team are to be engaged for replacement requirements.</p>	Noted and application of this condition is considered acceptable.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
d. Each completed Street Tree Audit shall be forwarded to the Penrith Councils Tree Management Assets Team for their records.	Noted and application of this condition is considered acceptable.
e. A Project Arborist with a minimum AQF (Australian Qualification Framework) Level 5 qualification in Arboriculture shall be engaged for the duration of the proposed works to ensure the correct implementation and compliance with the TPP.	Noted and application of this condition is considered acceptable.
Community Facilities Considerations	
The basketball court/multi-court will provide a positive benefit to the local community if there is possibility for the facilities to be accessible both during the week/weeknights and at weekends. Clarification is requested as to whether there is an intention for broader community access /utilisation and does the design allow for this facility to be unlocked and useable by the broader community when the school is locked.	The basketball court/multi-court will be for school use only. Opportunities for broader community access and use will be explored once the school is operational.
Any suggestion of shared facility use of either the adjacent sports facilities or car parking on Council land would require engagement and agreement with Council's Facilities and Property Management Teams and should not form part of this application.	Noted. There are no plans for the shared facility use of either the adjacent sports facilities or car parking on Council land.
Geotechnical Considerations	
As there is a significant amount of fill underpinning the proposed school site, it is critical that a thorough geotechnical investigation of the site is undertaken and submitted as part of the subject development application. It must be demonstrated that the site is suitable for the nature of the proposed development and where stabilisation works are required, these must form part of the development application. The Department of Education has been made aware of this key consideration and has previously been requested to ensure that this critical issue is suitably addressed.	<p>JK Geotechnics previous investigation (dated 29 July 2021) disclosed the presence of deep fill on this site, associated with the backfilling of a previous quarry.</p> <p>Due to the possibility of settlement of the fill, JK Geotechnics recommend the following with regards to the general design approaches detailed below are to be adopted for the proposed school:</p> <ul style="list-style-type: none"> • All buildings <ul style="list-style-type: none"> ○ Piled - socketed into rock (to specified depth) ○ Flexible joint at door thresholds for GF (ie dowelled joint or corbel) • Pavement slabs <ul style="list-style-type: none"> ○ Dowelled / articulated expansion joint detail between panels, or similar ○ Isolated larger pavements (sports court and carpark) to be designed as an independent 'floating' pavement. • Services <ul style="list-style-type: none"> ○ Flexible joints at building connections ○ Exaggerated falls for gravity fed services

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
	<p>It is noted that the design of the piles and/controlled modulus columns will need to allow for negative skin friction loads arising from settlement of the fill.</p> <p>Provided the design recommendations with regards to the structures and services discussed in Appendix H – (Geotechnical Opinion – Letter 1) and Appendix I (Geotechnical Opinion – Letter 2) are adopted, it is considered the residual risks of the project will be relatively low, and predominantly related to possible movement of pavements, as also discussed above.</p> <p>It's noted that the design of controlled modulus columns is a specialised activity, and so the design and construction will be completed by experts in that field, and they must be required to provide certification on the performance following the construction of the columns.</p>
<p>In the event that the development is approved, the following condition is also considered necessary:</p> <p><u>Prior to the issue of a Construction Certificate / Commencement of Any Works</u> a site classification report prepared by a qualified geotechnical engineer in accordance with the requirements of AS2870 is to be provided to the Principal Certifier demonstrating that the proposed slab and foundations of the proposed development have been designed to address the existing ground conditions of the subject site and that the subject site is suitable for the proposed development.</p>	<p>This condition is accepted.</p>
<p>Stormwater Management Considerations</p>	
<p><u>Construction Traffic Management Plan (CTMP)</u>: The CTMP proposes temporary 'No Stopping' and 'No Parking' zones to facilitate construction access to the site. The installation of any regulatory traffic signs including 'No Stopping' signs and restricted parking signs will require approval through Council's Local Traffic Committee (LTC). An application is to be made to Council's Local Traffic Committee through Council's Traffic Section for the approval of any regulatory signage prior to the installation. The following condition would be required:-</p> <p>"Prior to the commencement of construction, a dilapidation report shall be undertaken of Council's road network along the route of the proposed construction traffic access comprising of Bradley Street, Forestwood Drive and Darug Avenue. The Dilapidation Report shall be submitted to Council's City Assets Department."</p>	<p>Noted.</p>
<p><u>External Works</u>: Any works within the road reserve will require a separate Section 138 Roads Act approval from Penrith City Council as the Roads Authority under the Roads Act. A</p>	<p>Noted. Attachment 1 to Appendix E outlines the extent of the works proposed within the road reserve as part of the development. Detailed plans of public domain works will be provided and required approval will be attained prior to works occurring, as required.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>Section 138 Roads Act application shall be made to Penrith City Council for the raised pedestrian thresholds, modifications to any kerb & gutter or stormwater pits, vehicular crossings, and lead in public utility services. Any application for a Roads Act approval shall include detailed engineering plans. Conditions relating top Roads Act Application processes can be provided to the consent authority if the application is to be favourably determined.</p>	
<p><u>Flooding:</u> The Flood Impact Assessment Report relies upon an Overland Flow Flood Study undertaken by GRC (reference 210009, version 2 Final, dated 29.04.2021). The Flood Impact Assessment Report states detailed flood modelling is currently being undertaken with the Overland Flow Flood Study Report to be updated. Any update of the Overland Flow Flood Study shall include current ground survey data as the study has utilised LiDAR data and estimated gutter depths. The building footprints within the flood study are to align with the current architectural plans. The updated Overland Flow Flood Study and Flood Impact Assessment shall be submitted to Penrith City Council for review.</p> <p>The finished floor levels for the buildings have been determined from the Overland Flow Flood Study by providing 0.5m freeboard from the top water level of the local 1% AEP flood event which is suitable and supported, however pending updated detailed flood modelling, the floor levels may alter slightly.</p>	<p>Ground survey data of the surrounding streets road profile, including kerbs and gutters was incorporated into the flood modelling. An Overland Flow Flooding Summary is contained in Appendix L and an updated Flood Impact Assessment is contained in Appendix M and confirms the proposed development will have no significant adverse impacts on the existing 1% AEP flood behaviour, which consists of shallow overland flow paths of H1 hazard.</p>
<p><u>Stormwater Management:</u> The development will discharge the site into a series of existing stub pipes along the northern boundary that were provided during the original subdivision works. No concerns are raised to proposed method of stormwater drainage.</p>	<p>Noted.</p>

4.2.2 Transport for NSW

Table 5 outlines the comments and issues raised by Transport for NSW (TfNSW) and the associated responses by the Department of Education.

Table 5 Response to Transport for NSW key issues

Comment/Issue	Response																									
Transport and Traffic Assessment																										
<p>a. 5.2.4.1 & Attachment 2 (Pedestrian Crossings) – Bus Bays need to be located sufficiently away from the crossing to ensure sight lines are not obstructed in line with Australian Standards (this also needs to consider how many buses may simultaneously be present, especially at bus stop B); In addition the bus bay is to have sufficient length (consider draw-in length, draw-out length, and maximum number of services expected at any one time) to ensure that buses can be fully contained within bus bay;</p>	<p>Refer to Table 4 on the preceding pages for pedestrian crossing sight lines and location of bus bays.</p> <p>The existing bus stops on Darug Avenue is currently being serviced by only one bus (794 bus service). The frequency of the bus service in both bus stops is 27-73 minutes during the school peak hours. As the existing bus frequency is very low, the existing bus stops are likely to accommodate additional bus services if the timetables are managed by departure / arrival times. According to TfNSW Guidelines for the Planning of Bus Layover Parking, a standard bus requires a minimum of 12.5m long parking length and additional 11.5m draw-in and 6.0m draw-out length, refer to the table below.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #00a0e3; color: white;"> <th colspan="5">Minimum Bus Draw In and Draw Out Lengths</th> </tr> <tr style="background-color: #d9e1f2;"> <th>Type of bus</th> <th>Length (metres)</th> <th>Min. draw-in length (metres)</th> <th>Min. draw-out length (metres)</th> <th>Length for one bus (metres)</th> </tr> </thead> <tbody> <tr style="border: 2px solid #e91e63;"> <td>Standard (inc double decker)</td> <td>12.5</td> <td>11.5</td> <td>6.0</td> <td>30.0</td> </tr> <tr> <td>Long Rigid</td> <td>14.5</td> <td>14.0</td> <td>6.5</td> <td>35.0</td> </tr> <tr> <td>Articulated</td> <td>18.0</td> <td>14.0</td> <td>8.0</td> <td>40.0</td> </tr> </tbody> </table> <p>The proposed zebra crossing and the proposed relocated eastern bus bay have been located such that both bus bays at Darug Avenue will be compliant with the TfNSW requirement, thus will meet the minimum requirement for parking, draw-in and draw-out lengths, as shown in the figure below.</p>	Minimum Bus Draw In and Draw Out Lengths					Type of bus	Length (metres)	Min. draw-in length (metres)	Min. draw-out length (metres)	Length for one bus (metres)	Standard (inc double decker)	12.5	11.5	6.0	30.0	Long Rigid	14.5	14.0	6.5	35.0	Articulated	18.0	14.0	8.0	40.0
Minimum Bus Draw In and Draw Out Lengths																										
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Comment/Issue

Response

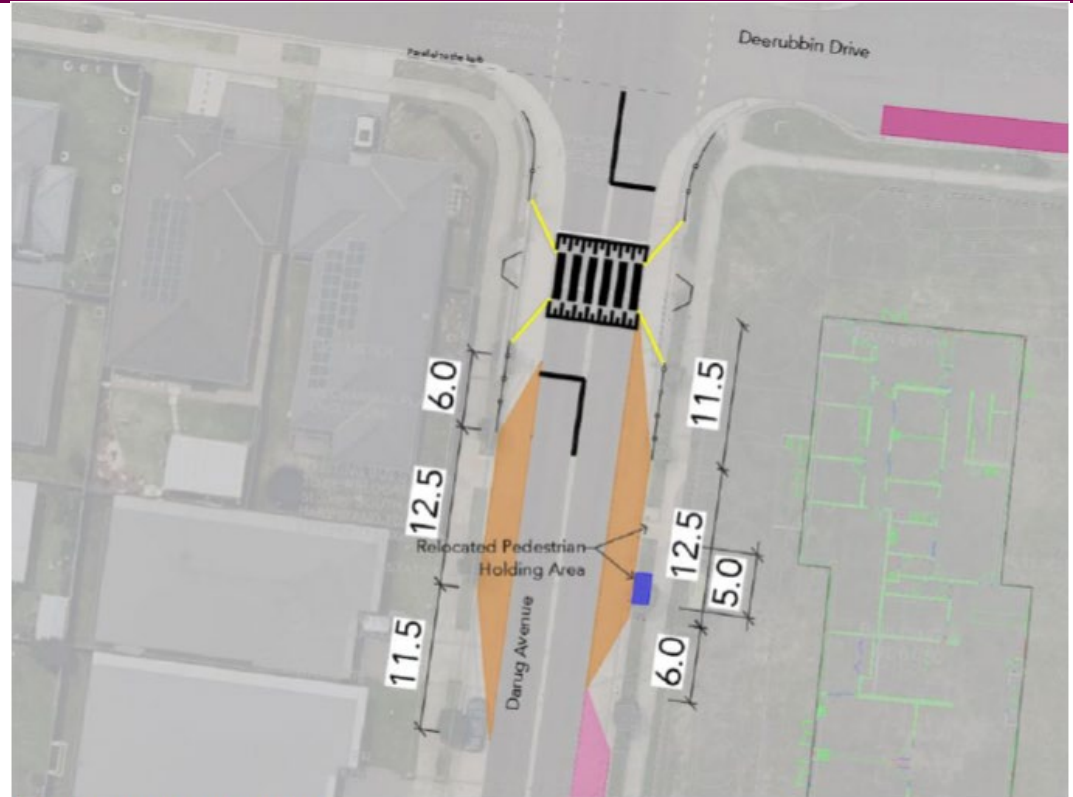


Figure 18 – Bus Bays at Darug Avenue

b. 5.1 - The amount of parking spaces shown in Figure 41 will need to be revised as the below minimum buffer is required at zebra crossings;



Refer to **Table 4** on the preceding pages regarding “No Stopping” distances.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>c. 5.2.5 – TfNSW questions whether the school drop off/pick up on Deerubbin Drive is going to attract more parents given the proximity to the school buildings, Especially during wet weather days.</p> <p>TfNSW would not encourage school drop off/pick up or 15min parking for school days along Deerubbin Drive especially due to the proximity to the basement access of the mixed used development opposite the school. Given the narrow road at Deerubbin Drive, kerbside parking for school drop off and right turning vehicles into the mix used development would likely cause queuing and put pedestrian at risk when crossing Deerubbin Drive especially for vulnerable children crossing the road;</p>	<p>The proposed design has been set out for the majority of days based on averages, which is a standard approach. Designing for rainy days would result in over-engineered designs.</p> <p>The concerns about pick-up / drop-off along Deerubbin Drive were not raised during any of the previously held Transport Working Group meetings.</p> <p>In regard to the conflicts on Deerubbin Drive, the following considerations are made:</p> <ul style="list-style-type: none">○ It is noted that the vehicular access off Deerubbin Drive to the mixed-use development is only for the car access to the residential development, which is not expected to generate many vehicular trips. The travel movements to / from the residential basement are expected to be tidal – exit movements during the morning peak and entry movements in the afternoon peak, which does not coincide with the school pick-up.○ The heavy vehicle access to the mixed-use development is provided via the loading dock off Darug Avenue. The commercial accesses are provided via Glenmore Ridge Drive and Glenholme Drive.○ Deerubbin Drive is 12m wide. The road accommodates 2 traffic lanes and 2 kerbside parking lanes, thus is not considered narrow. As a comparison, Darug Avenue, which accommodates a bus route is also 12m wide.○ The zebra crossing will be supervised during the school peak hours and fencing will be provided adjacent to the crossings along the kerbs up to a distance of 7.5m from the crossings for improved pedestrian safety. <p>Therefore, the possibility of conflicts between children crossing Deerubbin Drive and vehicles accessing the mixed-use development is considered low.</p>
<p>d. 5.2.5 – What measures are proposed to prevent parents from undertaking u-turn manoeuvres? It is noted that the SUH pick-up/drop-off is located on the westbound side of Deerubin Drive and that any parents requiring access to the SUH unit coming from the south would generally just turn right at Deerubin Drive as opposed to driving around the block. This movement may also be more prevalent during wet weather if parents wish to drop their children off closest to a building facility;</p>	<p>If issues with parents undertaking U-turns are observed in the future, lane divider pavement flaps could be implemented along the centre line of Deerubbin Drive. The requirement for these measures could be reviewed as part of the STP updates.</p> <p>As the SUH parking requires larger parking bays and pram ramps, it is more likely that the pick-up and drop-off will be undertaken on the correct side of the road. Vehicles requiring to park at the SUH unit and approaching from the south will be advised to turn right at Glenmore Ridge Drive, then turn right into Glenholme Drive and park on the SUH pick-up/drop-off.</p> <p>The proposed design has been set out for the majority of days based on averages, which is a standard approach. Designing for rainy days would result in over-engineered designs.</p>
<p>e. 6.4.1 & Attachment 2 (Pedestrian Crossings) – The Crossings need to be designed in accordance with relevant standards, guidelines and supplements. Fencing is not an approved device as part of a zebra crossing. It should be noted that fencing at crossings can obscure visibility of pedestrians (in particular children shorter in height than the fencing). Therefore this design will not be supported by TfNSW;</p>	<p>Refer to Table 4 on the proceeding pages regarding the pedestrian crossing design.</p>
<p>f. 6.4.1 – How was location of crossings determined? Sufficient sight distance needs to be achieved for each crossing;</p>	<p>Refer to Table 4 on the proceeding pages in regard to sight lines.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>The kerb would need to expand out ~3m up to the edge of the through lane, where the cars are for sight distance compliance;</p>	
<p>g. 6.4.2.2 – It is expected that speed counts are undertaken to indicate that the 85th percentile speed does not exceed 60km/h;</p>	<p>Speed surveys undertaken today would not represent the future travel behaviour, thus an assessment of the 85th percentile speed would not provide an accurate representation of the road character for when the school is operational. Further, it is noted that the mixed-use development is yet to be constructed and the amount of traffic is likely to increase in the near future. This will result in a reduction in travel speeds.</p> <p>It has been agreed during the TWG meeting held on the 3rd November 2021 that no speed count surveys need to be undertaken at this point.</p>
<p>h. 6.4.2.3 – All proposed crossings will need to be submitted to Local Traffic Committee for recommendation to Council for approval. TfNSW requests clarification as to whether children’s crossings are being considered;</p>	<p>All three crossings are proposed to be designed as children’s crossings. The plans will be submitted in due course to the Local Traffic Committee for approval.</p>
<p>i. Figure 56 & Attachment 2 (Pedestrian Crossings) – The swept path is considered unacceptable (particularly due to the proximity to the pedestrian crossing), the plans indicate that a HRV encroaches over the centreline into the opposing traffic lane on both Darug Avenue and Forestwood Drive. This would result in a B99 vehicle travelling along Forestwood Drive to be forced to occupy the very left of the carriageway which is unrealistic if the vehicle is wishing to travel straight or turn right (and arrives before the HRV);</p>	<p>The proposed zebra crossing at Darug Avenue has been relocated further south and is located at 13.3m south of Darug Avenue / Deerubbin Drive intersection. The HRV turn movement swept path has been re-run and it can be accommodated without crossing the opposite lane, as shown in Figure 19.</p> <p>The proposed zebra crossing location at Forestwood Drive has been relocated further east at 20.7m from the Darug Avenue / Forestwood Drive intersection. The proposed new location allows for adequate turn movement as shown in Figure 20.</p> <p>In any case, it is noted that local roads seldomly allow for an HRV movement without crossing into the opposite lane. Further, the turn movements discussed above are not likely to occur during the pick-up and drop-off time, as no bus routes run along these routes and waste collection will occur outside of pick-up and drop-off times.</p> <p>This has been agreed during the TWG meeting held on the 3rd November 2021.</p>

Comment/Issue

Response

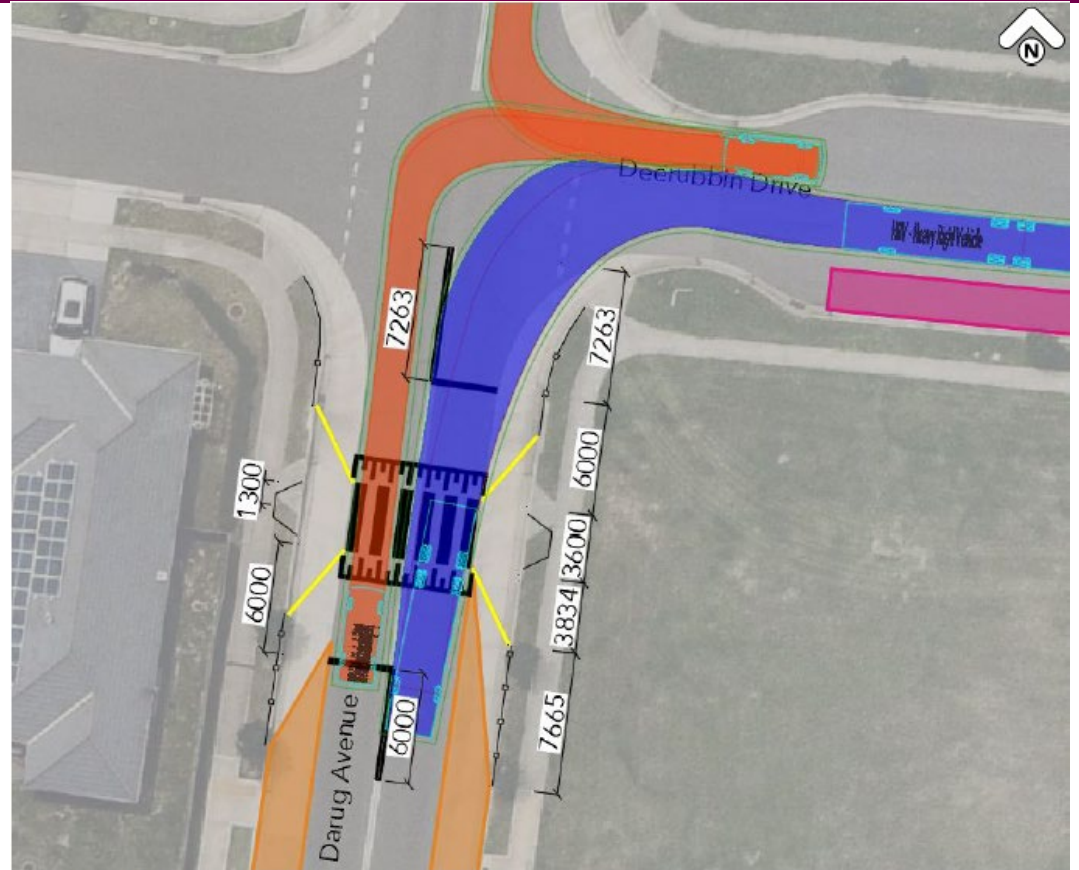
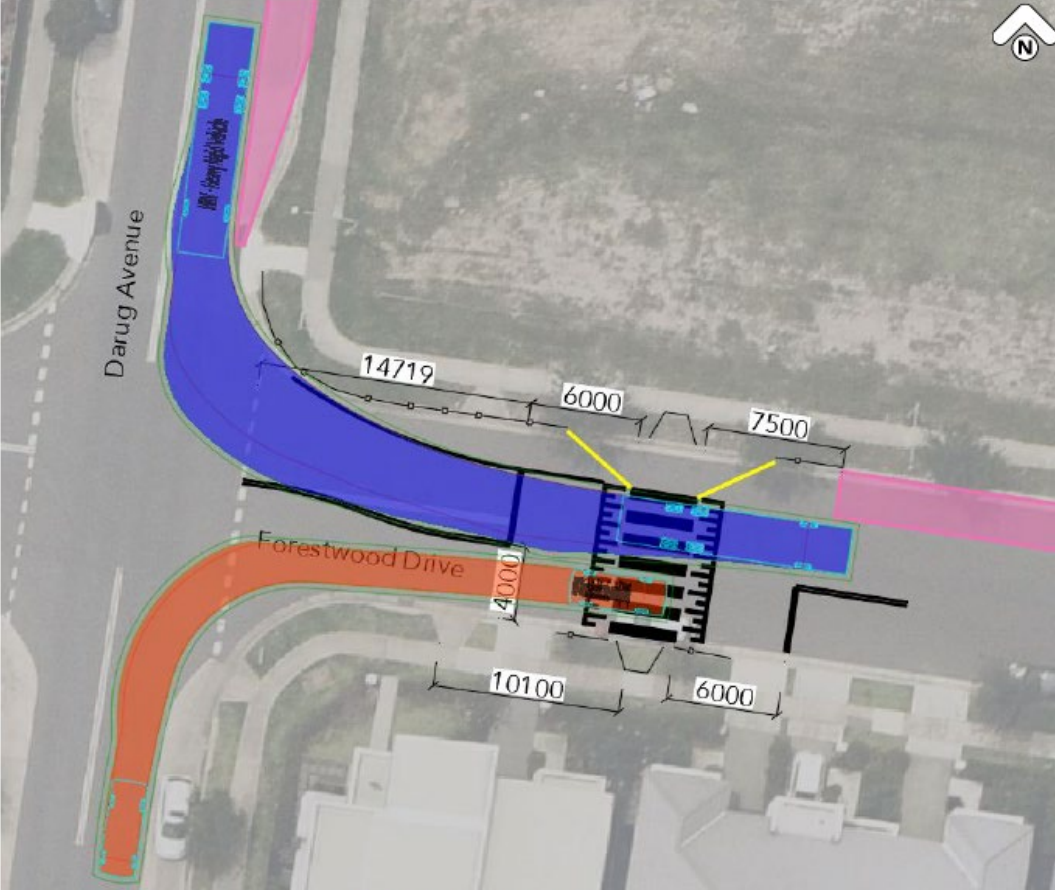


Figure 19 – HRV Swept Path at proposed Zebra Crossing at Forestwood Drive

Comment/Issue	Response
	 <p data-bbox="1025 1139 1666 1161">Figure 20 – HRV Swept Path at proposed Zebra Crossing at Forestwood Drive</p>
<p>j. 6.5.4 – The sight line assessments need to be quantified. Has TDT2002/12C been referred to? Has crossing sight distance (Austroads) been assessed? Not only should motorist’s view of pedestrians be considered, but also the pedestrian’s view of oncoming vehicles;</p>	<p>Refer to Table 4 on the preceding pages in regard to the sight lines.</p>
<p>k. 6.6 & Attachment 4 – It should be noted that TfNSW is the only agency with authority to install School Zones. Attachment 4 school zone signage plan should be removed or stamped as indicative (and may be subject to</p>	<p>The School Zone plan was prepared to initiate the process of applying for the school zone as early as possible. An “Indicative” mark on the School Zone plan has been added and the plan has been amended to incorporate the comments, refer to Attachment 1 of Appendix E.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>changes by TfNSW post consent) and is not to be considered as an approved plan;</p> <p>Should consent be provided, the Developer must obtain written authorisation from TfNSW to install the School Zone signs and associated pavement markings and/or remove/relocate any existing Speed Limit signs;</p> <p>To obtain authorisation, the Developer must submit the following for review and approval by TfNSW, at least eight (8) weeks prior to student occupation of the site:</p> <ol style="list-style-type: none"> A copy of Council's development Conditions of Consent The proposed school commencement/opening date Two (2) sets of detailed design plans showing the following: School property boundaries All adjacent road carriageways to the school property All proposed school access points to the public road network and any conditions imposed/proposed on their use All existing and proposed pedestrian crossing facilities on the adjacent road network All existing and proposed traffic control devices and pavement markings on the adjacent road network (including School Zone signs and pavement markings). All existing and proposed street furniture and street trees. <p>School Zone signs and pavement marking patches must be installed in accordance with TfNSW approval/authorisation, guidelines and specifications.</p> <p>All School Zone signs and pavement markings must be installed prior to student occupation of the site.</p> <p>The Developer must maintain records of all dates in relation to installing, altering, removing traffic control devices related to speed.</p> <p>Following installation of all School Zone signs and pavement markings the Developer must arrange an inspection with TfNSW for formal handover of the assets to TfNSW. The installation date information must also be provided to TfNSW at the same time. Note: Until the assets are formally handed-over and accepted by TfNSW, TfNSW takes no responsibility for the School Zones/assets;</p>	<p>Installation in accordance with TfNSW guidelines will be undertaken in due course.</p>
<p>I. How long will it take before the proposed target travel mode share is achieved? Has comparisons been undertaken with other schools in this area (with similar characteristics) to see what the travel mode share is like;</p>	<p>The time before the travel mode share will be achieved will be addressed in the updated School Transport Plan once the principal has been appointed.</p> <p>In regard to the travel mode share comparison with other schools refer to Table 4 on the preceding pages.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>m. Figure 66/67 – It is assumed that no traffic generated by the development will seek to access Deerubin Drive from the south – how realistic is this, noting that any disabled students would seek to gain access via Deerubin Drive;</p>	<p>The percentage of students residing in the south and wanting to use the SUH pick-up and drop-off is expected to be minor, hence this was not specifically assessed. Vehicles requiring parking at SUH unit and approaching the school from the south can turn right at Glenmore Ridge Drive, then turn right into Glenholme Drive and park on the SUH pick-up/drop-off.</p> <p>It is envisaged students travelling from the north are more likely to park at Deerubin Drive, and those travelling from south are more likely to park at Forestwood Drive. There will be parents who will not follow the rules; however, it is assumed that this will be a small percentage.</p> <p>Information regarding the recommended pick-up and drop-off areas based on the area of residences will be provided to parents in the School Transport Plan.</p>
<p>n. Attachment 2 (Car Park Design review ptc-004) – right turn movements into car park should be reviewed as to whether sight distance to oncoming vehicles from north is sufficient. Parking spaces adjacent to driveway should also be removed to enable sight distances for vehicles leaving the driveway;</p>	<p>Reference is made to the above Sight distance requirement at access driveways from the AS2890.1, an excerpt of which is shown in the below figure.</p> <p>The sight distance is dependent on the posted speed limit, which will be 40km/h during school peak times and 50km/h at any other time. It is noted that Deerubin Drive has an acute bend at this location, meaning that vehicles will likely drive at much lower than the posted speed limit. Therefore, for the purpose of this analysis the minimum sight distance for 40km/h has been adopted, though this is seen as conservative given the expected low speeds.</p> <p>Figure 22 shows the 35m sight distance lengths starting at the drivers' location upon entry and exit to the loading area, which are unobstructed.</p>
<p>o. Attachment 3 – Figure 81 shows a surface change at a raised intersection (which does not have pedestrian priority). Is there justification as to why a surface treatment is being considered as an isolated treatment at crossings? Surface treatments are generally used as a threshold treatment or to highlight the presence of something. Zebra pavement markings already indicates the pedestrian priority at crossings, addition surface treatments may detract from the zebra pavement marking;</p>	<p>The change in pavement was proposed to imitate a raised crossing / shared zone to raise driver's awareness of an increased pedestrian activity. This is because the development cannot provide a raised zebra crossing due to flooding issues.</p> <p>A discussion on the zebra crossing design ins provided in Table 4 on the proceeding pages.</p>

Comment/Issue

Response

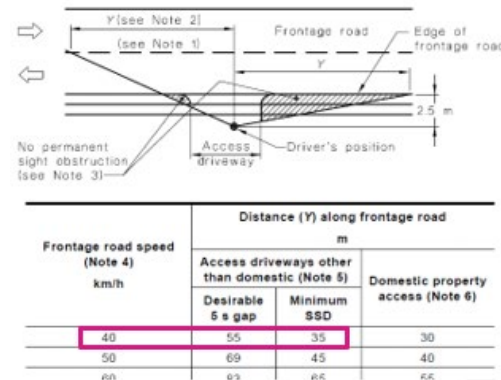


Figure 21 – Figure 3.2 from the AS2890.1

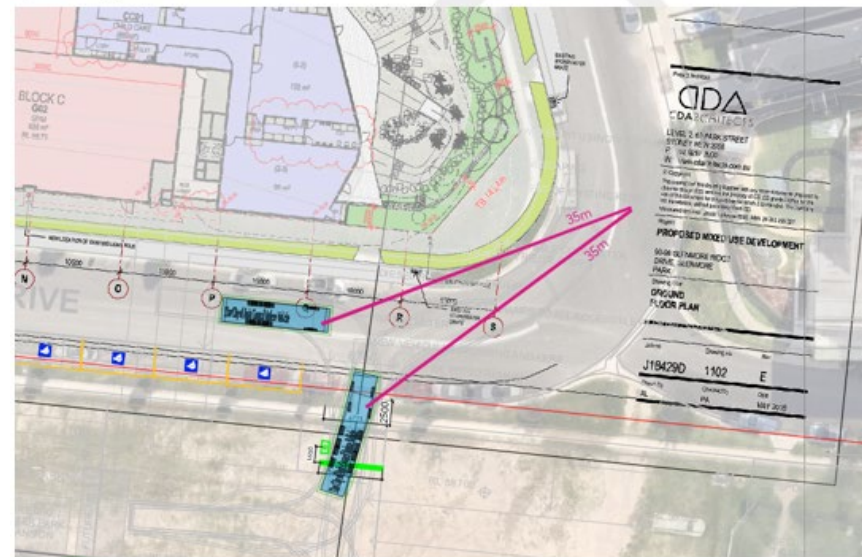


Figure 22 – Sight distances as loading area access

Discussion:

- The sight lines have been shown to be sufficient, given the expected speeds at this section of the road.
- This driveway will be used by waste and delivery vehicles only, thus the frequency will be low.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
	<ul style="list-style-type: none">This driveway will be used by trucks only, for which driver's eye height is elevated above parked cars. The two parking spaces on the east of the driveway can be removed, though this is not seen as being required.
p. Attachment 3 – a fence is not considered an appropriate alternative to kerb build outs and is not supported by Australian Standards. Figure 82 shows fencing in what appears to be car park location and the TfNSW spec fencing is located on the footpath.	A discussion on the zebra crossing design ins provided in Table 4 . Amended signage and line marking plans showing updated fencing locations are presented in Attachment 1 of Appendix E .
q. Attachment 4 – Should consent be provided, parking signage plan is to be submitted to Local Traffic Committee for review/recommendation to council.	A signage and line marking plan has already been prepared as part of the SSDA documentation. An amended plan is presented in Attachment 1 of Appendix E and will be submitted to the Local Traffic Committee in due course.
School Transport Plan	
r. Identify whether there are opportunities to provide pedestrian and cycling access at Gate 5, given it's potential as a desire line for journeys from the south east (linking the pedestrian and cycling network at Mulgoa Rise Fields);	To access the school via Gate 4, pedestrians and cyclists arriving at the school from the southeast would have to cross two driveways (Council's car park and staff car park) as shown in orange dotted line in Figure 21. Additionally, the proposed school buildings are located towards the north, meaning that even if students accessed the school via Gate 5, they would have to walk further north within the school property. It is noted that students walking along this path will have to cross Gate 6; however, this gate is for waste collection and service vehicles only and these vehicles will service the site outside of school peak hours. The above has been agreed during the TWG meeting held on the 3rd November 2021.

Comment/Issue	Response

s. Specify when the first school student travel survey will be conducted;

t. Noting that the school is proposed to expand to around 1000 students, identify a strategy to ensure there is sufficient bicycle and scooter parking provision to meet that demand, noting a 35% mode share target applicable to those modes.
 Consideration could be made to the opportunity to provide vehicle and e-bike charging station at the site as these modes of vehicles becomes more popular;

The first school travel survey will be conducted within three months of commencement of the school. This will be incorporated in the STP.

The proposal is to provide bicycle and scooter parking for 35% students for the proposed school population of 414 students. As marked by the pink square in the following figure, the proposed development includes space to accommodate additional bike / scooter parking spaces if the demand increases.

The layout of the future school expansion has been master-planned on the southern side of the development as shown. Detailed drawings showing bicycle spaces will be prepared in due course, when the consecutive stage will be planned. However, the master plan shows vacant space where additional bicycle and scooter spaces can be accommodated.

A strategy to implement e-charging stations for electric bicycles has been included in the submitted School Transport Plan.

Comment/Issue **Response**

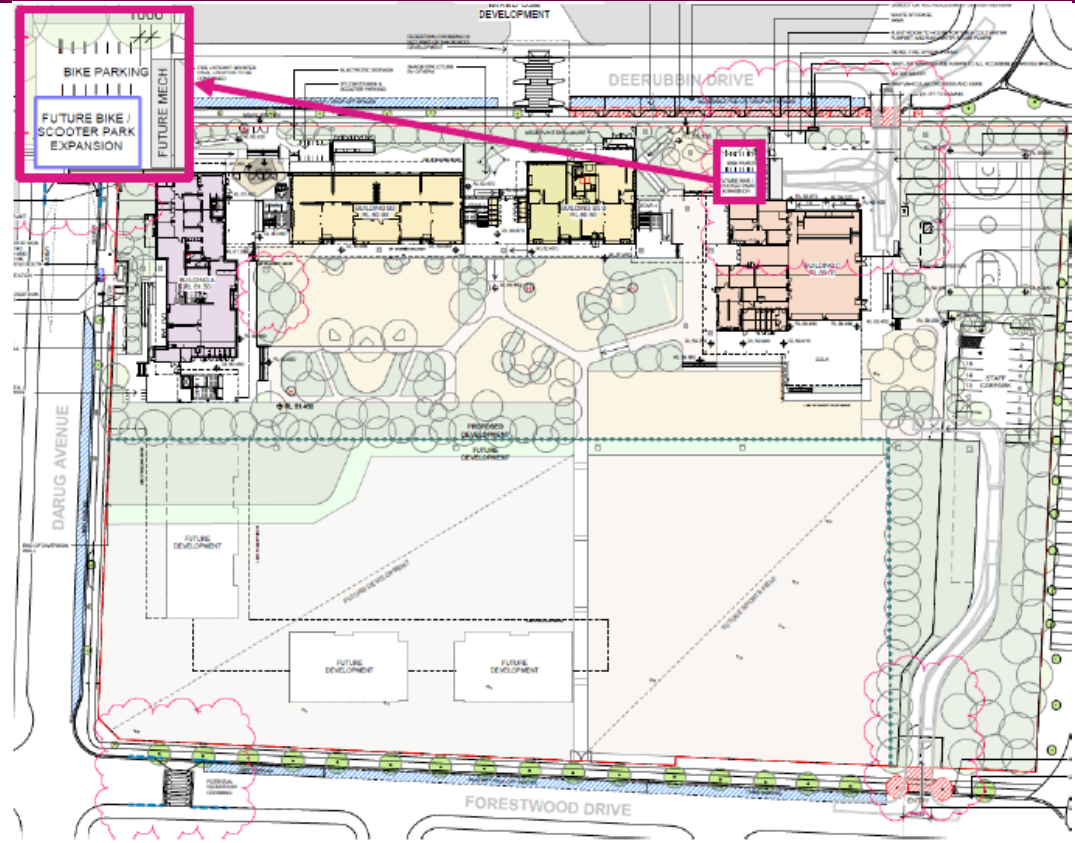


Figure 22 – Future Masterplan

- u. 3.2 – what enforces that students arriving from the north “shall” use the northern pick up/drop off and similarly for students on the south using the southern pick up/drop off;
- v. 4.2.2 – how is this strategy going to be managed across 4 different gates? Are parents and students assigned to a specific gate;
- w. 4.2.2 – How does gate 3 operate? The gate is located towards the northern end of the 15 min parking zone. Will kids being held behind the gate, waiting

It is envisaged students travelling from the north are more likely to park at Deerubbin Drive, and those travelling from south are more likely to park at Forestwood Drive. There will be parents who will not follow the rules; however, it is assumed that this will be a small percentage.

Information regarding the recommended pick-up and drop-off areas based on the area of residences will be provided to parents in the School Transport Plan.

This will be decided and embedded in the School Transport Plan once a principal has been appointed.

This will be embedded in the School Transport Plan once a principal has been appointed.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<p>for the parents/caretaker being at the front of the queue similar to drop off/pick up zones? It is noted that the parking along Darug Avenue is marked as a 15min parking zone and not a school pick/drop off zone;</p>	
<p>x. 4.2.2 – “vehicles are not to undertake U-turns across the local roads” - how is this being enforced;</p>	<p>If issues with parents undertaking U-turns are observed in the future, lane divider pavement flaps could be implemented along the centre line of Deerubbin Drive. The requirement for these measures could be reviewed as part of the STP updates.</p>
<p>y. 4.2.4 – What prevents or deters motorists from undertaking U-turn or 3-point manoeuvres;</p>	
<p>z. 4.3 – How many large buses are anticipated for school events? It is unclear if the buses can be accommodated for in the proposed bus zones without impacting the safe operation of the crossing.</p>	<p>There is a bus atop on the eastern site of Darug Avenue, and an approximately 80m long 15-minute parking zone is proposed on the school frontage along Darug Avenue adjacent to the bus stop. Either the existing bus stop or the 15-minute parking zone can easily accommodate buses required for school events.</p>
<p>Prior to occupancy, the Proponent shall update the School Travel Plan to address the following items, in consultation with TfNSW: aa. Provide a copy of the Program Evaluation Report to TfNSW; bb. Provide a final version of the Travel Access Guide to TfNSW.</p>	<p>Noted; The School Transport Plan will be updated and submitted in due course.</p>
<p>Preliminary Construction Traffic and Pedestrian Management Plan (PCTPMP)</p>	
<p>a. 5.6.2 / Figure 23 – traffic controllers would be required to stop traffic in both directions on Darug Avenue, the plan should be updated to reflect this;</p>	<p>A truck turning right into the site and a truck exiting the site will need to give way to the southbound traffic, which does not create any conflicts. Nevertheless, a traffic controller can be provided on the northern side as requested. The CTMP can be updated at the Construction Certificate stage.</p>
<p>b. 5.6.2 / Figure 24 – Truck turning right requires to occupy the left side of the road, however it is still required to give way to vehicles travelling eastbound. This will cause issues as the truck would either be obstructing the entire westbound carriageway as it waits for an appropriate gap, or the left side of the road, which causes further issues for other traffic navigating this intersection. Traffic would be required to be controlled on all legs, as truck coming out of Darug Avenue is required to still give way to vehicles travelling east along Bradley Street. This arrangement is not supported and TfNSW requests that smaller construction vehicles are used to improve safe outcomes for road users.</p>	<p>The Bradley Street / Darug Avenue intersection discussed in the preliminary CTMP has been shown to accommodate 2 trucks travelling simultaneously. Based on the TfNSW comment, it is proposed that these two turn movements do not overlap, which can be controlled by traffic controllers. The truck exiting Bradley Street and turning right into Darug Avenue will need to give-way to the eastbound vehicles, which is a standard approach and as such, no conflict is seen between the vehicles travelling eastbound and the truck turning right. The right turn movement into Darug Avenue has been amended and a traffic controller has been provided to prepare the southbound traffic to stop. For the truck exiting Darug Avenue and turning left into Bradley Street, the truck will need to give-way to the eastbound vehicles, which is a standard approach. It is noted that the truck’s left turn movement creates conflict with the westbound vehicles on Bradley Street; however, this will be managed by a traffic controller and is not unusual. The construction truck driver will be informed about the required traffic manoeuvres along the local roads, and therefore, this is not considered an issue. This was agreed during the TWG meeting held on the 3rd November 2021. The CTMP will be updated accordingly at the Construction Certificate stage.</p>

Comment/Issue

Response

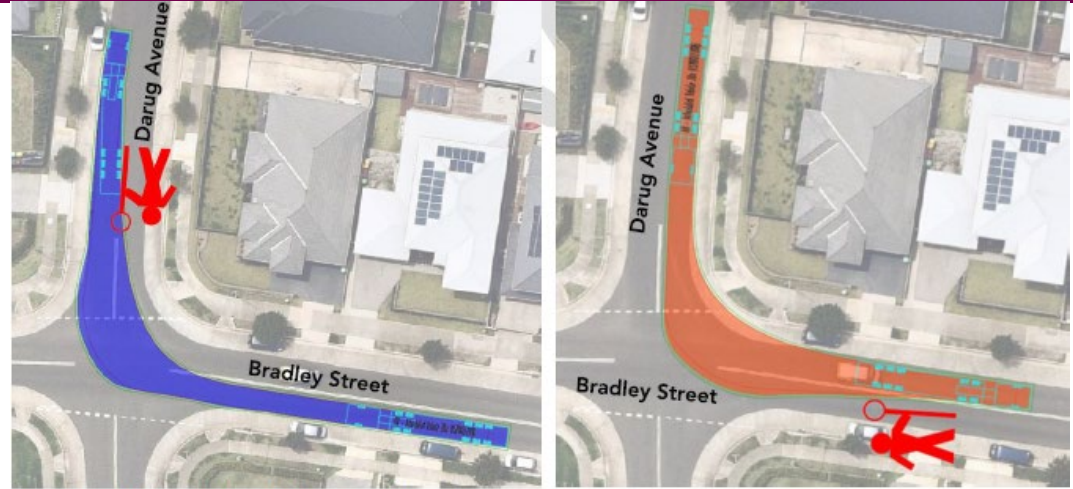


Figure 23 – AV Swept Path at Bradley Street / Darug Avenue intersection

4.2.3 Sydney Water Corporation

Table 6 outlines the comments and issues raised by Sydney Water and the associated responses by the Department of Education.

Table 6 Response to Sydney Water Corporation key Issues

Comment/Issue	Response
Section 73 Compliance Certificate	
<p>A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water.</p> <p>The proponent is advised to make an early application for the certificate, as there may be water and wastewater pipes to be built that can take some time. This can also impact on other services and buildings, driveways or landscape designs.</p> <p>Applications must be made through an authorised Water Servicing Coordinator. For help either visit www.sydneywater.com.au > Plumbing, building and developing > Developing > Land development or telephone 13 20 92.</p>	Noted.
Building Plan Approval	
<p>The approved plans must be submitted to the Sydney Water Tap in™ online service to determine whether the development will affect any Sydney Water sewer or water main, stormwater drains and/or easement, and if further requirements need to be met.</p> <p>The Tap in™ service provides 24/7 access to a range of services, including:</p> <ul style="list-style-type: none"> • building plan approvals • connection and disconnection approvals • diagrams • trade waste approvals • pressure information • water meter installations • pressure boosting and pump approvals • changes to an existing service or asset, e.g. relocating or moving an asset. <p>Sydney Water’s Tap in™ online service is available at: https://www.sydneywater.com.au/SW/plumbing-building-developing/building/sydney-water-tap-in/index.htm</p> <p>Sydney Water recommends developers apply for Building Plan approval early as in some instances the initial assessment will identify that an Out of Scope Building Plan Approval will be required.</p>	Noted.
Out of Scope Building Plan Approval	
<p>Sydney Water will need to undertake a detailed review of building plans:</p> <ol style="list-style-type: none"> 1. That affect or are likely to affect any of the following: <ul style="list-style-type: none"> • Wastewater pipes larger than 300mm in size • Pressure wastewater pipes • Drinking water or recycled water pipes • Our property boundary 	Noted.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<ul style="list-style-type: none">• An easement in our favour• Stormwater infrastructure within 10m of the property boundary. <p>2. Where the building plan includes:</p> <ul style="list-style-type: none">• Construction of a retaining wall over, or within the zone of influence of our assets• Excavation of a basement or building over, or adjacent to, one of our assets• Dewatering – removing water from solid material or soil.	
<p>The detailed review is to ensure that:</p> <ul style="list-style-type: none">• our assets will not be damaged during, or because of the construction of the development• we can access our assets for operation and maintenance• your building will be protected if we need to work on our assets in the future. <p>The developer will be required to pay Sydney Water for the costs associated with the detailed review.</p>	Noted.
Trade Wastewater Requirements	
<p>If this development is going to generate trade wastewater, the property owner must submit an application requesting permission to discharge trade wastewater to Sydney Water's sewerage system. You must obtain Sydney Water approval for this permit before any business activities can commence. It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.</p>	Noted.
<p>The permit application should be emailed to Sydney Water's Business Customer Services at businesscustomers@sydneywater.com.au</p>	Noted
<p>A Boundary Trap is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.</p>	Noted.
<p>If the property development is for Industrial operations, the wastewater may discharge into a sewerage area that is subject to wastewater reuse. Find out from Business Customer Services if this is applicable to your development.</p>	Noted.
Backflow Prevention Requirements	
<p>Backflow is when there is unintentional flow of water in the wrong direction from a potentially polluted source into the drinking water supply. All properties connected to Sydney Water's supply must install a testable Backflow Prevention Containment Device appropriate to the property's hazard rating. Property with a high or medium hazard rating must have the backflow prevention containment device tested annually. Properties identified as having a low hazard rating must install a non-testable device, as a minimum.</p>	Noted.
<p>Separate hydrant and sprinkler fire services on non-residential properties, require the installation of a testable double check detector assembly. The device is to be located at the boundary of the property.</p>	Noted.
<p>Before you install a backflow prevention device:</p> <ol style="list-style-type: none">1. Get your hydraulic consultant or plumber to check the available water pressure versus the property's required pressure and flow requirements.2. Conduct a site assessment to confirm the hazard rating of the property and its services. Contact PIAS at NSW Fair Trading on 1300 889 099. <p>For installation you will need to engage a licensed plumber with backflow accreditation who can be found on the Sydney Water website: http://www.sydneywater.com.au/Plumbing/BackflowPrevention/</p>	Noted.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
Water Efficiency Recommendations	
<p>Water is our most precious resource and every customer can play a role in its conservation. By working together with Sydney Water, business customers are able to reduce their water consumption. This will help your business save money, improve productivity and protect the environment. Some water efficiency measures that can be easily implemented in your business are:</p> <ul style="list-style-type: none"> • Install water efficiency fixtures to help increase your water efficiency, refer to WELS • (Water Efficiency Labelling and Standards (WELS) Scheme, • http://www.waterrating.gov.au/ • Consider installing rainwater tanks to capture rainwater runoff, and reusing it, where cost effective. Refer to • http://www.sydneywater.com.au/Water4Life/InYourBusiness/RWTCalculator.cfm • Install water-monitoring devices on your meter to identify water usage patterns and leaks. • Develop a water efficiency plan for your business. 	Noted
It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.	Noted.
Contingency Plan Recommendations	
Under Sydney Water's customer contract Sydney Water aims to provide Business Customers with a continuous supply of clean water at a minimum pressure of 15meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.	Noted.
Sometimes Sydney Water may need to interrupt, postpone or limit the supply of water services to your property for maintenance or other reasons. These interruptions can be planned or unplanned.	Noted.
Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.	Noted.
Have you thought about a contingency plan for your business? Your Business Customer Representative will help you to develop a plan that is tailored to your business and minimises productivity losses in the event of a water service disruption.	Noted.

Table Note

4.2.4 Environment, Energy and Science Group

Table 7 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 7 Response to Environment, Energy and Science Group key issues

Comment/Issue	Response
Site Landscaping /Habitat Improvement	
<p>Use of local native provenance species</p> <p>The Landscape Design Report notes the proposed design aims to encourage a reinstated native landscape environment to provide habitat for native flora and fauna. Along the streets, adjacent to the site, native trees (medium to large sized) and shrubs are proposed. EES recommends the site and street planting uses a diversity of local provenance native species from the relevant native vegetation community (or communities) that once occurred on the site/locality, rather than use exotic species or non-local native species.</p>	Where possible species from the local plant communities have been included in the design (subject to availability & EFSG requirements). To Supplement these species local natives or robust natives species have been selected to suit the site conditions.
<p>This is included as a recommended condition of consent (see below), particularly as the site is located near the Mulgoa Nature Reserve and Surveyors Creek Nature Reserve, both of which are mapped as containing biodiversity values (section 2.5, page 30, EIS). The EIS notes Mulgoa Nature Reserve contains good quality Cumberland Plain Woodland, which is listed as a critically endangered ecological community under the Biodiversity Conservation Act 2016 (BC Act), while Surveyor’s Creek Reserve contains River Flat Eucalypt Forest, which is an endangered ecological community (Section 7.10.2).</p>	As noted above.
<p>The EIS also notes endemic species will be used to contribute to healing the country and restoring the Cumberland Plain Landscape (Table 2, page 52). There is educational value and numerous benefits in using a diversity of local native plants at the school site including:</p> <ul style="list-style-type: none"> • preservation of the biodiversity values of the local area • provision of the most suitable food and habitat for local native fauna including nectar for pollinators (moths, butterflies, bees etc) which provide a food source for local native birds • a steppingstone for more mobile native fauna to move across the landscape and • once established local provenance vegetation would require less maintenance/watering than exotic plants. The use of local native vegetation also has added benefits in reducing the need for fertiliser application which reduces fertiliser laden runoff entering the local waterways and will assist to improve instream health, water quality, reduce algal blooms etc 	As noted above.
<p>The Response to Submissions and Landscape Design Report should identify the native vegetation community that once occurred on the site or in the locality. The Landscape Design Report should provide a list of local native species from the relevant vegetation community to be planted and demonstrate that the plant species to be used are of local</p>	As noted above.

Comment/Issue	Response
<p>provenance. EES recommends the Planting Palette and Planting Schedule in the Landscape Design Drawings are amended to use local native provenance species and identifies which species are local native provenance species and any non-local native or exotic species.</p>	
<p>The EIS indicates that the road reserve surrounding the proposed development footprint currently consists of two different species of newly planted exotic street trees (Chinese Elm and Manchurian Pear) (sections 7.2.2 and 7.2.3 of EIS). Chinese Elm (<i>Ulmus parvifolia</i>) is listed as a weed in Appendix 2 of the Greater Sydney Local Land Services (2017) Greater Sydney Regional Strategic Weed Management Plan 2017-2022 as it poses a potential risk to the environment. If there is any potential for this species to spread from the road reserve to nearby Mulgoa Nature Reserve or Surveyors Creek, it is recommended this species is removed and replaced by a mix of local native tree species.</p>	<p>The landscape scope of works is limited to the site's boundary. However, the landscape design is not using the noted species and as a principle is using of endemic species, local natives or other native species.</p>
<p>The Landscape Site Plan appears to show no tree planting is proposed within the staff carpark. The EIS notes for the carpark that vegetation utilised comprises low shrubs and high canopy planting (Table 9). EES recommends the carpark also incorporates planting of local native trees and groundcover species (Figure 14 in EIS).</p>	<p>Native tree planting has now been added to the carpark in the updated landscape design, refer to Appendix C.</p>
<p>Installation of Habitat Features</p> <p>In addition to planting local native species to enhance habitat at the site, it is recommended the school installs habitat features such as logs, a range of artificial nest boxes which are suitable for native fauna likely to utilise the site such as mobile birds and bats and bee hotels. 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 primary school.</p>	<p>Noted. Reclaimed logs, boulders and the use of native trees have been included to provide habitable spaces, other habitat features will be considered where appropriate</p>
<p>Urban Heat Island Effect</p> <p>EES recommends new developments incorporate green roofs and/or a cool roof and green walls into the design. The benefits of Green Roofs, Cool Roofs and Green Walls are outlined in the OEH (2015) Urban Green Cover in NSW Technical Guidelines which can be found at the following link: http://climatechange.environment.nsw.gov.au//Adapting-to-climate-change/Green-Cover</p> <p>The EIS and the Landscape Design Report indicates the design will include a light-coloured roof. EES supports the school using light coloured roofing to reduce the building's absorption of solar radiation and increase re-radiation of urban heat and minimise the urban heat island effect and recommends that a condition of consent is included to this effect.</p>	<p>The proposed design includes insulated, light-coloured roofs to minimise heat absorption throughout the day.</p> <p>Trees and planting areas are proposed where appropriate to reduce the urban heat island effect.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
Flooding	
<p>EES comments on the Flood assessment are generally confined to the methodology used for the assessment as discussed in the Mulgoa Rise Public School Overland Flow Flood Study (grc, April 2021) in Appendix A of the Flood Impact Assessment.</p> <p>The flood assessment prepared by grc Hydro has addressed overland flow flooding at the site for existing and developed conditions. The assessment is considered reasonable subject to the points of clarification indicated below:</p> <ol style="list-style-type: none"> Review of flood level contours provided in Figures 06 and 09 as the contours' levels are not consistent with the flood depths shown in the maps and not consistent with the discussion in the report. <ul style="list-style-type: none"> Figure 06 shows flood level contours at the 90s in the PMF existing condition which is approximately 30m above the site ground level while the flood depth is shown up to 0.3m. Similarly, Figure 09 shows flood level contours at the 80s in the 1% AEP developed condition which is approximately 20m above the site ground level while the flood depth is shown up to 0.1m. Figure 08 shows some of the access roads to the school are subject to H3 and H4 hazard categories in the PMF event. It is preferred that safety measures are set in place to ensure the safety of the school community accessing the school in extreme flood events. 	<p>An Overland Flow Flooding Summary is contained in Appendix L and an updated Flood Impact Assessment is contained in Appendix M and confirms the proposed development will have no significant adverse impacts on the existing 1% AEP flood behaviour, which consists of shallow overland flow paths of H1 hazard.</p>
Recommended Conditions	
<p>EES recommends the following conditions of consent are included:</p> <ul style="list-style-type: none"> Any planting/ landscaping on the site or street associated with the SSD 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 that once occurred in this locality. 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. A Landscape Plan is to be prepared and implemented by an appropriately qualified bush regenerator and include details on: <ol style="list-style-type: none"> the type, species, size, quantity and location of trees the species, quantity and location of shrubs and groundcover plantings a list of local provenance species to be used the quantity and location of plantings 	<p>Noted, species that are local and comply with EFSG will be selected where possible and appropriate.</p> <p>Tree planting are consistent with the requested sizes for priority area: 100L/75L. For less prominent areas trees have been reduced to 45L</p> <ol style="list-style-type: none"> Refer L-SSDA-0010 Refer L-SSDA-0010 & 0011 a list of local provenance species has been included, Refer L-SSDA-0011 Refer L-SSDA-0010 & 0011 Refer L-SSDA-0011

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
<ul style="list-style-type: none">e. the pot size of the trees to be plantedf. the area/space required to allow the planted trees to grow to maturityg. 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.	<ul style="list-style-type: none">f. Typical Tree Planting Details will be provided at detailed design stage to ensure area/space is sufficient for trees.g. Plant maintenance regime will be provided as part of the landscape technical specification.
<ul style="list-style-type: none">• Habitat features shall be installed at the site to improve biodiversity such as logs, bee hotels and a range of artificial nest boxes suitable for native fauna likely to use the site	Noted. Reclaimed logs, boulders and the use of native trees have been included to provide habitable spaces, other habitat features will be considered where appropriate
<ul style="list-style-type: none">• The development shall incorporate cool roofs into the design.	The proposed design includes insulated, light coloured roofs to minimise heat absorption throughout the day.

4.2.5 NSW Government Architect

Table 8 outlines the advice and recommendations that arose from the design review session held on 20th October 2021 by the NSW Government Architect and the associated responses by the Department of Education. Comment is also made against the submission received from

Table 8 Response to NSW Government Architect advice and recommendations

Comment/Issue	Response
Previous Unresolved SDRP Questions	
<p>A number of questions from the SDRP session remain unresolved:</p> <ul style="list-style-type: none"> the separation of the built form from landscape and an associated loss of high-quality sheltered outdoor learning spaces that was present in the initial master plan sketches. whether the planned tree cover is appropriate in this location. a lack of daylight in some teaching spaces. consideration of climate impacts including increasing heat to the designs. communication of how flooding levels inform the architecture and landscape strategy. 	<p>Prior comments were addressed by the project team in the recent 20/10/21 SDRP presentation. Comments from that meeting are outlined as follows along with SINSW responses.</p>
New SDRP Questions based off new Masterplan	
<p>The substantially changed proposal has created new questions that could impact on the quality of the design outcome:</p> <ul style="list-style-type: none"> 8m or more separation between boundary and building edge and associated underutilization of space and visual disconnection from the community. evidence of an appropriately considered response to Connecting with Country (aside from the inclusion of a central meeting place) and its integration with landscape, built form and experience of being a student at the school. architectural expression and the consideration of appropriate material finishes for this context and for primary school teaching. the removal of 8 trees on Deerbubbin Drive, along the northern edge of the site. dominance of high steel fencing to achieve safety requirements and associated impact on the relationship with the community. removal of the field from stage 1. 	<p>See comments below.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
Connecting With Country	
<p>1. The current process does not follow the practices laid out in the Connecting with Country framework. The proposal lacks a richness of experience and associated sense of local place as a result. Recommend a close reading of the Connecting with Country framework to understand the value of Country and how it can be integrated into the project at this late stage.</p>	<p>As discussed during the 20/10/21 SDRP presentation, Connecting with Country is being integrated into the project. The project team is consulting with the RAPs through Comber Consultants who ran the ACHAR process for the project. Formal consultation with the RAPs commences 16/11/21 onsite. A scope will be prepared in consultation with the RAPs that aims to 'tie together discrete opportunities around central themes' and integrate these into the project.</p>
<p>2. Consultation with the local Indigenous community should be expedited and their input sought on the overall design as well as in specific elements such as the proposed yarning circles.</p>	
<p>3. Refer to other SINSW projects such as Barramurra, Wagga Wagga and Jindabyne which have incorporated successful approaches to Connecting with Country in their designs.</p>	
Circulation and Movement	
<p>4. Surveyors Creek and adjacent riparian zones are significant assets. Illustrate clear connections for pedestrians and cyclists, including potential connection to the adjacent sports fields.</p>	<p>Existing footpath network in Mulgoa Rise is provided and maintained by Council. It affords the school site and surrounding development an appropriate level of connection to a range of local facilities and public open spaces like Surveyors Creek and the adjacent sporting fields.</p> <p>Additional connections to / from the school site to the adjacent sports fields are not considered necessary at this time.</p> <p>Accordingly, no change to current design or project scope proposed.</p>
<p>5. Pedestrian crossings are not in alignment with streets or school entries. Refine the placement of these so that pedestrians have the first priority in design of movement. Confirm early engagement with Council and TfNSW regarding the number and location of crossings proposed.</p>	<p>The quantity, location, and design of all the proposed pedestrian crossings have been undertaken in consultation with SINSW stakeholders and both Penrith Council and Transport for NSW. Safety is of primary concern and the crossing locations are offset from the school entries to optimise safety of students and other pedestrians and minimise potential conflicts between vehicles and pedestrians.</p> <p>The design of the pedestrian crossings on Darug Avenue and Forestwood Drive as submitted has been adjusted slightly to accommodate Council's requirements for vehicle queuing at the intersections. No further adjustment to the location of the crossings is proposed.</p>
Masterplan	
<p>6. Review the placement of the buildings in phase two so they are on the northern edge of the available area and thus ensure the courtyard space does not become too large.</p>	<p>Noted, however consent for Stage 2 is not sought as part of this SSDA. It will be subject to a future separate planning application. No change proposed.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
7. The sports field in the SE of the site provides important space and amenity to students and should be considered as part of stage 1 of the masterplan.	The provisions for outdoor play space meet the requirements outlined in the SINSW technical guidelines (EFSG). Further, due to funding constraints, the sports field is not included as part of the scope of this SSDA. No change proposed.
8. Review the alignment of the hall to create a consistent street edge along Deerubbin Drive and address the mixed-use development adjacent. Review the location of the waste and service zone and improve the presentation of the hall to the public domain. Following comment 3 above, the school needs to face north and east to emergent commercial development and parks. The placement of the waste removal zone on the north side of the site is inconsistent with this and moving it to a different part of the site is recommended.	<p>The hall has been sited to align with internal school circulation which represents most of its daily use. This location has the advantage of the hall being easily visible from the assembly area and the administration block which creates a better connection between the hall and the rest of the campus. An aerial perspective and street level images are provided in Section 3 of this RTS and within the Architectural Design Plans contained within Appendix A and within the Updated Visual Impact Assessment contained in Appendix F.</p> <p>Due to the large size of the site and for operational purposes the waste collection area is required to be located in close proximity to the school buildings and easily accessed by staff. The design team has assessed and ruled out alternate options for the location of the waste storage / removal area, as follows:</p> <ol style="list-style-type: none">1. Waste collection located at the northern end of the staff car park, immediately behind the sports court. Access would be achieved via Forestwood Drive at the SE corner of the site, and service vehicles would be required to drive through the staff car park. <p><u>Cons:</u></p> <ul style="list-style-type: none">• Will eliminate any future potential connection between the school and the Council playing fields as much of the land along the eastern boundary will be dedicated to parking and service vehicle access.• This location is the lowest point on the site. Staff will have to negotiate up to 5m of level changes to get waste bins to the collection area. This is not desirable from an operational perspective. <ol style="list-style-type: none">2. Waste collection located south of Block A with entry from Darug Ave. <p><u>Cons:</u></p> <ul style="list-style-type: none">• The streetscape of Darug Ave is typically low density residential in character and is considered to be just as important as Deerubbin Drive. A waste collection area at the centre of the school frontage on Darug Avenue would detract from the residential amenity and the aspiration of creating a prominent and formal appearance of the school.• The location of the waste collection south of Block A would impact the consistent design response of the whole school once the future stage has been developed. A waste area at such a central location to the school would become an unpleasant barrier and could potentially limit the design options for a seamless integration of the two stages. <ol style="list-style-type: none">3. Waste collection located on Forestwood Drive, entry from the centre of the block on Forestwood Drive. <ul style="list-style-type: none">• Waste collection on the southern boundary of the site is too far removed from Stage 1 and would compromise the efficiency of school operations.• Would have the potential to limit the design options and development of the future stage of the school.• Will be in close proximity to a pedestrian crossing and may pose safety risks for pedestrians.

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
	<p>Therefore, the location of the waste collection area on the eastern end of Deerubbin Drive responds best to operational, safety and street scape requirements. The waste area has been designed in consultation with SINSW stakeholders and AMU and its location has been discussed and agreed on through consultation Penrith City Council.</p> <p>The waste collection is proposed to be screened from the street by intensive landscaping along the site boundary, refer to Section 3 of this RTS and Drawing L-SSDA-0014 in the Updated Landscape Plans contained in Appendix D.</p> <p>Finally, it is noted that there is an absence of controls or guidelines with respect to the appropriate siting of waste areas within a new school. Clearly the siting of a waste area is contingent on-site specific parameters and the balance between aesthetics and function. In this instance the waste area, as displayed in the exhibited and amended plans, provides an appropriate level of consideration of such matters. No change is proposed to the location or design of the waste area.</p>
<h3>Site Strategy and Landscape</h3>	
<p>9. Establishing tree canopy with wide coverage is key to meeting ecological, comfort and civic outcomes for this project:</p> <ul style="list-style-type: none"> a. Demonstrate tree canopy cover will meet 40% target as a minimum. The project should aim to exceed this target and create a lush green environment, encouraging use of outdoor spaces. b. Mulgoa Rise has a peculiar microclimate with high heat and low rainfall. Select tree species that will thrive in this environment and contribute to the regeneration of the Cumberland Plains ecology. 	<p>40.25% Canopy coverage is achieved based on the canopy coverage when matured (5563sqm) on Stage 1 site (13823 sqm).</p> <p>Noted. The majority of the selected tree species selected are suitable for the site conditions of the Cumberland Plains region are based on the Native Plant Species in Street and Park Tree Management Plan by Penrith City Council.</p> <p>No change to the design is proposed.</p>
<p>10. The fencing diagram submitted as part of the EIS indicates a multiplicity of primary and secondary security lines and is not supported.</p> <ul style="list-style-type: none"> a. Simplify and clarify the extent, height and necessity of fencing proposed. Review the role and size of the entry spaces and spaces between the street and buildings so that double fencing is not required. There should be a single line of security around the site. Buildings and landscape can be part of this line. b. The masonry fence on the corner of the site and fencing along Deerubin Drive are very high and create an imposing character to the street. Consider lowering the height of these where possible and/or softening their impact with landscape design. 	<p>Fencing strategy (including however not limited to the extent, height and necessity) has been designed in consultation with SINSW technical stakeholders and is in line with SINSW technical standards and addresses the safety and operational requirements of this school project. Note however, some fences have been removed– refer to updated fencing diagram in Appendix A.</p> <ul style="list-style-type: none"> a. The areas between the boundary and the buildings have been designed to include intensive landscaping to soften the appearance of the fence and provide shading to public footpath. Refer to landscape package for details. b. The diversion wall is required for mitigation of flood events. In general, the masonry diversion wall along Darug Avenue has been kept to a minimum with a palisade on top for security purposes. The higher part of the diversion wall, at the intersection of Deerubbin Drive and Darug Avenue, will be approximately 2100mm high and is proposed to be used as a backdrop for a prominent school sign as per EFSG signage standards. <p>No change to the design is proposed.</p>
<p>11. A large wall has been created to divert water around the site to avoid flooding. Transform this wall into public amenity, for example by</p>	<p>More intensive landscaping is proposed to soften the appearance of the diversion wall at the intersection. Public amenity in the form of a pocket park or otherwise is not the responsibility of SINSW.</p>

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Comment/Issue	Response
incorporating a pocket park, WSUD strategies, seating and gathering spaces.	
Architecture	
<p>12. The buildings don't celebrate or connect to the specific character or potential of Mulgoa Rise. Further resolution and development is required in relation to:</p> <ul style="list-style-type: none">a. A colour palette that is reflective of the local landscape and context and will withstand the effects of the local microclimate. This is an opportunity to introduce Connecting with Country principles into the design.b. The detailing and material character of the buildings lacks elegance and requires further detailing.c. Develop a sun shading strategy that demonstrates thermal comfort will be achieved, and that also improves the character and articulation of the facades.	<p>In response to point a) - since the SDRP presentation the colour palette has been updated to reflect earthy tones in reference to nearby mountains, rock formations and the historic quarry. The finish of the materials is unreflective and highly durable. Combined with the proposed insulation, the building envelope will be well suited to withstand the microclimate experienced in this area.</p> <p>The current design is appropriate for the characteristics of the local microclimate. The design, colour palette, materiality and response to microclimate is subject to Connecting with Country.</p> <p>In response to point b) - the materiality and detailing of the buildings have been selected for their durability, robustness, compliance, and cost, all explored through a detailed value management process undertaken by the design team and SINSW stakeholders.</p> <p>A mix of CFC cladding, metal cladding and add-on elements are proposed on this project in a cost-efficient assembly. Articulation of the façade is mainly expressed through the coloured sun hoods and can be further achieved through use of colour - an agenda item for Connecting with Country consultation.</p> <p>Refer to updated elevations and detail sections within Appendix A.</p> <p>In response to point c) - The metal vertical-fin screens proposed previously on Level 1 have been replaced by colourful sun hoods on the northern and western facades over prominent windows.</p> <p>These coloured elements, which prove to be much more cost efficient than the metal screen, add playfulness and articulation to the façade as well as provide solar protection during the harsh midday and afternoon sun when heat gain is at a peak.</p> <p>The buildings have been designed to achieve thermal comfort including:</p> <ul style="list-style-type: none">• Light colour roofing material• Adequate insulation to walls and roof• Sun shading elements to mitigate the harsh midday and afternoon sun when heat gain is at a peak. <p>Thermal comfort has been assessed and process recorded as part of the ESD matrix</p>
<p>13. The drawings presented lack sufficient information and clarity to provide a thorough understanding of the design intent. Provide detailed internal drawings illustrating cross ventilation, daylight amenity, and the setup of the classrooms for teaching.</p>	<p>The presentation package provided adhered to the SDRP requirements of 10 slides with a requirement to address numerous items. There was no request prior to the presentation to present specific detailed project information - internal drawings or otherwise. All SDRP members have access to the SSDA drawing package for the project on the Planning Portal.</p> <p>The architectural design drawing package for the SSDA includes detailed plans and sections appropriate to this type of application.</p>

RESPONSE TO SUBMISSIONS REPORT

Comment/Issue	Response
	<p>The layout of the setup of the classrooms for teaching, including furniture for example, is not considered to be necessary in this instance.</p> <p>The internal layouts and teaching amenity were reviewed by numerous stakeholders in SINSW to ensure they comply with the brief and pedagogy.</p> <p>Daylight amenity and ventilation have been assessed by the BCA and ESD consultants and have been deemed compliant and acceptable to this type of project.</p>
<p>14. Ensuring that Deerubin Drive has a healthy and vibrant character and spatial quality is key to improving this part of Mulgoa Rise. To support this the buildings need to resolve the following:</p> <ul style="list-style-type: none"> a. The alignment of the building line lacks clarity and coherence along the length of Deerubin Drive. Review the plan and façade design and alignment of this edge to ensure a legible street presence of the school. b. Review the scale, hierarchy, and design detail of the entry points to announce places of public drop off and community access. 	<ul style="list-style-type: none"> a. The alignment of the buildings along Deerubin Dr is consistent along approx. 70% of the street frontage with Blocks A, B2, B3 all aligned as per GANSW feedback to the first SDRP presentation. Block C observes a greater setback from the street to better align with the school's internal circulation and access which will be most of its usage. The design proposes activation of the Deerubin street frontage through external outdoor learning spaces in front of the home base blocks and intensive landscaping to assist with the shading of the public footpath. b. Large scale canopies identify and celebrate the entry points to the school and are clearly visible from all street frontages. The canopies are large enough to provide shelter for large groups of students, while enjoying natural light and connection to landscaped outdoor settings. <p>An aerial perspective and street level images are provided in Section 3 of this RTS and within the Architectural Design Plans contained within Appendix A and within the Updated Visual Impact Assessment contained in Appendix F.</p>
<h3>Sustainability and Climate Change</h3>	
<p>15. Aiming for a net-zero building is highly encouraged to reach NSW's Net Zero emissions goal by 2050. Refer to 'NSW, DPIE, Net Zero Plan, Stage 1: 2020-2030' for further information. Provide information related to:</p> <ul style="list-style-type: none"> a. Material performance in terms of off-gassing / use of chemicals and carbon neutrality. b. Adaptation to climate change in both the landscape (dry, heat, cold) and spaces for students and staff. 	<p>The project aims at achieving 4 Greenstar equivalent rating. Aiming for a net-zero building has not been identified in the project brief. DPIE's Net Zero Plan was issued in March 2020, nine months after the Business Case for this project had been approved by various governmental agencies. Mitigations of potential climate change impacts have been incorporated in the design and are outlined in the ESD matrix for the project.</p>
<p>16. Review the size of the water tank and demonstrate the size is appropriate to the extent of landscape.</p>	<p>The size of the tank is 120KL and has been specified by the project engineering team. It will be used for toilet flushing and irrigation and can cover approx. 60% of non-potable water demand. No change proposed.</p>

Table Note

4.2.6 Endeavour Energy

Table 9 outlines the comments and issues raised by the Endeavour Energy on 14 September 2021 and the associated responses by the Department of Education.

Table 9 Response to Endeavour Energy’s key issues

Comment/Issue	Response
<p>Accordingly, the applicant should complete the application for connection of load process with Endeavour Energy’s Network Connections Branch (contact Head Office enquiries on business days from 9am - 4:30pm on telephone: 133 718 or (02) 9853 6666) who are responsible for managing the conditions of supply with the applicant and their Accredited Service Provider (ASP).</p>	<p>Noted.</p>
<p>In regard to the 40kW photovoltaic (PV) solar power grid-connect rooftop system, the connection of small and medium embedded generators with a capacity of between 30 kilowatts (kW) and 5 megawatts (MW) may affect other Endeavour Energy customers connected to the electricity network. A detailed technical review of endeavour Energy’s network’s capacity to transfer the generation energy along with analysis of the generator’s protection schemes and quality of supply considerations must therefore be undertaken prior to a permission to connect to Endeavour Energy’s network being issued. Further details are available by contacting Endeavour Energy’s Network Connections Branch (please refer to the contact details above) or on Endeavour Energy’s website under ‘Home >Your energy>Our services>Our connection services> Small and medium embedded generator connection service’ via the following link: http://www.endeavourenergy.com.au/.</p>	<p>Noted.</p>

4.2.7 NSW Environment Protection Authority (NSW EPA)

Table 10 outlines the comments and issues raised by NSW EPA and the associated responses by the Department of Education.

Table 10 NSW EPA issues

Comment/Issue	Response
<p>The EPA recommends the following alternate background noise levels at the receivers to the west of the site (on Darug Avenue):</p> <ul style="list-style-type: none"> for receivers located along Darug Avenue (to the west of the site), it is more appropriate to use the RBLs measured at 30 Forestwood Drive; and for the receivers at 71 Deerubbin Drive, the RBLs from the mixed-use development proposal are appropriate. <p>Items that need addressing in the NVA</p> <p>The NVA should assess the potential impact of construction work on the Early Learning Centre and suggest feasible and reasonable mitigation measures to manage any noise impact. This receiver has not been identified in the NVA as a sensitive receiver. Daytime construction work has the potential to impact on this receiver.</p> <p>Community consultation and engagement should be included in the Construction Noise and Vibration Management Procedures.</p>	<p>The Noise and Vibration Report has been updated to address the construction acoustic impact on the Early Learning Centre at 71 Deerubbin Drive, Glenmore Park (refer to Section 6 of this report in Appendix J).</p> <p>In relation to community consultation and engagement, these measures are now included in Section 6.4.1 and reiterated in Section 7.2 of the Noise and Vibration Report located in Appendix J.</p>
<p>Recommended limits on noise impacts</p> <p>The EPA recommends that any development consent should include conditions requiring the applicant to select, install, and operate mechanical plant and equipment that does not result in a noise impact greater than 5 dB above background level when operated – either individually or cumulatively.</p> <p>This recommendation should be considered in the context of comments provided above regarding the appropriate assignment of the background noise levels at receivers to the west of the site.)</p>	<p>Noted and application of this condition is considered acceptable.</p>
<p>Recommended limits on out of hours operations</p> <p>The EPA recommends the development consent include a requirement to restrict usage of the School Hall to appropriate activities, and appropriate times, so that noise does not unacceptably impact on surrounding residents.</p> <p>The NVA states in Section 1.1 “It is intended that the Communal Hall in Building C, and library in Building A; operate between 6:30 pm and 10:00 pm as part of the out of hours operation. On rare occasions, these out of hours activities could extend till 12:00 am.” The NVA does not predict noise levels for School Hall Out Of School Hours (SHOOSH) operations, it only states operational procedures if activities occur out of school hours (such as closing</p>	<p>Noted and application of this condition is considered acceptable.</p>

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Comment/Issue	Response
all external doors and windows). The EPA considers, in relation to the School Hall, that noise from normal activities would not be acoustically significant.	
Recommended limits on construction hours The EPA recommends that construction work be limited to the standard construction hours noted in the Interim Construction Noise Guideline (DECC, 2009) and that conditions for providing respite from construction noise be included in any consent for the proposal.	Noted and application of this condition is considered acceptable.

4.3 Public submissions

Two submissions from individuals were received during the exhibition. Both submissions supported the proposal. No response to these submissions is considered necessary.

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:

Architectural Design Changes

- Reduction and change in canopy sizes, height, locations, and form.
- Relocation of the COLA and adjustments to Block C Hall.
- Updated layout and external awnings of Block B3S.
- Changes and adjustment to fence locations.
- Layout of the main entry has been redesigned.
- Replacement of external vertical fins with sun shading hoods.
- Relocation of services plant spaces.
- Changes to external materials and finishes.

Landscape Design Changes

- Rationalisation of hard paved area.
- Consolidated seating areas.
- Revised play areas.
- Changes reflecting building adjustments.
- Consolidated materials palette.

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 Architectural Plans, prepared by NBRS Architecture.
- Appendix B Architectural Design Report - Addendum, prepared by NBRS Architecture.
- Appendix C Updated Landscape Plans, prepared by NBRS Landscapes.
- Appendix D Landscape Design Report - Addendum, prepared by NBRS Landscapes.
- Appendix E Transport and Traffic Assessment – Additional Advice Letter, prepared by ptc.
- Appendix F Updated Visual Impact Assessment, prepared by NBRS Landscapes.
- Appendix G Engineering Advice – Rainwater tank sizing, prepared by Norman Disney and Young.
- Appendix H Geotechnical Opinion – Letter 1, prepared by JK Geotechnics.
- Appendix I Geotechnical Opinion – Letter 2, prepared by JK Geotechnics.
- Appendix J Updated Noise and Vibration Assessment, prepared by Pulse White Noise Acoustics.
- Appendix K Electromagnetic Energy (EME) report, prepared by TRACA Engineering Group.
- Appendix L Overland Flow Flooding Summary Letter, prepared by Woolacotts.
- Appendix M Updated Flood Impact Assessment, prepared by Woolacotts.

The description of the proposed development remains the same as originally documented. The attached documentation provides refinements to the location and design of the various elements with the development site.

6 UPDATED PROJECT JUSTIFICATION AND CONCLUSION

The New Primary School in Mulgoa Rise is designed and will be built to significantly improve educational outcomes and address the capacity shortfall across the area for an approximate 414 students.

This RTS has considered the submissions received in response to the public exhibition of SSD-11070211. Submissions were received from ten public authorities and two members of the public. Additional information has been provided and minor design changes have been made to address these matters in response to the submissions.

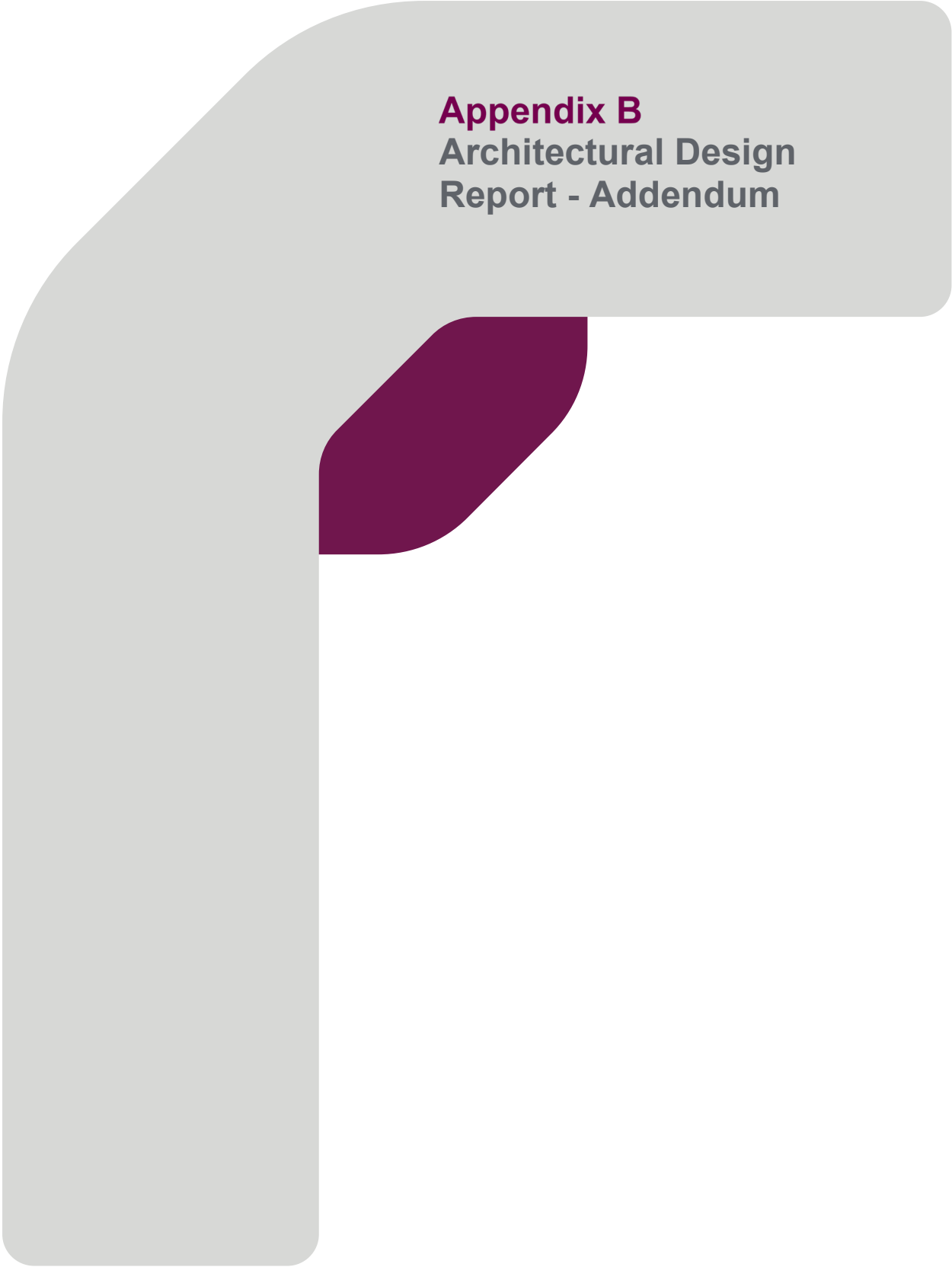
The proposed design changes will comply with relevant legislation and enable the school to be established at the earliest possible date for the growing community that surrounds the site.

The RTS has responded to all authority and public submissions received regarding 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
Architectural Plans



Appendix B
Architectural Design
Report - Addendum



Appendix C Updated Landscape Plans



Appendix D
Landscape Design Report
- Addendum

Appendix E
Transport and Traffic
Assessment – Additional
Advice Letter



Appendix F
**Updated Visual Impact
Assessment**



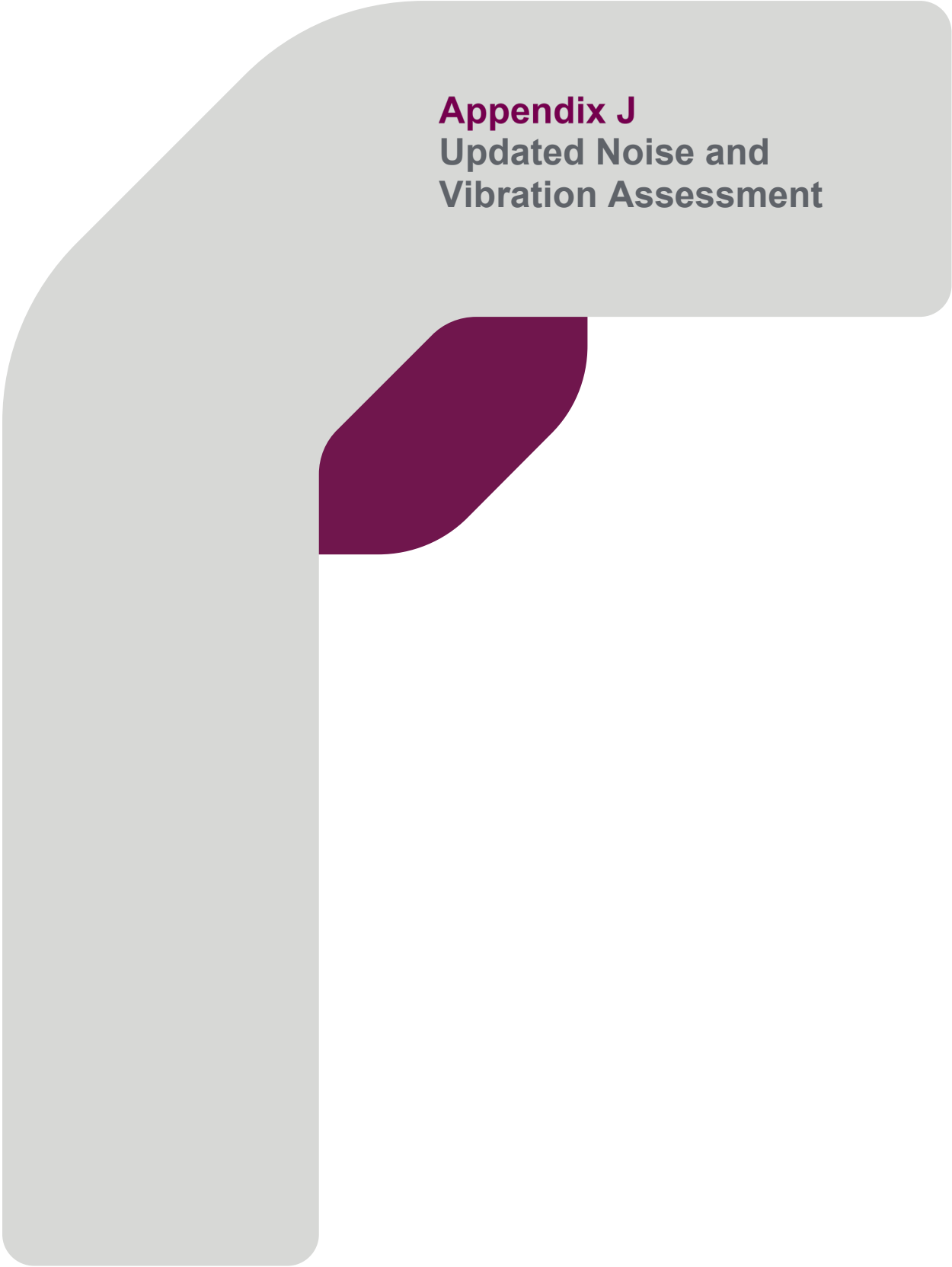
Appendix G
Engineering Advice –
Rainwater tank sizing



Appendix H
Geotechnical Opinion –
Letter 1



Appendix I
Geotechnical Opinion –
Letter 2



Appendix J
**Updated Noise and
Vibration Assessment**



Appendix K
Electromagnetic Energy
(EME) report



Appendix L
Overland Flow Flooding
Summary Letter



Appendix M
Updated Flood Impact
Assessment