

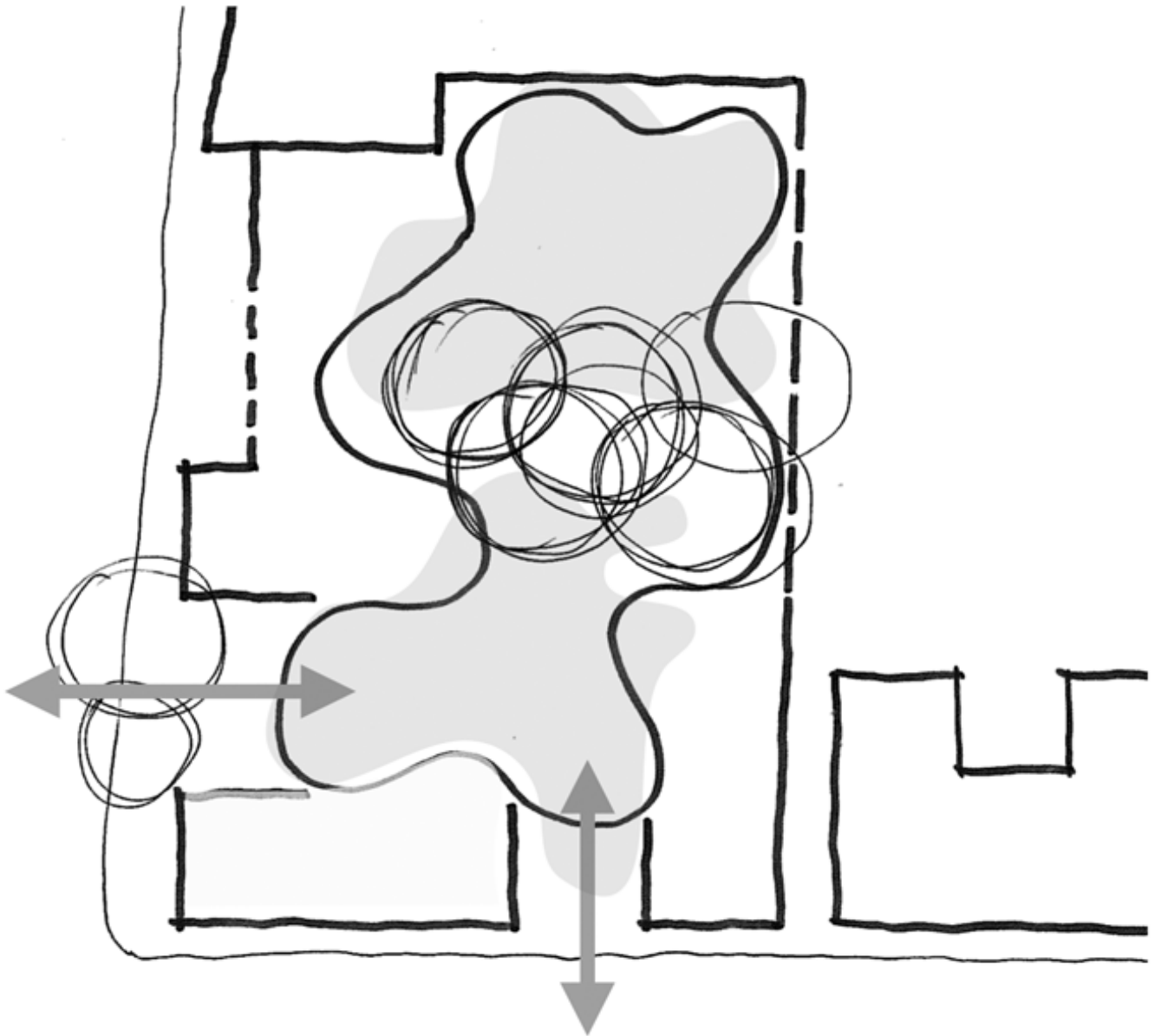
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix AA — Accessibility Statement

SSD-9914

Prepared by Philip Chun

For NSW Department of Education



# Darlington Public School

## Golden Grove St Chippendale NSW 2008

**Statement Prepared for:** NSW Department of Education School Infrastructure C/-Mace Australia Pty Ltd  
Attention: Daniel Iuliano – Project Manager

**Statement Prepared by:** Philip Chun Accessibility  
Suite 404, 44 Hampden Road  
Artarmon NSW 2064  
Lucy Alderson, Access Consultant.

**Statement Reference:** AN020-214512\_Darlington PS\_Design Capability Statement 200415\_LA

**Date of Issue:** 21 April 2020

## Design Capability Statement – Accessibility (SSDA)

### INTRODUCTION

Philip Chun Accessibility has been commissioned by NSW Department of Education School Infrastructure to prepare this Design Capability Statement in accordance with the technical requirements of the Planning Secretary's Environmental Assessment Requirements (SEARs), and in support of the SSD-9914 for the redevelopment of Darlington Public School.

Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington, within the City of Sydney Local Government Area. The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonald town train stations. The site is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049.

The SSD application seeks consent for demolition of existing school buildings and construction of a new part 2, part 3-storey building, increasing the school capacity from 230 to 437 students. The works also include replacement of the existing child-care facility (to the same capacity of 60 students), earthworks and landscaping. For a detailed project description refer to the EIS prepared by Ethos Urban.

Philip Chun Accessibility Pty Ltd have assessed the design documentation for the Darlington Public School project as outlined in Section C and acknowledge the SSDA design works are generally in accordance with and capable of complying with the following, subject to

- a. National Construction Code (NCC/BCA), Volume 1 – 2019 inclusive of Parts D, E and F as it relates to accessibility;
- b. Disability (Access to Premises - Buildings) Standards 2010 (Amendment No. 1); and,
- c. Applicable Australian Standards for access and mobility (i.e. AS 1428 series) as referenced in the NCC and the Premises Standards,

Pursuant with the exception of the outlined conditions and exclusions attached.



Specifically this report addresses the following SEARs Requirement:

SEARs	Report Reference
Accessibility Report	AN020-214512_DarlingtonPS_DraftAccess01_SEARS_20020227

**Attached: Sections**

A	Exclusions	Included, N/A
B	Conditions, Clarifications	Included, N/A
C	Reviewed Documentation	Included, N/A

**SECTION A**

**Exclusions**

1. This Statement relates to the works identified on the schedule of plans identified in Section C.
2. The following areas are excluded from requiring access for people with disabilities, under the provisions of BCA D3.4:
  - a. Plant Rooms
  - b. Loading Dock
  - c. Back-of-House
  - d. Store Rooms
  - e. Utility Rooms
  - f. Cleaner Rooms
  - g. Waste Disposal Rooms
  - h. Bike/Scooter Parking

**SECTION B**

**Condition**

This opinion is subject to the following condition being addressed:

1. Design documentations shall be coordinated and detailed to comply with BCA and applicable Australian Standards (e.g. AS1428.1-2009) as it relates to accessibility during subsequent detailed design development stages.

**SECTION C**

**Reviewed Documentation**

Philip Chun Accessibility has reviewed the following architectural drawings issued for SSDA prepared by FJMT Studio form the basis of this statement.



Drawing No. (revision)	Titled	Dated
1000/02	Cover Sheet and Drawing Schedule	17/4/20
1200/02	Existing Site Plan	17/4/20
1201/02	Proposed Site Plan	17/4/20
2050/02	Lower Ground Plan – S2	17/4/20
2052/02	Level 1 Plan – S2	17/4/20
2053/02	Level 2 Plan – S2	17/4/20
2054/02	Roof Plan – S2	17/4/20
2101/01	Demolition Plan – SSDA	17/4/20
2811/01	Upper Ground Plan – S2 Play Areas	17/4/20
3200/02	Elevations – 1:200	17/4/20
4200/02	Sections – 1:200	17/4/20
4201/02	Sections – 1:200	17/4/20
4300/01	Perspective Sections – Façade Western Façade – FT01, 02	17/4/20
4301/01	Perspective Sections – Façade Wester Façade – FT01, 07, 09, 10	17/4/20
4302/01	Perspective Sections – Façade Eastern Façade – FT04, FT05	17/4/20

*Additional Documentation*

- a) SSD 9914 Architectural Design Statement – Draft Issue 17 April 2020
- b) SSD 9914 Landscape Report – 17 April 2020 Rev02
- c) Landscape SSDA Drawings

SIGNED for and on behalf of the Consultant:

..... 21 April 2020

*Signature of Officer*  
Lucy Alderson

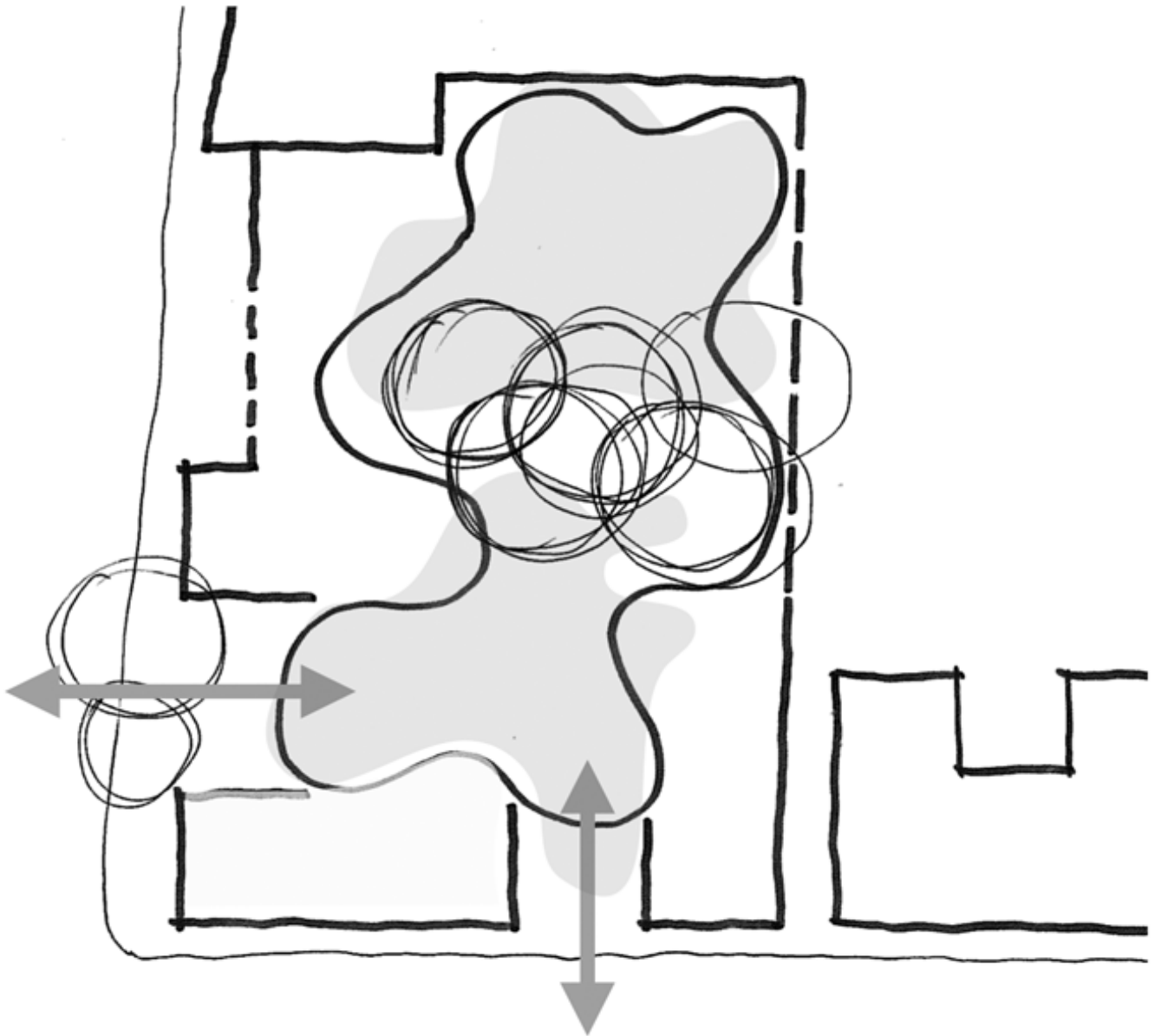
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix B — Design Report and Verification Statement

SSD-9914

Prepared by FJMT

For NSW Department of Education





**DARLINGTON PUBLIC SCHOOL**  
SSD - 9914 ARCHITECTURAL DESIGN STATEMENT

GOLDEN GROVE STREET, DARLINGTON, SYDNEY  
Department of Education



Project Name	Darlington Public School		
Project Code	DTPS		
Document Name	SSD-9914 Architectural Design Statement		
Revision	Date	Comment	Approved
Draft	28.02.20	Preliminary SSD Report	EC
Draft	09.04.20	Draft SSD Report	EC
Draft	17.04.20	Draft SSD Report	EC
REV 00	28.04.20	SSD Report	EC
REV 01	11.05.20	SSD Report	EC
REV 02	28.05.20	SSD Report	EC

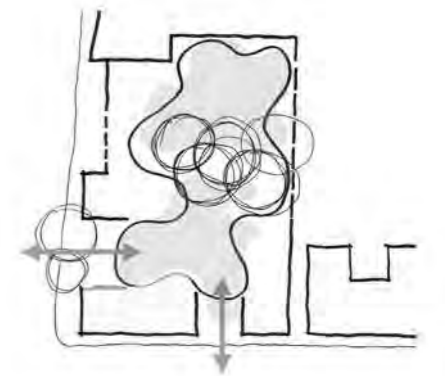
**Sydney** Level 5, 70 King Street, Sydney NSW 2000 Australia **t** +61 2 9251 7077  
**melbourne** Level 2, 56 Hardware Lane, Melbourne VIC 3000 Australia **t** +61 3 9604 2500  
**uk** Level , St Aldates, OX1 1BS United Kingdom **t** +44 1865 520 420

**w** [fjmtstudio.com](http://fjmtstudio.com)

Francis-Jones Morehen Thorp Pty Ltd ABN 28 101 197 219  
Nominated architect Richard Francis-Jones ARBNSW 5301  
Registered architect Richard Francis-Jones  
Francis-Jones Morehen Thorp Ltd Company no 7384142 ARB 078103G

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# INTRODUCTION

## Introduction

This Architectural and Urban Design Statement has been prepared by fjmt Studio on behalf of the Department of Education (the 'Applicant'). It accompanies the Environmental Impact Statement (EIS) as prepared by Ethos Urban in support of State Significant Development Application SSD 9914.

Approval is sought for the redevelopment of Darlington Public School to accommodate a maximum of 437 primary school students and an associated preschool for 60 children.

Specifically:

### Site preparation, demolition and excavation

- Site remediation
- Demolition of all existing buildings
- Minor excavation works to facilitate the new building
- Tree removal
- Installation of civil, hydraulic and electrical services

### Land use

- Use of buildings for the purpose of a school
- Use of buildings for the purpose of a child care centre (preschool)

### Existing buildings

- All existing buildings are to be demolished in the following stages:
- Early works: partial demolition of Block C (under separate approval, not included in scope of this SSDA)
- Stage 1: no demolition. Construction of Stage 1 in the area previously occupied by Block C
- Stage 2: demolition of the remainder of Block C and all of Blocks A and B

### New buildings

- Construction of a new 2 and 3 storey primary school building in 2 stages with integrated preschool.

### Landscaping

- Removal of some existing trees as nominated in the Landscape report.
- Landscaping works throughout the site, including connecting pathways, new play areas, assembly area and COLA
- A new games court is to be constructed during early works under separate authority (not included in scope of this SSDA)

### Other works

- Installation of fences and entry gates
- Modifications to existing pick-up / drop-off arrangements (via signage zones)
- Provision of signage zones

## Executive Summary

The proposal for the school will reflect the values as stated in Darlington Public School's Vision Statement in the 2018 School Plan:

*"At Darlington Public School we educate on purpose. Our vision is that all students receive strong educational foundations on which independent, critical thinking, lifelong learners are developed. Our goal is that all Darlington Public school students are able to use their educational opportunities to make a positive difference in their own lives and in the wider community."*

One of the fundamental principles of our response is to develop a strong identity and a sense of place for the campus, which will support the school as an inclusive, community focused campus that can support the holistic education of each learner. Our response unlocks the potential of the site through a number of strategic moves which provide ongoing opportunities for increased amenity and functionality.

The current school population includes 183 students, 23 staff and 24 preschool children.

The brief is to deliver a school for 415 students, to be accommodated in 19 home bases. This equates to an average of 22 students per home base. Future expansion can be accommodated up to a maximum of 437 students with an average of 23 students per home base. The proposed Master Plan is based on the NSW Department Of Education's Educational Facilities, Standards and Guidelines for a Core 14 school.

In addition to meeting the EFSG requirements for a Core 14 school, the proposal also includes an ESC approved Preschool for 60 children.

The total site area is 7,253m<sup>2</sup>

## Client Team

Project Reference Group Members:

Director, Public Schools -NSW Dept of Education - Richard Skinner  
Senior Project Director - NSW Dept of Education - Robert Crestani  
Project Director - NSW Dept of Education - Karissa Kendall  
Relieving Principal - Darlington Public School - Michelle McCormack  
Asset Manager - Department of Education - Dean Slattery  
Communications Manager - Dept of Education - Jacqueline Allen  
Project Manager - Mace Senior Project Director - Josh Malin  
Head Design Consultant - fjmt - Elizabeth Carpenter

## Consultant Team

- Structure - **Bonacci Group**
- Mechanical and ESD Consultants - **Integral Group**
- Hydraulics, Wet Fire - **Warren Smith and Partners**
- Civil Hydraulics- **Bonacci Group**
- Electrical , Comms, and Security - **Wood and Grieve Engineers**
- Dry Fire - **Wood and Grieve Engineers**
- Quantity Surveyor - **DCWC**
- Educational Planning - **New Learning Environments**
- BCA/NCC & Accessibility/DDA - **Philip Chun**
- Traffic Engineer - **TTPA**
- Acoustic Engineer - **Acoustic Logic**
- Visual Impact - **Ethos Urban**
- Aboriginal Consultant - **GML Heritage**
- Heritage (Historical) Consultant - **GML Heritage**
- Biodiversity Consultant - **Eco Logical**
- Aborist - **Moore Trees Aboriculture**
- Waste Management Consultant - **JBSG**
- Surveyor - **CMS Surveyors**

## Report Structure

In order to develop the most appropriate response for the site, prior to the decision as to the current proposal a detailed site analysis and investigation of possible options was undertaken. A summary of the findings has been included as part of the Architectural Design Statement.

In order to understand how to develop the site to meet the objectives of all stakeholders; both internal and external, and to future proof the site, a set of design principles was developed.

This report details the contextual analysis, the project brief, the design principles, and includes a brief description of the options which were initially developed as part of the initial Master Plan phase.

The selected option can be developed either in one staged or as a staged approach.

In reading this report, reference should also be made to the various consultants information which supports the proposal.

The project underwent a rigorous design review with the State Design Review Panel and the response to the panel's feedback is included as an Appendix to this report.

# RESPONSE TO SEARS

Conduct a view analysis to the site from key vantage points and streetscape loc

SEARS Requirements	Response location
Architectural drawings showing key dimensions, RLs, scale bar and north point, including: <ul style="list-style-type: none"> <li>plans, sections and elevation of the proposal at no less than 1:200 showing indicative furniture layouts and program</li> </ul>	Refer Appendix Architectural Drawing Set
<ul style="list-style-type: none"> <li>illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes</li> </ul>	Refer Materiality pages 39-49 including Material Sample Board Page and Exterior Finishes Schedule .
<ul style="list-style-type: none"> <li>details of proposed signage, including size, location and finishes</li> </ul>	Refer Page 33 and Architectural Drawing Set - Signage
<ul style="list-style-type: none"> <li>detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality</li> </ul>	Refer Facade Sections page 41 and Architectural Drawing Set - Elevations
<ul style="list-style-type: none"> <li>site plans and operations statement demonstrating the after hours and community use strategy</li> </ul>	Refer Public Domain and Community Uses page 33 and Architectural Drawing Set - Site Plan.
Site Analysis Plan including: <ul style="list-style-type: none"> <li>site and context plans that demonstrate principles for future development and expansion, built form character and open space network</li> </ul>	Refer Site and Context Analysis pages 6-9
<ul style="list-style-type: none"> <li>active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links</li> </ul>	Refer Landscape Report and Traffic Report
<ul style="list-style-type: none"> <li>site and context plans that demonstrate principles for future network, active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links</li> </ul>	Refer Landscape Report and Traffic Report
Shadow Diagrams	Refer Page 29 for example overshadowing on 21 June. All other overshadowing diagrams are in the Appendix, Architectural Drawing Set
View analysis, photomontages and architectural renders, including those from public vantage points	Refer separate Visual Impact Assessment Report
Schedule of materials and finishes	Material Sample Board Page and Material Schedule pages 47-48
<b>SEARS Requirements (Architectural Design Statement)</b>	
Key issues to be addressed include: <ul style="list-style-type: none"> <li>Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.</li> </ul>	Refer Built Form and Urban Design page 18
<ul style="list-style-type: none"> <li>Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours</li> </ul>	Refer Built Form and Urban Design page 18, Functional Organisation page 20 and Materiality pages 39-49.
<ul style="list-style-type: none"> <li>Provide details of any digital signage boards, including size, location and finishes.</li> </ul>	Refer Page 33 and Architectural Drawing Set - Signage
<ul style="list-style-type: none"> <li>Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.</li> </ul>	Refer Servicing the School page 27 and Building Services Strategies page 28. Refer separate Waste Management, Traffic and Services Reports
<ul style="list-style-type: none"> <li>Provide detailed site and context analysis to justify the proposed site planning and design approach including massing and building location options and preferred strategy for future development taking into account the location of existing trees.</li> </ul>	Refer Site and Context Analysis Page 6 onwards and Summary of Master Plan Options page 14
<ul style="list-style-type: none"> <li>Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.</li> </ul>	Refer separate Visual Impact Assessment report and Architectural Drawings Set - Photomontage Views
<ul style="list-style-type: none"> <li>Conduct a view analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building envelope and likely future development)</li> </ul>	Refer separate Visual Impact Assessment Report and Architectural Drawings Set - Street Views
<ul style="list-style-type: none"> <li>Address Crime Prevention Through Environmental Design (CPTED) Principals</li> </ul>	Refer CPTED Page 56

SEARS Requirements	Response location
<ul style="list-style-type: none"> <li>Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility</li> </ul>	Refer Environmental Amenity page 32, Architectural Drawing Set, Landscape Report and separate ESD Report
<ul style="list-style-type: none"> <li>Demonstrate that Aboriginal culture and heritage is considered and incorporated holistically in the design proposal</li> </ul>	Refer Aboriginal Cultural and and Heritage Context, page 34, Landscape Design Report and separate ACHAR report.
<ul style="list-style-type: none"> <li>Detail ESD principals including sustainability targets and integration of these in the design approach</li> </ul>	Refer separate ESD Report and Architectural Drawing Set
<ul style="list-style-type: none"> <li>Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts.</li> </ul>	Refer Overshadowing page 29, Visual Amenity page 30 and separate Acoustic Report
<ul style="list-style-type: none"> <li>Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers</li> </ul>	Refer separate Electrical Consultant report, Appendix B
<ul style="list-style-type: none"> <li>Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.</li> </ul>	Refer Overshadowing page 29, Visual Privacy page 30 and separate Acoustic Report
Design Report to demonstrate how design quality will be achieved in accordance with the above Key Issues, including: <ul style="list-style-type: none"> <li>Architectural Design Statement</li> </ul>	Refer Design Principles page 10 and Proposed Design pages 17 onwards.
<ul style="list-style-type: none"> <li>Diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal</li> </ul>	Refer Design Principles page 10 and Proposed Design page 17 onwards
<ul style="list-style-type: none"> <li>Detailed site and context analysis</li> </ul>	Refer Site and Context Analysis Page 6 onwards
<ul style="list-style-type: none"> <li>Analysis of building location options considered including building envelope study to justify the proposed site planning and design approach, taking into account the location of existing trees and the context of surrounding development forms including existing street edge conditions.</li> </ul>	Refer Site and Context Analysis pages 6-9 and Masterplan Options page 14
<ul style="list-style-type: none"> <li>Visual impact assessment identifying potential impacts on the surrounding built environment and adjoining heritage items and heritage conservation area</li> </ul>	Refer separate Visual Impact Assessment Report
<ul style="list-style-type: none"> <li>Summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice</li> </ul>	Refer GANSW Consultation page 54 and Appendix A, State Design Review Feedback
<ul style="list-style-type: none"> <li>Summary report of consultation with the community and response to any feedback provided</li> </ul>	Refer separate Community Consultation Report
Design Verification Statement	Refer page 53
<ul style="list-style-type: none"> <li>Clearly demonstrate how design quality will be achieved in accordance with Schedule 4 Schools - Design Quality Principals of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</li> <li>Government Architect NSW Design Guide for Schools</li> <li>Demonstrate how environmental design will be achieved in accordance with the Environmental Design in Schools Manual (<a href="https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools">https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools</a>)</li> </ul>	Refer page 53 Refer page 32
<b>Non-SEARS Requirements - Childcare Planning Guidelines</b>	
National Quality Framework Assessment Checklist	Refer page 67
Design Statement Addressing Part 2, 3 and 4 of the Child Care Planning Guideline	Refer page 61

# SITE AND CONTEXT ANALYSIS

## Site Location and Details

- Darlington Public School is located in the suburb of Darlington and operates as a local primary school serving its immediate community.
- The school consists of 1970's buildings with no heritage significance. The heritage items that relate to the site are St Michael's Melkite Church located at the end of Abercrombie St and the Sydney University Regiment building which abuts the site and is located at the corner of Darlington Lane and Golden Grove Streets.
- The school site is surrounded on three sides by road ways; Abercrombie Street, Golden Grove Street and to the rear, Darlington Lane. To the north, the site is built up with two new University buildings; Sydney Business School and student accommodation.
- On the north side of Darlington Lane is a proposed student housing redevelopment consisting of a row of terraces along Darlington Road.
- The site is irregular in shape and is made up of two lots owned by the Department of Education. It has an overall area of approximately 0.72 hectares.
- The site contains the following lots:-
  - Lot 100 DP 623500 - 2,366m<sup>2</sup>
  - Lot 592 DP 752049 - 4,887m<sup>2</sup>
  - The lots will be consolidated after Stage 1
- Total Site Area = 7,253m<sup>2</sup>
- The site is zoned SP2 - Educational Establishment.



### LEGEND

- DARLINGTON PUBLIC SCHOOL
- SYDNEY UNIVERSITY
- CARRIAGEWORKS

## Campus Character

▪ University of Sydney Business School

▪ University of Sydney Regiment

▪ Existing Trees

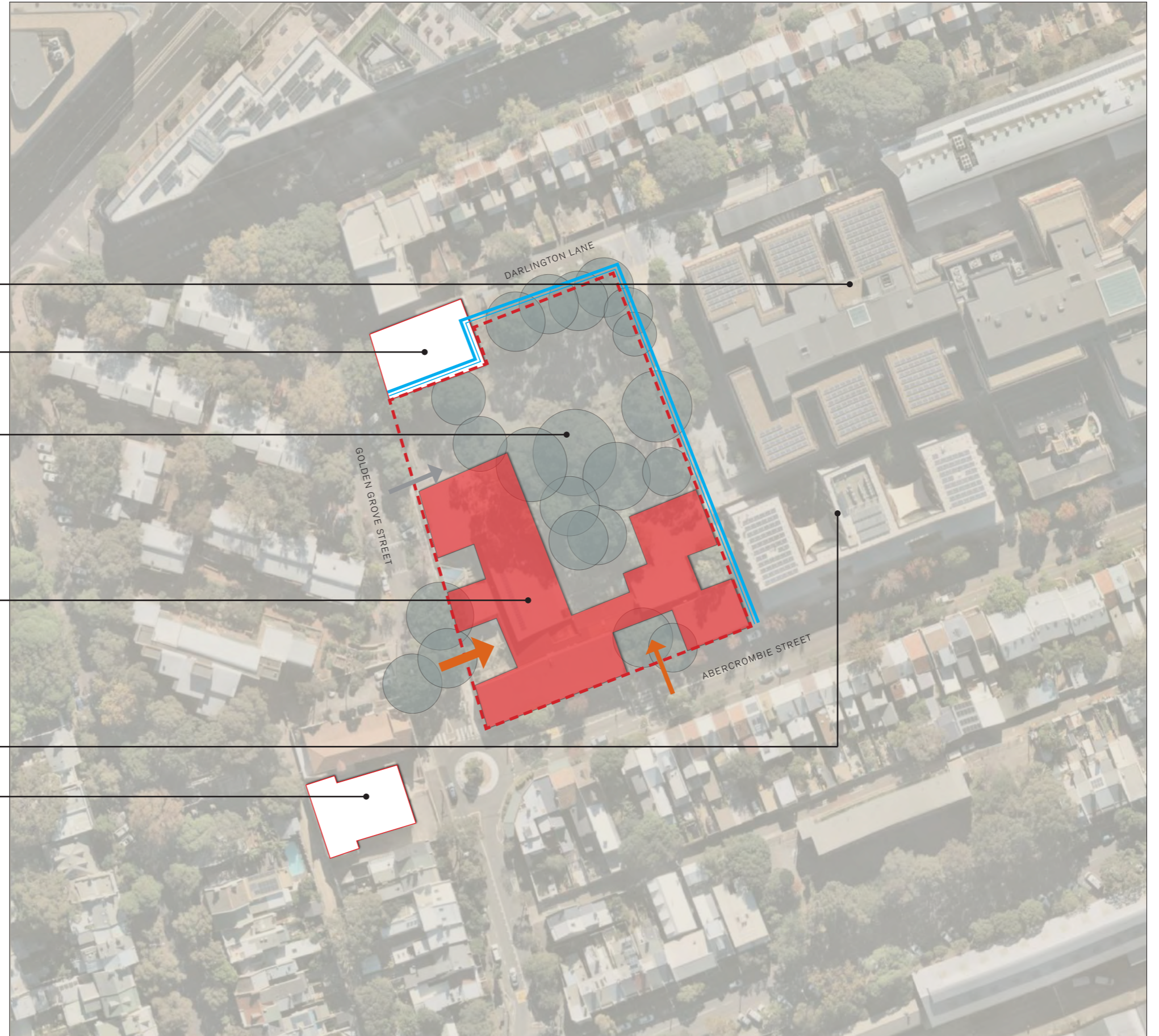
▪ Existing School Buildings

▪ Abercrombie Student Accommodation

▪ St Michael's Melkite Church

### LEGEND

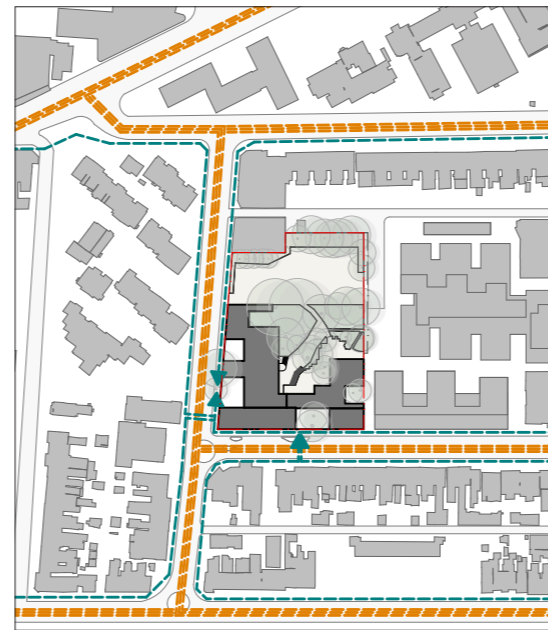
- EXISTING SCHOOL BUILDINGS
- HERITAGE BUILDINGS
- EXISTING TREES
- SCHOOL ENTRANCE
- SERVICE ENTRANCE
- SITE BOUNDARY
- BOUNDARY SHARED WITH USYD



# Site Analysis



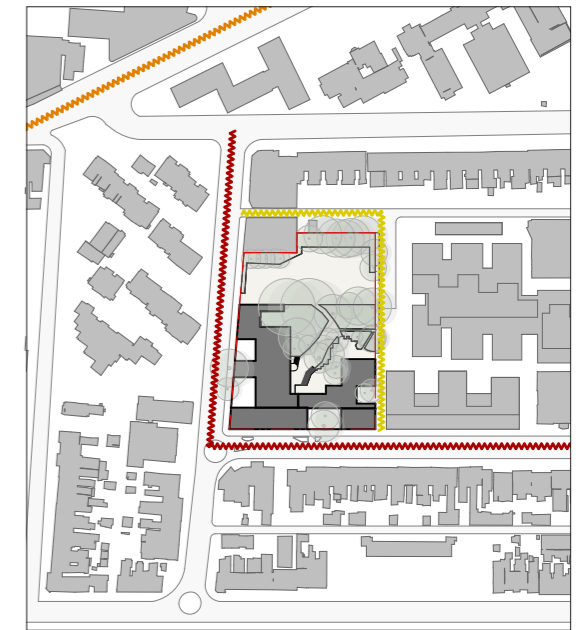
- ORIENTATION**
- PREDOMINANT SUMMER WINDS
  - PREDOMINANT WINTER WINDS
  - SUMMER SOLSTICE SUN PATH
  - WINTER SOLSTICE SUN PATH



- TRAFFIC**
- PEDESTRIAN ACCESS
  - SURROUNDING ROADS



**EXISTING TREES**



- NOISE**
- NOISE FROM SURROUNDING ROADS
  - NOISE FROM USYD
  - NOISE FROM KING ST/ CITY ROAD



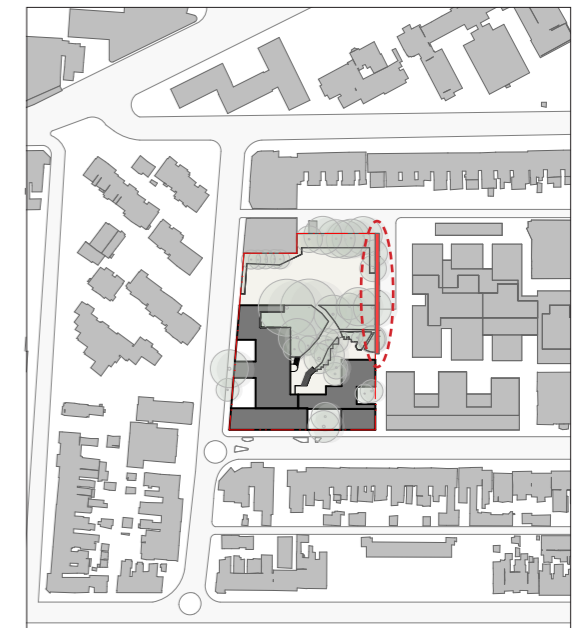
- DRAINAGE**
- AREA OF FLOODING
  - SCHOOL ROOMS THAT FLOOD
  - RUN OFF FROM ASPHALT



- CONTAMINATED FILL**
- AREA OF CONTAMINATED FILL. CONTAMINATION EXISTS ACROSS THE SITE



- EXISTING AREAS**
- EXISTING INTERNAL AREA - 3145M<sup>2</sup>
  - EXISTING PLAY AREA - 2834M<sup>2</sup>



- USYD STRIP OF LAND**
- IT HAS BEEN CONFIRMED THAT USYD WILL RETAIN OWNERSHIP OF THE STRIP OF LAND ADJACENT TO THE SUBJECT SITE

# Site Constraints & Opportunities



URBAN FABRIC

- LOW SCALE RESIDENTIAL
- MEDIUM SCALE RESIDENTIAL
- COMMUNITY BUILDINGS
- STUDENT ACCOMMODATION
- USYD BUILDINGS

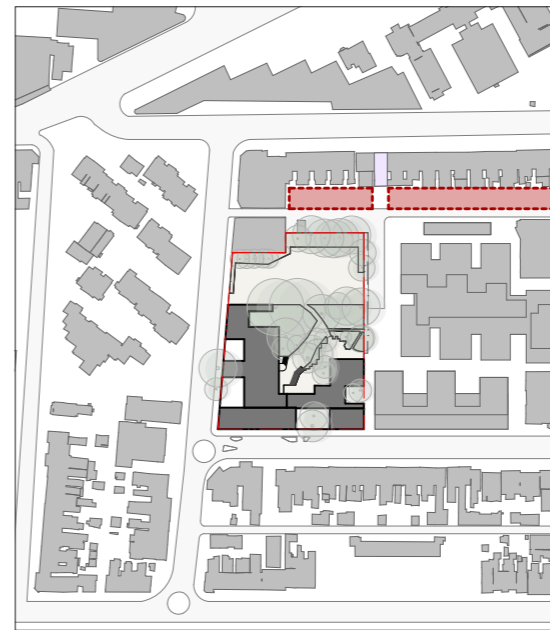


LOCAL AREA

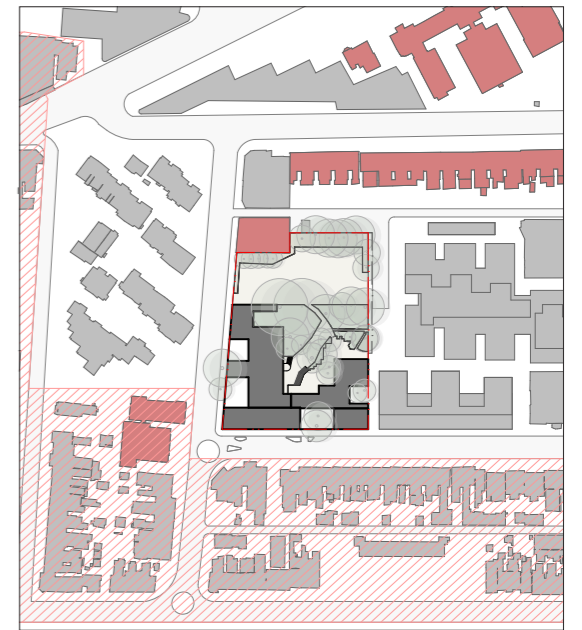
- RESIDENTIAL
- CHURCH
- BUSINESS
- UNIVERSITY



VIEWS IN FROM USYD

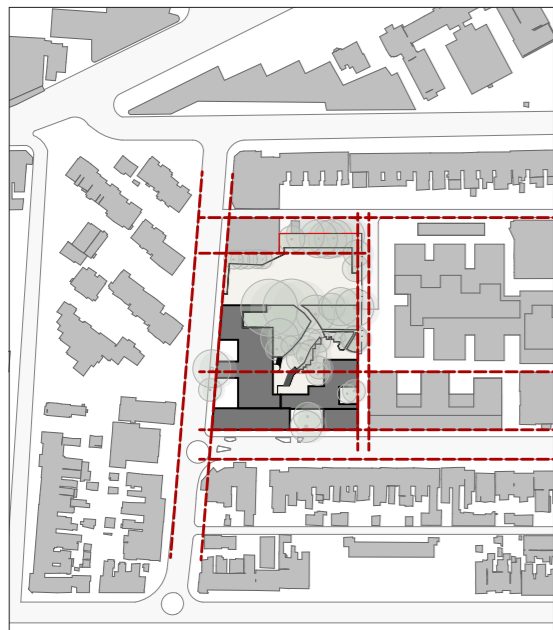


PROPOSED DARLINGTON LANE STUDENT DEVELOPMENT



HERITAGE

- CONSERVATION AREA- GENERAL
- HERITAGE ITEM - GENERAL



REGULATING LINES



LEVELS



ACCESS



SECURITY



ART WORKS

# DESIGN PRINCIPLES

## Guiding Design Principles

Schools have a vital civic role, and form an important part of the community.

Schools' primary role is to deliver educational outcomes, however, they also have opportunities to engage more broadly with their communities.

The design principles included within this section aim to provide a framework for the Master Plan and to direct the development of the design solution.

They offer a high level of aspiration and quality control which will be used to test options to ensure they align with the Master Plan's intent.

The Design Principles have been grouped under the over-arching EFSG and Educational Space Planning Principles as developed by New Learning Environments and the school community.

## Relationship to Darlington Public School Education Model

The Design Principles are to be considered in conjunction with the Darlington Educational Model which identifies the spatial implications of specific pedagogical approaches and the over-arching influence of the Reggio Emilia philosophy.

## Education SEPP Design Quality Principles

In the new Education SEPP 2017, there are a number of design quality principles included in the legislation to encourage design excellence. Any application under this legislation will be required to provide a design statement that outlines how these principles have been incorporated.

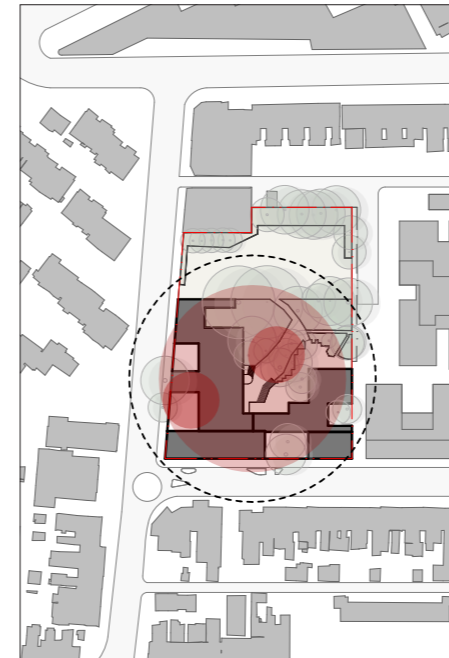
The SEPP Design Quality Principles include:

- Context, built form and landscape
- Sustainability, efficiency and durability
- Accessibility and inclusiveness
- Health and safety
- Amenity
- Whole of life, flexibility and adaptability
- Aesthetics

## EFSG Educational Space Planning Principle 01

### ***First and foremost, focus on the needs of learners and learning***

"students engage in their learning when they can change the learning space" DPS Teacher, LEAT 2017



### ***1: The Child Comes First***

#### ***A diverse, collaborative learning environment incorporating the spatial implications of specific needs.***

- 1. Learner-Centredness**
  - a diverse range of learning environments, both indoor and outdoor.
  - flexible learning environments that promote choice
  - reconfigurable spaces
  - connected spaces with opportunities for passive supervision
  - display spaces for student work
  - display spaces for information including time management aides
  - organisational spaces (home group/ tutorial/touch-down spaces)

- 2. Collaboration**
  - spaces to facilitate collaboration from pairs to neighbourhoods
  - spaces for both formal and informal collaboration
  - outdoor collaboration settings
  - neighbourhood assembly areas
  - multi-use spaces for cross disciplinary learning
  - teacher planning, meeting and prototype spaces
  - large meeting spaces for staff collaboration, both informal and formal
  - discrete spaces for conversations between students staff and school community/staff
- 3. Stage-Related Learning Neighbourhoods**
  - enhance neighbourhood identity and character
  - visual and physical links between learning stages
  - embrace shared areas while maintaining identity and address for each neighbourhood
  - clarity of way finding
  - equality of access across all spaces
- 4. Rethinking the Role of the Library**
  - a well connected and centralised "safe haven"
  - a learning area and a recreational area
  - an equitable, flexible and collaborative space
  - provision of specialised activities (ie: multi media)
  - provision of resource-based learning through maker spaces
- 5. Outdoor Learning**
  - maximisation of active play space within a constrained environment
  - consideration of outdoor amenity
  - connections between outdoors and indoors to emphasise the connection with the natural world
  - a diversity of outdoor areas
  - sustainable outdoor environments
  - practical outdoor environments
- 6. Learner Comfort and Well-being**
  - provide easy access to water bubbles and toilets
  - Create "stay a while" places, "sanctuary" spaces and "nooks" within indoor and outdoor learning areas
  - provide discrete counselling areas within student centred spaces (ie; library)
  - provide security and containment to support lock down procedures

**Build community and identity and create a culture of welcome inclusion and belonging that reflects and respects diversity within the schools community**

"The school should seem welcoming. Often, many community members are unsure of the school being located where it is". DPS Teacher, LEAT 2017



**2: Indigenous Heritage & Culture**

**A school that celebrates and educates about its Indigenous heritage and culture**

- Design that celebrates and reflects the Aboriginal community and heritage of the school.
- Integration of the school artworks.
- Landscape design that relates to indigenous community and can be used to teach and demonstrate indigenous culture.



**3: Identity & Inclusion**

**Creation of strong identity & address for Darlington Public School**

- Create a campus arrival marked by a series of clear and distinctive open spaces and buildings.
- Reinforcement of an inclusive sense of place and identity; a campus for all.
- Reinforce a campus of built form and landscaped spaces
- Provide a clarity of public to private zones across the campus
- Enhancement of the unique character of the campus and the influence of its urban context and the opportunity for a future focussed response



**4: Campus Heart**

**Clear campus centre (a central piazza)**

- Strengthening of Darlington's social and collaborative hub, focussed on the school centre as a gathering place.
- Provide open spaces which focus and sustain the school.



**5: Community Engagement**

**Connect the campus and the community**

- Provide large visible gathering spaces for the community at the edge of the school.
- Remove internal barriers to create a truly integrated and seamless campus.
- Placement of the school hall in a prominent position on the corner of Abercrombie and Golden Grove Streets.



**6: Orientation & Wayfinding**

**Collective and connected campus**

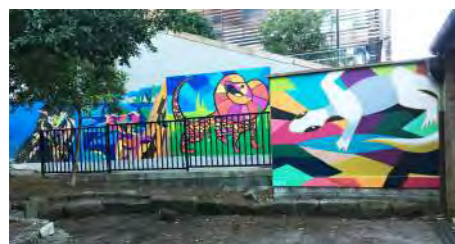
- Provide a clarity of wayfinding.
- Provide a clear hierarchy of access ways and entrances.
- Provide at least one weather protected route.
- Provide visible open spaces and access ways that strengthen connections
- Provide a seamless connection of interior and exterior function.



**7: Safety & Security**

**Pedestrian priority**

- Remove cars from campus where possible.
- Separate loading and pedestrian areas
- Through the use of landscaping and wayfinding, activate pedestrian paths.
- Consider pedestrian experience out of hours.
- Promote safety and accessibility.
- Interrogate safety and process of 'kiss and drop'.





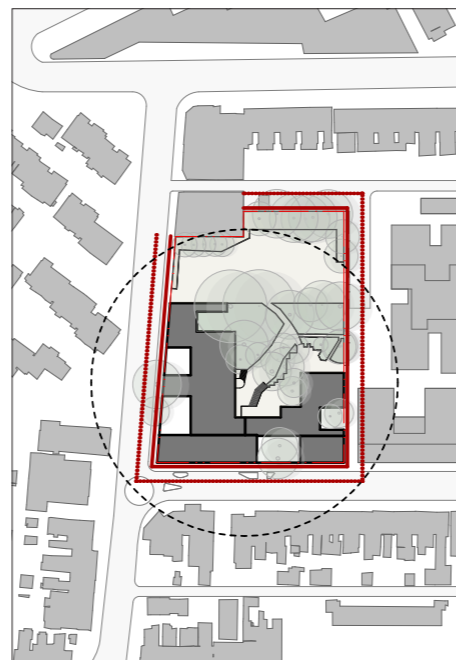
EFSG Educational Space Planning Principle 03

**Be Aesthetically pleasing**



EFSG Educational Space Planning Principle 04

**Provide contemporary, sustainable learning environments**



EFSG Educational Space Planning Principle 05

**Embed potential for reconfigurability, multi-purpose use over time**



**8: Heritage**

**Sensitive and appropriate design outcomes**

- Respect for the local heritage of the area.
- Consideration of how the site has developed and changed through its history and demonstration of this in the development of the school campus.

**9: Transparency & Showcase**

**Engaging, welcoming and vibrant**

- Promote interaction, involvement and curiosity.
- Activate pedestrian connections by promoting transparency to interiors.
- Showcase creativity and innovation.
- Promote day lighting and outlook.
- Encourage and invite cross disciplinary activity.
- Open up specific areas to the local community with shared spaces and resources.

**10: A sustainable, protective & contemporary environment**

**A nurturing and safe campus**

- Improve the amenity of the site and create a protective and sheltered campus.
- A campus that creates an environment where students feel calm and can focus on school life.
- Provision of an authentic learning experience through the building and landscape design
- A responsible selection of materials

**11: Amenity & Wellbeing**

**A welcoming, amiable, healthy campus**

- Encourage casual sport and recreation and promote health and exercise.
- Provide compliant shade and shelter and offer protected outdoor learning environments.
- Ensure campus is equitable and accessible.

**12: Flexibility & Multi-Purpose**

**Embed potential for reconfigurability, multi-purpose use over time**

- Minimise built-in elements and utilise mobile storage to configure spaces
- Provide flexible, multi-function spaces that can accommodate changes in student cohort, disciplinary trends, technologies and community use.

**13: Buildability & Economy**

**Sensible and considered development**

- Project planning, staging, design and delivery to align with ongoing strategic priorities and available funding.
- Consideration given to high quality and life-cycle economy in building and site development .



# EDUCATION MODEL

## Pedagogical Approach

The Government Architect NSW's 'Design Guide for Schools' states that a school design brief should outline the pedagogical approach of the school, and sets out the following guidelines for articulating pedagogical approach, and planning for its development;

Engage the school community in the discussion of different pedagogical approaches early in the design process, including more traditional and more contemporary teaching styles.

Innovative approaches are more successful when students, teachers and the school community prepare for them before new buildings and spaces are built, for example through small scale pilot projects.

New approaches to learning often require a variety of settings and increased technology support in order to enable a range of interaction styles. These can include large groups, small groups, personalised learning and indoor and outdoor spaces, all of which can impact on the spatial and environmental requirements of the school.

Regardless of the pedagogical approach, spaces should be designed to be adaptable to enable integration of new information and communication technologies as they emerge.

(Source: Government Architect NSW, 'A Design Guide for Schools', 2018)

## Reggio Emilia

'The learning philosophy of Reggio Emilia is based on promoting the rights of the child, and improving childhood education (pre-primary and primary) with children as active participants in the process.

It begins with the recognition of the child as possessing the potential and capabilities, and the curiosity and willingness to learn.

It is also built on the premise that space is an essential 'tool for learning' or 'third teacher' and that every corner of the learning environment can be used to engage children with their learning, with their adults (educators and family/carers) and with each other.

Research reaffirms this founding principle of the importance to learning of the relationships between children and family, their peers and their teachers.

The spaces of a Reggio Emilia environment will embody the culture of a school. They offer diverse and flexible spaces, to enable delivery of a similarly varied pedagogy, based on experiences through which children can learn, and "informed by continual questioning, reflection and research".

Design is guided by five key spatial principles embedded in any Reggio facility:

### centrality, transparency, horizontality, ateliers, and nature:

- A central piazza, lobby or courtyard welcomes visitors, provides links to other spaces, and offers clear guidance on wayfaring further into the facility. Décor is warm and engaging. In some cases, these community focused spaces include an accessible kitchen, inviting use by families, children and staff.
- Controlled visual links between learning spaces can provide lines of sight for adults but not for children – for them the intimacy and focus is maintained. In other spaces, glass walls are preferred to maximise connection.
- Attention is given to the relationship between adjacent spaces: creating meaningful connections between ages, functions and spaces. Teacher workspaces are placed to allow casual supervision of indoor and outdoor learning spaces. Screening is used to control student focus at times, and open the areas at others (see also Ateliers, below).
- Ateliers of different sizes allow shared research, experimentation, materials, languages, perspectives, interaction & exploration. Screening devices are also used to adapt the space so that different groups conducting different activities can be in the atelier at the same time. Décor is ideally kept low-key and neutral to really showcase student work and to help the learning materials to stand out.
- Connection to the natural environment is an imperative for a Reggio Emilia centre: indoor spaces enjoy natural light penetration and visual links to the outdoors, allowing a sense of what is happening outside; covered and open outdoor spaces feature prominently, and include play equipment, learning spaces and gardens, paths and installations that reflect the elements (wind etc). these principles are adaptable to a multi-storey environment."

Educational Model for Darlington Public School, New Learning Environments.

PRECEDENT IMAGE: AN INTERACTIVE FACADE PROMOTING AURAL AND TACTILE STIMULATION



PRECEDENT IMAGE: A CONNECTION TO THE OUTDOORS



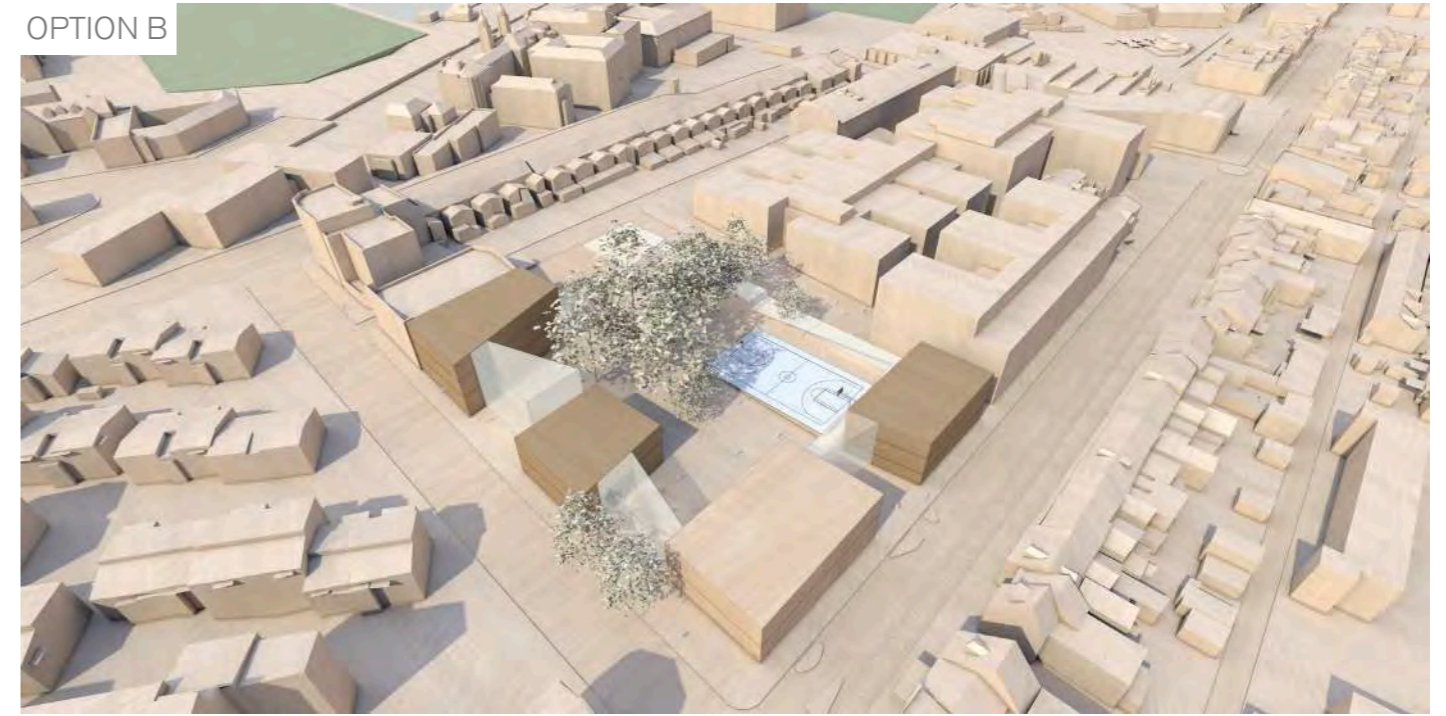
## SUMMARY OF MASTER PLAN OPTIONS

Following feedback from the PRG, School Community and the State Design Review Panel, fjmt was asked to provide an independent review of a previous master plan and provide an analysis based on the feedback raised. We analysed the existing site and the proposed design, and with consideration of the collective feedback on the proposal, explored the issues we felt the proposal raised and how this impacted on the school site. Following this, fjmt were asked to explore a number of high level conceptual options that took account of these responses, the history, site analysis and the needs of the school. These options build on the previous body of work that has been developed for the school.

OPTION A



OPTION B



OPTION C



OPTION D



**OPTION A**

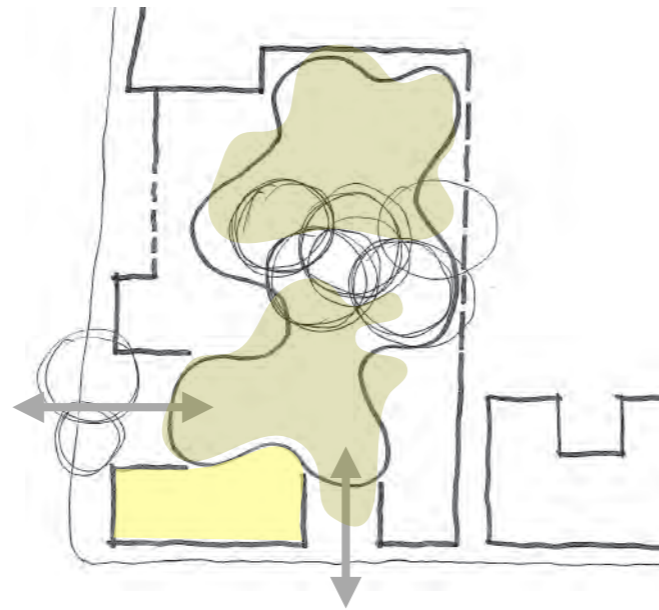
Locates the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school.

The front facade is opened up in places to allow access points into the school and helping to open up the school to the community.

Built form along Golden Grove St is pulled back from the site boundary expand the school drop-off areas and pull back the main volume from the road edge

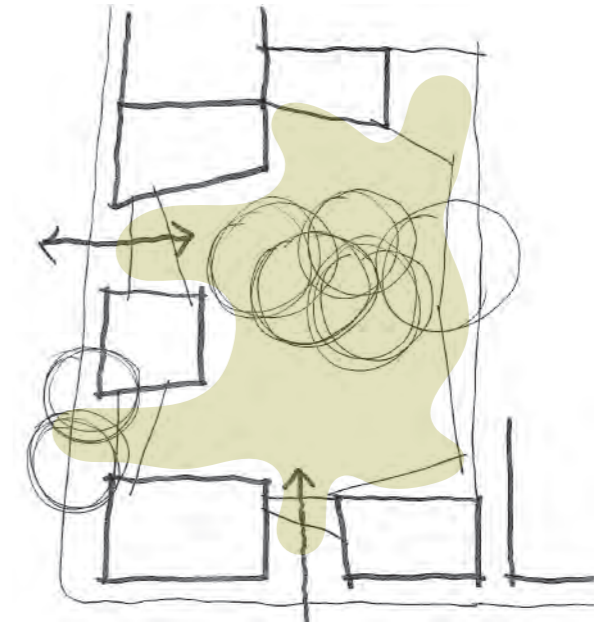
The buildings also form a C shape to block views in to the school site from the student accommodation and to help enclose and protect the school.

The exterior facades are very linear and aligned to a grid to reflect the urban fabric around the site, while in the inward facing facades are softer and curved to provide a gentler character to the school.



**OPTION B**

This option is a series of built forms that are pulled a part and placed around the site linked by bridges and colonnades. These open the site open and bring to it a range of different spaces and forms as you move across the school. The buildings are built up to limit the size of the footprints on the ground floor. The centre is left open to allow sun to penetrate as far into the site as possible.

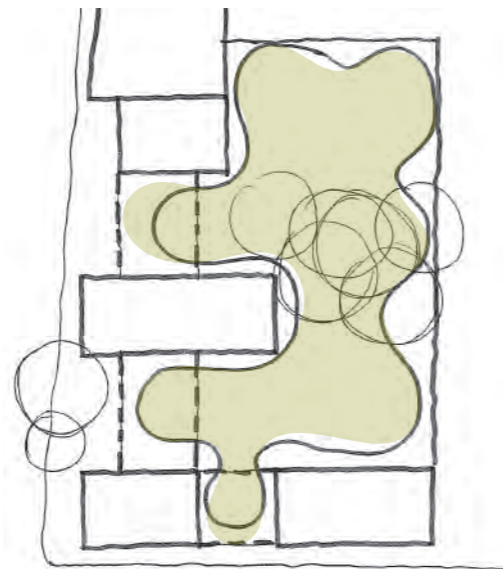


**OPTION C**

This option keeps the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school. The front facade is opened up in places to allow access points into the school and helping to open up the school to the community. The buildings along Golden Grove St are pulled back from the site boundary expand the school drop-off areas and pull back the main volume from the road edge.

The play areas and building forms are collected by a curved covered walkway which provides shelter as students moved around the site as well as visual privacy from the buildings to the north east of the site.

The school hall and Library are located in the building on the corner of Golden Grove and Abercrombie Streets. This form helps to hold the corner of the street and helps to emphasise the end of Abercrombie Street.

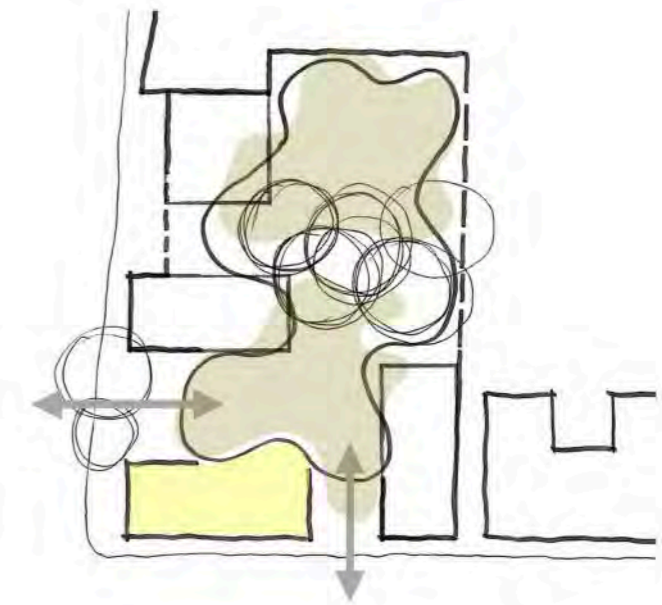


**OPTION D**

This option is a hybrid of options A and C. It also locates the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school. The front facade is opened up in places to allow access points into the school and helping to open up the school to the community.

Built form along Golden Grove St is pulled back from the site boundary expand the school drop-off areas and pull back the main volume from the road edge. The buildings also form a C shape to block views in to the school site from the student accommodation and to help enclose and protect the school.

The exterior facades are very linear and aligned to a grid to reflect the urban fabric around the site, while in the inward facing facades are softer and curved to provide a gentler character to the school.



### **Selected Master Plan Option**

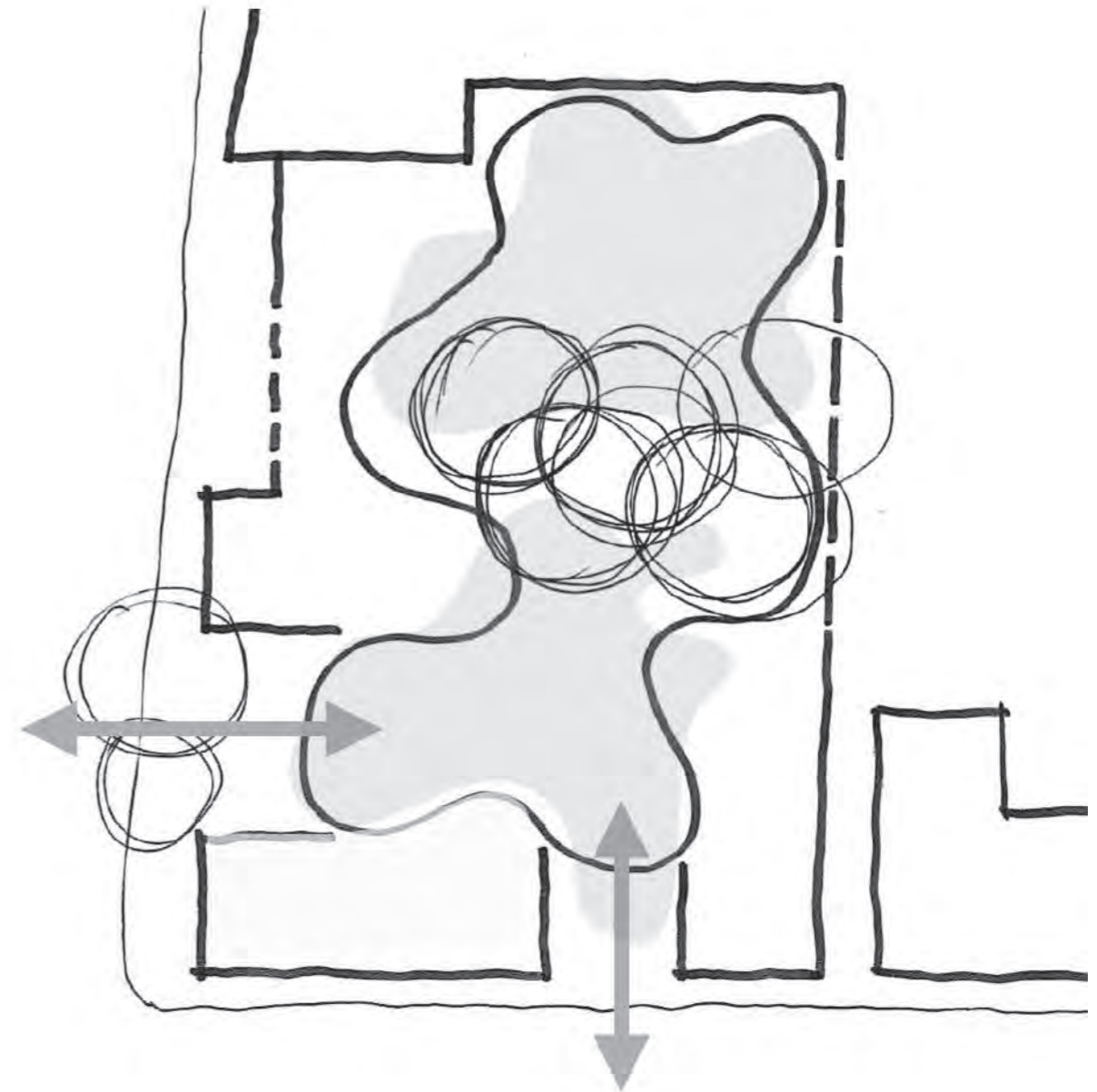
- The design that was developed for the Master Plan Proposal is an amalgamation of Options C and D.
- The developed option removes some floor area that was above the required brief area, creating more open space along the eastern boundary of the site.
- A wall has been proposed along the Abercrombie Street boundary in the location to respond to the surrounding context and provide privacy and security to the school.
- Further development of this option is shown in the Concept Design Proposal on the following pages..



## PROPOSED DESIGN

- The development of a concept for Darlington public school is drawn from the project brief and analysis of the site. The proposal locates the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school.
- The facade is opened up in selected places, allowing generous access points into the school, and making the school accessible to the community.
- The lower built-form along Golden Grove St provides a human scale to the entry points and helps to hold back the main volume of the learning neighbourhoods from the road edge.
- The building forms an L-shape to frame selective views into the school site from the roads and to help enclose and secure the school without the need for extensive fencing.
- The exterior facades are very linear and aligned to a grid to reflect the urban fabric surrounding the site, while the inward-facing facade that addresses the playground is curved to provide a gentler character to the school.
- The volume of the school hall, located on the corner of Golden Grove and Abercrombie Streets, reaches upwards as a welcoming gesture to the local community.
- The library and main COLA have been located in the centre of the school, representing the heart of the campus.

The following pages describe the proposed design.



# BUILT FORM AND URBAN DESIGN

## Height

The Darlington Public School site is located at the nexus between the fine grain of the Darlington terrace houses and the large scale of the University of Sydney.

The urban response to the site is to continue the dominant street alignment of the terrace houses which characterise the surrounding context. The height generally responds to the height of the immediate neighbours, being 3 stories.

The Communal Hall has a dominant location on the site, reflecting its importance to both the school and the wider community. Its height responds to the church diagonally opposite and provides a civic scale to the junction of Golden Grove Street and Abercrombie Street.

The three (3) story wing along Golden Grove, provides accommodation for Preschool, Administration and 2 levels of Learning Hubs. Level 1 and Level 2 are setback from the street to reduce the height impact

The overall height of the western wing corresponds to the height of the heritage item to the north which is approximately 13.450 - 15m in height.

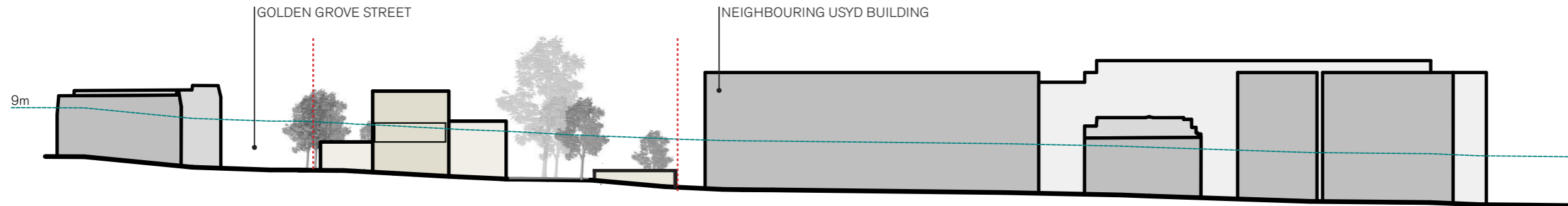
## Bulk and scale

The school locates the main bulk of the development along the the edge of the site, following the roads and referencing the walls that currently encircle the school.

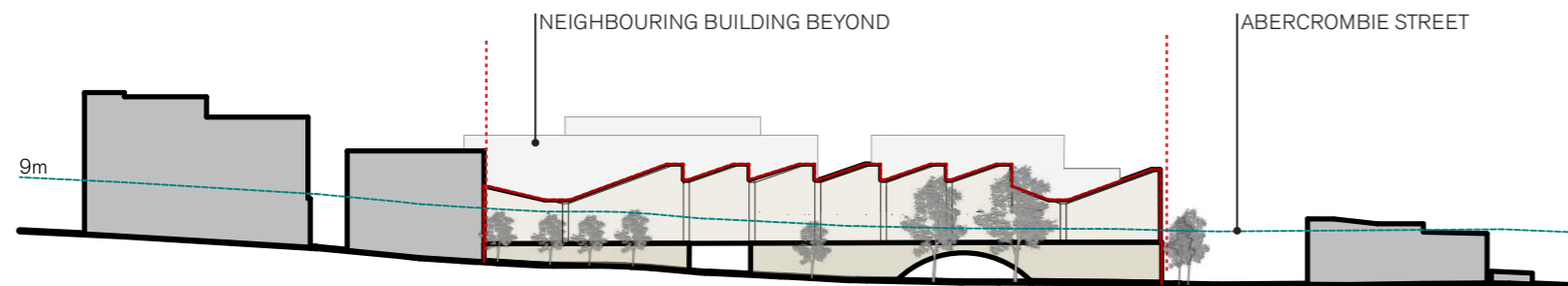
Scale is important in both the urban context of the development and as a place for learning. The rhythm of the existing buildings that characterises the suburb of Darlington has been maintained, where the new development draws reference from the surrounding context and key buildings.

The proportions of the new school development have been carefully considered to respect the streetscape and context, whilst responding to both the needs of the school and the Department of Education.

The scale of the forms and openings have been carefully considered to ensure that a high level of amenity is provided, creating a flexible and future-proof campus with ample access to natural daylight.



Section on Abercrombie St

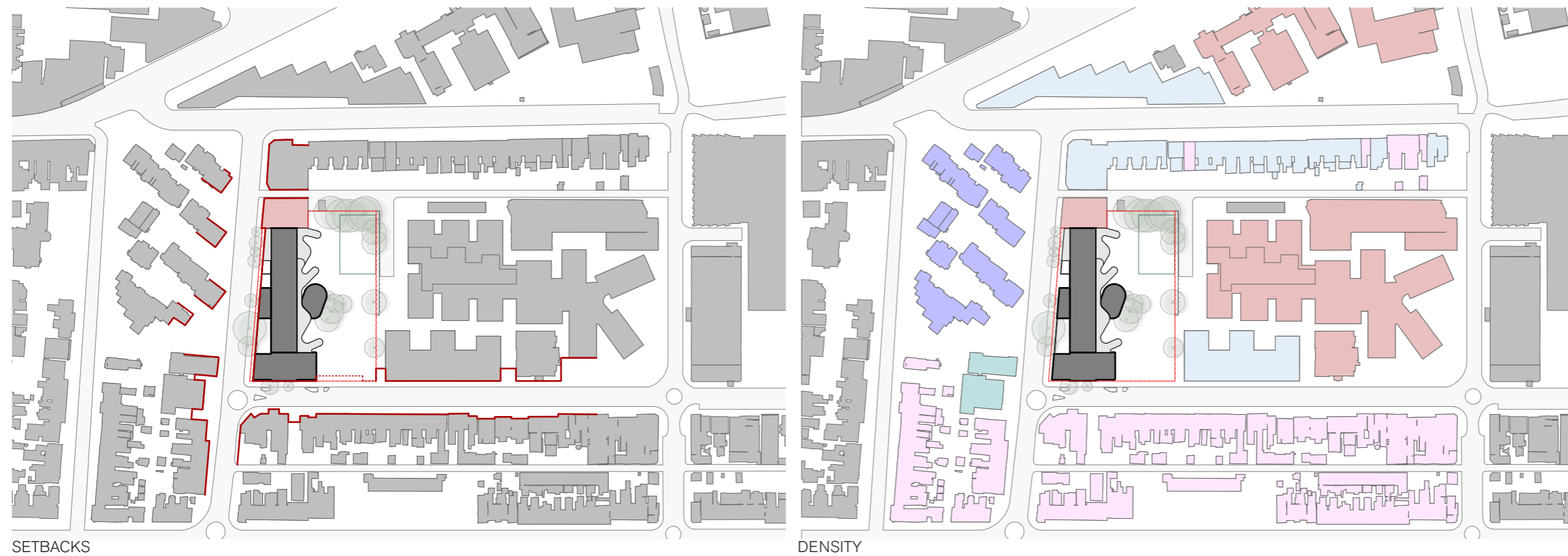


### Setbacks and Density

The school site is surrounded on three sides by road ways; Abercrombie Street to the south, Golden Grove Street to the west and Darlington Lane to the north. To the east, the site is built up with two new University buildings; Sydney Business School and student accommodation. On the north side of Darlington Lane is a proposed student housing redevelopment consisting of a row of terraces along Darlington Road.

The proposal locates the main bulk of the development along Golden Grove and Abercrombie Streets, forming an L-shape to filter views into the school grounds from the roads, and to help enclose and secure the school without the need for extensive fencing. All new buildings have minimal setbacks from the boundary edge, allowing a continuation of the surrounding streetscape frontage and pattern, and providing more generous play space and landscaping for the school.

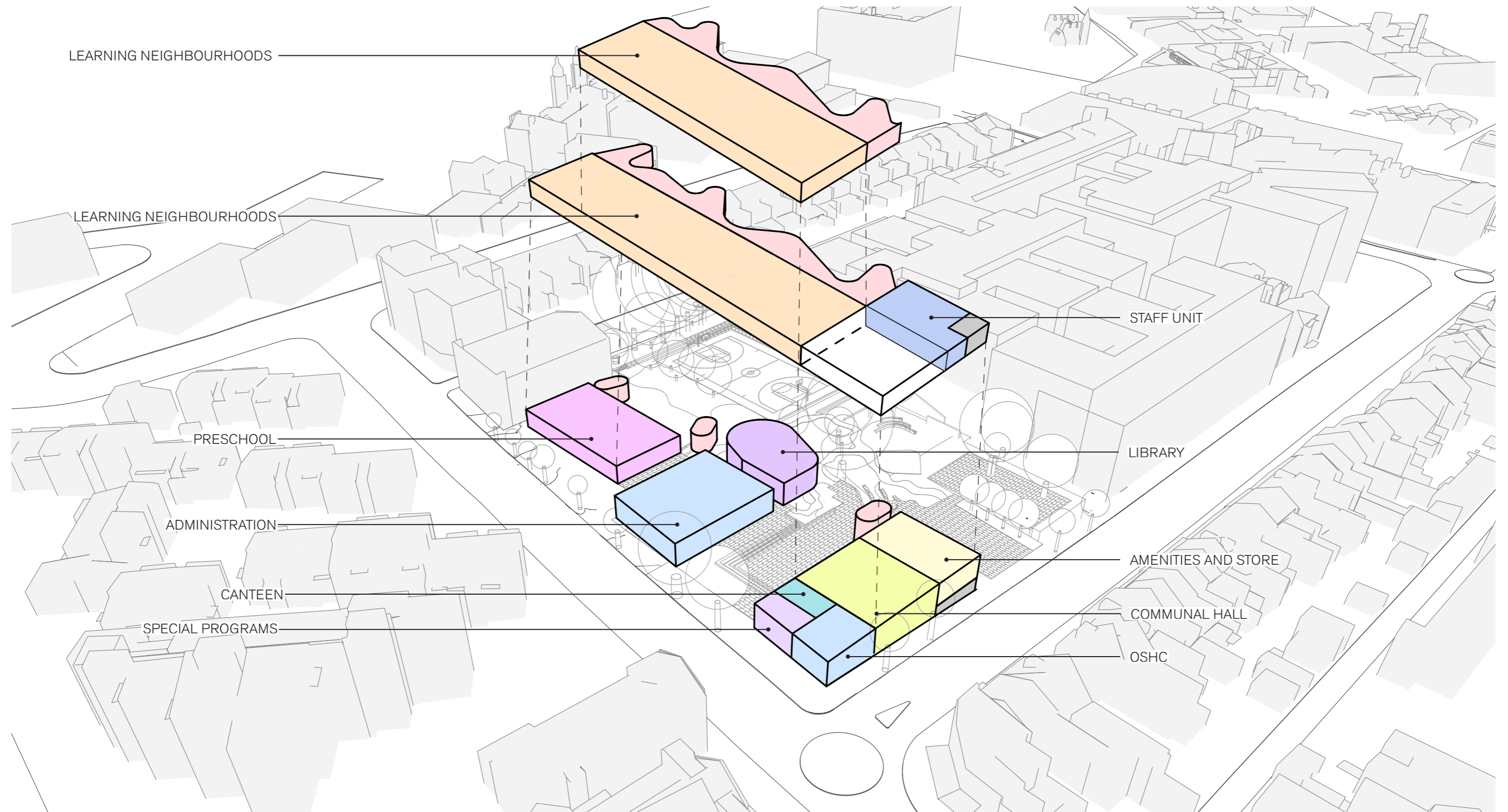
The higher volume of the school hall, which is situated in a prominent position on the corner of Golden Grove and Abercrombie Streets, has been setback to provide some relief to the footpath at what is a relatively busy intersection. Overflow space from the hall during public events is provided by the covered forecourt at the main entrance to the school.





# FUNCTIONAL ORGANISATION

## Block and Stack Axonometric Diagram



## Relationship Diagrams

As a result of feedback regarding the preferred spatial and functional layouts of the school we have tested the functional relationship of these areas and created a number of diagrams that are able to help determine where the optimum locations for key spaces in the school can be.

### Preschool

- The pre-school is an important part of Darlington Public School. Its location and the interrelationship between it and the primary school is a key consideration.
- It is important to the school that the pre-schoolers share the main school entrance and feel a part of the school.
- As the preschool opens after the main school, it

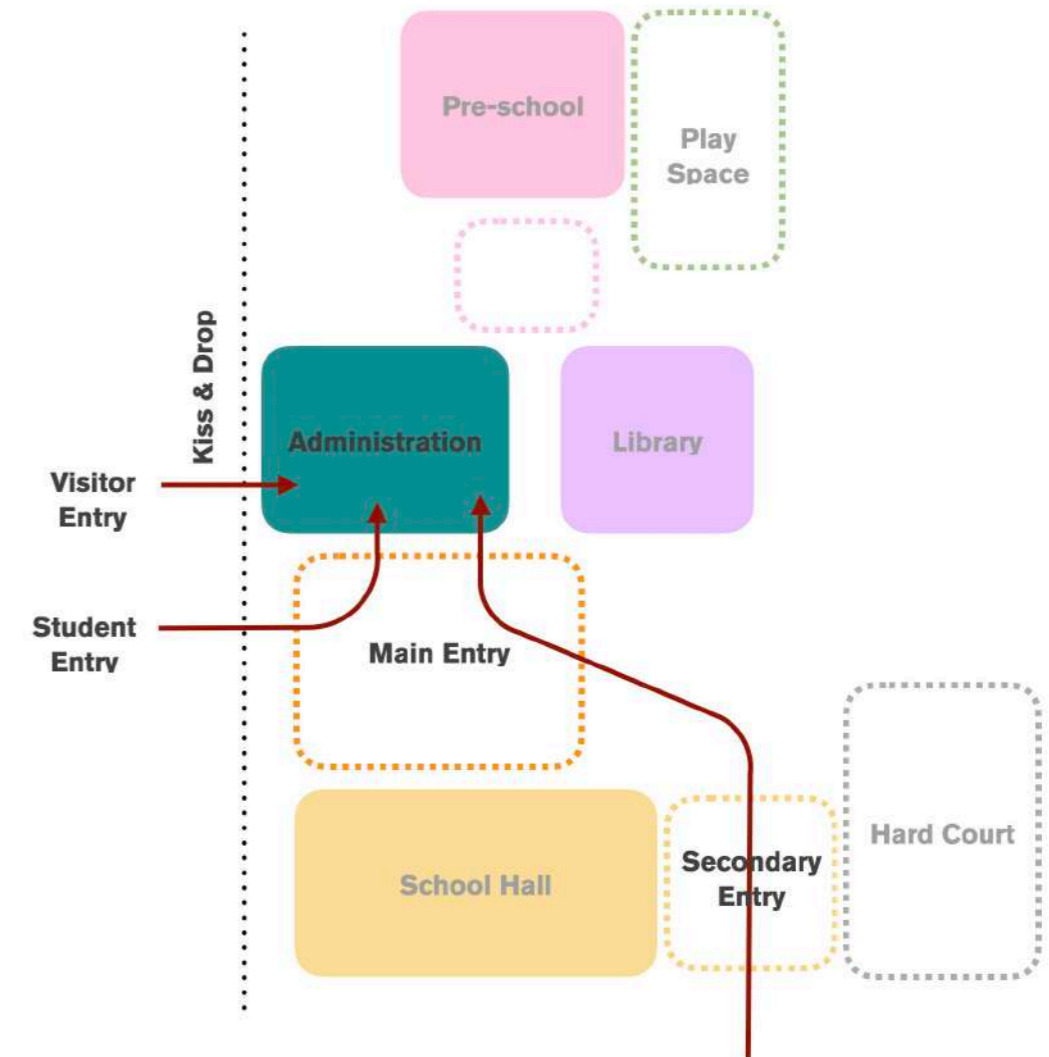
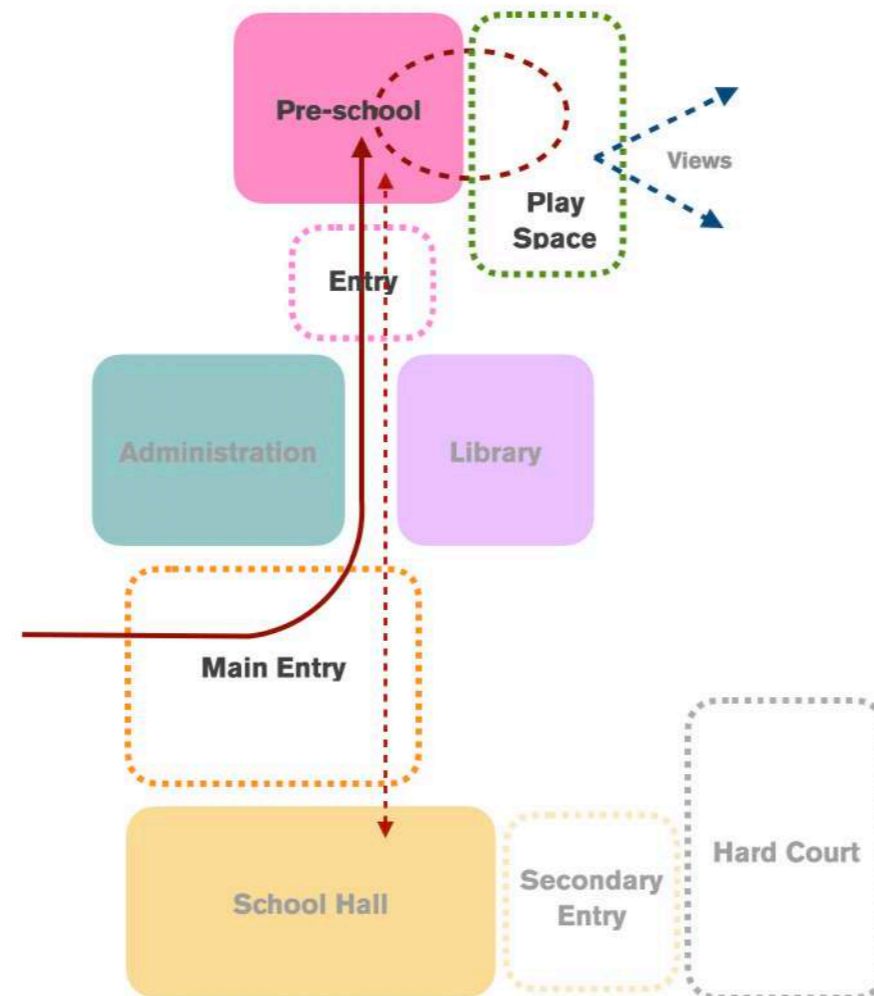
needs a dedicated covered waiting area for parents who also have older children at the school.

- The outdoor play space must be secure but should provide visual access for the pre-schoolers and the primary school children to interact.

### Administration

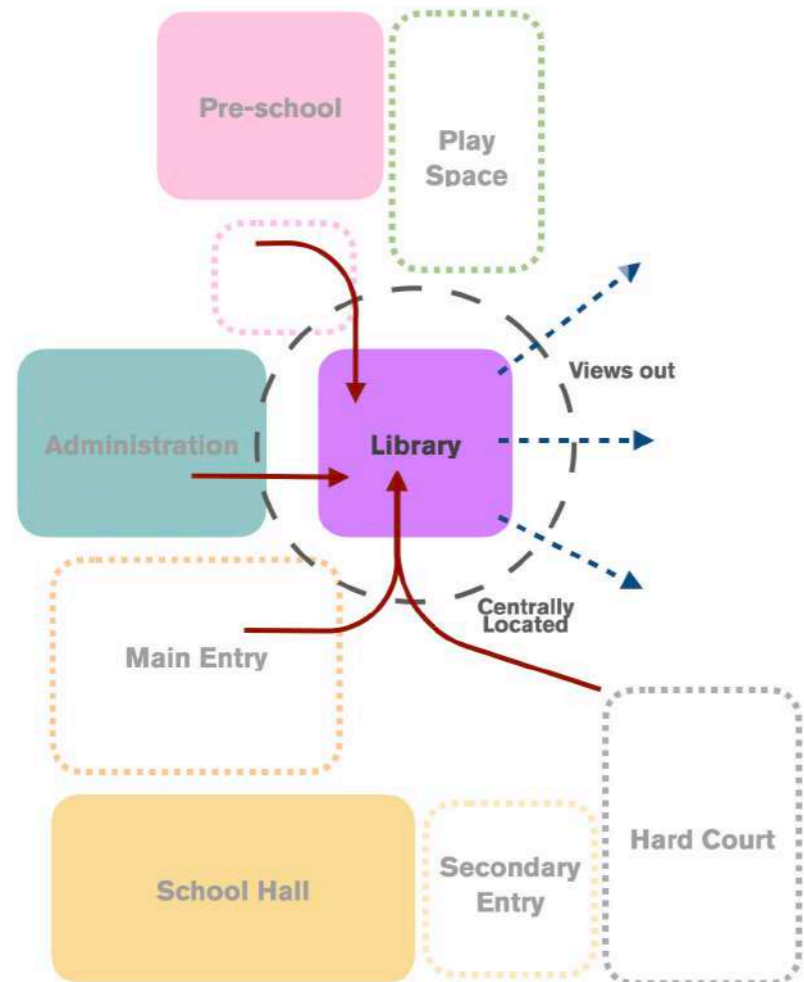
- The school administration is located in a prominent position that is easily accessible by parents and students alike, located near the main entrance.
- It is accessible to visitors without having access to the school grounds.
- Close to the loading zone for service, delivery and emergency vehicles.

- Is centrally located within the school, so that it is at an easy point for access.
- Located in close proximity to the lift



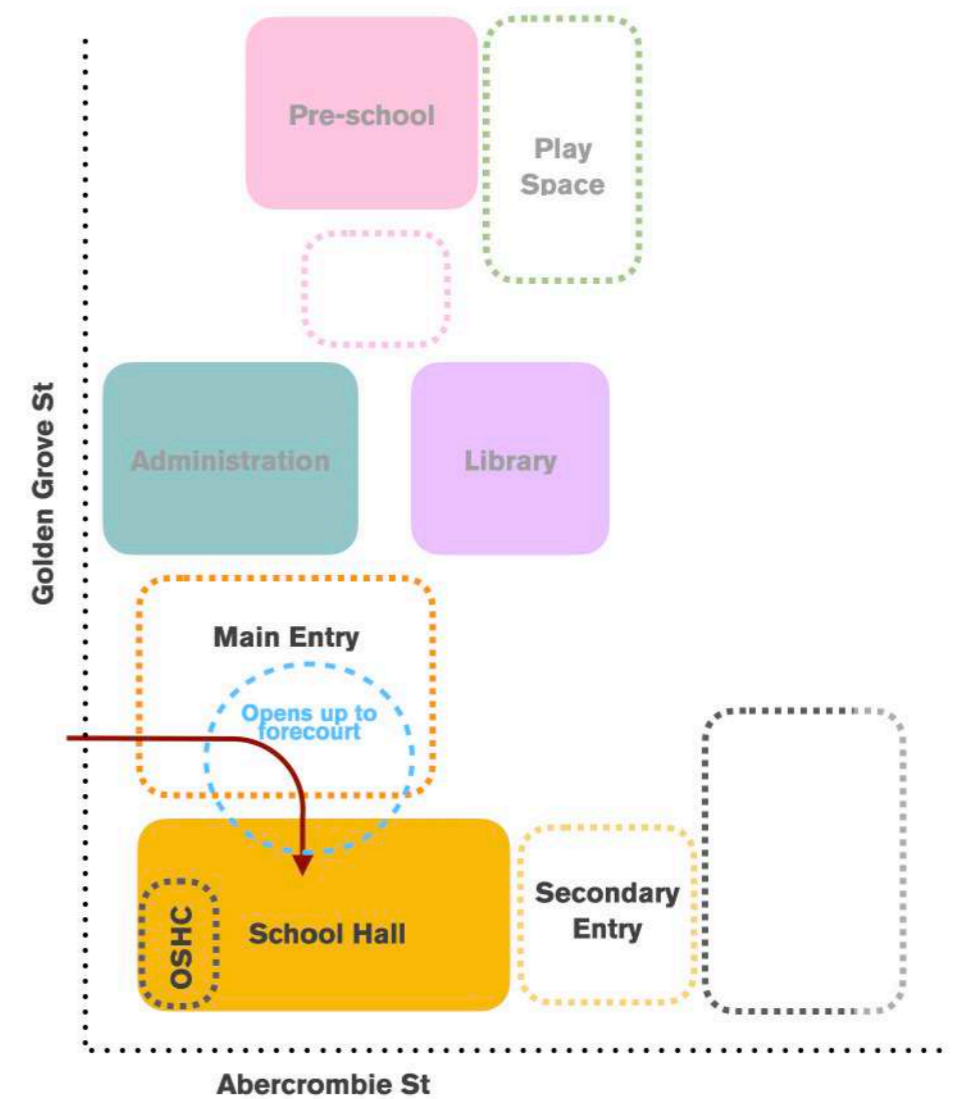
**Library**

- \_The Library is a key learning space for all students at the school.
- \_Locating it centrally enables it to be easily accessed by all students.
- \_Having the library extend out into the play area helps to create a diversity of play spaces.
- \_Can be a refuge for students seeking quieter play, while still allowing them to feel a part of the core of the school.



**School Hall**

- \_The school hall is a place of gathering for the school, for performance, learning and celebration.
- \_It can be a space where the school can choose to welcome the wider community and promote the school in the local area.
- \_Locating it on the corner of Golden Grove and Abercrombie Streets gives it a prominent aspect in the streetscape.
- \_Placing it at the school edge also allows for access to be monitored and when used after hours to prevent visitors from entering the school grounds.
- \_The hall has a central location in the school and can be accessed by all students.
- \_The School Hall will also be used by OSHC.

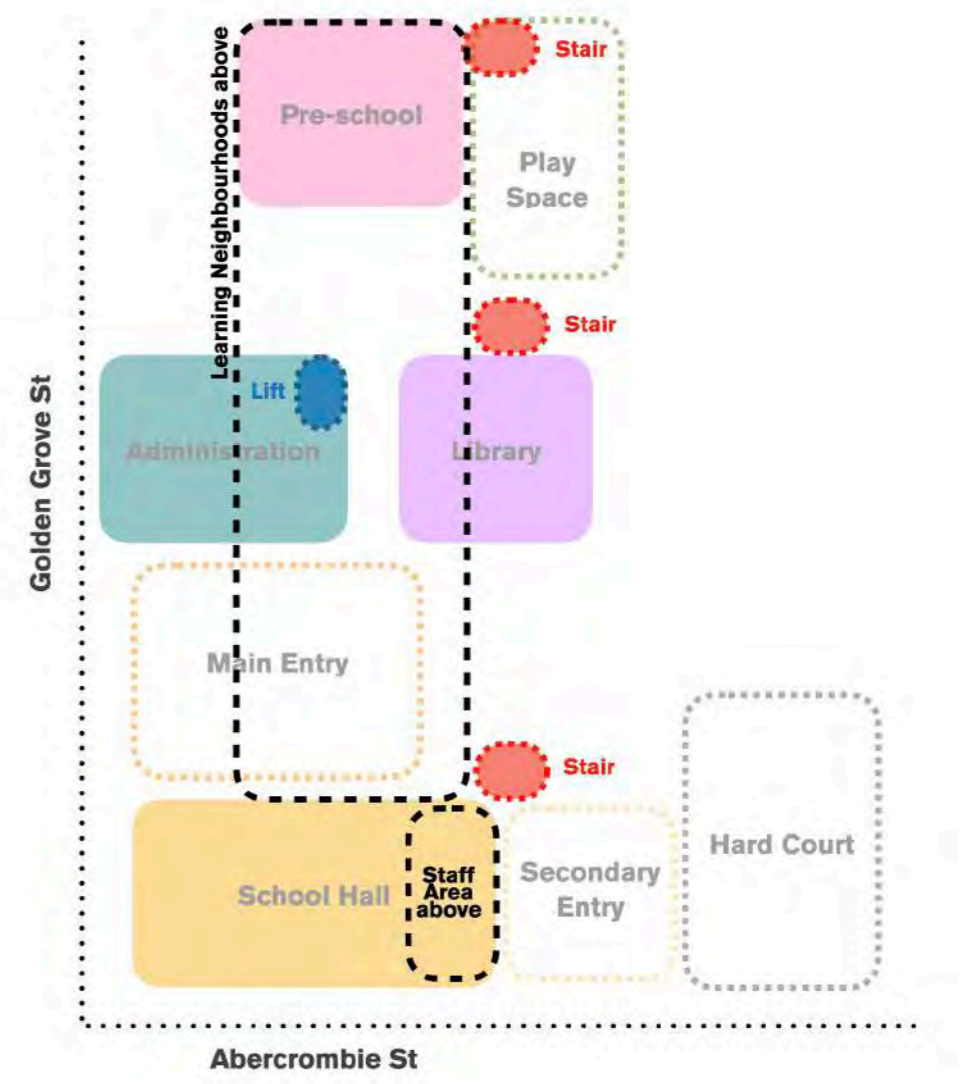
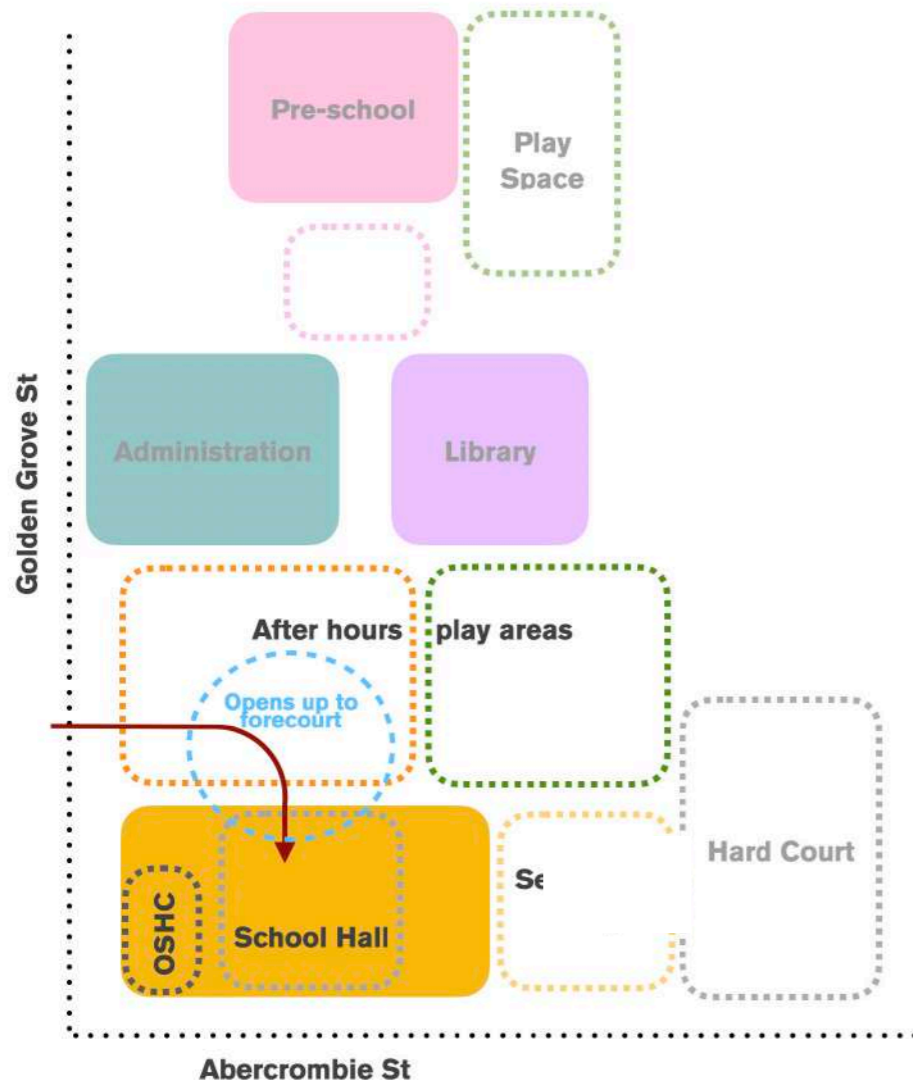


**OSHC**

- \_After hours care has a key place in the use of the school and is seen to be very important in the functioning of the school.
- \_The current educational standard is for the OSHC to share the School Hall.
- \_The main entrance for pick up from OSHC would be from the school's main entrance off Golden Grove Street.
- \_While OSHC will share the main facilities with the Hall, it will have a separate office and storage area to enable it to function independently from the school.

**Vertical Circulation**

- \_As the school is a multi-level school, vertical access is very important in the practical operation of the school, and to provide equitable access to all.
- \_The school will have one lift which will be located centrally within the school plan. This is between the library and administration, close to the main entry to the school.
- \_There are three sets of stairs distributed throughout the school to allow for circulation between the levels and to provide emergency egress.



# CIRCULATION

## Pedestrian Access

The main pedestrian entrance has been located on Golden Grove Street, in a similar location to the existing entrance. A new covered forecourt provides a zone for waiting and gathering and provides a relief along the western boundary of the site. This forecourt also provides a spill-out zone for the school hall.

A secondary entrance has been provided off Abercrombie Street, with bike and scooter parking located in close proximity.

### Circulation Networks

Three access/egress stairs provide vertical circulation to all levels. A central lift provides equitable access. Refer Vertical Circulation Diagram on previous page.

Pathways in the landscaping have been designed to provide equitable access throughout the playground.

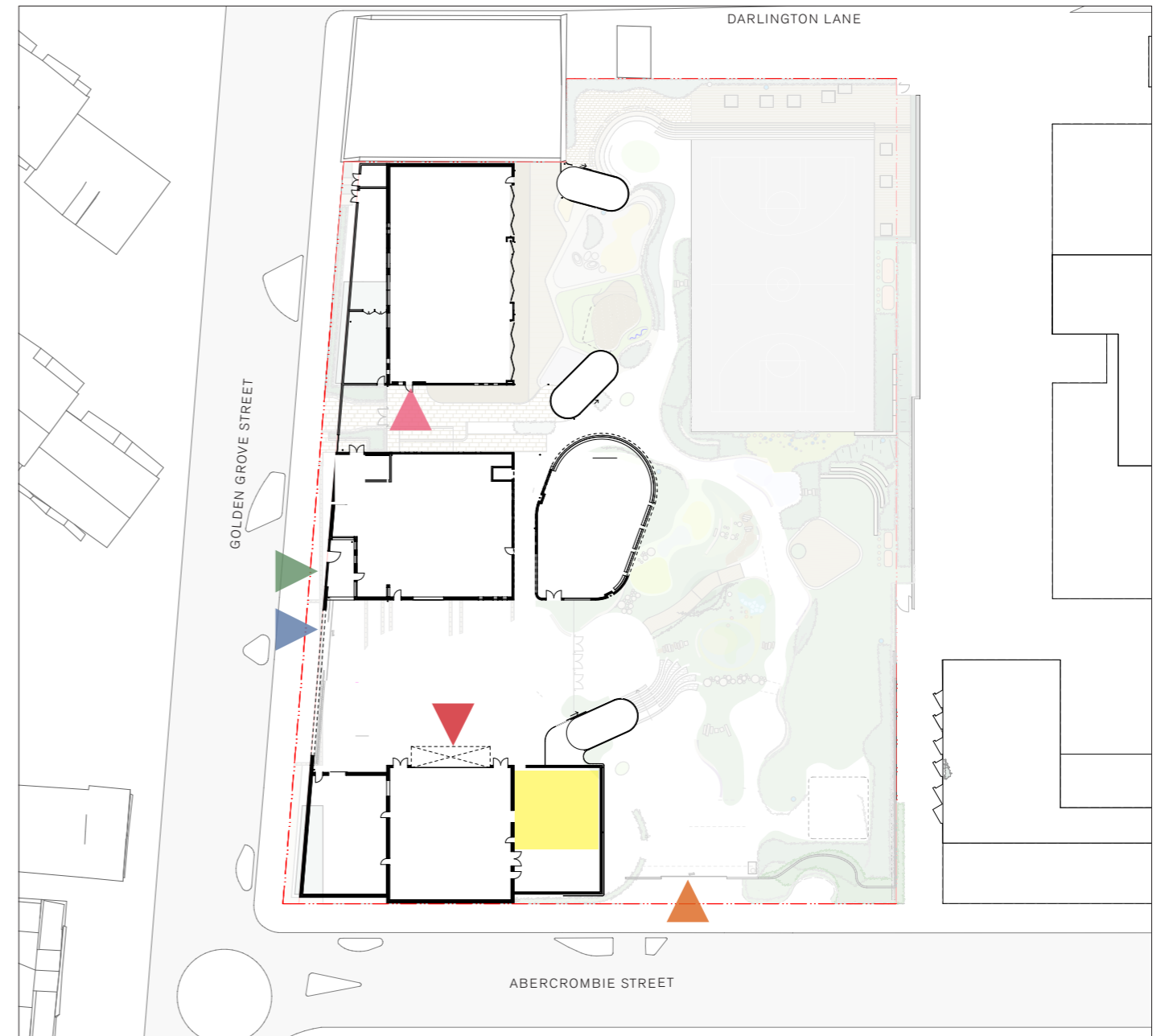
### Wet Weather

Wet weather access is provided throughout the campus. On levels 1 and 2, a double level covered walkway links the learning neighbourhoods and staff area. The administration area, communal hall and preschool are connected via covered undercrofts at ground level.

### Green Travel

The Master Plan provides for 68 bicycle parking spaces. End-of-Trip facilities are provided for staff members to encourage green travel.

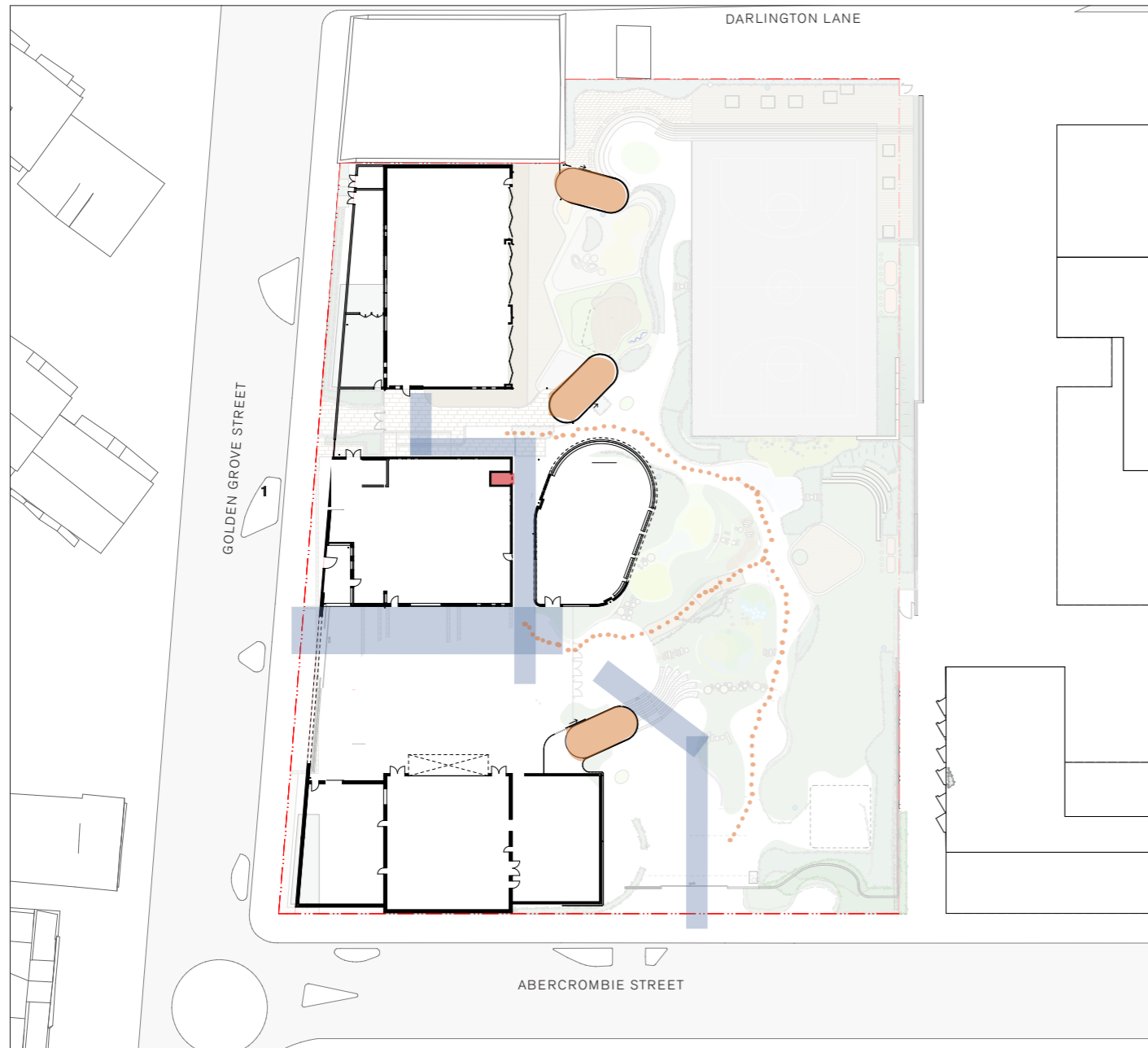
## Pedestrian Entrances and Bicycle Parking



### LEGEND

- ▶ MAIN SCHOOL ENTRANCE
- ▶ SECONDARY SCHOOL ENTRANCE
- ▶ RECEPTION & ADMINISTRATION SECURE ENTRANCE
- ▶ HALL ENTRANCE
- ▶ PRESCHOOL ENTRANCE
- BICYCLE PARKING

## Site Circulation



### LEGEND

- MAIN CIRCULATION ROUTES
- SECONDARY CIRCULATION SPINES
- LIFT
- STAIR

**'Kiss & Ride' and Parking**



**LEGEND**

- PROPOSED KISS & DROP LOCATIONS
- PROPOSED 1/4P PARKING
- PROPOSED ACCESSIBLE PARKING
- PROPOSED DRIVEWAY

Refer Traffic Report for details

**Bus Parking / Loading**



**LEGEND**

- PROPOSED SCHOOL LOADING ZONE / BUS ZONE (OUTSIDE OF KISS & DROP TIMES)

## SERVICING THE SCHOOL

- All deliveries will access the school from the loading zone on Golden Grove Street. Deliveries will be managed through the administration reception.
- Waste is collected and transferred to waste bins located in the bulk storage area on the north-west of the site, adjacent to Golden Grove Street. Kerb-side collection is proposed to be undertaken from the proposed loading zone on Golden Grove Street.
- The main plant area is located behind a perforated brick screen adjacent to Golden Grove Street.
- An additional plant area is located on Level 1 to the south of the site and will be concealed behind a perforated facade.



### LEGEND

- PLANT LOCATION
- BULK WASTE LOCATION FOR KERB-SIDE COLLECTION
- ▲ MAINTENANCE ACCESS
- ← - SCHOOL DELIVERIES FROM LOADING ZONE



# BUILDING SERVICES STRATEGIES

## Fire

The fire services design will provide a new fire hydrant system with new town's main connection and diesel pump to meet the minimum pressure requirements of the system. Full fire hydrant coverage will be achieved using a combination of external and internal fire hydrant locations; coverage is to be reviewed and modified as the architectural documentation progresses. Provide Fire Hose Reels to areas in accordance with the Building Code of Australia and the Engineering Facilities Standards and Guidelines (EFSG). Provide fire extinguishers and fire blankets to Deemed to Satisfy (DTS) provisions and Educational Facilities Standards & Guidelines. Fire sprinkler protection is not part of the DTS requirement and no allowances have been made for the introduction of sprinklers. The fire services design shall make allowances for and incorporate into the design any requirements for the staged construction of the development.

## Hydraulic

The hydraulic services design shall make allowances for and incorporate into the design any requirements for the staged construction of the development.

**\_Sanitary Drainage Services:** It is proposed that the sanitary drainage services infrastructure extends from the existing 300mm diameter Sydney Water sewer main that traverses the site from west to east. With the consolidation of land lots 100 and 592, the existing 225mm Sydney Water sewer main (reticulating north to south through the site) can potentially be disused and demolished as it will no longer be required. The applications required by Sydney Water for the works associated with the Sydney Water sewer main(s) i.e. Section 73 and building plan approvals are to be handled by an accredited Water Services Coordinator (WSC), which in this case is WS+P. All fixtures and fittings requiring sanitary drainage services will reticulate to the local Sydney Water sewer main as required. Where gravity drainage cannot be achieved back into the local authority main, WS+P will look to utilize a pumped system to carry waste to the utility main as required. A preliminary assessment of the survey and sewer peg-out information against the proposed finished floor levels shows that gravity drainage from all fixtures can be achieved. However, this is to be confirmed through coordination with the landscape architect and their proposed external levelling plans.

**\_Stormwater Drainage Services (Internal to the**

building): It is proposed that sloped metal deck areas including the library roof, eastern COLA roof, preschool roof, canopies and the Stage 2 building roof are drained using a combination of eaves gutters and downpipes. WS+P has also provided information on the minimum gutter area and number of downpipes required to comply with the DTS provisions. The hipped sawtooth roof will require a performance solution as the area of roof draining to the valley section of the hip exceeds the prescribed limit of the Australian Standards. Rain water will be directed towards external sumps and downpipes have been located on the eastern and western faces of the building (Stage 1). Any trafficable concrete roof areas will be drained using rain water outlets and trench drains as required. Suitably sized overflows will be provided to all drainage systems and higher contributing catchments have been accounted for in the drainage systems of roof areas and lower elevations. Where feasible, rainwater will be collected within the rainwater tank for irrigation re-use purposes.

**\_Cold Water Services:** It is proposed that cold water services infrastructure services extend from the 150mm diameter Sydney Water water main located in Golden Grove Street to the hydraulic services equipment (authority meter, backflow assembly, pump set and backwash filters) before reticulating to fixtures as required. WS+P has proposed internal reticulation of cold water services to minimise the costs normally associated with in-ground works.

**\_Heated Water Services:** It is proposed that the heated water services required by wet areas reticulate from local electric instantaneous burners to fixtures and outlets as needed. These units will be a combination of under sink ZIP units and larger wall-hung units depending on the temperatures required at the fixture outlets. It is required that warm water is delivered to basins/showers using thermostatic mixing valves and dead legs are kept to a minimum.

**\_Natural Gas Services:** It is proposed that natural gas is eliminated from use within the school. Currently, the mechanical services, kitchen and canteen facilities do not require natural gas and hence WS+P has opted for electric methods for heating hot water.

## Electrical

The site will be fed from a new 400V low voltage power supply of 400A from the Ausgrid substation on Darlington Lane. The power supply will be fed to a pillar on the north western corner of the site. An

application has been sent and an offer received from Ausgrid for the connection. The power supply works will be carried out by a Level 1 ASP contractor within the Early Works phase of the construction program. During the Early Works and Stage 1, the existing power supply to the school will be retained until Stage 2 construction commences.

The incoming power supply will feed a new main switchboard constructed in Stage 1 of the construction program. This main switchboard will feed the other distribution boards throughout the site installed in Stage 1. The distribution boards in Stage 2 will be fed from the main switchboard, to be installed through the conduits provided in Stage 1.

The site communications shall be fed from the existing NBN and other fibre infrastructure installed along Golden Grove Street. A new main communications room shall be established within the Library and Admin building where a new lead-in cable will be supplied. The existing incoming communications will remain in place to service the existing school areas until Stage 2 construction commences, when the new communications connection will supply the whole school.

The site shall be provided with external lighting. The lighting shall comply with the EFSG requirements and AS4282:1997.

## Mechanical

Air conditioning shall only be provided to learning spaces, libraries and pre-school classrooms and follow DG-55 guidelines. The air conditioning system shall be VRF with ducted indoor units. The cooling temperature setpoint shall be 26oC ± 1oC with a heating setpoint of 19oC ± 1oC. Outdoor air shall be ducted via façade mounted louvres with an outdoor air rate of 12l/sec based upon 30 students per classroom and 50 students per library. Each space with an air conditioning system shall have a green / red traffic light indicator which notifies the occupants on the ideal time to turn on / off the air condition system, this is based upon ambient conditions. All VRF units shall have a HLI with a centralised BMS. All spaces within the school shall be naturally ventilated via openable windows. Spaces such as classrooms, libraries, staff areas and pre-school areas shall have ceiling mounted fans. Areas such as toilets, store rooms, kitchens, duplicating rooms and the likes shall have a dedicated exhaust system with flowrates in line with AS1668.2. All exhaust systems shall discharge at roof level via a roof mounted

fan and make-up air shall be provided from adjacent, non-exhausted areas via transfer ducts. All exhaust fans shall be interfaced with the BMS for control and monitoring purposes.

## Civil

The existing site is considered to be an impervious (mixture of concrete and bitumen) with limited landscape areas. The existing site does not currently have water quality or quantity controls and the internal drainage system appears to be discharging via kerb outlets to Abercrombie and Golden Grove Streets. The existing site is not subject to flood inundation during the 100 year Average Recurrence Interval (ARI) event, however a very small area near the main entrance is affected by the Probable Maximum Flood (PMF) event. Further analysis may need to be undertaken to ensure the proposed building footprint is not within the PMF extent.

A drainage system of pits and pipes will capture and convey runoff generated from the minor storm events up to and including the 20 year ARI event, while a system of overland flow paths will convey major storm events away from buildings to the public road kerb and gutter system, for storm events up to and including the 100 year ARI event. As part of the proposed development, it has been advised that lot consolidation will be finalised during stage 1, which forms part of the basis for the stormwater strategy. Re-development of sites are subject to improved water quality and quantity targets as set by council, including reductions in annual pollutants and restricting runoff flows to permissible site discharge (PSD) requirements. Lot consolidation will permit the utilization of a single rain water tank (RWT) and two on-site detention (OSD) tanks. All stormwater runoff will be directed to these devices, where rainwater can be utilised for irrigation and stormwater runoff will be reduced to PSD rates, prior to leaving site. Proprietary water quality treatment products are anticipated to meet water quality targets in accordance with council requirements.

## Structural

The proposed structural system is a concrete framed structure including piled footings supporting a suspended slab on ground, RC walls/Column, multi level post tensioned banded slab and a steel roof system. The structural design was selected based on cost effectiveness and compliance with EFSG and NCC requirements out of a few options explored

during the concept design. Due to the staging requirements of this site, temporary supports will be required to support the existing timber roof at the staging line. Piling will require varying socket depths (Max 5000mm) into Class III and Class IV shale depending on location/loading. A suspended slab on ground system is adopted to prevent excess removal and treatment of the contaminated fill, which can prove costly. The super structure system consists of braced reinforced concrete frame with 200mm thick ductile shear walls, 400 square RC (may vary) columns and a banded PT floor plate, allowing for large clear spans and minimised structural depths. The banded PT system is also used for the lower perimeter roof area to the north, to allow for planter beds and/or the possible future expansion. The upper roof consists of a sawtooth north-light roof truss, with mono-pitch steel gable roof.

## ESD

Our ESD energy strategy aims to build on the sustainability principles of 'be lean, be clean and be green'. We're aiming to reduce energy demand through passive design measures, provide HVAC services as efficiently as possible and maximise onsite generation through Solar PV. This three stage approach is coupled with control systems which further minimise energy use. The green/light blue light ventilation system indicates when air quality is sufficient to utilise natural ventilation methods, reducing the HVAC systems operational hours and minimising energy consumption. Ceiling fans throughout the teaching spaces reduce operational hours further by increasing levels of comfort, raising the cooling set point. We are investigating measures to reuse the existing substructure on site reducing materials consumption, and therefore embodied carbon emissions. Lower impact concrete such as GGBS is being researched with the aim of reducing the carbon content of concrete by 30-40%.

Beyond energy and carbon, a diverse landscape is being created; improving the site's biodiversity and connecting pupils with nature. The site will feature various green zones (food production, wild flower zones, water swales) throughout the playground. Rain water will be captured onsite and utilised to mitigate potable water consumption for irrigation. Measures are also in place to respond to climatic change events such as high intensity storms and deluges, preventing the site from flooding. Fittings with a high WELS rating are specified throughout the school to further reduce demand.

## OVERSHADOWING

Shadow studies have been completed for the winter solstice. The main impact of overshadowing is at 8am to the western side of the school and late in the day to the terraces on the southern side of Abercrombie Street. This is marginally more than the overshadowing currently caused by the existing school.

Refer to Architectural Drawings for all overshadowing diagrams.

■ Existing Shadows

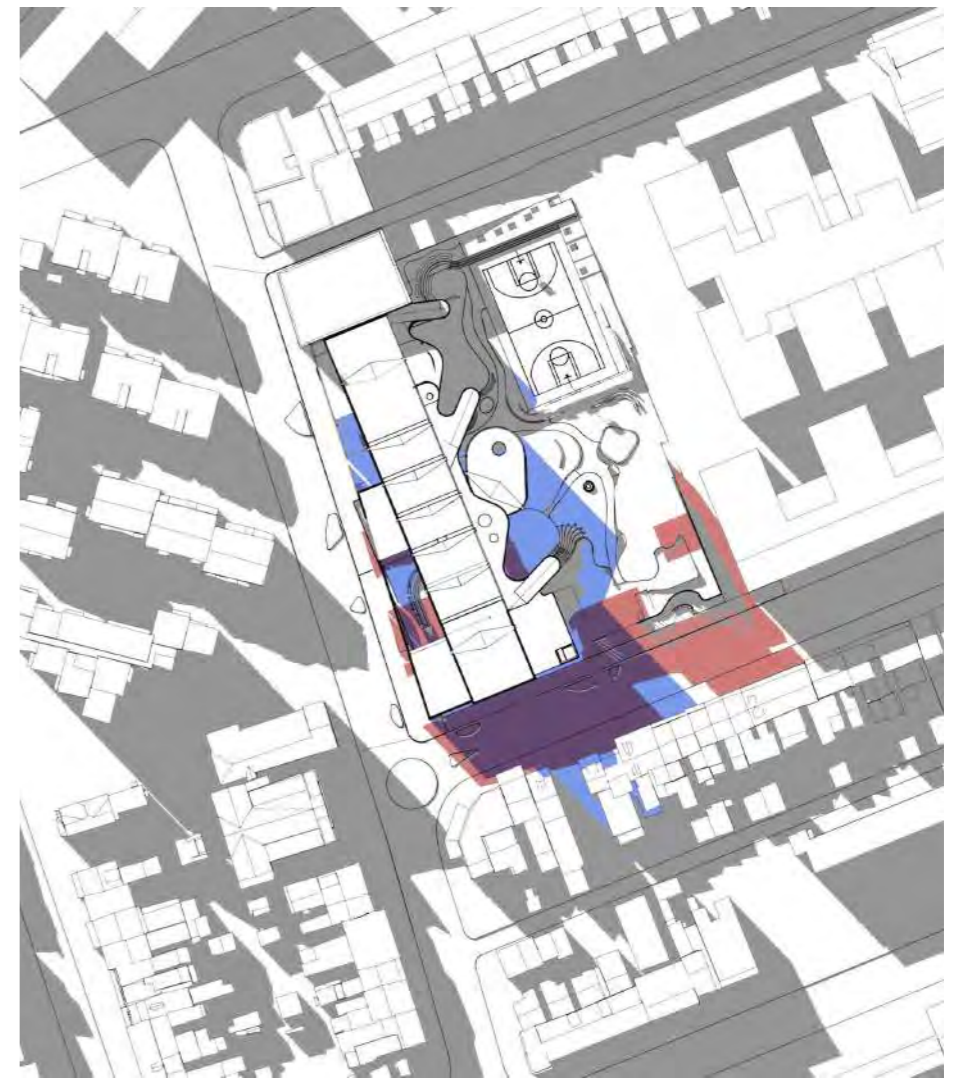
■ Proposed Shadows



June, 9am



June, 12pm



June, 3pm

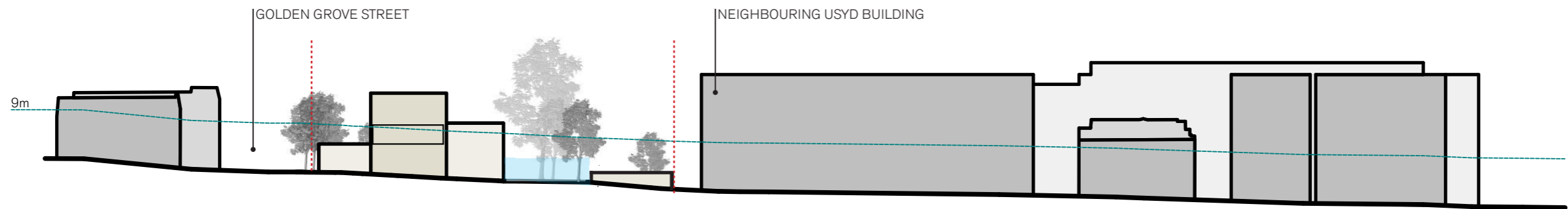
# VISUAL PRIVACY & AMENITY

The school has been designed so that the buildings form a protective wall along the two main street frontages, avoiding the need for extensive fencing, and providing a certain amount of privacy to the school grounds from the main roads. Glimpses into the school grounds are provided where palisade fencing secures the entrances. Refer elevation diagrams below.

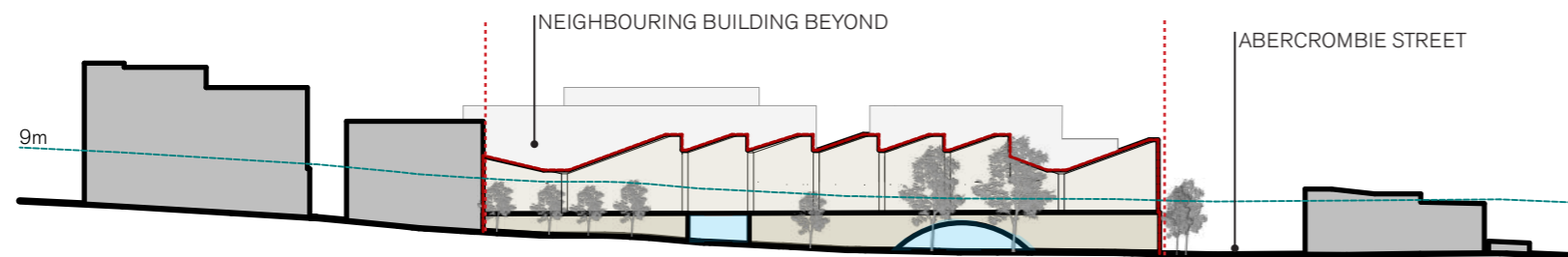
On the Golden Grove Street, Abercrombie Street and Darlington Lane frontages, the existing mature trees have been retained, providing visual amenity to residential properties opposite the school.

A visual privacy study has been undertaken and shows that most of the overlooking into the school from the University Accomodation to the east of the stie was directed to the north-west. The landscape design has responded to this with the addition of 2 new trees in order to provide some screening from the neighbouring building to the playground.

The visual privacy study overpage outlines some key sightlines into the site from surrounding vantage points.



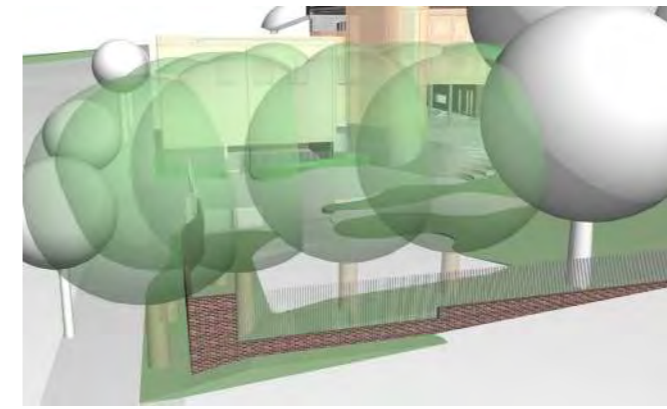
Section on Abercrombie St



LEGEND

 VISUAL LINK INTO SCHOOL FROM MAIN STREET

Section on Golden Grove St



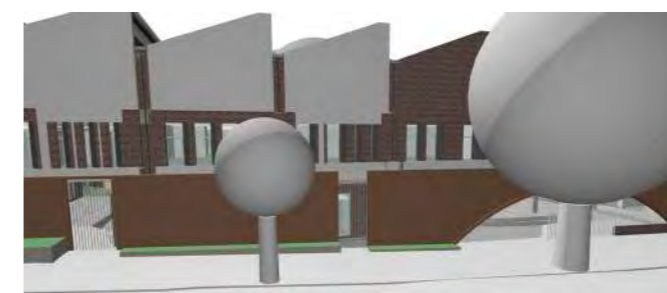
1 View from Student Accommodation



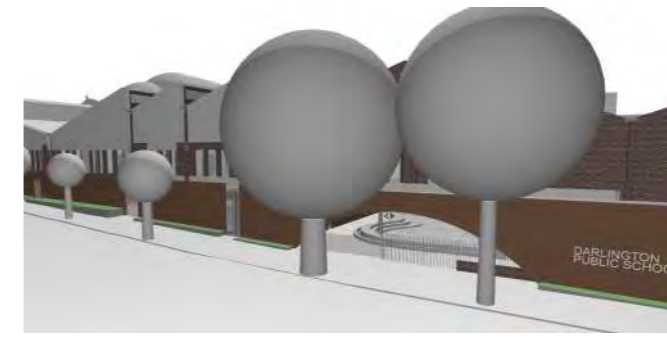
2 View from Houses in Abercrombie Street



3 View from Abercrombie Street



4 View from Houses in Golden Grove Street



5 View from Dancework Sydney



6 View from Golden Grove Street - School entry



7 View from Golden Grove Street - School fence



8 View from Golden Grove Street - School fence



9 View from residences in Darlington Line



Existing Photo along Golden Grove Street



Existing Photo along Darlington Line



Existing Photo of Abercrombie Student Accommodation in Abercrombie Street

# ENVIRONMENTAL AMENITY

## Environmental Design in Schools

The Environmental Design in Schools manual sets out strategies for good environmental design. The proposed design for Darlington Public School utilises many of these principles.

## Thermal Mass

The predominantly brick facade and concrete slabs provide thermal mass for the collection and retention of heat in winter and to help maintain an even internal temperature during summer. The walls and ceilings and any raised floor slabs will also be insulated to help regulate the internal room temperature and reduce the use of mechanical heating and cooling.

## Daylight and Solar Shading

The two 'bars' of learning neighbourhoods on Levels 1 and 2 have been designed to a 16m width which is the maximum depth to allow for adequate daylighting.

The classrooms on Level 1 will have windows on both the east and west facades. The glazing on the west facade has been designed as vertical slot windows with deep reveals, in order to provide shading from the afternoon sun. The glazed facade to the east is shielded by a full-height semi-transparent metal facade along the balcony edge.

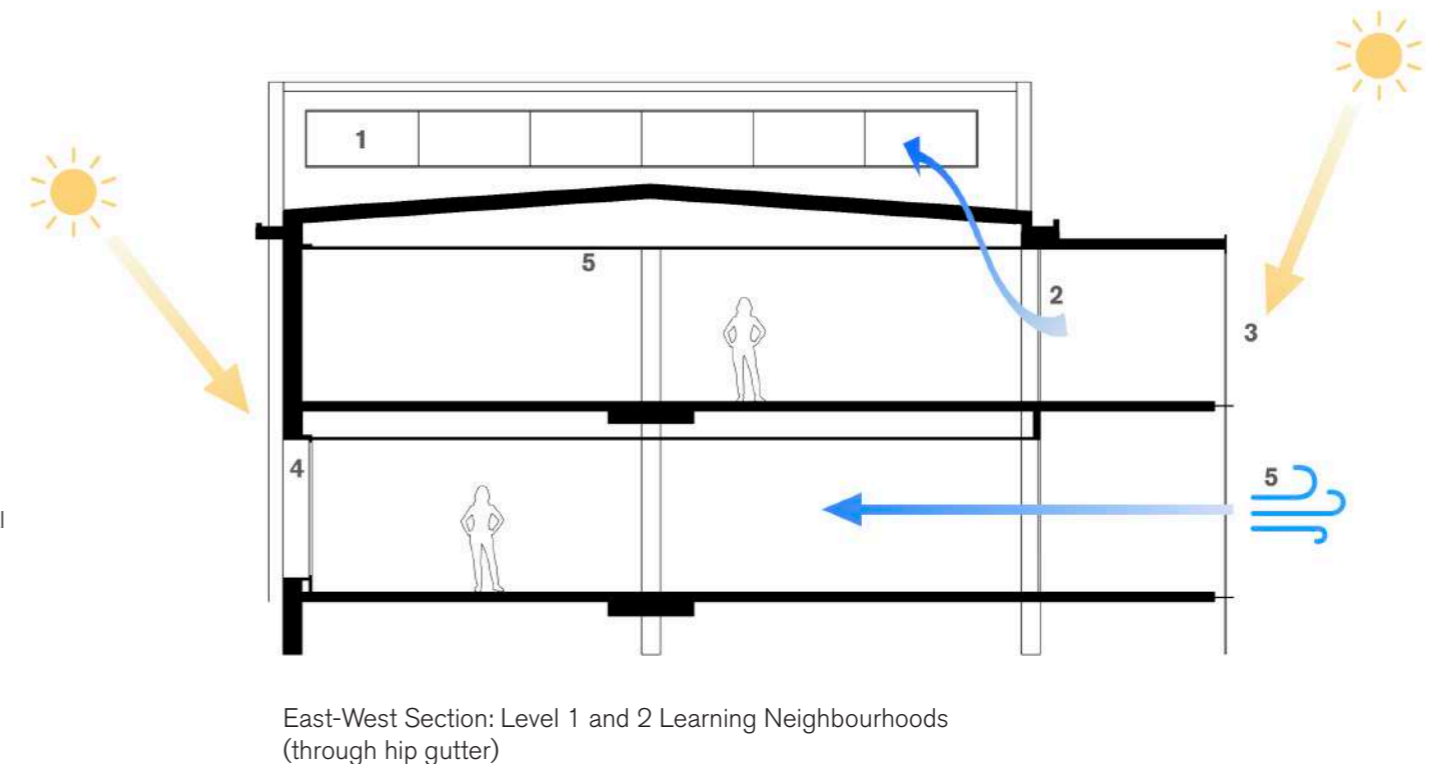
On Level 2, the classrooms have the same design to the east facade as Level 1, however the sawtooth roof provides diffuse southern light in lieu of any western openings.

## Cross-ventilation and Stack Ventilation

Cross-ventilation on Level 1 is provided with the provision of east and west operable glazing. On Level 2 automated operable louvres in the sawtooth roof allow warm air to escape and, in combination with the operable glazing on the east facade, passive cooling is achieved.

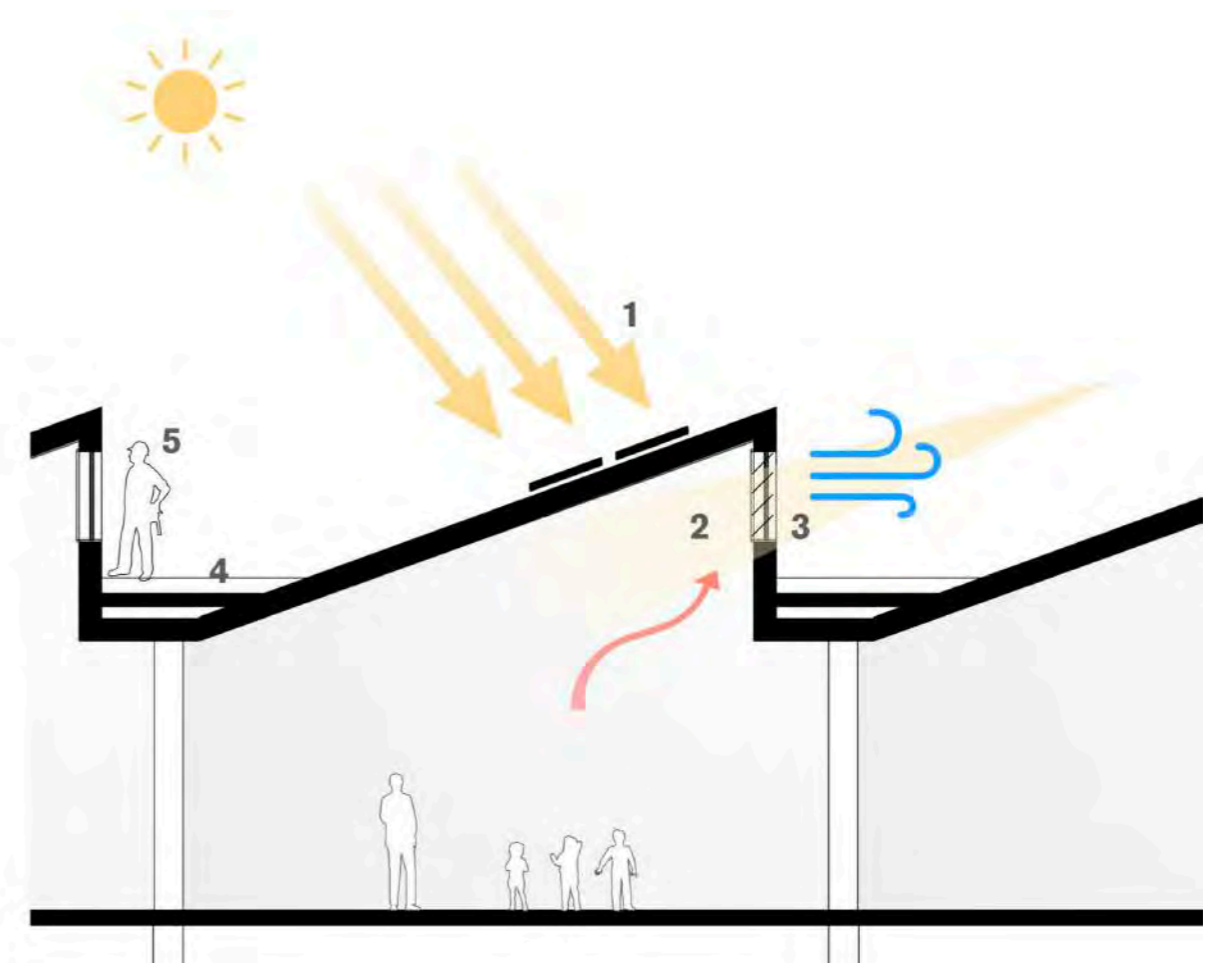
Other environmental design elements also form an integral part of the proposed design, such as the selection of sound-absorbing materials to create comfortable learning spaces; considering the life-cycle of the building by specifying environmentally-friendly and recycled materials; the design of the roof to accommodate solar panels as an integrated solution; the inclusion of rain water tanks and the holistic approach to the landscape design which blurs the line between inside and outside learning environments.

Refer to the architectural drawings, separate ESD Report and Landscape Report for more information on how environmental design has been considered for Darlington Public School.



1. Diffuse southern light into classrooms at Level 2
2. Automated operable louvres for cross-ventilation and allowing warm air to escape
3. Eastern sun shaded by metal mesh facade to balcony
4. Western sun shaded by deep reveals to slot windows
5. Cross-ventilation on Level 1

East-West Section: Level 1 and 2 Learning Neighbourhoods (through hip gutter)



1. Roof pitch to suit PV cells
2. Diffuse southern light into classroom
3. Automated operable louvres for cooling southerly breezes and allowing warm air to escape
4. Addition of hipped roof to sawtooth removes the need for box gutters and diverts water directly to downpipes on sides of building
5. Maintenance access

North-South Section: Level 2 Learning Neighbourhoods

# PUBLIC DOMAIN AND COMMUNITY USES

## Approach

The Communal Hall for Darlington Public School has been located at the corner of Golden Grove and Abercrombie Streets. The hall opens up to a generous covered undercroft, adjacent to the main school entrance, which can also be used outside of school hours, as an overflow space to the hall. In public mode, a gate can be closed, which restricts public access to the hall and the covered forecourt and secures the rest of the school when used outside of school hours.

The hall volume lifts up towards its Abercrombie Street frontage, providing a welcoming gesture to the local community. The hall can be used by the wider community and will enable access to the school without compromising the security of the wider campus.

The approach to security is graded from public to semi-public to private.

## After Hours Use

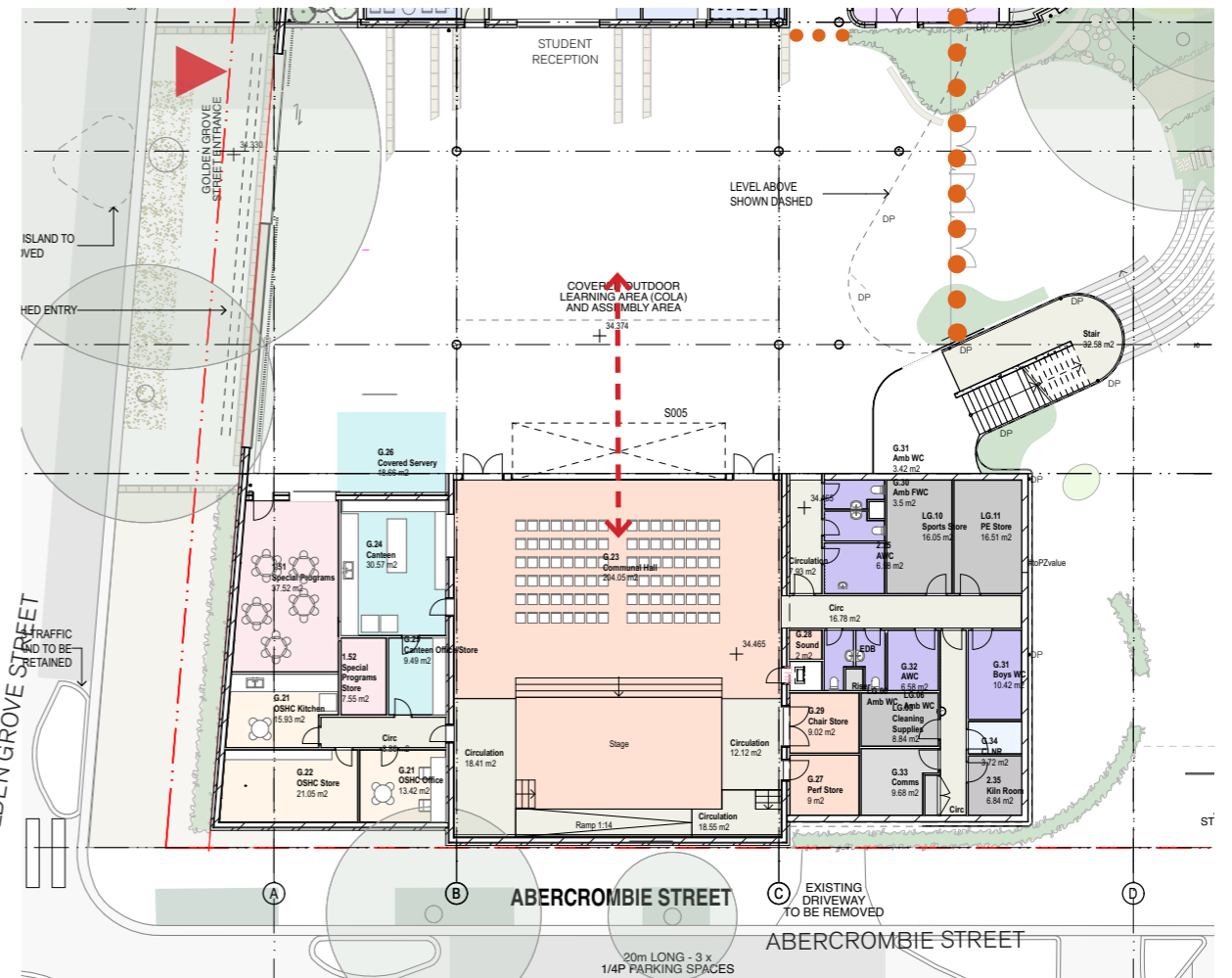
The hall will be used for OSHC before and after school hours. There is also potential for the school hall to be used outside of school hours for school events, such as school performances, sporting events, and school fairs etc

## Signage

A main building sign will be located on the Western facade of the masonry wall adjacent to the main entry. It is proposed that the sign will align with the new building colours - a natural palette, warm bronze hues tones. The sign will be metal and will be back lit to provide a subtle glow in the evenings. Similar signage will be located at the Abercrombie Street entrance and on the western wall of the Preschool. The entry signage will read "Darlington Public School" and will be accompanied by the year of completion..

A digital sign will also be installed at the Abercrombie Street entrance to the school. This will display both static and dynamic illuminated images and text, relating to Darlington Public School.

Refer to the Appendix, Architectural Drawing Set for details of the proposed signage..



# ABORIGINAL CULTURAL AND HERITAGE CONTEXT

## Aboriginal Cultural Heritage

Darlington PS is an important long-standing educational facility located in the suburb of Darlington. The school has been associated with different sites, but all are identified by the local community as a central component of the Darlington to Redfern area, notably the local Aboriginal community. Darlington PS has provided education to Sydney's inner-city children since 1878; the school has become an integral part of the local community. Darlington PS today is of importance to the suburb because of the education of local generations of families, notably Aboriginal families.

As the school is renowned for its connection and importance to the local Aboriginal community, it is critical to recognise, appreciate and celebrate the long history and connection between the school and local community throughout the proposed design. The design aims to celebrate Aboriginal culture and heritage through strongly integrating and holistically incorporating ideologies and values through the new school development.

Based on feedback from previous workshops/consultations, studies and the ACHAR report conducted, it is vital to allow for a design that will:

- Celebrate, recognise and preserve Aboriginal Culture and History
- Continue the current atmosphere, learning culture and spirit of community
- Allow for the teaching of Aboriginal Culture, inside and outside the classroom
- Design spaces to be culturally considered and embody cultural values and learning
- Provide a strong integration of art and display of Aboriginal Culture



## Key Spaces

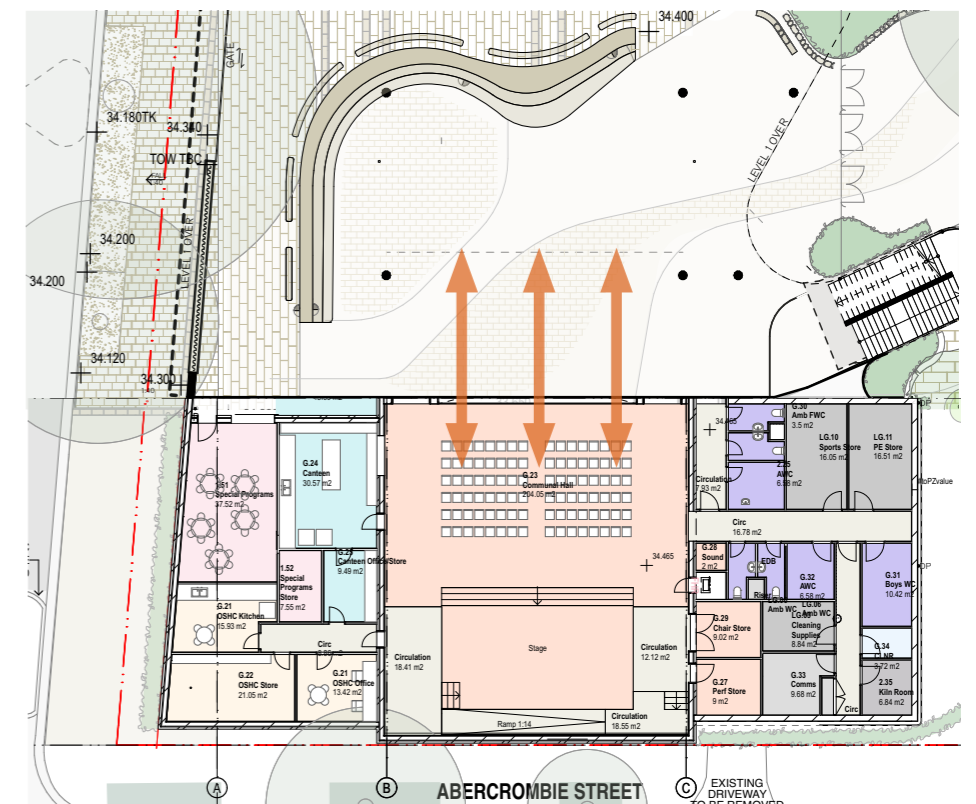
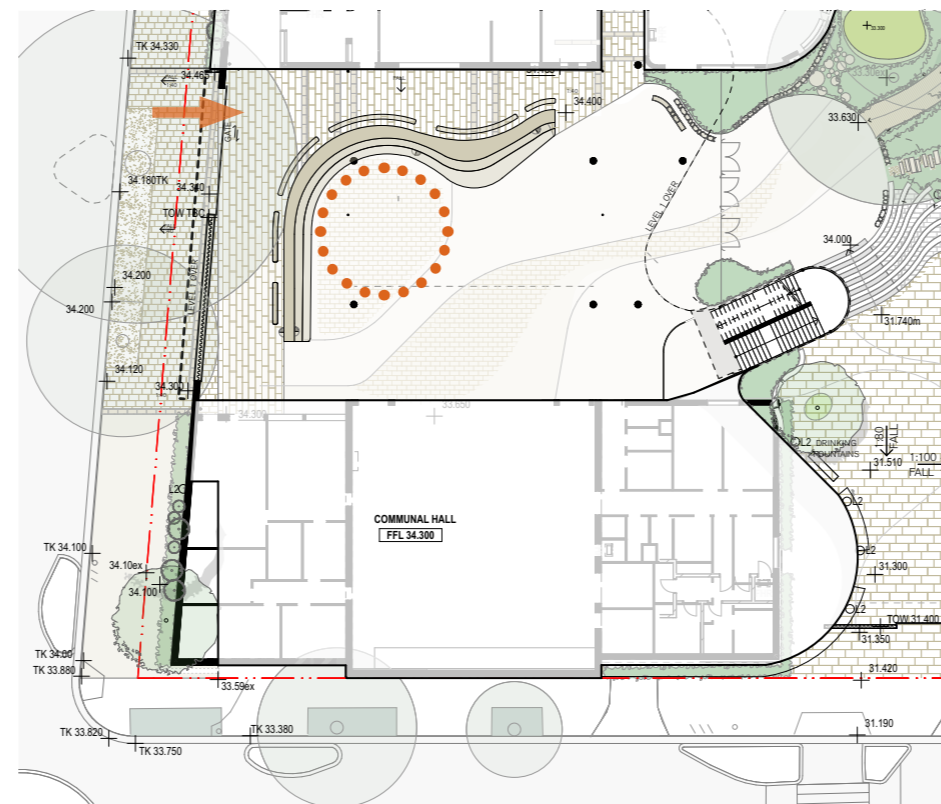
### Entry Undercroft

The main pedestrian entrance has been located on the southern end of Golden Grove Street, in a similar location to the existing entrance. The idea of an arrival and gathering point is integrated with the covered gathering space and the kiss and drop. It allows for gatherings of both parents and students and encourages communication and interaction. Integrated terraced seating is proposed which helps to create a protective boundary around the gathering space and provides a central seating area for performance and outdoor learning for larger groups.

### School Hall

The school hall for Darlington Public school has been located at the corner of Golden Grove and Abercrombie Streets and has been designed to allow access externally by the public and internally by the school community. The corner location provides a beacon for the school and a welcoming gesture to the local community. The hall is a flexible space and can be used for a multitude of purposes, providing a space for gathering, performances and learning. The hall also opens up to the covered undercroft which is also used for yarning, and allows for use for after-school hours activities. The continuity and flow of space was vital in creating a natural movement through the ground floor from the entry through to the yarning circle and school hall.

The school hall allows for display of important artworks such as the six current Jarjum Rugs and possible display of heritage items. Further, the Special Programs room which doubles as a music space can integrate the existing displayed didgeridoos outside the existing music room.



## Library

The school library acts as a hearth and educational gathering point for Darlington Public School. It provides an architectural link between the built form and outdoor garden, creating an indoor space with external vistas to plants and landscaping. It is proposed that the library will have low level glazing at seat height which will allow views out into the garden whilst maintaining a private and protective atmosphere for students who seek a quiet sanctuary during lunch breaks.

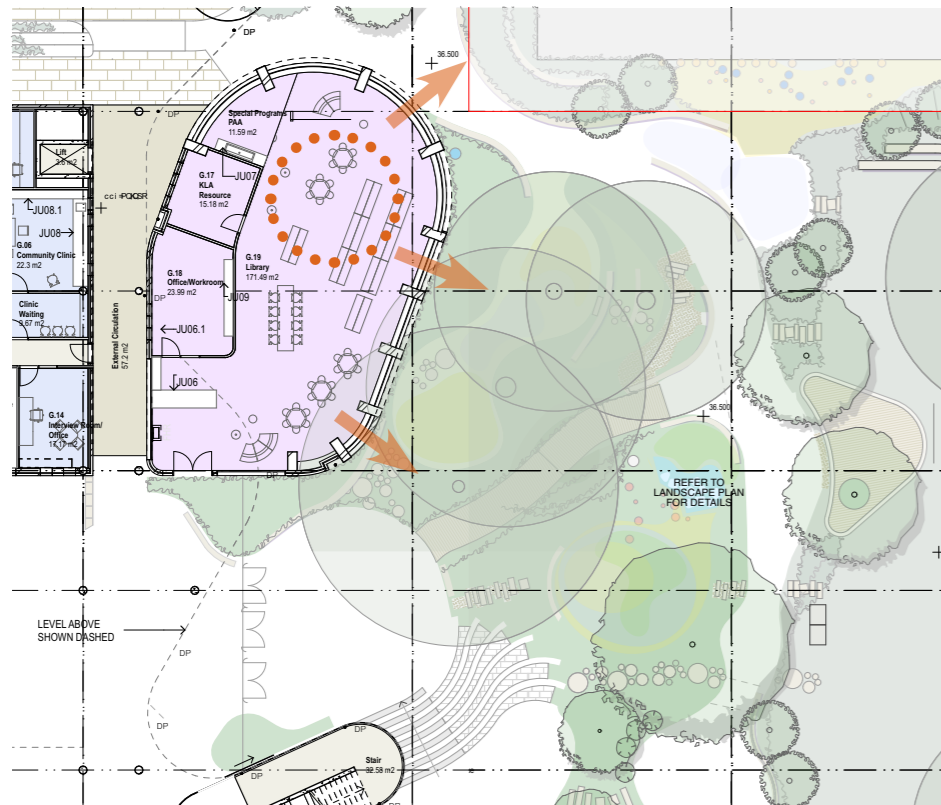
The library will feature class space, staff office, and KLA resources. Further it will integrate historical books and modern stories and it is proposed that it will house a heritage display area depicting the school and its cultural history.

## Classrooms

The classrooms have been designed to be open and encourage community, collaboration and various types of learning. The openness of the space allows for flexibility and accommodates for yarning circles space. All classrooms open to covered outdoor learning areas to promote learning outside the classroom. Artworks such as totems can be integrated into the classroom design to encourage awareness and understanding of culture. Spaces are also adaptable to allow for yarning circles of various scales. The classrooms also open out onto Covered Outdoor Learning Areas, which have been designed to accommodate a full class.

## Yarning Circles

Darlington PS teachers present an Acknowledgement of Country at the start of every day, often in a space described as a 'Yarning Circle'. Yarning circles are vital to the students and teachers sense of place as it provides students a safe place for open discussion. Yarning circles and spaces are proposed to feature both internally and externally in the design, and fit seamlessly in the context of the existing site, new landscaping and new classrooms. The existing yarning place in the school playground is constructed from sandstone blocks and sits beneath the year 6 Artworks. Many existing blocks feature engravings and will be integrated in the new landscape design.





## Artworks

Darlington Public School currently holds a large collection of Aboriginal artworks, murals and objects, which consists of artworks produced by students, teachers and significant Australian artists. These represent a collection amassed over the school's 40 years of education. The school's hall, walls, external spaces and surfaces are covered with Aboriginal art, motifs, symbols and items that create connections across the school and a journey through the corridors and spaces of the school. The art leads children through their day, between classes, providing a backdrop and context to their everyday activities.

The art provides a tangible expression of connection between the school and its Aboriginal origins and heritage—for all students, teachers and parents, past and present. The new school development aims to provide holistic integration of artworks throughout respective spaces, aiming to inspire children and foster a greater understanding in the wider community.

Where possible, all artworks, murals and objects have been retained to be integrated into the new school. Where murals cannot be retained, they will be documented and a selected number can potentially be displayed or reinterpreted in dedicated areas.

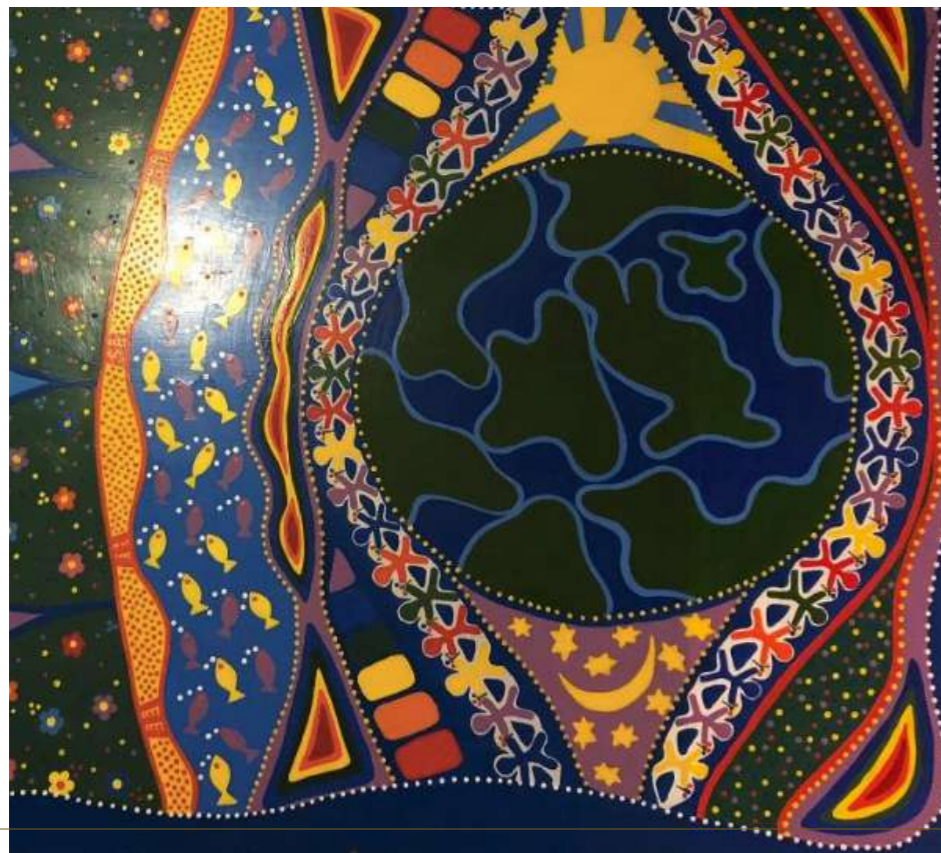
## Selected Artworks

### Jarjum Rugs

The Jarjum Rugs are of notable importance in the schools cultural context and history. Designed by Aboriginal students at the school in collaboration with their elders, the six rugs represent an authentic cultural exchange between children and their elders, and connections between the school and Aboriginal cultural. They are currently in the existing school hall, and it is proposed that these be relocated to the new communal hall for not only the school to experience, but also for the outside community when using the hall.

### Year Six Artworks and Totems

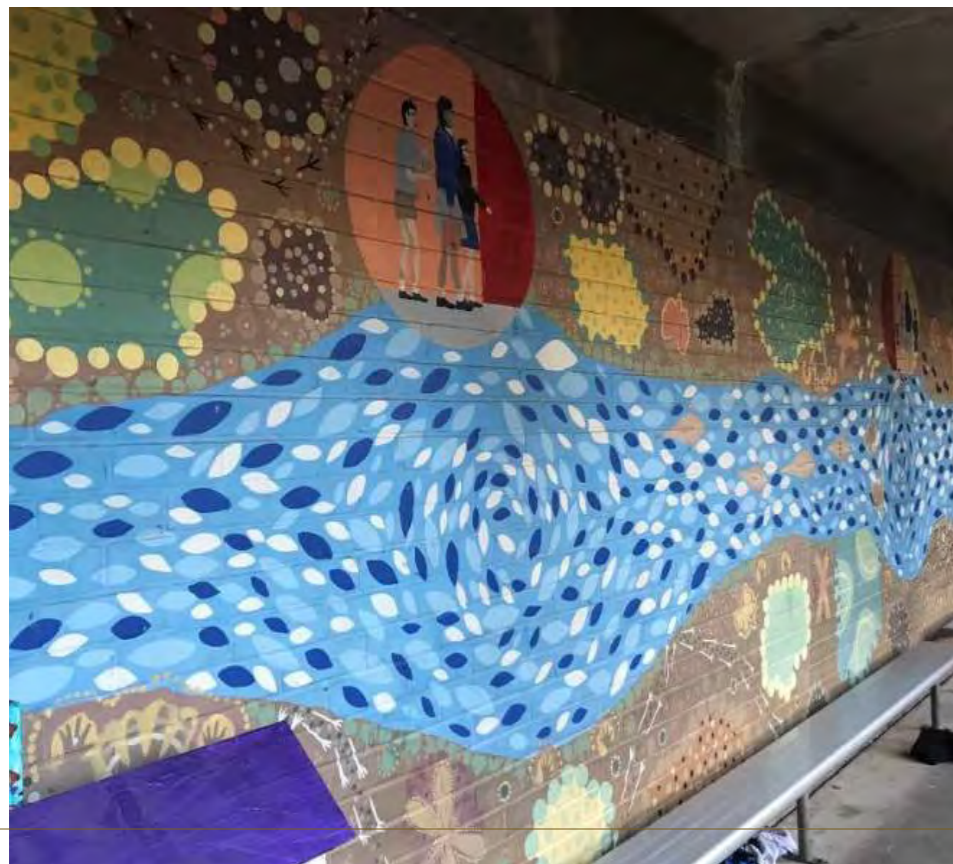
The existing Year 6 art wall contains specifically designed artworks, produced each year by the students in Year 6, with the assistance of professional artists and the art teachers. The artworks are specifically designed by the year and recreate one of the school totems. The totems have been part of the school's identity for the past 20-30 years and their integration into the context of the school has been highly regarded. The existing Year 6 artworks have been painted on the eastern boundary wall and will not be affected by the development and should be protected during construction. As there is also planned creation of future totems and Year 6 artworks, there is adequate space for this tradition to continue.



### Murals

The numerous murals are identified as integral to Darlington PS's identity and feature heavily within the school. Not only do they serve as artistic representation of culture, they also symbolize a sense of place and safety in various parts of the school. The murals have been created by students, teachers and notable artists throughout the life of the school and where possible will be retained and integrated into the new school. Although there are many that cannot be retained, due to the nature of their physical medium, they will be documented and possibly displayed in a historic context in the new development. Following demolition, it is proposed to collect and re-use the painted bricks in the landscape for seating walls and other hard landscaping elements, allowing the existing artworks that cannot be saved to be remembered and reimagined in the playground of the new school.

Some murals that have been noted include the entrance foyer mural, entrance courtyard mural, preschool frog mural, bird wall mural and hall area mural.



### Burnt Door

The 'Burnt Door' is important in the history and cultural heritage of Darlington Public School. Currently the entry to the Aboriginal Education Office, it presents a notion of invitation and welcoming. Created by Neil Thorne, the former Aboriginal Education Resource Officer, the door integrates the Darlington School logo and has come to represent safety and comfort to many students.

It has been previously established that the door does not need to be utilized as a door in the new development, however can be mounted or displayed amongst various other objects and artworks as part of the history of Darlington Public School.



### Carved Sandstone Blocks

The carved sandstone blocks currently form the yarning circle in the outdoor courtyard, below the year 6 artworks. These are the only form of engravings in the current school. They are of high importance to the staff and students and will be integrated in the landscaping of the new school development in order to maintain a direct connection to the past yarning circles.



## Landscaping

The design philosophy for the Darlington Public School playground centres around providing diverse play spaces with a variety of scales and the maximisation of functionality by providing overlays of potential uses.

The topography and grading of the site creates challenges and opportunities for the landscape design. Pedestrian movement and wheelchair access have been important drivers in creating a series of connected and functional spaces.

The playground embraces opportunities to create learning spaces, outdoor rooms and areas of active, imaginative and quiet play through the use of the connected paths and changing landforms.

Each play space is linked to possible learning games and different learning languages, featuring water, sand, rock, climbing, ball games, lines and decks, pathways and shortcuts.

The design also explores ways to embrace the indigenous culture of Darlington Public School and celebrate the rich artistic heritage of the school. Refer to the "Indigenous Overlay and Artwork" section of the Landscape Report for details.

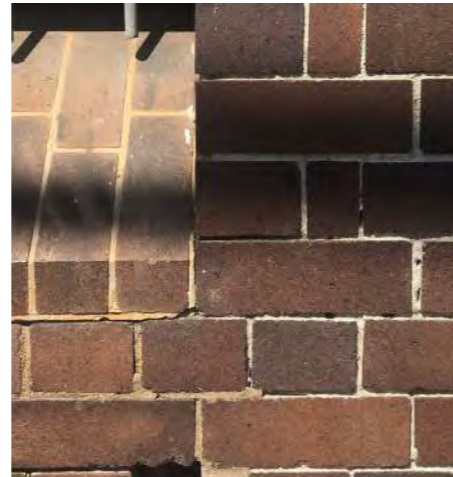
## Indigenous Overlay



# MATERIALITY AND FACADES

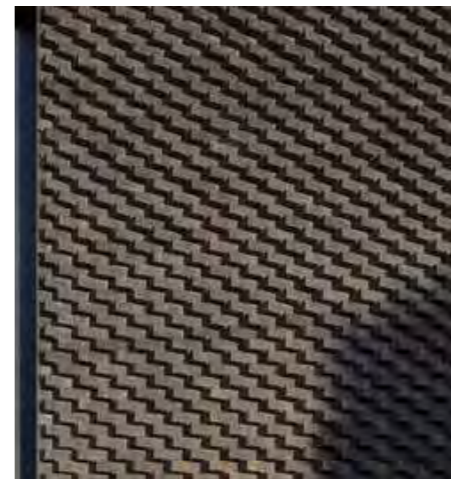
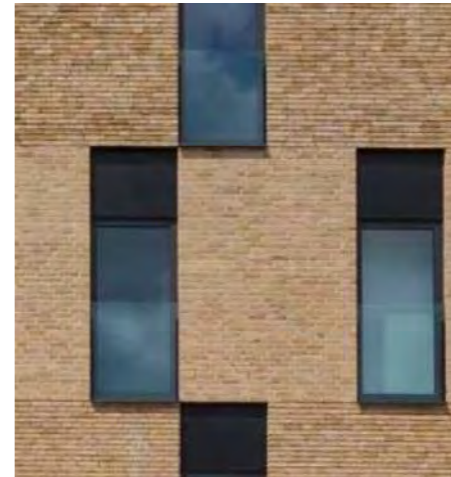
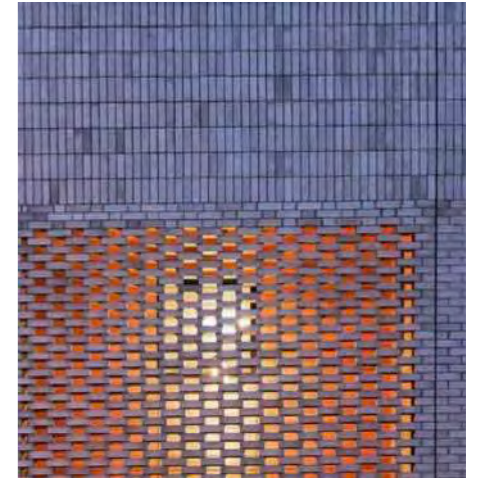
## Contextual Materiality

- The streets surrounding Darlington Public School are comprised of a fairly eclectic mix of 2 storey terraces, taller residential and educational developments and clusters of lower scale residential units.
- The late 19th and early 20th Century terraces consist of rendered masonry facades with wrought iron balustrades.
- Adjacent to the school on Abercrombie Street is a 3-4 storey student accommodation building which is primarily constructed in off-form concrete with metal cladding to both the upper level and the western facade which fronts onto the eastern boundary of the school.
- The north section of Golden Grove Street, opposite the school, is occupied by a large 1970's residential development that is characterised by blocks of two-storey flats, oriented at a 45 degree angle to the street. These units are constructed of brick with perforated metal balconies.
- The heritage listed University Regiment Building at the north-western corner of the site is a brick building. Other brick buildings in the vicinity include St Michaels Melkite Catholic Cathedral, also heritage listed, and a taller painted brick building, formally associated with the church.
- The existing school, which bounds the site on Abercrombie Street and most of Golden Grove Street is a 70s era brick building.



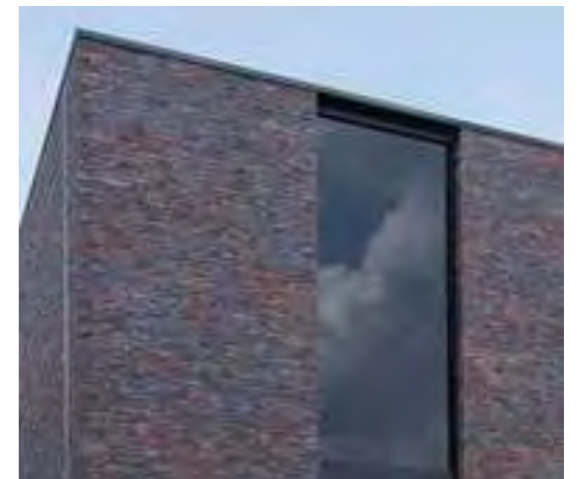
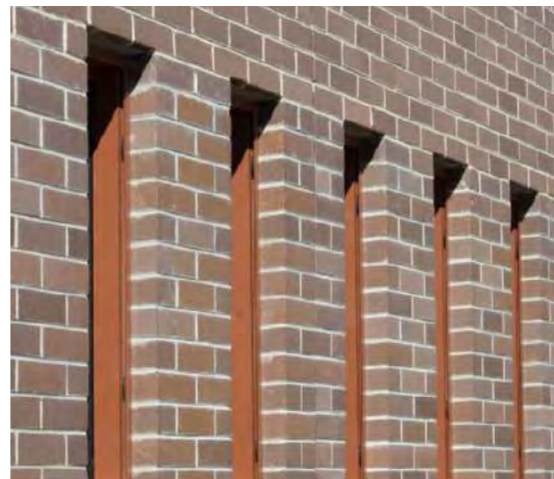
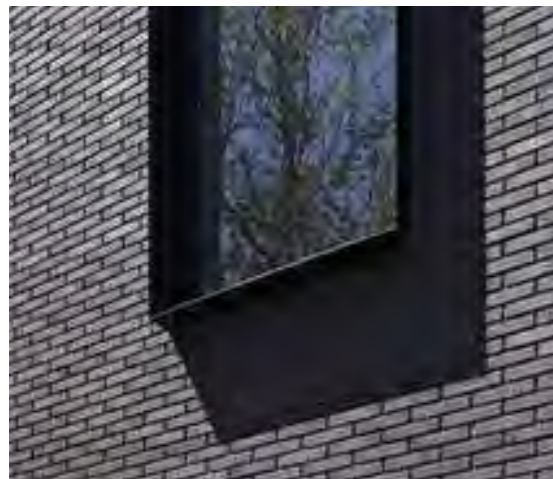
## Proposed Materiality

- Due to the predominance of brickwork in the surrounding context, it is proposed that bricks will form an integral part of the materiality of the new school.
- It is intended that the facades facing onto the street will be constructed of brick, to reflect the surrounding context and create the appearance of a protective facade enveloping the school.
- The bricks can be laid in varying patterns to create texture and transparency where required.
- The facades facing into the school playground will be constructed of lighter materials to reflect a more playful character to the interior of the school.
- The exterior facades will be linear and aligned to a grid to reflect the urban fabric around the site, while the inward facing facades will be curved to provide a softer aesthetic that addresses the playground.
- There will be a different emphasis to the school hall facade due to its prominent location and to recognise its broader function within the community.

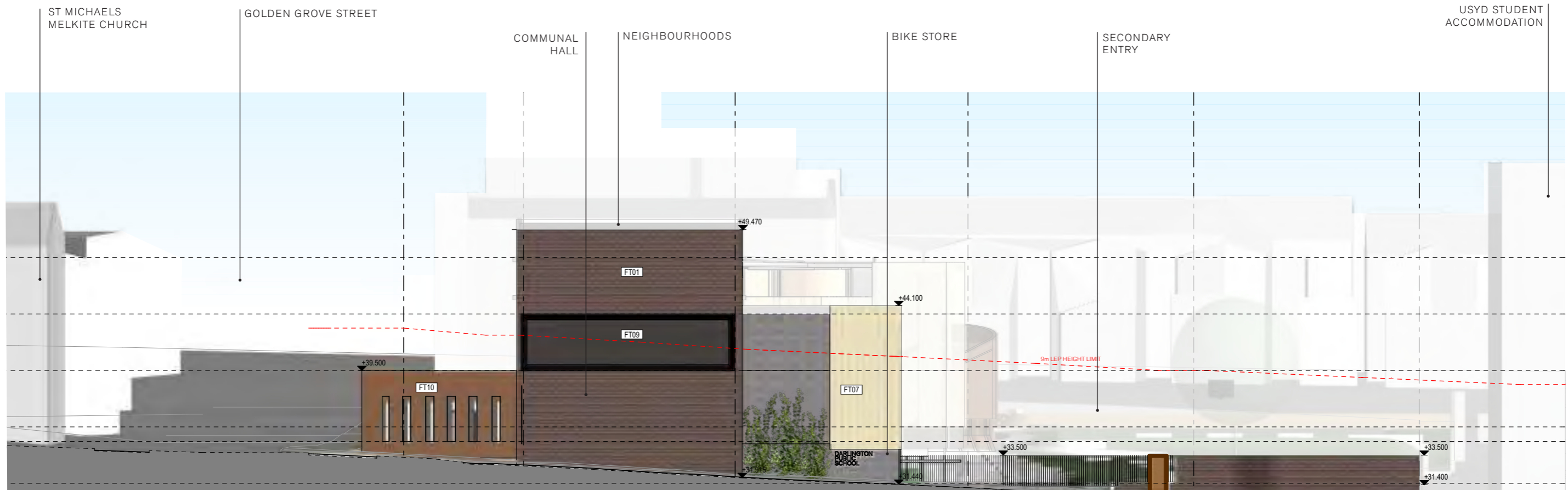


# Elevations

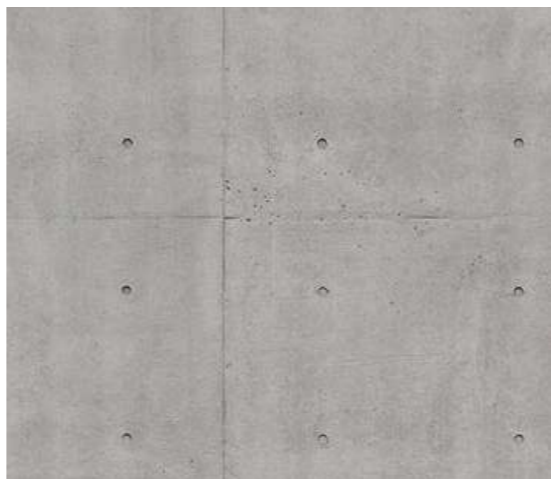
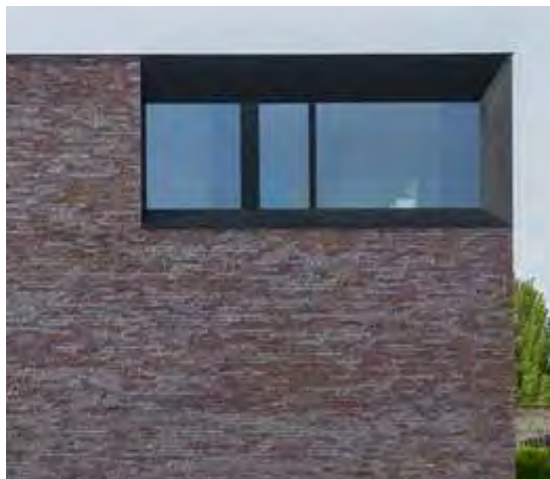
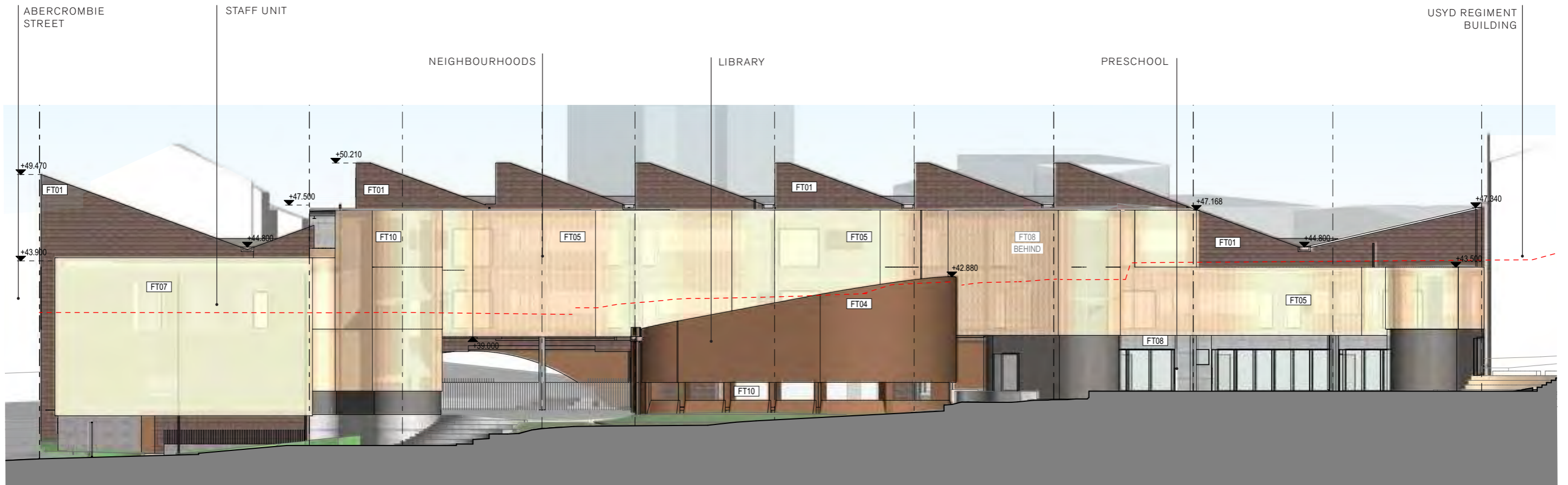
## Golden Grove Street Elevation



**Abercrombie Street Elevation**



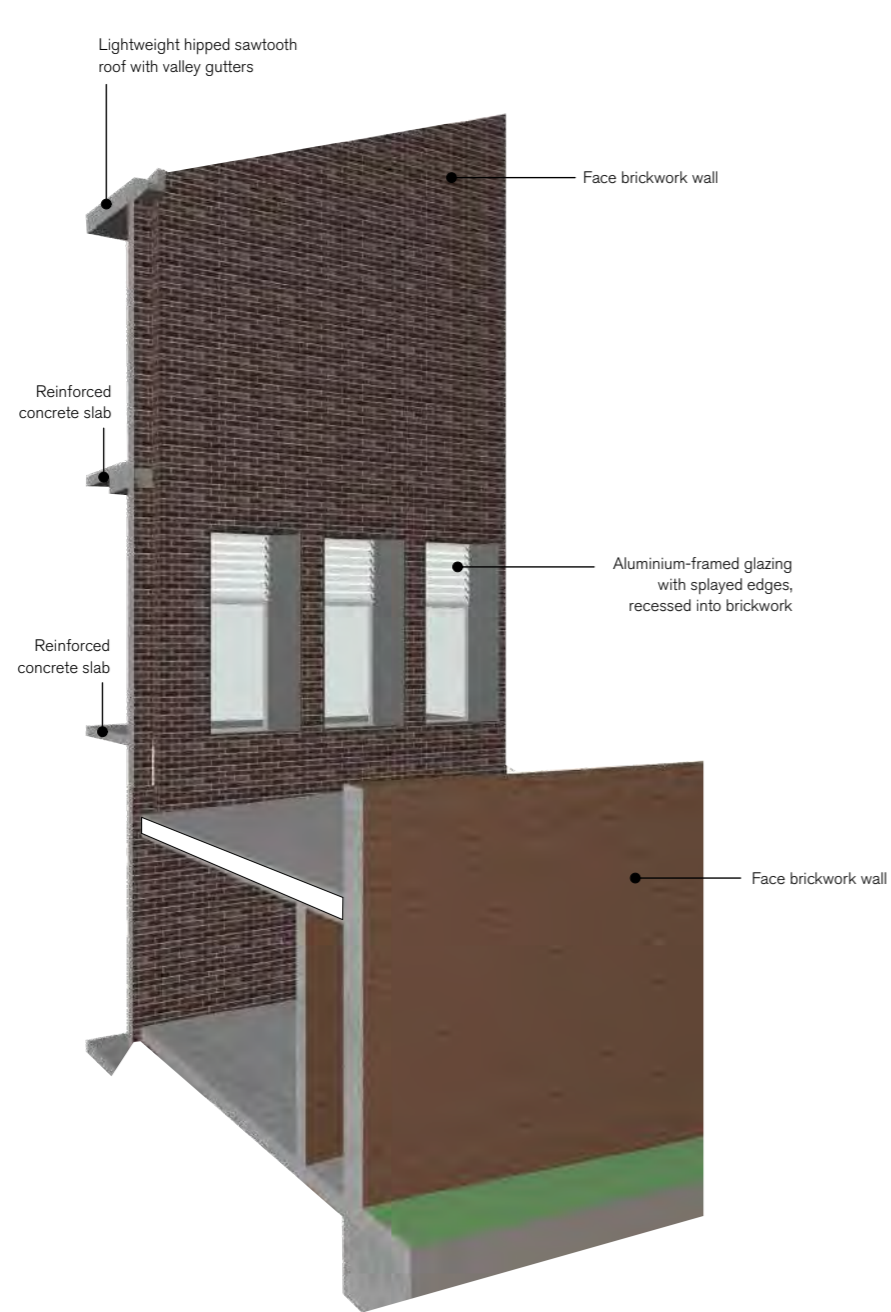
Eastern Elevation



# Facade Sections



**WESTERN ELEVATION**



**FACADE TYPES FT01 AND FT02**



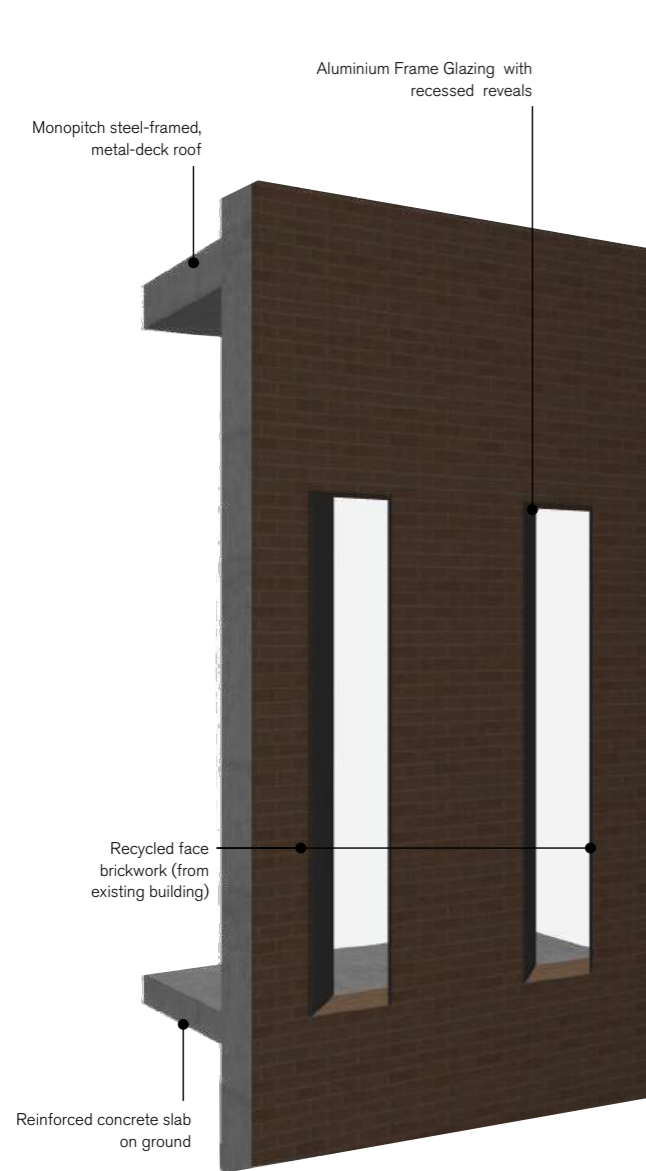
**FACADE TYPES FT01 AND FT02**



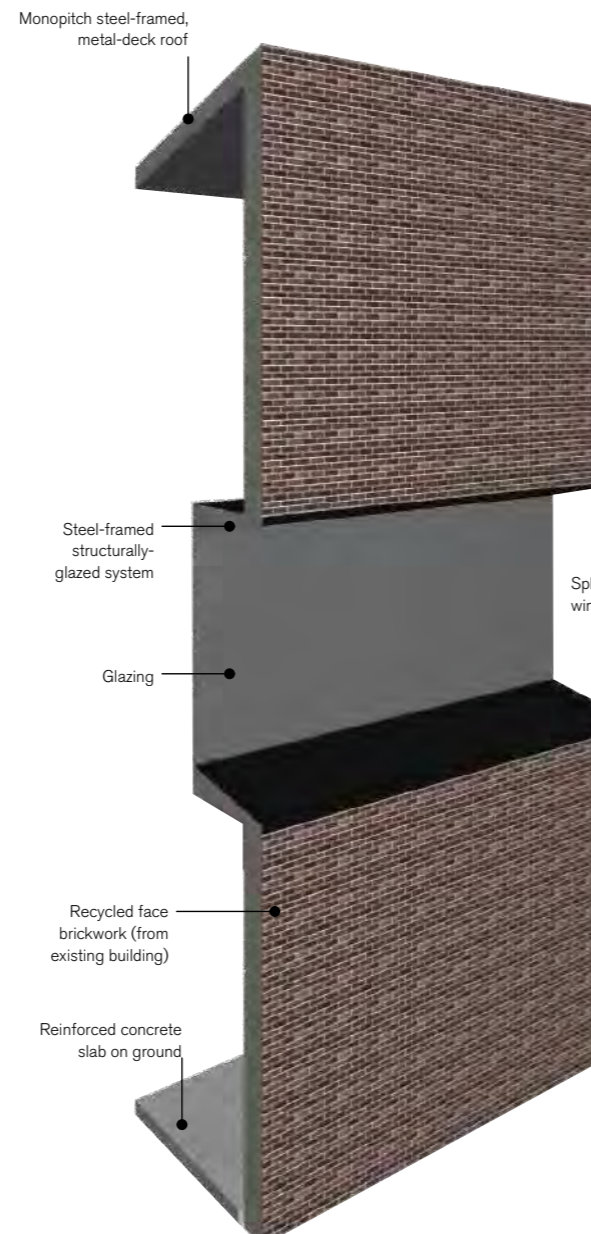




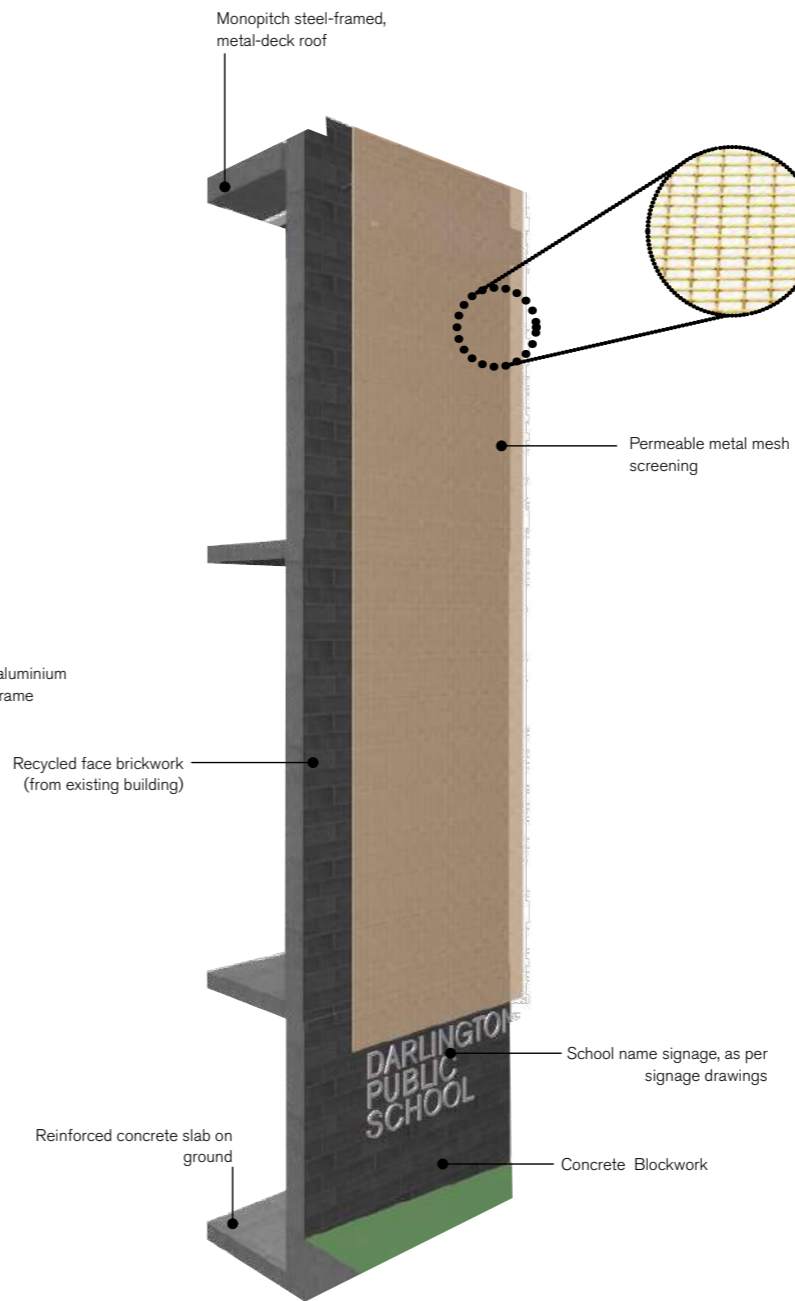
**SOUTHERN ELEVATION**



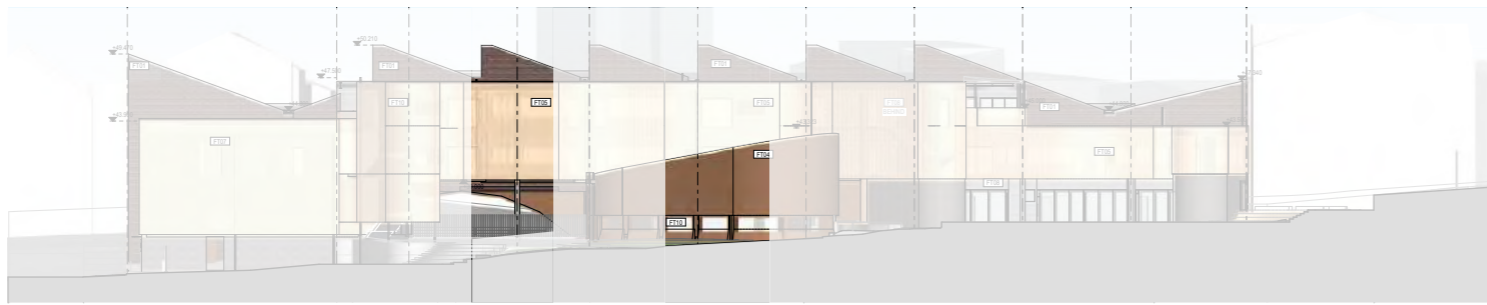
**FACADE TYPE 10**



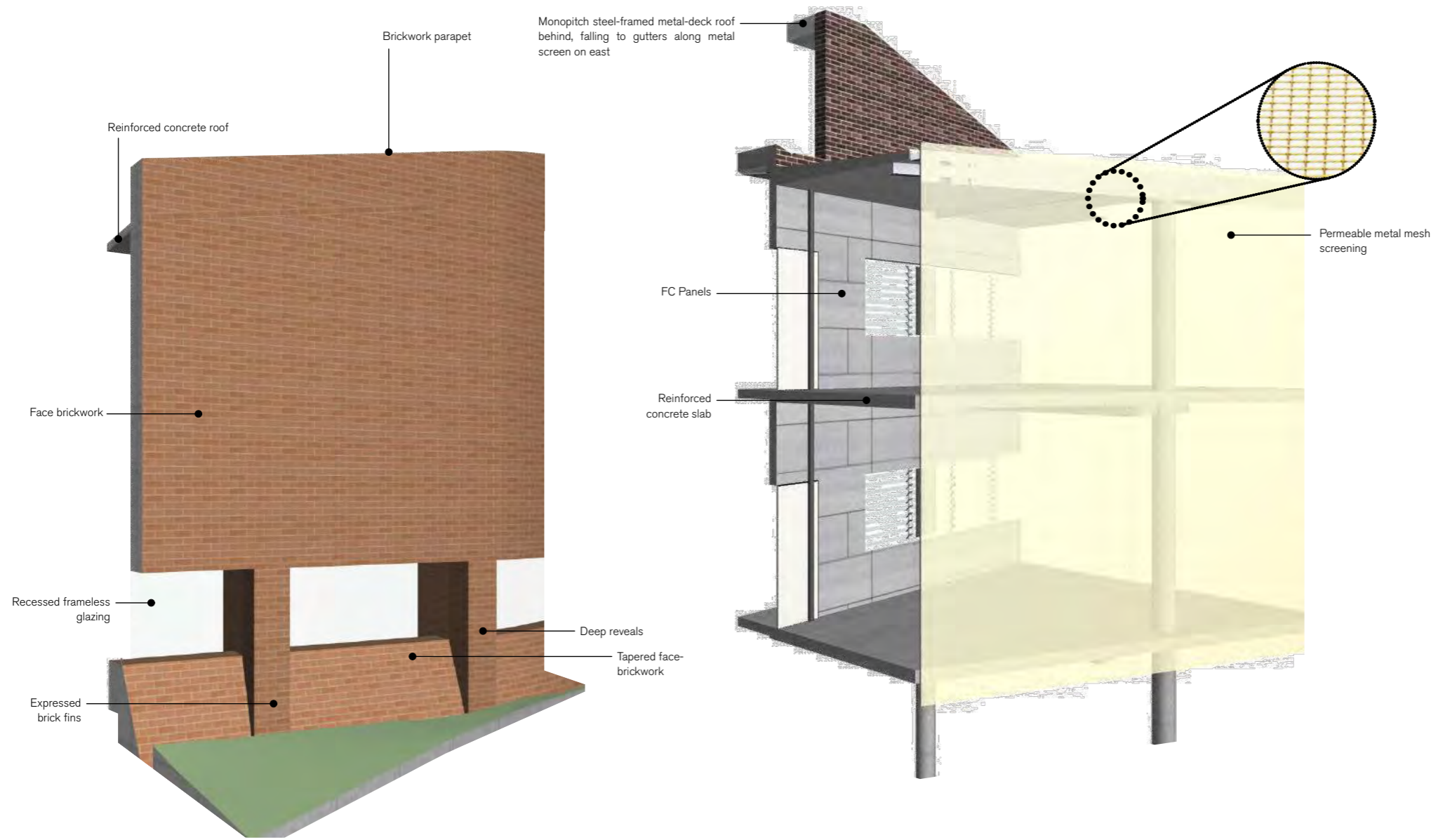
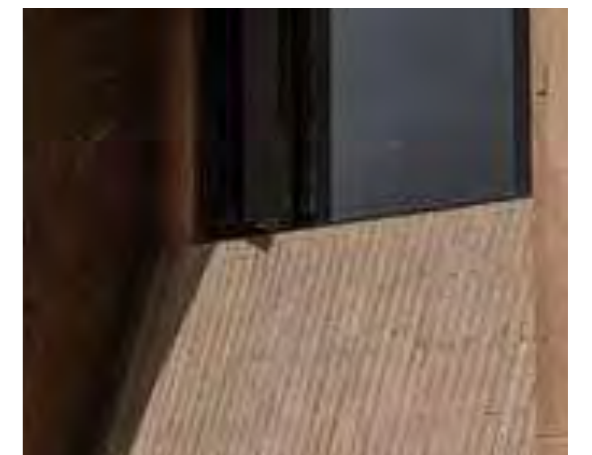
**FACADE TYPES 01 AND 09**



**FACADE TYPE 07**

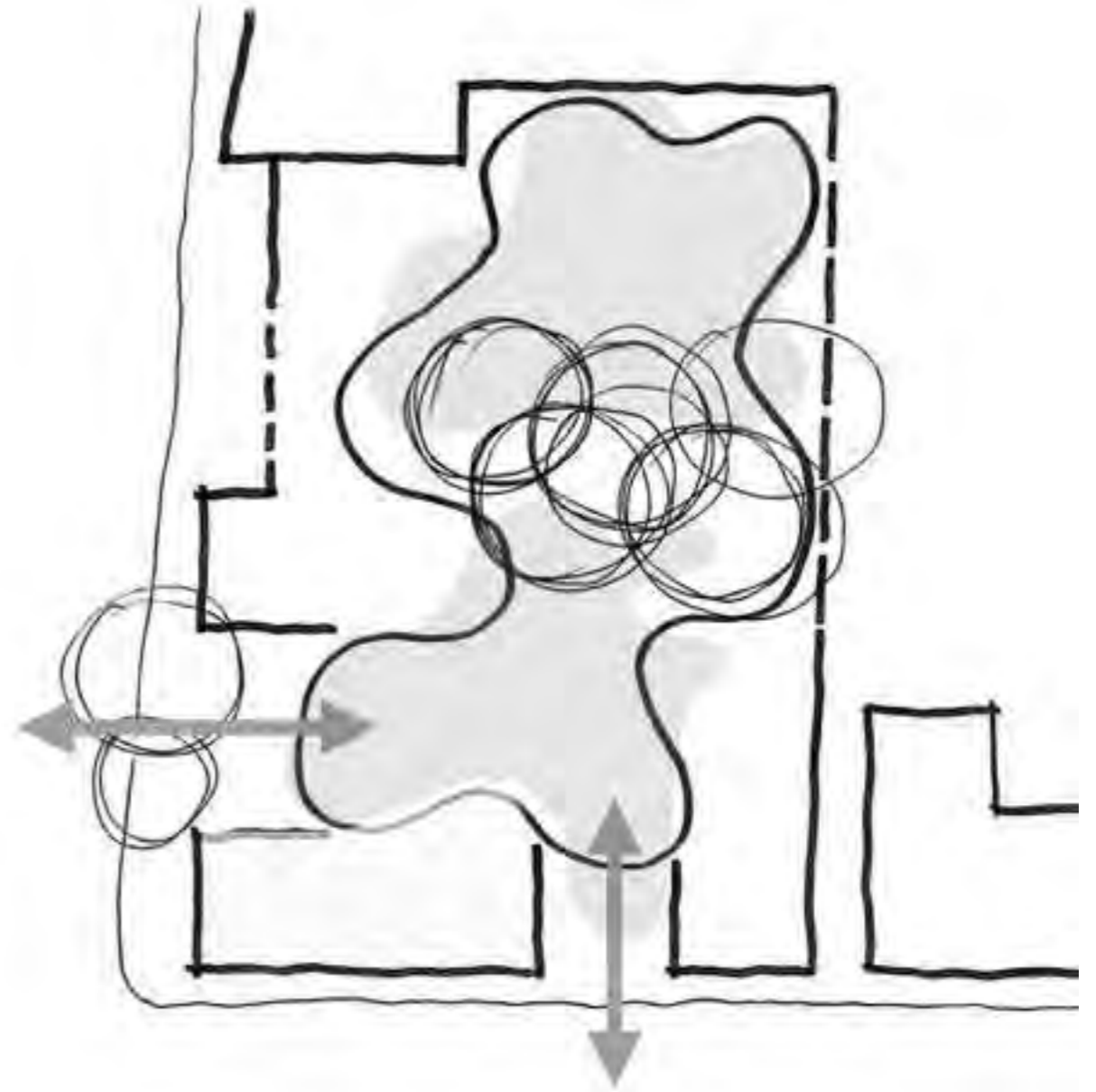


**EASTERN ELEVATION**



**FACADE TYPES 04**

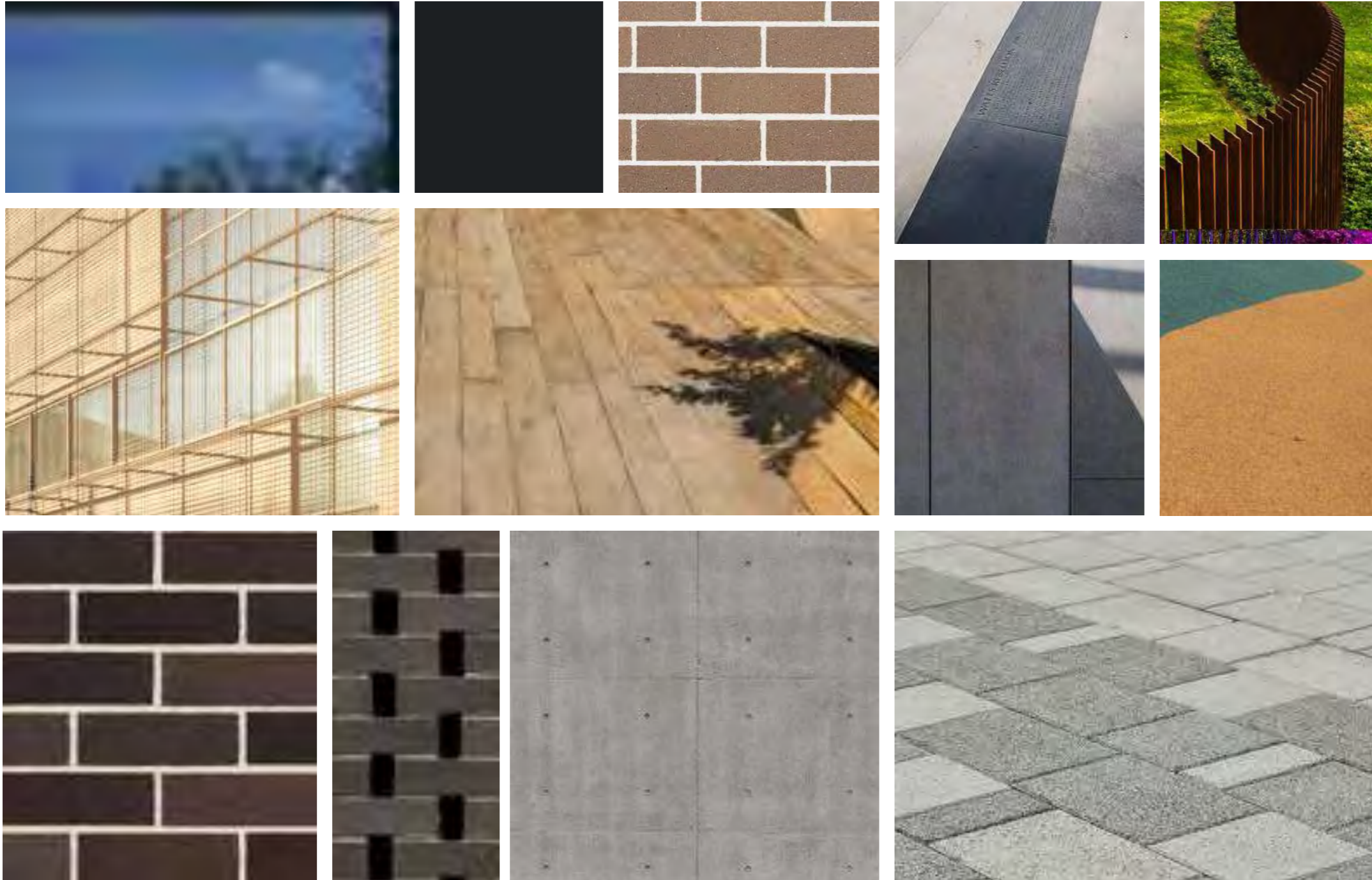
**FACADE TYPE 05**



## Exterior Finishes Schedule

BUILDING CODE/ FACADE TYPE	LOCATION	ITEM	Description
<b>Building 0A1</b>	<b>PRESCHOOL</b>		Ground Level Facade
FT02	West Facade	Brickwork	External face brickwork, dry pressed, colour 2
FT06	East Facade	Brickwork	External face brickwork, dry pressed
		Glazing	Aluminium framed glazing system
<b>Building 0A2</b>	<b>ADMINISTRATION</b>		Ground Level Facade
FT02	West Facade	Brickwork	External face brickwork, dry pressed, colour 2
FT01	North/South Facades	Brickwork	External face brickwork, dry pressed, colour 1
		Glazing	Aluminium framed glazing system
ROF1	Roof	Metal Roof	Lightweight metal roof behind brick parapet
<b>Building 0A2</b>	<b>LIBRARY</b>		Ground Level Facade
FT04	East Facade	Brickwork	External face brickwork to match FT02
		Glazing	Aluminium framed glazing system
ROF2	Roof	Metal Roof	Standing seam roof, exposed sumps, outlets, and downpipes
SKY1		Skylight	Custom glazed skylight. Glass, voids and interlayers laminated to achieve Section J / Greenstar requirements.
<b>Building 0A3</b>	<b>COMMUNAL HALL</b>		Ground Level Facade
FT01	West Facade	Brickwork	External face brickwork, dry pressed, colour 1
FT01	South Facade	Brickwork	External face brickwork, dry pressed, colour 1
FT09	South Facade	Glazing	Steel frame with glass structurally glazed. Glass, voids and interlayers laminated to achieve Section J / Greenstar requirements.
<b>Building 0A3</b>	<b>COLA</b>		Ground Level
COL1	Concrete Column, finish type 2	Off Form Concrete column	Off White Concrete Column with High Level finish Class 2C
ROF3	Roof	Metal Roof	Metal deck roof
SKY2		Skylight	Circular acrylic skylight
	<b>LEARNING NEIGHBOURHOODS</b>		Levels 1 and 2 Facade (facing on to covered walkway)
FT01	West Facade	New Brickwork	External face brickwork, dry pressed, colour 1
		Glazing	Aluminium framed windows, recessed into brickwork
		Reveal Cladding	Aluminium sheet (thickness to minimise oil canning)
FT08	East Facade	Panel Cladding	Compressed fibre cement cladding, Equitone or similar
		Glazing	Glazed aluminium framed system with spandrel panels
ROF1	Sawtooth Roof	Metal Roof	Metal deck roof, exposed sumps, outlets, and downpipes
		Highlight glazing	Aluminium framed glazing system with automated operable louvres
		Photovoltaic panels	Photovoltaic solar cell panels, mounted to roof sheeting to suit solar angle
	<b>COVERED WALKWAY</b>		Levels 1 and 2
FT05	East Facade	Metal Facade	Metal mesh / perforated facade
	Stairs	Metal Facade	Metal mesh / perforated facade
		New stairs	Concrete flights and landings.
		New stair balustrade	Circular metal handrails and balustrades to detail
ROF1	Metal roof	Metal Roof	Metal deck roof
SKY2		Skylight	Circular acrylic skylight

# Material Sample Board



## Material

1. Clear glazing
2. Metal mesh
3. Face-brick, colour 1
4. Perforated brick
5. Black aluminium framing
6. Face-brick, colour 2
7. Timber decking
8. Concrete finish
9. Stone paving - feature
10. Pre-finished fibre-cement cladding
11. Stone paving
12. Steel fencing
13. Soft fall

1	5	6	9	12
2	7		10	13
3	4	8	11	

Views



AERIAL VIEW



LOOKING TOWARDS CORNER OF GOLDEN GROVE AND ABERCROMBIE STREETS



LOOKING TOWARDS LIBRARY AND PLAYGROUND FROM ABERCROMBIE STREET ENTRANCE





LOOKING TOWARDS LIBRARY AND PLAYGROUND FROM GAMES COURT

# RESPONSE TO EDUCATION SEPP & BETTER SCHOOL DESIGN

The Education SEPP Design Quality Principles and Design Considerations as outlined in the Design Guide for Better Schools [GANSW] have been addressed in the design of the new Darlington Public School and our response is summarised as follows:

## Context Built Form and Landscape

The proposal has sought to respond to and enhance both the existing site of the school campus and the wider context of the surrounding Darlington precinct.

As the site has a significant slope, the landscape is closely integrated with the built form, through terraces and pathways. The floor levels of the buildings have been set in close collaboration with the Landscape Architect to align with the natural ground levels.

Major circulation spines including the staircases connecting each level between the built forms sit proud of the building in the landscape and provide a visual connection to the playground.

## Sustainable Efficient and durable

Embodied in the brief is the aspiration for a positive environmental, social and economic outcome. The functional layouts are efficient with clear way-finding: access stairs are egress stairs, always with a connection to the landscape; the interstitial spaces enable light to penetrate deep into the interior and the facades are shaded to provide good penetration of daylight yet mitigate thermal gain.

The materiality selection of the proposed built forms is simple and durable and references the solidity of the existing local fabric: masonry, brickwork, metal cladding, and glazing.

The structural grid and the location of support facilities such as services risers, amenities, stores and vertical circulation enables future reconfigurations of the layout plans, as do the regular sizes of the learning spaces.

Passive design principles with a focus on high performing facades will be incorporated into the design. All services will be designed to sustainable benchmarks.

## Accessible and inclusive

The main entrance to the school opens onto a large covered undercroft, which provides a central waiting and gathering place for the school community.

There is good visibility across the campus so that the students and staff can understand their movement patterns and also have an appreciation of the activities in different parts of the school.

The landscaping has been designed to provide equitable access from the bottom of the playground to the top, as well as to each building function at ground level, as the form steps up the site.

## Health and Safety

Security and safety of pedestrians is fundamental. The proposed traffic management measures include an increase in the number of 'kiss & ride' spaces; a dedicated multi-use school loading/bus zone for maintenance and delivery vehicles, kerb-side garbage pick up and kerb-side school excursion bus parking on Golden Grove Street, accessed via the existing footpath.

The design provides a hierarchy of access from public to private, enabling the students to be safe and secure within their learning hubs, but to still have a connection to their environs.

Student amenities will be designed as separate facilities (single water closet), rather than combined, shared facilities. The amenities are located in visible areas to provide adequate surveillance and to discourage bullying.

A greater transparency across the learning spaces - both between levels and across the floor plates will enable a more inclusive learning environment.

## Amenity

The purpose of the proposal is to not only increase the school's population to align with the forecasted demographics but to redevelop the school's facilities to meet the current and future expectations of the learning methodologies. Important aspects which will be considered in the design are:

- a diversity of learning spaces (availability of spaces of differing scale),
- open or enclosed spaces,
- spaces which are interconnected and
- spaces with a strong connection to the landscape.

The acoustics of the learning spaces is very important and internal acoustics will be mitigated through absorptive wall, floor and ceiling treatments. Open plan areas should be off-set by more intimate enclosed rooms to provide learning diversity.

With regards to the the external space, consideration will be given to creating a diversity of play spaces to cater for different ages; learning opportunities in the landscape and space for the students to run around and play sports.

## Whole of life, flexible and adaptable

The proposal has carefully considered site wide strategic and spacial planning to ensure that future development of the site (for example; a future increase in population up to a maximum of 510 students) is not precluded.

Because the pedagogy of the school will change over time, it is important that the proposed buildings are as flexible as possible - clear circulation, good access to daylight, generous floor to floors to provide adequate space for services reticulation and a simple structural grid which is to the perimeter of functional zones.

## Aesthetics

The design has considered the local fabric and rather than providing a new contrasting aesthetic, is designed to be complementary to the massing, scale and materiality of the surrounding buildings.

The integration of landscape is very important, especially in such an urban site, and aligns with the pedagogical model.

# GANSW CONSULTATION

Two sessions have been held with the GANSW:

- 14 August 2019 First Briefing (Feedback provided on 21/08)
- 06 November 2019 Second Briefing (Feedback provided on 12/11)

The SDRP were supportive of the project direction and no further reviews were requested.

## Response by the SDRP - August 2019

The following commentary from the SDRP provides advice and recommendations for the project:

### Massing and scale

- The panel supports the location of the hall at the corner of Abercrombie and Golden Grove streets. The hall should have a clear street presence, welcoming aspect and engagement with the urban context. The height of the hall should be considered together with its architectural expression to determine an appropriate 3-dimensional response to its location.
- The concentration of 3-story elements along the southeast and northwest boundaries is supported. Detail should be provided to illustrate how built forms will interact with the student housing and Regiment buildings adjacent.
- The approach illustrated in options C & D, with one or several functions perpendicular to Golden Grove Street has the potential to more successfully accommodate the slope of the site.

### Heritage

- Explore ways in which the existing fabric of the school could be repurposed in the built form and/or landscape treatments.
- The panel anticipates further engagement with the Aboriginal community leading to a meaningful manifestation of cultural heritage in the built form, landscape, art, wayfinding and other elements of the project.

### Landscape and open space

- The panel supports the approach presented of the COLA areas to create an interface between the school grounds and the public domain. Further detail is required to illustrate these areas and the amenity provided, ensuring the spaces do not become too low or too deep.
- Clarify and illustrate retention of existing trees along Darlington Lane.
- Clarify any roof areas which will be used as play areas and/or landscaped open space.

### Sustainability

- Detail ESD initiatives and performance targets

## Architect's Response

### Massing and scale

- The hall building has been maintained as a taller element at the corner of Abercrombie and Golden Grove streets. Upon further consideration of the hall's function, it was decided that the main entrance to the hall should be off the covered undercroft near the school's main entrance, to allow large groups to spill out of the hall, without overflowing onto the public footpath.
- The three storey element which runs parallel to Golden Grove Street accommodates the learning neighbourhoods and culminates in the school hall at Abercrombie Street. A lower single storey element extends below this and provides a human scale to the streetscape and the main entrance of the school.
- The design has maintained 3 distinct buildings at ground level, perpendicular to Golden Grove Street, which help to stitch together the different levels across the site.

### Heritage

- It is envisaged that the bricks from the existing school will be recycled and used in selected locations. Further development of these ideas will occur during detailed design.
- Refer to Aboriginal and Cultural Heritage section of this report and the separate ACHAR report. Further consultation with the community will occur during detailed design.

### Landscape and open space

- The panel supports the approach presented of the COLA areas to create an interface between the school grounds and the public domain. Further detail is required to illustrate these areas and the amenity provided, ensuring the spaces do not become too low or too deep.
- Refer landscape report for tree management plan.
- It is not intended that any roof spaces will be used as play areas. The covered balcony on levels 1 and 2 provides various outdoor learning spaces for the learning neighbourhoods.

### Sustainability

- Refer separate ESD report.

## Response by the SDRP - November 2019

The following commentary from the SDRP provides advice and recommendations for the project: The SDRP are supportive of the project direction and no further reviews are required.

### Aboriginal Culture

- The approach to understanding and engaging with local Aboriginal culture is commended as a starting point. Provide details of how the connection to Country will be made evident throughout the school grounds: for example, using landscape, materials, plant selection, art installations/murals, naming, wayfinding devices, play equipment, paving, colour, texture and so on.Heritage
- Explore ways in which the existing fabric of the school could be repurposed in the built form and/or landscape treatments.
- The panel anticipates further engagement with the Aboriginal community leading to a meaningful manifestation of cultural heritage in the built form, landscape, art, wayfinding and other elements of the project.

### Landscape

- The landscape strategy incorporating connected spaces at various scales is supported. The landscape design should be further detailed to incorporate robust surfaces, materials and plantings, particularly in areas of high play traffic
- The setbacks along Golden Grove Street should be further detailed to demonstrate the continuity of the urban realm with robust and low-maintenance materials and landscaping. These areas should be illustrated to indicate how sightlines between the street and the pre- school will be resolved.
- Explore and illustrate how natural environmental systems (ie water) can be integrated into play areas.
- Clarify and illustrate access to and visual appearance of the Library roof.
- Provide a plan illustrating the potential use of the upper level circulation/outdoor learning spaces.

### Hall & Streetscape

- The possibility of a community foyer at the south west corner of the Hall is supported and should be further developed.

- Illustrate the treatment of street edges at the setback along Golden Grove Street and whether these can incorporate street seating or other public amenity.
- Provide a view illustrating the proposed visual connection from Abercrombie Street through the street-wall into the school at the service entry and assembly area.
- The design of the entry fence as a place-specific screen integrated with the built form is supported and further details should be provided. Explore versions where a staggered fence line addresses spatial generosity to both sides of the fence where needed.

### Sustainability

- Detail ESD initiatives and performance targets, including passive and active energy modes, overshadowing, solar access, energy generation, water collection and reuse, etc.

## Architect's Response

### Aboriginal Culture

- Refer to Aboriginal and Cultural Heritage section of this report and the separate ACHAR report. Further consultation with the community will occur during detailed design.

### Landscape

- Refer to the Landscape Report and Landscape drawings for detailed information.
- Further development of the design has resulted in the introduction of a single storey element along Golden Grove Street, with interstitial courtyards. This lower plinth provides privacy to the accommodation fronting Golden Grove Street and the courtyards allow the internal accommodation access to daylight and fresh air.
- Refer to the Landscape Report and Landscape regarding natural environmental systems.
- The library roof is not intended to be accessible. It will be a simple metal deck roof with a generous skylight .
- The upper level outdoor learning spaces are designed to be a flexible extension of the adjacent classrooms and have been designed to accommodate a single class.

### Hall & Streetscape

- Upon further development of the design it was decided that the corner entrance for the hall was not practical. With a capacity of 200 or more people, it was proven that there was inadequate spill-out space at the corner of Golden Grove and Abercrombie Streets for the safe operation of the school hall. The proposed hall entrance is now located off the covered undercroft at the main entrance of the school. This allows the community ample space to gather before and after events. A secondary fence is proposed so that the covered undercroft can be secured, preventing access to the rest of the school grounds.

- Refer Architectural Drawing Set - Street Views for treatment of street edges.
- Due to a reduction in required floor space and following further design development, the secondary entrance at Abercrombie Street has been opened up to provide a landscaped vista into the school.
- The Abercrombie Street entrance gate and fence takes on an organic form, giving space back to the public domain in the form of landscaping and integrated seating. The playground level at the southern boundary is elevated above the footpath, providing visual privacy.

### Sustainability

- Refer Environmental Amenity section of this report and separate ESD report.

# CPTED

The objectives of the CPTED are to create a safe, crime free environment that:

- Increases detection and apprehension of offenders,
- Maximises efforts required to commit crime ,
- Minimise environments and conditions which may instigate unacceptable behaviour, and
- Reduce the actual and perceived benefits of crime.

The “Safer by Design” guidelines have been adopted following the following design principles;

- Surveillance
- Access control
- Territorial reinforcement
- Space management

## Legislative Requirements and Guidelines

The report has been compiled in accordance with the NSW Department of Urban Affairs and Planning Crime Prevention Through Environmental Design (CPTED) guideline. The guidelines assess the appropriateness of proposed developments to provide a safe, crime free environment.

Reference is also made to the Department of Educations, Educational Facilities Standards and Guidelines (EFSG).Key points from this document are identified as follows:

\_ Major problems affecting schools, with enormous cost, are arson, theft and vandalism. The impact of these activities is not only measured in financial terms but also in the effect on student learning outcomes, interruptions to operations and emotional trauma experienced by student, teachers and parents.

\_Security fencing should be provided along road frontages and other site boundaries which face public areas or walkways. The security fence is to be designed to prevent climbing. Generally a 2150mm high palisade type pre finished tubular steel fence is preferred.

The fence will be a feature of the school and so should aesthetically enhance the school image in an unobtrusive manner, whilst not encouraging access to the site.

Where security fencing is provided along non-road boundaries, it may be reduced in height to 1825mm weldmesh or other style to DoE approval.

Where security fencing abuts an adjacent property fence, provide a return panel to prevent access between the security fence end post and adjacent fence.

## PRINCIPLES

Darlington Public School is bounded by Golden Grove Street to the west, Abercrombie Street to the South, Darlington Lane to the North and Sydney University to the East. The buildings form an L-shape to block views and access in to the school site from the roads and to help enclose and secure the school without the need for extensive fencing.

### Access Control

Circulation around and through educational facilities needs to be clear in the definition of where people can and cannot go and to define boundaries.

The use of physical barriers (e.g. fencing, walls and locked doors) and symbolic barriers (e.g. landscaping and changes in level) are important in access control. This is equally important for primary and ancillary areas (e.g. loading zone, garbage collection area, storage areas etc.)

The following provides an assessment of the proposed facility against the access control principle;

- The building form and location and the fencing provisions restrict access.
- The two main entries to the site - off Golden Grove Street and Abercrombie Street - will be controlled with 2150 palisade gates.
- Fencing to the eastern side of the site adjacent to Sydney University will be 1825mm palisade and will restrict access to the site. A steeply sloping driveway ramp also exists adjacent to the eastern boundary which further restricts access.
- Fencing to the north of the site will also be via a 2150mm palisade fence.
- The overall site layout presents a clear hierarchy of public to private. The main entrance provides direct access to a central Covered Outdoor Learning Area (COLA) which in turn provides access to all main “public” facilities - the Communal Hall, the Administration, the Library and the OSHC.
- Access to the Preschool is via the main school entrance.
- A covered walkway, which runs in a north south direction provides access to the “private” learning hubs and the interstitial zones on levels 1 and 2. Access to these walkways is via stairs and a lift. These will be secured so that the public facilities (hall and COLA) can be used by the wider community after hours without affecting the security of the Learning Hubs.
- Landscaping design responds to pedestrian movement paths and guides people to entries and public spaces. Landscaping enhances pathway boundaries and shields visual connections to limited access areas.
- On-site vehicle access is limited to the loading zone only.
- One lift is provided and is located in close proximity to the administration/reception area. Lift use will generally be restricted by access control.
- External and internal signage and after hours lighting will assist in access legibility and wayfinding.

### Surveillance

Natural and technical surveillance are important and focus on ensuring that people can see what other people are doing - in the case of a school: teachers to students and students to students. Typically public areas need to be over-viewed by others with clear sight lines from private to public areas, effective lighting of public places and landscaping which does not provide areas for people to hide or entrap victims. Electronic surveillance is used both as a further deterrent, particularly effective where cameras are visible, for broader surveillance where natural surveillance cannot be achieved, as well as an evidence tool used by police.

The following provides an assessment of the proposed facility against the surveillance principle;

- Clear sight lines have been provided between public and functional spaces for example, the entrances to all “public” facilities can be seen from the central COLA.
- Internal and external pathways and circulation areas are wide and open and constrained corridors are minimised.
- The Learning Hubs are a series of interconnected spaces along a covered walkway - these have been designed to be as open as possible so that surveillance, both from the classroom out to the walkway and from the walkway into the classroom is possible.
- Staff areas - the Staff Room, Library and Administration are distributed across the site which will assist with an adult presence around the campus; at the main entrance, at the centre of the school and on the upper level.
- The Entry Administration area will provide a secure entry into the school complying with the DoE requirements.
- It is determined that approximately 4 - 5 staff will be required for outdoor recreation duty during recess and lunch.
- After hours external lighting is consistent along pathways with increased lighting at facility entries.
- Egress paths are open and integrated into the overall design - access is egress.

### Territorial reinforcement

Areas that are well-maintained and well-used generate a feeling of “ownership” and thus reduce opportunities for criminal activity. Public areas need to clearly define their intended use and encourage community activity.

The following provide an assessment of the proposed facility against the territorial reinforcement principle;

- The location of the school, on the corner of Golden Grove and Abercrombie Streets clearly defines its presence in the local area.
- The location of the main entrance gate and the COLA provides an informal gathering space for the school community. Upon entry into the campus, wayfinding is extremely clear through the hierarchy of external and internal circulation spaces.
- The central COLA brings together all sides of the campus and reinforces the identity of Darlington Public School.

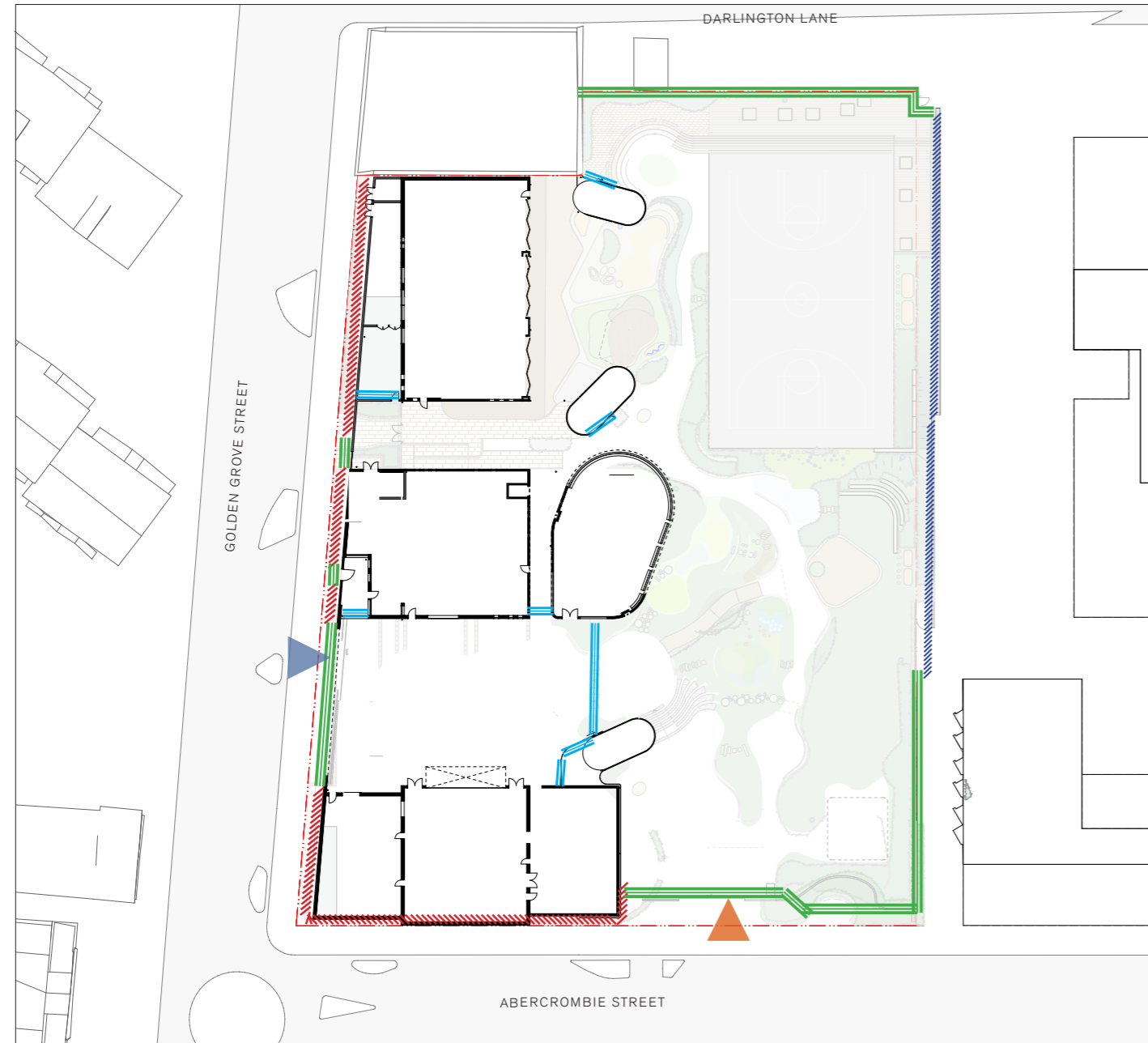
### Space management

Areas need to be attractive and well-maintained with regular removal of waste, mowing, removal of graffiti, repair of vandalism and the repair of broken equipment/furniture. This applies to both public and communal “private” areas.

The following provide an assessment of the proposed facility against the space management principle;

- Management methodologies have an emphasis on damage, graffiti and maintenance management to ensure the facility presents a clean, cared-for environment.
- Selection of materials, furniture, fitments and fittings will have an emphasis on reducing vandalism to assist in space management.
- Gathering spaces will be integrated into the design, minimising vandalism.
- The palisade fence at the main entry will align with the overhang to reduce the likelihood of loitering outside of school hours.

### Fence Line



### LEGEND

- PERIMETER FENCING AND BARRIERS
- INTERNAL SECURITY FENCE/GATE
- BUILDING FACADE PROVIDING BUFFER
- NEIGHBOURING BOUNDARY WALL
- MAIN SCHOOL ENTRANCE
- SECONDARY SCHOOL ENTRANCE

### Entrances



### LEGEND

- MAIN SCHOOL ENTRANCE
- SECONDARY SCHOOL ENTRANCE
- RECEPTION & ADMINISTRATION ENTRANCE
- HALL ENTRANCE
- PRESCHOOL ENTRANCE

# PRESCHOOL

## Preschool Brief

The proposed preschool will accommodate a total of 60 children (aged 3 to 5 years) in 3 classrooms. The preschool has been designed in accordance with the NSW Childcare Planning Guideline, August 2017.

## Proposed Preschool

The Master Plan locates the preschool on the north-western side of the site, alongside Golden Grove Street. It is oriented to maximise solar access to the classrooms and the outdoor play area.

It has been requested by the school, that entry to the preschool is via the main school entrance. This is primarily to allow the preschool children to become familiar with the primary school, but will also enable reception staff to monitor those entering and exiting the premises. A covered waiting area has been provided outside the preschool entry foyer.

The preschool outdoor play area is located adjacent to the school playground, and will be divided by permeable fencing to provide visual connection between the preschool children and primary school students.

Preschool - Location



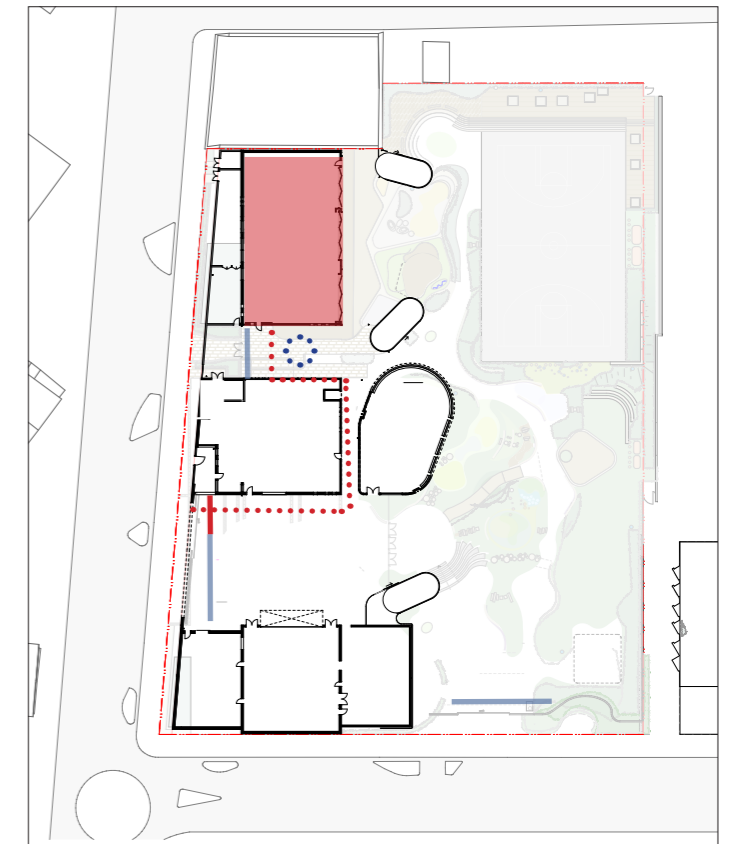
LEGEND  
■ PRESCHOOL

Preschool - Play Area



LEGEND  
■ PRESCHOOL  
■ FENCED OUTDOOR PLAY AREA

Preschool - Parent Drop off & Pick up



LEGEND  
■ PRESCHOOL  
— SCHOOL FENCE  
⋯ MAIN PARENT/CARER ACCESS  
— FRONT GATES  
⊙ COVERED WAITING AREA







EXTERNAL VIEW OF PRESCHOOL PLAY AREA AND ACTIVITY ROOMS BEYOND

## Response to Part 2, 3 and 4 of the Child Care Planning Guideline

Component	Proposal
<b>Part 2 - Design Quality</b>	
Principle 1 - Context	The proposed preschool is located on ground level of the proposed development at the northern end of the site, adjacent to Golden Grove Street.
Principle 2 – Built form	The preschool is accommodated in the new school proposed for Darlington Public School which is being assessed under SSDA 9914.
Principle 3 – Adaptive learning spaces	The internal fitout and playground have been designed to align with the Child Care Guidelines.
Principle 4 – Sustainability	Sustainability targets for the proposed building are aligned with the SiNSW Sustainability Pathway. Refer to the ESD report accompanying SSDA 9914.
Principle 5 – Landscape	The preschool playground has been design to align with the Child Care Guidelines.
Principle 6 – Amenity	The preschool provides indoor and outdoor space to provide a variety of experiences. Secure access is provided to the preschool.
Principle 7 – Safety	The preschool provides a welcoming, safe and accessible environment for children and their carers.
<b>Part 3 - Matters for Consideration</b>	
<b>3.1 Site selection and location</b> Objective: To ensure that appropriate zone considerations are assessed when selecting a site.	The proposed location within the overall development is secure and adequately sized to meet the internal and external space guidelines.
Objective: To ensure that the site selected for a proposed child care facility is suitable for the use.	
Objective: To ensure that sites for child care facilities are appropriately located.	
Objective: To ensure that sites for child care facilities do not incur risks from environmental, health or safety hazards.	
<b>3.2 Local character, streetscape and the public domain interface</b> Objective: To ensure that the child care facility is compatible with the local character and surrounding streetscape.	The building envelope is being assessed under SSDA 9914.

Component	Proposal
Objective: To ensure clear delineation between the child care facility and public spaces.	
Objective: To ensure that front fences and retaining walls respond to and complement the context and character of the area and do not dominate the public domain.	
<b>3.3 Building orientation, envelope and design</b> Objective: To respond to the streetscape and site, while optimising solar access and opportunities for shade.	The building envelope is being assessed under SSDA 9914.
Objective: To ensure that the scale of the child care facility is compatible with adjoining development and the impact on adjoining buildings is minimised.	
Objective: To ensure that setbacks from the boundary of a child care facility are consistent with the predominant development within the immediate context.	
Objective: To ensure that the built form, articulation and scale of development relates to its context and buildings are well designed to contribute to an area's character.	
Objective: To ensure that buildings are designed to create safe environments for all users.	
Objective: To ensure that child care facilities are designed to be accessible by all potential users.	
<b>3.4 Landscaping</b> Objective: To provide landscape design that contributes to the streetscape and amenity.	The proposed preschool is located within the school grounds. Refer SSDA 9914 Landscape Report for information regarding the streetscape landscaping.
<b>C18</b>	
Appropriate planting should be provided along the boundary integrated with fencing. Screen planting should not be included in calculations of unencumbered outdoor space.  Use the existing landscape where feasible to provide a high quality landscaped area by: <ul style="list-style-type: none"> <li>reflecting and reinforcing the local context</li> <li>incorporating natural features of the site, such as trees, rocky outcrops and vegetation communities into landscaping.</li> </ul>	The preschool playground area includes outdoor spaces that allow children to play with natural elements such as water & sand, including a sand pit for digging, and a variety of materials and surfaces including pebbles and softfall - the softscape design will explore options for small garden shortcuts and tactile/ aromatic plant species. Refer Landscape report.
<b>C19</b> Incorporate car parking into the landscape design of the site by: <ul style="list-style-type: none"> <li>planting shade trees in large car parking areas to create a cool outdoor environment and reduce summer heat radiating into buildings</li> <li>taking into account streetscape, local character and context when siting car parking areas within the front setback</li> <li>using low level landscaping to soften and screen parking areas.</li> </ul>	N/A

Component	Proposal
<b>3.5 Visual and acoustic privacy</b> Objective: To protect the privacy and security of children attending the facility.	✓
<b>C20</b> Open balconies in mixed use developments should not overlook facilities nor overhang outdoor play spaces.	N/A
<b>C21</b> Minimise direct overlooking of indoor rooms and outdoor play spaces from public areas through: <ul style="list-style-type: none"> <li>▪ appropriate site and building layout</li> <li>▪ suitably locating pathways, windows and doors</li> <li>▪ permanent screening and landscape design.</li> </ul>	N/A
Objective: To minimise impacts on privacy of adjoining properties.	✓
<b>C22</b> Minimise direct overlooking of main internal living areas and private open spaces in adjoining developments through: <ul style="list-style-type: none"> <li>▪ appropriate site and building layout</li> <li>▪ suitable location of pathways, windows and doors</li> <li>▪ landscape design and screening.</li> </ul>	The proposed location within the Darlington Public School site does not overlook adjoining properties.
Objective: To minimise the impact of child care facilities on the acoustic privacy of neighbouring residential developments.	✓
A new development, or development that includes alterations to more than 50 per cent of the existing floor area, and is located adjacent to residential accommodation should: <ul style="list-style-type: none"> <li>▪ provide an acoustic fence along any boundary where the adjoining property contains a residential use. (An acoustic fence is one that is a solid, gap free fence).</li> <li>▪ ensure that mechanical plant or equipment is screened by solid, gap free material and constructed to reduce noise levels e.g. acoustic fence, building, or enclosure.</li> </ul>	N/A
<b>C24</b> A suitably qualified acoustic professional should prepare an acoustic report which will cover the following matters: <ul style="list-style-type: none"> <li>▪ identify an appropriate noise level for a child care facility located in residential and other zones</li> <li>▪ determine an appropriate background noise level for outdoor play areas during times they are proposed to be in use</li> <li>▪ determine the appropriate height of any acoustic fence to enable the noise criteria to be met.</li> </ul>	Refer separate Acoustic Report (SSDA 9914)

Component	Proposal
<b>3.6 Noise and air pollution</b> Objective: To ensure that outside noise levels on the facility are minimised to acceptable levels.	✓
<b>C25</b> Adopt design solutions to minimise the impacts of noise, such as: <ul style="list-style-type: none"> <li>▪ creating physical separation between buildings and the noise source</li> <li>▪ orienting the facility perpendicular to the noise source and where possible buffered by other uses</li> <li>▪ using landscaping to reduce the perception of noise</li> <li>▪ limiting the number and size of openings facing noise sources</li> <li>▪ using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)</li> <li>▪ using materials with mass and/or sound insulation or absorption properties, such as solid balcony balustrades, external screens and soffits</li> <li>▪ locating cot rooms, sleeping areas and play areas away from external noise sources.</li> </ul>	The preschool activity rooms and outdoor play area face into the playground of the school and are shielded from the residential buildings opposite on Golden Grove Street by the proposed building. The preschool playground is over 30m away from the east boundary adjoining the Sydney University Abercrombie Building, which contains offices and teaching space.
<b>C26</b> An acoustic report should identify appropriate noise levels for sleeping areas and other non play areas and examine impacts and noise attenuation measures where a child care facility is proposed in any of the following locations: <ul style="list-style-type: none"> <li>▪ on industrial zoned land</li> <li>▪ where the ANEF contour is between 20 and 25, consistent with AS 2021 – 2000</li> <li>▪ along a railway or mass transit corridor, as defined by State Environmental Planning Policy (Infrastructure) 2007</li> <li>▪ on a major or busy road</li> <li>▪ other land that is impacted by substantial external noise.</li> </ul>	N/A
Objective: To ensure air quality is acceptable where child care facilities are proposed close to external sources of air pollution such as major roads and industrial development.	✓
<b>C27</b> Locate child care facilities on sites which avoid or minimise the potential impact of external sources of air pollution such as major roads and industrial development.	✓

Component	Proposal
<p><b>C28</b></p> <p>A suitably qualified air quality professional should prepare an air quality assessment report to demonstrate that proposed child care facilities close to major roads or industrial developments can meet air quality standards in accordance with relevant legislation and guidelines. The air quality assessment report should evaluate design considerations to minimise air pollution such as:</p> <ul style="list-style-type: none"> <li>▪ creating an appropriate separation distance between the facility and the pollution source. The location of play areas, sleeping areas and outdoor areas should be as far as practicable from the major source of air pollution</li> <li>▪ using landscaping to act as a filter for air pollution generated by traffic and industry. Landscaping has the added benefit of improving aesthetics and minimising visual intrusion from an adjacent roadway</li> <li>▪ incorporating ventilation design into the design of the facility.</li> </ul>	<p>The preschool is not located adjacent to a major road or in an industrial zone. There will be no changes to the current conditions of the existing preschool at Darlington Public School.</p>
<p><b>3.7 Hours of operation</b></p> <p>Objective: To minimise the impact of the child care facility on the amenity of neighbouring residential developments.</p>	✓
<p><b>C29</b></p> <p>Hours of operation within areas where the predominant land use is residential should be confined to the core hours of 7.00am to 7.00pm weekdays. The hours of operation of the proposed child care facility may be extended if it adjoins or is adjacent to non-residential land uses.</p> <p>Within mixed use areas or predominantly commercial areas, the hours of operation for each child care facility should be assessed with respect to its compatibility with adjoining and co-located land uses.</p>	<p>The preschool will operate Monday to Friday, 8.30am - 3.30pm (staff), 9am - 3pm (children) during school days, excluding public holidays.</p> <p>The proposed hours are unchanged from the approved operational hours of the existing preschool on site.</p>
<p><b>3.8 Traffic, parking and pedestrian circulation</b></p> <p>Objective: To provide parking that satisfies the needs of users and demand generated by the centre.</p>	<p>Entry to the existing preschool is via the main school entrance off Golden Grove Street. It is proposed that the new preschool will also be accessed from the main school gate off Golden Grove Street. DDA compliant access to the proposed preschool can be achieved from this entrance.</p>
<p>Objective: To provide vehicle access from the street in a safe environment that does not disrupt traffic flows.</p>	✓
<p><b>C31</b></p> <p>Off-street car parking should be provided at the rates for child care facilities specified in a Development Control Plan that applies to the land.</p>	Refer Traffic Report

Component	Proposal
<p><b>C32</b></p> <p>In commercial or industrial zones and mixed use developments, on street parking may only be considered where there are no conflicts with adjoining uses, that is, no high levels of vehicle movement or potential conflicts with trucks and large vehicles.</p>	N/A
<p><b>C33</b></p> <p>A Traffic and Parking Study should be prepared to support the proposal to quantify potential impacts on the surrounding land uses and demonstrate how impacts on amenity will be minimised. The study should also address any proposed variations to parking rates and demonstrate that:</p> <ul style="list-style-type: none"> <li>▪ the amenity of the surrounding area will not be affected</li> <li>▪ there will be no impacts on the safe operation of the surrounding road network.</li> </ul> <p>Objective: To provide vehicle access from the street in a safe environment that does not disrupt traffic flows.</p>	Refer Traffic Report
<p><b>C34</b></p> <p>Alternate vehicular access should be provided where child care facilities are on sites fronting:</p> <ul style="list-style-type: none"> <li>▪ a classified road</li> <li>▪ roads which carry freight traffic or transport dangerous goods or hazardous materials.</li> </ul> <p>The alternate access must have regard to:</p> <ul style="list-style-type: none"> <li>▪ the prevailing traffic conditions</li> <li>▪ pedestrian and vehicle safety including bicycle movements</li> <li>▪ the likely impact of the development on traffic.</li> </ul>	N/A
<p><b>C35</b></p> <p>Child care facilities proposed within cul-de-sacs or narrow lanes or roads should ensure that safe access can be provided to and from the site, and to and from the wider locality in times of emergency.</p> <p>Objective: To provide a safe and connected environment for pedestrians both on and around the site.</p>	✓

Component	Proposal
<p><b>C36</b></p> <p>The following design solutions may be incorporated into a development to help provide a safe pedestrian environment:</p> <ul style="list-style-type: none"> <li>▪ separate pedestrian access from the car park to the facility</li> <li>▪ defined pedestrian crossings included within large car parking areas</li> <li>▪ separate pedestrian and vehicle entries from the street for parents, children and visitors</li> <li>▪ pedestrian paths that enable two prams to pass each other</li> <li>▪ delivery and loading areas located away from the main pedestrian access to the building and in clearly designated, separate facilities</li> <li>▪ in commercial or industrial zones and mixed use developments, the path of travel from the car parking to the centre entrance physically separated from any truck circulation or parking areas</li> <li>▪ vehicles can enter and leave the site in a forward direction.</li> </ul>	<p>Pedestrian paths into the preschool are wide enough to accommodate two prams passing.</p>
<p><b>C37</b></p> <p>Mixed use developments should include:</p> <ul style="list-style-type: none"> <li>▪ driveway access, manoeuvring areas and parking areas for the facility that are separate to parking and manoeuvring areas used by trucks</li> <li>▪ drop off and pick up zones that are exclusively available for use during the facility's operating hours with spaces clearly marked accordingly, close to the main entrance and preferably at the same floor level. Alternatively, direct access should avoid crossing driveways or manoeuvring areas used by vehicles accessing other parts of the site</li> </ul> <p>parking that is separate from other uses, located and grouped together and conveniently located near the entrance or access point to the facility.</p>	<p>N/A</p>
<p><b>C38</b></p> <p>Car parking design should:</p> <ul style="list-style-type: none"> <li>▪ include a child safe fence to separate car parking areas from the building entrance and play areas</li> <li>▪ provide clearly marked accessible parking as close as possible to the primary entrance to the building in accordance with appropriate Australian Standards</li> <li>▪ include wheelchair and pram accessible parking.</li> </ul>	<p>N/A</p>
<p><b>Part 4 - Applying the National Regulations to development proposals</b></p>	
<p><b>4.1 Indoor space requirements - Regulation 107 - Education and Care Services National Regulations</b></p> <p>Every child being educated and cared for within a facility must have a minimum of 3.25m<sup>2</sup> of unencumbered indoor space. If this requirement is not met, the concurrence of the regulatory authority is required under the SEPP.</p>	<p>60 children @ 3.25m<sup>2</sup> = 195m<sup>2</sup> (65m<sup>2</sup> per activity room)</p> <p>Internal fit out provides for a minimum of 65m<sup>2</sup> of unencumbered indoor space per activity room. Refer floor plans.</p>

Component	Proposal
<p>It is recommended that a child care facility provide:</p> <ul style="list-style-type: none"> <li>▪ a minimum of 0.3m<sup>3</sup> per child of external storage space</li> <li>▪ a minimum of 0.2m<sup>3</sup> per child of internal storage space.</li> </ul>	<p>60 children @ 0.3m<sup>3</sup> = 18m<sup>3</sup> Proposed outdoor storage = 18m<sup>3</sup></p> <p>60 Children @ 0.2m<sup>3</sup> = 12m<sup>3</sup> Proposed indoor storage = 4m<sup>3</sup> per class.</p>
<p><b>4.2 Laundry and hygiene facilities - Regulation 106 Education and Care Services National Regulations</b></p> <p>There must be laundry facilities or access to laundry facilities; or other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage prior to their disposal or laundering. The laundry and hygienic facilities must be located and maintained in a way that does not pose a risk to children. Child care facilities must also comply with the requirements for laundry facilities that are contained in the National Construction Code.</p>	<p>Laundry facilities are provided.</p>
<p>On site laundry facilities should contain:</p> <ul style="list-style-type: none"> <li>▪ a washer or washers capable of dealing with the heavy requirements of the facility</li> <li>▪ a dryer</li> <li>▪ laundry sinks</li> <li>▪ adequate storage for soiled items prior to cleaning</li> <li>▪ an on site laundry cannot be calculated as usable unencumbered play space</li> </ul>	<p>✓</p>
<p><b>4.3 Toilet and hygiene facilities - Regulation 109 Education and Care Services National Regulations</b></p> <p>A service must ensure that adequate, developmentally and age-appropriate toilet, washing and drying facilities are provided for use by children being educated and cared for by the service; and the location and design of the toilet, washing and drying facilities enable safe use and convenient access by the children. Child care facilities must comply with the requirements for sanitary facilities that are contained in the National Construction Code.</p>	<p>The toilet facilities have been designed as per the requirements of the NCC. An adult hand basin has been provided in each of the children's toilet areas.</p>
<p>Toilet and hygiene facilities should be designed to maintain the amenity and dignity of the occupants</p>	<p>Partitions between the toilet pans to a maximum of 900mm have been provided. Adequate sightlines have been achieved with the provision of half-height glazing between the toilets and the activity room.</p>
<p><b>4.4 Ventilation and natural light - Regulation 110 Education and Care Services National Regulations</b></p> <p>Services must be well ventilated, have adequate natural light, and be maintained at a temperature that ensures the safety and wellbeing of children. Child care facilities must comply with the light and ventilation and minimum ceiling height requirements of the National Construction Code. Ceiling height requirements may be affected by the capacity of the facility.</p>	<p>Full height glazing to the activity rooms allows for abundant natural light. The classrooms will also benefit from mechanical ventilation and ceiling fans.</p>

Component	Proposal
<p><b>4.5 Administrative space - Regulation 111 Education and Care Services National Regulations</b></p> <p>A service must provide adequate area or areas for the purposes of conducting the administrative functions of the service, consulting with parents of children and conducting private conversations.</p>	Office and foyer space has been provided.
<p><b>4.6 Nappy change facilities - Regulation 112 Education and Care Services National Regulations</b></p> <p>Child care facilities must provide for children who wear nappies, including appropriate hygienic facilities for nappy changing and bathing. All nappy changing facilities should be designed and located in an area that prevents unsupervised access by children.</p> <p>Child care facilities must also comply with the requirements for nappy changing and bathing facilities that are contained in the National Construction Code.</p>	Nappy change facilities are not required as children are aged 3-5 years.
<p><b>4.7 Premises designed to facilitate supervision - Regulation 115 Education and Care Services National Regulations</b></p> <p>A centre-based service must ensure that the rooms and facilities within the premises (including toilets, nappy change facilities, indoor and outdoor activity rooms and play spaces) are designed to facilitate supervision of children at all times, having regard to the need to maintain their rights and dignity.</p> <p>Child care facilities must also comply with any requirements regarding the ability to facilitate supervision that are contained in the National Construction Code.</p>	All rooms and facilities provide full and half height glazing appropriately located to allow for supervision of children.
<p><b>4.8 Emergency and evacuation procedures - Regulations 97 and 168 Education and Care Services National Regulations</b></p> <p>Regulation 168 sets out the list of procedures that a care service must have, including procedures for emergency and evacuation. Regulation 97 sets out the detail for what those procedures must cover including:</p> <ul style="list-style-type: none"> <li>▪ instructions for what must be done in the event of an emergency</li> <li>▪ an emergency and evacuation floor plan, a copy of which is displayed in a prominent position near each exit</li> <li>▪ a risk assessment to identify potential emergencies that are relevant to the service.</li> </ul> <p>Multi-storey buildings with proposed child care facilities above ground level may consider providing additional measures to protect staff and children. For example:</p> <ul style="list-style-type: none"> <li>▪ independent emergency escape routes from the facility to the ground level that would separate children from other building users to address child protection concerns during evacuations</li> <li>▪ a safe haven or separate emergency area where children and staff can muster during the initial stages of a fire alert or other emergency. This would enable staff to account for all children prior to evacuation.</li> </ul> <p>An emergency and evacuation plan should be submitted with a DA</p>	An emergency evacuation plan has been provided outlining the procedures in an event of an emergency and evacuation of the children from the preschool area.
	N/A
	Refer Appendices.

Component	Proposal
<p><b>4.9 Outdoor space requirements - Regulation 108 Education and Care Services National Regulations</b></p> <p>An education and care service premises must provide for every child being educated and cared for within the facility to have a minimum of 7.0m<sup>2</sup> of unencumbered outdoor space.</p> <p>If this requirement is not met, the concurrence of the regulatory authority is required under the SEPP.</p>	60 children @ 7.m <sup>2</sup> = 420m <sup>2</sup> minimum. The total preschool playground area totals 470m <sup>2</sup> with unencumbered outdoor space of 420m <sup>2</sup> External play space complies with requirements.
<p><b>4.10 Natural environment - Regulation 113 Education and Care Services National Regulations</b></p> <p>The approved provider of a centre-based service must ensure that the outdoor spaces allow children to explore and experience the natural environment. Creating a natural environment to meet this regulation includes the use of natural features such as trees, sand and natural vegetation within the outdoor space.</p>	The preschool playground area includes outdoor spaces that allow children to play with natural elements such as water & sand, including a sand pit for digging, and a variety of materials and surfaces including pebbles and softfall - the softscape design will explore options for small garden shortcuts and tactile/ aromatic plant species
<p><b>4.11 Shade - Regulation 114 Education and Care Services National Regulations</b></p> <p>The approved provider of a centre-based service must ensure that outdoor spaces include adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun.</p> <p>Outdoor play areas should:</p> <ul style="list-style-type: none"> <li>▪ have year-round solar access to at least 30 per cent of the ground area, with no more than 60 per cent of the outdoor space covered.</li> <li>▪ provide shade in the form of trees or built shade structures giving protection from ultraviolet radiation to at least 30 per cent of the outdoor play area</li> <li>▪ have evenly distributed shade structures over different activity spaces.</li> </ul>	The outdoor play space includes a large covered undercroft as well as a shade structure in the outdoor play area. Existing mature trees provide dappled shade. 50% of the combined total of outdoor play area receives solar access between 9am and 3pm in midwinter. Refer Landscape Plan for location of shade structures and planting.
<p><b>4.12 Fencing - Regulation 104 Education and Care Services National Regulations</b></p> <p>Any outdoor space used by children must be enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it.</p> <p>Child care facilities must also comply with the requirements for fencing and protection of outdoor play spaces that are contained in the National Construction Code.</p> <p>Design considerations for side and rear boundary fences could include:</p> <ul style="list-style-type: none"> <li>▪ being made from solid prefinished metal, timber or masonry</li> <li>▪ having a minimum height of 1.8 metres</li> <li>▪ having no rails or elements for climbing higher than 150mm from the ground.</li> </ul>	1200mm high fence is provided to the outdoor play area, which is enclosed within the school grounds and does not adjoin a public space. The balustrade complies with the NCC. N/A

Component	Proposal
<p><b>4.13 Soil assessment - Regulation 25 Education and Care Services National Regulations</b></p> <p>Subclause (d) of regulation 25 requires an assessment of soil at a proposed site, and in some cases, sites already in use for such purposes as part of an application for service approval. With every service application one of the following is required:</p>	<p>Refer Contamination Assessment for SSDA 9914.</p>
<ul style="list-style-type: none"> <li>▪ a soil assessment for the site of the proposed education and care service premises</li> <li>▪ if a soil assessment for the site of the proposed child care facility has previously been undertaken, a statement to that effect specifying when the soil assessment was undertaken</li> <li>▪ a statement made by the applicant that states, to the best of the applicant's knowledge, the site history does not indicate that the site is likely to be contaminated in a way that poses an unacceptable risk to the health of children.</li> </ul>	<p>Refer Contamination Assessment for SSDA 9914.</p>
<p>An assessment of soil for a children's service approval application may require three levels of investigation:</p> <ul style="list-style-type: none"> <li>▪ Stage 1 - Preliminary investigation (with or without soil sampling)</li> <li>▪ Stage 2 - Detailed site investigation</li> <li>▪ Stage 3 - Site specific human health risk assessment.</li> </ul>	

## National Quality Framework Assessment Checklist

Regulation	Proposed	Complies
<p><b>104. Fencing or barrier that encloses outdoor spaces.</b></p> <ul style="list-style-type: none"> <li>Outdoor space that will be used by children will be enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it.</li> </ul>	The outdoor play space is enclosed by a 1.2m high palisade fence which physically separates the preschool area from the primary school playground, whilst still maintaining a visual connection. The proposed fence will be designed to prevent climbing. The outdoor play area does not adjoin an external boundary.	Y
<p><b>106. Laundry and hygiene facilities</b></p> <ul style="list-style-type: none"> <li>The proposed development includes laundry facilities or access to laundry facilities OR explain the other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage of soiled clothing, nappies and linen prior to their disposal or laundering.</li> <li>Laundry/hygienic facilities are located where they do not pose a risk to children</li> </ul>	A laundry is proposed to be located on-site and contains a washer, dryer, sink and adequate storage space. Refer plan.	Y
<p><b>107. Unencumbered indoor space</b></p> <ul style="list-style-type: none"> <li>The proposed development includes at least 3.25 square metres of unencumbered indoor space for each child.</li> <li>Refer to regulation 107 of the Education and Care Services National Regulation for further information on calculating indoor space.</li> </ul>	Each activity room includes a minimum of 65m <sup>2</sup> of unencumbered indoor space. .	Y
<p><b>108. Unencumbered outdoor space</b></p> <ul style="list-style-type: none"> <li>The proposed development includes at least 7.0 square metres of unencumbered outdoor space for each child.</li> <li>Refer to regulation 108 of the Education and Care Services National Regulation for further information on calculating outdoor space, and for different requirements for out-of-school-hours care services.</li> </ul>	The total preschool playground area totals 470m <sup>2</sup> with unencumbered outdoor space of 420m <sup>2</sup> .	Y
<p><b>109. Toilet and hygiene facilities</b></p> <ul style="list-style-type: none"> <li>The proposed development includes adequate, developmentally and age- appropriate toilet, washing and drying facilities for use by children being educated and cared for by the service.</li> <li>The location and design of the toilet, washing and drying facilities enable safe and convenient use by the children.</li> </ul>	The toilets have been located so that they can be accessed by children from both inside and outside. Junior pans will be provided and low partition walls will separate the pans. Appropriately sized basins will be mounted at the correct height for preschool-aged children and an adult basin will be provided in each of the children's toilet areas. A shower will also be provided.	Y
<p><b>110. Ventilation and natural light</b></p> <ul style="list-style-type: none"> <li>The proposed development includes indoor spaces to be used by children that — <ul style="list-style-type: none"> <li>will be well ventilated; and</li> <li>will have adequate natural light; and</li> <li>can be maintained at a temperature that ensures the safety and well-being of children.</li> </ul> </li> </ul>	<p>The preschool block has been designed to be a maximum of 16m in width to allow for adequate daylighting. The activity rooms benefit from full-height glazing which is shaded by a generous overhang from the level above. Mechanical ventilation will also be provided to the classrooms for use when the external conditions are not conducive to natural ventilation.</p> <p>The entry foyer, office and staff room will open on to a landscaped courtyard which will provide adequate light and ventilation to these spaces. The courtyards will be screened by perforated brick walls which will provide privacy from the street and allow breezes to penetrate, whilst filtering the western sun.</p>	Y
<p><b>111. Administrative space</b></p> <ul style="list-style-type: none"> <li>The proposed development includes an adequate area or areas for the purposes of conducting the administrative functions of the service; and consulting with parents of children; and conducting private conversations.</li> <li>Note: This space cannot be included in the calculation of unencumbered indoor space – see regulation 107</li> </ul>	An entry foyer/waiting vestibule and administration office have been provided. Refer plan.	Y
<p><b>112. Nappy change facilities</b></p> <ul style="list-style-type: none"> <li>(To be completed only if the proposed development is for a service that will care for children who wear nappies)</li> </ul>	Not applicable. Children attending the preschool will be aged 3 to 5 years.	N/A
<p><b>113. Outdoor space—natural environment</b></p> <ul style="list-style-type: none"> <li>The proposed development includes outdoor spaces that will allow children to explore and experience the natural environment.</li> </ul>	The preschool playground area includes outdoor spaces that allow children to play with natural elements such as water & sand, including a sand pit for digging, and a variety of materials and surfaces including pebbles and softfall - the softscape design will explore options for small garden shortcuts and tactile/aromatic plant species	Y
<p><b>114. Outdoor space—shade</b></p> <ul style="list-style-type: none"> <li>The proposed development includes adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun.</li> </ul>	The outdoor play space includes a large covered undercroft as well as a shade structure in the outdoor play area. Existing mature trees provide dappled shade.	Y
<p><b>115. Premises designed to facilitate supervision</b></p> <ul style="list-style-type: none"> <li>The proposed development (including toilets and nappy change facilities) are designed in a way that facilitates supervision of children at all times, having regard to the need to maintain the rights and dignity of the children.</li> </ul>	The preschool activity rooms have been designed as open-plan rooms with full-height glazing to the external play area. The toilets have been provided with half-height glazing to enable oversight by staff from both inside and outside the activity rooms. The partition walls adjoining the hallway are proposed to have full-height vision panels adjacent to the doors to enable oversight from the hallway when entering the rooms.	Y



# APPENDIX

## Appendix A - State Design Review Panel Feedback

November 12, 2019



12.11.2019  
Karissa Kendall,  
Project Director, SINSW

Via email –  
[karissa.kendall@det.nsw.edu.au](mailto:karissa.kendall@det.nsw.edu.au)

PROJECT: Darlington Public School  
RE: SDRP SESSION 43 – 06.11.19 (fourth review)

Dear Karissa,

Thank you for the opportunity to review the above project at the SDRP session held on 06.11.19.

The selected masterplan and general design development of the project is supported. In particular the following aspects of the design proposal are supported:

- Clarity and logic of the selected masterplan option;
- Engagement with the urban context and streetscape pattern;
- Scale and massing of the building forms which respond and contribute to the surrounding neighbourhood;
- Proposed materiality and incorporation of salvaged items such as the red gates and murals;
- Location of the hall to facilitate shared community access;
- Retention of existing trees;
- Response to topography and hydrology of the site;
- Masterplanning to facilitate incorporation of passive design strategies;
- Minimisation of fencing by using the building as secure line where possible.

The following commentary provides advice and recommendations for the project:

#### Aboriginal Culture

- The approach to understanding and engaging with local Aboriginal culture is commended as a starting point. Provide details of how the connection to Country will be made evident throughout the school grounds: for example, using landscape, materials, plant selection, art installations/murals, naming, wayfinding devices, play equipment, paving, colour, texture and so on.

#### Landscape

- The landscape strategy incorporating connected spaces at various scales is supported. The landscape design should be further detailed to incorporate robust surfaces, materials and plantings, particularly in areas of high play traffic.
- The setbacks along Golden Grove Street should be further detailed to demonstrate the continuity of the urban realm with robust and low-

maintenance materials and landscaping. These areas should be illustrated to indicate how sightlines between the street and the pre-school will be resolved.

- Explore and illustrate how natural environmental systems (ie water) can be integrated into play areas.
- Clarify and illustrate access to and visual appearance of the Library roof.
- Provide a plan illustrating the potential use of the upper level circulation/outdoor learning spaces.

#### Hall & Streetscape

- The possibility of a community foyer at the south west corner of the Hall is supported and should be further developed.
- Illustrate the treatment of street edges at the setback along Golden Grove Street and whether these can incorporate street seating or other public amenity.
- Provide a view illustrating the proposed visual connection from Abercrombie Street through the street-wall into the school at the service entry and assembly area.
- The design of the entry fence as a place-specific screen integrated with the built form is supported and further details should be provided. Explore versions where a staggered fence line addresses spatial generosity to both sides of the fence where needed.

#### Sustainability

- Detail ESD initiatives and performance targets, including passive and active energy modes, overshadowing, solar access, energy generation, water collection and reuse, etc.

The items noted above should be addressed in the EIS submission.

Please contact GANSW Design Advisor, Carol Marra (Carol.Marra@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely,

Rory Toomey  
Principal Design Excellence  
Chair, SDRP

#### CC

NSW SDRP Panel members Ashley Dunn, Isabelle Toland, Peter Mould,  
Rory Toomey (Chair – GANSW)

GANSW Design Advisor Carol Marra  
DPIE Jason Maslen  
City of Sydney Peter John Cantrill

SINSW  
FJMT  
Mace Group

Glen Irwin, Justin Barrett, Carmen Debsieh  
Elizabeth Carpenter, Cassandra Cutler  
Daniel Iuliano, Josh Malin

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August 21, 2019



21.08.2019  
Karissa Kendall,  
Project Director, SINSW  
  
Via email –  
[karissa.kendall@det.nsw.edu.au](mailto:karissa.kendall@det.nsw.edu.au)

PROJECT: Darlington Public School  
RE: SDRP SESSION 37 – 14.08.19 (third review)

Dear Karissa,

Thank you for the opportunity to review the above project a third time at the SDRP session held on 14.08.19.

The panel acknowledges and commends SINSW for their commitment to delivering design excellence demonstrated by undertaking a project review and change of direction, with a new design team. The panel generally supports the design development of the project. In particular the following aspects of the design proposal are supported:

1. Rigorous process of analysis to unpack the complexity and diversity of issues affecting the site;
2. Clarity of the masterplanning options presented;
3. Engagement with the urban context and streetscape pattern;
4. Location of the hall to facilitate shared community access;
5. Retention of trees;
6. Response to topography and hydrology of the site;
7. Masterplanning to facilitate incorporation of passive design strategies as design develops;
8. Minimisation of fencing by using the building as secure line where possible.

The following commentary provides advice and recommendations for the project:

Massing and scale

- The panel supports the location of the hall at the corner of Abercrombie and Golden Grove streets. The hall should have a clear street presence, welcoming aspect and engagement with the urban context. The height of the hall should be considered together with its architectural expression to determine an appropriate 3-dimensional response to its location.
- The concentration of 3-story elements along the southeast and northwest boundaries is supported. Detail should be provided to illustrate how built forms will interact with the student housing and Regiment buildings adjacent.
- The approach illustrated in options C & D, with one or several functions perpendicular to Golden Grove Street has the potential to more

successfully accommodate the slope of the site. Further detail should be provided to illustrate this potential including multiple sectional views.

Heritage

- Explore ways in which the existing fabric of the school could be repurposed in the built form and/or landscape treatments.
- The panel anticipates further engagement with the Aboriginal community leading to a meaningful manifestation of cultural heritage in the built form, landscape, art, wayfinding and other elements of the project. Applicants may contact GANSW for assistance or advice on integration of Indigenous Culture and Heritage.

Landscape and open space

- The panel supports the approach presented of the COLA areas to create an interface between the school grounds and the public domain. Further detail is required to illustrate these areas and the amenity provided, ensuring the spaces do not become too low or too deep.
- Clarify and illustrate retention of existing trees along Darlington Lane.
- Clarify any roof areas which will be used as play areas and/or landscaped open space.

Sustainability

- Detail ESD initiatives and performance targets, including passive and active energy modes, overshadowing, solar access, energy generation, water collection and reuse, etc.

The panel saw merit in options A, C and D and look forward to seeing the development and consolidation of these schemes manifested in the next presentation.

Please refer to the design package requirements form for information on materials to be provided at the next SDRP.

Please contact GANSW Design Advisor, Carol Marra (Carol.Marra@planning.nsw.gov.au), if you have any queries regarding this advice.

Sincerely,

Rory Toomey  
Principal Design Excellence  
Chair, SDRP

CC  
NSW SDRP Panel members Ashley Dunn, Isabelle Toland, Richard Johnson, Rory Toomey (Chair – GANSW)

GANSW Design Advisor Carol Marra

DPIE Andrew Beattie

City of Sydney  
SINSW

FJMT  
Mace Group

Peter Hill  
Lyndall Smith, Glen Irwin, Aaron Smith,  
Carmen Debsieh  
Elizabeth Carpenter, Cassandra Cutler  
Daniel Iuliano, Josh Malin



Enquiries: Peter Mizza  
Project No: 44065

To: Daniel Iuliano, Mace

From: Peter Mizza

Date: 10 April 2020

---

Subject: Darlington Public School – External Lighting Concept

---

Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington, within the City of Sydney Local Government Area. The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonaldtown train stations. The site is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049.

The SSD application seeks consent for demolition of existing school buildings and construction of a new part 2, part 3-storey building, increasing the school capacity from 230 to 437 students. The works also include replacement of the existing child-care facility (to the same capacity of 60 students), earthworks and landscaping. For a detailed project description refer to the EIS prepared by Ethos Urban.

In response to the SEARs requirement Design Analysis report to be provided by FJMT, Stantec have provided an external lighting strategy and measures to reduce spill into the surrounding sensitive receivers. The following documentation for the concept design of the external lighting for the project outlines this strategy:


- Lighting markup EL-SK-Lighting-001\_A
- External Lighting Calculation

Stantec confirm the above documentation has been checked and complies with the following conditions:

- School Infrastructure NSW Education Facility Guidelines
- External lighting is design in accordance with AS4284:1997.

This advice shall not be considered as relieving any other party of their responsibilities, liabilities or contractual obligations.

We trust that the above is sufficient for your present requirements. Should you require any further information, please do not hesitate to contact the undersigned.

Signature:  .....

Date: 10/04/2020

Project Designer: Peter Mizza, BEng(Elec), MDesSci(Illum), NER, AssocIES



1 PLAN Ground Floor B0A3 - S2 General Arrangement Plan  
1:200

**GENERAL NOTES**  
 ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK.  
 ALL LEVELS RELATIVE TO AUSTRALIAN HEIGHT DATUM.  
 DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

- Legend**
- PS401 Homebase Unit
  - PS501 Library Unit
  - PS502 Special Programs Unit
  - PS503 Communal Hall Unit
  - PS504 COLA
  - PS601 Administration Unit
  - PS602 Staff Unit
  - PS604 Canteen
  - PS613 OSHC
  - PS605 Storage Unit
  - Phe-School Unit
  - Wet Areas
  - Circulation
  - External Circulation
  - Services

**Stantec** PRELIMINARY  
 EXTERNAL LIGHTING DESIGN CONCEPT  
 LUMINAIRE LOCATIONS  
 EL-SK-Lighting-001\_A

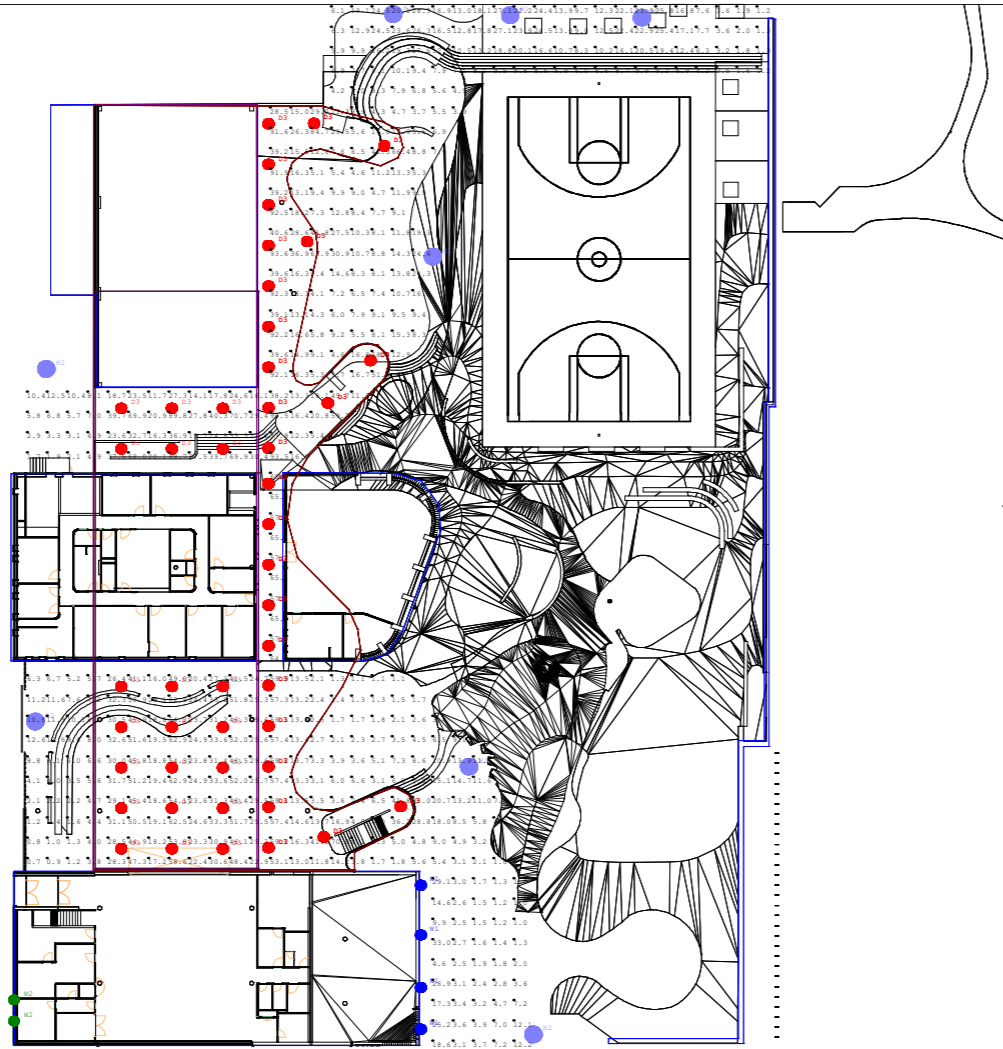
rev	date	name	by	chk
A	1/4/20	For 70% Schematic Design		CD

**fjmt**  
 project  
**Darlington Public School**  
 Golden Grove Street  
 Darlington NSW 2008

ISSUE  
**General Arrangement Plans**  
**Upper Ground Plan - S2**

scale	1:200 @ A1 - 1:400 @ A3	first issued	1/4/20
project code	DTPS	sheet no.	2051
revision		revision	A

**For Information**



### Obtrusive Light - Compliance Report

AS 4282-1997, Post-Curfew, Residential - Dark Surrounds  
 Filename: External Lighting Calculation - Basic 3D Model  
 14/04/2020 3:18:04 PM

#### Illuminance

Maximum Allowable Value: 1 Lux

Calculations Tested (3):

Calculation Label	Test Results	Max. Illum.	
Golden Grove St_Ill_Seg1		<b>PASS</b>	0.7
Abercrombie St_Ill_Seg1	<b>PASS</b>	0.8	
Student Accomodation_Ill_Seg1	<b>PASS</b>	0.8	

#### Luminous Intensity (Cd) At Vertical Planes

Maximum Allowable Value: 500 Cd

Calculations Tested (3):

Calculation Label	Test Results
Golden Grove St_Cd_Seg1	<b>PASS</b>
Abercrombie St_Cd_Seg1	<b>PASS</b>
Student Accomodation_Cd_Seg1	<b>PASS</b>

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
⊕	94	D3	SINGLE	713	1.000	VERSALUX YAMMA 531030
⊕	4	W1	SINGLE	422	1.000	VERSALUX EMMA 1165621_A
⊕	2	W2	SINGLE	236	1.000	VERSALUX PI 509023
⊕	4	H1	SINGLE	3375	1.000	VERSALUX ANDREA 121265114
⊕	4	H2	SINGLE	3375	0.500	VERSALUX ANDREA 121265114

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Abercrombie St_Cd_Seg1	Obtrusive Light - Cd	N.A.	187.57	287	83	2.26	3.46
Abercrombie St_Ill_Seg1	Obtrusive Light - Ill	Lux	0.26	0.8	0.0	N.A.	N.A.
Golden Grove St_Cd_Seg1	Obtrusive Light - Cd	N.A.	136.57	310	63	2.17	4.92
Golden Grove St_Ill_Seg1	Obtrusive Light - Ill	Lux	0.38	0.7	0.2	1.90	3.50
Ground Floor Circulation	Illuminance	Lux	19.45	93.6	0.7	N.A.	N.A.
Student Accomodation_Cd_Seg1	Obtrusive Light - Cd	N.A.	174.38	304	1	174.38	304.00
Student Accomodation_Ill_Seg1	Obtrusive Light - Ill	Lux	0.60	0.8	0.1	6.00	8.00

# ARCHITECTURAL DRAWING SET

**fjmt**

architecture  
interiors  
urban  
landscape

Sydney  
Melbourne  
Oxford  
London

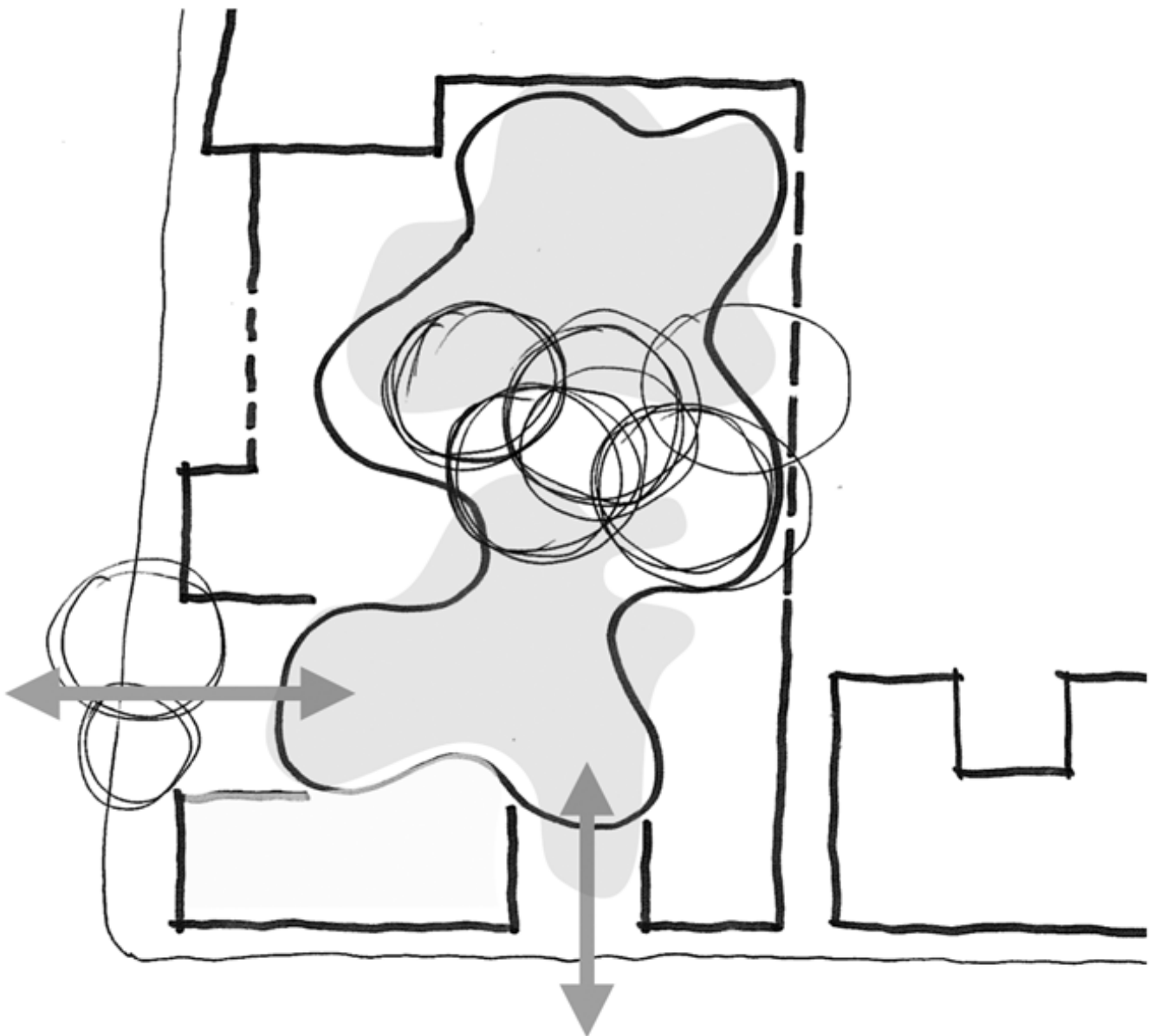
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix BB — Building Code of Australia Compliance Statement

SSD-9914

Prepared by Philip Chun

For NSW Department of Education





Re: 020-214509\_Mace aust\_Darlingtonps\_Bcacapstatforssda\_21042020

21 April 2020

**NSW Department of Education School Infrastructure**

C/- Mace Australia Pty Ltd  
Level 17, 44 Market Street  
Sydney NSW 2000

**Attention:** Daniel Iuliano  
Project Manager

**Re:** Building Code of Australia 2019  
Capability Statement for State Significant Development Application (SSDA)

**Project:** Proposed Darlington Public School Redevelopment  
**Address:** Golden Grove Street, Darlington NSW 2008

Philip Chun has been commissioned by the NSW Department of Education School Infrastructure to prepare this Capability Statement in accordance with the technical requirements of the Planning Secretary's Environmental Assessment Requirements (SEARs), and in support of the SSD-9914 for the redevelopment of Darlington Public School.

Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington, within the City of Sydney Local Government Area. The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonald town train stations. The site is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049.

The SSD application seeks consent for demolition of existing school buildings and construction of a new part 2, part 3-storey building, increasing the school capacity from 230 to 437 students. The works also include replacement of the existing child-care facility (to the same capacity of 60 students), earthworks and landscaping. For a detailed project description refer to the EIS prepared by Ethos Urban.

This capability statement addresses the main Parts of the BCA inclusive of Parts A, B, C, D, E, F, G, H, and J of the Building Code of Australia 2019 (BCA 2019). This statement demonstrates that the design is generally capable of meeting a combination of the Deemed-to-Satisfy and Performance Requirements of the Building Code of Australia 2019.

Specifically, this Capability Statement addresses the following SEARs Requirement:

SEARs	Report Reference
Building Code of Australia 2019	020-214509_DarlingtonPS_FinalBCAConceptReport02_20042020

Philip Chun has reviewed the plans referenced below, that will form part of the SSDA Application, and has provided BCA assessment comments to the design team. From this information and assessment, we can confirm that we believe the works proposed will be capable of achieving compliance with the Building Code of Australia 2019, subject to normal design development and re assessment required at the next stage of documentation, which occurs in the time between the SSDA Application and the issue of the relevant S6.28 Crown Design Verification Certificate (S6.28 CDVC) approval for the works.

Drawings by FJMT Studio:

Drawing No. (revision)	Titled	Dated
1000/02	Cover Sheet and Drawing Schedule	17/4/20
1200/02	Existing Site Plan	17/4/20
1201/02	Proposed Site Plan	17/4/20
2050/02	Lower Ground Plan – S2	17/4/20
2052/02	Level 1 Plan – S2	17/4/20



Drawing No. (revision)	Titled	Dated
2053/02	Level 2 Plan – S2	17/4/20
2054/02	Roof Plan – S2	17/4/20
2101/01	Demolition Plan – SSDA	17/4/20
2811/01	Upper Ground Plan – S2 Play Areas	17/4/20
3200/02	Elevations – 1:200	17/4/20
4200/02	Sections – 1:200	17/4/20
4201/02	Sections – 1:200	17/4/20
4300/01	Perspective Sections – Façade Western Façade – FT01, 02	17/4/20
4301/01	Perspective Sections – Façade Wester Façade – FT01, 07, 09, 10	17/4/20
4302/01	Perspective Sections – Façade Eastern Façade – FT04, FT05	17/4/20

Fire compartmentation, fire ratings, egress, access for persons with disabilities, fire safety systems and general health and amenity have all been considered in our evaluation of the documentation provided for SSDA Submission.

In our opinion, the SSDA approval should not be withheld for concern that the building / works cannot meet the performance requirements of the Building Code of Australia 2019.

If you have any queries regarding the above, please do not hesitate to contact the undersigned.

Regards,

Frank De Pasquale  
Associate / Accredited Certifier  
**PHILIP CHUN BUILDING CODE CONSULTING**

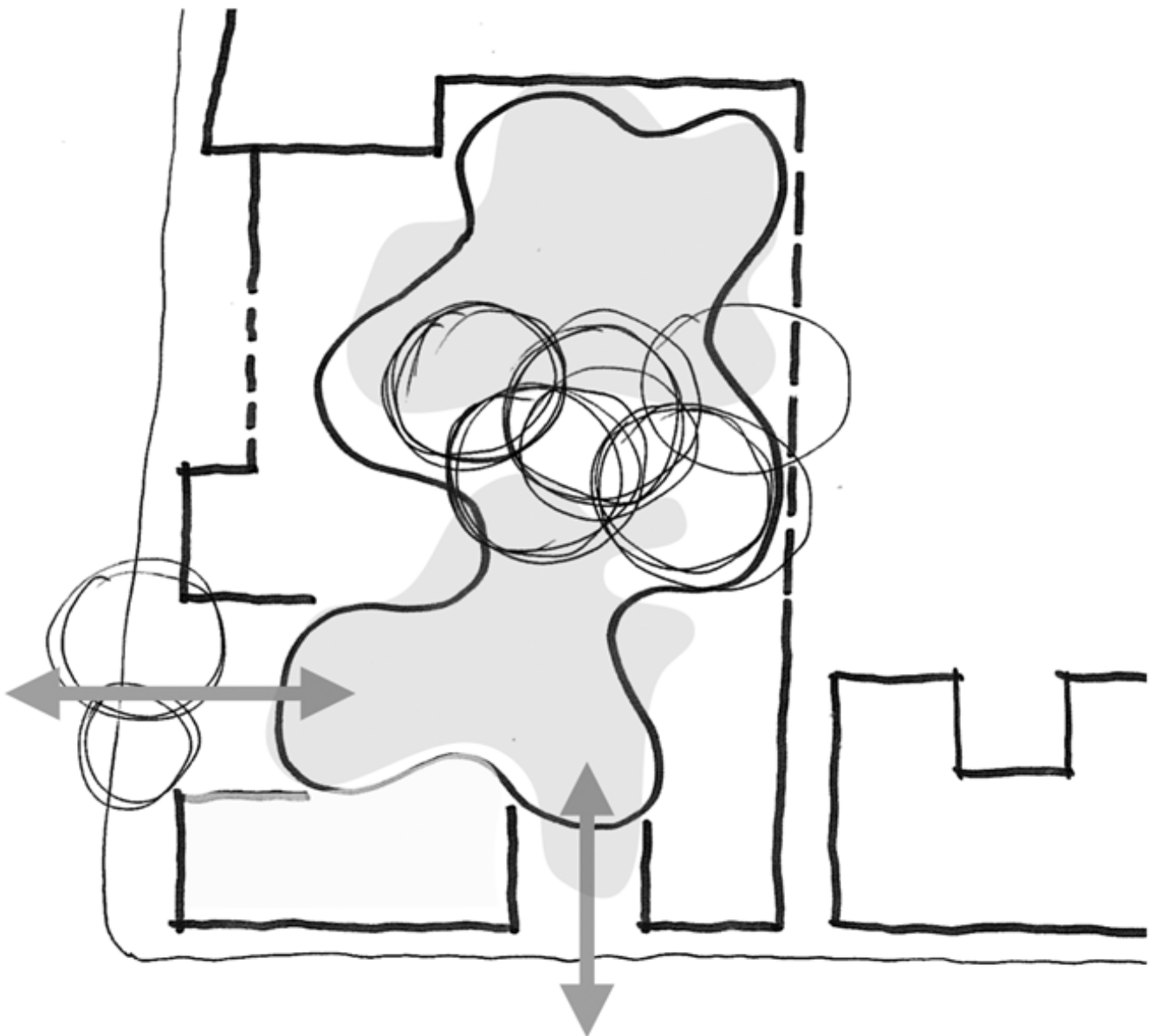
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix C — Secretary's Environmental Assessment Requirements

SSD-9914

Prepared by NSW Department of Planning, Industry and Environment

For NSW Department of Education



# Planning Secretary's Environmental Assessment Requirements

Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*  
 Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*

<b>Application Number</b>	SSD-9914
<b>Project Name</b>	Darlington Public School Redevelopment<Project Name
<b>Location</b>	Golden Grove Street, Darlington within City of Sydney
<b>Applicant</b>	Department of Education
<b>Date of Issue</b>	19/03/2019
<b>General Requirements</b>	<p>The Environmental Impact Statement (EIS) must be prepared in accordance with, and meet the minimum requirements of clauses 6 and 7 of Schedule 2 the <i>Environmental Planning and Assessment Regulation 2000</i> (the Regulation).</p> <p>Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.</p> <p>Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include:</p> <ul style="list-style-type: none"> <li>• adequate baseline data</li> <li>• consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed)</li> <li>• measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.</li> </ul> <p>The EIS must be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> <li>• a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived</li> <li>• an estimate of the jobs that will be created by the future development during the construction and operational phases of the development</li> <li>• certification that the information provided is accurate at the date of preparation.</li> </ul>
<b>Key issues</b>	<p>The EIS must address the following specific matters:</p> <p><b>1. Statutory and Strategic Context</b>          Address the statutory provisions contained in all relevant environmental</p>

planning instruments, including:

- *Biodiversity Conservation Act 2016*
- State Environmental Planning Policy (State & Regional Development) 2011
- State Environmental Planning Policy (Infrastructure 2007)
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
- State Environmental Planning Policy No. 64 – Advertising and Signage
- State Environmental Planning Policy No.55 – Remediation of Land
- Draft State Environmental Planning Policy (Remediation of Land)
- Draft State Environmental Planning Policy (Environment) and
- Sydney Local Environmental Plan 2012.

*Permissibility*

Detail the nature and extent of any prohibitions that apply to the development.

*Development Standards*

Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.

**2. Policies**

Address the relevant planning provisions, goals and strategic planning objectives in the following:

- NSW State Priorities
- The Greater Sydney Regional Plan, A Metropolis of three cities
- Future Transport Strategy 2056
- State Infrastructure Strategy 2018 – 2038 Building the Momentum
- Sydney's Cycling Future 2013
- Sydney's Walking Future 2013
- Sydney's Bus Future 2013
- Crime Prevention Through Environmental Design (CPTED) Principles
- Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)
- Eastern City District Plan
- Sydney Development Control Plan 2012
- relevant City of Sydney policies, codes and guidelines (where required pursuant to relevant Local Environmental Plan policies).

**3. Operation**

- Provide details of the existing and proposed school operations, including staff and student numbers, school hours of operation, and operational details of any proposed before/after school care services and/or community use of school facilities.
- Provide a detailed justification of suitability of the site to accommodate the proposal.
- Provide details of how the school will continue to operate during construction activities of the new primary and secondary school, including proposed mitigation measures.

#### 4. Built Form and Urban Design

- Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.
- Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and colours.
- Provide details of any digital signage boards, including size, location and finishes.
- Clearly demonstrate how design quality will be achieved in accordance with Schedule 4 Schools – Design Quality Principles of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* and the GANSW Design Guide for Schools.
- Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.
- Provide detailed site and context analysis to justify the proposed site planning and design approach including massing and building location options and preferred strategy for future development taking into account the location of existing trees.
- Provide a detailed site-wide landscape strategy, including consideration of equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation.
- Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.
- Address Crime Prevention Through Environmental Design (CPTED) Principles.
- Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.
- Demonstrate that Aboriginal culture and heritage is considered and incorporated holistically in the design proposal
- Detail ESD principles including sustainability targets and integration of these in the design approach
- Demonstrate how environmental design will be achieved in accordance with the Environmental Design in Schools Manual (<https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools>)

#### 5. Environmental Amenity

- Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts.
- Conduct a view analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building envelope and likely future development).

- Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers.
- Identify any proposed use of the school outside of school hours (including weekends) and assess any resultant amenity impacts on the immediate locality and proposed mitigation measures.
- Detailed outline of the nature and extent of the intensification of use associated with the increased floor space, particularly in relation to the proposed increase in staff and student numbers.
- Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.

## **6. Staging**

Provide details regarding the staging of the proposed development (if any).

## **7. Transport and Accessibility**

Include a transport and accessibility impact assessment, which details, but not limited to the following:

- accurate details of the current daily and peak hour vehicle, existing and future public transport networks and pedestrian and cycle movement provided on the road network located adjacent to the proposed development
- details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips based on surveys of the existing and similar schools within the local area
- the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development
- measures to integrate the development with the existing/future public transport network
- the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for, and details of, upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA network modelling for current and future years)
- the identification of infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections, additional school bus routes along bus capable roads (i.e. minimum 3.5 m wide travel lanes), additional bus stops or bus bays
- details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site
- the proposed walking and cycling access arrangements and connections to public transport services

- the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones
- proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance
- proposed number of on-site car parking spaces for teaching staff and visitors and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site
- an assessment of the cumulative on-street parking impacts of cars and bus pick-up/drop-off, staff parking and any other parking demands associated with the development
- an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures and personal safety in line with CPTED
- emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times)
- the preparation of a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following:
  - assessment of cumulative impacts associated with other construction activities (if any)
  - an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity
  - details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process
  - details of anticipated peak hour and daily construction vehicle movements to and from the site
  - details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle
  - details of temporary cycling and pedestrian access during construction.

→ Relevant Policies and Guidelines:

- Guide to Traffic Generating Developments (Roads and Maritime Services)
- EIS Guidelines – Road and Related Facilities (DoPI)
- Cycling Aspects of Austroads Guides
- NSW Planning Guidelines for Walking and Cycling
- Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development
- Standards Australia AS2890.3 (Bicycle Parking Facilities).

### **8. Heritage**

The EIS must provide a heritage assessment addressing potential impacts to any State and local heritage items, including but not limited to,



conservation areas, relics, and views. Where any impacts are identified, the assessment must:

- be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria)
- outline the proposed mitigation and management measures generally consistent with the NSW Heritage Manual (1996)
- consider impacts including, but not limited to, vibration, demolition, archaeological disturbance
- where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations, and include the results of these test excavations.
- provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on the site and within proximity and the adjoining heritage conservation area in accordance with the guidelines in the NSW Heritage Manual.
- address any archaeological potential and significance on the site and the impacts the development may have on this significance
- address the significance of the buildings proposed to be demolished.

#### **9. Social Impacts**

Include an assessment of the social consequences of the schools' relative location and decanting activities if proposed.

#### **10. Aboriginal Heritage**

- Identify and describe the Aboriginal cultural heritage values that exist across the site and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation.
- Identify and address the Aboriginal cultural heritage values in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).
- Undertake consultation with Aboriginal people and document in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values of Aboriginal people who have a cultural association with the land are to be documented in the ACHAR.
- Identify, assess and document all impacts on the Aboriginal cultural heritage values in the ACHAR.
- The EIS and the supporting ACHAR must demonstrate attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.

#### **11. Noise and Vibration**

- Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation,

bulk excavation, construction-related work. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.

- Identify and assess operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.

→ Relevant Policies and Guidelines:

- NSW Noise Policy for Industry 2017 (EPA) including Fact Sheets A and B.
- Interim Construction Noise Guideline (DECC)
- Assessing Vibration: A Technical Guideline 2006
- Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008).

## 12. Contamination

- Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with the provisions of SEPP 55.
- Undertake a hazardous materials survey of all existing structures and infrastructure that may be encountered during demolition, site preparation and bulk excavation prior to any demolition or site preparation works commence.

→ Relevant Policies and Guidelines:

- Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP).
- Guidelines for Consultants Reporting on Contaminated Sites 2011 (EPA)
- The National Environment Protection (Assessment of Site Contamination) Measure.

## 13. Utilities

- Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure.
- Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.

## 14. Water-related Infrastructure Requirements

- Determine service demands following servicing investigations and demonstrate that satisfactory arrangements for drinking water, wastewater, and recycled water (if required) services have been made.
- Obtain endorsement and/or approval from Sydney Water to ensure that the proposed development does not adversely impact on any existing water, wastewater or stormwater main, or other Sydney

Water asset, including any easement or property. When determining landscaping options, the proponent should take into account that certain tree species can cause cracking or blockage of Sydney Water pipes and therefore should be avoided.

- Ensure that satisfactory steps/measures been taken to protect existing stormwater assets, such as avoiding building over and/or adjacent to stormwater assets and building bridges over stormwater assets. The proponent should consider taking measures to minimise or eliminate potential flooding, degradation of water quality, and avoid adverse impacts on any heritage items, and create pipeline easements where required.

#### **15. Integrated Water Cycle Management**

- Outline any sustainability initiatives that will minimise/reduce the demand for drinking water, including any alternative water supply and end uses of drinking and non-drinking water that may be proposed, and demonstrate water sensitive urban design (principles are used), and any water conservation measures that are likely to be proposed.

#### **16. Drainage**

- Detail measures to minimise operational water quality impacts on surface waters and groundwater.
- Stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties.
- Assess, quantify and report on the runoff impacts during demolition, site preparation, bulk excavation, construction and construction-related work.

→ Relevant Policies and Guidelines:

- Guidelines for development adjoining land and water managed by DECCW (OEH, 2013).

#### **17. Flooding**

Identify flood risk on-site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity. If there is a material flood risk, include design solutions for mitigation.

#### **18. Bushfire**

Address bushfire hazard and, if relevant, prepare a report that addresses the requirements for Special Fire Protection Purpose Development as detailed in Planning for Bush Fire Protection 2006 (NSW RFS).

#### **19. Biodiversity Assessment**

- Biodiversity impacts related to the proposed development (SSD 9914) are to be assessed in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and Biodiversity

#### Assessment Method.

- The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method.
- The BDAR must include details of the measures proposed to address the offset obligation as follows:
  - the total number and classes of biodiversity credits required to be retired for the development/project
  - the number and classes of like-for-like biodiversity credits proposed to be retired
  - the number and classes of biodiversity credits proposed to be retired in accordance with the variation rules
  - any proposal to fund a biodiversity conservation action
  - any proposal to make a payment to the Biodiversity Conservation Fund.
- If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.
- The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.
- Where a Biodiversity Assessment Report is not required, engage a suitably qualified person to assess and document the flora and fauna impacts related to the proposal.

*Note: Notwithstanding these requirements, the Biodiversity Conservation Act 2016 requires that State Significant Development Applications be accompanied by a Biodiversity Development Assessment Report unless otherwise specified under the Act.*

### **20. Sediment, Erosion and Dust Controls**

Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles during demolition, site preparation, bulk excavation, construction and construction-related work.

→ Relevant Policies and Guidelines:

- Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom)
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
- Guidelines for development adjoining land and water managed by DECCW (OEH, 2013).

### **21. Waste**

- Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.
- Identify and detail how any asbestos waste, lead-based paint and Polychlorinated biphenyls (PCBs) that may be encountered will be

	<p>handled, transported and disposed.</p> <ul style="list-style-type: none"> <li>• Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.</li> <li>• Assess, quantify and report on waste management in the context of the waste management hierarchy.</li> </ul> <p>→ Relevant Policies and Guidelines:</p> <ul style="list-style-type: none"> <li>• Waste Classification Guideline Part 1 (EPA)</li> <li>• NSW EPA Sampling Design Guidelines (EPA).</li> </ul> <p><b>22. Construction Hours</b></p> <p>Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.</p> <p><b>23. Ecologically Sustainable Development (ESD)</b></p> <ul style="list-style-type: none"> <li>• Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development.</li> <li>• Include a framework for how the future development will be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy.</li> <li>• Include preliminary consideration of building performance and mitigation of climate change.</li> <li>• Include an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level.</li> <li>• Provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change, specifically:             <ul style="list-style-type: none"> <li>○ hotter days and more frequent heatwave events</li> <li>○ extended drought periods</li> <li>○ more extreme rainfall events</li> <li>○ gustier wind conditions</li> <li>○ how these will inform landscape design, material selection and social equity aspects (respite/shelter areas).</li> </ul> </li> </ul> <p>→ Relevant Policies and Guidelines:</p> <ul style="list-style-type: none"> <li>• NSW and ACT Government Regional Climate Modelling (NARCLIM) climate change projections.</li> </ul>
<p><b>Plans and Documents</b></p>	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents.</p> <p>In addition, the EIS must include the following:</p> <ul style="list-style-type: none"> <li>• A Section 10.7(2) &amp; (5) Planning Certificates (previously Section</li> </ul>

- 149(2) & (5) Planning Certificate)
- Architectural drawings showing key dimensions, RLs, scale bar and north point, including:
    - plans, sections and elevation of the proposal at no less than 1:200 showing indicative furniture layouts and program
    - illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes
    - details of proposed signage, including size, location and finishes
    - detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality
    - site plans and operations statement demonstrating the after-hours and community use strategy
  - Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries
  - Site Analysis Plan including
    - site and context plans that demonstrate principles for future development and expansion, built form character and open space network
    - active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links
    - site and context plans that demonstrate principles for future network, active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links
  - Sediment and Erosion Control Plan
  - Shadow Diagrams
  - View analysis, photomontages and architectural renders, including from those from public vantage points
  - Landscape architectural drawings showing key dimensions, RLs, scale bar and north point, including:
    - integrated landscape plans at appropriate scale, with detail of new and retained planting, shade structures, materials and finishes proposed including articulation of playground spaces
    - plan identifying significant trees, trees to be removed and trees to be retained or transplanted
  - Design report to demonstrate how design quality will be achieved in accordance with the above Key Issues including:
    - architectural design statement
    - diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal
    - detailed site and context analysis
    - analysis of building location options considered including building envelope study to justify the proposed site planning and design approach, taking into account the location of existing trees and the context of surrounding development forms including existing street edge conditions
    - visual impact assessment identifying potential impacts on the surrounding built environment and adjoining heritage items and heritage conservation area
    - summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice
    - summary report of consultation with the community and

	<p>response to any feedback provided</p> <ul style="list-style-type: none"> <li>• Geotechnical and Structural Report</li> <li>• Accessibility Report</li> <li>• Arborist Report</li> <li>• Acid Sulphate Soils Management Plan (if required) and</li> <li>• Schedule of materials and finishes.</li> </ul>
<b>Consultation</b>	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> <li>• City of Sydney Council</li> <li>• Government Architect NSW (through the NSW SDRP process)</li> <li>• Transport for NSW and</li> <li>• Roads and Maritime Services.</li> </ul> <p>Consultation with TfNSW, GA and RMS should commence as soon as practicable to agree the scope of investigation.</p> <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>
<b>Further consultation after 2 years</b>	<p>If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.</p>
<b>References</b>	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this proposal.</p>

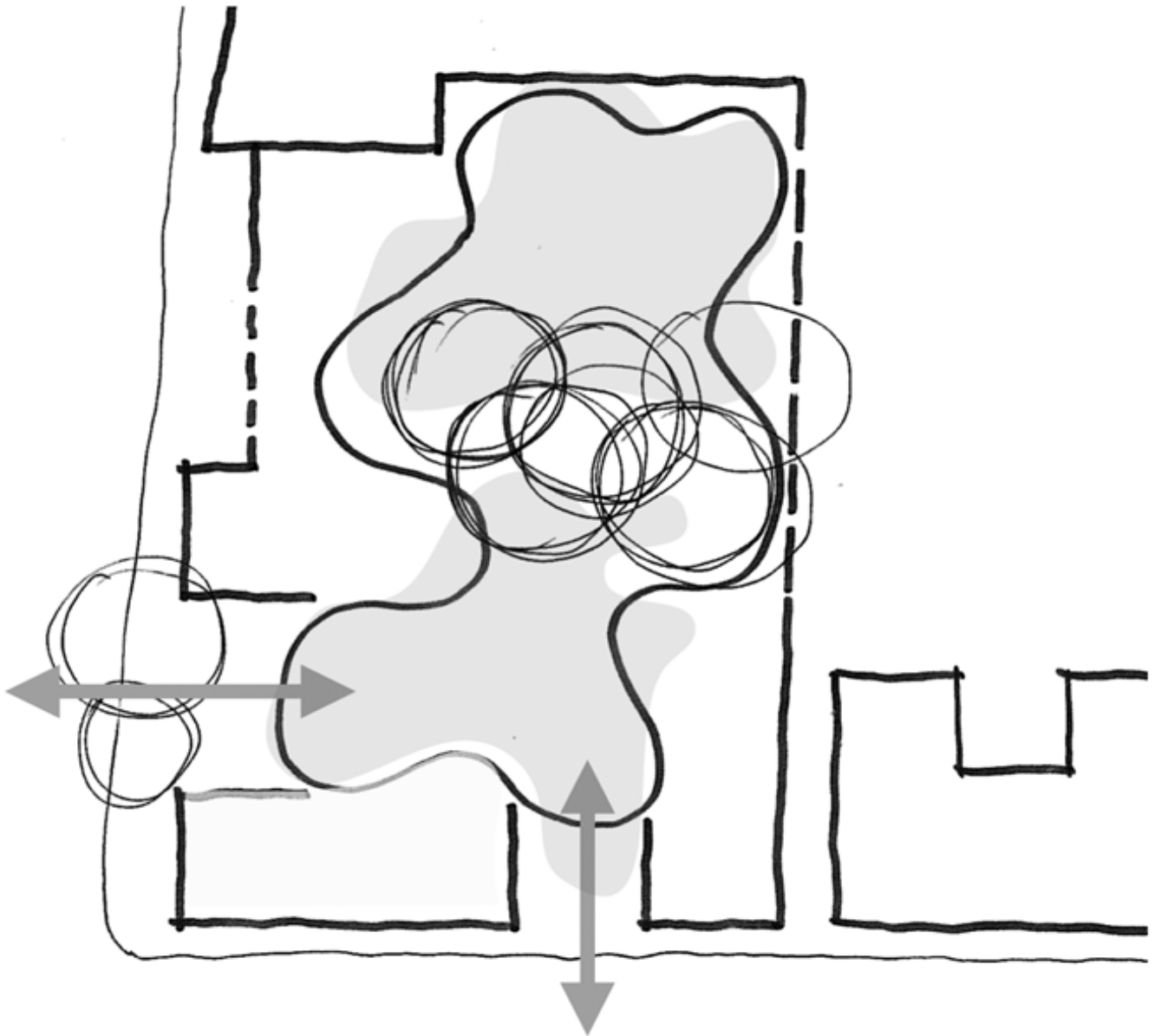
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix CC — Arborist Report

SSD-9914

Prepared by Moore Trees

For NSW Department of Education





Moore Trees  
Arboricultural Services

ABN 90887347745

# Arboricultural Report

for SSDA

Darlington Public School  
Chippendale NSW 2008  
May 2020

*FINAL*



Member 2020



Prepared for: Darlington Public School  
c/o Mace Australia Pty Ltd

Prepared by: Paul Vezgoff  
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# Summary

This report has been compiled for Mace Australia Pty Limited on behalf of Darlington Public School. The report concerns a proposed development works for Darlington Public School, Chippendale NSW 2008. This Arborist Report refers to forty six (46) trees. This Report has been prepared for this Development that is State Significant Development (SSD), identified in the State and Regional Development SEPP.

For the purpose of this report Trees 20-25, 33-46, 49 and 51 will be part of a separate development application to renovate the existing ball court area and as such these trees are not detailed in this report.

Based on the plans trees to retain are numbered as; 6, 12, 13, 14, 15, 18, 56-68. Trees within the building footprint to be removed are numbered as; 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 16, 17, 19, 26-32, 47, 48, 50, 52, 53, 54, 55.

The design levels around Tree 12 are very tight as it is surrounded by an existing brick wall and sandstone steps. Any new wall around these trees is likely to require additional excavation to allow for drainage. The landscape design is working to retain existing levels and allowing for the construction of new accessible footpath however further consultation may be required in relation Trees 12-15 to achieve this.

Trees 6, 18 and 12-15 will require tree protection fencing as specified in Section 5.2 of this report. The specifications for a TPZ are in Section 5.4 of this report.

Trees 56-68 will require trunk protection as specified in Section 5.3 of this report. This trunk protection will be required due to the proximity of heavy equipment operating near these trees.

In general, Darlington Public School has a healthy tree population in terms of quantity of trees and tree health. There are no trees that were assessed as being at risk of imminent failure however some minor scattered dead wood was noted.

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24 <sup>th</sup> March 2020	Draft 1 issued
5 <sup>th</sup> April 2020	Draft 2 issued
8 <sup>TH</sup> May 2020	Draft 3 issued updated re. T12
8 <sup>th</sup> May 2020	Final version issued

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# 1 INTRODUCTION

1.1 This report has been conducted to assess the health and condition of forty six (46) trees located at Darlington Public School, Golden Grove St, Chippendale NSW 2008. This report has been prepared for Mace Australia Pty Limited on behalf of Darlington Public School as required for a State Significant Development Application (SSDA) at this site.

For the purpose of this report Trees 20-25, 33-46, 49 and 51 will be part of a separate development application to renovate the existing ball court area and as such these trees are not detailed in this report. The purpose of this report is to collect the appropriate tree related data on the subject trees and to provide advice and recommendations to the design and possible construction alternatives to aid against any adverse impacts on the subject trees' health where required.

The subject trees were assessed for their health and condition. Also included in this report are tree protection measures that will help retain and ensure that the long term health of the trees to be retained are not adversely affected by the proposed development in the future.

The following data was collected for each tree:

- 1) A site plan locating all trees over three (3) metres in height, including all street trees.
- 2) All trees were assessed for Safe Useful Life Expectancy (SULE), health and amenity value.
- 3) Genus and species identification of each tree.
- 4) Impact of the proposed development on each tree.
- 5) The Tree Protection Zone (TPZ) calculated for each tree.

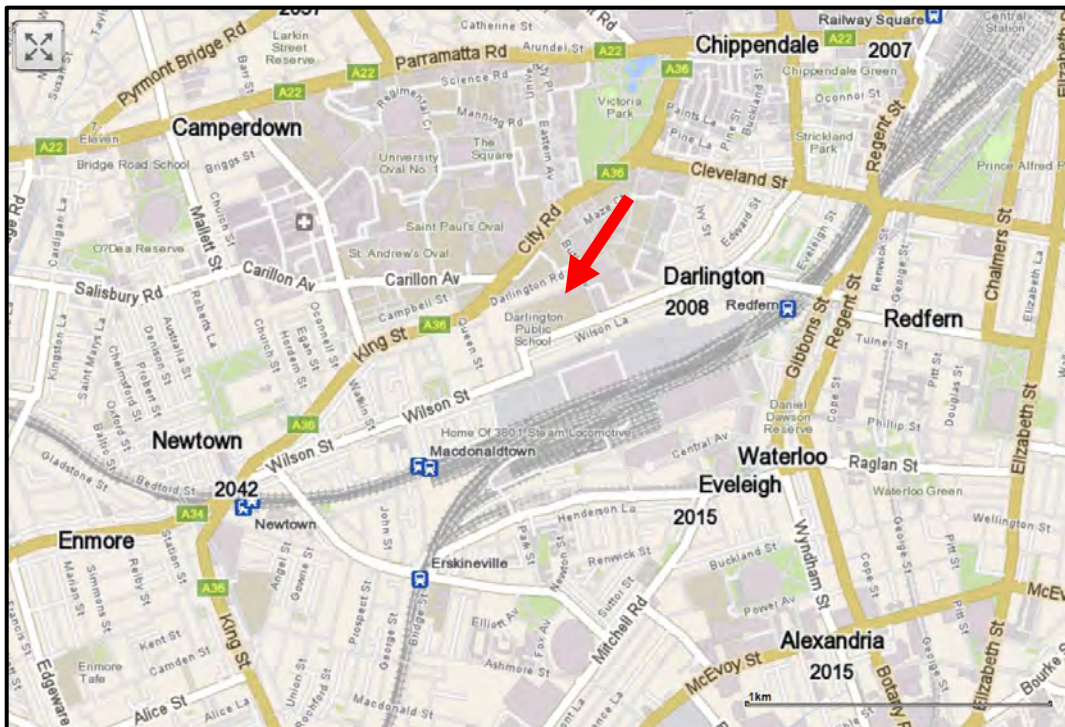
Also noted for the purpose of this report were:

- Health and Vigour; using foliage colour and size, extension growth, presence of deadwood, dieback and epicormic growth throughout the tree.
- Structural condition using visible evidence of bulges, cracks, leans and previous pruning.

- Age rating; Over-mature (>80% life expectancy), Mature (20-80% life expectancy), Young, Sapling (<20% life expectancy).

**1.2 Documents and information provided:** For this Arborist Report I have been provided with the Architectural + Landscape plans by Fjmt Studio. The plan showed the buildings and existing trees on the site and proposed development.

**1.3 Location:** The site is located at Darlington Public School, known as Lot 592 in DP 752049 and Lot 100 in DP 623500. The proposed development site from herein will be referred to as "the Site".



**Diagram 1:** Location of subject site, Darlington Public School (Red arrow) (whereis.com.au, 2020)

## 2 METHODOLOGY

- 2.1 To record the health and condition of the trees, a Visual Tree Assessment (VTA) was undertaken on the subject trees on 15<sup>th</sup> October 2018. This method of tree evaluation is adapted from Matheny and Clark, 1994 and is recognised by The International Society of Arboriculture. Individual tree assessments are listed in Appendix 2 of this report. All inspections were undertaken from the ground. No diagnostic devices were used on these trees.
- 2.2 The State Environmental Planning Policy (Vegetation in Non Rural Areas) must be referred to for the proposed removal of trees/vegetation. 21.1 The SEPP applies to vegetation in non – rural areas declared by the SCC, DCP chapter. Refer to the SEPP for the relevant LEP 2013 zones the SEPP applies to. Trees or other vegetation declared in this DCP chapter require a tree management permit if it is sought to ringbark, cut down, top, lop, remove, injure or wilfully destroy them. In this DCP a tree is declared if it meets any one or more of the following criteria:
- (a). is 3 metres or more in height
  - (b). has a trunk circumference of 30 cm or more at natural ground level
  - (c). has a branch spread of three (3) metres or more
  - (d). Is a hollow bearing tree (has cavities in trunk or branches, which can be used by native animals for foraging, shelter, roosting and nesting).

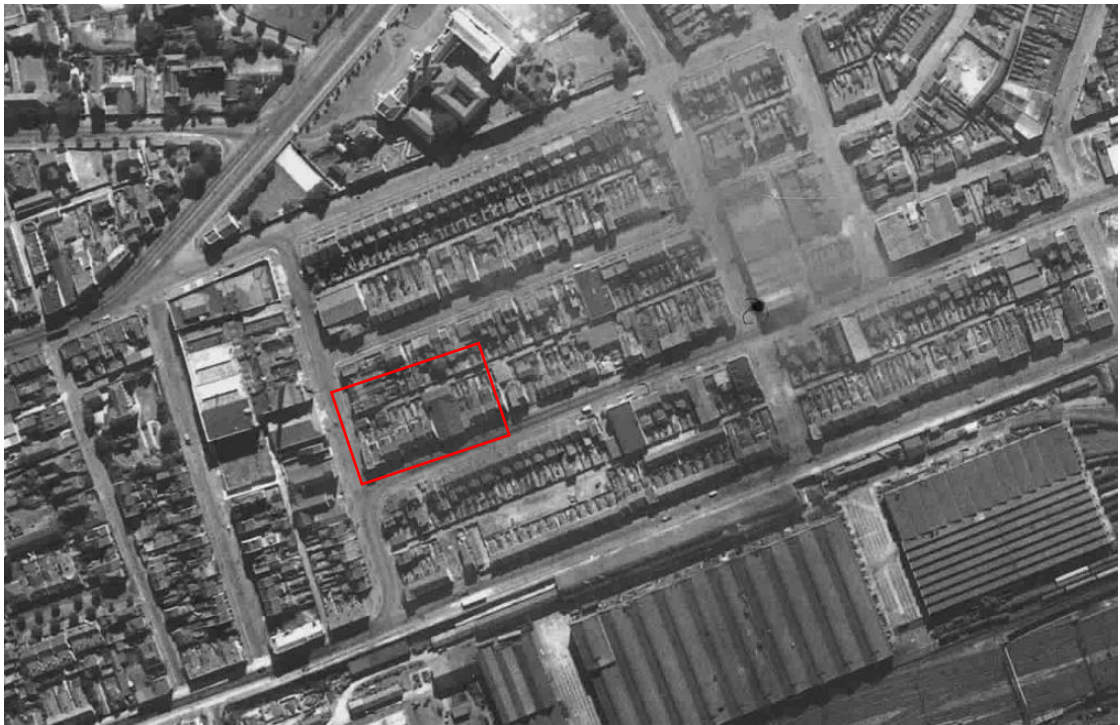
This Report is based on AS4970, the specifications and calculations within it.

- 2.3 **Height:** The heights and distances within this report have been measured with a Bosch DLE 50 laser measure.
- 2.4 **Tree Protection Zones (TPZ):** The TPZ is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable. TPZ's have been calculated for each tree. The TPZ calculation is based on the Australian Standard *Protection of trees on development sites*, AS 4970, 2009.

- 2.5 Structural Root Zone (SRZ):** The SRZ is a specified distance measured from the trunk that is set aside for the protection of tree roots, both structural and fibrous. The woody root growth and soil cohesion in this area are necessary to hold the tree upright. The TPZ and SRZ are measured as a radial measurement from the trunk. No roots should be severed within the SRZ area. A detailed methodology on the TPZ and SRZ calculations can be found in Appendix 4. The TPZ and SRZ distances are listed in the Tree Schedule (Appendix 2).
- 2.6 Safe Useful Life Expectancy (SULE):** The subject trees were assessed for a Safe Useful Life Expectancy (SULE). The SULE rating for each tree can be seen the Tree Assessment Schedule (Appendix 2). A detailed explanation of SULE can be found in Appendix 3.
- 2.7 Tree Significance & Retention Value:** The Tree Significance & Retention Value used in this report is known as the Significance of a Tree, Assessment Rating System or STARS© system created by the Australian Institute of Consulting Arboriculturists (IACA). This system allows a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the *Tree Significance - Assessment Criteria* and *Tree Retention Value - Priority Matrix*, are taken from the IACA Dictionary for Managing Trees in Urban Environments (Draper and Richards 2009). The system uses a scale of *High, Medium and Low significance* in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined. The Retention Value is selected between *High, Medium, Low and Priority for removal*. The Matrix can be seen in Appendix 4.
- 2.8 Tree Retention Value Plans:** All trees have been allocated a Tree Retention Value. These values have been applied to the colour coded plans in Appendix 1. No trees assessed for this project were allocated the value of *Priority for removal*.
- 2.9 Plans provided:** General Arrangement Plan (sheet number 2051), Landscape Plan (8001) and Tree Management Plan (8003) undertaken by Fjmt marked project code DTSPS / 2051 Revision 3 dated 28/04/2020.

### 3 RELEVANT BACKGROUND INFORMATION

3.1 Darlington Public School is located in Chippendale in Sydney. Darlington Public School is an inner city school servicing the suburbs of Chippendale, Darlington, Redfern and Waterloo. The school has been built following World War 2 (Diagram 2) however the school's trees are well established, with some being almost twenty (20) metres in height and spread.



**Diagram 2:** The site as seen in 1943, devoid of trees (RTA From the skies, 2007).



**3.2 Environmental Significance:** Tree Management Controls in City of Sydney's Development Control Plan (DCP) provide the legislative tool for the protection of all trees located within the City of Sydney.

As outlined in Sydney Development Control Plan 2012, Section 3 – General Provisions this applies to trees that:

- (a) have a height of five (5) metres or more; or
- (b) have a canopy spread of over five (5) metres; or
- (c) have a trunk diameter of more than three hundred (300) millimetres, measured at ground level; or
- (d) is listed in the Register of Significant Trees.

It should be noted that the Local Environmental Plan 2012, Part 5 Clause 5.9 Preservation of trees or vegetation has now been repealed.

**3.3 Illegal tree removal:** Damaging or removing trees can result in heavy fines. Local Government does have the authority to issue on the spot fines known as penalty infringement notices (PINS) starting from \$3,000 or can elect to have a potential tree damaging incident addressed in the Local Court. Recent cases, for example, include two (2) mature trees removed for development (Sutherland Shire Council (SSC) v Palamara, 2008) costing \$4,500 in fines and \$5,000 in court costs. SSC v El-Hage, 2010 concerning illegal tree removal of a single tree costing \$31,500 in fines and \$5,000 in costs. Poisoning trees can also incur substantial fines (SSC v Hill) resulted in a single tree fine that totalled \$14,000 plus a \$10,000 bond for a replacement tree. All of the above cases resulted in a criminal conviction for the guilty parties.

- 3.4 The Site Trees:** The site was inspected on 15<sup>th</sup> October 2018. Each tree has been given a unique number for this site and can be viewed on the Tree Location Plan (Appendix 1). All site trees have been tagged to correspond with the Tree Location Plan.
- 3.5** The site consists of several buildings connected by covered walkways. Playground areas are located throughout the site with specimen trees located in some protected courtyard areas (Plate 1). Some of these courtyard specimens are large mature specimens and potentially are nearing over-maturity such as Tree 3.



**Plate 1:** Image showing Tree 3. This tree has signs of drought stress however recent rainfall may extend its life expectancy. Working around a mature tree such as this will be difficult in terms of canopy impacts and root disturbance. P. Vezgoff

**3.6** Trees 7-15 are within the central playground area (Plate 2). Although not great specimens individually, they do work well as a group providing canopy cover and good aesthetic value to the rear area.



**Plate 2:** Image showing Trees 7-15 central to the playground area. The area not facing the camera consists of a low retaining wall. P. Vezgoff

**3.7** Trees 26-31 (Plate 3) are tightly grouped specimens that have a restricted root space and are covered with asphalt and playground rubberised matting up to the trunks. These trees are mostly in good health but could be replaced with better specimens. They would not be considered long term specimens.



**Plate 3:** Image showing Trees 26-31. P. Vezgoff



**Plate 4:** Image showing Trees 48 and 47. P. Vezgoff

**3.8** Trees 47 and 48 (Plate 4) are some of the larger trees on site being some twenty (20) meters in height. Again, the majority of the root zone of these trees is covered with hard surface. These trees have some previous failures which is to be expected from trees of this size and age. These trees were assessed as being in good health and condition. The main trunks, first and second order branches are free of any cracks, splits or fruiting bodies. New extension growth was noted. The basal area and woody root zone were free of any ground heaving, or lifting. Ideally an aerial inspection should occur to fully determine the condition of the main branch unions.

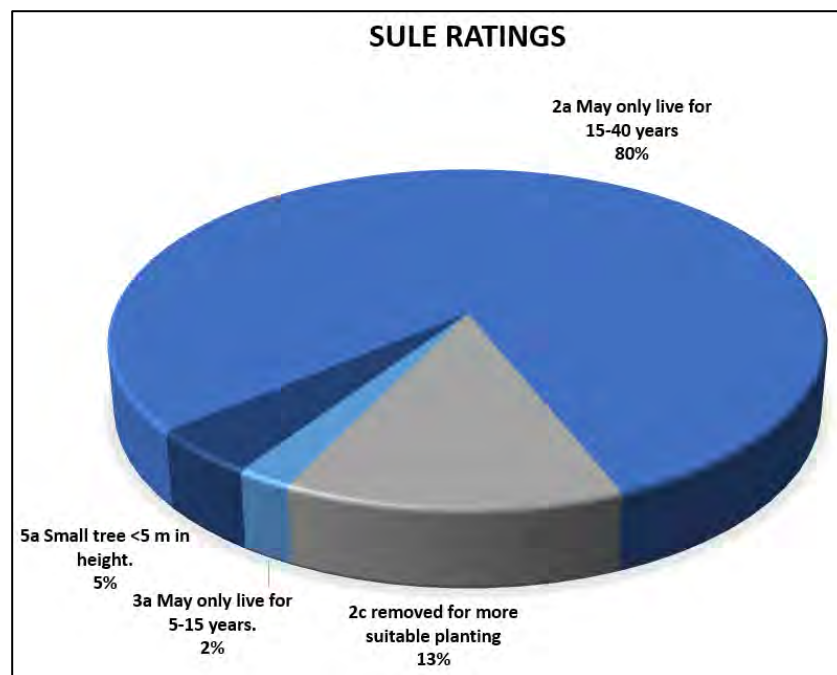
**3.9** Although this part of Sydney may be high in sand content that would normally encourage deeper root systems, the site has an uncertain history. Based on Diagram 2, it appears that prior to the school being built there were rows of terrace houses and warehouse structures, so subsoil conditions will be far from natural and would be highly disturbed. This will mean that old footings or foundations that may be subsurface will deflect woody roots keeping them close to the surface such as near Tree 20 (Plate 5).



**Plate 5:** Image showing surface roots from Tree 20. P. Vezgoff

**3.10** Street trees are numbered as Trees 56-59 along Darlington Road. These trees are mostly Sweetgum (*Liquidambar styraciflua*) with a single specimen of Brushbox (*Lophostemon confertus*), being Tree 59. Along Golden Grove Street are Trees 60-68. These species consist of Brushbox (*Lophostemon confertus*), Sweetgum (*Liquidambar styraciflua*), Tallowwood (*Eucalyptus microcorys*). Trees 61 and 68 are two (2) large specimens of Tallowwood. Tree 68 does not show on the Landscape plans however I have included it as it is a large street tree.

**3.11 Safe Useful Life Expectancy (SULE)** is a method of evaluating individual trees. The evaluation is a subjective assessment, not an absolute judgement, because the nature of trees and opinions on trees can vary greatly. SULE assessments are made only by those who are experienced and knowledgeable in tree management. SULE is generally accepted and used world-wide as a method of evaluating trees. Each category has a number of sub-categories. These sub-categories should always be recorded to help future users of the information appreciate the reason for each allocation decision. It is normal to have instances where trees will not fit neatly into a single SULE category. The assessment of the site trees can be seen in Graph 1. In general, the trees were mostly assessed as being in good health. SULE results show that 78% of the site’s tree population has a life expectancy of between 15-40 years. Trees that have a short life expectancy or could be readily replaced total 22%.



**Graph 1:** SULE ratings for the site trees.

**3.12** The trees were assessed as below for the Significance of a Tree, Assessment Rating System or STARS©. The STARS© Matrix can be seen in Appendix 4. This rating can be seen in Plan form in Appendix 1.

Significance Scale	1 (High)	2 (Medium)	3 (Low)
Tree No.	1, 2, 4-8, 13-15, 17-19, 47, 48.	3, 9-12, 16, 28, 29, 52, 54, 55-68.	26, 27, 30, 31, 32, 50, 53

**3.13 Impacts:** Based on the plans trees that are possible to retain are numbered as; 6, 18, 12, 13, 14, 15, 18, 56-68. Trees within the building footprint or will suffer too greater incursion into the TPZ areas and as such are proposed to be removed are numbered as; 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 16, 17, 19, 26-32, 47, 48, 50, 52, 53, 54, 55.

**3.14** The design levels around Tree 12 are very tight as it is surrounded by an existing brick wall and sandstone steps (Plate 2). Any new wall around these trees is likely to require additional excavation to allow for drainage. The landscape design is working to retain existing levels and allowing for the construction of new accessible footpath however further consultation may be required in relation Trees 12-15 to achieve this.

**3.15** The proposed substation on Golden Grove Street may impact on the large Tree 68 (Plate 6). This tree is a large mature Tallowwood (*Eucalyptus microcorys*). This tree is in excellent health and condition. The main trunk, first and second order branches are free of any cracks, splits or fruiting bodies. Old pruning wounds are showing good occlusion, a sign that the tree is photosynthesizing effectively. New extension growth was noted with leaf colour showing good vitality. The tree would be considered to have a 95% live canopy. The basal area and woody root zone were free of any ground heaving, or lifting. Any trenching below this tree will need to be under bored using directional drilling.



**Plate 6:** Image showing Tree 68 (Red arrow). P. Vezgoff



## **4 RECOMMENDATIONS**

- 4.1** A Project Arborist should be appointed to oversee the arboricultural related works for the project. The Project Arborist should be used for arboricultural certification services and also used as a point of contact should any questions arise during design process for this project. As specified in AS 4970, 2009, a Project Arborist is a person with a minimum Australian Qualification Framework (AQF) level 5 Diploma of Arboriculture or Horticulture qualification.
- 4.2** **Trees 6, 18 and 12-15** will require tree protection fencing as specified in Section 5.2 of this report. The specifications for a TPZ are in Section 5.4 of this report. The design levels around Tree 12 are very tight as it is surrounded by an existing brick wall and sandstone steps. The landscape design is working to retain existing levels and allowing for the construction of new accessible footpath however further consultation may be required in relation Trees 12-15 to achieve this.
- 4.3** **Trees 56-67** will require trunk protection as specified in Section 5.3 of this report. This trunk protection will be required due to the proximity of heavy equipment operating near these trees. It is important to protect the bark on trees. Bark is a very effective barrier that helps to protect trees from pest, disease and decay pathogens.
- 4.4** Based on the plans trees to retain are numbered as; 6, 12, 13, 14, 15, 18, 56-68. Trees within the building footprint to be removed are numbered as; 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 16, 17, 19, 26-32, 47, 48, 50, 52, 53, 54, 55.
- 4.5** Trees 60 and 61 will require a degree of canopy pruning to allow for the two new structures. These branches should be reduced back so as to maintain the canopy of the trees (ie, no lopping or 'flat topping'). Pruning points should be no greater than 50mm in diameter. This pruning is known as selective pruning and can be read about in more detail in the Australian Standard for the Pruning of Amenity Trees (AS 4373) 2007. The Project Arborist should supervise these works. This pruning should also be clearly shown on construction plans.

- 4.6** In general, Darlington Public School has a healthy tree population in terms of quantity of trees and tree health. There are no trees that were assessed as being at risk of imminent failure however some minor scattered dead wood was noted.
- 4.7** Trees are dynamic living organisms that provide a broad, extensive range of benefits. Whilst Moore Trees has used the most recent in industry standards with regards to tree health and risk assessment the advice and recommendations in this report are limited to twelve (12) months after which all reasonability regarding the site trees is that of the School.
- 4.8** The Australian Standard *Protection of trees on development sites*, (AS 4970) recommends no more than 10% encroachment unless the TPZ can be compensated elsewhere and contiguous with the TPZ. Provided the portion (of TPZ incursion) of footings across the root zone can be bridged via the use of pier and beam construction this would allow design to comply with AS4970. Ultimately the site trees will require further assessment once plans and designs are initiated.

## **5 TREE PROTECTION**

**5.1 Trees to be protected: Trees 6, 18 and 12-15,** will required to be required to be fenced for protection. All fencing shall be installed as specified in Section 5.2 (Tree Protection – Implementation of Tree Protection Zone). Indicative locations of the fencing are shown in the Tree Protection Plan (Appendix 1).

**5.2 Implementation of Tree Protection Zone:** All tree protection works should be carried out before the start of demolition or building work. It is recommended that chain mesh fencing with a minimum height of 1.8 metres be erected as shown in the Tree Protection Plan (Appendix 1). Specifications for this fencing are shown in Tree Protection Fencing Specifications (Appendix 6).

**5.3 Individual trunk protection: Trees 56-68** will require trunk protection. This is achieved by attaching lengths of timber (75mm x 50mm x 2000mm) fastened around the trunk. Geotextile fabric or carpet underlay shall be wrapped around the trunk prior to the timbers being attached. These timbers are to be fastened with hoop iron strapping and not attached directly into the bark of the tree. These timbers are only to be removed when all construction is complete.

**5.4 The Tree Protection Zone (TPZ) and Structural Root Zone (SRZ):** The TPZ is implemented to ensure the protection of the trunk and branches of the subject tree. The TPZ is based on the Diameter at Breast Height (DBH) of the tree. The SRZ is also a radial measurement from the trunk used to protect and restrict damage to the roots of the tree.

The Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) have been measured from the centre of the trunk. TPZ and SRZ distances are all listed in the Tree Schedule (Appendix 2). The following activities shall be avoided within the TPZ and SRZ of the trees to be retained;

- Erecting site sheds or portable toilets.

- Trenching, ripping or cultivation of soil (with the exception of approved foundations and underground services).
- Soil level changes or fill material (pier and beam or suspended slab construction are acceptable).
- Storage of building materials.
- Disposal of waste materials, solid or liquid.

**5.5 Tree Damage:** If the retained trees are damaged a qualified Arborist should be contacted as soon as possible. The Arborist will recommend remedial action so as to reduce any long term adverse effect on the tree's health.

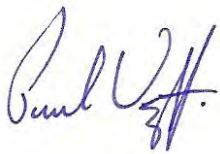
**5.6 Signage:** It is recommended that tree protection signage is attached to the tree protection fencing. A sample sign has been attached in Appendix 7. This sign may be copied and laminated then attached to any TPZ fencing.

**5.7 Root Pruning:** If approved excavations are required within a TPZ this excavation shall be done by hand to expose any roots. Any roots under fifty (50) millimetres in diameter may be pruned cleanly with a sharp saw. Tree root systems are essential for the health and stability of the tree. The Project Arborist should be contacted if roots greater than 50mm are encountered where a design solution cannot be resolved so as not to sever any roots greater than 50mm in diameter.

**5.8 Arborist Certification:** It is recommended that the contractor supply the Principal Certifying Authority with certification from the Project Arborist three (3) times during the construction phase of the development in order to verify that retained trees have been correctly retained and protected as per the conditions of consent and Arborist's recommendations. The certification is to be conducted by a Qualified Consulting Arborist with AQF level 5 qualifications that has current membership with either Arboriculture Australia (AA) or Institute of Australian Consulting Arboriculturists (IACA). Arborist certification is recommended:

- (1) Before the commencement of demolition or construction to confirm the fencing has been installed;
- (2) At mid point of the construction phase to inspect exposed roots from the excavations;
- (3) At completion of the construction phase.

If you have any questions in relation to this report please contact me.

A handwritten signature in blue ink, appearing to read 'Paul Vezgoff'.

**Paul Vezgoff**  
Consulting Arborist  
Dip Arb (Dist), Arb III, Hort cert, AA, ISA

5<sup>th</sup> May 2020

**Appendix 1**

**Plan 1**

**Tree Location Plan**  
**&**  
**Retention Values**

**Plan 2**

**Tree Protection Plan**



# Tree Retention Values

MOORE TREES

Moore Trees

Plan 1



High

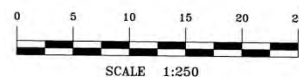
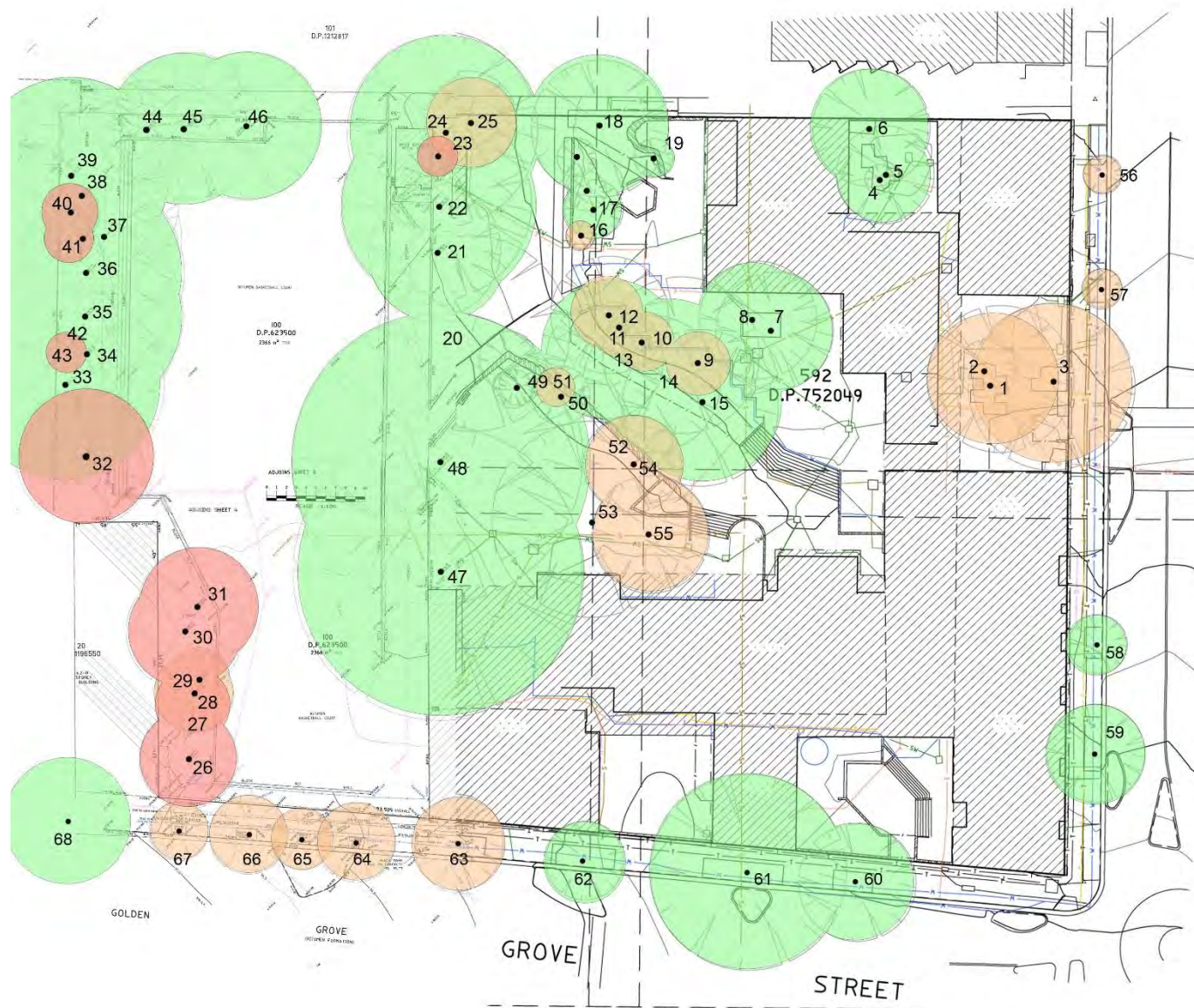


Medium



Low

**Note:** The tree condition plan is separate to the SULE categories that have been allocated to the site trees.



Date: 26.04.2019  
 Drawn: P.Vezgoff  
 Site Address: Darlington Public School  
 Darlington NSW


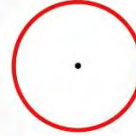




# Tree protection plan

Moore Trees

Plan 2



-  **Tree to be retained**  
6, 12, 13, 14, 15, 18, 56-68
-  **Tree to be removed**  
1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 16, 17, 19, 26-32, 47, 48, 50, 52, 53, 54, 55
-  **Fence.** Implementation of tree protection zone (TPZ). All tree protection works should be carried out before the start of demolition or building works. It is recommended that chain mesh fencing with a minimum height of 1.8 metres be erected
-  **Trunk protection.** Lengths of timber (75mm x 50mm x 2000) shall be fastened to the trunk or overhead branches that are greater than 80mm in diameter. These timbers are to be fastened with hoop iron strapping and not fixed directly onto the trunk of the tree.



Date: 05.05.2020  
 Drawn: P.Vezgoff  
 Site Address: Darlington Public School  
 Darlington NSW



Appendix 2

**Tree health & condition**  
**assessment schedule**

TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE – Darlington Public School Tree Data

Tree	Species	Height (m)	Spread (m)	DBH (m)	Live canopy %	Defects	SULE	Condition	Age	Comments	TPZ (m)	SRZ (m)
1	Broad leaved paperbark (Melaleuca quinquenervia)	14	5	0.45	95	No visual defects	2a May only live for 15-40 years	Good	Mature	With garden rockery	5.4	2.4
2	Broad leaved paperbark (Melaleuca quinquenervia)	14	5	0.45	95	No visual defects	2a May only live for 15-40 years	Good	Mature	With garden rockery	5.4	2.4
3	Small leaved pepper mint (Eucalyptus nicholii)	17	7	0.55	80	No visual defects	2a May only live for 15-40 years	Fair	Mature	Signs of drought stress	6.6	2.6
4	Cabbage tree palm (Livistona australis)	15	3	0.5	95	No visual defects	2a May only live for 15-40 years	Good	Mature	Fibrous root mass at base. Spines at base	6	2.6
5	Swamp mahogany (Eucalyptus robusta)	14	6	0.4	92	No visual defects	2a May only live for 15-40 years	Good	Mature		4.8	2.4
6	Brushbox (Lophostemon confertus)	14	6	0.4	92	No visual defects	2a May only live for 15-40 years	Good	Mature		4.8	2.4
7	Coastal banksia ( Banksia integrifolia)	8	3	0.35	90	No visual defects	2a May only live for 15-40 years	Good	Mature	Within paved area. Sewer pit at base	4.2	2.3
8	Swamp mahogany (Eucalyptus robusta)	8	4	0.35	90	No visual defects	2a May only live for 15-40 years	Good	Mature	Within paved area. Sewer pit at base	4.2	2.3
9	River she oak (Casuarina cunninghamiana)	15	5	0.5	95	No visual defects	2a May only live for 15-40 years	Good	Mature		6	2.6
10	River she oak (Casuarina cunninghamiana)	9	2.5	0.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		2.4	1.9
11	River she oak (Casuarina cunninghamiana)	9	2.5	0.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		2.4	1.9
12	River she oak (Casuarina cunninghamiana)	15	5	0.5	95	No visual defects	2a May only live for 15-40 years	Good	Mature		6	2.6
13	Tallowwood (Eucalyptus microcorys)	19	7	0.45	95	No visual defects	2a May only live for 15-40 years	Good	Mature	Part of a row of three	5.4	2.5

Tree	Species	Height (m)	Spread (m)	DBH (m)	Live canopy %	Defects	SULE	Condition	Age	Comments	TPZ (m)	SRZ (m)
14	Tallowwood (Eucalyptus microcorys)	19	7	0.45	95	Dead wood >50mm	2a May only live for 15-40 years	Good	Mature	Part of a row of three . 100mm section of dead wood over path	5.4	2.5
15	Tallowwood (Eucalyptus microcorys)	19	7	0.45	95	No visual defects	2a May only live for 15-40 years	Good	Mature	Part of a row of three	5.4	2.5
16	Firewheel tree (Stenocarpus sinuatus)	5	1	0.07	100	No visual defects	5a Small tree <5 m in height.	Good	Mature		0.8	1.1
17	Illawarra flame tree (Brachychiton acerifolius)	7	4	0.35	95	No visual defects	2a May only live for 15-40 years	Good	Mature		4.2	2.3
18	Lemon-scented gum tree (Corymbia citriodora)	17	6	0.45	92	No visual defects	2a May only live for 15-40 years	Good	Mature	Minor mechanical wound at base	5.4	2.5
19	Bangalow palm (Archontophoenix cunninghamiana)	6	3	0.18	100	No visual defects	2a May only live for 15-40 years	Good	Mature		2.2	1.6
26	Kaffir plum (Harpephyllum caffrum)	10	5	0.4	92	No visual defects	2c removed for more suitable planting	Good	Mature		4.8	2.4
27	Kaffir plum (Harpephyllum caffrum)	10	3	0.35	92	No visual defects	2c removed for more suitable planting	Good	Mature		4.2	2.3
28	River she oak (Casuarina cunninghamiana)	12	3	0.25	70	No visual defects	3a May only live for 5-15 years.	Poor	Mature	Decline	3	2.1
29	Black bean (Castanospermum australe)	6	2	0.1	90	No visual defects	5a Small tree <5 m in height.	Good	Mature		1.2	1.2
30	Kaffir plum (Harpephyllum caffrum)	10	5	0.4	92	No visual defects	2c removed for more suitable planting	Good	Mature		4.8	2.4
31	Willow gum (Eucalyptus scoparia)	16	7	0.45	90	No visual defects	2a May only live for 15-40 years	Fair	Mature		5.4	2.4
32	Mulberry (Morus nigra)	6	7	0.45	95	Included codom stems	2c removed for more suitable planting	Fair	Mature	Codominant stems with partial decay occurring between the two main stem's	5.4	2.6

Tree	Species	Height (m)	Spread (m)	DBH (m)	Live canopy %	Defects	SULE	Condition	Age	Comments	TPZ (m)	SRZ (m)
47	Spotted gum (Corymbia maculata)	21	11	1.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		14.4	3.6
48	Sydney blue gum (Eucalyptus saligna)	21	11	1.1	95	No visual defects	2a May only live for 15-40 years	Good	Mature		13.2	3.5
50	Illawarra flame tree (Brachychiton acerifolius)	7	4	0.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		2.4	1.9
52	Unknown	6	4	0.2	95	No visual defects	2c removed for more suitable planting	Good	Mature		2.4	1.9
53	Tallowwood (Eucalyptus microcorys)	21	11	0.9	95	Dead wood <50mm	2a May only live for 15-40 years	Good	Mature	Soft fall around base	10.8	3.3
54	Trident maple (Acer sp)	6	2.5	0.1	100	No visual defects	2c removed for more suitable planting	Good	Mature		1.2	1.3
55	Water gum (Tristaniaopsis laurina)	6	3	0.25	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
56	Sweetgum (Liquidambar styraciflua)	6	2.5	.25	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
57	Sweetgum (Liquidambar styraciflua)	6	2.5	.25	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
58	Sweetgum (Liquidambar styraciflua)	6	2.5	.25	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
59	Brushbox (Lophostemon confertus)	9	4	.3	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
60	Tallowwood (Eucalyptus microcorys)	14	5	.4	95	No visual defects	2a May only live for 15-40 years	Good	Mature		5	2
61	Tallowwood (Eucalyptus microcorys)	19	8	.5	95	No visual defects	2a May only live for 15-40 years	Good	Mature		6	3
62	Evergreen Ash (Fraxinus griffithii)	6	3	.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
63	Evergreen Ash (Fraxinus griffithii)	6	3	.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1

Tree	Species	Height (m)	Spread (m)	DBH (m)	Live canopy %	Defects	SULE	Condition	Age	Comments	TPZ (m)	SRZ (m)
64	Brushbox (Lophostemon confertus)	7	3	.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
65	Brushbox (Lophostemon confertus)	7	3	.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
66	Evergreen Ash (Fraxinus griffithii)	6	3	.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
67	Evergreen Ash (Fraxinus griffithii)	6	3	.2	95	No visual defects	2a May only live for 15-40 years	Good	Mature		3	2.1
68	Tallowwood (Eucalyptus microcorys)	22	9	.9	95	No visual defects	2a May only live for 15-40 years	Excellent	Mature		6	3

**KEY**

**Tree No:** Relates to the number allocated to each tree for the Tree Protection Plan.

**Height:** Height of the tree to the nearest metre.

**Spread:** The average spread of the canopy measured from the trunk.

**DBH:** Diameter at breast height. An industry standard for measuring trees at 1.4 metres above ground level, this measurement is used to help calculate Tree Protection Zones.

**Live Crown Ratio:** Percentage of foliage cover for a particular species.

<b>Age Class:</b> Young:	Recently planted tree	Semi-mature:< 20% of life expectancy
Mature:	20-90% of life expectancy	Over-mature:>90% of life expectancy

**SULE:** See SULE methodology in the Appendix 3

**Tree Protection Zone (TPZ):** The minimum area set aside for the protection of the trees trunk, canopy and root system throughout the construction process. Breaches of the TPZ will be specified in the recommendations section of the report.

**Structural Root Zone (SRZ):** The SRZ is a specified distance measured from the trunk that is set aside for the protection of the trees roots both structural and fibrous.

## Appendix 3

### SULE categories (after Barrell, 2001)<sup>1</sup>

<b>SULE Category</b>	<b>Description</b>
<i>Long</i>	<i>Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.</i>
1a	Structurally sound trees located in positions that can accommodate for future growth
1b	Trees that could be made suitable for retention in the long term by remedial tree care.
1c	Trees of special significance that would warrant extraordinary efforts to secure their long term retention.
<i>Medium</i>	<i>Trees that appeared to be retainable at the time of assessment for 15-40 years with an acceptable level of risk.</i>
2a	Trees that may only live for 15-40 years
2b	Trees that could live for more than 40 years but may be removed for safety or nuisance reasons
2c	Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide for new planting.
2d	Trees that could be made suitable for retention in the medium term by remedial tree care.
<i>Short</i>	<i>Trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable level of risk.</i>
3a	Trees that may only live for another 5-15 years
3b	Trees that could live for more than 15 years but may be removed for safety or nuisance reasons.
3c	Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide for a new planting.
3d	Trees that require substantial remedial tree care and are only suitable for retention in the short term.
<i>Remove</i>	<i>Trees that should be removed within the next five years.</i>
4a	Dead, dying, suppressed or declining trees because of disease or inhospitable conditions.
4b	Dangerous trees because of instability or loss of adjacent trees
4c	Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form.
4d	Damaged trees that are clearly not safe to retain.
4e	Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide for a new planting.
4f	Trees that are damaging or may cause damage to existing structures within 5 years.
4g	Trees that will become dangerous after removal of other trees for the reasons given in (a) to (f).
4h	Trees in categories (a) to (g) that have a high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review.
<i>Small</i>	<i>Small or young trees that can be reliably moved or replaced.</i>
5a	Small trees less than 5m in height.
5b	Young trees less than 15 years old but over 5m in height.
5c	Formal hedges and trees intended for regular pruning to artificially control growth.

updated 01/04/01)

1 (Barrell, J. (2001) "SULE: Its use and status into the new millennium" in *Management of mature trees*, Proceedings of the 4<sup>th</sup> NAAA Tree Management Seminar, NAAA, Sydney.

## Appendix 4

### Tree Significance - Assessment Criteria

#### 1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ - tree is appropriate to the site conditions.

#### 2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

#### 3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ - tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound.

#### Environmental Pest / Noxious Weed Species

- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.


#### Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous, - The tree is



dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

**The tree is to have a minimum of three (3) criteria in a category to be classified in that group.**

		Significance				
		1. High	2. Medium	3. Low		
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
Estimated Life Expectancy	1. Long +40 years					
	2. Medium 15-40 Years					
	3. Short 1-15 Years					
	Dead					
Legend for Matrix Assessment						
	<b>Priority for Retention (High)</b> - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 <i>Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented e.g. pier and beam etc. if works are to proceed within the Tree Protection Zone.					
	<b>Consider for Retention (Medium)</b> - These trees may be retained and protected. These are considered less critical, however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.					
	<b>Consider for Removal (Low)</b> - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.					
	<b>Priority for Removal</b> - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.					

Legend for Matrix Assessment.

IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, [www.iaca.org.au](http://www.iaca.org.au)

## Appendix 5

# TPZ and SRZ methodology

### Determining the Tree Protection Zone (TPZ)

The radius of the TPZ is calculated for each tree by multiplying its DBH x 12.

$$\text{TPZ} = \text{DBH} \times 12$$

Where

DBH = trunk diameter measured at 1.4 metres above ground

Radius is measured from the centre of the stem at ground level.

A TPZ should not be less than 2 metres no greater than 15 metres (except where crown protection is required.). Some instances may require variations to the TPZ.

The TPZ of palms, other monocots, cycads and tree ferns should not be less than 1 metre outside the crown projection.

### Determining the Structural Root Zone (SRZ)

The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree.

The SRZ only needs to be calculated when major encroachment into a TPZ is proposed.

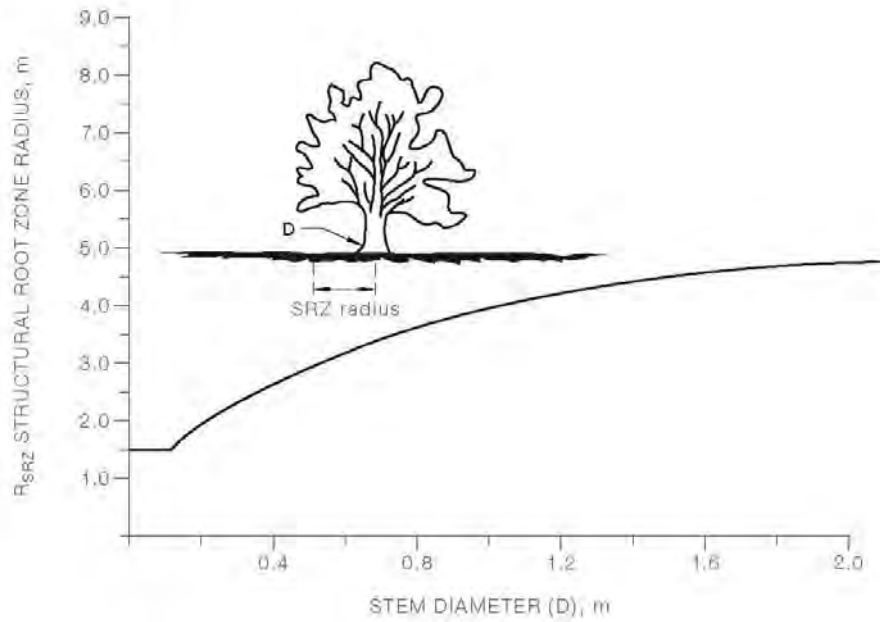
There are many factors that affect the size of the SRZ (e.g. tree height, crown area, soil type, soil moisture). The SRZ may also be influenced by natural or built structures, such as rocks and footings. An indicative SRZ radius can be determined from the trunk diameter measured immediately above the root buttress using the following formula or Figure 1. Root investigation may provide more information on the extent of these roots.

$$\text{SRZ radius} = (D \times 50)^{0.42} \times 0.64$$

Where

$D$  = trunk diameter, in m, measured above the root buttress

NOTE: The SRZ for trees with trunk diameters less than 0.15m will be 1.5m (see Figure 1).



The curve can be expressed by the following formula:  
 $R_{SRZ} = (D \times 50)^{0.42} \times 0.64$

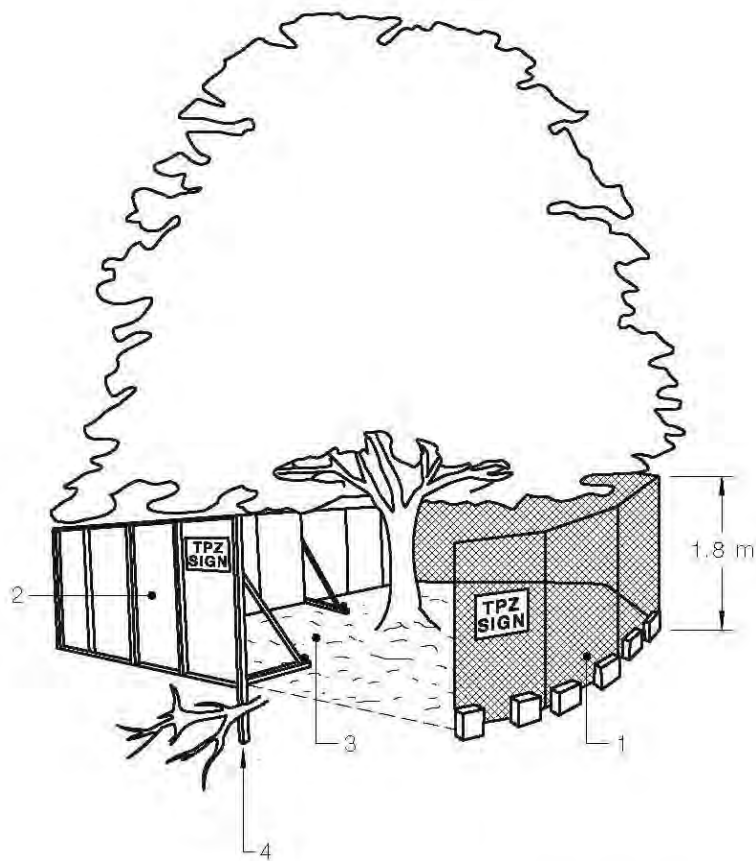
FIGURE 1 - STRUCTURAL ROOT ZONE

*Notes:*

- 1  $R_{SRZ}$  is the structural root zone radius.
- 2  $D$  is the stem diameter measured immediately above root buttress.
- 3 The SRZ for trees less than 0.15 metres diameter is 1.5 metres.
- 4 The SRZ formula and graph do not apply to palms, other monocots, cycads and tree ferns.
- 5 This does not apply to trees with an asymmetrical root plate.

Appendix 6

**Tree protection fencing**  
**specifications**



**LEGEND:**

- 1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
- 2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
- 3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
- 4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

**Figure 1:** Protective fencing as specified in AS 4970, 2009.

Appendix 7

**Tree protection sign**  
**sign sample**

# Tree Protection Zone

Fence not to be moved without approval from Arborist

Within this fence there is to be

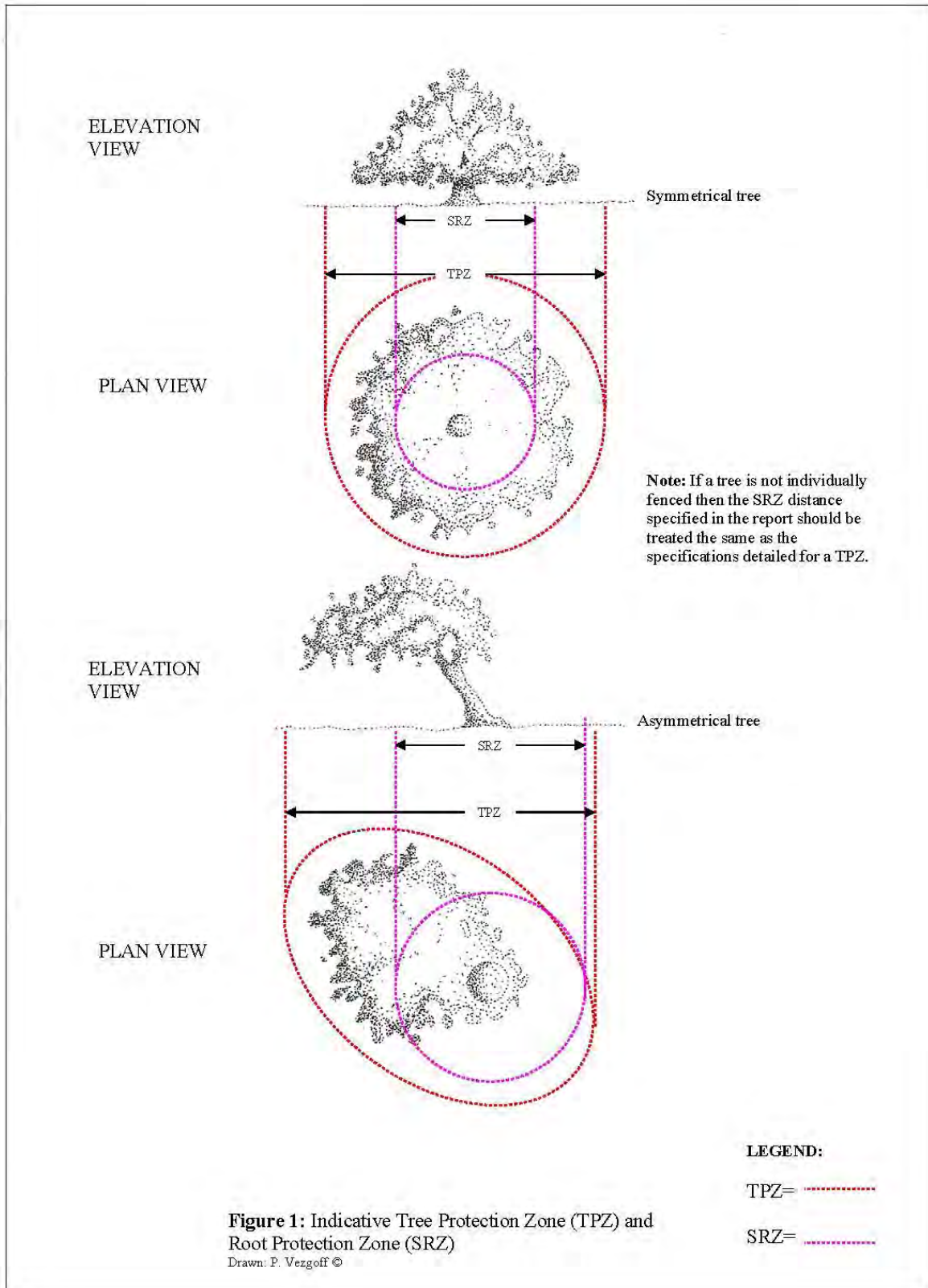
**NO**

Storage of materials

Trenching or excavation

Washing of tools or equipment

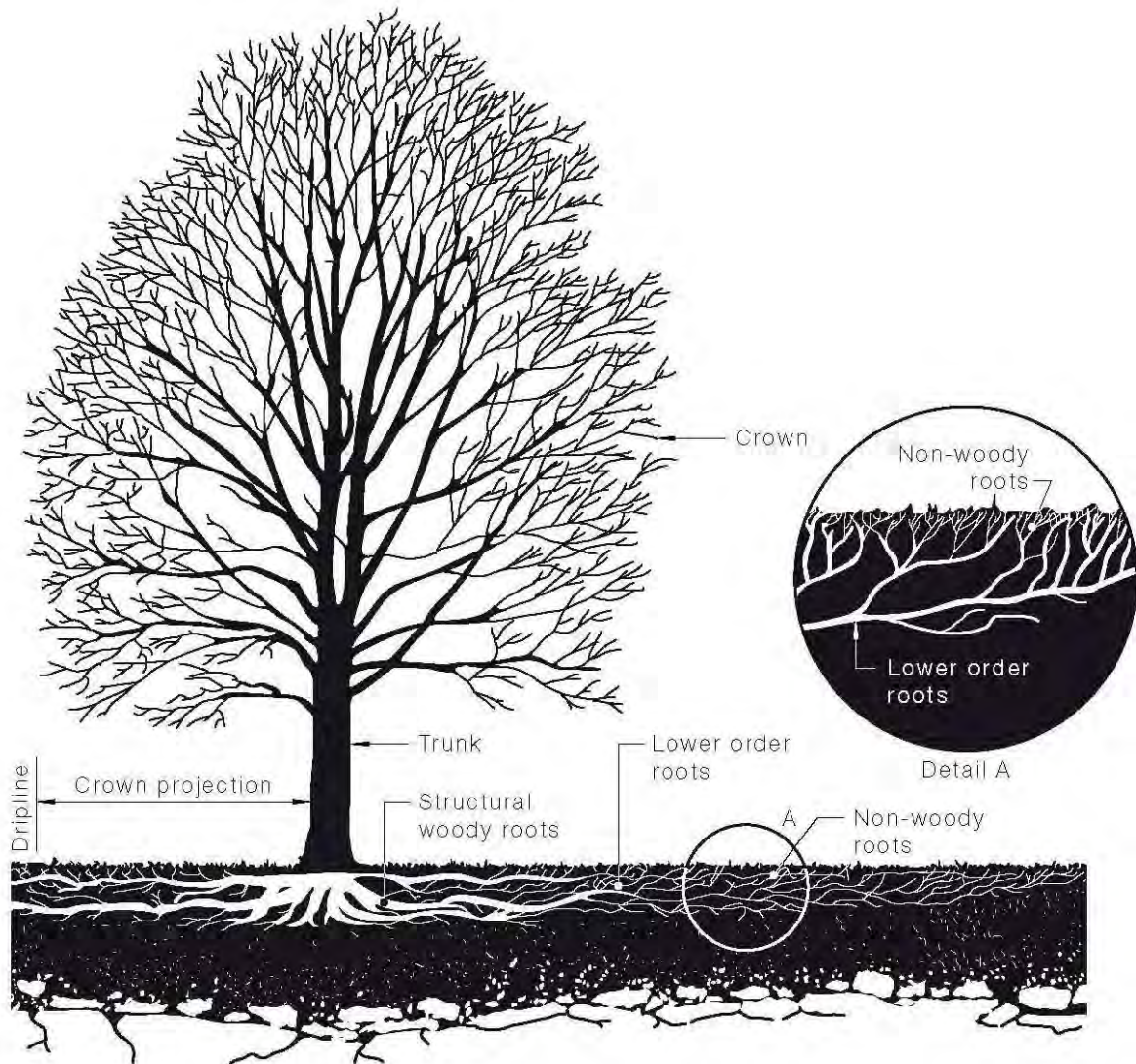
# Appendix 8





## Appendix 9

### Tree structure information diagram



**Figure 2:** Structure of a tree in a normal growing environment (AS 4970, 2009.).

## Appendix 10

### Explanatory Notes

- **Mathematical abbreviations:** > = Greater than; < = Less than.
- **Measurements/estimates:** All dimensions are estimates unless otherwise indicated. Less reliable estimated dimensions are indicated with a '?'.
- **Species:** The species identification is based on visual observations and the common English name of what the tree appeared to be is listed first, with the botanical name after in brackets. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicated with a '?' after the name in order to avoid delay in the production of the report. The botanical name is followed by the abbreviation sp if only the genus is known. The species listed for groups and hedges represent the main component and there may be other minor species not listed.
- **Height:** Height is estimated to the nearest metre.
- **Spread:** The maximum crown spread is visually estimated to the nearest metre from the centre of the trunk to the tips of the live lateral branches.
- **Diameter:** These figures relate to 1.4m above ground level and are recorded in centimetres. If appropriate, diameter is measured with a diameter tape. 'M' indicates trees or shrubs with multiple stems.
- **Estimated Age:** Age is estimated from visual indicators and it should only be taken as a provisional guide. Age estimates often need to be modified based on further information such as historical records or local knowledge.
- **Distance to Structures:** This is estimated to the nearest metre and intended as an indication rather than a precise measurement.

## Appendix 11

### Bibliography

Draper D B & Richards P A (2009) *Dictionary for managing trees in urban environments*

CSIRO Publishing

Collingwood, Vic

Harris R.W, Clark J.R, Matheny N.P (1999). *Arboriculture*. Third edition.

Prentice Hall

New Jersey.

Matheny N.P & Clark J.R. (1994) *Evaluation of hazard trees in Urban areas*

Second edition, International Society of Arboriculture

Illinois.

Mattheck C & Breloer H (2003) *The Body Language of Trees: A handbook for failure*

*analysis*. Research for Amenity Trees No. 4,

Seventh edition, The Stationary Office, London.

Shigo A.L. (2002) *A New Tree Biology*.

Shigo and Trees, Associates, Durham, New Hampshire.

Schwarze, F.W.M.R, Engels, J. Mattheck. C (2000) *Fungal strategies of wood decay in trees*

Springer-Verlag Berlin Heidelberg

Germany

Standards Australia, 2007, *Pruning of amenity trees AS 4373, 2007*

Standards Australia Ltd

Sydney

Standards Australia, 2009. *Protection of trees on development sites, AS 4970, 2009*

Standards Australia Ltd

Sydney

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## EDUCATION and QUALIFICATIONS

- 2013 – ISA TRAQ qualification
- 2007 – Diploma of Arboriculture (AQF Cert V) Ryde TAFE. (Distinction)
- 1997 – Completed Certificate in Crane and Plant Electrical Safety
- 1996 – Attained Tree Surgeon Certificate (AQF Cert II) at Ryde TAFE
- 1990 – Completed two month intensive course on garden design at the Inchbald School of Design, London, United Kingdom
- 1990 – Completed patio, window box and balcony garden design course at Brighton College of Technology, United Kingdom
- 1989 – Awarded the Big Brother Movement Award for Horticulture (a grant by Lady Peggy Pagan to enable horticulture training in the United Kingdom)
- 1989 – Attained Certificate of Horticulture (AQF Cert IV) at Wollongong TAFE

## INDUSTRY EXPERIENCE

### **Moore Trees Arboricultural Services**

**January 2006 to date**

Tree Consultancy and tree ultrasound. Tree hazard and risk assessment, Arborist development application reports  
Tree management plans.

### **Woollahra Municipal Council**

**Oct 1995 to February 2008**

ARBORICULTURE TECHNICAL OFFICER

August 2005 – February 2008

ACTING COORDINATOR OF TREES MAINTENANCE

June – July 2005, 2006

TEAM LEADER

January 2003 – June 2005

TEAM LEADER

September 2000 – January 2003

HORTICULTURALIST

October 1995 – September 2000

### **Northern Landscape Services**

**July to Oct 1995**

Tradesman for Landscape Construction business

### **Paul Vezgoff Garden Maintenance (London, UK)**

**Sept 1991 to April 1995**

## CONFERENCES AND WORKSHOPS ATTENDED

- International Society of Arboriculture Conference (Canberra May 2017)
- QTRA Conference, Sydney Australia (November 2016)
- TRAQ Conference, (October 2013/2018)
- International Society of Arboriculture Conference (Brisbane 2008)
- Tree related hazards: recognition and assessment by Dr David Lonsdale (Brisbane 2008)
- Tree risk management: requirements for a defensible system by Dr David Lonsdale (Brisbane 2008)
- Tree dynamics and wind forces by Ken James (Brisbane 2008)
- Wood decay and fungal strategies by Dr F.W.M.R. Schwarze (Brisbane 2008)
- Tree Disputes in the Land & Environment Court – The Law Society (Sydney 2007)
- Barrell Tree Care Workshop- Trees on construction sites (Sydney 2005).
- Tree Logic Seminar- Urban tree risk management (Sydney 2005)
- Tree Pathology and Wood Decay Seminar presented by Dr F.W.M.R. Schwarze (Sydney 2004)
- Inaugural National Arborist Association of Australia (NAAA) tree management workshop- Assessing hazardous trees and their Safe Useful Life Expectancy (SULE) (Sydney 1997).

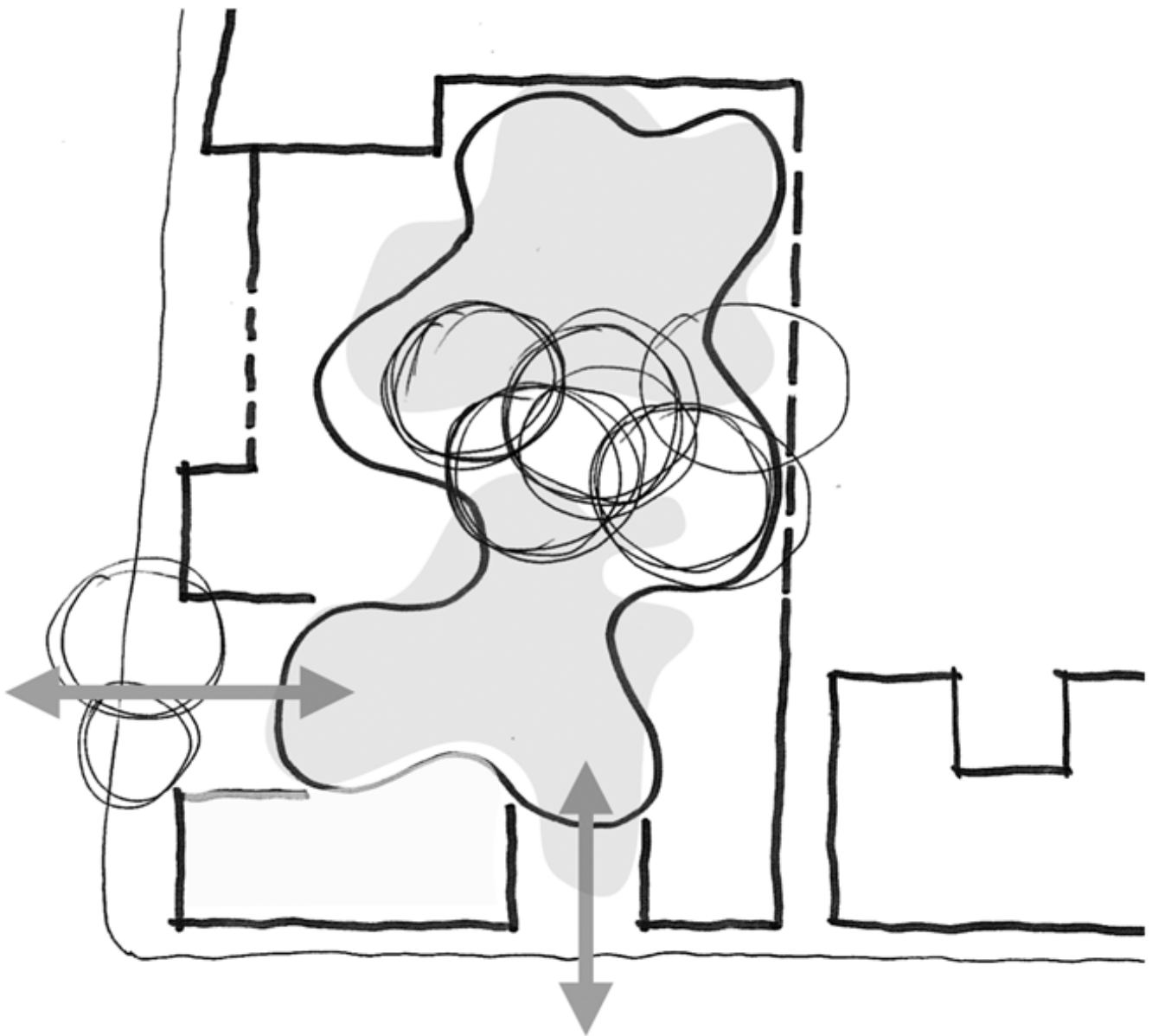
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix DD — Consultation Outcomes Report

SSD-9914

Prepared by Ethos Urban

For NSW Department of Education



## Consultation Outcomes Report

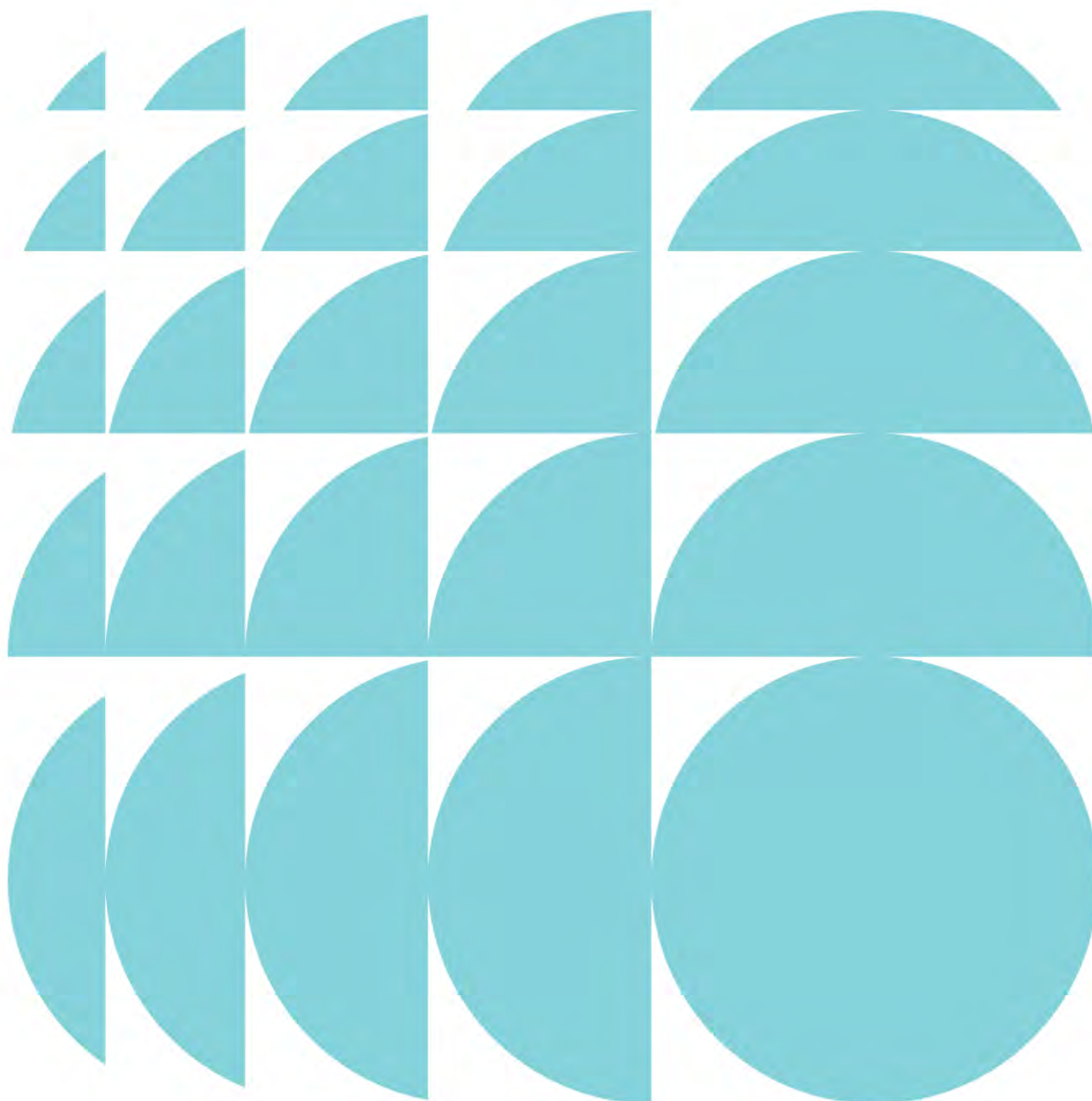
Golden Grove and Abercrombie Street, Darlington

Darlington Public School SSDA

Submitted to Department of Planning, Industry  
and Environment

On behalf of School Infrastructure NSW

30 April 2020 | 2200026





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**VERSION NO.1**

**DATE OF ISSUE**

**REVISION BY**

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## Appendices

**Appendix A** – Project Website

**Appendix B** – Project Update

**Appendix C** – Sample Facebook Post

**Appendix D** – Copy of the Display Boards

**Appendix E** – Community Information Session Invitation



## 1.0 Executive summary

This Consultation Outcomes Report has been prepared by Ethos Urban on behalf of School Infrastructure NSW to outline the communication and stakeholder engagement undertaken and present feedback received during the preparation of the State Significant Development Application for upgrades to Darlington Public School. All consultation was undertaken by Schools Infrastructure NSW with collaboration with technical consultants. In undertaking this consultation, full consideration has been given to the NSW Department of Planning and Environment's Secretary's Environmental Assessment Requirements (SEARs).

This report supports a State Significant Development Application (SSDA) for the redevelopment of the Darlington Public School for the purpose of significant school upgrades, which is submitted to the Minister for Planning pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The purpose of this consultation process was to ensure that all stakeholders were informed about the proposed development and had an opportunity to provide feedback prior to the lodgement of the SSDA.

A proactive and strategic approach to the communications and stakeholder engagement was undertaken. In delivering this approach, the engagement was designed to:

- Promote the benefits of the project;
- Build key schools community stakeholder relationships and maintain goodwill with impacted communities;
- Manage community expectations and build trust by delivering on our commitments;
- Provide timely information to impacted stakeholders, schools and broader communities;
- Address and correct misinformation in the public domain;
- Reduce the risk of project delays caused by negative third party intervention; and
- Leave a positive legacy in each community.

A variety of communications were used to promote the consultation. These included:

- Letterbox drop to local residents;
- Doorknocking;
- Four Community Information Sessions;
- 17 meetings with Government agencies and special interest groups;
- Three Newspaper advertisements;
- 35 Project Reference Group meetings;
- 1800 number and email address; and
- Project page website.

Most of the feedback received to date focussed on:

- Traffic and parking
- Ecology – Flora and Fauna
- Environmental amenity
- Aboriginal heritage and culture
- Contamination and geotechnical
- Stormwater management and flooding

- Construction and operational impacts

Throughout this process, School Infrastructure NSW has worked closely with all stakeholders to ensure everyone has been provided with ample opportunity to participate prior to lodgement of the SSDA.



**Community Information Session, February 2020**

## 2.0 Introduction

This consultation summary report has been prepared by Ethos Urban on behalf of School Infrastructure NSW, to outline the key issues raised by the local community and stakeholders during the preparation of the redevelopment of Darlington Public School.

The Department of Planning, Industry and Environment issued Secretary's Environmental Assessment Requirements (SEARs) on 19 March 2019. This submission has been prepared in accordance with the Department's guidelines for SSD applications lodged under Part 4 of the EP&A Act and addresses the matters identified in the SEARs.

School Infrastructure NSW is the proponent of the Stage 2 SSDA.

### 2.1 Background

Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington, within the City of Sydney Local Government Area. The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonaldtown train stations. The site is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049.

The SSD application seeks consent for demolition of existing school buildings and construction of a new 3-storey building, increasing the school capacity from 230 to 437 students. The works also include replacement of the existing child-care facility (capacity of 60 students), earthworks and landscaping. For a detailed project description refer to the EIS prepared by Ethos Urban.



 The Site

 NOT TO SCALE

### 3.0 Assessment requirements

#### 3.1 Secretary's Environmental Assessment Requirements

The Department of Planning and Environment has issued Secretary's Environmental Assessment Requirements (SEARs) to the application for the preparation of an Environmental Impact Statement for the proposed development.

The table below provides a summary of the SEARs and how this report responds to relevant condition to Consultation.

Condition Type/no	Condition	Comment
Consultation	<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> <li>- City of Sydney Council</li> <li>- Government Architect NSW (through the NSW SDRP process) -</li> <li>- Transport for NSW and</li> <li>- Roads and Maritime Services.</li> </ul> <p>Consultation with TfNSW, GA and RMS should commence as soon as practicable to agree the scope of investigation.</p> <p>The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	<ul style="list-style-type: none"> <li>• All consultation with Government/Agencies can be found in <b>Section 5.4</b> and all feedback can be found in <b>Section 6.2</b></li> <li>• All consultation with the local community can be found in <b>Section 4.0 and 5.0</b> and all feedback can be found in <b>Section 6.0</b></li> </ul>

## 4.0 Engagement Tools

This section of the report outlines the engagement tools applied to contact stakeholders during the preparation of the SSDA.

### 4.1 Project Website

Information was placed on the project's website inviting interested residents to attend a community information session about the SSDA and explaining how the project is progressing to in the planning process. Regular Community Updates were also updated. A screen print of the project webpage can be found at **Appendix A**.

### 4.2 Project email address and 1300 number

A free call community information line (1300 482 651) was established to provide access to the community engagement team during business hours and opportunity to ask any questions or raise feedback. 29 Direct emails and three phone calls were received since February 2019 and responded to.

This number was published on all communication materials and is staffed by SINSW.

### 4.3 School community communication collateral

Ongoing updates as required were provided including newsletters, flyers in school bags and Social Media posts. A sample Project Update can be found at **Appendix B**, and in the hyperlinks in Section 4.6. A sample Facebook Post can be found at **Appendix C**.

### 4.4 Letterbox drop

Letterbox drops were issued to nearby residents to inform them of the project, provide an update and invite them to attend an upcoming community information session.

### 4.5 Newspaper advertisements

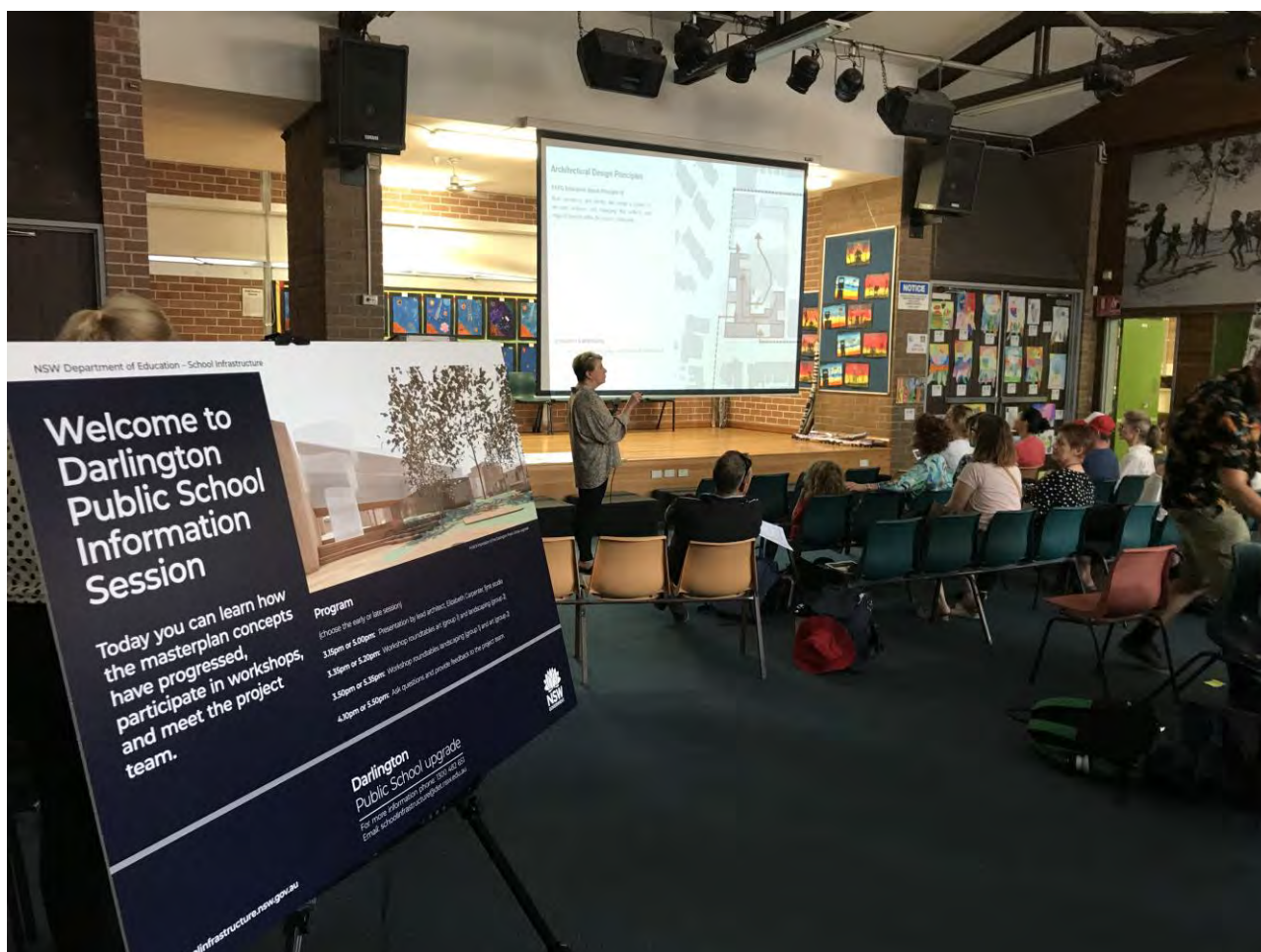
Three newspaper advertisements were placed in local papers including the City Hub and South Sydney Herald. The purpose of these advertisements was to invite interested residents to attend one of the community information sessions and to provide a project update.

### 4.6 Timing of communications

The table below outlines the communication actions undertaken to keep stakeholders and communities informed about this proposal.

Date	Targeted stakeholders	Communication channel and action
<b>2019</b>		
<a href="#">July</a>	School community, nearby residents	Project update
<b>August</b>	School community, nearby residents	Project update
<b>August</b>	Local community	Press advertisement (City Hub)
<b>August</b>	School community	School newsletter
<b>August</b>	Community information session attendees	Information pack
<b>September</b>	School community, nearby residents	Project update
<b>September</b>	School community	Social media post (Facebook)
<b>October</b>	Local community	Press advertisement (South Sydney Herald)
<b>October</b>	School community	Social media post (Facebook)

Date	Targeted stakeholders	Communication channel and action
October	School community	School newsletter
October	School community, nearby residents, local member	Project update
October	School community, nearby residents	Session reminder flyer
December	School community, nearby residents	Project update
<b>2020</b>		
January	Nearby residents	Doorknock
February	School community, nearby residents	Project update
February	School community	School bag drop
February	School community	Social media (Facebook general and event post)
February	Local community	Press advertisement (South Sydney Herald)
February	Community information session attendees	Information pack



Community Information Session, October 2019

## 5.0 Engagement Activities

This section of the report summarises the activities held during the pre-lodgement engagement period. These included:

- Four community information sessions;
- 35 Project Reference Group meetings;
- Doorknocking local residents; and
- 18 meetings with stakeholders.

### 5.1 Project Reference Group

Considerable efforts have been made throughout the project, and particularly from the design reset, to actively involve the school community in the design process.

The Project Reference Group has been very active in sharing feedback, and through PRG input, consultation activities have been designed and implemented to maximise school community awareness and participation in the project. 35 formal meetings have been held to date since November 2017, typically on a monthly or bimonthly basis. Attendees include, the School Principal, Deputy Principals, Director of Education Leadership, SINSW project team, Mace Project team, School parents, School P&C representatives and Aboriginal community member representatives. Points of discussion recently have included previous minutes, design progress, feedback, communications and school/community input/feedback.

The Department of Education/SINSW has facilitated Project Reference Group (PRG) sessions ensuring information on the design solution, construction activities, project timeframes, key issues and communication and engagement strategies.

Ensuring the school community has had an opportunity to provide feedback and be informed about the project progress has ultimately led to a positive outcome resulting in revised Concept Designs that will meet the needs of the school community now and in the future.

### 5.2 Doorknock to local residents

Door knocks were undertaken on 30 January 2020 to understand community interest in the project and share information about project progress. This also provided notification to nearby residents of upcoming construction works, changes to pedestrian movements, temporary bus stops, expected impacts and proposed mitigation. Doorknocking was undertaken with 109 dwellings and received 30 responses. Streets doorknocked included nearby streets such as Forbes Street, Wilson Street, Golden Grove Street and Abercrombie Street.

A 'We missed you' slip was provided for dwelling that did not answer which provided information about the project and contact details to raise any feedback or ask questions.

### 5.3 Community information sessions

Four information sessions were held at the Darlington Public School at key project milestones. Members of the project team from different disciplines were there to answer questions, provide information about specific technical details including noise, traffic, sustainability, urban design, accessibility, heritage and planning. This provided an opportunity for face to face engagement between the school communities, residents and staff, and members of the project team, and allow for Q&A and concerns to be raised. Information was displayed on numerous display boards and provided in take-away information packs handouts including project scope, planning approvals, any impacts on the school community or residents, project timeline, and FAQs. A copy of the display boards can be found at **Appendix D**. Information sessions are widely advertised through the communication channels listed in this table with at least 7 days prior notice. They were also conducted during multiple timeslots to cater for community members who are working. A sample invitation can be found at **Appendix E**.

Recent community information sessions for Darlington Public School have included an interactive workshop component. This method of engagement has allowed an opportunity to hear and record much more detailed

feedback, which the architect and project team have been able to incorporate into the revised Concept Plan and Schematic Design.

Date	Event Type	Attendees
6 August 2019	Community information session #1	5
8 August 2019	Community information session #2	7
30 October 2019	Community information session #3	45
26 February 2020	Community information session #4	42

#### 5.4 Government Agency and Special Interest Group Stakeholder meetings

The table below provides a summary of other stakeholder meetings with various Government and special interest group stakeholders that have been held during the preparation of the SSDA.

Stakeholder	Meeting Date
City of Sydney Council	17/05/19 17/03/20
Government Architect NSW	12/09/18 30/01/19 17/04/19  <b>Design reset</b>  14/08/19 06/11/19
Transport for NSW (TfNSW) and Roads and Maritime Services (RMS)	02/04/20
Special interest groups: <ul style="list-style-type: none"> <li>Local Aboriginal Land Council</li> <li>Registered Aboriginal Parties (RAPs)</li> <li>Aboriginal Land Rights registrar</li> <li>National Centre of Aboriginal Excellence (NCIE)</li> <li>Tribal Warrior</li> </ul>	12/07/18 07/02/19 07/02/19 18/10/18 09/12/2019 19/03/2019
Office of Environment and Heritage (OEH)	30/01/19
The University of Sydney	08/05/18 04/11/19



## 6.0 Feedback Received

This section of the report provides a summary of the feedback received from the following consultation activities:

- Community information sessions;
- Stakeholder meetings;
- Agency meetings;
- Email and phone enquiries;
- Project Reference Group meetings;
- Doorknocking; and
- Website enquiries.



### 6.1 Community Feedback

Rich community feedback has been received with largely positive sentiment for the proposed design. Most community interaction has involved questions being asked about the project as opposed to issues being raised.

Particular interest was raised around sustainability, green technology and the carbon neutrality of the proposed scheme as well as green design initiatives. Some issues were recorded in relation to traffic and parking impacts.

The focus of communications from the project team has been to discuss anticipated environmental and planning issues including:

- Traffic and parking;
- Ecology – Flora and Fauna;
- Environmental amenity;
- Aboriginal heritage and culture;
- Contamination and geotechnical;
- Stormwater management and flooding; and
- Construction and operational impacts.

The information below provides a summary of all feedback received across community and school engagement activities.

Topic	Comments	Team response
Design	Sustainability initiatives such as use of solar energy and prominent natural features	A three-stage approach to ESD is proposed which includes passive design measures, efficient HVAC services and maximising onsite generation using rooftop Solar PV.
	Play spaces for age-specific groups	The landscape proposal includes nine character zones, each with a distinct feel and purpose and including a separate childcare play area. Some of these zones will better cater to the play needs of younger students.
	Prominent of natural lights and soft spaces	The design includes passive design features to encourage natural light and ventilation, including a pitched sawtooth roof. A curvilinear form of both the built form and the landscape within the grounds of the school encourages soft spaces. The orientation of the playground allows for appropriate sun access.

Topic	Comments	Team response
	Incorporating indigenous culture into design	The design allows for the teaching of Aboriginal Culture both inside and outside the classroom, provides culturally considered design spaces and provides a strong integration of art and display of Aboriginal Culture. Refer to the attached Aboriginal Cultural Heritage Report for further detail.
	Need for undercover bike and scooter parking	It is acknowledged that a high proportion of students travel to school by bicycle and scooter. Undercover dedicated bicycle and scooter parking has been accommodated in the design.
	Need for performance and music spaces on site	A dedicated special programs room and store is proposed. The communal hall will be utilised as a performance space.
	Consider location of school hall in relation to equitable access	The hall is located adjacent to the covered main entrance and COLA and provides equitable access.
Overshadowing	Concern about overshadowing	The sawtooth roof assists in preventing overshadowing to residences across Golden Grove Street in the morning, during mid-winter. Refer to Design Report and EIS for further assessment of overshadowing impacts.
Privacy	Concern about privacy	<p>The school has been designed so that the buildings form a protective wall along the two main street frontages, avoiding the need for extensive fencing, and providing a certain amount of privacy to the school grounds from the main roads. Glimpses into the school grounds are provided where palisade fencing secures the entrances.</p> <p>Many of the existing mature trees will be retained, providing visual amenity to residential properties opposite the school.</p> <p>Refer to the Design Report and EIS for a detailed assessment of visual privacy.</p>
Construction impacts	Consider re-locating pupils during construction	Safety of students and staff is the highest priority consideration when determining re-location off-site during construction. Other factors including value for money and student travel distances have also been considered. The best outcome for the school is to conduct the redevelopment in stages, with students and staff relocated and managed on-site. Refer to the EIS, Construction Management Plan and Social Impact Assessment for further detail.
Artworks	Questions on what will happen with existing artwork on site	Where possible, all artworks, murals and objects will be retained and integrated into the new school design, including many Aboriginal artworks, the Jarjum Rugs and the Year 6 artworks and totems. Digitisation has also been provided as an option. SINSW will continue to work with stakeholders to reach an agreed approach.
Transport	Require pram accessibility	Accessible access to the school and preschool is provided, including for prams.
	Concerns over traffic safety during busy periods	A new, improved and safe pickup/drop off arrangement is proposed along Golden Grove Street and Abercrombie Street. Refer to the Traffic Impact Assessment for detail.
	Request for kiss and drop zone and places for parents to wait near the school gates	Kiss and drop zones are proposed along Golden Grove and Abercrombie Street during drop off and pickup hours, with loading zones outside these hours. 15min parking is proposed in sections along Golden

Topic	Comments	Team response
		Grove and Abercrombie Street during drop off and pick up hours for preschool parents.

## 6.2 Stakeholder feedback

This section of the report provides a summary of all stakeholder briefings held during the preparation of the Stage 2 SSDA.

### 6.2.1 City of Sydney Council

Two meetings with Council have been held to provide an overview of the project and discuss technical details pertinent to the SSDA.

The first meeting with Council on 17 May 2019 introduced the project including an overview of the project brief, design, traffic considerations, stormwater engineering, and construction. Council advised that no reduction to street parking is likely to be accepted and that they will review the stormwater proposal and provide advice. No major issues were raised.

Another meeting was held with Council on the 17 March 2020 which discussed the project design and over, traffic management, civil/stormwater management, and trees. Council noted they would like to encourage parents/staff to use other methods than pick up/drop off due to traffic issues. Discussions and questions raised by Council included impacts to traffic movement, stormwater and civil, construction impacts and public interface, and joint use. The project responded to these questions by providing information on green travel plan initiatives, direction on parking, direction on stormwater requirements, measures to mitigate construction impact and ongoing consultation. It was also agreed that no joint use was necessary.

### 6.2.2 Government Architect NSW

Meetings with GANSW have been ongoing since 2018 when the GANSW State Design Review Panel (SDRP) recommended the initial Masterplan and Concept Designs submitted from November 2018-April 2019 would be reconsidered and resubmitted.

A revised Masterplan by FJMT was provided in August to the SDRP which was endorsed and commended by the SDRP in November 2019. This presented design forms the basis of this SSDA submission.

### 6.2.3 Transport for NSW (TfNSW) and Roads and Maritime Services (RMS)

A meeting was held with TfNSW and RMS on 2 April 2020. An overview of the project was provided with particular discussion focussed on the Green Travel Plan initiatives, and parking and street usage. A presentation of parking arrangements was provided. No particular issues were raised and it was agreed that a Traffic Management Plan will be prepared and a Workplace Travel Plan be coordinated with the Sydney Coordination Office.

### 6.2.4 Special Interest Groups

Several meetings were held with Special Interest groups including, Local Aboriginal Land Council, Registered Aboriginal Parties (RAPs), Aboriginal Land Rights registrar, the National Centre of Aboriginal Excellence (NCIE), and Tribal Warrior. Discussions raised included design, Aboriginal Site significance, archaeological potential, design relevance to Aboriginal culture and ACHAR consultation. No issues were raised during these meetings and valuable feedback on design was captured and incorporated into the final scheme.

### 6.2.5 Office of Environment and Heritage (OEH)

A meeting was held with the OEH on 30 January 2019 which provided an overview of the project and discussed ACHAR consultation. No issues were raised at this meetings.

### **6.2.6 The University of Sydney**

Two meetings were held with the University of Sydney as nearby major landowners to discuss joint use possibilities, construction impacts and local substation usage. It was agreed that there will be work to coordinate of proposed construction timeframes, conformation of substation power requirements and ongoing future consultation as the project progresses.

## 7.0 Next Steps and Conclusion

This Consultation Outcomes Report provides a detailed account of the stakeholder and community engagement activities undertaken prior to lodgement of the SSDA and exemplifies how the engagement process has exceeded the consultation requirements prescribed by the SEARs.

School Infrastructure NSW has demonstrated in this report how it has engaged with stakeholders and how feedback has led to significant design revision and incorporated into the designs and studies lodged with the SSDA. Of particular note is the way the project has involved the school and local community, providing multiple opportunities and mechanisms to provide feedback, closing the loop where feedback has and hasn't been incorporated and ultimately basing design on community needs.

The program has provided opportunity for the community and key stakeholders to have a clear understanding of the project and have been provided with ample opportunity to meet the project team including technical experts, offer feedback and elect to keep informed as the project continues.

Continued engagement will take place with stakeholders and communities during the statutory exhibition of the SSDA, as well as during future stages of the planning and development process. Specifically, School Infrastructure NSW will continue to work closely with the school community and City of Sydney to plan and coordinate potential future construction, should consent be granted.

---

**Project Website**



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## Darlington Public School project

We are building a new primary school in Darlington to support the student community.

### The benefits

- New teaching spaces.
- A new hall.
- A new and upgraded library.
- New administration and staff facilities.
- An upgraded canteen.
- Covered outdoor learning areas (COLA).

### Progress summary

- This project is in the planning and design phase and the scope is being finalised to ensure it best meets the needs of the school.
- Site analysis and design options are currently under review.

### Next steps

- The design options and site opportunities are being reviewed.
- Community and school consultation as the design progresses.

### How can I get involved?

We are committed to working together with our school communities and other stakeholders to deliver the best possible learning facilities for students.

### Community updates

- [Project update - February 2020 \(PDF 17.8MB\)](#)
- [Project update - December 2019 \(PDF 452KB\)](#)
- [Project update - October 2019 \(PDF 2.7MB\)](#)
- [Project update - September 2019 \(PDF 134KB\)](#)
- [Project update - July 2019 \(PDF 289KB\)](#)

Your feedback on this project is important to us. For more information, questions or to make a comment please email us at [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)

### Project Status

- Planning
- Design**
- In progress
- Complete

### Project type

New school

### Funding year

2018/19

### Status

Design phase

### Architect

fjmt studio

### Commencement

Early 2021

### Forecast completion

Early 2023

### Electorate

Newtown

### Address

Golden Grove St Darlington  
NSW 2008



### CONTACT US

Level 8, 259 George Street, Sydney NSW 2000

MAIL: GPO Box 33, Sydney, NSW 2001

EMAIL: [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)

FOR ALL SCHOOL INFRASTRUCTURE NSW

### MEDIA ENQUIRIES:

[media.advisor@det.nsw.edu.au](mailto:media.advisor@det.nsw.edu.au)



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**Project Update**



# Darlington Public School

Project update

February 2020



Artist Impression of the Darlington Public School

The NSW Government is investing \$6.7 billion over four years to deliver more than 190 new and upgraded schools to support communities across NSW. In addition, a record \$1.3 billion is being spent on school maintenance over five years. This is the largest investment in public education infrastructure in the history of NSW.



permanent, innovative and flexible learning spaces and pre-school



student facilities, including canteen and OSHC



hall



administration and staff facilities



library



landscaped outdoor areas, including COLA

---

**Sample Facebook Post**

# Darlington Public School

## Project update Information session

Wednesday  
26 February 2020  
3pm to 6pm



### FACEBOOK POST

Come to an Information Session to find out the latest on the Darlington PS upgrade on Wednesday 26 February 2020 from 15:00 – 18:00 in the School Hall. The session will include a presentation by the lead architect at 3:30pm and repeated at 5:00pm. There will also be an opportunity to meet the project team, ask questions and provide feedback.

---

**Copy of Display Boards**

# Darlington Public School upgrade

Darlington Public School is being upgraded to deliver new facilities, innovative learning spaces and provide for growing student enrolments in the area. The characteristics of the site and the broader Darlington area are being respectfully considered in the design process.



This image is an example of the adaptable learning spaces we are building for students across NSW.

-  permanent, innovative and flexible learning spaces and pre-school
-  student facilities, including canteen and OSHC
-  hall
-  administration and staff facilities
-  library
-  landscaped outdoor areas, including COLA

## Indicative project timeline



## Darlington Public School upgrade

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

For more information phone: 1300 492 651  
Email: [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)



# Site plan



Existing site plan



Proposed site plan

## Darlington Public School upgrade

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# Floor plans

Ground Floor



Level 1



Level 2



**Darlington**  
Public School upgrade

For more information phone: 1300 482 651  
Email: schoolinfrastructure@det.nsw.edu.au



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# Artist impressions



View from Golden Grove Street looking towards the hall and main entrance



View from play court

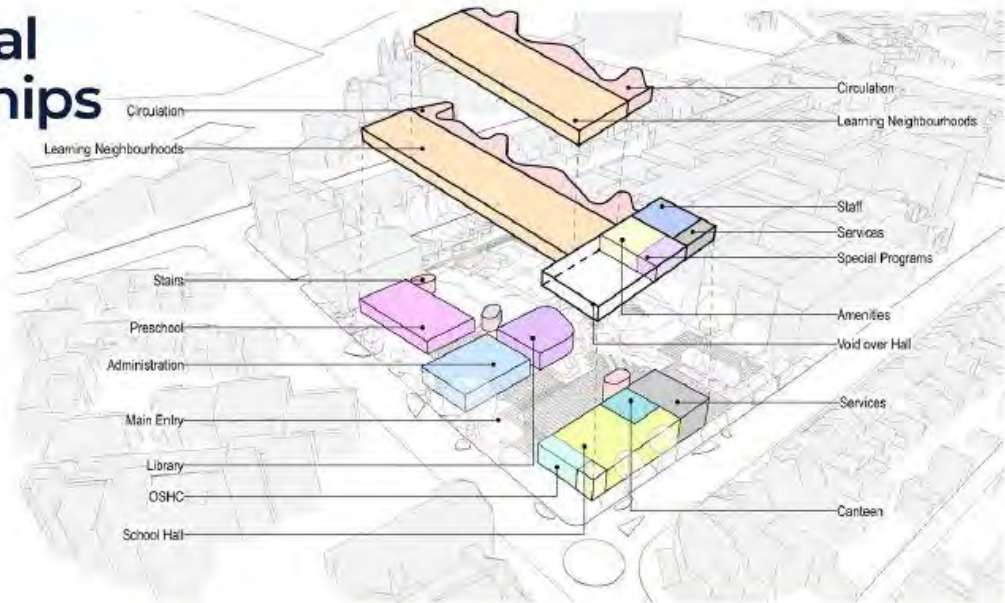
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Public School upgrade

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# Functional relationships



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Public School upgrade

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# Aerial view



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Public School upgrade

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# Project delivery

## Key principles

- ✓ Safety
- ✓ Buildability and access
- ✓ Continuity of school operations
- ✓ Control of the immediate environment
- ✓ Costs versus benefits
- ✓ Play space during construction
- ✓ Educational opportunities



View looking towards library and playground

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

## Darlington

### Public School upgrade

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Email: [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)

# Project delivery



## Early works

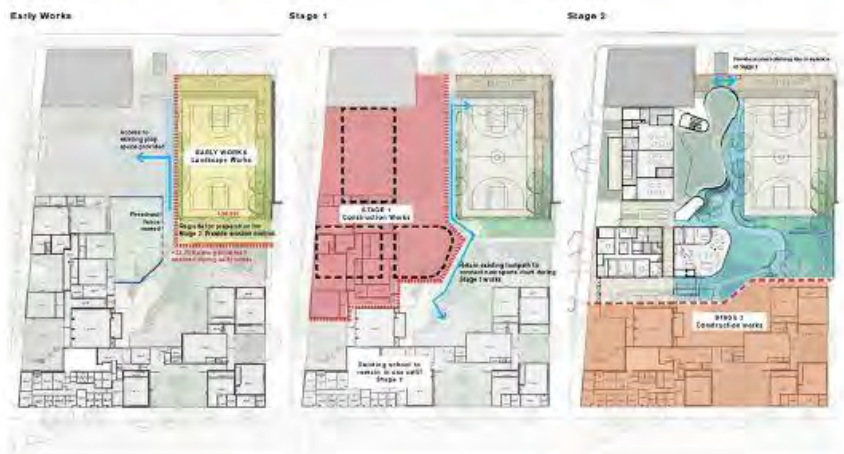
- Site establishment
- External works/open play area
- Temporary relocation of pre-school and OSHC

## Stage 1

- Demolition of existing pre-school
- New pre-school
- New library and administration
- New homebases (12)

## Stage 2

- Demolition of existing school buildings
- New hall with OSHC and canteen
- New COLA and external works
- Special program and staff spaces
- New homebases (7)



Delivery plan

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

## Darlington

### Public School upgrade

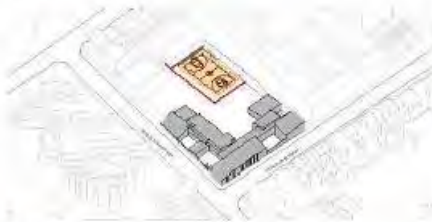
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# Early works



Existing site



Early works



Artist Impression of the Darlington Public School upgrade

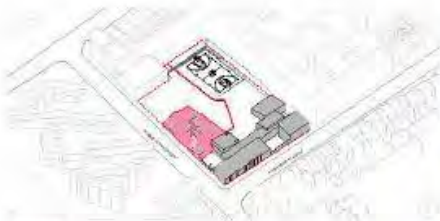
[schoolinfrastructure.nsw.gov.au](http://schoolinfrastructure.nsw.gov.au)

## Darlington Public School upgrade

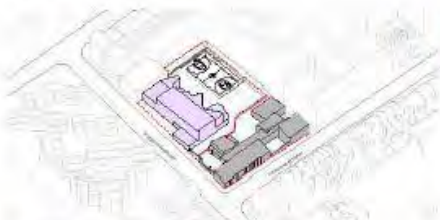
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# Stage 1



Demolition



Stage 1 completion



Artist Impression during construction



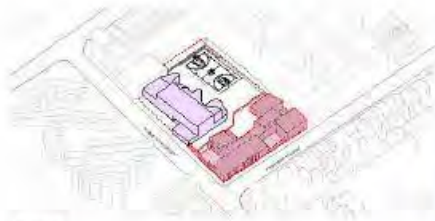
[schoolinfrastructure.nsw.gov.au](http://schoolinfrastructure.nsw.gov.au)

## Darlington Public School upgrade

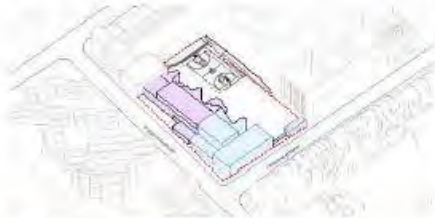
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# Stage 2



Demolition



Stage 2 completion



Artistic impression during construction

**Darlington**  
Public School upgrade

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Email: schoolinfrastructure@det.nsw.edu.au



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# Completion



## What we will deliver

- 19 homebases over two levels
- Special programs
- Pre-school
- Library and administration
- Hall with OSHC and canteen
- Staff facilities
- COLA
- Sick bay
- Amenities
- Outdoor play area (10m<sup>2</sup> per student)
- Landscaping and play court.



Site plan

**Darlington**  
Public School upgrade

For more information phone: 1300 482 651  
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---

**Community Information  
Session Invitation**



Examples of innovative learning spaces we are delivering for students across NSW

## Darlington Public School

### Project update

February 2020

#### Keeping you informed

We will be holding an Information Session to provide you with the opportunity to learn how the Darlington Public School upgrade project has progressed and update you on the next steps in the project life cycle. During the session there will be a presentation by the lead architect at 3.30pm and repeated at 5.00pm. Throughout the session, the project team will be available to answer questions you may have.

#### Information session

**Date:**

Wednesday 26 February 2020

**Time:**

3:00pm – 6:00pm

**Location:**

Darlington Public School Hall

#### Program

**3.00pm to 6.00pm**

Ask questions and provide feedback to the project team

**3.30pm**

Presentation by lead architect, Elizabeth Carpenter, fjmt studio

**5.00pm**

Presentation by lead architect, Elizabeth Carpenter, fjmt studio (repeat)

**For more information contact:**

School Infrastructure NSW

Email: [schoolinfrastructure@det.nsw.edu.au](mailto:schoolinfrastructure@det.nsw.edu.au)

Phone: 1300 482 651

[www.schoolinfrastructure.nsw.gov.au](http://www.schoolinfrastructure.nsw.gov.au)

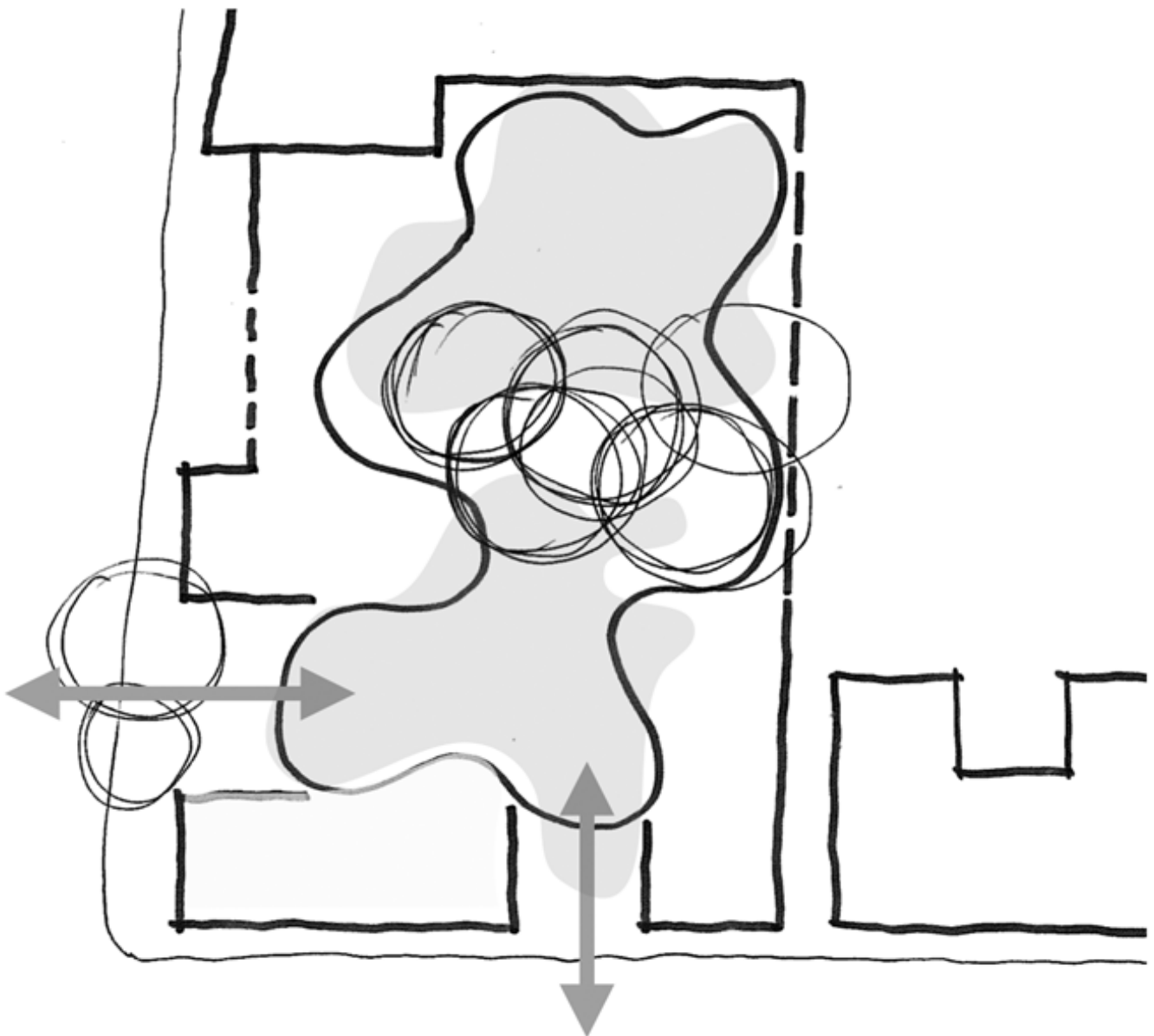
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix E — Site Survey Plan

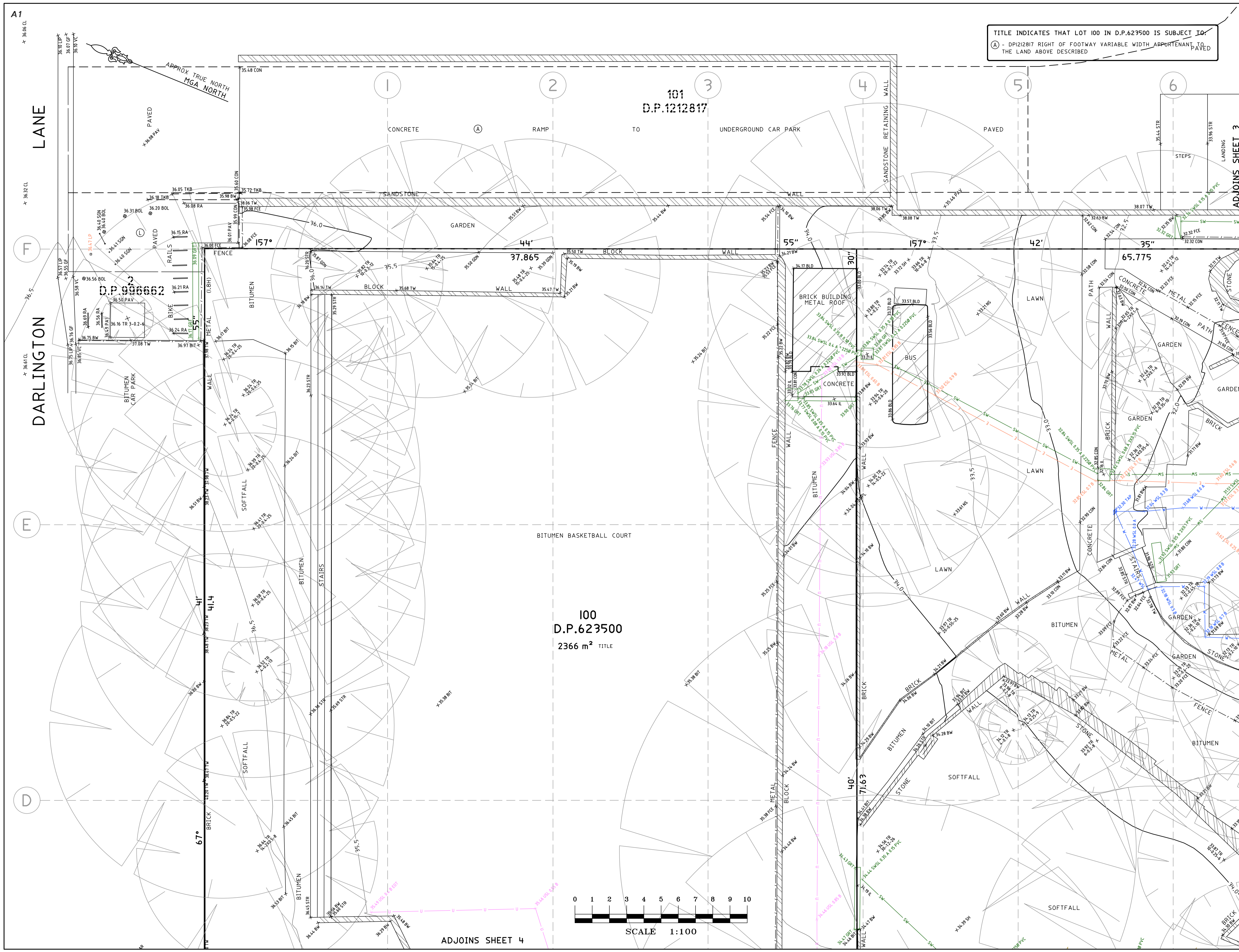
SSD-9914

Prepared by CMS

For NSW Department of Education







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 THE LAND ABOVE DESCRIBED

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  - BLD = BITUMEN
  - BOK = EXTERNAL BUILDING
  - BOK = BACK OF KERB
  - BW = BOTTOM WALL
  - CL = CENTRELINE
  - CON = CONCRETE
  - CPIT = COMMUNICATIONS PIT
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  - EDT = END OF TRACE
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  - VC = VEHICLE CROSSING
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  - WSL = WATER SLA SURFACE LEVEL
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| RL     |       |          | EOT      |
|        |       |          | LOCATION |
|        |       |          | NOTE     |
- \* ALL DEPTH OF COVER SHOWN ARE TO TOP OF PIPE UNLESS OTHERWISE STATED.

- LEGEND: (SEE NOTES 1 SHEET 1)**
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  - E = ELECTRICITY LINE (UNDERGROUND)
  - G = GAS LINE (UNDERGROUND)
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  - W = WATER DISTRIBUTION LINE (UNDERGROUND)

**HORIZONTAL DATUM:**  
 CO-ORDINATE SYSTEM: MGA  
 MARKS USED: SSM 40270

**VERTICAL DATUM:**  
 DATUM: AUSTRALIAN HEIGHT DATUM (AHD)  
 B.M. ADOPTED: SSM 40270  
 R.L. 42.942 (ORDER 2)  
 SOURCE: S.C.I.M.S. (12/04/18)

4	ADDITIONAL LEVELS AND SERVICES	12/03/20
3	DETAIL AT LANE UPDATED	04/03/19
2	DETAIL UPDATED	01/03/19
1	FIRST ISSUE	9/05/18

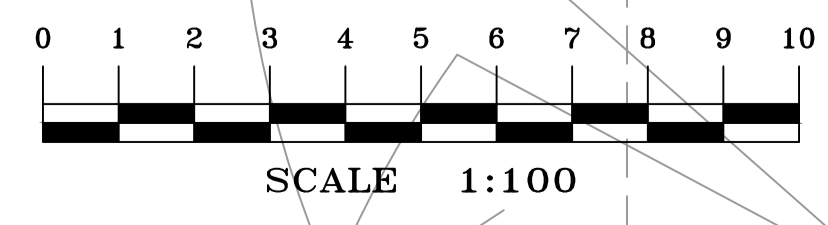
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**FRANCIS-JONES MOREHEN THORP PTY LTD**  
 LEVEL 5, 70 KING STREET  
 SYDNEY NSW 2000

**SURVEY PLAN**  
**SHOWING DETAIL & LEVELS**  
**OVER LOT 592 IN D.P.752049**  
**& LOT 100 IN D.P.623500**  
**DARLINGTON PUBLIC SCHOOL,**  
**CHIPPENDALE NSW 2008**

**C.M.S. Surveyors Pty Limited**  
 ACN: 096 240 201  
 PO Box 463 Dee Why  
 NSW 2099  
 2/99A South Creek Road,  
 Dee Why NSW 2099  
 Telephone: (02) 9971 4802  
 Facsimile: (02) 9971 4822  
 E-mail: info@cmsurveyors.com.au

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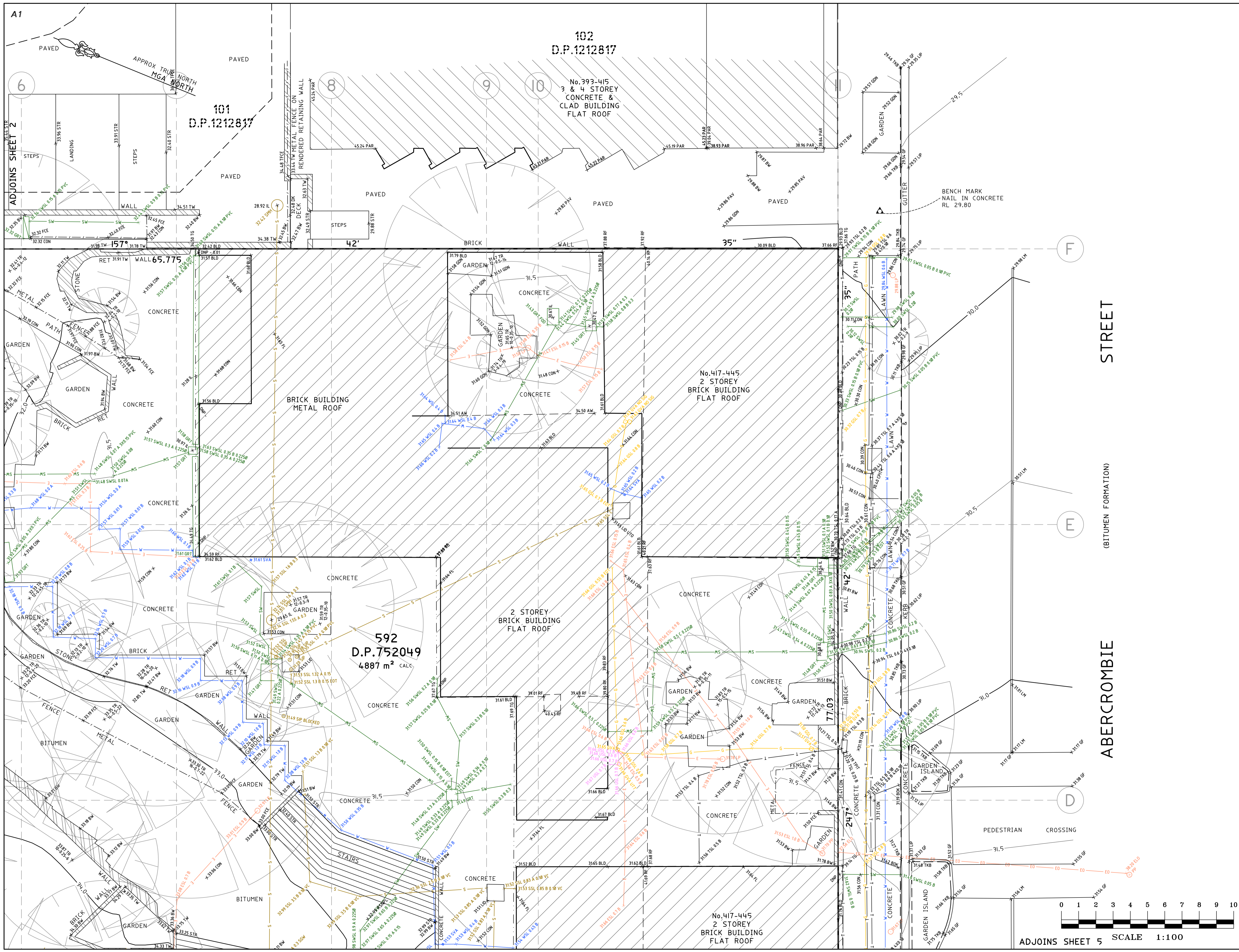
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ADJOINS SHEET 4

ADJOINS SHEET 3



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- AW = AWNING
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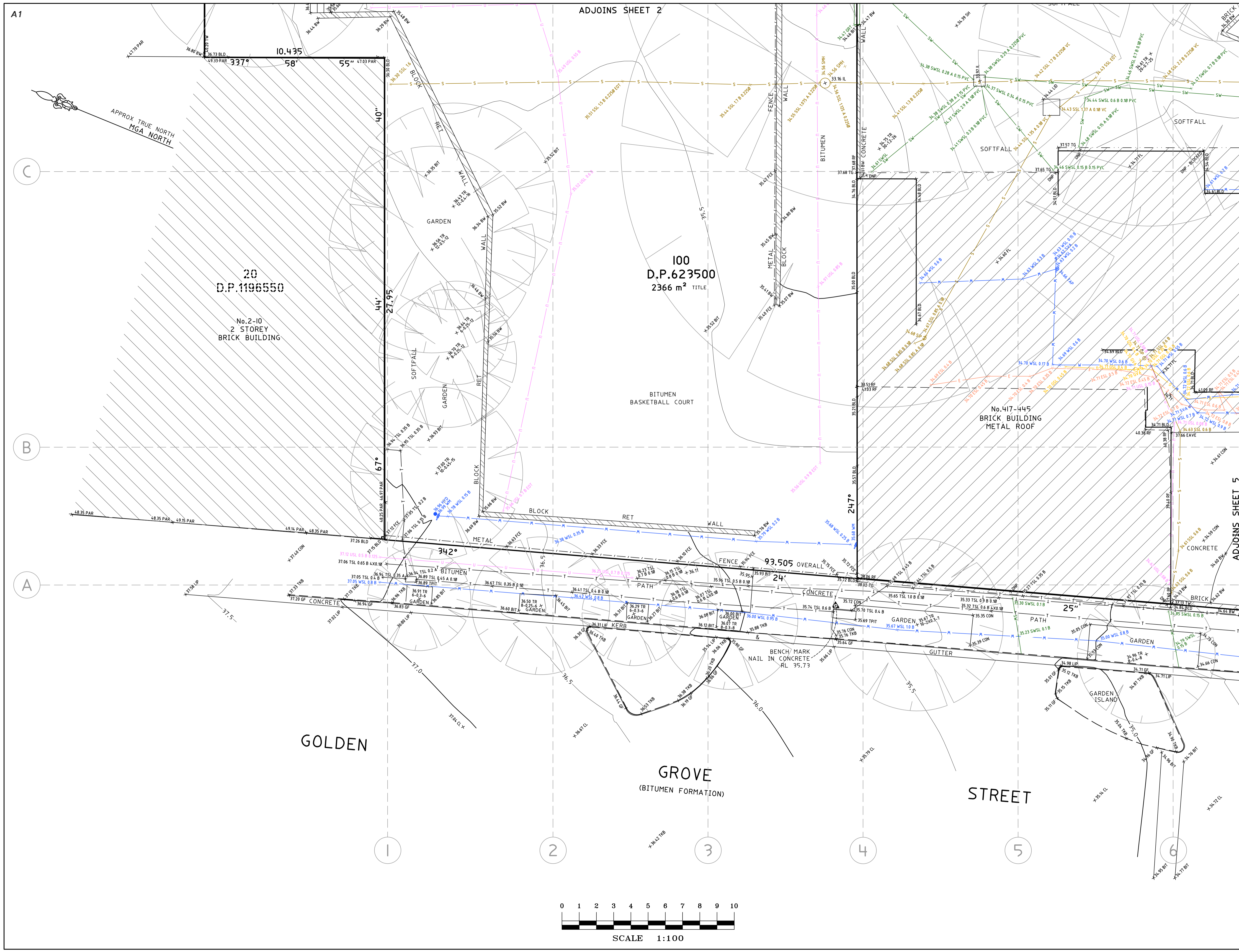
**C.M.S. Surveyors**  
 Pty Limited

ACN: 096 240 201

PO Box 463 Dee Why  
 NSW 2099  
 2/99A South Creek Road,  
 Dee Why NSW 2099  
 Telephone: (02) 9971 4802  
 Facsimile: (02) 9971 4822  
 E-mail: info@cmsurveyors.com.au

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SURVEY INSTRUCTION 17702B	SCALE 1:100	DATE OF SURVEY 17/04/18	02/03/20
DRAWING NAME 17702Bdetail	CAD FILE 17702Bdetail 4.dwg	ISSUE 4	





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- FCE = FENCE
- FOD = FULL OF DEBRIS
- FL = FLOOR LEVEL
- FSL = FIBRE OPTIC SURFACE LEVEL
- GDN = GARDEN
- GF = GUTTER LEVEL
- GRT = GRATE
- GSL = GAS SLA
- IL = INVERT LEVEL
- LID = MISCELLANEOUS PIT LID
- LIP = KERB LIP
- LM = LINE MARKING
- NS = NATURAL SURFACE
- PAR = PARAPET
- PAV = PAVING
- RF = TOP OF ROOF, RA = RAILING
- SCN = TOP OF SCREEN, SGN = SIGN
- SPH = SPOT HEIGHT
- SSL = SEWER SURFACE LEVEL
- STR = STAIRS
- SWSL = STORMWATER SURFACE LEVEL
- TFCE = TOP OF FENCE
- TG = TOP OF GUTTER
- TKB = TOP OF KERB
- TPIT = TELSTRA PIT
- TR = TREE, VC = VEHICLE CROSSING
- TSL = TELSTRA SURFACE LEVEL
- TW = TOP OF WALL
- US = UNDERSIDE OF SCREEN
- UEV = UNDERSIDE OF EAWE
- USL = UNKNOWN SERVICE SURFACE LEVEL
- WSL = WATER SLA SURFACE LEVEL

TREE  
 SPREAD-DIAMETER-HEIGHT

CODE	DEPTH	DIAMETER	PIPE
106.78	SSL	131	B 0.10
1	RL		LOCATION QUALITY

\* ALL DEPTH OF COVER SHOWN ARE TO TOP OF PIPE UNLESS OTHERWISE STATED.

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- E = ELECTRICITY LINE (UNDERGROUND)
- G = GAS LINE (UNDERGROUND)
- S = SEWER LINE (UNDERGROUND)
- SW = SEWER PLOTTED FROM DIAGRAM
- SWSL = STORMWATER LINE (UNDERGROUND)
- T = TELSTRA LINES (UNDERGROUND)
- U = UNKNOWN SERVICE (UNDERGROUND)
- W = WATER DISTRIBUTION LINE (UNDERGROUND)

**HORIZONTAL DATUM:**  
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MARKS USED: SSM 40270

**VERTICAL DATUM:**  
DATUM: AUSTRALIAN HEIGHT DATUM (AHD)  
B.M. ADOPTED: SSM 40270  
R.L. 42.942 (ORDER 2)  
SOURCE: S.C.I.M.S. (12/04/18)

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2	DETAIL UPDATED	01/03/19
1	FIRST ISSUE	9/05/18

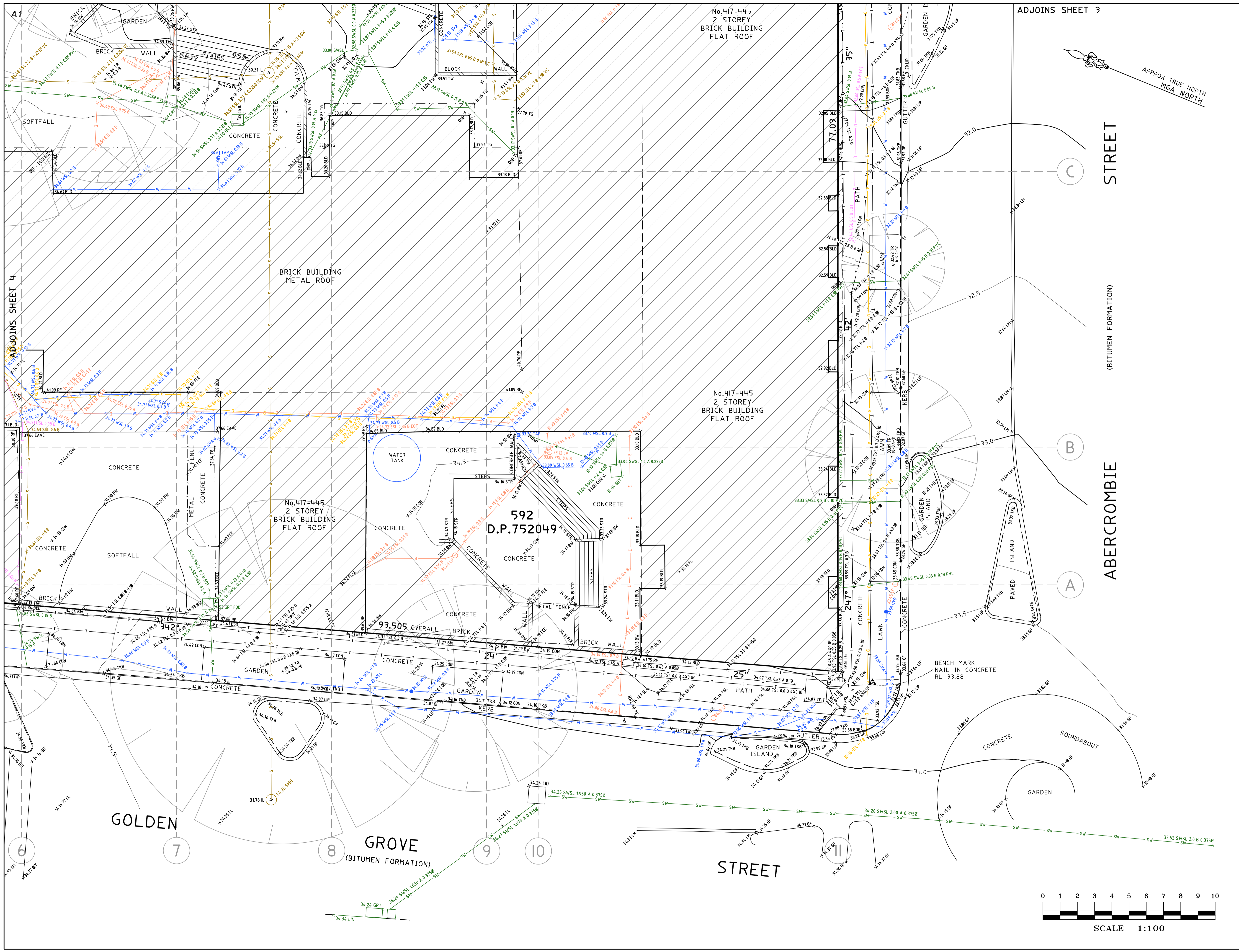
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- BOK = BACK OF KERB
- BW = BOTTOM WALL
- CL = CENTRELINE
- CON = CONCRETE
- CPIT = COMMUNICATIONS PIT
- DNP = DOWN PIPE
- EOT = END OF TRACE
- ELO = ELECTRICITY LINE OVERHEAD
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- USL = UNKNOWN SERVICE SURFACE LEVEL
- WSL = WATER SLA SURFACE LEVEL

APPROX TRUE NORTH  
MGA NORTH

CODE	DEPTH	PIPE DIAMETER	NOTE
106.78	SSL	131 B	EOT
RL	LOCATION		QUALITY

\* ALL DEPTH OF COVER SHOWN ARE TO TOP OF PIPE UNLESS OTHERWISE STATED.

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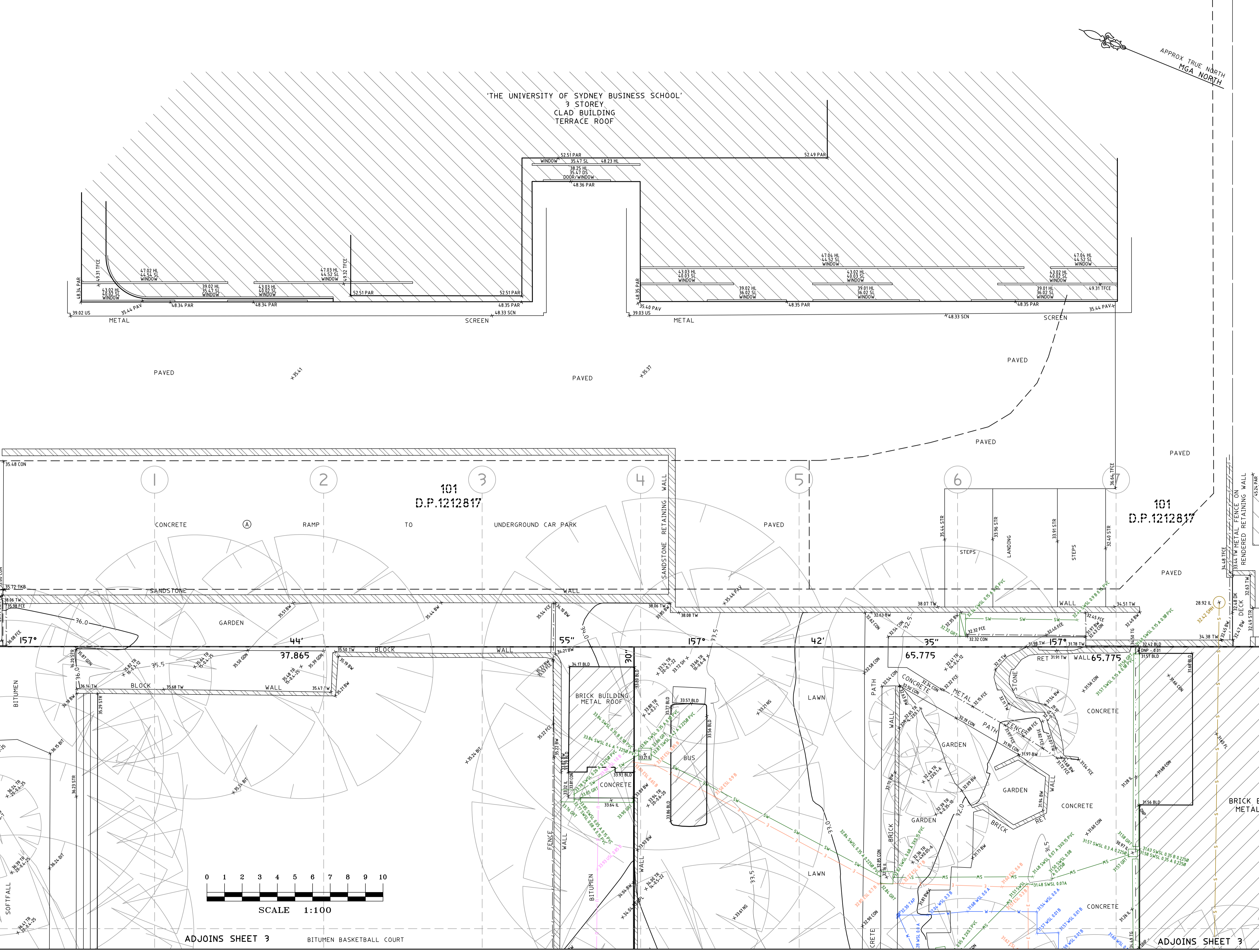
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TREE  
 SPREAD-DIAMETER-HEIGHT

CODE	DEPTH	PIPE DIAMETER
106.78	SSL	131 B 0.10
↑	RL	EOT

LOCATION QUALITY NOTE

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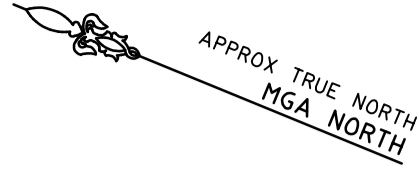
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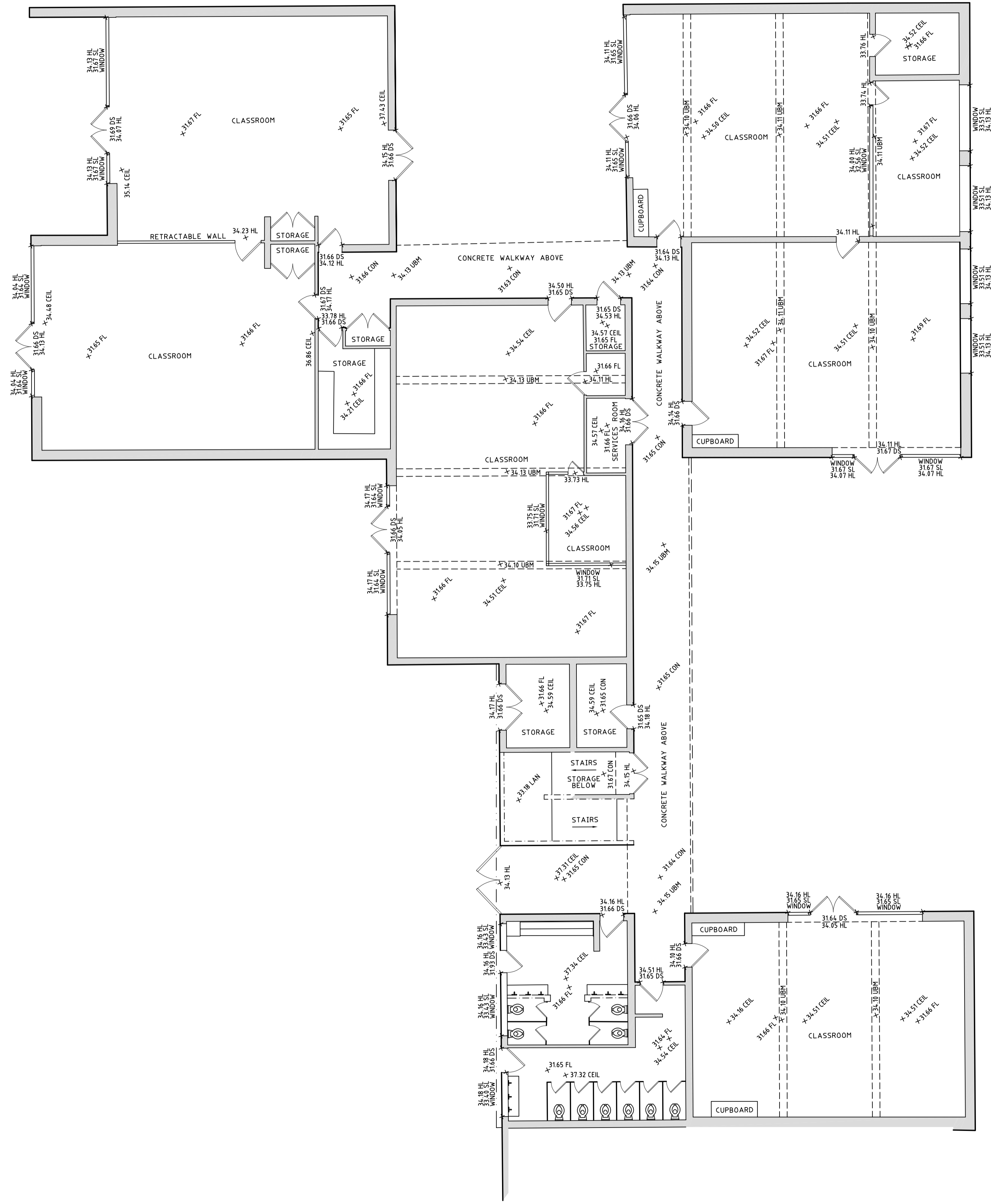
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# LOWER GROUND FLOOR PLAN



**LEGEND:**

- CEIL = CEILING LEVEL
- DS = DOOR SILL LEVEL
- FL = FLOOR LEVEL
- HL = HEAD LEVEL
- LAN = LANDING
- RMP = RAMP
- SL = SILL LEVEL
- TW = TOP OF WALL
- UBM = UNDERSIDE BEAM
- UNS = UNDERSIDE LEVEL

**NOTES**

- A BASIC BOUNDARY SURVEY HAS BEEN UNDERTAKEN SUITABLE FOR COUNCIL DA SUBMISSION (TITLE DIMENSIONS ONLY) - BOUNDARY DEFINITION IS SUBJECT TO FURTHER SURVEY.
- IF CONSTRUCTION ON OR NEAR BOUNDARIES IS REQUIRED IT IS RECOMMENDED THAT THE BOUNDARIES OF THE LAND BE MARKED.
- THIS DETAIL SURVEY IS NOT A "SURVEY" AS DEFINED BY THE SURVEYING AND SPATIAL INFORMATION ACT, 2012.
- AREA IS APPROXIMATE ONLY AND HAS BEEN CALCULATED BY TITLE DIMENSIONS. ALL TITLE DIMENSIONS OF THE LAND HAVE NOT BEEN CONFIRMED BY SURVEY. IF AREAS ARE CRITICAL WE RECOMMEND A BOUNDARY SURVEY FOR PUBLIC RECORD.
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- EXCEPT WHERE SHOWN BY DIMENSION LOCATION OF DETAIL WITH RESPECT TO BOUNDARIES IS INDICATIVE ONLY.
- ONLY VISIBLE SERVICES HAVE BEEN LOCATED. UNDERGROUND SERVICES HAVE NOT BEEN LOCATED. DIAL BEFORE YOU DIG SERVICES (BY TRIO) SHOULD BE USED AND A FULL UTILITY INVESTIGATION, INCLUDING A UTILITY LOCATION SURVEY, SHOULD BE UNDERTAKEN BEFORE CARRYING OUT ANY CONSTRUCTION ACTIVITY IN OR NEAR THE SURVEYED AREA.
- SEWER MAIN PLOTTED FROM SYDNEY WATER SEWER DIAGRAM. LOCATION SHOULD BE MARKED ON SITE IF CRITICAL.
- CRITICAL SPOT LEVELS SHOULD BE CONFIRMED WITH SURVEYOR.
- THIS PLAN IS ONLY TO BE USED FOR THE PURPOSE OF DESIGNING NEW CONSTRUCTIONS.
- CONTOURS SHOWN DEPICT THE TOPOGRAPHY. THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.
- CONTOUR INTERVAL - 0.5 metre. - SPOT LEVELS SHOULD BE ADOPTED.
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 R.L. 42.942 (ORDER 2)  
 SOURCE: S.C.I.M.S. (12/04/2018)

1 FIRST ISSUE 12/03/2020

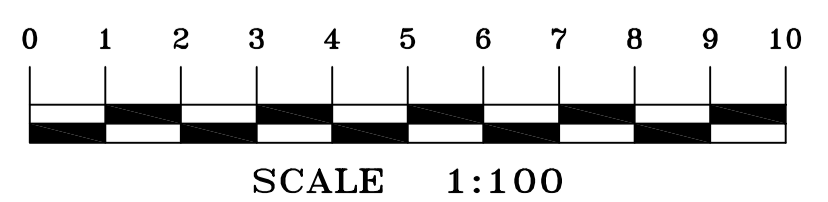
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 SYDNEY NSW 2000

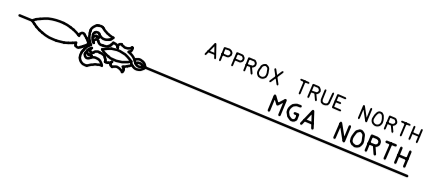
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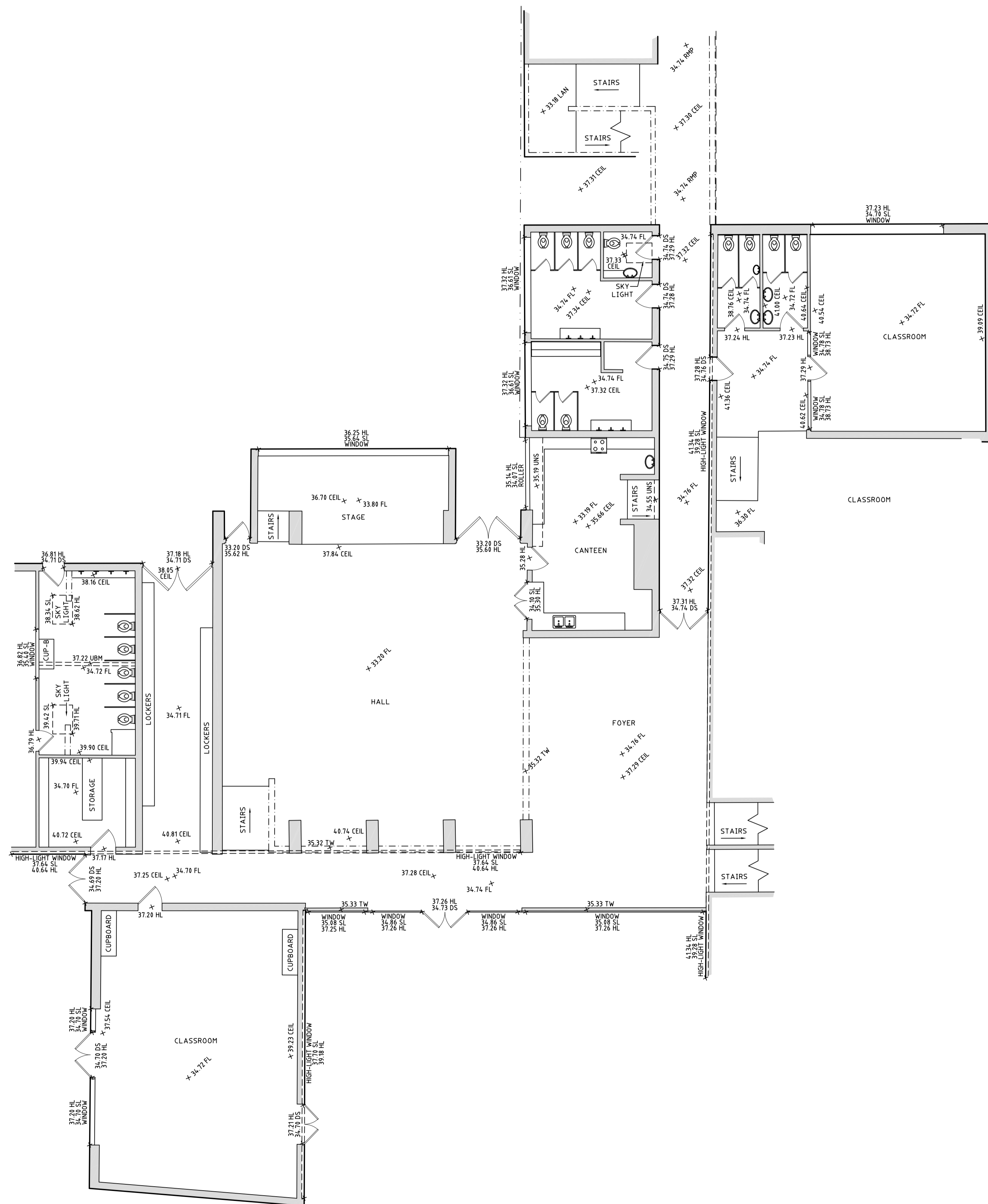
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DRAWING NAME <b>17702Blower g-floor</b>			ISSUE 1
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# UPPER GROUND FLOOR PLAN



STREET

(BITUMEN FORMATION)

ABERCROMBIE

**LEGEND:**

- CEIL = CEILING LEVEL
- DS = DOOR SILL LEVEL
- FL = FLOOR LEVEL
- HL = HEAD LEVEL
- LAN = LANDING
- RMP = RAMP
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- SEWER MAIN PLOTTED FROM SYDNEY WATER SEWER DIAGRAM. LOCATION SHOULD BE MARKED ON SITE IF CRITICAL.
- CRITICAL SPOT LEVELS SHOULD BE CONFIRMED WITH SURVEYOR.
- THIS PLAN IS ONLY TO BE USED FOR THE PURPOSE OF DESIGNING NEW CONSTRUCTIONS.
- CONTOURS SHOWN DEPICT THE TOPOGRAPHY. THEY DO NOT REPRESENT THE EXACT LEVEL AT ANY PARTICULAR POINT. ONLY SPOT LEVELS SHOULD BE USED FOR CALCULATIONS OF QUANTITIES WITH CAUTION.
- CONTOUR INTERVAL - 0.5 metre. - SPOT LEVELS SHOULD BE ADOPTED.
- POSITION OF RIDGE LINES ARE DIAGRAMMATIC ONLY (NOT TO SCALE).
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R.L. 42.942 (ORDER 2)  
SOURCE: S.C.I.M.S. (12/04/2018)

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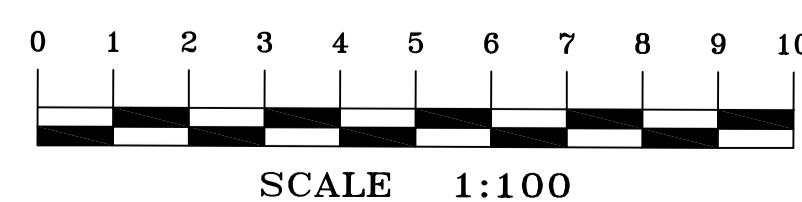
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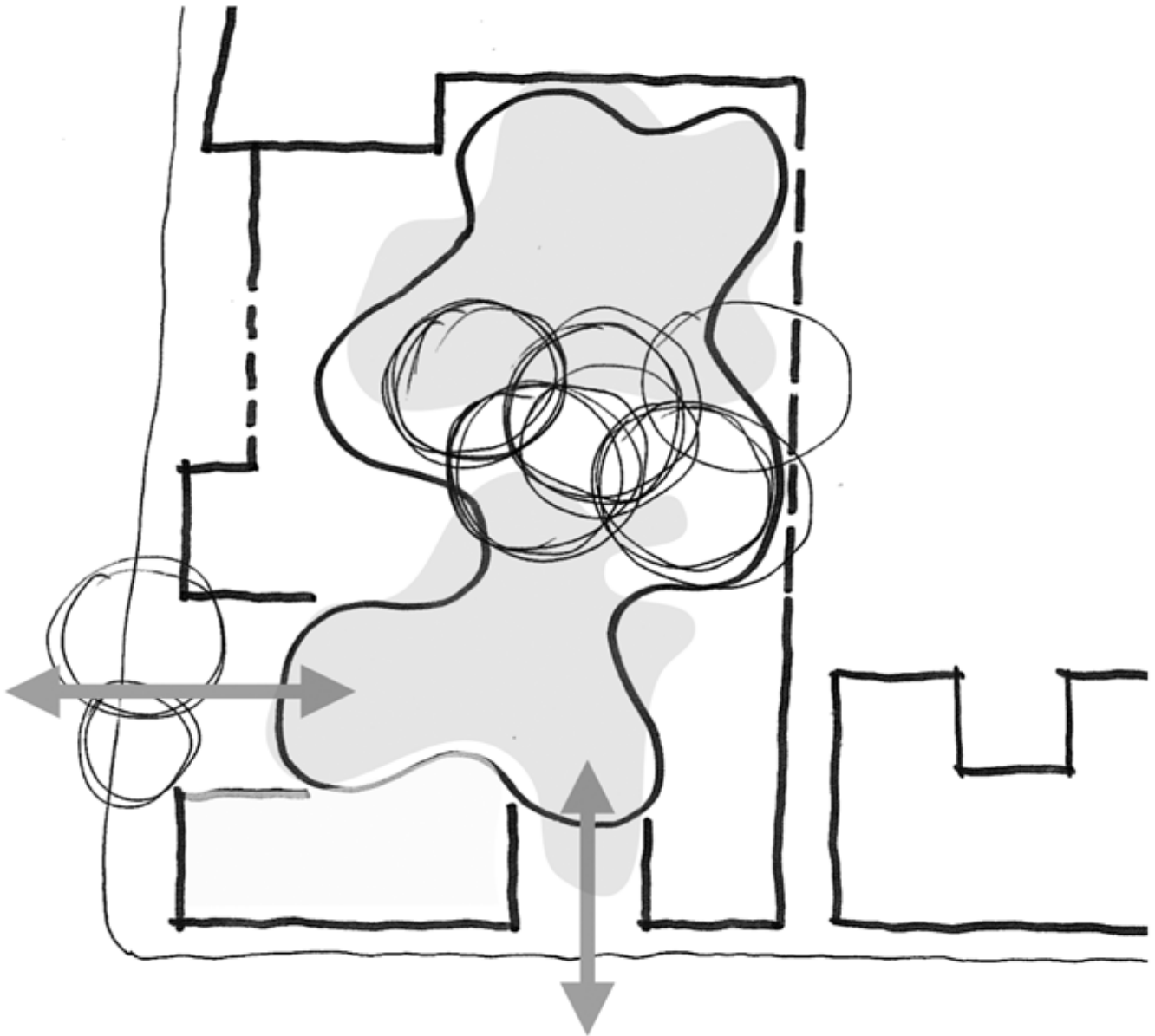
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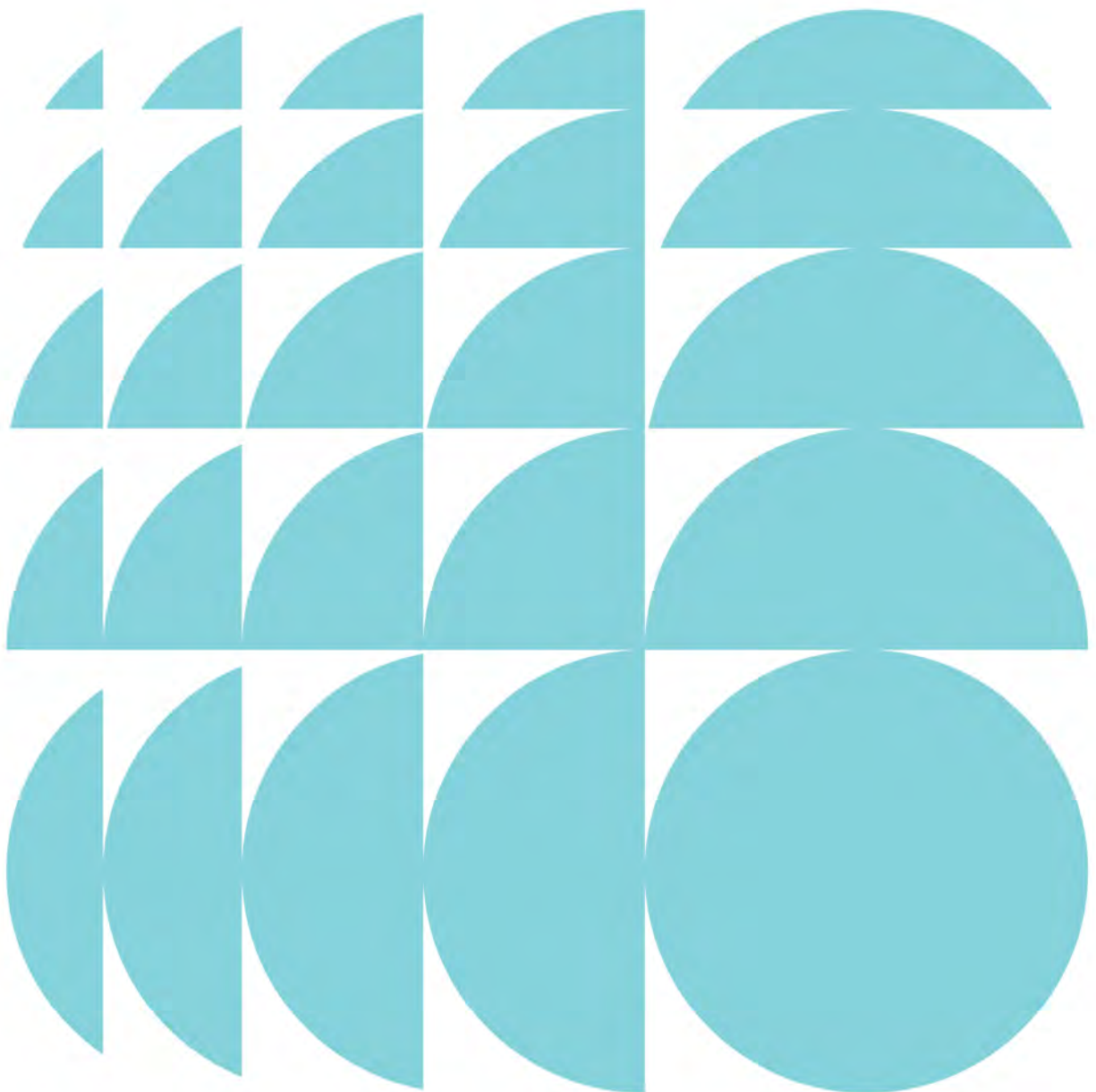
## Appendix EE — Visual Impact Assessment

SSD-9914

Prepared by Ethos Urban

For NSW Department of Education









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# Contents

## 1.0 Introduction

This document is a Visual Impact Assessment (VIA) and has been prepared by Ethos Urban on behalf of Schools Infrastructure NSW to support a State Significant Development Application (SSDA) seeking redevelopment of the Darlington Public School (the school).

A VIA was prepared to inform design development for the school by Richard Lamb and Associates (RLA) in February 2019. Since this time, the proposal has been developed. Ethos Urban was requested by Schools Infrastructure NSW to update the RLA VIA to reflect this proposal. To enable better comparison between the masterplan and concept plan, the report structure follows that of the original RLA report. This document is to be read as part of the broader suite of documents that comprise the SSDA, in particular the FJMT design report.

On this basis, the structure of the document is as follows:

1. Introduction
2. The site and its context
3. The planning framework
4. The proposal
5. Background
6. Existing visual character
7. Visual impacts
8. Visual impact assessment
9. Assessment against planning framework
10. Conclusion.

## 2.0 The site and its context

### 2.1 The site

Key information for the site is shown in **Table 1** below.

**Table 1: The site - key information**

Key information	Details
Street address	417-445 Abercrombie Street, Darlington
Lot and DP	Lot 100 DP 623500 and Lot 592 DP 752049
Owner	NSW Department of Education
Area	7,253sqm
Frontage	Abercrombie Street, Golden Grove Street and Darlington Lane
Shape	Rectangular
LGA	City of Sydney
Current use	Local primary school

### 2.2 Context

The site context is shown in **Table 2** below.

**Table 2: Site context**

Direction	Details
North	Sydney University Regiment building; Darlington Lane; terrace rows; future student accommodation
South	Terrace rows; former corner commercial premises
East	University of Sydney Abercrombie Building and student accommodation
West	Flat buildings; Melkite Catholic Church and former annexe (separate building)

### 3.0 Planning framework

The planning framework applying to the subject site is shown in **Table 4** below.

**Table 3: Planning framework**

Key information	Details
Act	Environmental Planning and Assessment Act 1979
SEPP (primary)	State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
LEP	City of Sydney LEP 2012
DCP	City of Sydney LEP 2012
Zone	SP2 - Educational Establishment
FSR (max.)	1.25:1
Height (max.)	9m
Locality	Darlington/West Redfern

### 4.0 The proposal

Key information for the proposal is shown in **Table 3** below and is shown in **Figure 1** to **Figure 5**.

**Table 4: The proposal - key information**

Key information	Details
Applicant	Schools Infrastructure NSW
Lead architect	FJMT
Use	Local primary school
Students	418
FSR	5,567.18sqm
Height	4 storeys (LG, UD, 1 and 2)
Carparking	Nil
Play space	4,334.29sqm



**Figure 1: The proposal, aerial**

Source: FJMT



**Figure 2: The proposal, intersection of Abercrombie Street and Golden Grove Street**

Source: FJMT



Figure 3: The proposal, Golden Grove Street elevation

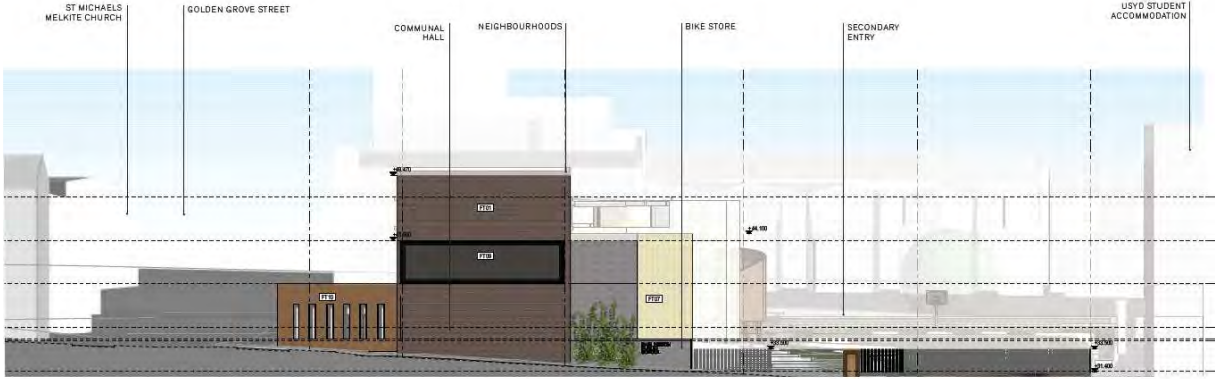


Figure 4: The proposal, Abercrombie Street elevation



Figure 5: The proposal, eastern elevation

## 5.0 Background

The proposal has been subject to a comprehensive development and review process.

A range of technical inputs were commissioned to inform the initial design development. This included the RLA VIA report, which provided a number of recommendations.

A number of masterplan options were developed and presented for feedback to the State Design Review Panel (SDRP), with the two most recent occasions being in August and November 2019. The SDRP indicated their support for key design aspects, including massing and scale, and did not raise any visual impact concerns.

The masterplan has since been further developed to create the proposal. The proposal represents an amalgam of masterplan options C and D (refer **Figure 6** and **Figure 7**). The key changes are:

- removal of floor area to create more open space along the eastern boundary of the site
- removal of full length built form to the Abercrombie Street frontage.



Figure 6: Master plan option C



Figure 7: Masterplan option D

6.0 Existing visual character

6.1 The site

The site is occupied by a local primary school that has the following elements:



- buildings are sited in the southern half of the site, with the northern half comprising paved open space used for recreation
- individual buildings comprise smaller pavilion form linked by enclosed walkways
- buildings having nil setback fronting almost the entirety of Abercrombie Street
- buildings are setback a short distance from Golden Grove Street
- buildings are one or two storeys in height
- buildings are constructed from brick, with skillion steel roofs
- a high brick wall surrounds the Abercrombie and Golden Grove frontages of the site where buildings do not meet the street alignment
- building dates from the 1970s
- buildings have minimal architectural detailing, however parts of the Abercrombie Street elevation feature vertically emphasised recesses within which large windows are located for each storey
- there is some signage on the Abercrombie Street elevation
- there is a cluster of larger trees in the centre of the site, along the Darlington Lane frontage and at the Abercrombie Street frontage in the space separating the southern and northern street facing buildings

A visually prominent feature of the school is the building in the south-east corner of the site, which provides a strong marker to the corner of Abercrombie and Golden Grove Streets.

Overall, these elements and features combine to evoke the perception of a secure 'compound', with limited engagement with the adjoining public domain.

## 6.2 Visual catchment

The visual catchment of the site (ie, from where the site can be seen) is contained to parts of Abercrombie Street, Golden Grove Street, Darlington Lane and the site to the east largely due to the relatively level topography, continuous or near continuous terrace rows and taller nearby buildings.

While not within the visual catchment, the nearby Carriageworks complex is a notable feature of the broader surrounding urban landscape.

## 6.3 Landscape character types

As shown in FJMT's design report (page 13), the visual catchment is diverse and broadly comprises four landscape character types:

1. terrace rows
2. late 20<sup>th</sup> century flat buildings
3. community uses
4. institutional uses.

The terrace rows are located to the south along Abercrombie Street, north along Darlington Lane and the south west on Gold Grove Street. They comprise late 19<sup>th</sup> and early 20<sup>th</sup> century terrace rows that:

- two storeys in height
- narrow widths
- vertically proportioned
- nil street setback (noting the main face of the building at both levels is setback behind a street facing, ground level porch)
- pitched, tiled roofs with some incorporating dormer windows
- chimneys, wrought-iron balustrading and other architectural detailing common that era
- brick construction, often with a concrete covering
- neutral colours, in particular greys and light browns.

Given the orientation of the terrace rows to face directly to the site, their inclusion in a Heritage Conservation Area under the CoS LEP 2020 and being more likely to be home of permanent residents, it is the most sensitive of the landscape character types to change in the visual catchment.

The late 20<sup>th</sup> century flat buildings are located to the south of the site on Golden Grove Street. This is a single, large complex comprising 4 narrow rows of long flat buildings of up to 3 storeys constructed from brick with steel roofs separated by paved carparking areas. Due to the arrangement of rows of flat buildings generally at a 45-degree angle to the subject site, it is likely that view from individual dwelling will be limited.

The community uses are located to the west of the site and comprise the Melkite Catholic Cathedral and the adjoining former annexe. The cathedral is two storeys in height and is of brick construction. A notable feature of its street facing northern elevation is the incorporation of semi-circular elements, including three archways at the ground floor entrance, semi-circular windows including a single large window at the first level and a semi-circular roof form accentuated by lighter colour decorative banding. The cathedral is listed as a local heritage item under the CoS LEP 2012. The adjoining former annexe (noting it is physically separate) has considerable bulk (three storeys in height, relatively wide street facing elevation and long depth), making it visually prominent. This visual prominence is further accentuated by a parapet projecting above the third storey, and a lighter colouring compared to other buildings in this part of Golden Grove Street.

Institutional uses are located to the east and north of the site. University of Sydney buildings adjoining the subject site to the east. This comprises the Abercrombie Building, and student accommodation at the Abercrombie Street frontage. These buildings are of contemporary design and have a greater height (5 storeys) and bulk compared to other buildings in the visual catchment. University Regiment House adjoins the site and on the corner of Golden Grove Street and Abercrombie Lane.

The intersection of Abercrombie Street and Golden Grove Street is of note as visually it comprises the Melkite Catholic Cathedral and its adjoining former annexe and the school and a former corner business premises, both of which present in a way that accentuates their corner. The former business premises is also painted in a shade of red, which is different to the dominant colour palette and as such draws the eye to its presence.

As noted, while not within the visual catchment the nearby Carriageworks complex is a large, visually prominent and memorable feature of the surrounding urban landscape. In particular, Carriageworks has a distinct saw tooth roof which is evocative of an industrial / warehouse character.

## **6.4 Streetscape**

The streetscape itself has a character that is common amongst parts in the inner west of Sydney, including two way bitumen paved roads adjoined by bitumen paved or concrete footpath punctuated by generally widely spaced, not yet mature street trees (often eucalypt) and power poles and lines.

## **6.5 Scenic value and amenity**

As is often highly influenced by context, in the first instance it is best practice to refer to existing environmental planning instruments to identify local area scenic value and amenity. For this locality, the CoS DCP assigns value to character and heritage:

‘the consistency of the scale and proportions, roof design and materials palette of the terrace rows is important to the quality of the streetscape’ (CoS, 2012).

In general, value is often influenced by objective factors such as rarity, representativeness and condition (LI and IEMA, 2013). However, the perception of people is critical to better understanding value. The following principles have been consistently found in scenic preference studies and community consultation (AILA, 2018):

- water and natural elements are preferred over urban scenes
- mountains and hills are preferred over flat land
- views are preferred which include both mid-ground elements (with some detail discernible) and a background
- views with skyline features and views which include focal points are preferred.

More specifically, the following elements have been found to be of high scenic value (Queensland Government, 2007):

- sandy beaches
- ocean, rivers, creeks and dams
- eucalypt forest and native plantations.

The visual catchment does not contain any of the preferred elements or elements of high scenic value. Although in part obstructed by planting in the adjoining roundabout, the Melkite Catholic Cathedral's location terminating the vista along Abercrombie Street increases its visual prominence, and in some respects can be considered to be a focal point.

As RLA have stated, the relatively large number and visibility from the public domain of mature trees on the site positively contributes to the scenic quality of the visual catchment.

## 6.6 Overall visual character

The interplay of these factors combines to create an overall visual character of the visual catchment is of a typical urban, fairly dense inner west Sydney residential neighbourhood with diversity of lower rise but broadly finer-grained built forms, in particular terrace rows, and clusters of trees, using within the road reserve and typically eucalypt.

## 6.7 Visual receptors

The number of visual receptors (people exposed to views of the subject site) is relatively limited as:

- the relatively, small visual catchment contained to parts of Abercrombie Street, Golden Grove Street, Darlington Lane and the site to the east
- its location primarily as part of a medium density residential area
- it not being located on a major, highly trafficked street (vehicles, cyclists or pedestrians).

On this basis, the main visual receptors will be:

- permanent residents, either as owner occupiers or renters
- students
- school staff, parents, students and visitors
- visitors to the Melkite Catholic Cathedral and adjoining business.

## 7.0 Visual impacts

The main visual impact is increasing the amount of built form fronting Golden Grove Street and a corresponding reduction in that fronting Abercrombie Street. More specifically, this includes:

- a more consistent elevation to Golden Grove Street, including a single storey street wall featuring a distinct arched entrance the main, larger building setback behind this street wall
- the continuation of built form along Golden Grove Street to join with the University Regiment Building
- the modulation of the elevation facing Golden Grove Street primarily through articulation into smaller 'neighbourhoods' corresponding with parts of the saw tooth roof (evocative of the nearby Carriageworks complex) and a larger number of windows
- the removal of the existing Abercrombie Street perimeter wall and associated mature tree and its replacement with a wide, pedestrian entry that affords views into the centre of the site and retained vegetation
- the replacement of larger buildings on the eastern boundary

- a change in layout to the paved playing area from a north-south to east-west orientation
- a reduction in the height of the corner building relative to the remainder of the Golden Grove Street elevation, a reduction in its length along Abercrombie Street, addition of large transparent glass windows on each street facing elevation and addition of a lighter colouring.
- overall, a departure from the existing pavilion typology.

## 8.0 Visual Impact Assessment

Assessment has been undertaken against the criteria used by RLA in their original report. While this differs from the industry standard GLVIA3, the impact analysis criteria resemble the key criteria of sensitivity and magnitude in the GLVIA method. In addition, RLA has considerable experience and strong reputation in the visual impact field. On this basis, it is considered to be an appropriate framework for these purposes, in particular given the desire to maintain general consistency in the evaluative approach between the masterplan and this concept plan. The criteria are:

### Effects analysis

- effects on visual character
- effects on scenic quality
- effects on composition
- effects on public domain views
- effects on private domain views

### Impact analysis

- visual absorption capacity
- compatibility
- sensitivity
- view sharing.

## 8.1 Effects analysis

### Effects on visual character

The proposal does not introduce any unsympathetic or visually prominent elements, including through shape, line, colour or texture. In this way, it is consistent with the overall visual character of the visual catchment.

The opening up of the site at the ground level provides a visual amenity benefit of reducing the perception of 'secure compound' effect, providing visual relief from the former somewhat oppressive perimeter wall and built form.

### Effects on scenic quality

The proposal will not impact the consistency of the scale and proportions, roof design and materials palette of the terrace rows.

Due to their absence in the visual catchment, the proposal does not impact preferred or highly valued elements.

The proposal will remove an existing mature tree within the site fronting Abercrombie Street. However, this will be more than offset by the opening of views into the centre of the site which affords substantially greater visual exposure to the cluster of mature trees.

### Effects on composition

Overall, the proposal does not result in major changes to composition such as introduction of a new focal point, drawing of the eye to a new feature of other measure.

The key changes to composition will be:

- the foreground of views from the public domain of Golden Grove Street by the addition of new built form adjacent to the Sydney University Regiment building
- the foreground of views from the public domain of Abercrombie Street by the removal of a long section of wall and its replacement with a new pedestrian entry, and the mid and background of views due to this element which opens up views into the site to open play space and trees.

These changes are considered to be either relatively minor, and in the case of Abercrombie Street, beneficial changes to composition.

### **Effects on public domain views**

Views into the subject site from the upper, westernmost public domain portion of Golden Grove Street would be prevented by the addition of new perimeter built form. Conversely, views into the site would be afforded from the lower parts of Golden Grove Street into the site via the open ground level and from the Abercrombie Street public domain via removal of the section of existing wall.

### **Effects on private domain views**

Assessment of private domain views has not been undertaken. Consistent with the position of RLA, given the nature of the visual catchment, the narrow streets and the low-rise height of most dwellings, consideration of the public domain provides a sound approximation of views from the private domain. Furthermore, when viewed against the planning principle handed down by the Land and Environment Court in *Tenacity Consulting v Warringah* [2004] NSWLEC 140, there is an absence of valuable views in the visual catchment.

## **8.2 Impact analysis**

### **Visual absorption capacity**

It is agreed with RLA that the visual prominence of the proposal is moderate. While its corner location increases its visibility, its prominence is reduced by its relatively low height, conventional street facing form, detailed design measures such as breaking up elevations by roof form and windows and its compatible colours.

It is agreed with RLA that the visual absorption capacity of the existing visual environment is moderate to high. In particular, the lack of a single, consistent landscape character type with instead a diverse range of built form, larger built forms, in particular the adjoining 5 storey Abercrombie Building and student accommodation, and the presence of street trees enable accommodation of the proposal.

### **Compatibility**

The proposal is compatible with the overall character of the visual environment. When viewed from the immediately adjoining public domain, it has:

- placement of built form to reinforce the prevailing street edge condition, with open space largely being located to the rear of built form
- generally conventional form
- similar height
- similar lines (eg, rectangles, straight lines)
- similar colours, in particular a series of browns
- similar textures, including the prevailing use of brick in most elevations.
- retaining solar access and other amenity outcomes to the adjoining public domain.

In addition, reference to the sawtooth roof form present in the close by, but well known and memorable Carriageworks precinct, serves to heighten its compatibility with local visual character.

As articulated in FJMT's design report, the inward facing northern elevation has a contemporary, softer and curved form. However, it is likely that this elevation will be visible only to those within the site and from the Abercrombie Building and student accommodation. While this elevation is not considered to be stylistically similar to the overall visual catchment, it of a scale that is not prominent in views and sensitivity from this location is considered to be low.

### Sensitivity

The sensitivity of most of the visual receptors to change on the subject site is likely to be low. However, the sensitivity of permanent residents, and more likely those who are owner occupiers, is medium. This visual receptor group is concentrated in that part of Abercrombie Street facing the subject the subject site. Given the magnitude of the proposal, in particular its footprint, size and scale, it is not considered to have a significant visual impact on this receptor group.

The proposal will also not have any direct impact on the curtilage or backdrop of the heritage listed Melkite Catholic Cathedral.

### View sharing

As the proposal does not interact with a desirable feature in the landscape, it does not impact on view sharing.

## 9.0 Assessment against planning framework

The CoS DCP 2020 includes the subject site in the Darlington/West Redfern locality.

The DCP character statement for this locality as predominantly residential mainly comprised of terrace rows, and states that the consistency of the scale and proportions, roof design and materials palette of the terrace rows is important to the quality of the streetscape.

Given that the proposal is for institutional development, the following principles are most applicable to visual impact assessment:

- design institutional development to be sympathetic to the low scale and fine grain of the neighbourhood

The following principles are of relevance, albeit to a broader degree:

- development is to respond to and complement heritage items and contributory buildings within heritage conservation areas, including streetscapes and lanes
- retain the low scale of built form and consistent building types particularly terrace rows.

**Table 5** provides an outline assessment against these matters.

**Table 5: Assessment against planning framework**

Principle	Response
Design institutional development to be sympathetic to the low scale and fine grain of the neighbourhood	The proposal is of sympathetic to the neighbourhood by: <ul style="list-style-type: none"> <li>• a low scale (maximum three storeys in height)</li> <li>• its main southern elevation facing Golden Grove Street is articulated into finer grain 'neighbourhoods' largely by the sawtooth roof form</li> <li>• reducing the length of built form to Abercrombie Street.</li> </ul>
Development is to respond to and complement heritage items and contributory buildings within heritage	The proposal responds to and complements the adjacent HCA on Abercrombie Street by:

Principle	Response
conservation areas, including streetscapes and lanes	<ul style="list-style-type: none"> <li>• having a height that is compatible with the Melkite Catholic Church local heritage item and the nearby Heritage Conservation Area</li> <li>• reinforcing the dominant street edge condition</li> <li>• articulating the Golden Grove Street elevation, in particular through the sawtooth roof form</li> <li>• incorporating brick as the prevailing elevation material fronting the public domain</li> </ul>
Retain the low scale of built form and consistent building types particularly terrace rows	The proposal is of a low scale (maximum three storeys in height)

## 10.0 Conclusion

Based on this assessment, the original conclusions of the RLA report are considered to stand. This conclusion is:

- the potential public and private domain visual catchment of the site is small
- the external exposure of the school to the public and private domain is limited to surrounding streetscapes
- the proposed development would not create any significant negative visual effects in relation to the character or composition of public or private domain views
- the visual effects of the proposed development are positive in relation to the west and south streetscapes due to the removal of street-wall built form, increased spatial separation to built forms, incorporation of internal open spaces and retention of visually significant tree canopy
- the proposed built forms are unlikely to create any significant view loss in public and private domain views
- the proposed development is compatible with the immediate and wider visual context which includes education and institutional buildings of similar height, bulk and scale.

On this basis the potential visual impacts of the proposal are not considered to be significant, adverse or otherwise unacceptable, and can be supported on visual impact grounds.

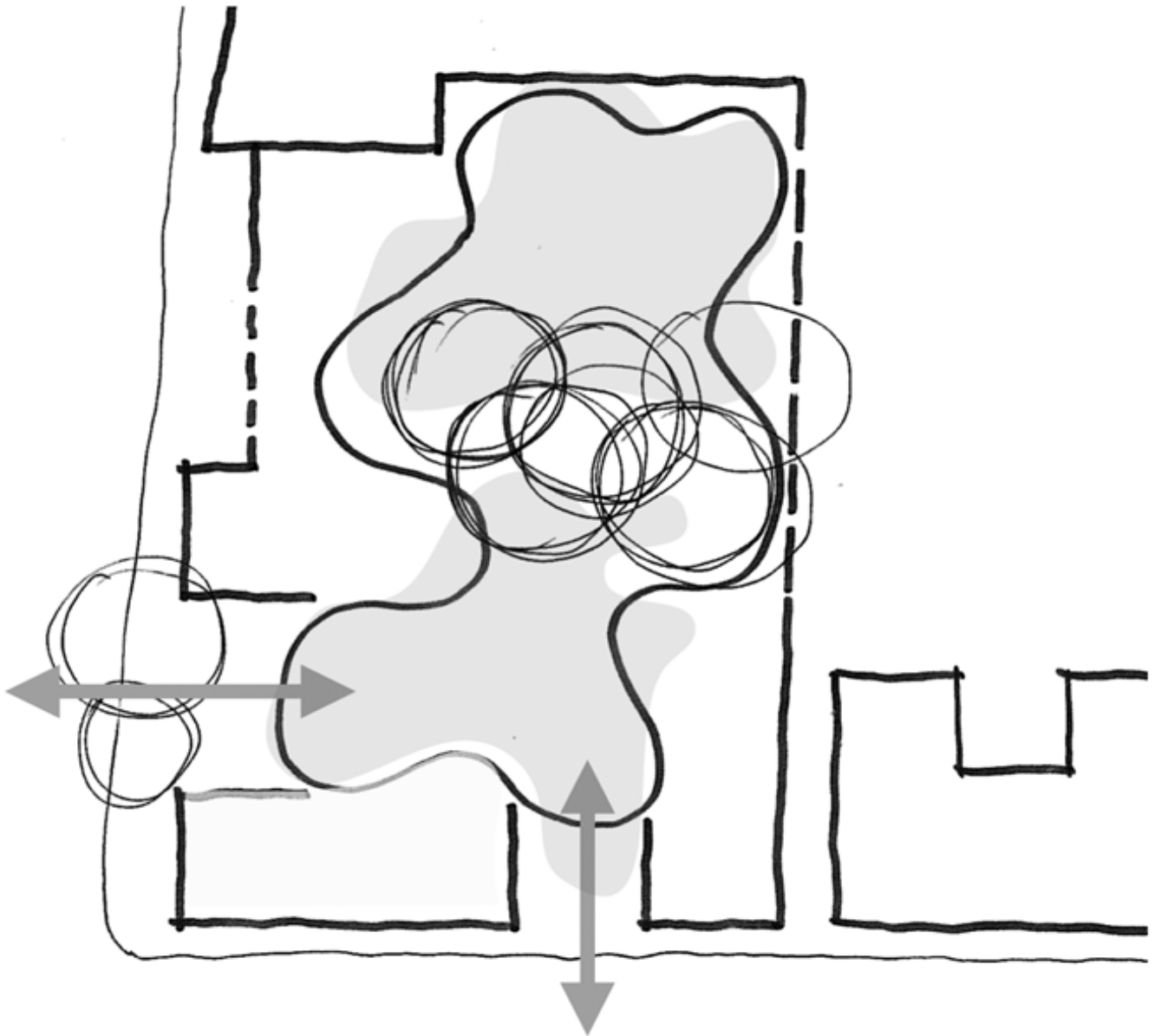
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix F — Clause 4.6 Variation Request – Building Height

SSD-9914

Prepared by Ethos Urban

For NSW Department of Education





# ETHOS URBAN

## Clause 4.6 Variation

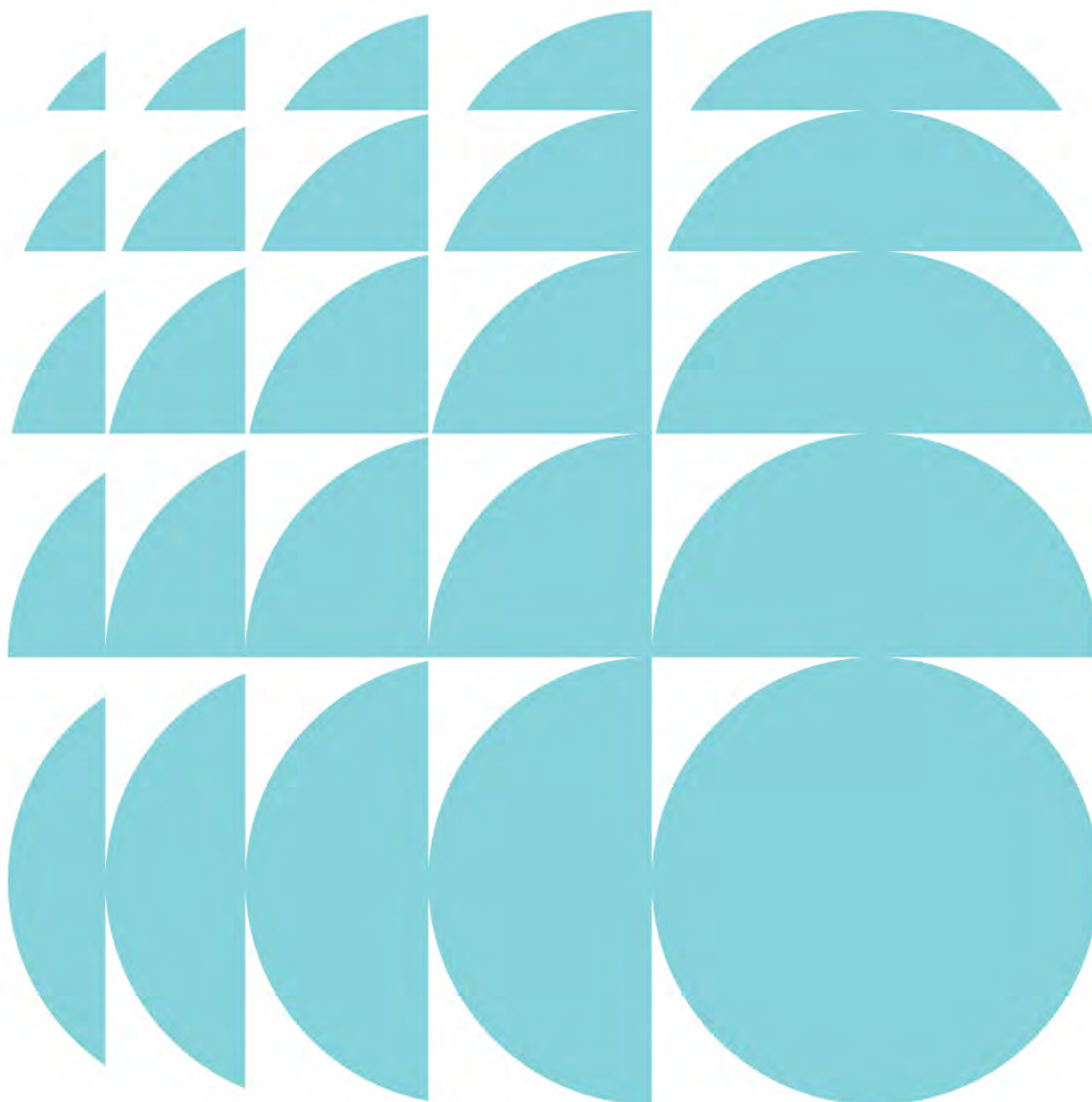
Building Height

Darlington Public School Redevelopment  
Golden Grove Street, Darlington

Submitted to Department of Planning, Industry  
and Environment

On behalf of NSW Department of Education

9 June 2020 | 2200026



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## 1.0 Introduction

This clause 4.6 variation request has been prepared by Ethos Urban on behalf of School Infrastructure NSW (SINSW). It is submitted to the Department of Planning, Industry and Environment (DPIE) in support of a State-significant development application (SSDA) for Darlington Public School Redevelopment at Golden Grove Street, Chippendale.

Secretary's Environmental Assessment Requirements (SEARs) were issued for the SSDA on 19 March 2019. This clause 4.6 variation request has been prepared in response to the following SEARs item:

### **Development Standards**

*Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.*

Clause 4.6 of the *Sydney Local Environmental Plan 2012* (Sydney LEP) enables the consent authority to grant consent for development even though the development contravenes a development standard. The clause aims to provide an appropriate degree of flexibility in applying certain development standards to achieve better outcomes for and from development.

We note that clause 42 of the *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* applies to this application, which states:

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

This clause 4.6 variation request relates to the development standard for height of buildings under clause 4.3 of the Sydney LEP and should be read in conjunction with the Environmental Impact Statement (EIS) and appended documents prepared by Ethos Urban dated 9 June 2020.

This clause 4.6 variation request demonstrates that:

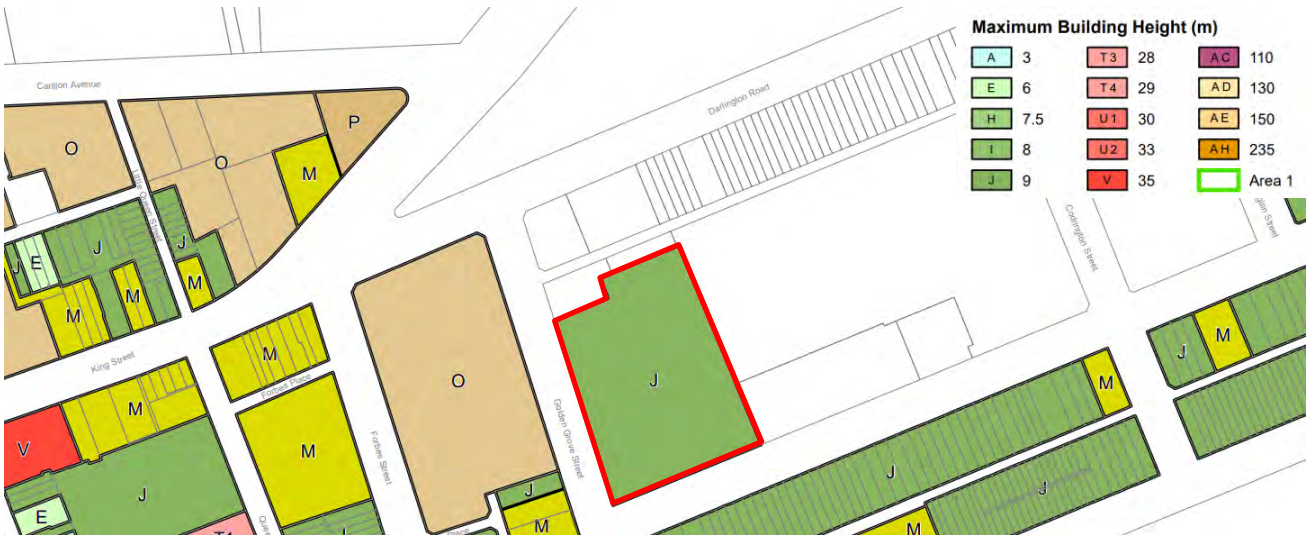
- Compliance with the building height development standard is unreasonable and unnecessary in the case since:
  - The proposal achieves the objectives of the building height development standard, notwithstanding the non-compliance.
  - Clause 42 of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* allows State significant development for the purposes of a school to contravene a development standard in any other environmental planning instrument.
- There are sufficient environmental planning grounds to justify contravention of the building height standard including:
  - The development is of a height that is commensurate with surrounding buildings in the immediate vicinity.
  - The proposal results in acceptable and positive visual impacts.
  - Additional height is utilised to define a prominent corner in the neighbourhood and identify the school as a socially significant building.
  - A greater setback to the east can be achieved, which provides environmental and functional benefits.
  - The proposal results in acceptable overshadowing impacts.
- The proposal is in the public interest since it is consistent with the objectives of the SP2 zone and provides numerous public benefits.

Therefore, the SSDA may be approved with the variation as proposed in accordance with clause 42 of the Education SEPP and clause 4.6 of the Sydney LEP.

## 2.0 Development Standard to be Varied

### 2.1 Development Standard

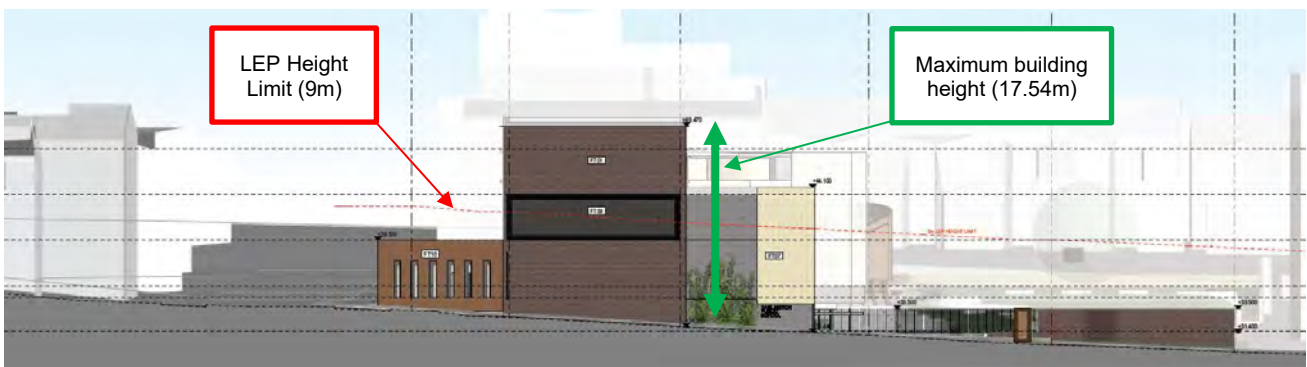
This clause 4.6 variation request seeks to justify contravention of the development standard set out in clause 4.3 of the Sydney LEP. Clause 4.3 provides that the maximum building height shown on the Height of Buildings Map (sheet 9) for the site is 9m, as shown in **Figure 1**.



**Figure 1** Extract from Height of Buildings Map  
 Source: Sydney LEP Height of Buildings Map (Sheet 9)

### 2.2 Extent of Variation

The proposed development has a maximum building height of 17.54m, which occurs at the south-eastern corner of the new school building fronting Abercrombie Street, as shown in the southern elevation drawing provided at **Figure 2**. This results in a variation to the maximum building height development standard of 8.54m, or approximately 94.9%.



**Figure 2** Southern Elevation of Proposed Development Showing Maximum Building Height and Height Limit  
 Source: FJMT

### 3.0 Justification for Contravention of the Development Standard

Clause 4.6(3) of the Sydney LEP provides that:

#### 4.6 Exceptions to development standards

- (3) *Development consent must not be granted for development that contravenes a development standard unless the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:*
- (a) *that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and*
  - (b) *that there are sufficient environmental planning grounds to justify contravening the development standard.*

Further, clause 4.6(4)(a) of the Sydney LEP provides that:

- (4) *Development consent must not be granted for development that contravenes a development standard unless:*
- (a) *the consent authority is satisfied that:*
    - (i) *the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and*
    - (ii) *the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and*
  - (b) *the concurrence of the Secretary has been obtained.*

Assistance on the approach to justifying a contravention to a development standard is also to be taken from the applicable decisions of the NSW Land and Environment Court in:

1. *Wehbe v Pittwater Council* [2007] NSW LEC 827; and
2. *Four2Five Pty Ltd v Ashfield Council* [2015] NSWLEC 1009.

The relevant matters contained in clause 4.6 of the Sydney LEP, with respect to the height of buildings development standard, are each addressed below, including with regard to these decisions.

#### 3.1 Clause 4.6(3)(a): Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case

In *Wehbe*, Preston CJ of the Land and Environment Court provided relevant assistance by identifying five traditional ways in which a variation to a development standard had been shown as unreasonable or unnecessary. However, it was not suggested that the types of ways were a closed class.

While *Wehbe* related to objections made pursuant to *State Environmental Planning Policy No. 1 – Development Standards* (SEPP 1), the analysis can be of assistance to variations made under clause 4.6 where subclause 4.6(3)(a) uses the same language as clause 6 of SEPP 1 (see *Four2Five* at [61] and [62]).

As the language used in subclause 4.6(3)(a) of the Sydney LEP is the same as the language used in clause 6 of SEPP 1, the principles contained in *Wehbe* are of assistance to this clause 4.6 variation request. The five methods outlined in *Wehbe* include:

- The objectives of the standard are achieved notwithstanding non-compliance with the standard (**First Method**).
- The underlying objective or purpose of the standard is not relevant to the development and therefore compliance is unnecessary (**Second Method**).
- The underlying object or purpose would be defeated or thwarted if compliance was required and therefore compliance is unreasonable (**Third Method**).

- The development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence compliance with the standard is unnecessary and unreasonable (**Fourth Method**).
- The zoning of the particular land is unreasonable or inappropriate so that a development standard appropriate for that zoning is also unreasonable and unnecessary as it applies to the land and compliance with the standard would be unreasonable or unnecessary. That is, the particular parcel of land should not have been included in the particular zone (**Fifth Method**).

Of particular assistance in this matter, in establishing that compliance with a development standard is unreasonable or unnecessary is the First Method.

### 3.1.1 The underlying objectives or purposes of the development standard

The objectives of the development standard contained in clause 4.3 of the Sydney LEP are:

- to ensure the height of development is appropriate to the condition of the site and its context,
- to ensure appropriate height transitions between new development and heritage items and buildings in heritage conservation areas or special character areas,
- to promote the sharing of views,
- to ensure appropriate height transitions from Central Sydney and Green Square Town Centre to adjoining areas,
- in respect of Green Square—
  - to ensure the amenity of the public domain by restricting taller buildings to only part of a site, and
  - to ensure the built form contributes to the physical definition of the street network and public spaces.

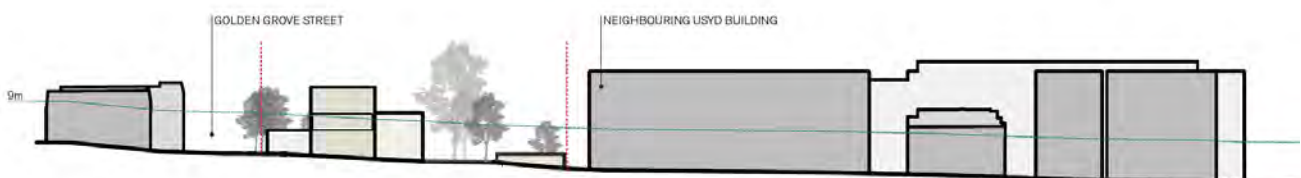
### 3.1.2 The objectives of the standard are achieved notwithstanding non-compliance with the standard

The following sections demonstrate that the objectives of the height of buildings development standard are achieved notwithstanding the proposed non-compliance.

#### Objective (a): To ensure the height of development is appropriate to the condition of the site and its context

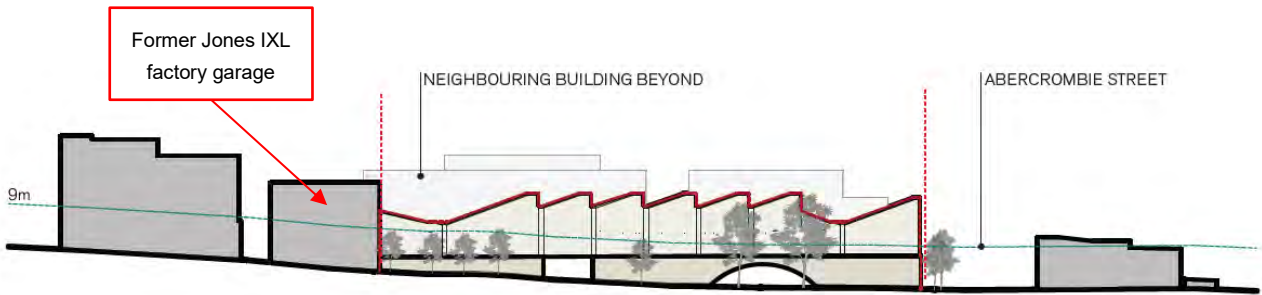
The height of the proposed development responds to the immediate surrounding neighbours, which are approximately 3-storeys in height. Particular reference has been taken from the University of Sydney Business School to the east and the former IXL Garage factory building adjoining the site to the north (item I2244 of local heritage significance). The proposed design also seeks to mark the corner of Abercrombie Street and Golden Grove Street by locating the community hall at this prominent corner, which is above the 9m height limit.

As shown in **Figure 3** and **Figure 4**, the height of the proposed development is appropriate to the condition of the site and its context. Therefore Objective (a) is achieved.



**Figure 3** Streetscape Elevation – Northern Side of Abercrombie Street

Source: FJMT



**Figure 4 Streetscape Elevation – Eastern Side of Golden Grove Street**

Source: FJMT

**Objective (b): To ensure appropriate height transitions between new development and heritage items and buildings in heritage conservation areas or special character areas**

As shown in **Figure 4**, the proposed new school building is of a height that transitions appropriately from the former IXL Garage (of local heritage significance) down the slope of Golden Grove Street to the corner of Golden Grove and Abercrombie Streets.

Golden Grove Heritage Conservation Area (of local heritage significance) is located across Abercrombie Street to the south of the site, which comprises two-storey residential dwellings arranged in terrace rows. The new school building is separated from the conservation area by a four-lane street and the height of the southern end of the new school building is slightly taller than a two-storey terrace house. Therefore, the transition to this conservation area is deemed appropriate.

The proposed new building responds to its surrounding context to provide appropriate height transitions to nearby heritage items and conservation areas. Therefore Objective (b) is achieved.

**Objective (c): To promote the sharing of views**

Since the proposed development is of a low-scale that is commensurate with surrounding buildings, there will not be any significant loss of views. Further, the proposal does not interact with any desirable features in the landscape and therefore does not impact on view sharing, as demonstrated by the Visual Impact Assessment prepared by Ethos Urban and provided as Appendix EE to the EIS. Therefore Objective (c) is achieved.

**Objective (d): To ensure appropriate height transitions from Central Sydney and Green Square Town Centre to adjoining areas**

The proposed development is of a low-scale that is commensurate with the height of the many surrounding 2 and 3-storey buildings. There will be no impact on the height transitions from Central Sydney or Green Square Town Centre to adjoining areas. Therefore Objective (d) is achieved.

**Objective (e): in respect of Green Square—**

- (i) to ensure the amenity of the public domain by restricting taller buildings to only part of a site, and**
- (ii) to ensure the built form contributes to the physical definition of the street network and public spaces**

The proposal is not located within Green Square. Therefore, it does not impact on Objective (e) being achieved.

**3.1.3 Provisions of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017**

Clause 42 of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (the Education SEPP) is reproduced below.

**42 State significant development for the purpose of schools—application of development standards in environmental planning instruments**

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



Since the proposed redevelopment is for the purposes of a school and is State significant development, the consent authority can grant consent for the development in accordance with clause 42 of the Education SEPP despite the development contravening the maximum building height development standard in the Sydney LEP. In light of clause 42 of the Education SEPP, development consent may be granted notwithstanding the non-compliance with the LEP building height development standard.

### 3.1.4 Conclusion on clause 4.6(3)(a)

Compliance with the building height development standard under the Sydney LEP is unreasonable and unnecessary in the circumstances of the case since:

- The objectives of the standard are achieved, notwithstanding the non-compliance.
- Clause 42 of the Education SEPP allows the consent authority to grant development consent to State significant development for the purposes of a school, even if the development contravenes a development standard set in another environmental planning instrument.

## 3.2 Clause 4.6(3)(b): Environmental planning grounds to justify contravening the development standard

Numerous environmental planning grounds exist to justify contravening the development standard in this case. These environmental planning grounds are discussed in the following sections of this report.

### 3.2.1 Ground 1: Height of Existing Surrounding Buildings

The proposed development is of a height that is commensurate with the surrounding buildings, as described in **Section 3.1.2**. The additional height above the 9m building height limit does not result in a built form that would be inconsistent with that of surrounding buildings - in fact, the building remains lower than some surrounding buildings in the immediate area.

### 3.2.2 Ground 2: Visual Impact

A Visual Impact Assessment was undertaken by Ethos Urban and is provided as Appendix EE to the EIS. The Visual Impact Assessment concluded that the visual impacts of the proposed development were generally positive and that the additional height would not result in any significant adverse or otherwise unacceptable visual impacts.

### 3.2.3 Ground 3: Defining the Street Corner

Darlington Public School has an important social connection to the surrounding local and Aboriginal community (see the Social Impact Assessment prepared by Ethos Urban provided as Appendix O to the EIS and the Aboriginal Cultural Heritage Assessment Report prepared by GML provided as Appendix N to the EIS). The intersection of Golden Grove Street and Abercrombie Street at the south-western corner of the site is prominent in the local neighbourhood. The proposed design for the new school building concentrates much of the built form to this corner, where the school/community hall is located. The additional building height beyond the 9m height limit allows for the sawtooth roof of the hall to express itself and define the street corner, creating a neighbourhood landmark and identifying the community school building that is commensurate with its standing in the local community.

### 3.2.4 Ground 4: Greater Setback to the East

By concentrating the built form along the Golden Grove Street frontage (albeit in exceedance of the height limit), the development provides a 30-50m setback from the eastern site boundary with the neighbouring University of Sydney buildings. This large setback provides a number of benefits, including:

- **Safety:** Defining the street wall and providing safe enclosure of the school grounds without the need for extensive fencing. The setback also provides privacy and separation from university uses to the east of the site.
- **Surveillance:** The proposed height of the main building, combined with the carefully framed views into and within the school, allows for surveillance of children by each other and by teachers from many locations within the school.

- **Playground Area:** A large, uninterrupted portion of the site is provided as outdoor play area for students within the setback area. The large open space allows for a comprehensive landscape design (see Appendix I of the EIS) that incorporates many different character areas and elements of Aboriginal heritage and artwork (many already existing at the school, to be retained). Good solar access is also provided to the outdoor play areas as a result of the built form massing and additional height to the west/south of the site.

### 3.2.5 Ground 5: Overshadowing

As demonstrated in **Appendix A** and the EIS, the proposal will result in acceptable overshadowing impacts despite exceeding the building height development standard. The mid-winter overshadowing impacts are summarised as follows:

- There is no additional overshadowing of St Michael's Cathedral, located across Golden Grove Street to the south-west of the site. The sawtooth design of the roof minimises shadows cast to this area of Golden Grove Street.
- There is some additional overshadowing of residential apartments across Golden Grove Street to the west between 8am and 9am. There is no additional overshadowing of these properties beyond 9am.
- From 2pm onwards there is some additional overshadowing of the residential terrace houses across Abercrombie Street to the south.
- The school playground benefits from uninterrupted sunlight between 10am and 3pm.

### 3.2.6 Conclusion on clause 4.6(3)(b)

There are sufficient environmental planning grounds to justify contravention of the building height development standard, including:

- The proposed building height is commensurate with the surrounding buildings in the immediate vicinity.
- The proposal will have an acceptable, and in many ways, positive visual impact.
- Additional height allows for greater definition of the Golden Grove Street and Abercrombie Street corner with the community hall, strengthening the social significance and connection of the school within the local community.
- The exceedance of the building height standard allows for a large setback to the eastern boundary, which has numerous environmental and social benefits.
- The proposal results in acceptable overshadowing impacts to the surrounding area.

## 3.3 Clause 4.6(4)(a)(ii): In the public interest because it is consistent with the objectives of the zone and development standard

### 3.3.1 Consistency with objectives of the development standard

The proposed development is consistent with the objectives of the building height development standard, for the reasons discussed in **Section 3.1.2** of this report.

### 3.3.2 Consistency with objectives of the zone

The proposed development is consistent with the objectives of the SP2 Educational Establishment zone, as demonstrated below.

#### **Objective (a): To provide for infrastructure and related uses**

The proposal will provide for expanded educational facilities as intended by the SP2 Educational Establishment zoning. Therefore, the proposal is consistent with Objective (a).

**Objective (b): To prevent development that is not compatible with or that may detract from the provision of infrastructure**

The proposed school redevelopment is itself new/renewed infrastructure. The proposal will not detract from the provision of any further educational infrastructure within the broader area zoned SP2 Educational Establishment. Therefore, the proposal is consistent with Objective (b).

**3.3.3 Overall public interest**

The proposed development is in the public interest since it provides the following public benefits:

- Expansion of the existing school capacity from 230 to 437 students.
- New and improved education facilities for students.
- New and expanded facilities for joint-use by the school and community.
- Will create new jobs during the construction and operation phases.
- Results in acceptable and manageable environmental impacts, as described in the EIS.

**3.3.4 Conclusion on clause 4.6(4)(a)(ii)**

The proposed development is in the public interest since it:

- Is consistent with the objectives of the SP2 zone.
- Provides numerous public benefits including expanded school capacity, new education and joint-use facilities, job creation and acceptable/manageable environmental impacts.

**3.4 Other Matters for Consideration**

Under clause 4.6(5), in deciding whether to grant concurrence, the Secretary must consider the following matters:

- (5) *In deciding whether to grant concurrence, the Secretary must consider:*
- (a) *whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and*
  - (b) *the public benefit of maintaining the development standard, and*
  - (c) *any other matters required to be taken into consideration by the Secretary before granting concurrence.*

These matters are addressed in detail below.

**3.4.1 Clause 4.6(5)(a): Whether contravention of the development standard raises any matter of significance for State or regional environmental planning**

The variation of the building height development standard does not raise any matter of significance for State or regional planning. We do note, however, that the proposal is consistent with the most recent metropolitan plan for Sydney, A Plan for Growing Sydney in that it:

- Creates temporary job opportunities in manufacturing, construction and construction management, and on-going jobs in teaching and administration for the wider City of Sydney LGA.
- Delivers additional educational infrastructure for the catchment that will take enrolment pressure of the existing school.
- Revitalises an aged school to provide contemporary facilities to meet future educational standards, and provide increased jobs and growth.
- Delivers a sustainable, well-designed building that promotes the use of public and active transport. The redevelopment of the site will make a valued contribution to economic growth in Sydney and provide increased learning and employment opportunities.

### **3.4.2 Clause 4.6(5)(b): The public benefit of maintaining the development standard**

As demonstrated above, there is no public benefit in maintaining the development standard in terms of State and regional planning objectives. As noted in the preceding sections, the additional height proposed generally reflects the height of existing buildings surrounding the site, and the proposed variation would not give rise to any adverse environmental impacts. The contravention results in the delivery of additional school capacity and other public benefits.

### **3.4.3 Clause 5.6(5)(c): Any other matters required to be taken into consideration by the Director-General before granting concurrence.**

No other matters are required to be taken into consideration by the Secretary before granting concurrence.

## **4.0 Conclusion**

The assessment above demonstrates that compliance with the building height development standard contained in clause 4.3 of the Sydney LEP is unreasonable and unnecessary in the circumstances of the case and that the justification is well founded. It is considered that the variation allows for the orderly and economic use of the land in an appropriate manner, whilst also allows for a better outcome in planning terms.

This clause 4.6 variation demonstrates that:

- Compliance with the building height development standard is unreasonable and unnecessary in the case since:
  - The proposal achieves the objectives of the building height development standard, notwithstanding the non-compliance.
  - Clause 42 of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* allows State significant development for the purposes of a school to contravene a development standard in any other environmental planning instrument.
- There are sufficient environmental planning grounds to justify contravention of the building height standard including:
  - The development is of a height that is commensurate with surrounding buildings in the immediate vicinity.
  - The proposal results in acceptable and positive visual impacts.
  - Additional height is utilised to define a prominent corner in the neighbourhood and identify the school as a socially significant building.
  - Greater setback to the east can be achieved, which provides environmental and functional benefits.
  - The proposal results in acceptable overshadowing impacts.
- The proposal is in the public interest since it is consistent with the objectives of the SP2 zone and provides numerous public benefits.

Therefore, the SSDA may be approved with the variation as proposed in accordance with clause 42 of the Education SEPP and clause 4.6 of the Sydney LEP.

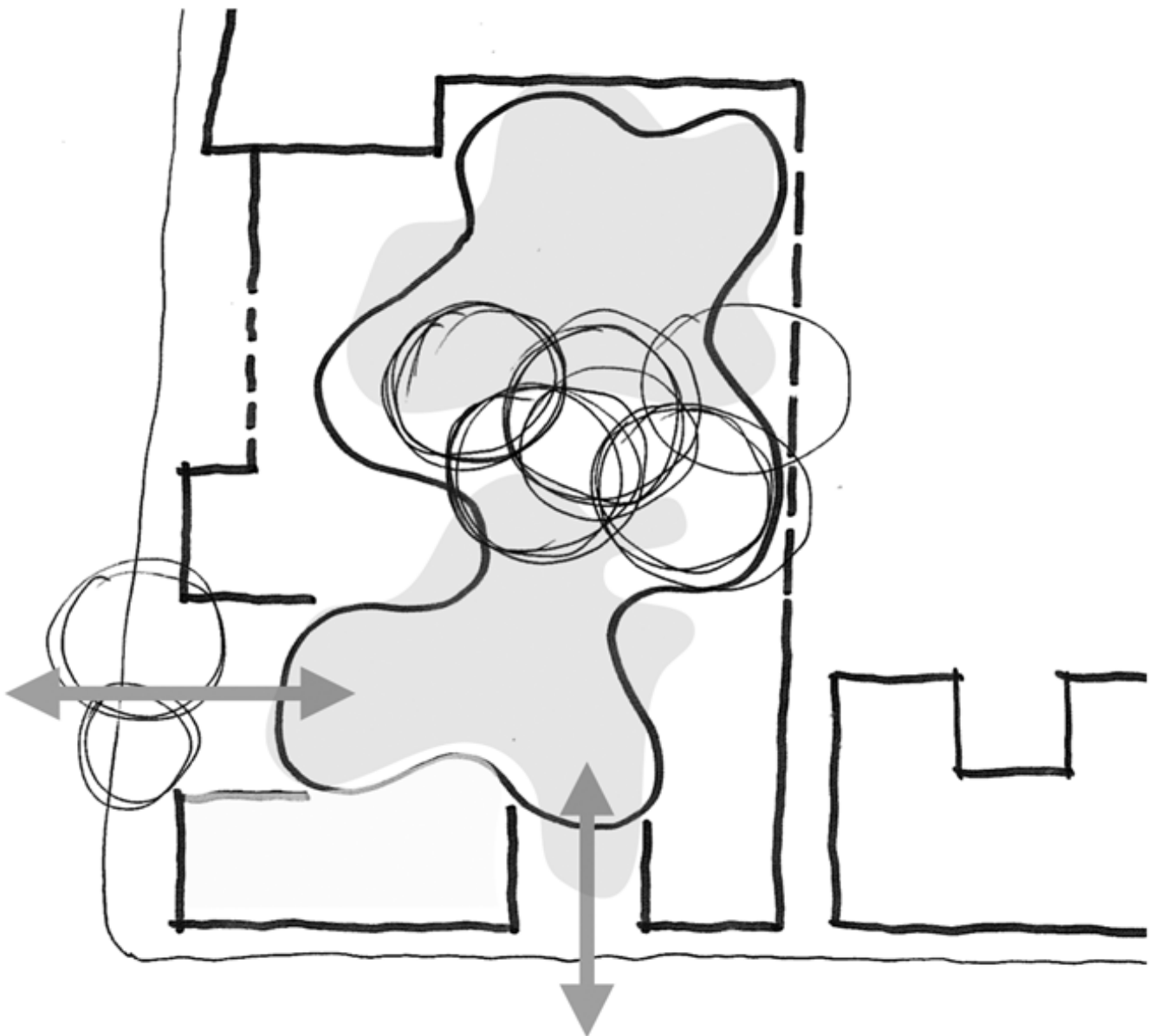
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix FF — Hydraulic Infrastructure Management Plan

SSD-9914

Prepared by WS+P

For NSW Department of Education



Warren  
Smith &  
Partners

— SINCE 1981 —

14<sup>th</sup> April 2020

# INFRASTRUCTURE MANAGEMENT PLAN

## Darlington Public School



# HYDRAULIC SERVICES INFRASTRUCTURE MANAGEMENT PLAN Darlington Public School

01	12 <sup>th</sup> February 2020	Draft SSDA Infrastructure Management Plan Issued for Review
02	27 <sup>th</sup> February 2020	SSDA Infrastructure Management Plan
03	6 <sup>th</sup> April 2020	Updated with ETHOS Comments from meeting 12/03/2020
04	14 <sup>th</sup> April 2020	Updated as per ETHOS & MACE Comments 14/04/2020
<b>Rev #</b>	<b>Date</b>	<b>Description of Change</b>

## APPROVALS

01	J. Skubevski	Superseded	D. Power	
02	J. Skubevski	Superseded	D. Power	
03	J. Skubevski	Superseded	D. Power	
04	J. Skubevski	Current	D. Power	
<b>Rev #</b>	<b>Author</b>	<b>Status</b>	<b>Reviewer</b>	<b>Approver</b>

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# Executive Summary

This Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington, within the City of Sydney local Government Area. The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonaldtown train stations. The site is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049.

The SSD application seeks consent for demolition of existing school buildings and construction of a new part 2, part 3-storey building, increasing the school capacity from 230 to 437 students. The works also include replacement of the existing childcare facility (to the same capacity of 60 students), earthworks and landscaping. For a detailed project description refer to the EIS prepared by Ethos Urban.

Sears Requirement / Description	Relevant Section of Report
<b>Utilities &amp; Infrastructure</b>	
Detail any information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure	See Section 3, 4 and 6
<b>Water related Infrastructure Requirements</b>	
Determine service demands following servicing investigations	See Section 3
Determine satisfactory arrangements for drinking water and wastewater services have been made	See Section 5.1 and 5.2
Obtain endorsement and/or approval from Sydney Water to ensure that the proposed development does not adversely impact on any existing water, wastewater, or other Sydney Water asset, including any easement or property	See Section 6



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# HYDRAULIC SERVICES

## 1. GENERAL

Warren Smith & Partners (WS+P) has been engaged by Schools Infrastructure NSW to prepare a town planning Utility Services Report for the proposed redevelopment works at the Darlington Public School.

The Darlington Public School campus (“the site”) is located at Golden Grove Street, Chippendale NSW 2008 and is shown in **Figure 1** (approximate site location identified in red). The site is encompassed by Golden Grove Street to the west, Abercrombie Street to the South, Darlington Lane to the north and the University of Sydney Business School to the east.



**Figure 1: Aerial View of Property Boundary (Source: Google Maps)**

This report aims to address the following general SEARS condition; “Utilities; Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure.”

This report will not address the following general condition; “Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design”. This has been addressed as a separate report completed by WS+P included as part of the State Significance Development Application (SSDA) documentation.

## 2. DEMOLITION

Demolition of the existing buildings will take place in accordance with the project staging to enable space for the proposed developments.

## 3. DEMAND CALCULATIONS

### 3.1 WATER SUPPLY DEMAND CALCULATIONS

The school currently has 230 students and 16 staff. It is proposed to increase the number of students to 437 and staff to 29. The student numbers were sourced from the ETHOS Urban report and the staff numbers were sourced from information provided by the design team. The assumption used in determining the average daily potable water demands for the proposed additional population of 207 students and 13 staff was sourced from the Sydney Water table, "Average Daily Water Use by Property Type" and is presented in **Table 1** below. For this infrastructure management plan, the staff water usages were assumed to be the same as that of the students with values sourced from SCHEDULE 1 – SYDNEY WATER TABLE.

Where possible, potable water usage will be reduced by using low flow taps and sanitary fixtures, which typically provide the following flow rates:

- Shower 9.0L/min
- Basin 7.7L/min
- Sink 7.7L/min

We expect Sydney Water to have historical data of the existing site (230 students and 16 staff) of which they can use to assess the effect of the additional 207 students and 13 staff load on the existing infrastructure and ultimately provide advice on the proposed connection location and if any required amplifications or upgrades are required. The preliminary advice included in APPENDIX A – SYDNEY WATER FEASIBILITY ADVICE LETTER confirms the proposed increase will not impact the network.

**Table 1: Average Daily Water Demand**

Classification	Metric Unit	Average Demand (L/Metric Unit/Day)
Special Use - School	Student	20
Special Use – School	Staff (Same as Student)	20

Please refer to **Table 2** below for the average daily water demand increase calculation.

**Table 2: Average Daily Water Demand Increase Calculation**

Total	Average Demand (L/Metric Unit/Day)	Total Average Daily Water Demand (kL)
207 (Students)	20	4.14
13 (Staff)	20	0.26

The following flows for the entire site have also been calculated:

- Probable simultaneous demand – 1.89 L/sec (subject to change with architectural layouts),
- Fire flow for hydrants – 20 L/sec,
- Fire flow for sprinklers and drenchers – N / A.

### 3.2 SEWER DISCHARGE CALCULATIONS

To determine the average daily sewer discharge for the proposed development, an estimate of the daily sewer discharge in terms of Litres/Day has been made by adopting information derived by the NSW Water Directorate. Where the standard equivalent tenement figures suggest that a 60% water to sewer discharge factor is appropriate. Refer to **Table 3** below for this calculation.

We expect Sydney Water to have any existing sewer load information of their assets which they can utilise to determine any required amplifications and upgrades to existing infrastructure because of the load induced by the additional 194 students and 13 staff. The preliminary advice included in APPENDIX A – SYDNEY WATER FEASIBILITY ADVICE LETTER confirms the proposed increase will not significantly impact the network.

**Table 3: Sewer Discharge Calculation**

Classification	Unit	Average Demand (60% of Water Average Demand) L/Metric Unit/Day)
Special Use – School	Student	12
Special Use – School	Staff	12

Please refer to **Table 4** below for the Average Daily Sewer Discharge calculation.

**Table 4: Average Daily Sewer Discharge**

Total Students	Average Demand (60% of Water Average Demand) (L/Metric Unit/Day)	Total Average Daily Sewer Discharge (kL)
207 (Students)	12	2.48
13 (Staff)	12	0.16

### 3.3 GAS DEMAND CALCULATIONS

WS+P’s current design proposes that natural gas services are not utilised for the heating of hot water, rather, that electrical options are implemented across the site. Additionally, it was recently confirmed within the Technical Stakeholders Group meeting that the mechanical services design and the kitchen/canteen facilities will not require any natural gas services.

WS+P has confirmed with the electrical engineer in Design Team Meeting 7 (16/01/2020) that the proposed loads can be accommodated by their system.

## 4. STAGING

It is proposed that hydraulic services including potable cold water and sanitary drainage will be extended to the new buildings and re-purposed areas as required for the Stage 1 works prior to connection to any authority mains

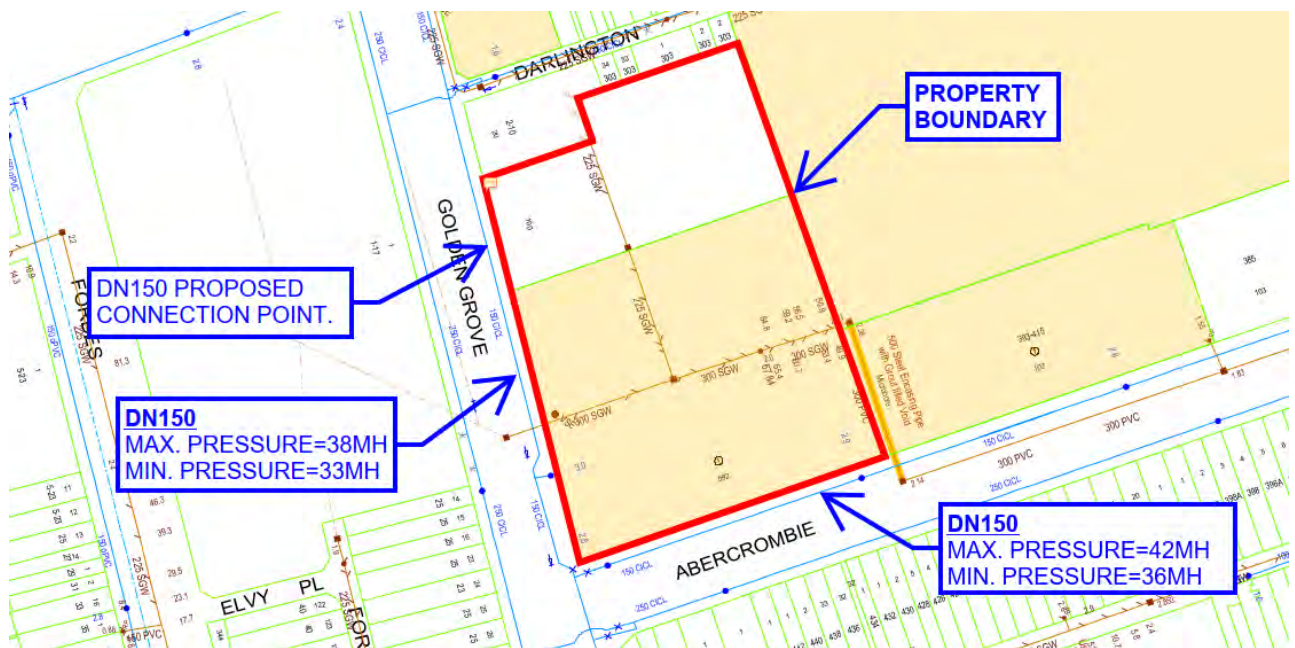
During Stage 1, capped provisions for future extension of both water and sanitary drainage services are to be made to supply Stage 2 as required. This will include both a capped provision for potable cold water services on level 1 and an inground capped sanitary drainage provision for future connection during Stage 2.

## 5. CONNECTIONS

The Sydney Water survey drawings in Sections 5.1, 5.2 and **Error! Reference source not found.** below indicate that the property is comprised of two separate land lots, which would normally require separate servicing (for both water and sewer) in order to comply with the Sydney Water guidelines. However, it has been recently confirmed by Schools Infrastructure that the land lots will be consolidated, which is the advice that the proposed utility connections below have been based on.

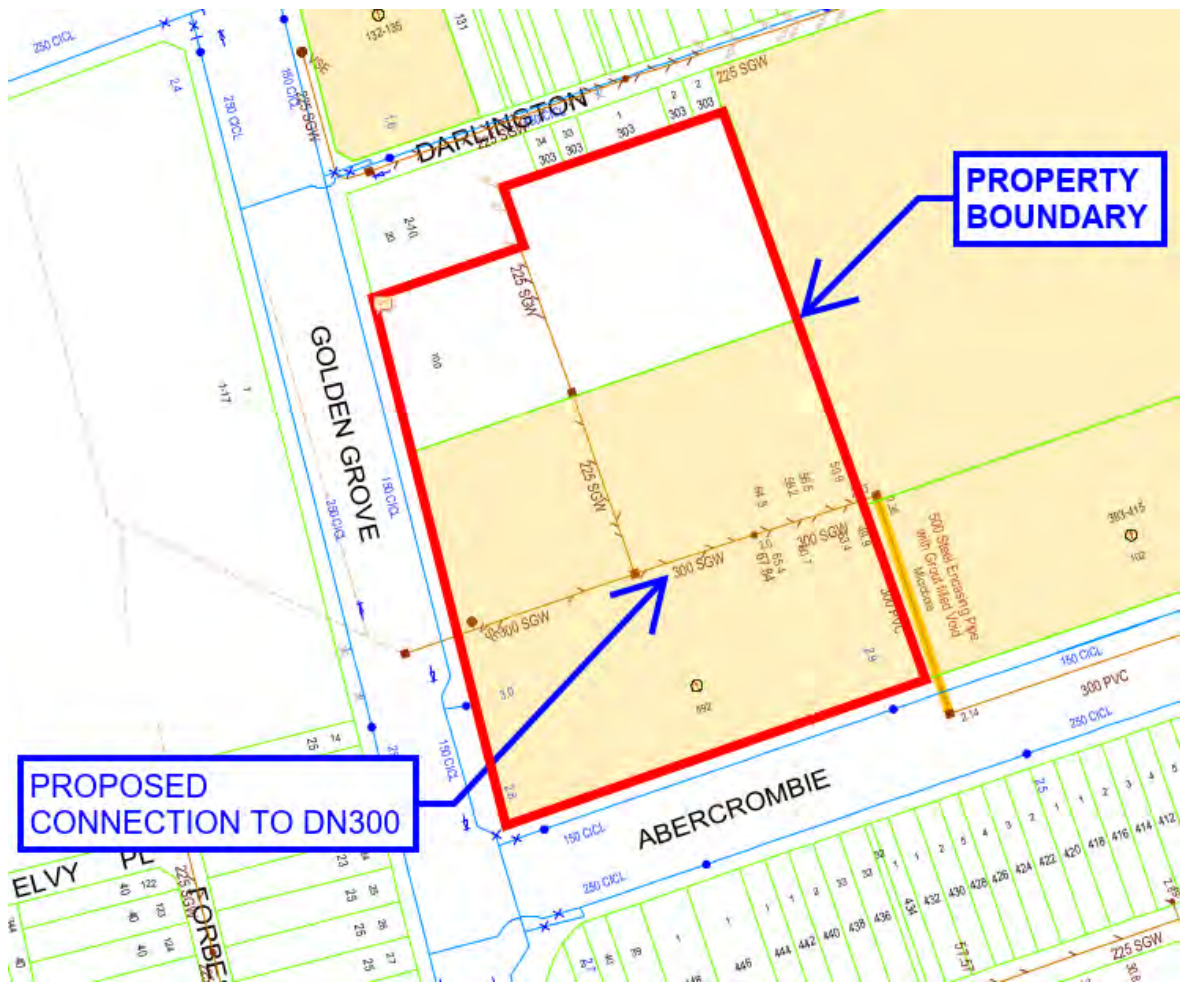
### 5.1 WATER

It is proposed that connection is made to the Sydney Water DN150 CICL water main in Golden Grove Street as shown in **Figure 2**. The connection point should be adjacent to the location of the proposed water meter on site.



## 5.2 SEWER

It is proposed that connection is made to the Sydney Water DN300 sewer main which reticulates through the site from west to east as shown in **Figure 3**.



**Figure 3: Proposed Connection Point to Sydney Water Utility (Sewer) Main**

## 6. APPENDIX A – SYDNEY WATER FEASIBILITY ADVICE LETTER



11 February 2020

SCHOOL INFRASTRUCTURE NSW  
c/- WARREN SMITH & PARTNERS PTY LTD

### FEASIBILITY LETTER

**Developer:** SCHOOL INFRASTRUCTURE NSW  
**Your reference:** 6606000  
**Development:** Lot 100 DP623500 GOLDEN GROVE ST, Darlington  
**Development Description:** Proposed Redevelopment of Darlington Public School  
**Your application date:** 16 October 2019

**Note: Level 2 water restrictions are in place from December 10**, which limits how and when water can be used outdoors. This can impact you and your contractors in the activities they need to undertake for this proposal.

**Using water to suppress dust is only permitted via a permit when no other water source is available.**

You/your contractors will need to apply for an exemption permit to use water for most outdoor uses including:

- Cleaning equipment and the exterior of **new** buildings
- Drilling and boring, and
- Batching concrete on-site

Fines for deliberate breaches of restriction rules are in place.

For more information on the restrictions and for applying for an exemption, visit our web site at <https://www.sydneywater.com.au/SW/water-the-environment/what-we-re-doing/water-restrictions/level-2-water-restrictions/index.htm>

The more water everyone saves, the longer we can stave off the progression to stricter restrictions or emergency measures.

Please provide this information to your contractors and delivery partners to inform them of their obligations and check our web site for up to date restriction information.

Dear Applicant

This Feasibility Letter (Letter) is a guide only. It provides general information about what Sydney Water's requirements could be if you applied to us for a Section 73 Certificate (Certificate) for your proposed development. **The information is accurate at today's date only.**

If you obtain development consent for that development from your consent authority (this is usually your local Council) they will require you to apply to us for a Section 73 Certificate. You will need to submit a new application (and pay another application fee) to us for that Certificate by using your current or another Water Servicing Coordinator (Coordinator).

Sydney Water will then send you either a:

- Notice of Requirements (Notice) and Developer Works Deed (Deed) or
- Certificate.

These documents will be the definitive statement of Sydney Water's requirements.

There may be changes in Sydney Water's requirements between the issue dates of this Letter and the Notice or Certificate. The changes may be:

- if you change your proposed development eg the development description or the plan/site layout, after today, the requirements in this Letter could change when you submit your new application; and
- if you decide to do your development in stages then you must submit a new application (and pay another application fee) for each stage.

**You have made an application for specific information. Sydney Water's possible requirements are:**

*Are Shown under Water and Sewer Works.*

**No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from Sydney Water and to the extent that it is able, Sydney Water limits its liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.**

## What You Must Do To Get A Section 73 Certificate In The Future.

To get a Section 73 Certificate you must do the following things. You can also find out about this process by visiting [www.sydneywater.com.au](http://www.sydneywater.com.au) > Plumbing, building & developing > Developing > Land development.

1. **Obtain Development Consent from the consent authority for your development proposal.**
2. **Engage a Water Servicing Coordinator (Coordinator).**

**You must engage your current or another authorised Coordinator** to manage the design and construction of works that you must provide, at your cost, to service your development. If you wish to engage another Coordinator (at any point in this process) you must write and tell Sydney Water.

For a list of authorised Coordinators, either visit [www.sydneywater.com.au](http://www.sydneywater.com.au) > Plumbing, building & developing > Developing > Providers > Lists or call **13 20 92**.

The Coordinator will be your point of contact with Sydney Water. They can answer most questions that you might have about the process and developer charges and can give you a quote or information about costs for services/works (including Sydney Water costs).

3. **Developer Works Deed**

It would appear that your feasibility application is served from existing mains and does not require any works to be constructed at this time. Sydney Water will confirm this with you after you have received Development Approval from Council and your Coordinator has submitted a new Development application and Sydney Water has issued you with a formal Notice of Requirements.

4. **Water and Sewer Works**

### 4.1 **Water**

Your development must have a frontage to a water main that is the right size and can be used for connection.

Sydney Water has assessed your application and found that:

The existing 150mm water mains in Abercrombie and Golden Grove Streets servicing the school are primarily supplied from a 375mm trunk main located 85m south of the site in Wilson Street.

The proposed increase in demand will not have a significant impact on the existing network.

## 4.2 Sewer

Your development must have a sewer main that is the right size and can be used for connection. That sewer must also have a connection point within your development's boundaries.

Sydney Water has assessed your application and found that:

The school is proposed to be serviced by via two connections, one of the 225mm and the other to the 300mm sewer mains traversing the site.

The additional discharge (27 EP) from the proposed redevelopment will not have an significant impact on the either of the mains traversing the site.

## 5. Ancillary Matters

### 5.1 Asset adjustments

After Sydney Water issues this Notice (and more detailed designs are available), Sydney Water may require that the water main/sewer main/stormwater located in the footway/your property needs to be adjusted/deviated. If this happens, you will need to do this work as well as the extension we have detailed above at your cost. The work must meet the conditions of this Notice and you will need to complete it **before we can issue the Certificate**. Sydney Water will need to see the completed designs for the work and we will require you to lodge a security. The security will be refunded once the work is completed.

### 5.2 Entry onto neighbouring property

If you need to enter a neighbouring property, you must have the written permission of the relevant property owners and tenants. You must use Sydney Water's **Permission to Enter** form(s) for this. You can get copies of these forms from your Coordinator or the Sydney Water website. Your Coordinator can also negotiate on your behalf. Please make sure that you address all the items on the form(s) including payment of compensation and whether there are other ways of designing and constructing that could avoid or reduce their impacts. You will be responsible for all costs of mediation involved in resolving any disputes. Please allow enough time for entry issues to be resolved.

## 6. Approval of your Building Plans

You must have your building plans approved **before the Certificate can be issued. Building construction work MUST NOT commence until Sydney Water has granted approval.** Approval is needed because construction/building works may affect Sydney Water's assets (e.g. water and sewer mains).

Your Coordinator can tell you about the approval process including:

- Your provision, if required, of a "Services Protection Report" (also known as a "pegout"). This is needed to check whether the building and engineering plans show accurately where Sydney Water's assets are located in relation to your proposed building work. Your Coordinator will then either approve the plans or make requirements to protect those assets before approving the plans;
- Possible requirements;
- Costs; and
- Timeframes.

You can also find information about this process (including technical specifications) if you either:

- visit [www.sydneywater.com.au](http://www.sydneywater.com.au) > Plumbing, building & developing > Building > Building over or next to assets. Here you can find Sydney Water's *Technical guidelines - Building over and adjacent to pipe assets*; or
- call 13 20 92.

### Notes:

- **The Certificate will not be issued until the plans have been approved and, if required, Sydney Water's assets are altered or deviated;**
- **You can only remove, deviate or replace any of Sydney Water's pipes using temporary pipework if you have written approval from Sydney Water's Urban Growth Business. You must engage your Coordinator to arrange this approval; and**
- **You must obtain our written approval before you do any work on Sydney Water's systems. Sydney Water will take action to have work stopped on the site if you do not have that approval. We will apply Section 44 of the *Sydney Water Act 1994*.**

## **OTHER THINGS YOU MAY NEED TO DO**

Shown below are other things you need to do that are NOT a requirement for the Certificate. They may well be a requirement of Sydney Water in the future because of the impact of your development on our assets. You must read them before you go any further.

### **Disused Sewerage Service Sealing**

Please do not forget that you must pay to disconnect all disused private sewerage services and seal them at the point of connection to a Sydney Water sewer main. This work must meet Sydney Water's standards in the Plumbing Code of Australia (the Code) and be done by a licensed drainer. The licensed drainer must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

### **Soffit Requirements**

Please be aware that floor levels must be able to meet Sydney Water's soffit requirements for property connection and drainage.

### **Requirements for Business Customers for Commercial and Industrial Property Developments**

If this property is to be developed for Industrial or Commercial operations, it may need to meet the following requirements:

#### **Trade Wastewater Requirements**

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 wait for approval of this permit before any business activities can commence.

The permit application should be emailed to Sydney Water's Business Customer Services at [businesscustomers@sydneywater.com.au](mailto:businesscustomers@sydneywater.com.au)

It is illegal to discharge Trade Wastewater into the Sydney Water sewerage system without permission.

A **Boundary Trap** is required for all developments that discharge trade wastewater where arrestors and special units are installed for trade wastewater pre-treatment.

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.

## Backflow Prevention Requirements

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.

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.

Before you install a backflow prevention device:

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**.

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/>

## Water Efficiency Recommendations

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:

- 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.

It is cheaper to install water efficiency appliances while you are developing than retrofitting them later.

## 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 15 meters head at the main tap. This is equivalent to 146.8kpa or 21.29psi to meet reasonable business usage needs.

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.

Water supply is critical to some businesses and Sydney Water will treat vulnerable customers, such as hospitals, as a high priority.

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.

For further information please visit the Sydney Water website at: <http://www.sydneywater.com.au/OurSystemsandOperations/TradeWaste/> or contact Business Customer Services on **1300 985 227** or [businesscustomers@sydneywater.com.au](mailto:businesscustomers@sydneywater.com.au)

## Fire Fighting

Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the development and the ability of Sydney Water's system to provide that flow in an emergency. Sydney Water's Operating Licence directs that Sydney Water's mains are only required to provide domestic supply at a minimum pressure of 15 m head.

A report supplying modelled pressures called the Statement of Available pressure can be purchased through Sydney Water Tap in<sup>TM</sup> and may be of some assistance when defining the fire fighting system. The Statement of Available pressure, may advise flow limits that relate to system capacity or diameter of the main and pressure limits according to pressure management initiatives. If mains are required for fire fighting purposes, the mains shall be arranged through the water main extension process and not the Section 73 process.



## Large Water Service Connection

A water main are available to provide your development with a domestic supply. The size of your development means that you will need a connection larger than the standard domestic 20 mm size.

To get approval for your connection, you will need to lodge an application with Sydney Water Tap in™. You, or your hydraulic consultant, may need to supply the following:

- A plan of the hydraulic layout;
- A list of all the fixtures/fittings within the property;
- A copy of the fireflow pressure inquiry issued by Sydney Water;
- A pump application form (if a pump is required);
- All pump details (if a pump is required).

You will have to pay an application fee.

Sydney Water does not consider whether a water main is adequate for fire fighting purposes for your development. We cannot guarantee that this water supply will meet your Council's fire fighting requirements. The Council and your hydraulic consultant can help.

## Disused Water Service Sealing

You must pay to disconnect all disused private water services and seal them at the point of connection to a Sydney Water water main. This work must meet Sydney Water's standards in the Plumbing Code of Australia (the Code) and be done by a licensed plumber. The licensed plumber must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

## Other fees and requirements

The requirements in this Notice relate to your Certificate application only. Sydney Water may be involved with other aspects of your development and there may be other fees or requirements. These include:

- plumbing and drainage inspection costs;
- the installation of backflow prevention devices;
- trade waste requirements;
- large water connections and
  - council fire fighting requirements. (It will help you to know what the fire fighting requirements are for your development as soon as possible. Your hydraulic consultant can help you here.)

**No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from Sydney Water and to the extent that it is able, Sydney Water limits its liability to the reissue of this Letter or the return of your application fee. You should rely on your own**

**independent professional advice.**

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**END**

## 7. SCHEDULE 1 – SYDNEY WATER TABLE

### “AVERAGE DAILY WATER USE BY PROPERTY TYPE”

Development Type	Development Sub-Type	Key Metric	Metric Unit	Average Demand (L/Metric Unit / Day)
Residential	Single Lot Torrens	Dwelling	Each dwelling	623.00
	Flats Torrens	Net Floor Area	Square Meter	2.36
	High Rise Units	Net Floor Area	Square Meter	3.34
	Single Lot Community	Dwelling	Each dwelling	623.00
Mixed	Residential / Commercial	Combined Floor Area	Each dwelling / Square Meter	Use separate rates for each component
	Commercial / Industrial	Combined Floor Area	Square Meter	Use separate rates for each component
Commercial	Aged Accom - Self Care	Net Floor Area	Square Meter	2.50
	Aged Accom - Hostel	Bed	Each bed	271.00
	Aged Accom - Full Care	Bed	Each bed	271.00
	Childcare	Net Floor Area	Square Meter	3.60
	Hotel / motel / serviced apartments	Room	Each room	359.94
	Office	Net Floor Area	Square Meter	2.27
	Shopping Centre	Net Floor Area	Square Meter	3.00
	Laundry / Dry Cleaner	Net Floor Area	Square Meter	10.50
	Café / Fast Food / Butcher / Deli	Net Floor Area	Square Meter	2.48
	Retail Units	Net Floor Area	Square Meter	2.48
	Medical / Veterinary	Net Floor Area	Square Meter	2.48
	Mechanical Repair	Net Floor Areas	Square Meter	2.48
	Car / Boat Sales	Net Floor Area	Square Meter	2.48
	Car Wash	Net Floor Area	Square Meter	9.40
	Club	Net Floor Area	Square Meter	3.77
Industrial	Heavy Process		As required	
	Chemical Manufacturing		As required	
	Printing Manufacturing		As required	
	Beverage Manufacturing		As required	
	Light Factory Unit	Developed floor area	Square Meter	2.82
	Warehousing	Developed floor area	Square Meter	2.82
	Transport / Bus Depot	Site area	Square Meter	0.91
Special Uses	University	Student	Each student	20.00
	School	Student	Each student	20.00
	Hospital	Bed	Each bed	271.00
	Religious assemblies	Developed floor area	Square Meter	1.30
	Government Depot	Site area	Square Meter	0.91
	Community Centre / Library	Floor area	Square Meter	1.84
	Sport Fields with Amenities		As required	
	Park & Reserves		As required	
Services - Police / Ambulance etc.	Floor area	Square Meter	1.40	