Catholic Schools Parramatta Diocese

# WESTMEAD CATHOLIC COMMUNITY

# OPERATIONAL MANAGEMENT PLAN

**SACRED HEART PARISH**
**SACRED HEART PRIMARY WESTMEAD**
**CATHERINE MCAULEY WESTMEAD**
**PARRAMATTA MARIST HIGH SCHOOL**
**AMBROSE (OHSC)**

| Revision History | | |
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| **Version Number** | **Date** | **Reason for Version** |
| 1.0 | July 2026 | Operational Start & Occupation |
| 2.0 | | |

Catholic Schools Parramatta Diocese

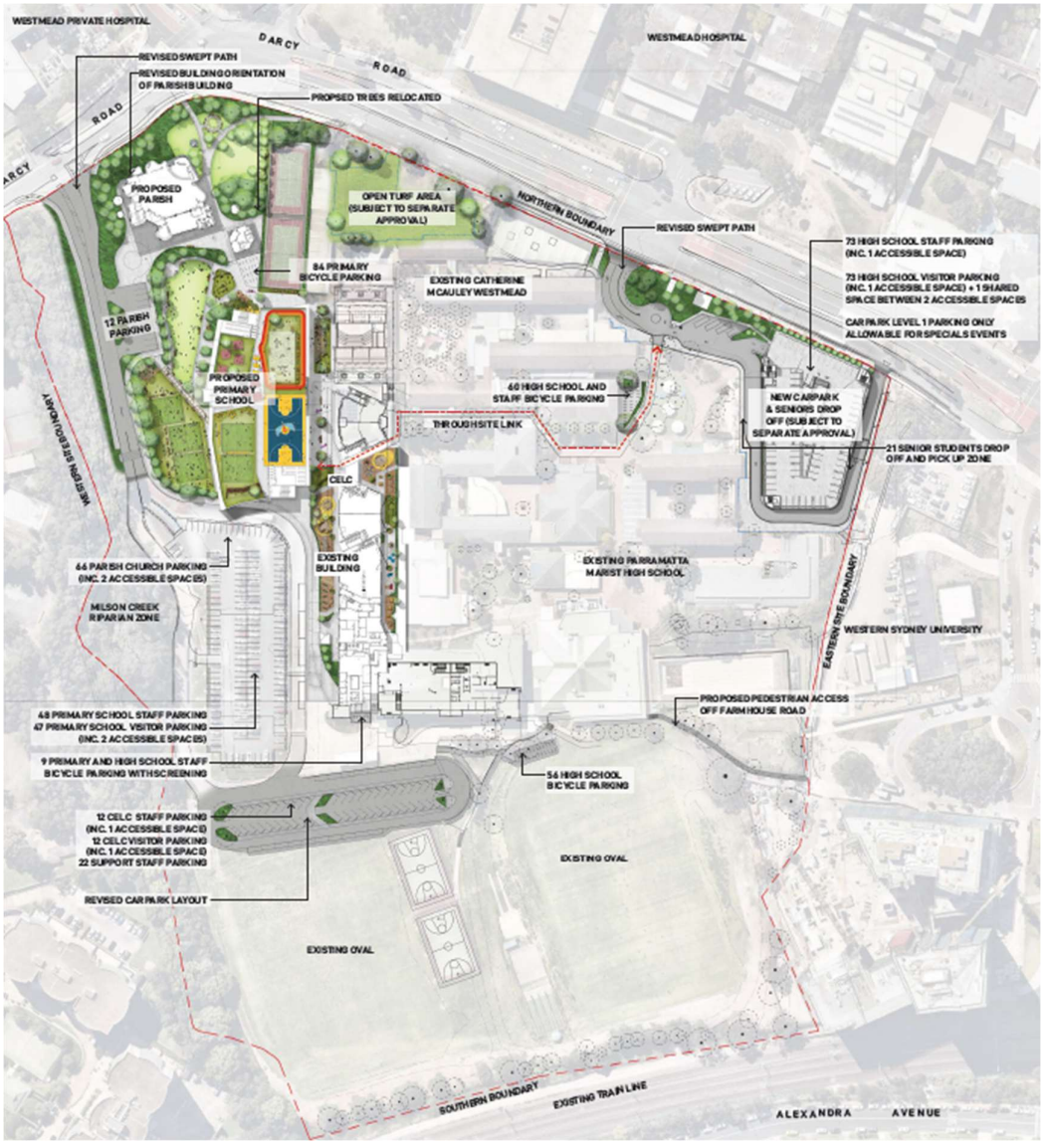
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# 1. Introduction

The plan has been developed by Catholic Schools Parramatta Diocese to outline the key operational arrangements for the recent developmental changes to the Westmead Catholic Community Campus, which accommodates the amalgamated Primary Schools Sacred Heart Primary & Mother Teresa Primary including Ambrose OHSC Operations, Catherine McAuley Westmead, Parramatta Marist High School and the soon to be delivered, Sacred Heart Parish.

As part of the recent developmental change, the newly constructed multi-storey General Learning Building is bordered by Darcy Road to the north and Casuarina Lodge to the west and will be occupied by the newly amalgamated Sacred Heart Primary Westmead and will activate additional learning spaces for Catherine McAuley Westmead.



## 2. Campus Operating Hours

As part of the Community environment curated Campus Wide, operational hours are dictated flexibly across each institutional entity, given the differing operational aspects of Primary, Secondary Schools and Community Parish. The typical hours of each entity and Campus operational are listed below:

### 2.1 Sacred Heart Parish

Mass Time Schedule (Weekdays): Monday to Friday – 8:00am to 4:30pm
Mass Time Schedule (Weekends): Saturday & Sunday – 8:00am to 7:00pm

### 2.2 Sacred Heart Primary Westmead

S
School Hours for Students: Monday to Friday - 8:15am to 2:50pm
School Administration operating hours: Monday to Friday - 8:00am to 3:30pm
Ambrose Before and After School Care: Monday to Friday 6:45am to 8:45am and 2:45pm to 6:30pm

### 2.3 Catherine McAuley Westmead

School Hours for Students: Monday to Friday - 8:05am to 3:15pm
School reception operating hours: Monday to Friday - 8:00am to 4.00pm

### 2.4 Parramatta Marist High School

School Hours for Students: Monday to Friday - 8:10am to 3:10pm
School reception operating hours: Monday to Friday - 8:00am to 4.00pm

Across the Campus, ongoing access for deliveries, maintenance and cleaning staff are allocated on an operational basis and detailed in each Sub Operational Management Plan to support each entity efficiently without impact to the Campus Community and its neighbours.

## 3. Student & Parishioner Population

The estimated population will be allocated under each Sub Operational Management Plan per institutional entity, noting external visitors to the campus are also aligned to each Sub Plan on an operational basis. The Campus has been appropriately developed and designed to accommodate a community that is flexible and integrated across each institution.

## 4. General Operations

As part of the developmental changes made to Westmead Catholic Community Campus, the newly constructed GLA Building will be used as an operational Primary Educational Facility and curriculum timetabling learning space shared between Sacred Heart Primary Westmead and Catherine McAuley Westmead and has been designed to integrate across the existing and future institutions across the Campus. As the Campus has been present for a significant time, existing operations have continued to evolve and be developed through changing circumstances and will continue to do so under the

management of Catholic Schools Parramatta Diocese. The core management of operational aspects have been detailed below, with greater information and responsibility detailed in each institutional entity's Sub Operational Management Plan:

## 4.1 Deliveries

All deliveries will be made via Darcy Road (Gate 3) and dispersed to the appropriate institution. Supplier and subcontractors will be directed to provide School & Parish deliveries between 9:00am - 2:30pm or other outside operational hours as required.

## 4.2 Waste Management

Waste Collection across the Westmead Catholic Community Campus facilities will continue as per existing operational management controls specific to each existing and future sites. This is typically three (3) times per week, undertaken before 6:00am, across the typical School Calendar week of Monday to Friday. Each institution Sub Operational Management Plan shares specific detail on existing, integrated or anticipated Waste Management Controls to align with authority requirements.

## 4.3 Security

All employees at the Westmead Site are inducted prior to working in any areas of the schools, inclusive of mandatory background checks required by Catholic Schools Parramatta Diocese. Further, similar security protocols for parish Staff are inclusive of mandatory background checks required by the Diocese of Parramatta. Security measures Campus wide operate 24 hours a day, including regular patrols of the schools outside of hours and CCTV throughout the campus. Outside of regular School, OOSH and CELC Operational hours, all pedestrian and vehicle gates will be closed.

## 4.4 Operational Management Leadership

The Westmead Catholic Community Campus remains under the existing Management of Catholic Schools Parramatta Diocese, apportioned to the Land Ownership. As detailed in each Sub Operational Management Plan, each School entity within the Campus, employ a Business Manager that undertakes operational management activities such as facility management, financial management and administrative staff management.

The Sacred Heart Parish will remain in the operational management control of Diocese of Parramatta with support from the Parish Priest, Father Walter Fogerty.

## 4.5 Maintenance Staff

The Campus employ's a full-time grounds person to work on various services including the maintenance of existing landscape areas, management of specialised trade contractors and ad-hoc duties as required by the Operational Management Leadership and School Business Managers.

Maintenance staff are qualified with a range of general skills, however there are times when external trade and specialist contractors are required to service areas such as fire safety, pest control, electrical/mechanical/hydraulic systems and lift maintenance. The new landscaped areas will be maintained in accordance of the Operational Landscape Management Plan.

The Sacred Heart Parish will be maintained under the Operational Leadership of the Diocese of Parramatta, noting its intention to share responsibilities with the neighbouring Schools to Landscape Maintenance of shared green spaces.

## 4.6 Cleaning

All institutions will be cleaned in accordance with each Operational Leadership portfolio wide annual cleaning contract's, to which has been applied across the Campus. The Cleaning Contracts will continue to provide cleaning contractors managing the whole site and responsible for all learning spaces, parish spaces and activated external spaces.

Annual WHS inspections are conducted on all Campus facilities.

## 4.7 Emergency Management Plan

Across the Campus, each institution has local and site wide Emergency Response Procedures and Emergency Evacuation Plans in place and are regularly reviewed on an Annual or needs basis. It is a Catholic Schools Parramatta Diocese and Diocese of Parramatta requirement to ensure all Emergency Management Plans contain a Flood Planning Emergency Procedures.

## 4.8 Fire Protection/Safety

Across the Campus, each institution has a Fire Protection Safety Plan which is incorporated in each of the Institution's Emergency Procedures and Emergency Management Plans. All Evacuation Diagrams are strategically located across institution to meet statutory requirements.

## 4.9 Incident Register

Across the Campus, each institution has accident, incident & injury reporting policy and procedures that apply to all employees, students, parishioners, volunteers and contractors.

## 4.10 Code of Conduct

Across the Campus, each institution requires that all staff, parishioners and students to comply with each institution's Code of Conduct Policies.

## 4.11 Complaint Management

Across the Campus, each institution has overarching policies and procedures relating to complaint management. Each institution, complaint management policies and procedures are displayed publicly to each official website. As Catholic Schools Parramatta Diocese maintain overarching governance of its School Institutions, including OHSC operations, and found in *Annexure D*, the Complaint Management Procedure is regularly updated and managed effectively.

**Website:** https://www.parra.catholic.edu.au/about/policy-central

In relation to the Sacred Heart Parish, the Complaint Management Procedures can be found on the Diocese of Parramatta Website, as an overarching Governance across its Parish network.

**Website:** https://parracatholic.org/safeguarding/support/

# 5. Parking and Access and Public Transport

## 5.1 Pedestrian & Bicycle Access

There are several entry points for pedestrian and bicycle access throughout the Campus, with more detailed information found within the Operational Transport Management Plan. The site has five pedestrian and bicycle entries:

- East entry prior to the eastern Darcy Road driveway
- Northeast entry at the signalised intersection at Darcy Road and the hospitals
- North entry at the intersection of Darcy Road, Institute Road and Mons Road, via the Sacred Heart Parish
- Northwest entry at the western Darcy Road driveway
- Southeast entry at Maple Tree Road

## 5.2 Vehicular Access

The campus has three vehicle entry points and two exit points to support all School & Parish institutions, with more detailed information found within the Operational Transport Management Plan. In summary, the main vehicular gate entries are detailed below:

> **Gate 1**: One-way entry at Darcy Road at the eastern boundary of the site to access the recently operational Staff & Visitor Carpark and Kiss & Drop for Catherine McAuley

Westmead and Parramatta Marist High School, including Private School Buses on a scheduled time basis.

**Gate 2:** Two-way entry and exit at Darcy Road Light Intersection at the eastern boundary of the site to access the recently operational Carpark and Kiss & Drop for Catherine McAuley Westmead and Parramatta Marist High School. Entry to this Gate is only for authorised service vehicles to support Campus Operations, Entry is denied for Staff, Visitors and "Kiss & Drop" activities – Entry must be via Gate 1 for these purposes.

**Gate 3:** Two-way entry and exit from Darcy Road along the Western side of the campus serving the Sacred Heart Primary, Ambrose CELC, Westmead Catholic Community Support, Parish Staff and Parishioners. Further, Gate 3 services entry for respective Visitor's, Primary School "Kiss-and-drop" and School Buses to the designated Bus Zone.

All separate School Buildings are gated and secured across the campus and cannot be accessed before and after School related hours. The access to Gate 3, a perimeter Gate, and subsequent carpark is available to the Parish Users and School Staff outside of these hours by way planned scheduled timing prior while Gate 3 is SIM controlled and accessible by arrangement with School Management.

## 5.3 Car Parking & Way Finding

Across the Campus, and to support balanced traffic flow across the Campus to support operational traffic controls, specific car parking spaces have been allocated as follows:

- Sacred Heart Parish Staff and Attendees (78 spaces incl. Accessible Spaces).
- Sacred Heart Primary Westmead Staff, Parents & Visitors (95 spaces incl. Accessible Spaces)
- Ambrose CELC Staff, Parents & Visitors (24 spaces incl. Accessible Spaces)
- Catherine McAuley Westmead & Parramatta Marist HS Staff, Parents & Visitors (146 spaces incl. Accessible Spaces)
- Event parking parents / guests, ie awards ceremonies and annual mass (114 spaces incl. Accessible Spaces).
- Education support staff, such as IT staff and daily site maintenance staff (22 spaces incl. Accessible Spaces).

Further detailed information, including locations and entry points, can be found within the Operational Transport Management Plan.

To support the Westmead Catholic Community across Students, Staff and Visitors, suitable wayfinding signage can be located across entry points to the Campus, as well as wayfinding signage within the Campus and individual institution zones. The wayfinding signage is regularly cleaned and maintained in accordance of CSPD Asset Management Guidelines.

### 5.4 Public Transport

Campus wide Staff, Parishioners and Students are, ad will continue to be, regularly encouraged to utilise public transport including buses, which run regularly along Darcy Road, trains that are easily accessible from Westmead Station and the light rail accessible from Hawkesbury Road.

Further detailed information can be found within each institution's Travel Plans readily available upon request.

## 6. Noise Management Plan

Noise mitigation strategies developed by the appointed acoustician will be implemented to minimise the impact on adjoining residences and the surrounding public domain. The design of the existing and new facilities has been taken into consideration, each institution's acoustics inside and outside of the relative buildings to ensure minimal impact to its surrounding community.

Further detailed information, including measured requirements, can be found within the Noise & Vibration Impact Assessment.

## 7. Monitoring and Review

This Operational Management Plan is intended to facilitate use of the Westmead Catholic Community Campus. This plan will be reviewed periodically to ensure it is working efficiently and providing adequate support to its community.

Should any further development consents be issued in the future for any proposed redevelopment of the site, including redevelopment of any school & parish facilities, this Operational Management Plan will be reviewed and updated or replaced accordingly to reflect any changes to the use of school & parish facilities as a result of any staged occupation certificate.

In light of the above, this plan will be reviewed:

- Every 12 months, for the first 5 years after receiving an Occupation Certificate; and
- As required, to align with any staged Occupation Certificate under the approved SSDA

The CSPD shall write to the Secretary of the Department of Planning, Housing and Infrastructure to align with any staged Occupation Certificate under the approved SSDA per the staging report required under Condition A18.

8. Annexure A – Sub Operational Management Plan – Schools

Catholic Schools Parramatta Diocese

# SCHOOL OPERATIONAL MANAGEMENT SUB-PLAN







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| Revision History | | |
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| 1.0 | July 2026 | Operational Start & Occupation |
| 2.0 | | |

Catholic Schools Parramatta Diocese

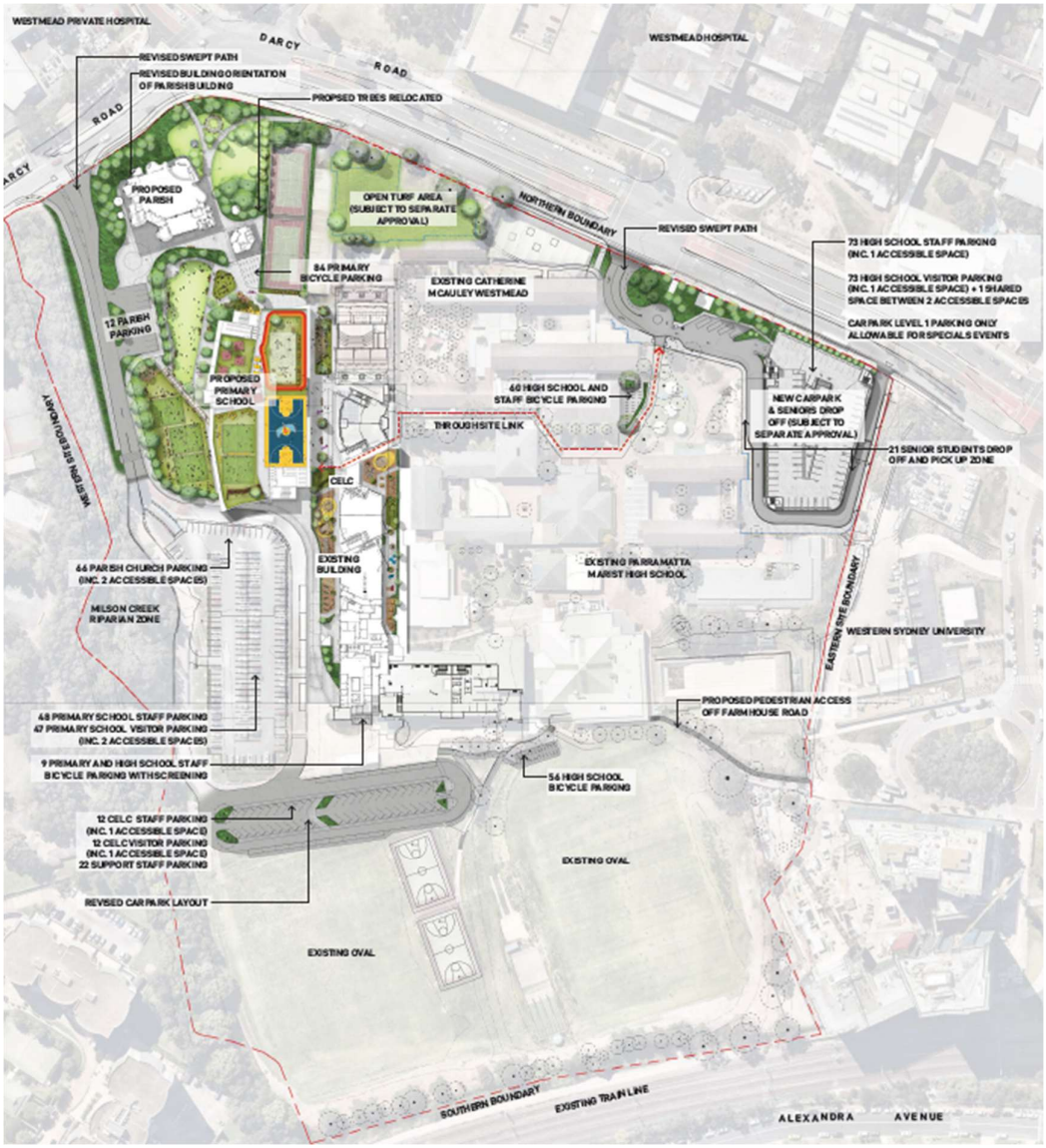
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# 1. Introduction

The plan has been developed by Sacred Heart Primary Westmead and Catherine McAuley Westmead to outline the key operational arrangements for the new General Learning space at the Westmead campus, which accommodates the amalgamated Primary Schools Sacred Heart Primary & Mother Teresa Primary, Catherine McAuley Westmead, and Parramatta Marist High School.

The newly constructed multi-storey General Learning Building is bordered by Darcy Road to the north and Casuarina Lodge to the west and will be occupied by the newly amalgamated Sacred Heart Primary Westmead and Catherine McAuley Westmead Schools.



# 2. School Operating Hours

## 2.1 Sacred Heart Primary Westmead

School Hours for Students: Monday to Friday - 8:15am to 2:50pm
School Administration operating hours: Monday to Friday - 8:00am to 3:30pm
Ambrose Before and After School Care: Monday to Friday 6:45am to 8:45am and 2:45pm to 6:30pm

## 2.2 Catherine McAuley Westmead

School Hours for Students: Monday to Friday - 8:055am to 3:15pm
School reception operating hours: Monday to Friday - 8:00am to 4.00pm

The building is equipped with a Public Address System to support students, staff and parents for all purposes for announcements, school bell times and public warning. The Public Address System has been configured and installed to meet Noise Impact Assessments as part of the Building's Development to mitigate impact to neighbouring entities.

# 3. Student Population

## 3.1 Sacred Heart Primary Westmead

The primary student numbers that will be supported by the new GLA Building from Term 3, 2026, will be:
Sacred Heart Primary Westmead: 600
Ambrose Before and After School Care: 120

## 3.2 Catherine McAuley Westmead

Student numbers across the entirety of Catherine McAuley Westmead Educational Institution is up to 1200, with the use of the nominated CMW Learning Spaces within the GLA located on Level's 2, 4 & 5 will be based upon curriculum led time tabling.

# 4. General Operations

The newly constructed GLA Building will be used as an operational Primary Educational Facility and curriculum timetabling learning space shared between Sacred Heart Primary Westmead and Catherine McAuley Westmead. The usage of these spaces will be typically across school timetable hours across the hours of 8:30am and 3:30pm Monday to Friday. For further information on Open Space usage schedule, please refer to the *Open Space Management Plan in Annexure D*.

| Floors | Year Level/Activity |
|---|---|
| Ground Floor | SHPW: Kindergarten, Year 1 |
| First Floor | SHPW: Learning Hub (Library), Gathering Space, Year's 2, 3 and 4 |
| Second Floor | SHPW: Year's 5 and 6<br>CMW: Mary Clare Dunphy Classrooms<br>Shared Space: Amphitheatre |
| Third Floor | Shared Space: Unstructured Play Space |
| Fourth Floor | CMW: Mary Clare Dunphy Classrooms |
| Fifth Floor | CMW: Callaghan Place (Structured Play & PHDPE Space)<br>**Prohibited use after 6pm** |

## 4.1 Deliveries

All deliveries will be made via Darcy Road (Gate 3) and dispersed to the appropriate school. Supplier and subcontractors will be directed to provide school deliveries between 9:00am - 2:30pm or other outside operational hours as required.

## 4.2 Waste Management

Waste Collection across the Catherine McAuley Westmead and Parramatta Marish High School facilities will continue as per existing operational management controls specific to those sites. For the newly constructed GLA Building, all waste collection arrangements will be aligned with existing campus waste collection commercial contract and scheduling, being three (3) times per week, undertaken before 6:00am, across the typical School Calendar week of Monday to Friday. Further details relating to specifics on Waste Management for the GLA Building, can be found in *Annexure A: Operational Waste Management Plan.*

## 4.3 Security

All employees at the Westmead Site are inducted prior to working in any areas of the schools, inclusive of mandatory background checks required by Catholic Schools Parramatta Diocese. Security measures Campus wide operate 24 hours a day, including regular patrols of the schools outside of hours and CCTV throughout the campus.

The newly constructed GLA Building has been equipped with extensive CCTV, monitored alarms, access control and physical security elements for intruder and unauthorised visitor access. Further,

programmable fobs and keys with varied levels of access will be issued to staff members - access will be role dependent. In keeping with the extensive Security Management across the Campus, the new GLA Building will be under monitored security inclusive of regular patrols, 24 hours a day. Outside of regular School, OOSH and CELC Operational hours, all pedestrian and vehicle gates will be closed.

## 4.4 Operational Management Leadership

The newly constructed GLA Building will be overseen by the Principal's of Sacred Heart Primary Westmead and Catherine McAuley Westmead. Each School within the Campus, employ a Business Manager that undertakes operational management activities such as facility management, financial management and administrative staff management.

## 4.5 Maintenance Staff

Each School Institution across the campus employ's a full-time grounds person, respective to each School, to work on various services including the maintenance of existing landscape areas, management of specialised trade contractors and ad-hoc duties as required by the Operational Management Leadership and School Business Managers. The new landscaped areas will be maintained in accordance of the Operational Landscape Management Plan.

Maintenance staff are qualified with a range of general skills, however there are times when external trade and specialist contractors are required to service areas such as fire safety, pest control, electrical/mechanical/hydraulic systems and lift maintenance.

## 4.6 Canteen

The newly construct GLA Building shall provide a Canteen, for a third-party operator to be procured via commercial terms of engagement from 2027. In the interim, the Canteen will service coordinated school events as required. Upon engagement of an appropriate Canteen operator, the Operator will be engaged under the terms of a commercial agreement, strictly for the sole purposes of catering to the Primary School, per CSPD policies and procedures.

## 4.7 Cleaning

The newly constructed GLA will be cleaned in accordance with Catholic Schools Parramatta Diocese portfolio wide annual cleaning contract, to which has been applied across the Campus. Sacred Heart Primary and Catherine McAuley Westmead will have cleaning contractors managing the whole site and responsible for all classrooms and playground spaces. Annual WHS inspections are conducted on all School facilities.

## 4.8 Emergency Management Plan

Across the Campus, the Schools have local and site wide Emergency Response Procedures and Emergency Evacuation Plans in place and are regularly reviewed on an Annual or needs basis. It is a Catholic Schools Parramatta Diocese requirement to ensure all Emergency Management Plans contain a Flood Planning Emergency Procedures.

## 4.9 Fire Protection/Safety

Sacred Heart Primary Westmead and Catherine McAuley Westmead have a Fire Protection Safety Plan which is incorporated in each of the School's Emergency Procedures and Emergency Management Plan. All Evacuation Diagrams are strategically located across the newly constructed GLA Building to meet statutory requirements.

## 4.10 Incident Register

Sacred Heart Primary and Catherine McAuley Westmead have accident, incident & injury reporting policy and procedures that apply to all employees, students, volunteers and contractors. The policy and procedures provide a mechanism for reporting and recording incidents in accordance with legislative requirements, analysing the data to implement corrective action, monitor and improve the safety of all who may be impacted on by the business of the relative School.

## 4.11 School Code of Conduct

Sacred Heart Primary and Catherine McAuley Westmead require all staff and students to comply with the School's Code of Conduct Policies.

# 5. Parking and Access and Public Transport

## 5.1 Pedestrian & Bicycle Access

There are several entry points for pedestrian and bicycle access to the newly constructed GLA building, with more detailed information found within the Operational Transport Management Plan in *Annexure B*. The site has five pedestrian and bicycle entries:

- East entry prior to the eastern Darcy Road driveway
- Northeast entry at the signalised intersection at Darcy Road and the hospitals
- North entry at the intersection of Darcy Road, Institute Road and Mons Road, via the Sacred Heart Parish
- Northwest entry at the western Darcy Road driveway
- Southeast entry at Maple Tree Road

The Campus has adequate wayfinding signage across each institution in the support of all pedestrian and bicycle access requirements.

## 5.2 Vehicular Access

The campus has three vehicle entry points and two exit points to support all three School institutions, with more detailed information found within the Operational Transport Management Plan in *Annexure B.* In summary, the main vehicular gate entries are detailed below:

> **Gate 1**: One-way entry at Darcy Road at the eastern boundary of the site to access the recently operational Staff & Visitor Carpark and Kiss & Drop for Catherine McAuley Westmead and Parramatta Marist High School, including Privately Hired School Buses on a scheduled time basis.
>
> **Gate 2:** Two-way entry and exit at Darcy Road Light Intersection at the eastern boundary of the site to access the recently operational Carpark and Kiss & Drop for Catherine McAuley Westmead and Parramatta Marist High School. Entry to this Gate is only for authorised service vehicles to support Campus Operations, Entry is denied for Staff, Visitors and "Kiss & Drop" activities – Entry must be via Gate 1 for these purposes.
>
> **Gate 3:** Two-way entry and exit from Darcy Road along the Western side of the campus serving the Sacred Heart Primary, Ambrose CELC, Westmead Catholic Community Support and Parish Staff. Further, Gate 3 services entry for respective Visitor's, Primary School "Kiss-and-drop" and School Buses to the designated Bus Zone the school bus zone.

The Campus has adequate wayfinding signage across each entry gate in the support of all vehicular access and carparking requirements.

All separate School Buildings are gated and secured across the campus and cannot be accessed before and after School related hours. The access to Gate 3, a perimeter Gate, and subsequent carpark is available to the Parish Users and School Staff outside of these hours by way planned scheduled timing prior while Gate 3 is SIM controlled and accessible by arrangement with School Management.

## 5.3 Car Parking & Wayfinding

Across the Campus, and to support balanced traffic flow across the Campus to support operational traffic controls, specific car parking spaces have been allocated as follows:

- Sacred Heart Parish Staff and Attendees (78 spaces incl. Accessible Spaces).
- Sacred Heart Primary Westmead Staff, Parents & Visitors (95 spaces incl. Accessible Spaces)
- Ambrose CELC Staff, Parents & Visitors (24 spaces incl. Accessible Spaces)

- Catherine McAuley Westmead & Parramatta Marist HS Staff, Parents & Visitors (146 spaces incl. Accessible Spaces)
- Event parking parents / guests, ie awards ceremonies and annual mass (114 spaces incl. Accessible Spaces).
- Education support staff, such as IT staff and daily site maintenance staff (22 spaces incl. Accessible Spaces).

Further detailed information, including locations and entry points, can be found within the Operational Transport Management Plan in *Annexure B.*

To support the Westmead Catholic Community across Students, Staff and Visitors, suitable wayfinding signage can be located across entry points to the Campus, as well as wayfinding signage within the Campus and individual institution zones. The wayfinding signage is regularly cleaned and maintained in accordance of CSPD Asset Management Guidelines.

## 5.4 Public Transport

Staff and students are regularly encouraged to utilise public transport including buses, which run regularly along Darcy Road, trains that are easily accessible from Westmead Station and the light rail accessible from Hawkesbury Road.

School buses from two operators serve the site at stop 2145608. Buses start and end at the designated bus zone north of the primary school kiss and ride.

AM – CDC: 2042 from Winston Hills Mall, 8007 from Seven Hills Station, 2049 from Churchill Drive after Windsor Road, 2044 from Baulkham Hills Junction, 8005 from Darcy Road Public School. Transit Systems: 9101 from Smithfield T-Way Station, 7011 from Greystanes Road and Bathurst Street, 9039 from Meadows Public School, 7021 from Nijong Drive after Wombat Street, 7015 from Merrylands Station

PM – CDC: 2530 to Mays Hill, Girraween and Toongabbie Station, 2558 to Gibbon Road, 8610 to Old Toongabbie, 2529 to Langdon Road, 2570 to Winston Hills. Transit Systems: 7515 to Merrylands Station, 7520 to Merrylands, 9630 to Greystanes, 9632 to Pemulwuy, 7517 to Smithfield T-Way Station

Five public bus stops serve Darcy Road: 2145181 for eastbound buses, 214518 and 214519 for westbound buses. The Darcy Road T-Way bus stops 214559 and 214560 are accessed via pedestrian signals at Farm House Road.

There is footpath access and pedestrian crossings at Hawkesbury Road to access the Parramatta Light Rail and the Westmead Train Station.

From the Westmead Train Station, there are frequent services on the T1 North Shore and Western Lines Parramatta, Penrith, Blacktown. The T5 Cumberland line has services to Merrylands and Leppington, Blacktown and Schofields.

From the Westmead Light Rail stop, there are frequent services to Parramatta (8 morning, 9 afternoon).

Further detailed information can be found within the School Travel Plan including supporting mechanisms for Green Travel. Further, current Travel Access Guides typically provided via the respective School's Websites, Enrolment Packs and Administration Offices.

## 6. Noise Management Plan

Noise mitigation strategies developed by the appointed acoustician will be implemented to minimise the impact on adjoining residences and the surrounding public domain. The design of the new facilities has taken into consideration acoustics inside and outside of the building to ensure minimal impact to the School and its surrounding community.

Further detailed information, including measured requirements, can be found within the Noise & Vibration Impact Assessment in *Annexure C.*

Catholic Schools
Parramatta Diocese

# ANNEXUE A

Scared Heart Primary School and
Parramatta Marist High School
2 Darcy Rd, Westmead NSW
Educational Facility

# OPERATIONAL WASTE MANAGEMENT PLAN

19/11/2025
Report No. 6128
Revision H

Client

Kane Constructions
https://www.kane.com.au/

Architect

Alleanza
https://www.alleanza.com.au/

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## REVISION REFERENCE

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| A | 16/10/2024 | S. Dib | H. Wilkes | Draft |
| B | 6/05/2025 | H Wilkes | J Parker | Amendment |
| C | 7/05/2025 | H Wilkes | J Parker | Amendment |
| D | 7/05/2025 | H Wilkes | J Parker | Amendment |
| E | 27/05/2025 | H Wilkes | J Parker | Final |
| F | 27/10/2025 | H Wilkes | J Parker | Amendment |
| G | 19/11/2025 | H Wilkes | J Parker | Amendment |
| H | 19/11/2025 | H Wilkes | J Parker | Amendment |

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# GLOSSARY OF ABBREVIATIONS AND TERMS

| TERM | DESCRIPTION |
|---|---|
| *Bin-Carting Route* | Travel path for transporting bins from their allocated storage location to the nominated collection point |
| *Bin Lifter* | A device used to mechanically lift bins for the purpose of emptying them into larger bins and/or compactors. |
| *Bin Mover* | Either a handheld device (commonly referred to as a bin tug) or a ride-on device (typically a tractor or Class C vehicle with an attached bin trailer) used to facilitate the movement of bins across long distances or up ramps |
| *Bulky Waste* | Recycling items that are too large to be deposited into bins, including furniture, whitegoods, electronics and mattresses |
| *Collection Area/Point* | Designated area or point where bins are loaded onto the collection vehicle for servicing |
| *Comingled Recycling* | Waste stream for the recycling of plastic bottles, other plastics, paper, glass and metal containers |
| *Communal Bin Room* | A central, shared bin room accessible to all residents or staff to dispose of their waste stream |
| *DA* | Development Application |
| *DCP* | Development Control Plan |
| *EPA* | Environment Protect Authority |
| *FOGO* | Food Organics and Garden Organics |
| *General Waste* | All non-recyclable and non-hazardous waste that is sent to landfill |
| *HRV* | Heavy Rigid Vehicle |
| *Kerbside Collection* | A collection arrangement whereby bins are presented in a single row along the kerb and serviced by a collection vehicle on the street. |
| *L* | Litre |
| *LEP* | Local Environmental Plan |
| *Mobile Bins* | Containers with a capacity up to and including 1100L designed to be collected by a rear-loading vehicle |
| *MRV* | Medium Rigid Vehicle |
| *Onsite Collection* | A collection arrangement whereby all bins are serviced by a collection vehicle within the property boundary, either in the building's basement or at grade and off-street. |
| *Paper/ Cardboard Recycling* | Waste stream for the recycling of paper and cardboard only. |
| *Recycling* | Waste stream that combines all recycling, including comingled recycling, paper/cardboard and metals. |

| | |
|---|---|
| *Source Separation Receptacles* | Communal containers used throughout the development for the day-to-day disposal of different waste streams |
| *SRV* | Small Rigid Vehicle |
| *Waste Stream* | A classification used to describe waste of a particular type (eg. food waste stream) |
| *WHS* | Workplace Health and Safety |
| *Wheel-Out Wheel Back* | A collection arrangement whereby a collection vehicle parks on the street and collection staff exit the vehicle to wheel each bin from a designated storage area to the vehicle for servicing and returns them upon completion. |

# 1.0 ACKNOWLEDGEMENT OF COUNTRY

Elephants Foot Consulting (EFC) acknowledges that every project we work on takes place on First Peoples land. We recognise Aboriginal and Torres Strait Islander People as Traditional Custodians of this land. We pay respect to ancestors and Elders, past and present.

# 2.0 INTRODUCTION

Elephants Foot Consulting (EFC) has been engaged to prepare the following Operational Waste Management Plan (OWMP) for the Educational Facility located at 2 Darcy Rd, Westmead NSW 2145.

The report is prepared to satisfy Condition B6 of the SSDA 10383 and in accordance with applicable Council's standards. Noting a private waste contractor will be engaged, we understand that Council's approval is not required. In addition, The development is designed to under Green Star Buildings rating tool. All disciplines have been coordinated to meet these targets. This report has been prepared to demonstrate how the site has met the criteria for Green Star Building Credit 4, Responsible Resource Management.

Robust waste management strategies are required for new developments to support the design and sustainable performance of the building. It is EFC's belief that a successful waste management strategy contains three key objectives:

*i.* ***Promote responsible source separation*** to reduce the amount of waste that goes to landfill by implementing convenient and efficient waste management systems.

*ii.* ***Ensure adequate waste and recycling provisions and procedures*** are established that will cater for potential changes during the operational phase of the development.

*iii.* ***Comply*** with all relevant council codes, policies, and guidelines.

To achieve these objectives, this OWMP identifies and details the following components:

- Waste streams expected to be generated onsite and anticipated volumes;
- Suitable bin sizes and quantities;
- Waste and recycling disposal procedures;
- Bin room size estimations and equipment recommendations; and
- Waste collection strategies, locations and frequencies.

It is vital that this OWMP is integrated into the overall management of the building and is clearly communicated to all relevant stakeholders.

## 2.1 SCOPE OF REPORT

This OWMP only applies to the **operational** phase of the proposed development; therefore, the requirements outlined in this OWMP must be implemented during the operational phase of the site and may be subject to review upon further expansion of, and/or changes to the development.

The waste management of the **construction** and **demolition** phases of the development are not addressed in this report. A construction and demolition WMP will be provided separately.

## 2.2 REPORT CONDITIONS

The purpose of this report is to document an OWMP as part of a development application, which is supplied by EFC with the following limitations:

- Drawings, estimates and information contained in this OWMP have been prepared by analysing the information, plans and documents supplied by the client and third parties including Council and other government agencies. The assumptions based on the information contained in the OWMP is outside the control of EFC,
- The figures presented in the report are an estimate only – the actual amount of waste generated will be dependent on the occupancy rate of the building/s and waste generation intensity as well as the school management's approach to educating residents and tenants regarding waste management operations and responsibilities,
- School management will adjust waste management operations as required based on actual waste volumes (e.g. if waste is greater than estimated) and increase the number of bins and collections accordingly,
- The report will not be used to determine or forecast operational costs or prepare any feasibility study or to document any safety or operational procedures,
- The report has been prepared with all due care; however no assurance is made that the OWMP reflects the actual outcome of the proposed waste facilities, services, and operations, and EFC will not be liable for plans or results that are not suitable for purpose due to incorrect or unsuitable information or otherwise,
- EFC offer no warranty or representation of accuracy or reliability of the OWMP unless specifically stated,
- Any manual handling equipment recommended in this OWMP should be provided at the recommendation of the appropriate equipment provider who will assess the correct equipment for supply,
- Design of waste management chute equipment and systems must be approved by the supplier,
- EFC cannot be held accountable for late changes to the design after the OWMP has been submitted to Council,
- EFC will provide specifications and recommendations on bin access and travel paths within the OWMP, however it is the architect's responsibility to ensure the architectural drawings meet these provisions,
- EFC are not required to provide information on collection vehicle swept paths, head heights, internal manoeuvring or loading requirements. It is assumed this information will be provided by a traffic consultant,
- Council are subject to changing waste and recycling policies and requirements at their own discretion.
- This OWMP is only finalised once the draft watermark has been removed. If the draft watermark is present, the information in the OWMP is not confirmed.

# 3.0 LEGISLATION & GUIDANCE

Waste management and resource recovery regulation in Australia is administered by the Australian Constitution, Commonwealth laws, and international agreements. State and territory governments maintain primary responsibility for controlling development and regulating waste. The following legislation has been enacted in New South Wales, and provides the lawful underpinnings of this OWMP.

- NSW Environmental Planning & Assessment Act 1979
- NSW Protection of the Environment Operations Act 1997
- NSW Waste Avoidance & Resource Recovery Act 2001

At the local level, councils or Local Government Areas (LGAs) require OWMPs to be included in new development applications. This OWMP is specifically required by:

- Parramatta Development Control Plan 2023
- Parramatta Local Environmental Plan 2023

The primary purpose of a Development Control Plan (DCP) is to guide the planning process according to the aims of the corresponding local environmental plan (LEP). The DCP must be read in conjunction with the provisions of the relevant LEP.

Information provided in this OWMP comes from a wide range of waste management guidance at the local, state, and federal levels. The primary sources of guidance include:

- Parramatta Development Control Plan 2023: Appendix 2: Waste Management
- Green Star Building Credit 4, Responsible Resource Management 2021
- NSW Department of Education *Educational Facilities Standards and Guidelines Requirement DG02 (2.7.2)*
- NSW Better Practice Guide For Resource Recovery In Residential Developments 2019
- NSW Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities 2012
- NSW Waste Avoidance and Resource Recovery (WARR) Strategy 2014-2021
- NSW Waste Classification Guidelines 2014
- Australia's National Waste Policy 2018

# 4.0 GREEN STAR

The development has been designed under the Green Star Buildings tool: Building Credit 4 Responsible Resource Management. The main outcome of this Green Star credit is to ensure operational waste and resources can be separated and recovered in a safe and efficient manner.
The minimum expectation for responsible resource management is as follows:

- The building is designed for the collection of separate waste and resource streams.
- The building provides a dedicated and adequately sized waste and resource storage area.
- The building ensures safe and efficient access to waste and resource storage areas for both occupants and waste and resource collection contractors.

The waste management facilities within the proposed development have been designed to achieve the minimum expectation for credit 4 Responsible Resource Management, as well as best practice waste management outcomes in operation.

## 4.1 GREEN STAR WASTE CRITERIA ASSESSMENT

The following table provides an overview of Green Star Buildings Credit 4 Responsible Resource Management minimum expectation criteria as discussed in this report.

| Requirements of Credit 4 Responsible Resource Management | Operational Waste Management Plan (OWMP) Overview |
|---|---|
| *1 Collection of Separate Waste Streams*<br>*The building must provide bins or storage containers to building occupants to enable them to separate their waste. These bins must be labelled and easy to access, and evenly distributed throughout the building. They must also allow for separating the following as a minimum:*<br>• *General waste going to landfill*<br>• *Recycling streams to be collected by the building's waste collection service, including:*<br>  • *paper and cardboard*<br>  • *glass*<br>  • *plastic*<br>• *One additional waste stream identified by the project team. This may include collecting any of the following waste types: organics, e-waste, batteries etc.*<br><br>*Any other single waste stream (except food waste) that is expected to represent more than 5% of total annual operational waste and resources (by volume) must also be included.* | Please refer to Section 6 and Section 8 of this report |
| *2 Dedicated Waste Storage Area*<br>*A dedicated area, or areas, for the storage and collection of the applicable waste streams must be provided. The storage area must be sized to accommodate all bins or containers, for all applicable waste streams, for at least one collection cycle. The calculations used to demonstrate that the area provided is adequately sized to handle the recyclable waste streams specified must be based on:*<br>• *Forecasted waste generated by occupants*<br>• *Collection frequency for each waste stream*<br><br>*The calculations for waste generation rates must be based on figures outlined within third-party best practice guidelines. See Guidance for more information.*<br><br>*The storage area(s) must have efficient and safe access by collection vehicles. This includes driveway access to the building, appropriate height clearances, any onsite roads and loading docks, and the storage areas themselves providing safe and easy access for bins to be emptied into collection vehicles.* | Please refer to Section 6.1, Section 12 and Appendix C of this report. |
| *3 Signoff by Waste Specialist and/or Contractor*<br><br>*A waste specialist and/or contractor must sign-off on the designs to confirm they are adequately sized and located for the safe and convenient storage and collection of the waste streams identified.* | Please see Appendix A.2 of this report |

# 5.0 DEVELOPMENT OVERVIEW

The consists of upgrades to the existing Sacred Heart Primary School and Parramatta Marist High School. The works will increase the number of students at the school.

| | Current Students | Future students |
|---|---|---|
| ***Sacred Heart Primary School*** | 420 | 1680 |
| ***Parramatta Marist High School*** | 2186 | 2237 |
| ***Prep School*** | None | 120 |

It is understood that the current waste management operations to the site will increase to accommodate the number However the bins sizes and collection location will remain as per the current arrangement. All figures, calculations and information regarding the current operations are based on information as advised by our client and shown on architectural drawings.

The proposed development falls under the LGA of Parramatta City Council. Council's *Development Control Plan 2011* and the *NSW EPA Better Practice Guide for Resource Recovery in Residential Developments 2019* have been used as the relevant third-party best practice guidelines to achieve Green Star Buildings credit 4 Responsible Resource Management.

## 5.1 SITE LOCATION

The site is located at 2 Darcy Rd, Westmead NSW 2145, as shown in Figure.1 (boundaries are indicative only). The site has frontages and vehicular access via Darcy Road.

*Figure 1: Site Location*




Source: Google Maps 2024

# 6.0 SCHOOL WASTE MANAGEMENT

The following section outlines waste management for the for the upgrades schools based on the current operations, including waste generation estimates and waste disposal and collection procedures.

## 6.1 WASTE GENERATION ESTIMATES

The data regarding the waste generated weekly at the currently operating site has been used to calculate the number of bins required for the upgraded school. For full calculations please see Appendix B. Calculations are based on circumstantial figures; waste generation may differ according to the waste management practice of the site in operation.

Data from the operational site is appropriate to use to estimate the future volumes of waste and recycling the as the works are a part of an existing operating school. Current operations are more likely to represent future operations at an existing location comparted to a third party best practice guide.

The following table shows the estimated volume (L) of garbage and recycling generated by the school in operation.

*Table 1: Estimated General Waste and Recycling Volumes*

| **Category** | **# Students** | **General Waste Generation Rate** (L/student/week) | **Generated General Waste** (L/week) | **Paper /Cardboard Recycling Generation Rate** (L/student/week) | **Generated Paper /Cardboard Recycling** (L/week) |
|---|---|---|---|---|---|
| High School | 2237 | 10.4 | 23264.8 | 3.5 | 7829.5 |
| Primary School | 1680 | 10.4 | 17472 | 3.5 | 5880 |
| Prep | 120 | 10.4 | 1248 | 3.5 | 420 |
| **TOTAL** | **4037** | | **41984.8** | | **14129.5** |
| **Bins & Collections** | | General Waste Bin Size (L) | 4500 | Paper /Cardboard Recycling Bin Size (L) | 4500 |
| | | General Waste Bins per Day | 1.9 | Recycling Bins per Day | 0.6 |
| | | General Waste Collections per Week | 3 | Recycling Collections per Week | 2 |
| | | **Total General Waste Bins Required** | **4** | **Total Paper /Cardboard Recycling Bins Required** | **2** |

## 6.2 BIN SUMMARY

Based on the estimated waste and recycling volumes generated by the site, the recommended bin quantities and collection frequencies are as follows:

**General Waste**: 4 x 4.5m3 bins collected **3 x weekly**

**Recycling:** 2 x 4.5m3 bins collected **2 x weekly**

Bin sizes, quantities, and/or collection frequencies may be modified by the school management once the proposed development is operational. School management will also be required to negotiate any changes to bins or collections with the collection service provider. Fluctuations in waste generation (for example school holidays) should also be considered.

The general waste and general recycling can be further divided into more specific waste and recycling streams to increase recovery. The general waste stream can be separated into landfill waste, food waste and soft plastics recycling. The general recycling can be divided into co-mingled recycling, glass recycling and refundable containers. It is recommended that the further separation of waste streams is conducted once the site is operational to best reflect the operations of the site and the proportion of each waste stream generated. It is recommended that annual waste audits are conducted to help understand the composition and total volumes of each waste stream generated during operation.

## 6.3 WASTE AND RECYLCING DISPOSAL PROCEDURES

In accordance with the current waste management arrangement, the high school and primary school share bins, bin storage area and collection point.

The shared Bin Storage Area contains 4.5m$^3$ front lift bins for the collection of the waste and paper/cardboard recycling. The groundskeeper, waste collection staff and cleaners and be the only personnel with access to the bins within the Bin Storage Area. All transportation of waste and recycling must be co-ordinated with the groundskeeper or cleaners.

Suitably labelled waste and paper/cardboard recycling receptacles or bins approx. 20L in size are placed in each room and throughout the campus grounds. Garbage and recycling receptacles should be provided in convenient locations and areas of high waste generation.

The students, staff and visitors are be responsible for placing their waste and recycling into the correct receptacle. The fullness of the source separation bins is monitored by the groundskeeper and cleaners.

On completion of each school day or as required, the cleaners circulate throughout the campus after hours and empty the waste and recycling receptacles situated throughout the school. The cleaners then transport all general waste and recycling to the appropriate Bin Storage Area and dispose of the waste and recycling into the appropriate collection bins.

### 6.3.1 EWASTE DISPOSAL PROCEDURES

E-waste (electronic waste) refers to any equipment containing printed circuit boards. E-Waste must not be placed in standard garbage or recycling bins as it can be detrimental to the environment. E-Waste can contaminate soils, groundwater and the atmosphere if not disposed of correctly.

A 240L bin will be provided an administration area for the collection of E-Waste.

E-Waste is a waste stream that is generated infrequently. It will be the school managers responsibility to arrange collections with an appropriate E-Waste recycling service when the E-Waste bin is full.

## 6.4 WASTE COLLECTION PROCEDURES

In accordance with the current waste collection arrangements, A private waste collection contractor will be engaged to service the waste and recycling bins per an agreed schedule. This report assumes that general waste and recycling will be collected two to three times weekly with no more than 2 days between collections.

On the day of service, a private waste collection vehicle will enter the site from Darcy Rd and park in the loading area adjacent to the Bin Storage Area. The waste collection staff collects the bins from the Bin Storage Area via a collect and return arrangement using a front lift truck Once the bins are serviced, the collection vehicle exits the site onto Darcy Rd in a forward direction.

It is Elephant Foot's understanding that access to the waste collection area adheres to best practices as outlined within the NSW *Better Practice Guide for Resource Recovery in Residential Developments 2019*. For more information, please refer to the Traffic Report.

## 6.5 OTHER WASTE MANAGEMENT CONSIDERATIONS

Based on the types of tenancies anticipated for this development, the following waste management practices are recommended.

### 6.5.1 WASHROOM FACILITIES

Washroom facilities should be supplied with collection bins for paper towels (if used). Sanitary bins for female restroom facilities must also be arranged with an appropriate contractor.

### 6.5.2 PRINTING & PHOTOCOPYING ROOMS

It is recommended that rooms designed for printing or photocopying be provided with an area for the interim storage of paper receptacles, as well as separate receptacles for used toner and/or printer cartridges for recycling. The cleaners or nominated staff are responsible for monitoring these receptacles and ensuring that items are collected and recycled by an appropriate contractor.

### 6.5.3 BULKY & SPECIAL WASTE

School management is responsible for managing bulky waste. Staff should contact the groundskeeper when there is furniture or other large items that are broken or no longer required. Reusable furniture should be labelled and kept in storage or donated to a charitable organisation. Non – reusable furniture will be removed from the school grounds and disposed of at an appropriate recycling facility.

### 6.5.4 PROBLEM WASTE

School management is responsible for making arrangements for the disposal and recycling of problem waste streams with an appropriate contractor. Problem wastes cannot be placed in the general waste stream as they can have adverse impacts to human health and the environment if disposed of in landfill.

Problem waste streams include:

- Chemical Waste
- Liquid wastes
- Toner cartridges
- Lightbulbs
- Batteries

# 7.0 STAKEHOLDER ROLES & RESPONSIBILITIES

The following table outlines the primary roles and responsibilities of the respective stakeholders:

*Table 2: Stakeholder Roles and Responsibilities*

| Roles | Responsibilities |
|---|---|
| School Management | • Coordinate the waste strategy within the site;<br>• Organising internal waste audits/visual assessments on a regular basis;<br>• Ensure all waste service providers submit regular (i.e. monthly) reports on all equipment movements and waste quantities/weights; and<br>• Manage any non-compliances/complaints reported through waste audits. |
| School Management or Grounds Keeper | • Ensuring effective signage, communication and education is provided to students, staff and cleaners;<br>• Providing staff/contractors with equipment manuals, training, health and safety procedures, risk assessments, and PPE to control hazards associated with all waste management activities;<br>• Ensuring site safety for students, visitors, staff and contractors;<br>• Abiding by all relevant OH&S legislation, regulations, and guidelines;<br>• Assessing any manual handling risks and prepare a manual handling control plan for waste and bin transfers;<br>• Preventing storm water pollution by taking necessary precautions (securing Bin Storage Area, preventing overfilling of bins)<br>• Cleaning and transporting of bins as required;<br>• Organising, maintaining and cleaning the general and recycled waste holding area;<br>• Organising both garbage and recycled waste pick-ups as required;<br>• Organising replacement or maintenance requirements for bins;<br>• Organising bulky goods collection when required; and<br>• Investigating and ensuring prompt clean-up of illegally dumped waste materials. |
| Cleaners, Staff and Students | • Dispose of all general waste and recycling in the allocated MGBs provided;<br>• Ensure adequate separation of general waste and recycling; and<br>• Comply with the provisions of Council and the OWMP. |
| Private Waste Contractor | • Provide a reliable and appropriate waste collection service;<br>• Provide feedback to school management regarding contamination of recycling; and<br>• Work with school management to customise waste systems where possible. |
| Gardening/ Landscaping Contractor | • Remove all garden organic waste generated during gardening maintenance activities for recycling at an offsite location. |

# 8.0 SOURCE SEPARATION

Better practice waste management includes the avoidance, reuse, and recovery of unwanted items, which can be achieved through source separation. The table below outlines what is typically included in various waste streams and how they can be managed. Refer to your local council for a list of accepted materials. Planet Ark can be accessed online to find other facilities that recover unwanted items.

*Table 3: Operational Waste Streams*

| Waste Stream | Description | Typical Destination | Waste Stream Management |
|---|---|---|---|
| **General Waste** | The remaining portion of the waste stream that is not recovered for re-use, processing, or recycling. May include soft plastics, food scraps, polystyrene, etc. | Landfill | Waste should be bagged before placing in the designated waste bins. |
| **Recycling** | A mixture of items that are commonly recycled usually segregated through a MRF. Typically include food and beverage containers (e.g. aluminium, glass, steel, hard plastics, cartons). Also included cardboard and paper products. | Resource Recovery Centre | Recycling must not be bagged, and instead should be placed loosely in the designated recycling bins.<br><br>Cardboard should be flattened before placing in the designated recycling bin. |
| **Secure Documents** | Secure documents are printed paper materials that contain sensitive information. | Recycling Facility | Secure documents are placed in allocated secure document bins. Private contractor removes bins from site. |
| **Green Waste** | Green waste consists of unwanted organic materials that are easily biodegradable and/or compostable (e.g. lawn clippings, branches) | Resource Recovery Centre | Landscape Maintenance Contractors will remove the green waste from site during scheduled maintenance. |
| **Electronic Waste** | Discarded e-waste, electronic components and materials such as computers, mobile phones, keyboards, etc. | Resource Recovery Centre | A location should be dedicated to the storage of e-waste. When a suitable amount has been accumulated, the Grounds Keeper or school management is responsible for arranging the collection of e-waste with an appropriate recycling service. |
| **Bulky Items** | Items that are to too large to place into general rubbish collection. This includes disused and/or broken furniture, mattresses, white goods, etc. | Resource Recovery Centre or Landfill | A location should be dedicated to the storage of bulky waste. When a suitable amount has been accumulated, the Grounds Keeper or school management is responsible for arranging the collection of bulky waste with an appropriate recycling service. |
| **Sanitary Waste** | Feminine hygiene waste generated from female bathrooms. | Incineration or Landfill | Sanitary bins are serviced by sanitary waste contractor. |
| **Other** | Other recycling items that require special recovery may include ink cartridges, batteries, chemical waste, fluorescent tubes, etc. | Resource Recovery Facility | School management arranges collection by appropriate recycling services when required. |

# 9.0 EDUCATION

The school management is responsible for creating and implementing the waste management education process.

Educational material encouraging the correct separation of garbage and recycling items must be provided to each staff member, cleaner and student to ensure the correct disposal of waste and minimise the possibility of contamination in the waste and recycling bins.

It is recommended that the school investigates programs to teach students about recycling and resource recovery. These programs can be implemented into the operation of the school to reduce overall waste generation.

## 9.1 SIGNAGE

Signage and education are essential components to support best practice waste management including resource recovery, source separation, and diversion of waste from landfill.

Signage should include:

- Clear and correctly labelled bins,
- Instructions for separating and disposing of waste items. Different languages should be considered,
- Locations of, and directions to, the waste storage areas with directional signs, arrows, or lines,
- The identification of all hazards or potential dangers associated with the waste facilities, and
- Emergency contact information should there be issues with the waste systems or services in the building.

School management is responsible for waste room signage including safety signage. Appropriate signage must be prominently displayed on doors, walls and above all bins, clearly stating what type of waste or recycling is to be placed in each bin.

All signage should conform to the relevant Australian Standards.

# 10.0 POLLUTION PREVENTION

School management shall be responsible for the following to minimise dispersion of site litter and prevent stormwater pollution to avoid impact to the environment and local amenity:

- Promoting adequate waste disposal into the bins
- Securing all bin areas (whilst affording access to staff/contractors)
- Prevent overfilling of bins, keep all bin lids closed and bungs leak-free
- Taking action to prevent dumping or unauthorised use of waste areas
- Require collection contractor/s to clean up any spillage when clearing bins

## 11.0 BIN WASHING

The bins will be cleaned by the Groundskeeper and/or cleaners periodically to ensure hygiene and minimise odour.

Bin washing can occur within the bin areas, using the room clean down facilities (i.e. tap connection and drain). Alternatively, a specialist bin washing contractor can be engaged to clean the bins to an agreed schedule. The specialist bin contactor would collect the bins from the bin areas and clean the bins with their specialised vehicle.

## 12.0 BIN MOVING PATHS

Minimal movement of bins is anticipated for this site, as bins are to be collected directly from their storage location.

The cleaners are responsible for the transportation of receptacles from their designated operational locations to the collection area when full and returning them once emptied to resume operational use. Typically waste and recycling is transported using trollies containing other cleaning equipment.

Any movement of bins should minimise manual handling where possible, as bins become heavy when full. The school management must assess manual handling risks and provide any relevant documentation to key personal.

The routes along any bin moving paths should;

- Allow for a continuous route that is wholly within the property boundary.
- Be free from obstruction and obstacles such as steps and kerbs.
- Be constructed of solid materials with a non-slip surface
- Be A minimum of 300mm wider than the largest bin used onsite.
- If bins are moved manually, the route must not exceed a grade of 1:14.
- If a bin moving device is used, the route cannot exceed the maximum operating grade of the device. This is typically a grade of 1:4, however this will vary depending on the model of bin moving device acquired for the site.

# 13.0 WASTE AREAS

The areas allocated for waste management are detailed in the table below and are estimates only. Final areas will depend on the waste storage area and bin layouts.

*Table 4: Waste Room Areas*

| Waste Room Type | Equipment | Estimated Area Required ($m^2$) |
|---|---|---|
| Bin Storage Area | **General Waste**: 4 x 4.5$m^3$ bins<br>**Paper/Cardboard Recycling:** 2 x 4.5$m^3$ bins | >43.32 |

The "estimated area required" in the table above have been calculated based on equipment requirements and/or bin dimensions with an additional 70% of bin GFA factored in for manoeuvrability. Other factors such as the shape of the room, position of the chutes, configuration of the equipment, access needs and position of the door may impact the size of the room required. Thus, a smaller or larger room size may also be suitable for purpose, as long as the room can accommodate the required equipment with adequate access.

The following table provides further waste room requirements.

*Table 5: Waste Room Requirements*

| Waste Room Type | Waste Room Requirements |
|---|---|
| Bin Storage Area | • Bins should be arranged so that all bins are accessible. Bins are not to be placed in front of one another or in such a way as to restrict access to the other bins for use.<br>• Rooms must be well ventilated either naturally or mechanically in accordance with AS1668.4.2012<br>• Cleaning facilities such as hose hock and drainage for odor and hygiene control must be provided.<br>• It is recommended a dustpan and broom is provided in this room for staff and cleaners to clean up unexpected spillages when using bins. |

# 14.0 USEFUL CONTACTS

EFC does not warrant or make representation for goods or services provided by suppliers.

### LOCAL COUNCIL

| | | |
|---|---|---|
| Parramatta Customer Service | Ph: (02) 9806 5524 | E: council@cityofparramatta.nsw.gov.au |

### PRIVATE WASTE COLLECTION PROVIDER

| | | |
|---|---|---|
| Capital City Waste Services | Ph: 02 9599 9999 | E: service@ccws.net.au |
| Sydney Waste | Ph: 02 8661 0031 | |
| Waste Clear | Ph: 1300 525 352 | E: admin@wastecleart.com.au |

### BIN MOVING DEVICE SUPPLIERS

| | | |
|---|---|---|
| Elephants Foot Equipment | Ph: 1300 435 374 | E: equipment@elephantsfoot.com.au |
| Sitecraft | Ph: 1300 363 152 | E: sales@sitecraft.com.au |

### BALER SUPPLIERS

| | | |
|---|---|---|
| Elephants Foot Equipment | Ph: 1300 435 374 | E: equipment@elephantsfoot.com.au |

### ORGANIC DIGESTERS AND DEHYDRATORS

| | | |
|---|---|---|
| Elephants Foot Equipment | Ph: 1300 435 374 | E: equipment@elephantsfoot.com.au |
| Waste Master | Ph: 1800 614 272 | E: hello@wastemasterpacific.com.au |

### COOKING OIL CONTAINERS AND DISPOSAL

| | | |
|---|---|---|
| Cookers | Ph: 1300 882 299 | E: info@cookers.com.au |
| Auscol | Ph: 1800 629 476 | E: sales@auscol.com |

### ODOUR CONTROL

| | | |
|---|---|---|
| Elephants Foot Equipment | Ph: 1300 435 374 | E: equipment@elephantsfoot.com.au |

### SOURCE SPERATION BINS

| | |
|---|---|
| Method Recycling | Ph: 0499 890 455 |

### BINS AND BIN EQUIPMENT

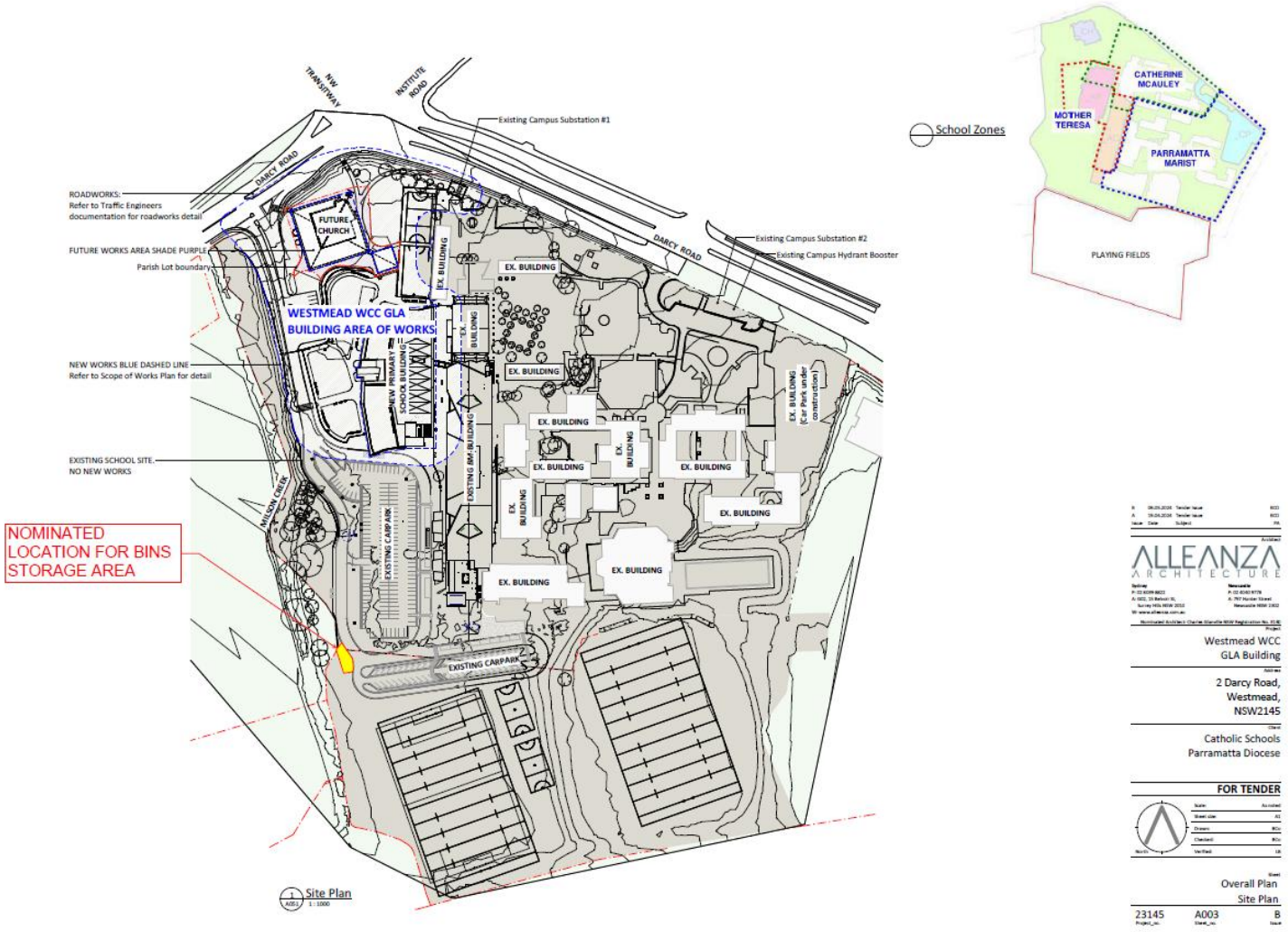
| | | |
|---|---|---|
| Elephants Foot Equipment | Ph: 1300 435 374 | E: equipment@elephantsfoot.com.au |
| SULO | Ph: 1300 364 388 | E: sulosales@pactgroup.com |

### CHUTES, COMPACTORS AND EDIVERTER SYSTEMS

| | | |
|---|---|---|
| Elephants Foot Chute Solutions | Ph: 1300 435 374 | E: chutes@elephantsfoot.com.au |

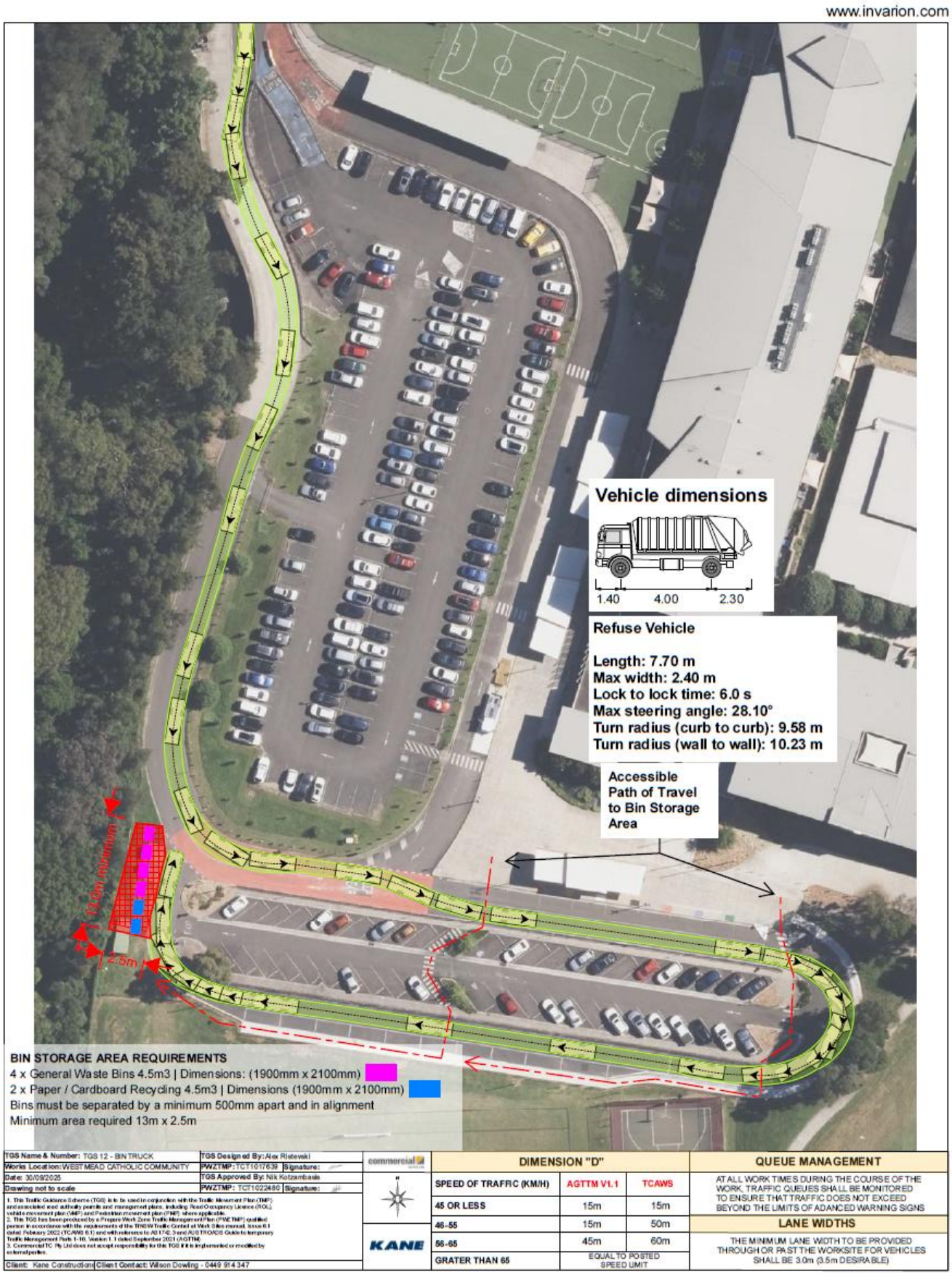
# APPENDIX A: ARCHITECTURAL PLANS

## APPENDIX: A.1 SITE PLAN




*Source: Alleanza Architecture, A005, Rev. B, May2025 – Overall Plan Site Plan*

## APPENDIX: A.2 BIN STORAGE AREA AND COLLECTION POINT



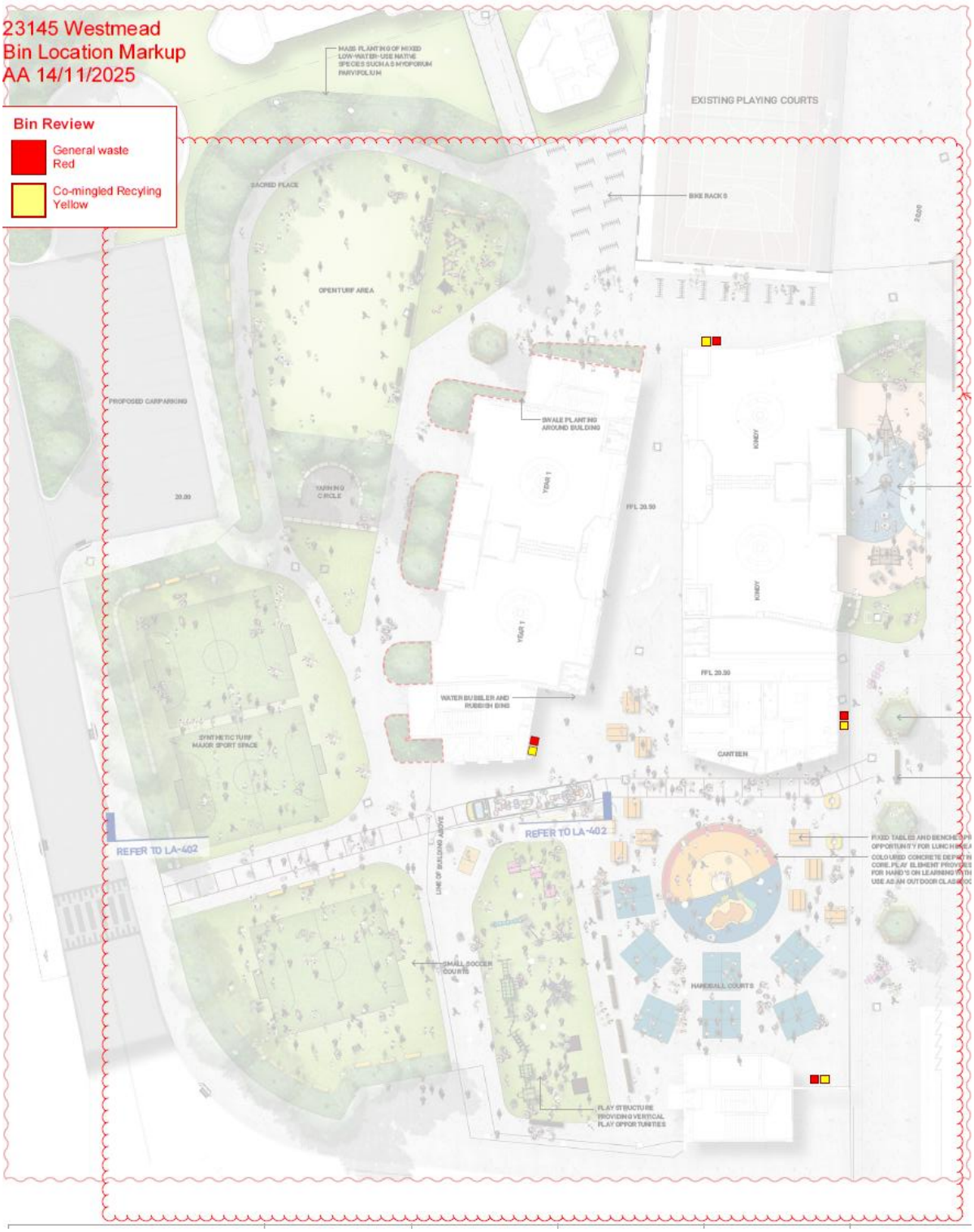
**Statement**:
*I, Hannah Wilkes, confirm the drawing within this appendix demonstrates the number and size of bins and well as collection strategy consistent with the strategy discussed in this report.*



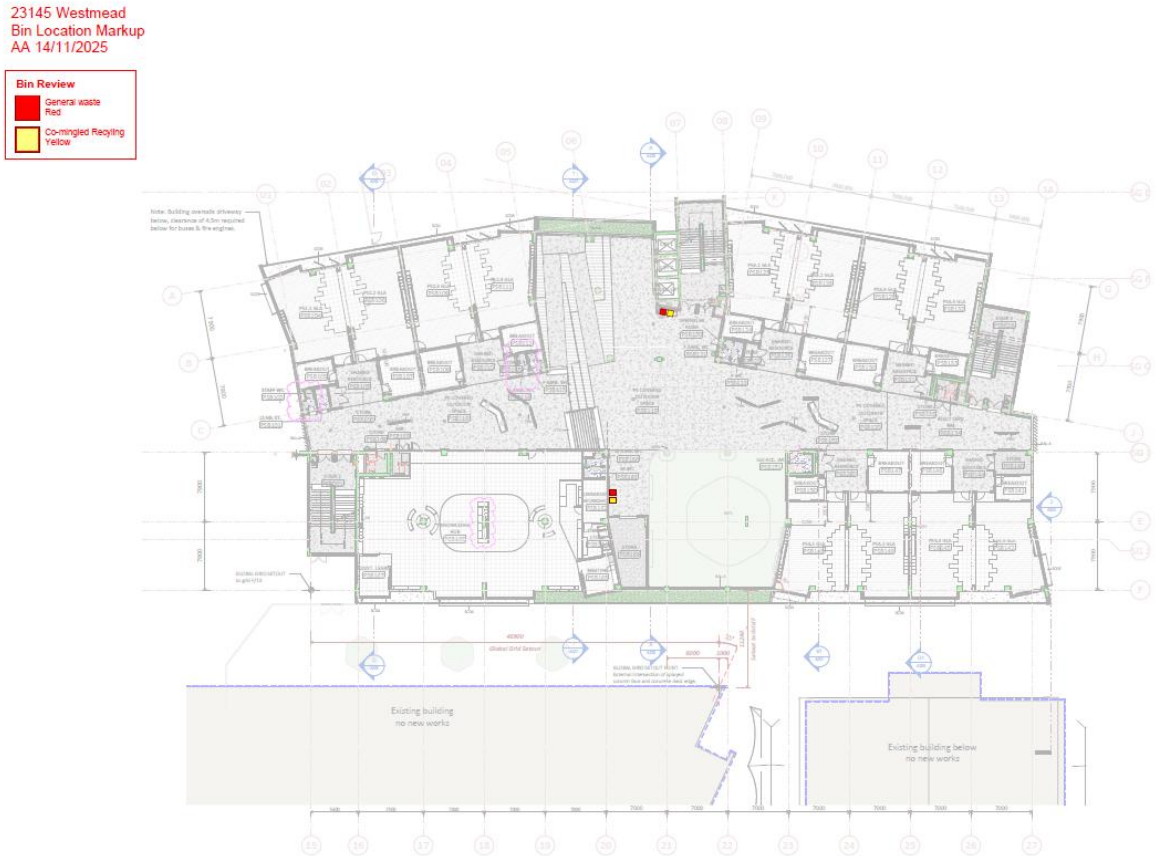
*Hannah Wilkes - Senior Waste Consultant*

## APPENDIX: A.3 BIN ENCLOUSERS PROVIDED ACROSS THE NEW COMPONANTS

Note: The school operators will determine the final location of receptables through out the school buildings.



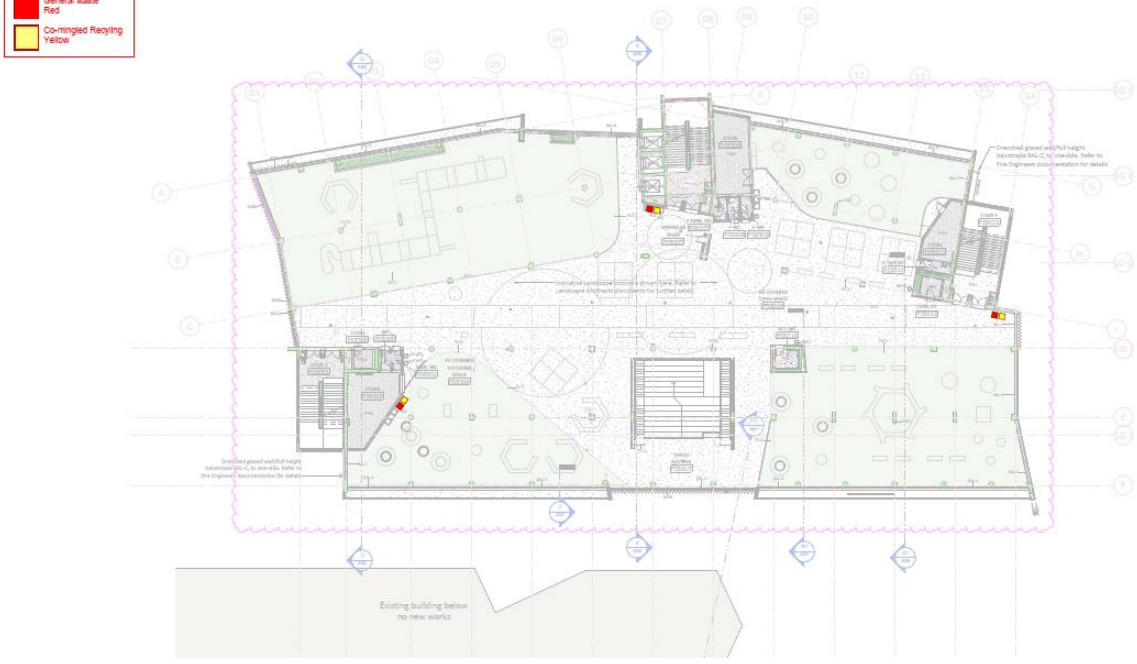

23145 Westmead
Bin Location Markup
AA 14/11/2025
Bin Review
General waste
Red
Co-mingled Recying
Yellow
Same 4x Bins shown in context
Ground Floor GLA Building
Existing building
No works
Existing building
No works
Existing building
No works
ALLEANZA
ARCHITECTURE
Westmead WCC
GLA Building
2 Darcy Road,
Westmead,
NSW2145
Catholic Schools
Parramatta Diocese


23145 Westmead
Bin Location Markup
AA 14/11/2025
Bin Review
General waste
Red
Co-mingled Recying
Yellow
Existing building
no new works
Existing building below
no new works

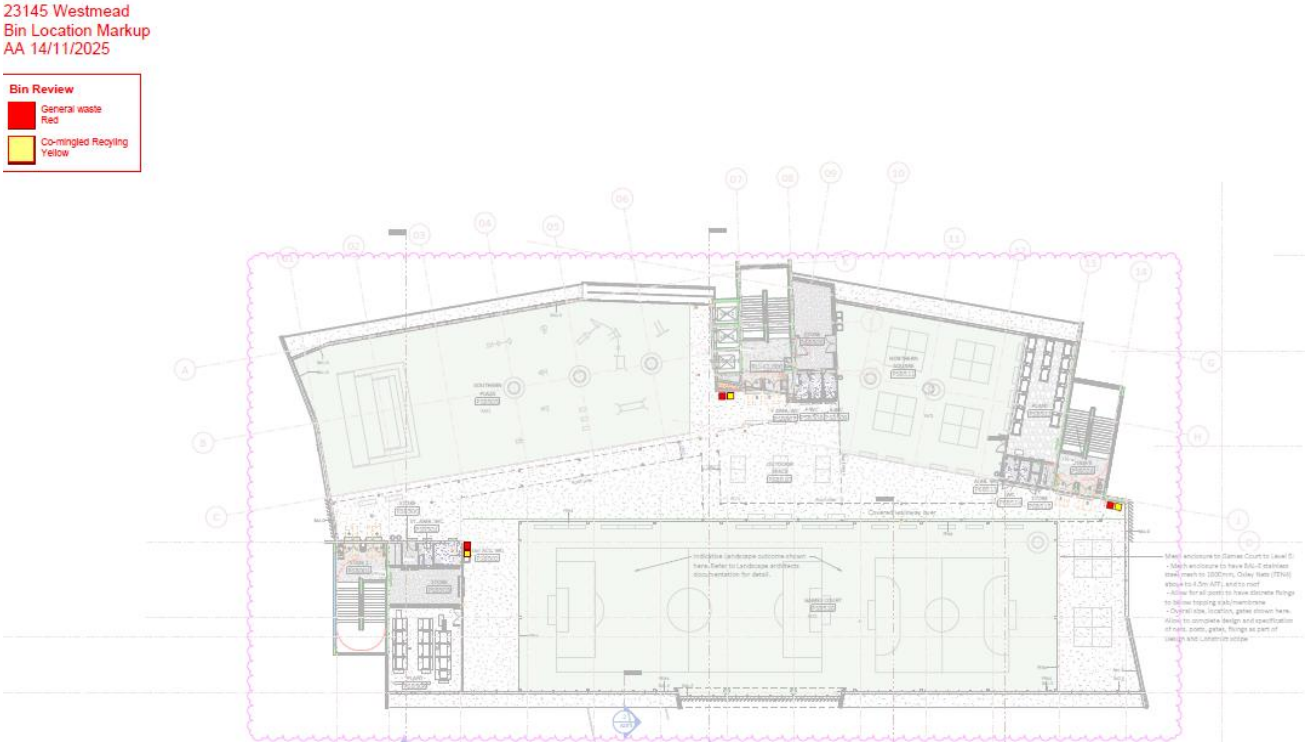
23145 Westmead
Bin Location Markup
AA 14/11/2025




23145 Westmead
Bin Location Markup
AA 14/11/2025




23145 Westmead
Bin Location Markup
AA 14/11/2025
Bin Review
General waste
Red
Co-mingled Recyling
Yellow
Existing building below
no new works


23145 Westmead
Bin Location Markup
AA 14/11/2025
Bin Review
General waste
Red
Co-mingled Recyling
Yellow

# APPENDIX B: CALCULATION FOR WASTE GENERATION RATES

The waste generation rates use to project the volume of each waste stream generated by the expanded site has been based on the number of bins and collections for the currently operating facility. The process to convert the data from the current site to a waste generation rate is outlined below.

**Bin Numbers and Collection Frequency Data of Existing Site**

The existing school high school and primary school has a total of 2606 students.

Elephants Foot has been informed that bins and collection frequencies for the existing site are as follows.

- 2x 4.5m$^3$ Bulk Bin for general waste collected three times weekly
- 1x 4.5m$^3$ Bulk Bin for recycling (cardboard & paper) collected once weekly

**Converting Data to Volume (litres per week)**

Formula:
*Number of bins x bin size x collection frequency per week = Volume of waste generated per week*

| Waste stream | Number of Bins | Bin Size (L) | Collection Frequency (per week) | Volume (litres per week) |
|---|---|---|---|---|
| **General Waste** | 2 | 4500 | 3 | 27 000 |
| **Recycling (cardboard & paper)** | 1 | 4500 | 1 | 4500 |

**Converting Data to a Waste Generation Rate:**

Formula:
*Total Volume Per Week / Number of Student = waste generation per student per week*

| Waste stream | Volume (litres per week) | Waste Generation Rate (per student/ week) |
|---|---|---|
| **General Waste** | 27000 | 10.4 |
| **Recycling (paper and cardboard)** | 4500 | 3.5 |

# APPENDIX C: BIN STORAGE AREA SPATIAL REQUIREMENT CALCULATIONS

**Calculation Formula**
GFA Required = Number of bins x equipment footprint x 1.9 for manoeuvring space

**Equipment Footprint Ledged**

| Equipment | Dimensions (mm) | Equipment Footprint |
|---|---|---|
| 4.5 $m^3$ Bins | D 1900, W 2010, H 1440 | 3.8 |

*Source:* New South Wales Environmental Protection Authority *Better Practice Guide for Resource Recovery* (2019)

**Waste Room Size Calculations**

| Waste Room Type | Equipment | Calculation | Minimum GFA required |
|---|---|---|---|
| Bin Storage Area | **General Waste**: 4 x 4.5$m^3$ bins **Paper/Cardboard Recycling:** 2 x 4.5$m^3$ bins | 1.9 x((4x 3.8)+(2 x 3.8)) | 43.32$m^2$ |

# APPENDIX D: PRIMARY WASTE MANAGEMENT PROVISIONS

## APPENDIX: D.1 TYPICAL BIN SPECIFICATIONS

# Mobile bins

Mobile bins come in a variety of sizes and are designed for lifting and emptying by purpose-built equipment.

Mobile bins with capacities of up to 1700L must comply with *AS4123.6-2006 Mobile waste containers* which specifies standard sizes and sets out the colour designations for the bodies and lids of mobile waste containers indicating the type of materials they are used to collect.

The most common bin sizes are provided below, although not all sizes are shown. The dimensions are a guide only and differ slightly between manufacturers. Some bins have flat or domed lids and are used with different lifting devices. Refer to *AS4123.6-2006* for further details.

**Table G1.1: Average dimension ranges for two-wheel mobile bins**



**Wheelie bin**

| Bin capacity | 80L | 120L | | 140L | | 240L | 360L |
|---|---|---|---|---|---|---|---|
| Height (mm) | 870 | 940 | 1065 | 1080 | 1100 | | |
| Depth (mm) | 530 | 530 | | 540 | | 735 | 820 |
| Width (mm) | 450 | 485 | | 500 | | 580 | 600 |
| Approximate footprint ($m^2$) | 0.24 | 0.26–0.33 | | 0.27-0.33 | | 0.41–0.43 | 0.49 |
| Approximate weight (kg) | 8.5 | 9.5 | | 10.4 | | 15.5 | 23 |
| Approximate maximum load (kg) | 32 | 48 | | 56 | | 96 | Not known |

Sources include Sulo, Single Waste, Cleanaway, SUEZ, just wheelie bins and Perth Waste for two-wheel mobile bins

**Table G1.2: Average dimension ranges for four-wheel bulk bins**



**Dome or flat lid container**

| Bin capacity | 660L | 770L | 1100L | 1300L | 1700L |
|---|---|---|---|---|---|
| Height (mm) | 1250 | 1425 | 1470 | 1480 | 1470 |
| Depth (mm) | 850 | 1100 | 1245 | 1250 | 1250 |
| Width (mm) | 1370 | 1370 | 1370 | 1770 | 1770 |
| Approx footprint ($m^2$) | 0.86–1.16 | 1.51 | 1.33–1.74 | 2.21 | 2.21 |
| Approx weight (kg) | 45 | Not known | 65 | Not known | Not known |
| Approx maximum load (kg) | 310 | Not known | 440 | Not known | Not known |

Sources include Sulo, Signal Waste, Cleanaway, SUEZ, Just Wheelie Bins and Perth Waste

*Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority*

## APPENDIX: D.2 SIGNAGE FOR WASTE AND RECYCLING BINS

### Waste signs

Signs and educational materials perform several functions including:

- informing residents why it is important to recover resources and protect the environment
- providing clear instructions on how to use the bins and services provided
- alerting people to any dangers or hazards within the bin storage areas.

All waste, recycling and organic bins should be Australian Standard colours and clearly and correctly labelled, such as by a sticker on the lid and/or the body of the bin.

Communal bin storage areas should be clearly signposted with signs outlining how to correctly separate waste into the bins provided. The local council responsible for waste services may be a good source of signs and posters and can advise on what signs are suitable.

Information on who to contact to find out more about the recycling and/or other resource recovery services in the building should also be displayed in communal areas, such as on a noticeboard.

The Planet Ark website also has resources available free of charge for use by businesses and councils. These signs can be found at businessrecycling.com.au/research/signage.cfm

**Figure I1.1: Examples of waste wall posters (EPA supplied)**




**Figure I1.2: Examples of bin lid stickers (EPA supplied)**

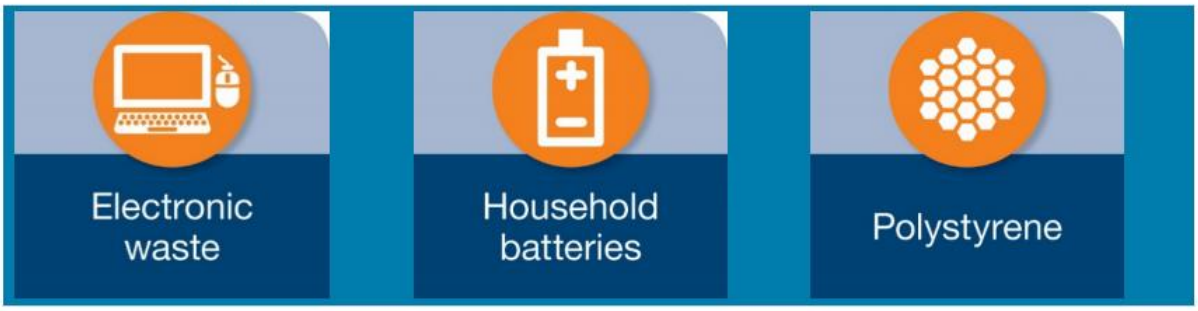



*Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority*

## Problem waste signs

The EPA has also produced a range of images and signs that can be used for problem wastes, such as fluoro globes and tubes, household and car batteries, e-waste and smoke detectors. To access these resources, contact the NSW EPA. Some examples are shown below.

**Figure I2.1: Problem waste signs**




## Safety signs

The use of safety signs for waste resource recovery rooms must comply with *AS1319 Safety signs for occupational environments*. Safety signs must be used to regulate and control safety related to behaviour, warn of hazards and provide emergency information, including fire protection information. Suitable signs should be decided for each development as required.

**Figure I3.1: Example safety signs**




*Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority*

## APPENDIX: D.3 EXAMPLE COLLECTION VEHICLE INFORMATION

# General

Appropriate heavy rigid vehicle standards should be incorporated into the road and street designs in new developments where onsite collections are proposed. Road and street designs must comply with relevant Acts, regulations, guidelines, and codes administered by Austroads, Standards Australia, NSW Roads and Maritime Services, WorkSafe NSW and any local council traffic requirements.

Applicants and building designers should consult with councils and other relevant authorities before designing new roads or streets and access points for waste collection vehicles to establish specific design requirements.

**Table H4.1: Australian Standards for turning circles for medium and heavy rigid class vehicles**

| Vehicle class | Overall length (m) | Design width (m) | Design turning radius (m) | Swept circle (m) | Clearance (travel) height (m) |
|---|---|---|---|---|---|
| Medium rigid vehicle | 8.80 | 2.5 | 10.0 | 21.6 | 4.5 |
| Heavy rigid vehicle | 12.5 | 2.5 | 12.5 | 27.8 | 4.5 |

*Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority*

## Large collection vehicles

Waste collection vehicles may be side-loading, rear-loading, front-lift-loading, hook or crane lift trucks. Vehicle dimensions vary by collection service, manufacturer, make and model. It is not possible to provide definitive dimensions, so architects and developers should consult with the local council and/or contractors.

The following characteristics represent typical collection vehicles and are provided for guidance only. Reference to *AS2890.2 Parking facilities: off-street commercial vehicle facilities* for detailed requirements, including vehicle dimensions, is recommended.

**Table B2.1: Collection vehicle dimensions**

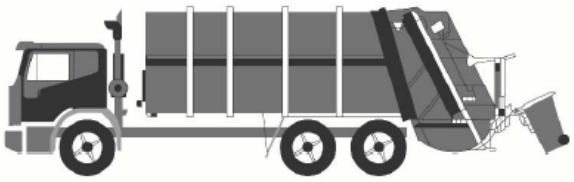
| Vehicle type | Rear-loading | Side-loading* | Front-lift-loading | Hook truck | Crane truck |
|---|---|---|---|---|---|
| Length overall (m) | 10.5 | 9.6 | 11.8 | 10.0 | 10.0 |
| Width overall (m) | 2.5 | 2.5 | 2.5 | 3.0 | 2.5 |
| Travel height (m) | 3.9 | 3.6 | 4.8 | 4.7 | 3.8 |
| Operational height for loading (m) | 3.9 | 4.2 | 6.5 | 3.0 | 8.75 |
| Vehicle tare weight (t) | 13.1 | 11.8 | 16.7 | 13.0 | 13.0 |
| Maximum payload (t) | 10.0 | 10.8 | 11.0 | 14.5 | 9.5 |
| Turning circle (m) | 25.0 | 21.4 | 25.0 | 25.0 | 18 |

* The maximum reach of a side arm is 3 m.

Sources: JJ Richards, SUEZ, MacDonald Johnson, Cleanaway, Garwood, Ros Roca, Bingo and Edbro. Figures shown represent the maximum dimensions for each vehicle type.

## Rear-loading collection vehicles

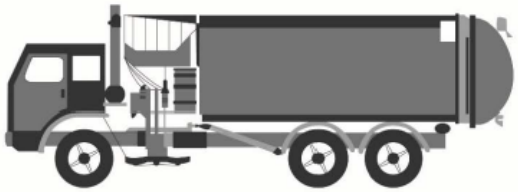
These vehicles are commonly used for domestic waste collections from MUDs and RFBs and sometimes for recycling. They can be used to collect waste stored in mobile bins or bulk bins, particularly where bins are not presented at the kerbside. They are also used for collecting bulky waste.



**Rear-loading waste collection vehicle**

## Side-loading collection vehicles

This is the most commonly used vehicle for domestic waste, recycling and organics collections. It is only suitable for collecting mobile bins up to 360L in capacity.



**Side-loading waste collection vehicle**

## Front-lift-loading collection vehicles

These vehicles are commonly used for collecting commercial and industrial waste. They can only collect specially designed front-lift bulk bins and not mobile bins.



**Front-lift-loading waste collection vehicle**

## Small collection vehicles

Typically, councils and their contractors operate with large collection vehicles (heavy rigid class vehicles) because they carry greater payloads and allow for more cost-effective collection services. Some councils, or their contractors, may have smaller collection vehicles in their fleet. Early discussion with the council is important to confirm this, but it should not be assumed that the council will have access to small collection vehicles.

The waste management systems and the location of the collection point should always be designed so that the council can provide the standard domestic waste service.

*Source: Better Practice Guide For Resource Recovery In Residential Developments 2019, NSW Environmental Protection Authority*

# APPENDIX E: SECONDARY WASTE MANAGEMENT PROVISIONS

## APPENDIX: E.1 EXAMPLE SOURCE SEPARATION RECEPTACLES

In order to assist with education and the correct usage of bins, SINSW provide bins that are aligned to the Australian standard colours for waste management. Black/green base bins are used with different coloured lids:

- Red = General waste/landfill – non-recyclable materials
- Yellow = Co-mingled recycling- containers, drink bottles, cans
- Blue = Paper recycling – paper and cardboard products
- Green = Organic waste – compostable materials

There is currently no standard colour for Return and Earn or soft plastics. We recommend that a consistent colour scheme is used throughout NSW schools to aid students if they change schools.

> SINSW recommends that white is used for Return and Earn and orange for soft plastics (where soft plastics are collected).

### 3.3 Recommended bin infrastructure by school area

| | Bin type | Primary | Secondary | # bins |
|---|---|---|---|---|
| CLASSROOM |  | 24L Murfe stackable bins:<br>General waste: red<br>Paper and cardboard: blue | | 1 per type per classroom |
| |  | 7L organic food scraps caddy | Organic caddies not provided as no sip and crunch! | 1 per classroom (primary only) |
| PLAYGROUND |  | 80 or 120L wheelie bins:<br>General waste: red<br>Co-mingled: yellow OR<br>Return and Earn: white | | 1 per 75-100 students OR<br>1 per common area |

| | Bin type | Primary | Secondary | # bins |
|---|---|---|---|---|
| OFFICE/STAFFROOM |   | 40 or 60L MultiSort bins:<br>General waste: red<br>Paper and cardboard: blue<br>Co-mingled: yellow<br>Return and Earn: white<br>Note: Murfe bins may be more suitable in smaller areas | | 1 per type per office or staffroom |
| |  | 7L organic food scraps caddy | | 1 per office / staffroom |
| LIBRARY |  | 40/60L MultiSort bins:<br>General waste: red<br>60/90L MultiSort bins:<br>Paper and cardboard: blue | | 1 of each type by area |
| CANTEEN |  | 40/60L MultiSort bins:<br>General waste: red<br>Paper and cardboard: blue | | 1 of each type by area |
| |   | Organic food waste:<br>7L food scraps caddy OR 23L depending on the volume of waste generated. More than 23L is not recommended due to the weight of organic waste. | | Up to 2 |

## 8.6 Bin specifications

| Bin type | Image | Volume | Dimensions | Type | EdBuy order codes |
|---|---|---|---|---|---|
| Organic caddy bins |  | 7L | H 235mm<br>W 225mm<br>D 225mm | Small caddy bin | WAST1024 |
| Organic caddy |  | 23L | H 450mm<br>W 400mm<br>D 320mm | Large caddy bin | WAST1110 |
| Murfe stackable bins |  | 24L | H 320mm<br>W 295mm<br>D 380mm | Red<br>Blue<br>Yellow | WAST1001<br>WAST1007<br>WAST1003 |
| MultiSort bins |  | 40L | H 495mm<br>W 325mm<br>D 405mm | Dark grey base<br>Red lid<br>Blue lid<br>Yellow lid<br>White lid<br>Orange lid | WAST1101<br>WAST1103<br>WAST1105<br>WAST1104<br>Not currently available<br>Not currently available |
| MultiSort bins |  | 60L | H 670mm<br>W 290mm<br>D 520mm | Dark grey base<br>Red lid<br>Blue lid<br>Yellow lid<br>White lid<br>Orange lid | WAST1091<br>WAST1092<br>WAST1094<br>WAST1093<br>WAST1097<br>WAST1099 |
| MultiSort bins |  | 90L | H 785mm<br>W 290mm<br>D 520mm | Dark grey base<br>Blue lid | WAST1100<br>WAST1094 |
| Wheelie bins |  | 120L | H 920mm<br>W 561mm<br>D 481mm | Red<br>Blue<br>Yellow<br>Green<br>White<br>Orange | tba |

## 8.7 Bin liners

| Bin type | Image | Volume | Bin colour | Descriptor | EdBuy order codes |
|---|---|---|---|---|---|
| Organic caddy bins |  | 7L | Green | 8L compostable bag | BAGS2800 |
| Organic caddy |  | 23L | Green | 30L compostable bag | BAGS2801 |
| Murfe stackable bins |  | 24L | Red<br>Blue<br>Yellow | 54L natural<br><br>54L natural | BAGS2600<br>Not required<br>BAGS2600 |
| MultiSort bins |  | 40L | Red<br>Blue<br>Yellow<br>White<br>Orange | 54L natural<br><br>54L natural<br>54L natural<br>54L natural | BAGS2600<br>Not required<br>BAGS2600<br>BAGS2600<br>BAGS2600 |
| MultiSort bins |  | 60L | Red<br>Blue<br>Yellow<br>White<br>Orange | 75L natural<br><br>75L natural<br>75L natural<br>75L natural | BAGS2574<br>Not required<br>BAGS2574<br>BAGS2574<br>BAGS2574 |
| MultiSort bins |  | 90L | Blue | | Not required |
| Wheelie bins |  | 120L | Red<br>Blue<br>Yellow<br>Green<br>White<br>Orange | <br><br>240L natural<br><br>240L natural | Cleaner supplied<br>Not required<br>BAGS2578<br>No liner (use insert)<br>BAGS2578 |

*Source: Waste Handbook, A Practical Guide to Introducing Waste Separation into Schools, October 2023, NSW Government*

# ANNEXUE B

METAFORA

# Operational Transport and Access Management Plan

## Westmead Catholic Community

For: Catholic Schools Parramatta Diocese

Date of issue: 25/06/2026

## Document History

| Version | Date | Version detail |
|---|---|---|
| Draft – v1 | 15/04/2026 | For client review |
| Draft – v2 | 16/04/2026 | For client review |
| Draft – v3 | 20/04/2026 | For client review |
| Final – v1 | 22/04/2026 | For information |
| Final – v2dr | 19/05/2026 | Draft – for client review and input following updates to address TfNSW comments |
| Final – v2dr2 | 05/06/2026 | Draft – for client review and input |
| Final – v2dr3 | 11/06/2026 | Draft – consolidated feedback incorporated |
| Final – v2dr4 | 19/06/2026 | Draft – consolidated feedback incorporated |
| Final – v2 | 25/06/2026 | Final for submission to the authorities |

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# 1 Introduction

## 1.1 Summary of the project

Metafora has been engaged by the Catholic Schools Parramatta Diocese (CSPD) in relation to addressing operational transport management conditions of consent for the Redevelopment and upgrades of the Westmead Catholic Community Education Campus (WCC) (SSD 10383).

The works comprised the following:

- alterations to an existing school building (Mother Teresa Primary School) and change of use to provide an early learning centre for 200 places and 25 full time equivalent (FTE) staff;
- construction of a six-storey new primary school building including classrooms and learning spaces, recreation spaces, canteen, storage, amenities and rooftop open space;
- staged increase in student numbers accommodating a total of 1680 students (1260 additional) and 76 additional FTE staff;
- construction of a new parish church with 400 seats;
- upgrades and alterations to two existing driveways, retention of 212 existing car parking spaces and provision of 12 additional car parking spaces; and
- associated works including tree removal, pedestrian access, and landscaping.

The location of the site is shown in Figure 1.




*Figure 1: Location of the site (Source: OpenStreetMap)*

## 1.2 Purpose of the report

The purpose of this report is to outline the WCC's operational traffic management to minimise any potential conflicts and impacts onto road users within and directly adjacent to the WCC campus. The management measures relate to the operation of the entire WCC campus.

Further, this OTAMP is meant to provide a comprehensive and unified framework for managing road safety, car park operations, and traffic flow across the WCC campus, ensuring student safety, operational efficiency, and compliance with transport regulations.

This OTAMP applies to all staff, students, parents / carers, contractors and visitors using campus roads, pick-up & drop-off zones, and the multi-storey car park.

The core principles are as follows:

- Prioritise student safety in all road-use and access decisions.
- Support safe behaviours through clear procedures and supervision.
- Manage vehicle access and congestion proactively.
- Maintain compliance with NSW transport and traffic control standards.

## 1.3 Compliance with conditions of consent

The following table outlines conditions of consent from the approved SSD 10383 which are relevant to the operational traffic management. It also outlines where the individual items have been addressed in this report.

*Table 1: Conditions of consent relevant to the operational traffic management*

| Condition | Response |
|---|---|
| **Operational Transport and Access Management Plan (OTAMP)** | |
| ***E23.*** *Prior to the commencement of operation of the school, an OTAMP must be prepared by a suitably qualified person, in consultation with Council, TfNSW, and submitted to the satisfaction of the Planning Secretary. The OTAMP must include the following:* | See Table 2 |
| *(a) detailed pedestrian analysis including the identification of safe route options - to identify the need for management measures such as staggered school start and finish times to ensure students and staff are able to access and leave the site in a safe and efficient manner during school start and finish;* | See Section 4.1 and 4.3 |
| *(b) the location of all car parking spaces on the Westmead Catholic school campus and their allocation (i.e. staff, visitor, accessible, emergency, etc.);* | See Section 3.2 and Appendix 1 |
| *(c) the management measures within the site considering the staggered start and finish times of the school;* | See Section 4.1 |
| *(d) the pedestrian walking routes including the proposed site links within the site and the access control measures to ensure safety of children accessing this link;* | See Section 3.1 and 4.3 |
| *(e) the location and operational management procedures of the pick-up and drop-off parking located within the site, including staff management/traffic controller arrangements;* | See Section 4.7.4 |
| *(f) confirmation that 19 pick-up and drop-off spaces are located within the site for the purpose of the school;* | See Section 3.2 |
| *(g) management measures for the CELC parking areas to reduce conflict with the school pick-up and drop-off activities;* | See Section 4.7.4.5 |
| *(h) management measures for the car parking and vehicular access associated with the parish church, consistent with the parish church OMP to reduce conflict between the church use and the school/CELC use;* | See Section 4.7.5 |

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| *(i) timings and restrictions regarding access for waste collection vehicles and other service vehicles to be outside the school peak periods (both AM and PM);* | See Section 4.8 |
| *(j) the location and operational management procedures for the pick-up and drop-off of students by buses and coaches for excursions and sporting activities, including staff management/traffic controller arrangements consistent with condition E24;* | See Section 4.6 |
| *(k) details of location of the waste collection areas, service vehicle and waste collection vehicle access and management arrangements for the primary school CELC and parish church to demonstrate that the service vehicle access within the site does not adversely impact on the school traffic movements at any time;* | See Section 4.8 |
| *(l) management of approved access arrangements;* | See Section 3.1 |
| *(m) details to manage traffic on Farmhouse Road, so that this section is not treated as a pick-up and drop-off zone by parents;* | See Section 4.7.4.1 |
| *(n) potential traffic impacts on surrounding road networks and mitigation measures to minimise impacts, including measures to mitigate queuing impacts associated with vehicles accessing pick-up and drop-off parking within the site;* | See Section 4.7.4.2 |
| *(o) car parking arrangements and management associated with the proposed use of school facilities by community members (where relevant); and* | See Section 4.7.5 |
| *(p) a monitoring and review program.* | See Section 5 |
| ***E24.** Prior to the commencement of operation of the school, a School Coach and Bus Parking Management Plan must be prepared to ensure that school coaches and school buses can adequately be accommodated within school coach/bus parking facilities on-site without having an impact to the operation of the surrounding transport network.* | See Section 4.5.1.2 and 4.6 |
| *The School Coach and Bus Parking Management Plan must be prepared in consultation with TfNSW and submitted to development.sco@transport.nsw.gov.au for review and endorsement.* | See Table 2 |
| ***E25.** The endorsed plan in condition E24, must be submitted to the Planning Secretary for information, prior to the commencement of operation of the school.* | See Table 2 |

## 1.4 Authority consultation

This OTAMP has been submitted to City of Parramatta Council and TfNSW for consultation, and to the Planning Secretary for their final approval. The consultation process is outlined in Table 2.

*Table 2: Authority consultation process*

| Authority | Date & document version | Comment |
|---|---|---|
| City of Parramatta Council | 22/04/2026, Final – v1<br><br>25/06/2026, Final – v2 | 28/04/2026: Acceptance with no comments<br>N/A at the time of publication |
| TfNSW | 22/04/2026, Final – v1<br><br>25/06/2026, Final – v2 | 29/04/2026: Comments received, refer to Table 3<br>N/A at the time of publication |
| Planning Secretary | TBC – following consultation with Council and TfNSW | N/A, unless comments received |

*Table 3: Comments received from TfNSW on 29/04/2026 and project response*

| TfNSW comment dated 29/04/2026 | Response |
|---|---|
| **1. Marshal Roles, Authority and Certification**<br><br>The OTAMP states that 'all marshals are to wear high-visibility vests and must hold relevant certifications'. This statement requires clarification as it does not specify:<br><br>• What 'relevant certifications' are proposed;<br>• Whether marshals are intended to operate as general school supervisory staff or as accredited traffic controllers;<br>• The extent of marshal interaction with vehicles, including whether marshals interface with vehicle movements at gate locations or in proximity to public roads.<br><br>Further clarification is required on:<br><br>• The defined role and authority of marshals referenced throughout the OTAMP;<br>• The qualifications and certifications held by marshals;<br>• Whether any marshal duties involve traffic control functions as defined under applicable transport guidance;<br>• How marshal safety is managed where marshals are present in areas with vehicle movements. | See Section 4.5.1.2 and 4.7.4.2 |
| **2. Pedestrian and Vehicle Separation within the Site**<br><br>The OTAMP does not clearly describe how pedestrian movements are separated from vehicle movements within the site, particularly in areas of high activity such as the internal bus zone, mini-bus areas, pick-up/drop-off zones, and internal circulation roads. Further clarification is requested on:<br><br>• How pedestrian routes, waiting areas, and movement paths are arranged in relation to vehicle circulation areas;<br>• How conflicts between pedestrians and vehicles are avoided during peak operational periods;<br>• The extent to which pedestrian–vehicle separation relies on operational controls versus physical or spatial arrangements;<br>• How separation arrangements remain effective during periods of high pedestrian demand.<br><br>Supporting plans and operational descriptions should be provided. | See Section 4.3 |
| **3. Large Bus, Mini-Bus and Service Vehicle Manoeuvring**<br><br>The OTAMP identifies the use of an internal bus zone for large buses and separate areas for mini-buses; however, sufficient operational detail is not provided to demonstrate the suitability of these arrangements. Further information is required regarding:<br><br>• The number, type, and length of large buses and mini-buses expected to operate on site;<br>• The timing, frequency, and sequencing of bus and mini-bus arrivals and departures;<br>• The interaction between buses, mini-buses, private vehicles, and service vehicles within the internal road network;<br>• Whether large buses, mini-buses, waste collection vehicles, and other service vehicles operate concurrently.<br><br>The revised submission should include swept-path analyses demonstrating that all relevant vehicle types can safely manoeuvre | See Section 3.3, 4.6 and 4.8 for further detail.<br><br>Regarding the request for swept paths and a suitability assessment, it is noted that this development has already undergone an assessment through the formal SSDA process as well as consultation with TfNSW and other stakeholders as part of TWG meetings. Subsequently, the development was approved. It is therefore considered that the design has been deemed to be fit for purpose by the authorities, and a suitability or a swept path assessment is no longer required at this stage. It is also suggested that a swept path analysis |

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| within the site without encroaching into pedestrian areas or conflicting with queued vehicles. | may not be a required or relevant part of an OTAMP.<br><br>It is noted that such detailed assessment is not required under the conditions of consent, refer to Table 1. |
| **4. Emergency Services Access and Operation**<br><br>The OTAMP does not provide sufficient detail regarding emergency services access and internal operation. Further clarification is required on:<br><br>• Emergency vehicle access routes within the site;<br>• Gates nominated for emergency entry and exit;<br>• Circulation, standing, and turnaround areas for emergency vehicles;<br>• How emergency access is maintained during peak school operational periods;<br>• How emergency vehicle movements interact with bus, pick-up/drop-off, and servicing activities.<br><br>Plans and supporting narrative should be provided to demonstrate that emergency access requirements are adequately accommodated. | See Section 4.9 |
| **5. School Bus Operations, Student Waiting Areas and Capacity Management**<br><br>Given the combined enrolment across multiple schools on the campus, the OTAMP does not currently provide sufficient information to demonstrate that student bus operations are appropriately planned or managed. Clarification is requested on:<br><br>• The anticipated number of students using internal school buses, mini-bus services, and external public bus stops;<br>• The number of bus routes and services operating during peak periods;<br>• The timing and sequencing of bus arrivals and departures relative to staggered bell times;<br>• The maximum number of students waiting for buses at any given time.<br><br>Further information is requested on:<br><br>• The location and capacity of student waiting areas prior to bus boarding;<br>• How students are organised and supervised while waiting;<br>• How students are released for boarding in a controlled manner;<br>• How delayed services or concurrent bus arrivals are managed. | Refer to the Green Travel Plan prepared by Frank Turquoise for existing and expected future travel mode share, as well as bus routes and services. That report and the approach outlined in it was developed throughout the SSD process, in consultation with Council, TfNSW and other stakeholders.<br><br>Regarding the capacity of waiting areas, it is noted that this development has already undergone an assessment through the formal SSDA process as well as consultation with TfNSW and other stakeholders as part of TWG meetings. Subsequently, the development was approved. It is therefore considered that the design and operation have been deemed to be fit for purpose by the authorities, and a suitability assessment is no longer required at this stage.<br><br>It is noted that such detailed assessment is not required under the conditions of consent, refer to Table 1.<br><br>See Figure 6 for the location of waiting areas. How students are organised and supervised whilst waiting is outlined throughout Section 4. |
| **6. Interface with External Public Transport and Pedestrian Capacity**<br><br>While the OTAMP references nearby public transport infrastructure, there is limited assessment of pedestrian demand | Refer to the Green Travel Plan prepared by Frank Turquoise for existing and expected future travel mode share. That report and the approach outlined in it was developed throughout the SSD |

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| and capacity associated with external bus stops, light rail, and rail facilities. Further clarification is required on:<br>• The proportion of students expected to use external public transport services;<br>• The capacity of footpaths, waiting areas, and pedestrian routes serving external transport stops;<br>• How pedestrian queuing and peak demand are managed;<br>• Whether coincident dismissal times across multiple schools result in cumulative pedestrian demand exceeding available infrastructure capacity. | process, in consultation with Council, TfNSW and other stakeholders.<br>Regarding the capacity of waiting areas, it is noted that this development has already undergone an assessment through the formal SSDA process as well as consultation with TfNSW and other stakeholders as part of TWG meetings. Subsequently, the development was approved. It is therefore considered that the design and operational capacity have been deemed to be fit for purpose by the authorities, and a suitability assessment is no longer required at this stage.<br>It is noted that such detailed assessment is not required under the conditions of consent, refer to Table 1. |
| **7. Staggered Bell Times and Ongoing Operational Review**<br>The OTAMP notes the use of staggered bell times to manage demand; however, further clarification is required regarding how this strategy functions at a whole-of-campus level. Please clarify:<br>• How staggered bell times reduce cumulative peak demand across all schools on site;<br>• The extent to which staggered arrangements are reviewed and adjusted over time;<br>• How operational monitoring informs any future changes to bell times or management measures. | See Section 4.1 and 5 |
| **8. Travel Behaviour and Mode Share Assumptions**<br>The OTAMP does not clearly articulate assumptions regarding student and staff travel behaviour. Further information is requested on:<br>• The expected mode split for students and staff;<br>• How these assumptions inform parking demand, bus operations, and pedestrian infrastructure provision;<br>• Whether any monitoring of travel behaviour is proposed to confirm alignment with assumed demand. | Refer to the Green Travel Plan prepared by Frank Turquoise for existing and expected future travel mode share, as well as monitoring and review of the travel initiatives and measures. That report and the approach outlined in it was developed throughout the SSD process, in consultation with Council, TfNSW and other stakeholders.<br>Regarding the parking demand, bus operation and pedestrian infrastructure provision, it is noted that this development has already undergone an assessment through the formal SSDA process as well as consultation with TfNSW and other stakeholders as part of TWG meetings. Subsequently, the development was approved. It is therefore considered that the design and operation have been deemed to be fit for purpose by the authorities, and a suitability assessment is no longer required at this stage. |

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| | It is noted that such detailed assessment is not required under the conditions of consent, refer to Table 1. |
| **9. Overflow Vehicle Areas and Contingency Management** | |
| While overflow parking or queuing arrangements are referenced, detailed operational information is not provided. Clarification is requested on:<br>• The capacity of identified overflow areas;<br>• The operational triggers for their use;<br>• How overflow areas are managed and supervised;<br>• How situations are managed if overflow demand exceeds available capacity;<br>• How overspill impacts on public roads are avoided. | See Section 4.7.4.2 and 4.7.4.3 |

# 2 School characteristic

The Westmead Catholic Community Education Campus facilities, their characteristics and school bell / operational times are summarised in Table 4. The campus facilities are shown in Figure 2.

*Table 4: WCC characteristics and school bell and operational times*

| Facility | Characteristic | Capacity | School bell / operational times |
|---|---|---|---|
| Sacred Heart Primary School | Co-ed K-6 | - Student cap: 1,680<br>- 100 FTE staff | - Morning bell: 8:35am<br>- Afternoon operational finish time: 2:45pm |
| Catherine McAuley Westmead | Girls' high school | - Students: 1,200<br>- 113 FTE staff | - Morning bell: 8:30am<br>- Afternoon bell: 3:10pm |
| Parramatta Marist High School | Boys' high school | - Students: 1,100<br>- 119 FTE staff | - Morning bell: 8:35am<br>- Afternoon bell: 2:50pm |
| Primary school before & after school care | For on-campus students only | N/A | Monday to Friday<br>6am – 9am & 3pm – 7pm |
| CELC | Catholic early learning centre | - Student cap: 200<br>- 25 FTE staff | Monday to Friday:<br>6:00am – 6:00pm |
| Parish church | | - 400 seats<br>- 4 clergy and parish staff | - Monday to Friday: 6:00am – 8:00pm<br>- Saturday: 8am – 10am & 4:30pm – 7pm<br>- Sunday: 7:00am – 12:00pm |

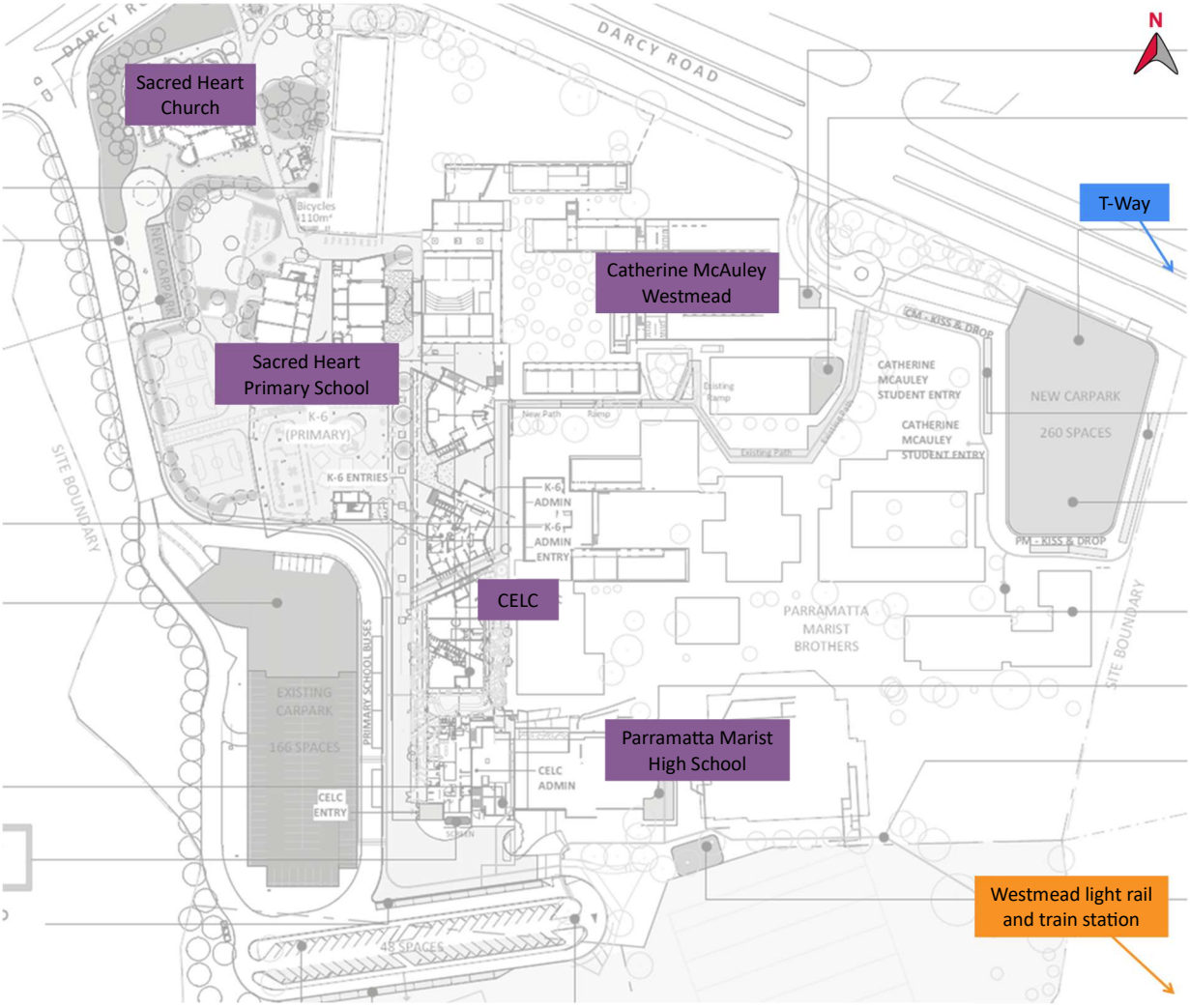



*Figure 2: WCC facilities*

# 3 WCC access and internal transport infrastructure

## 3.1 Access gates and operating hours

Access gates and their automated opening hours are shown in Figure 3.

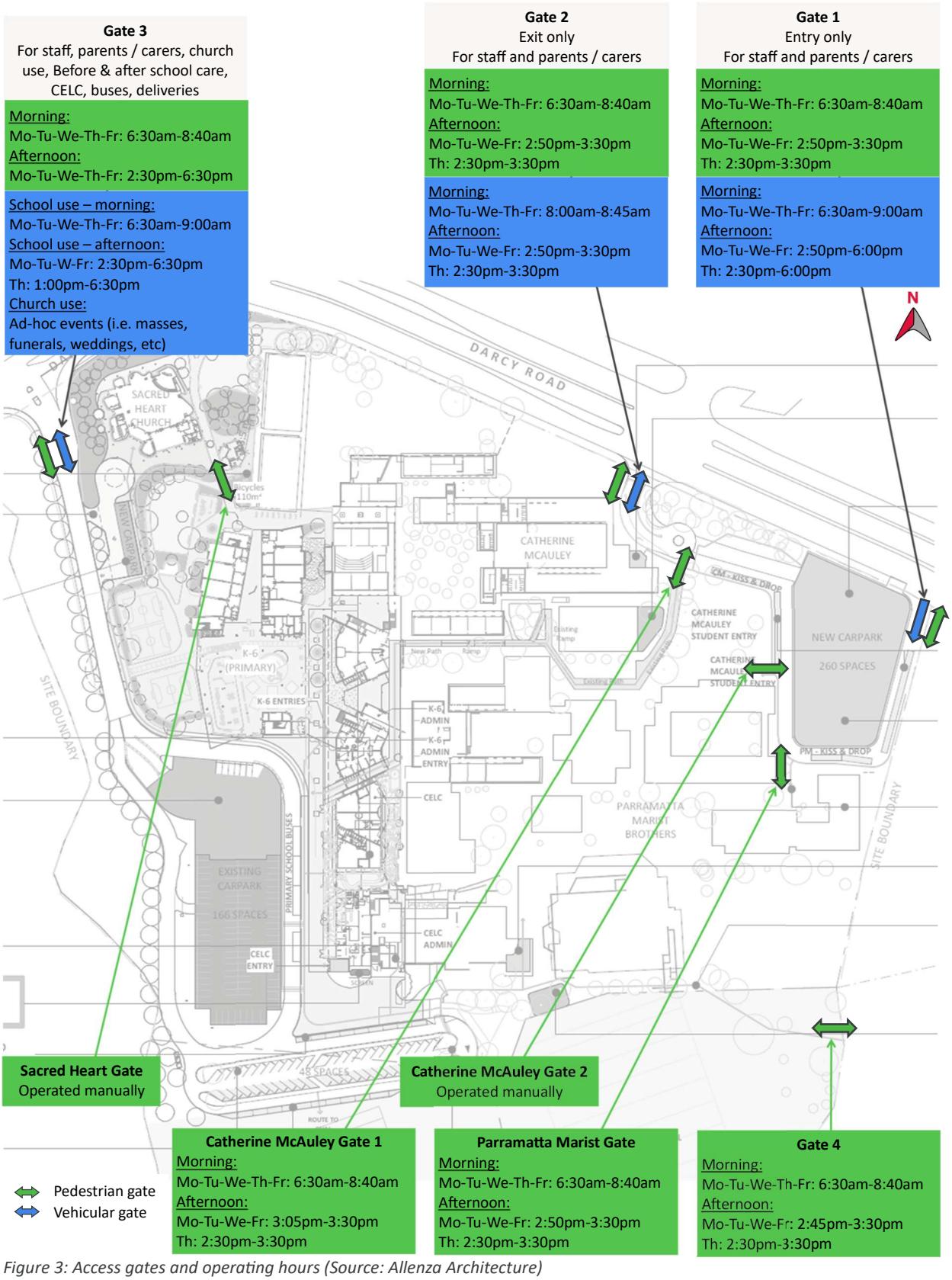



*Figure 3: Access gates and operating hours (Source: Allenza Architecture)*

Should the site need to be accessed outside the automated gate opening hours, visitors need to contact the respective facility via the intercom or phone to open the gate. Pedestrian and vehicle access to the Catherine McAuley High School is via the intercom at Gate 1. Access to all other facilities is via Gate 3, and these need to be contacted by phone to request the gates to be opened. The respective phone numbers displayed on Gate 3 are as follows:

- Sacred Heart Primary School: 02 8841 2600
- Parramatta Marist High School: 02 9848 7100
- Ambrose after school care: 0418 153 894
- Parish: 02 9635 9262

The following access control measures are implemented to ensure safety of small children:

- Controlled pedestrian access points
- Electronic sign-in/sign-out system for families
- Reception-controlled entry to internal areas
- Swipe card access for authorised staff
- Visitor sign-in procedures with identification and purpose recorded
- Visitors will not be left unsupervised, including with children

After hours, the premises will be secured by alarm system and locked gates.

## 3.2 Car and bicycle parking

There are 474 car parking spaces and 209 bicycle spaces on site. The allocation for individual uses is shown in Figure 1, and in Appendix 1 enlarged.

Measurements taken from Nearmap suggest that the new pick-up & drop-off area has capacity to accommodate 19 vehicles.

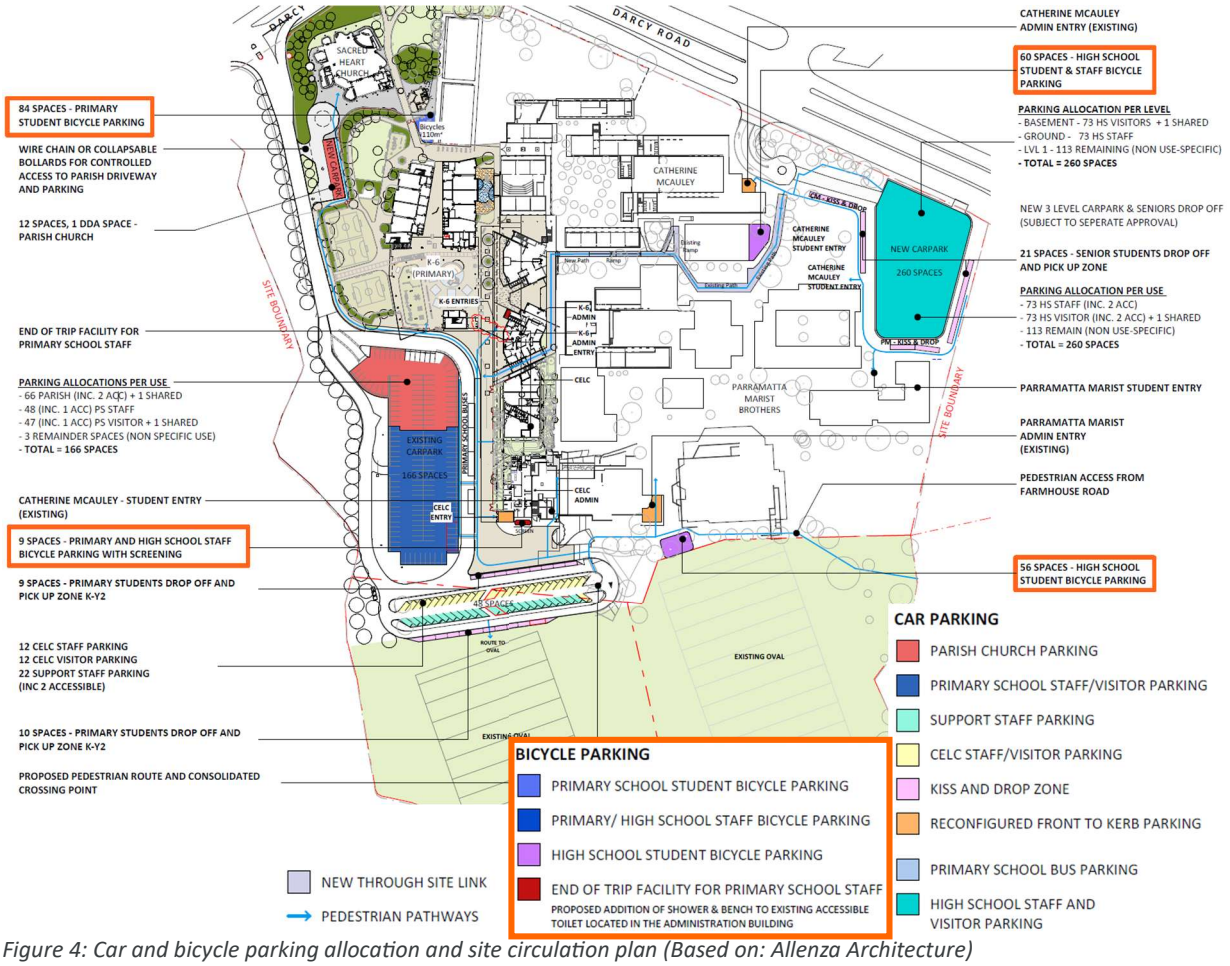



*Figure 4: Car and bicycle parking allocation and site circulation plan (Based on: Allenza Architecture)*

## 3.3 Bus parking and internal bus stop

There is an internal bus zone with 4 dedicated spaces for 12.5m long standard city buses. For sport and school excursions, 12.5m long and / or 14.5m long rigid buses may be used. Adjacent to the bus zone is a shelter, which providers sun and rain cover to students.

The minibus parking caters for 4 x Toyota Coaster or similar type vehicles.

The location of the internal bus zone, the minibus parking as well as the surrounding public transport infrastructure is shown in Figure 5.

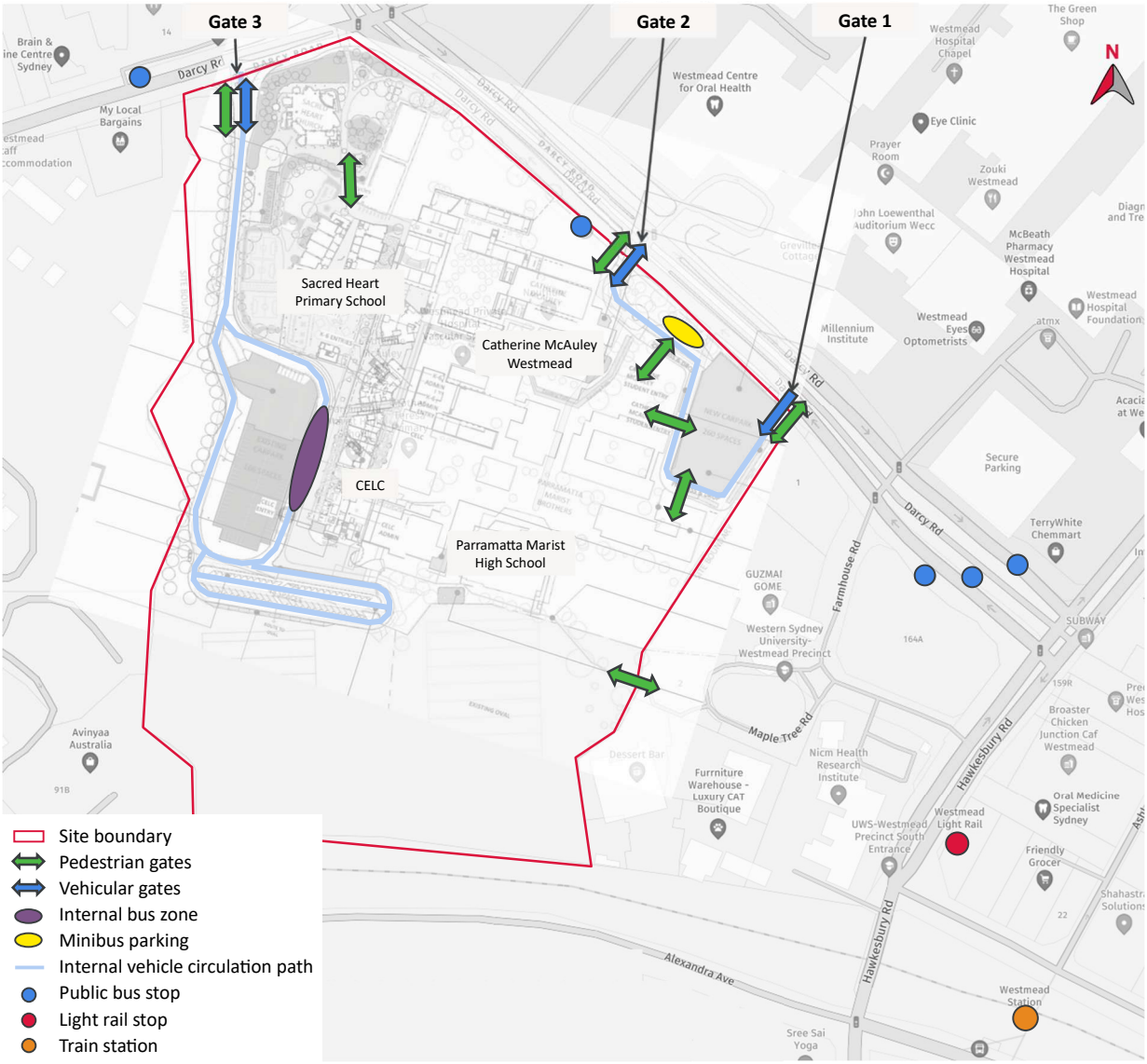



*Figure 5: Internal bus zone and surrounding public transport infrastructure (Based on: NearMap and Allenza Architecture)*

# 4 Operational management

## 4.1 Staggered school bell times

The staggered bell times across the three schools enable staggering of pick-up, thus reducing the number of cars arriving at the campus at the same time. It also helps managing the number of pedestrians congregating on footpaths.

Students needing to wait for their siblings wait under staff supervision. Primary school students wait in front of the primary school administration office at the bottom of the GLA Building until they are picked up by their older high school student sibling at the internal bus bay.

## 4.2 Staff supervision

During the morning and afternoon, staff are located around gates, buses and pick-up / drop-off areas to undertake a general school supervisory role. Their duties involve for example walking children to the correct PUDO area or the bus zone, assisting children to get onto the buses or into private cars or supervision of older siblings waiting for younger siblings. The relevant locations of supervisory staff are outlined throughout this report.

## 4.3 Pedestrians

Pedestrian gates are operational as per Section 3.1.

All internal vehicular facilities (i.e. car parks, PUDO, travel lanes) are separated from pedestrians via kerbs, and the main waiting areas for PUDO and public buses are located such that students do not need to cross the vehicular path. Where pedestrians are required to cross the road (internal road to gate 3 and to access the minibuses), pedestrian crossings are provided. The new high school PUDO area has fences to separate general school movements from cars.

The internal pedestrian cross campus path, in relation to the vehicular circulation path and waiting areas, is shown in Figure 6.

With the on-site transport infrastructure located across multiple location within the campus (i.e. primary school PUDO is south-west, high school PUDO is east, the internal bus stop is west, etc.), as well as the difference in the afternoon bell times across the three schools, students are able to disperse in different directions. This reduces potential for overcrowding on footpaths.

With the off-site transport infrastructure located on all sides of the campus (i.e. T-Way is north-east, train is south-east, primary school PUDO is south-west, etc.), as well as the difference in the afternoon bell times across the three schools, students are able to disperse in different directions. This reduces potential for overcrowding on footpaths.

School specific management for the Sacred Heart Primary School students:

- The main pedestrian entry gate for the primary school students is Gate 3.
- Primary school students walking or cycling are not to use Gate 1 or 2.
- In general, gate 4 is not to be used by the primary school students alone; Students using this gate are to be accompanied by parents, siblings or carers. Students may us this gate on their own only if a permission from parents / carers has been issued to staff.
- In the afternoon, students who need to walk in the eastbound direction on Darcy Road or use the traffic lights to access the westbound bus stop on Darcy Road meet a teacher first. The teacher walks with the students to the Sacred Heart Gate, manually opens the gate and accompanies the students.

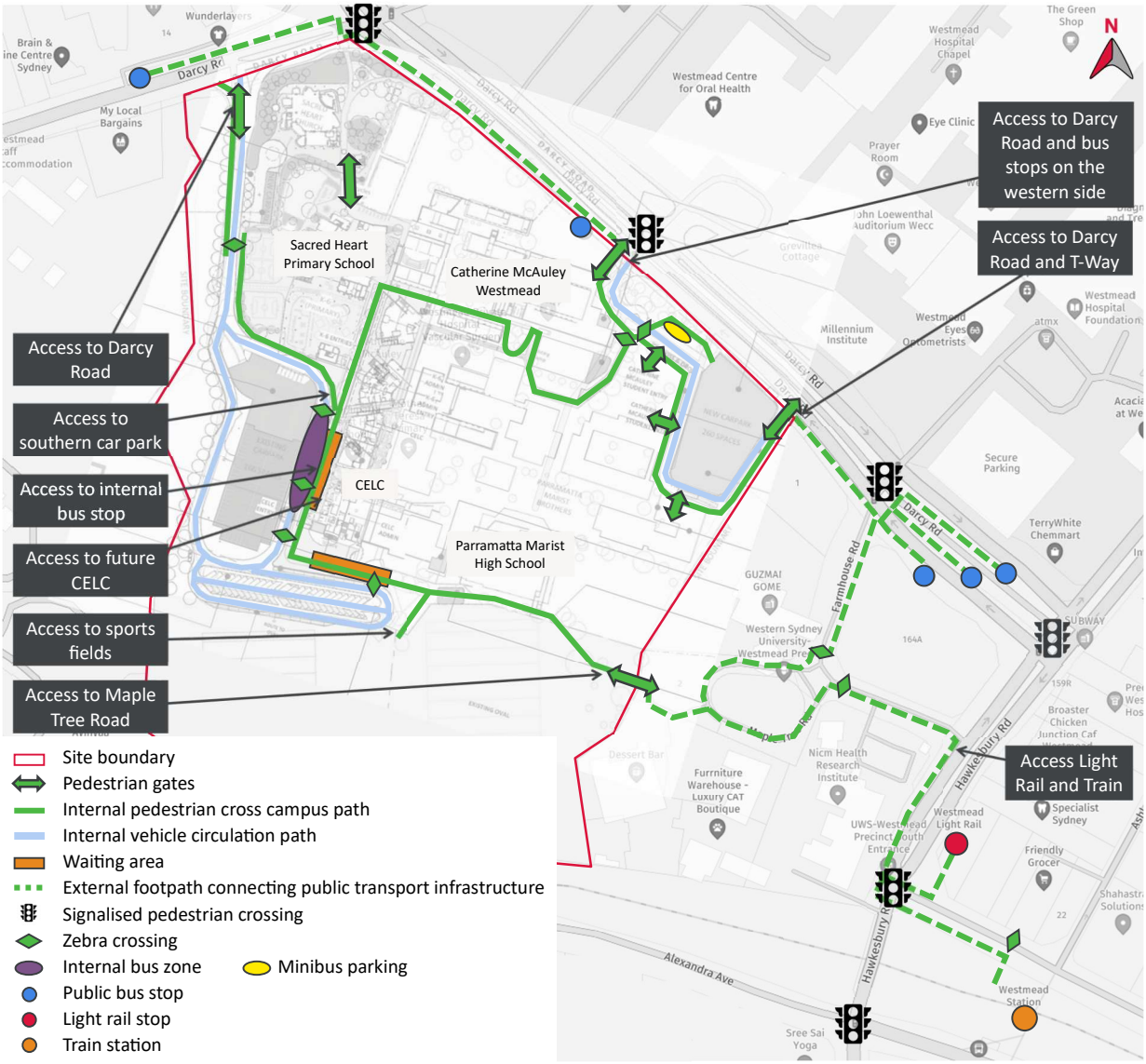



*Figure 6: Pedestrian cross campus path (Based on: NearMap and Allenza Architecture)*

## 4.4 Cyclists

- Cyclists are to use pedestrian gates to access the site
- Cyclists are to dismount when on-site
- Bicycles are to be parked at designated bicycle parking areas, as shown in Figure 4 and Appendix 1

## 4.5 Public transport

### 4.5.1 On-site

#### 4.5.1.1 Student behaviour and management

- Students are to remain on footpaths at all time
- Students are to make their way to the bus stop shelter in the afternoon
- Staff supervision is provided at the internal bus bay between 8:10-8:30am and 3:10-4:00pm

#### 4.5.1.2 Bus exit management / School Coach and Bus Parking Management Plan

All buses arrive and leave the site via Gate 3. Buses stop within the internal bus bay.

Upon leaving the internal bus bay, due to a tight kerb radius, buses require the entire width of the roadway to turn around the southern end of car park. The area which requires to be kept clear of vehicles is highlighted in red in Figure 7. Light vehicles travelling southbound are required to stop. A stop line indicates the location where vehicles need to stop.

Due to a lack of a sight line from the stop line to the PUDO spaces, a team of two people is required to manage the flow of vehicles. To achieve this, a traffic marshal[1] is located at the stop line – person A (refer to Figure 7), and a supervisory staff member is located at the PUDO spaces – person B. As PUDO spaces become vacant, person B informs person A via a walkie-talkie how many vehicles can be let through. Person A waves through the relevant number of vehicles and stops the flow of vehicles after.

Both persons stand on a footpath / verge, which provides protection.

The marshal will be employed for an initial 12 weeks after commencement of the school operation to educate parents / carers about the process. Towards the end of this period, a review will occur to determine if the marshal is required beyond the initial time, or if alternative operational management and / or physical measures will be considered.

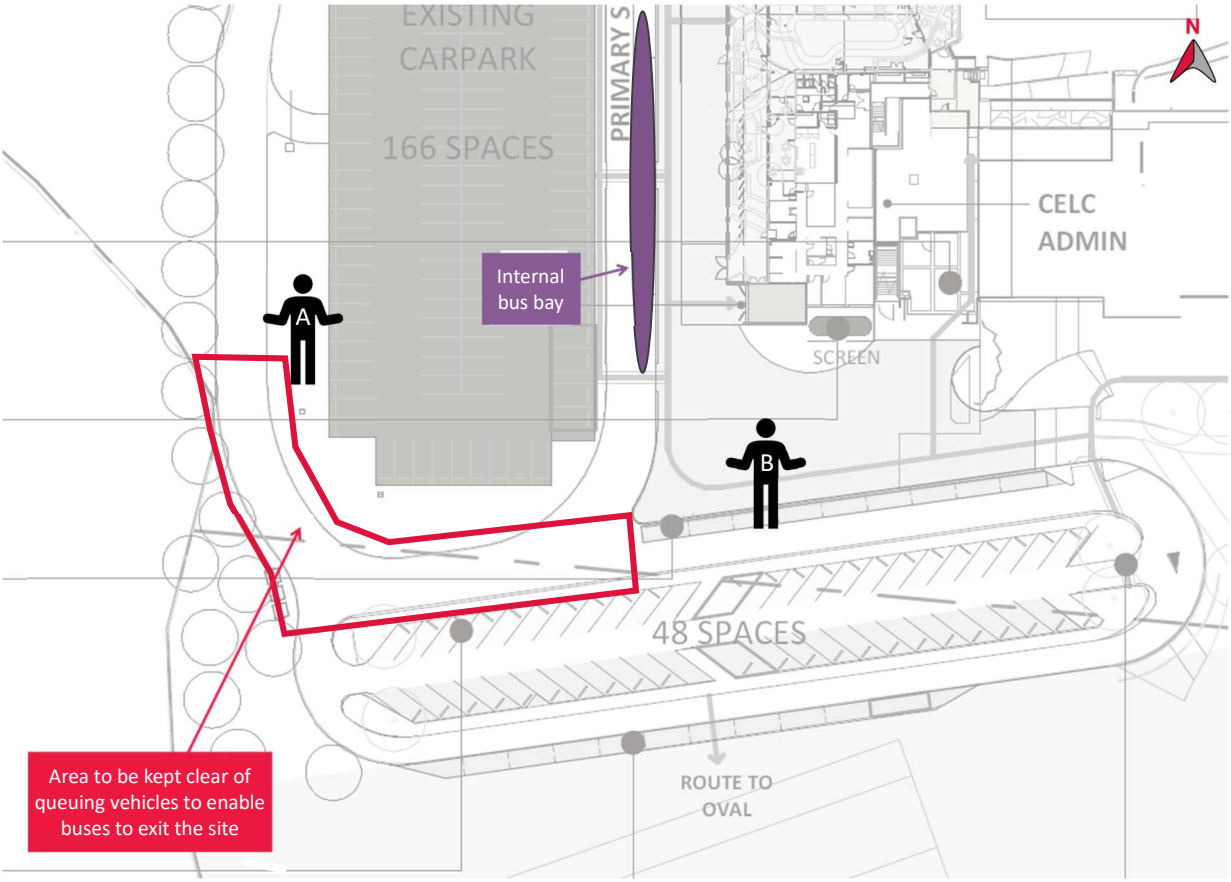



*Figure 7: Bus exit management (Based on: Allenza Architecture)*

[1] *Traffic marshals are required to complete the "SafeWork NSW Traffic Control Work Training" (TCWT). This training is generally required for workers undertaking traffic control at "Transport construction or maintenance work sites", whilst the PUDO management occurs on a private road with low traffic speeds, and where parents / carers are generally familiar with the arrangements and processes. However, it is considered that formal training will provide the dedicated marshals with a broader awareness of risks and how to mitigate them.*

### 4.5.2 Off-site

- High school students use Gate 1 to reach buses along Darcy Road and the T-Way. Gate 4 is used to reach the Westmead light rail & train station.
- Primary school students use the manually operated Sacred Heart Gate to reach buses on Darcy Road. The use of Gate 4 to reach the light rail and the train is only allowed with supervision by parents, carers or siblings, or with prior arrangement with the school staff.
- Students are to use dedicated pedestrian crossings to travel to / from the public transport stops.

## 4.6 Excursions and sport / School Coach and Bus Parking Management Plan

- Walking
  - Staff-led walking groups follow footpath and crossing rules
- Buses
  - Only registered bus companies are permitted to transport students
  - Minibuses
    - Are used to sporadically transport high school students to events, mostly within school hours and outside PUDO times
    - Are parked adjacent to the high school car park (refer to Figure 5)
    - Access the site via Gate 1 and exit the site via Gate 2
  - Large buses / coaches
    - Enter and exit the site via Gate 3
    - Use the internal bus bay to collect and drop-off students (refer to Figure 5)
    - Used for sports and external excursions
      - Primary School: sporadic, 1-5 times per term, approx. 12 across the year.
        Maximum 2 busses required at the same time
      - High Schools: up to 5 x times per week, though the frequency across months / terms varies significantly.
        Maximum 4-6 buses required at the same time. When the number of buses exceeds the number of bays, drivers queue behind occupied bus bays along the bus lane.
  - Every attempt is made to ensure that buses using the internal bus bay are organised such that their arrival / departure does not coincide with the arrival of public school buses on site. Examples include scheduling of pick-up at 7:30am for camps, 9:00am for excursions, or drop-off between 2:00pm-2:30pm.
  - Should bus drop-off from excursions and / or sport coincide with parent pick-up, bus exit management as per Section 4.5.1.2 is to be implemented
  - Teachers / school staff are to accompany student groups getting on / off the buses
- Private vehicle
  - Private vehicles used by staff/parents require principal approval, parent consent, insurance documents, and second passenger
  - School vehicles must have first aid kits, licensed drivers, and maintenance records

## 4.7 Car travel

### 4.7.1 General road rules

- Follow traffic marshal instructions at all times
- Use designated crossings and footpaths
- Park legally and respectfully
- Do not double park
- Ensure children use seat belts and exit on the footpath/passenger side
- Avoid calling children across roads or between parked vehicles

### 4.7.2 General traffic management on-site

- "10km/h Shared Zone" signage enforced campus-wide
- Speed humps at 50-100m intervals
- Clear "No Stopping" and PUDO signage
- Banners installed to remind drivers of procedures and safe behaviours
- All marshals are to wear high-vis vests and must hold relevant certifications

### 4.7.3 Student drivers

- Students may not drive or park on campus.
- Students may not transport other students to/from school or events.

### 4.7.4 Pick-up & drop-off

#### 4.7.4.1 General rules

- No overtaking or idling longer than 2 minutes
- Arrive no earlier than the school bell time to reduce congestion
- Students must be ready to alight swiftly from the passenger side
- To discourage pick-up & drop-off along Farmhouse Road, information shall be included in the schools' weekly newsletter/Transport Access Guide to not use Farmhouse Road as PUDO. Should upon a review of this OTAMP be found that pick-up & drop-off continues to occur on this side, installation of "No pick-up & drop-off" signage shall be considered.

#### 4.7.4.2 High school PUDO

The 20-minute staggered afternoon bell time between the Catherine McAuley and Parramatta Marist high schools means that the pick-ups for each school can happen almost independently. This staggering shall be retained.

- No queuing is permitted on Darcy Road
- Parents and guardians are required to circle around the block via Bridge Road if their children are not present for collection at the time of their arrival
- Gate 1 may be temporarily closed to ease peak congestion
- 4 traffic marshals[2] will be employed for the first 3 weeks after commencement of the PUDO operation to educate parents / carers about the PUDO process. For the following 9 weeks, 3 marshals will be retained.
    - The roles of the marshals are as follows (also refer to Figure 8):
        - Marshal 1: positioned at gate 1 to monitor vehicle movements into the school and manage students crossing the driveway. This marshal is also to monitor any unforeseeable delays in traffic and if required, request gate 1 to be closed. Gate closure may be triggered when the marshal observes that vehicles are queued all the way to Gate 1. This would ensure that approaching vehicles would not stop on Darcy Road, but rather continue to recirculate. Once the internal queue eases, the gate can be reopened.

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*[2] Traffic marshals are required to complete the "SafeWork NSW Traffic Control Work Training" (TCWT). This training is generally required for workers undertaking traffic control at "Transport construction or maintenance work sites", whilst the PUDO management occurs on a private road with low traffic speeds, and where parents / carers are generally familiar with the arrangements and processes. However, it is considered that formal training will provide the dedicated marshals with a broader awareness of risks and how to mitigate them.*

        - Marshal 2: moves along the southern PUDO to monitor the pick-up / drop-off, monitor the dwell times, assists students and parents, moves on vehicles
        - Marshal 3: as marshal 2, but on the northern PUDO section
        - Marshal 4: provides additional support where needed for the first 3 weeks
    - The marshals should be in radio contact with each other, allowing the marshal at the entry to advise the marshals at the drop-off areas if vehicles need to be cleared quicker.
    - Once vehicles dwell for more than 2 minutes, or if students do not arrive by the time the parent/ guardian reaches the end of the pick-up zone, the marshals should encourage the parents to depart the PUDO area and rejoin the queue using the vehicular around the school. This should only be implemented during the main peak periods to avoid queuing impacting Darcy Road.

  Towards the end of the first three months, a review will occur to determine if / how many marshals are required beyond the initial time.
- Primary school students will not be allowed to be dropped-off or picked-up within the high school PUDO

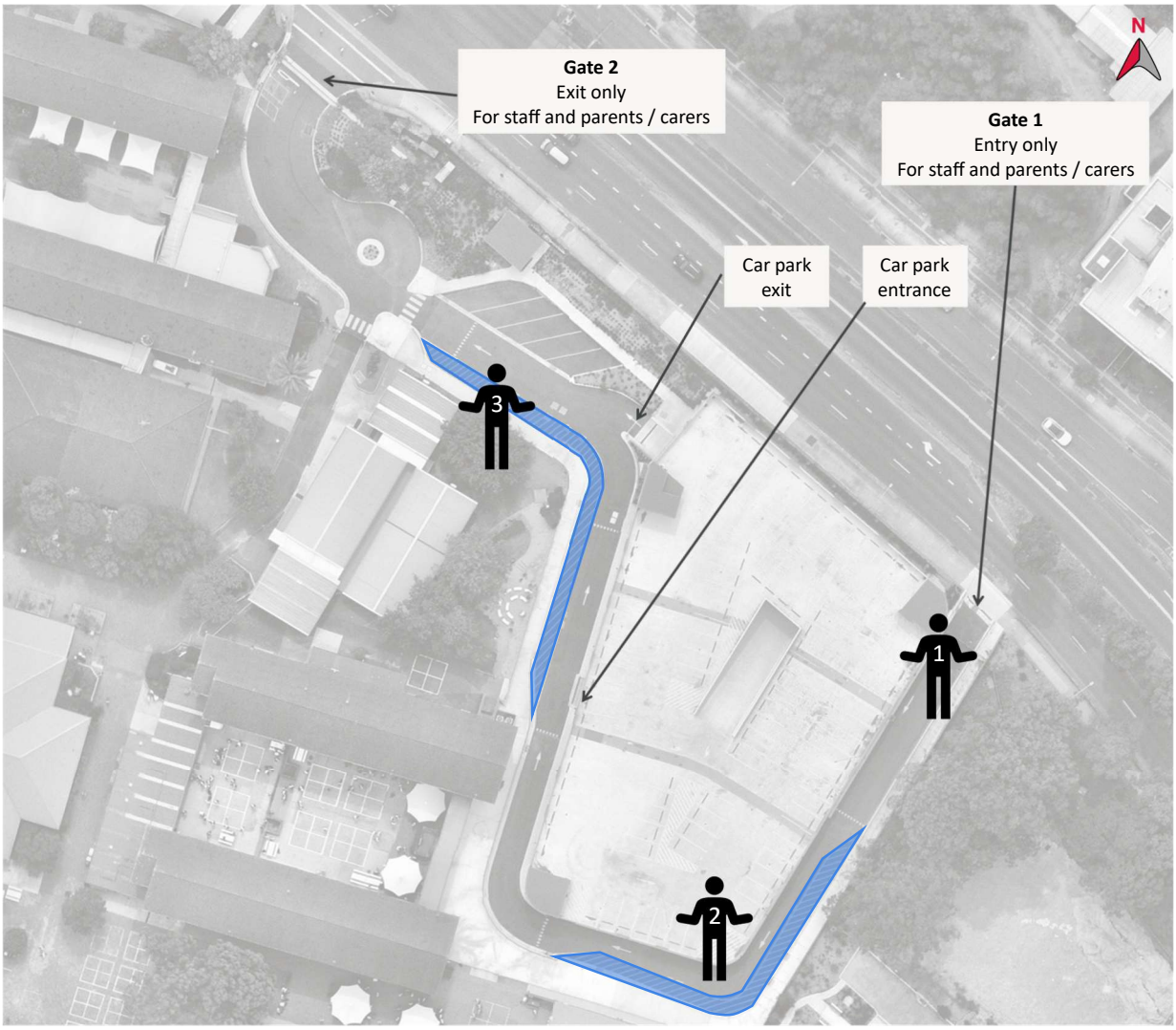



*Figure 8: Marshals at the high school PUDO (Based on: NearMap)*

#### 4.7.4.3 Primary school PUDO

- There are 3 zones:
  - Yellow zone: for students with surnames starting with A-K. Main pick-up between 2:45pm-3:15pm. After 3:15pm, students are escorted back into the school where they are supervised until picked up.
  - Blue zone: for students with surnames starting with L-Z. To be used no later than 3:00pm to free up the bus zone for buses. At 3pm, students are moved to the yellow zone.
  - Green zone: for overflow, as required
- Students are grouped by surnames in relevant zones. On arrival, parents are to have a student-allocated number displayed on the windscreen. A supervising staff member calls out the relevant student.
- For an efficient process in the afternoon, a staff member is positioned within the staff car park who calls out via a microphone the number on the windscreen. Staff at the PUDO prepare the relevant students for pick-up.
- This PUDO area is to be used only by families with a primary school student. Families with a high school and a primary school student may pick up from here after 3:15pm.
- For queuing / bus turning management, refer to Section 4.5.1.2

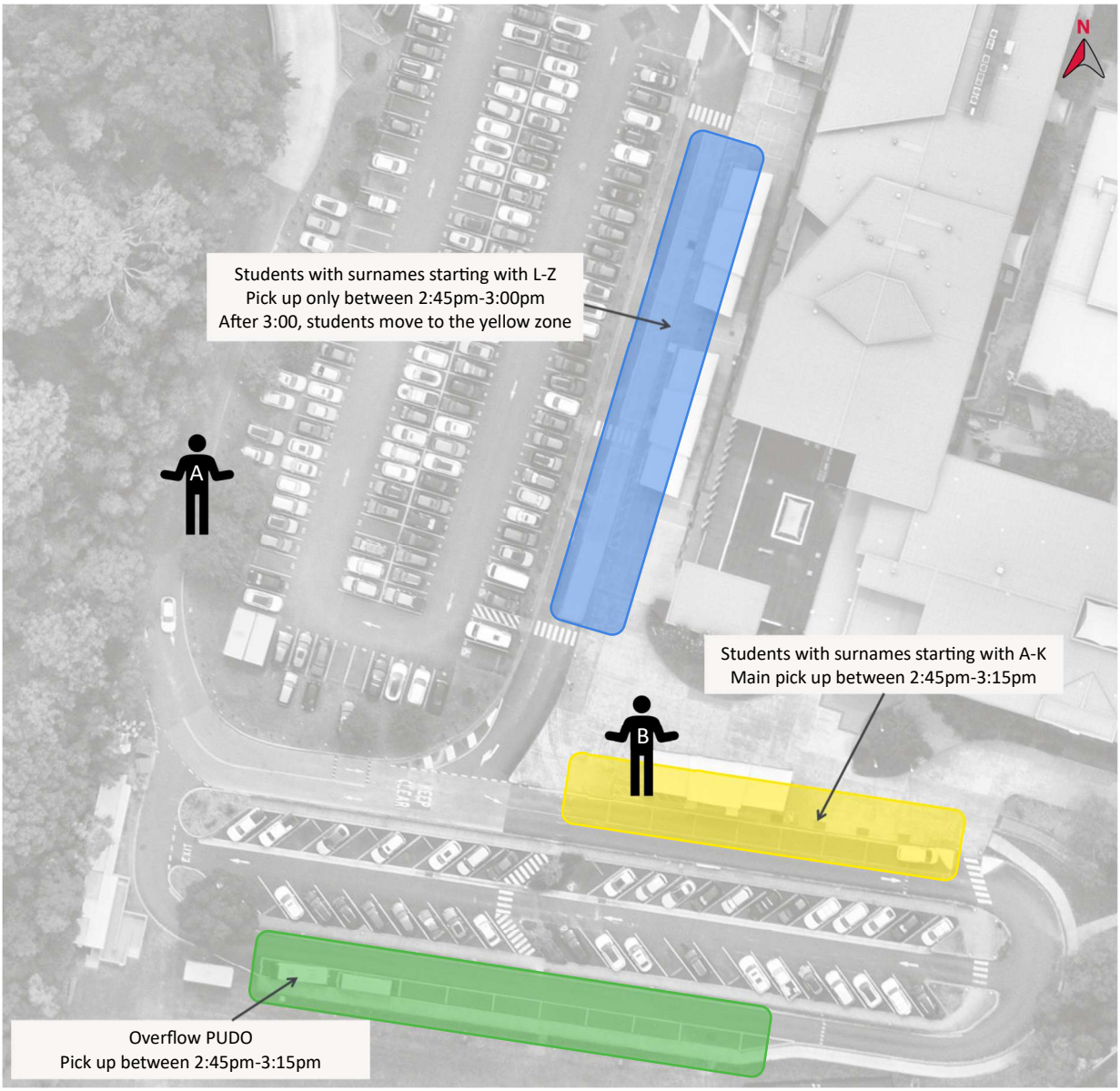



*Figure 9: Zones at the primary school PUDO (Based on: NearMap)*

#### 4.7.4.4 Out of school care

Pick-up and drop-off for the out of school care (OOSH) occurs outside the general school PUDO times. Therefore, parents can park in the staff car park or use the bus bay.

#### 4.7.4.5 CELC PUDO

Due to the nature of early learning, and the extended operating hours, it is expected that the pick-up & drop-off will largely not coincide with the general school pick-up & drop-off.

Nevertheless, CELC has dedicated parking spaces within the southern car park (see Appendix 1), where parents / carers can park and walk the child into the centre.

### 4.7.5 Parking

- School staff are to park in designated parking spaces, as per the allocation shown in Appendix 1.
- As per the OMP of the church "*the peak attendance periods for the place of worship are anticipated to occur outside of standard working hours of the school, particularly on weekends. This timing will create ample available parking spaces for congregants attending services, augmenting the church's existing 78 parking spaces. Measures will be taken to ensure that parking is managed effectively, minimising any potential impact on surrounding residential areas and maintaining a smooth flow of traffic in/out of the site.*" Based on this, it is not expected that any detrimental cumulative impacts would occur during the schools' peak pick-up and drop-off times.
- Parking access for community members to be coordinated with the schools on a case-by-case basis dependent on out of school hours use.

## 4.8 Servicing

- All servicing occurs via gate 3
- Waste contractors have fobs to enter the site
- School deliveries and security have direct contact numbers with the schools for gate opening
- Any waste or other materials will be transported internally on buggies or similar
- Waste collection occurs via a private contractor
- The waste collection occurs before 7:00am, which is outside of the school operating hours. Based on this, there is no expected interaction between waste vehicles and any other campus related vehicles such as buses, mini-buses, private vehicles or other service vehicles, as they do not operate concurrently.

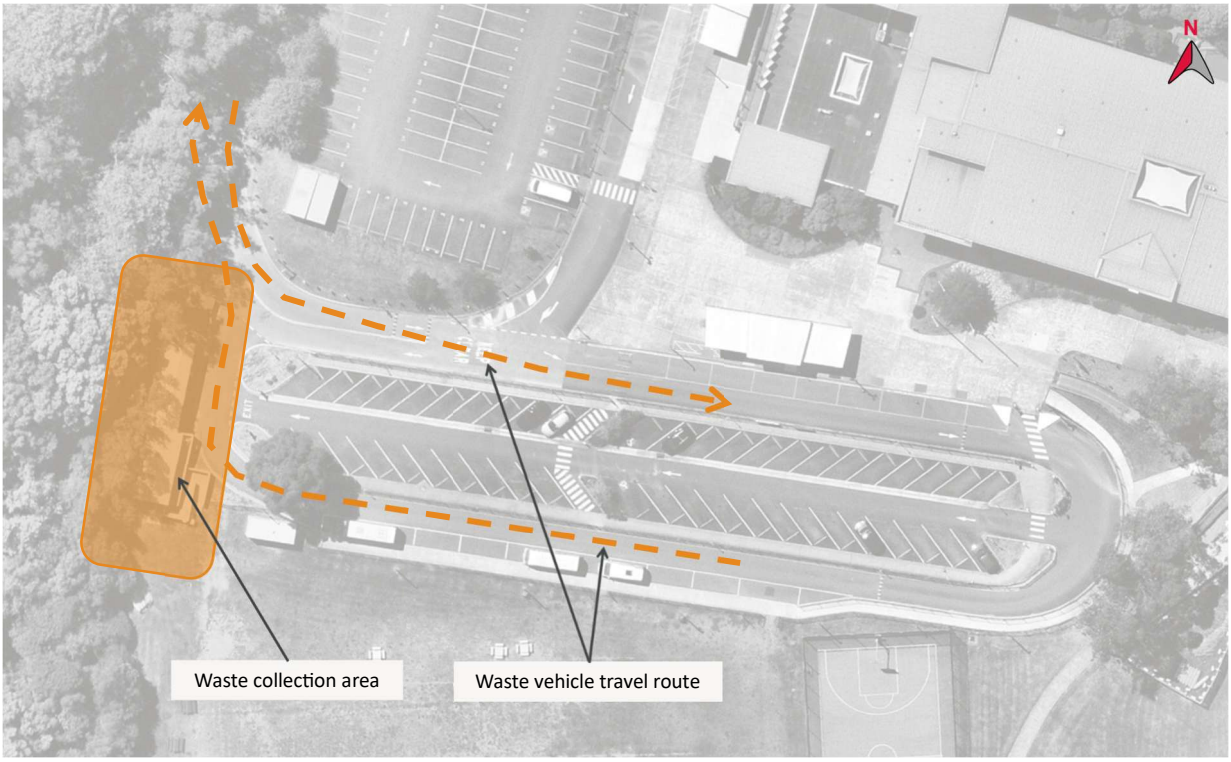



*Figure 10: Waste collection area (Based on: NearMap)*

### 4.9 Emergency vehicles

All gates can be utilised as required and dependent on where the need is. Access location is communicated by the person placing the call to emergency services. Typically, the following access gates are used for each school:

- Sacred Heart – gate 3
- Catherine McAuley – typically gate 2, or gate 3 if the emergency is within the new GLA building as this provides the most convenient access point
- Parramatta Marist – typically gate 3 if the student / staff member is in the front office area

## 5 Communication, monitoring and review

Procedures entailed in this OTAMP are to be communicated to all staff, parents / carers and students. It shall be included in the Welcome Packs and presented in parent sessions. Any updates shall be communicated promptly via newsletters, email and on-site signage.

The campus' transport related operation shall be reviewed termly in the first year, then annually, or when significant changes arise. The review would ideally be undertaken concurrently with the School Transport Plan (STP), as outcomes of updated travel surveys and travel measures may be of relevance to the transport related operation of the campus. Refer to the STP for travel measures. Some relevant measures may include:

- Addition of public school bus services due to student demand increase
- Staggering of bell times if car queuing within the site persists

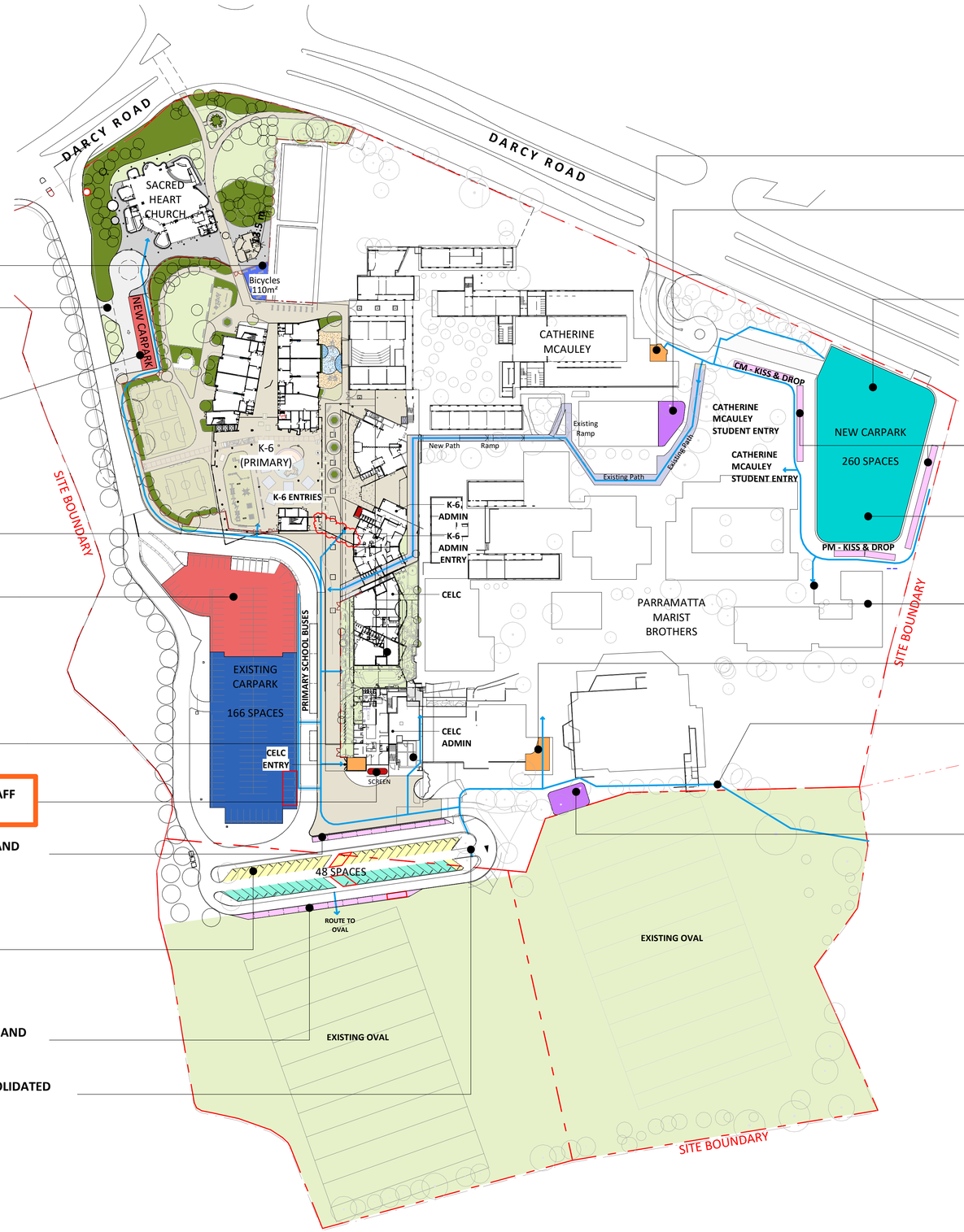
Irrespective of the above, the operational measures shall be reviewed and updated in case of observations such as:

- Any reported or perceived safety risks related to the transport related operation
- Ongoing congestion within the campus
- Queuing spilling out of the site
- Inefficient PUDO process
- Overlapping of the PUDO between Catherine McAuley Westmead school and the Parramatta Marist High School
- Changes to operational hours, be it school bell times or waste collection timing

In line with the review of the campus' transport related operation, this OTAMP shall be reviewed termly in the first year, then annually, or when significant changes arise. Changes may be triggered by:

- Changes to operating hours
- Site layout or infrastructure updates
- Changes in operational management
- Changes to bell times
- Staff or role adjustments

# Appendix 1. Car and bicycle parking allocation plan




**84 SPACES - PRIMARY STUDENT BICYCLE PARKING**

**WIRE CHAIN OR COLLAPSABLE BOLLARDS FOR CONTROLLED ACCESS TO PARISH DRIVEWAY AND PARKING**

**12 SPACES, 1 DDA SPACE - PARISH CHURCH**

**END OF TRIP FACILITY FOR PRIMARY SCHOOL STAFF**

**PARKING ALLOCATIONS PER USE**
- 66 PARISH (INC. 2 ACC) + 1 SHARED
- 48 (INC. 1 ACC) PS STAFF
- 47 (INC. 1 ACC) PS VISITOR + 1 SHARED
- 3 REMAINDER SPACES (NON SPECIFIC USE)
- **TOTAL = 166 SPACES**

**CATHERINE MCAULEY - STUDENT ENTRY (EXISTING)**

**9 SPACES - PRIMARY AND HIGH SCHOOL STAFF BICYCLE PARKING WITH SCREENING**

**9 SPACES - PRIMARY STUDENTS DROP OFF AND PICK UP ZONE K-Y2**

**12 CELC STAFF PARKING**
**12 CELC VISITOR PARKING**
**22 SUPPORT STAFF PARKING**
**(INC 2 ACCESSIBLE)**

**10 SPACES - PRIMARY STUDENTS DROP OFF AND PICK UP ZONE K-Y2**

**PROPOSED PEDESTRIAN ROUTE AND CONSOLIDATED CROSSING POINT**

**CATHERINE MCAULEY ADMIN ENTRY (EXISTING)**

**60 SPACES - HIGH SCHOOL STUDENT & STAFF BICYCLE PARKING**

**PARKING ALLOCATION PER LEVEL**
- BASEMENT - 73 HS VISITORS + 1 SHARED
- GROUND - 73 HS STAFF
- LVL 1 - 113 REMAINING (NON USE-SPECIFIC)
- **TOTAL = 260 SPACES**

NEW 3 LEVEL CARPARK & SENIORS DROP OFF (SUBJECT TO SEPERATE APPROVAL)

**21 SPACES - SENIOR STUDENTS DROP OFF AND PICK UP ZONE**

**PARKING ALLOCATION PER USE**
- 73 HS STAFF (INC. 2 ACC)
- 73 HS VISITOR (INC. 2 ACC) + 1 SHARED
- 113 REMAIN (NON USE-SPECIFIC)
- **TOTAL = 260 SPACES**

**PARRAMATTA MARIST STUDENT ENTRY**

**PARRAMATTA MARIST ADMIN ENTRY (EXISTING)**

**PEDESTRIAN ACCESS FROM FARMHOUSE ROAD**

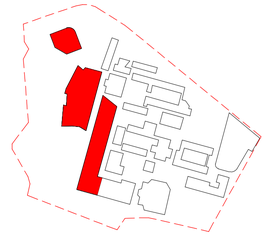
**56 SPACES - HIGH SCHOOL STUDENT BICYCLE PARKING**

**SUMMARY OF BICYCLE PARKING**
60 + 56 + 84 + 9 = 209

**SUMMARY OF PARKING ALLOCATION (DEMAND) PER USE**
- 73 HS STAFF
- 48 PS STAFF
- 12 CELC STAFF
- 12 CELC VISITOR
- 22 SUPPORT STAFF
- 67 PARISH
- 48 PS VISITOR
- 73 HS VISITOR
- 116 NON USE SPECIFIC
- **TOTAL = 471 SPACES**

**FINAL ON-SITE PARKING PROVISION**
260 + 214 = 474

**DIFFERENCE BETWEEN SUPPLY (474) AND DEMAND (462) = 12 SPACES (i.e. NON USE-SPECIFIC ACCESSIBLE SPACES IN MULTI STOREY CAR PARK)**



## LEGEND

### CAR PARKING
- PARISH CHURCH PARKING
- PRIMARY SCHOOL STAFF/VISITOR PARKING
- SUPPORT STAFF PARKING
- CELC STAFF/VISITOR PARKING
- KISS AND DROP ZONE
- RECONFIGURED FRONT TO KERB PARKING
- PRIMARY SCHOOL BUS PARKING
- HIGH SCHOOL STAFF AND VISITOR PARKING

### BICYCLE PARKING
- PRIMARY SCHOOL STUDENT BICYCLE PARKING
- PRIMARY/ HIGH SCHOOL STAFF BICYCLE PARKING
- HIGH SCHOOL STUDENT BICYCLE PARKING
- END OF TRIP FACILITY FOR PRIMARY SCHOOL STAFF
  PROPOSED ADDITION OF SHOWER & BENCH TO EXISTING ACCESSIBLE TOILET LOCATED IN THE ADMINISTRATION BUILDING
- NEW THROUGH SITE LINK
- PEDESTRIAN PATHWAYS

| subject | p.a | date | issue |
|---|---|---|---|
| SSDA mod | HPH | 16.04.2025 | H |
| SSDA Modification Application | HPH | 09.12.2024 | G |
| Revised Development Application Issue | BK | 03.09.2021 | F |
| Revised Development Application Issue | BK | 20.08.2020 | E |
| Revised Development Application Issue | BK | 18.08.2020 | D |
| Revised Development Application Issue | BK | 10.08.2020 | C |
| Revised Development Application Issue | LB | 29.06.2020 | B |
| For Development Application | LB | 10.06.2020 | A |


architect
ALLEANZA ARCHITECTURE
Nominated Architect: Charles Glanville, NSW Registration No. 3130


project
Westmead Catholic Community

address
Darcy Road, Westmead

client
Catholic Education Office
Diocese of Parramatta

**DEVELOPMENT APPLICATION**

north

| | |
|---|---|
| drawn: | DO |
| checked: | LB |
| verified: | CG |
| sheet size: | A1 |
| scale: | As indicated |

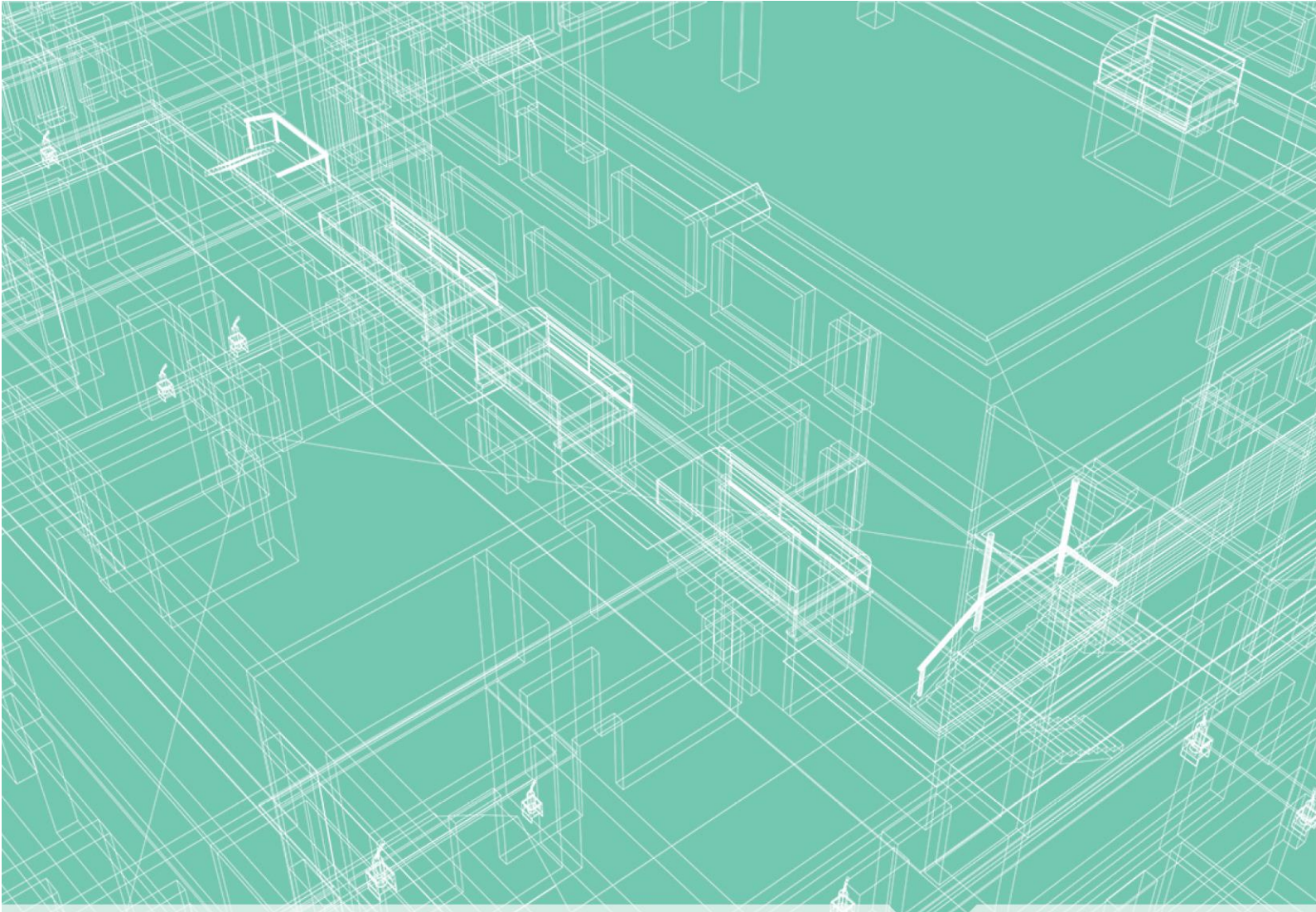
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PARKING ALLOCATIONS AND SITE CIRCULATION

sheet

| project_no. | sheet_no. | issue |
|---|---|---|
| 19122 | MP-DA-950 | H |

# ANNEXUE C



NOISE & VIBRATION IMPACT ASSESSMENT FOR SSDA (SSD-10383)

# WESTMEAD CATHOLIC COMMUNITY EDUCATION CAMPUS

# (STAGE 1)

JHA

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## DOCUMENT CONTROL SHEET

| | |
|---|---|
| Project Number | 190529 |
| Project Name | Westmead Catholic Community Education Campus (Stage 1) |
| Description | Noise & Vibration Impact Assessment for SSDA |
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# 1 INTRODUCTION

## 1.1 OVERVIEW

This acoustic report has been prepared by JHA Consulting Engineers on behalf of the Catholic Education Diocese of Parramatta (CEDP) (the Applicant).

This accompanies the State Significant Development Application (SSD 10383) for the proposed Westmead Catholic Community Education Campus (the Proposal) located on the intersection of Darcy Road with Mons Road.

Westmead Catholic Community Education Campus seeks consent for a new Primary school with capacity for approximately 1,680 students, new Parish church, Early Learning Centre, and landscaping.

This report shall be read in conjunction with the Architectural design drawings and other consultant design reports submitted as part of the application.

The objectives of this acoustic assessment are:

- Identify noise sensitive receivers that will potentially be affected by the operation and construction of the proposed development.
- Carry out noise surveys to determine existing ambient and background noise levels on site.
- Establish appropriate noise criteria in accordance with the relevant standards, guidelines and legislation for the following noise emissions:
  - Mechanical plant from the development to the surrounding receivers.
  - Public address and school bell systems.
  - Activities and events within the Parish Church.
  - Noise from Outdoor spaces located within the Primary School.
  - Early Learning Centre.
  - Traffic Noise Generated.
- Establish noise and vibration criteria for construction work in accordance with the standards and guidelines.
- Determine whether the relevant criteria can be achieved based on the proposed operations and construction methods. Where applicable, provide recommendations for any necessary acoustic control measures that will need to be incorporated into the development or use in order to ensure with the assessment criteria.
- Provide recommendations for Construction Noise and Vibration Planning.

The following documentation has been used for the preparation of this report:

- Architectural drawings of the proposed development.
- Noise data collected on site through the use of noise loggers and a hand held spectrum analyser.
- Traffic Report Prepared by The Transport Planning Partnership
- SEARS request provided.

This document and related work has been prepared following JHA Consulting Engineers Quality and Environmental Management Systems, which are based on AS/NZS ISO 9001 and ISO 14001.

## 1.2 RESPONSE TO SEARS

The acoustic report is required by the Secretary's Environmental Assessment Requirements (SEARs) for SSD 10383. This table identifies the relevant SEARs requirement/s and corresponding reference/s within this report.

| *SEARs Item* | *Report Reference* |
|---|---|
| *5. Environmental Amenity*<br>*• 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.* | Section 5 |
| *12. Noise and Vibration*<br>*• Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.* | Section 6 |
| *• 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.* | Section 5 |
| *Relevant Policies and Guidelines:*<br>• *NSW EPA Noise Policy for Industry (2017)*<br>• *Interim Construction Noise Guideline (DECC)*<br>• *Assessing Vibration: A Technical Guideline 2006*<br>• *Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008)*<br>• *Australian Standard 2363:1999 'Acoustics – Measurement of noise from helicopter operations'.* | Section 4 |

Table 1: SEARs and Relevant References.

# 2 DESCRIPTION OF THE PROPOSAL

Westmead is a suburb of Sydney in the local government area of Cumberland, being approximately 26km West of Sydney CBD. The Westmead Catholic Community Education Campus (WCC) site is located on Darcy Road at the intersection of Mons Road, in Westmead.

The existing site is surrounded by public and private health infrastructure (specifically Westmead Public and Private Hospitals), NSW Health Staff Housing, Western Sydney University Westmead Campus and residential receivers. The surrounding land uses are as follows:

- *North*: Immediately north of the site is currently Occupied by Medical Uses. It is identified as part of the Westmead Hospital Complex.
- *East*: Land to the east is currently occupied by Educational and Hospital uses. It is identified as the Westmead Campus of Western Sydney University, and the Greater Westmead Hospital Complex.
- *South*: Land to the south is currently occupied by residential receivers. It is identified as part of the greater Westmead residential area. The boundary between this residential area and the site is the T1 Western Railway Line.
- *West*: Land to the west of the site is currently identified as residential receivers. This land is part of the Monaco Estate and NSW Health Staff Housing for the nearby Westmead Hospital Complex.

Figure 1 highlights the location of the WCC Stage 1 site (red shadow), Residential Receivers (blue shadow), Educational Receivers (yellow shadow), Hospital (Medical) Receivers (green shadow) and the greater WCC site (orange line).




**Figure 1:** Westmead Catholic Community Education Campus Stage 1 location (red shadow) with the extent of the site outlined in orange.

The WCC Stage 1 is proposed to accommodate approximately 1680 students in a new primary school. The proposed development will include:

- New 5 level educational building with outdoor rooftop space for Kindergarten to Year 6 students
- New Parish Church.
- Catholic Early Learning Centre (CELC) / administrating building fit out of existing facility.
- New Landscaping areas.

Figure 2 shows the proposed development layout within its boundary as shown in the architectural drawings.

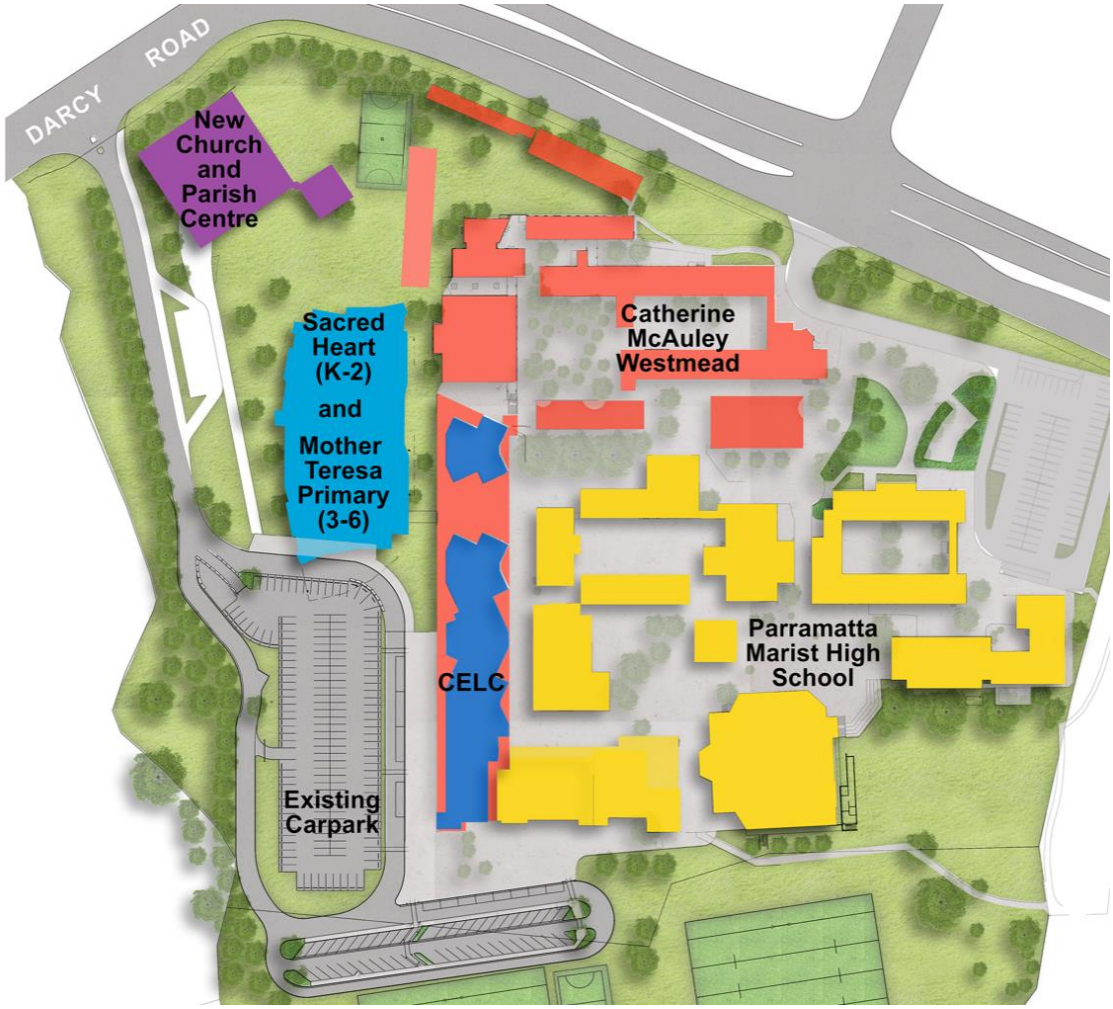



Figure 2: Site layout of the proposed development.

At this stage, it is understood that WCC will operate within typical school hours. The following operating hours have been used for the noise assessment purposes:

- School hours: 6am to 6pm.
- Out of hours: 6am to 6pm
- CELC: 6am to 6pm
- Parish Church Operating Hours
  - Mon-Fri: 8-10am
  - Sat: 8-10am, 4:30-7pm
  - Sun: 7am-12pm

# 3 SITE MEASUREMENTS

## 3.1 GENERAL

Attended and unattended noise surveys were conducted at the locations shown in Figure 3 in order to establish the ambient and background noise levels of the site and surrounds. The location L1 was found to be representative of the nearest most affected residential receivers to the West. Measurements were conducted at L2 to establish traffic noise levels impacting the site. It shall be noted that during the second week of noise monitoring, the existing on-site school facilities were in operation.

Noise surveys have been carried out in accordance with the method described in the AS/NZS 1055:2018 *'Acoustics – Description and measurement of environmental noise'.*




Figure 3: Noise surveys location, Stage 1 (Red Shading) and boundary of the WCC site

## 3.2 SHORT-TERM NOISE MONITORING

Short-term noise monitoring was carried out to obtain representative octave band noise levels of the site and noise levels from the site.

On Thursday 23rd January 2020, a short-term noise measurement was carried out during the day-time period. Short-term noise measurement was carried out with a Rion NL-52EX hand-held Sound Level Meter (SLM) (Serial Number 1054192). The calibration of the SLM was checked before and after each use with a Larson Davis Cal 200 Class 1 Calibrator (Serial Number 15054) and no deviations were recorded.

The SLM microphone was mounted 1.5 metres above the ground and a windshield was used to protect the microphone. Measurement was undertaken in the free-field – i.e. more than 3.5 metres away from any

building façade or vertical reflective surface. Weather conditions were calm and dry during the attended noise monitoring.

From observations during the site visit, it is noted that at location 2, the ambient and background noise levels are dominated by surrounding traffic noise. A summary of the results of the short-term noise monitoring are shown in Table 2.

| *Location* | *Date and Time* | *Parameter* | *Sound Pressure Level, dB re 20µPa* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Overall dB(A)* | *Octave Band Centre Frequency, Hz* | | | | | | | |
| | | | | *63* | *125* | *250* | *500* | *1k* | *2k* | *4k* | *8k* |
| *M1* | 23/01/2020 10.45 – 11.00 | $L_{90,15min}$ | **51** | 60 | 59 | 54 | 50 | 49 | 47 | 40 | 33 |
| | | $L_{eq,15min}$ | **52** | 61 | 61 | 55 | 52 | 50 | 47 | 42 | 36 |
| | | $L_{10,15min}$ | **56** | 65 | 65 | 59 | 57 | 53 | 51 | 46 | 41 |
| *M2* | 05/02/2020 14.45 – 15:00 | $L_{90,15min}$ | **55** | 62 | 55 | 51 | 52 | 51 | 48 | 42 | 34 |
| | | $L_{eq,15min}$ | **63** | 70 | 62 | 58 | 60 | 59 | 56 | 51 | 45 |
| | | $L_{10,15min}$ | **67** | 72 | 65 | 61 | 63 | 63 | 60 | 54 | 48 |

**Table 2:** Results of the short-term noise monitoring.

## 3.3 LONG-TERM NOISE MONITORING

Long-term noise monitoring was carried out from Thursday 23rd January to Tuesday 3rd February 2020 with two Rion NL-52 noise loggers (Serial Numbers 553892 and 175549). The noise loggers recorded $L_{A1}$, $L_{A10}$, $L_{Aeq}$ and $L_{A90}$ noise parameters at 15-minute intervals during the measurement period. The calibration of the noise loggers were checked before and after use and no deviations were recorded.

The locations were secure and considered to be representative of the typical ambient and background noise levels. The microphone was mounted 1.5 meters above the ground and windshields were used to protect the microphone.

The detailed results of the long-term noise monitoring are presented graphically in Appendix A. Weather conditions were monitored for the duration of the noise survey and were typically calm and dry with some rain and wind events having been noted to occur during the measurement period. As stated in the NSW NPI, any data likely to be affected by rain, wind or other extraneous noise has been excluded from the calculations (shadowed in the Appendix A graphs).

Background noise levels ($L_{A90}$) are shown in Table 3, together with the ambient noise levels ($L_{Aeq}$) measured for each period.

| *Location* | *$L_{A90}$ Background Noise Levels, dB(A)* | | | *$L_{Aeq}$ Ambient Noise Levels, dB(A)* | | |
|---|---|---|---|---|---|---|
| | *Day 7am-6pm* | *Evening 6pm-10pm* | *Night 10pm-7am* | *Day 7am-6pm* | *Evening 6pm-10pm* | *Night 10pm-7am* |
| *L1* | 48 | 44 | 40 | 61 | 56 | 47 |
| *L2* | 50 | 50 | 44 | 63 | 63 | 57 |

**Table 3:** Results of the long-term noise monitoring.

# 4 RELEVANT NOISE STANDARDS AND GUIDELINES

## 4.1 STANDARDS AND GUIDELINES

The following standards and guidelines are considered relevant to the project and have been referenced in developing the project noise level criteria.

- Noise Emissions
  - Environmental Planning and Assessment (EP&A) Act 1979.
  - Protection of the Environmental Operations (POEO) Act 1997.
  - NSW Environment Protection Authority (EPA) Noise Guide for Local Government (NGLG) 2013.
  - Parramatta Council Legislation.
  - NSW Environment Protection Authority (EPA) Noise Policy for Industry (NPI) 2017.
  - Association of Australasian Acoustical Consultants (AAAC) '*Guideline for Child Care Centre Acoustic Assessment*' 2010.
- Transport Noise
  - NSW Department of Planning (DoP) 'Development Near Rail Corridors or Busy Roads – Interim Guideline' 2008.
  - NSW RNP (Road Noise Policy) 2011.
  - Australian Standard 2363:1999 '*Acoustics – Measurement of Noise from Helicopter Operations.'*
- Construction Noise and Vibration
  - NSW DECCW Interim Construction Noise Guideline (ICNG) 2009.
  - NSW DECC Assessing Vibration: A Technical Guideline 2006.
  - NSW Road Maritime Service (RMS) Construction Noise and Vibration Guideline 2016.
  - Australian Standard AS 2436:2010 '*Acoustics – Guide to Noise Control on Construction, Maintenance & Demolition Sites*'.

## 4.2 REGULATORY FRAMEWORK

The Environmental Planning and Assessment Act 1979 (EP&A Act) provides the regulatory framework for the protection of the environment in NSW. The EP&A Act is relevantly about planning matters and ensuring that "environmental impact" associated with the proposed development is properly considered and reasonable before granting development consent to develop.

The assessment of "environmental impact" relies upon the identification of acceptable noise criteria which may be defined in a Development Control Plan, or derived from principles using guidelines like NSW EPA Noise Policy for Industry (NPI 2017) or Noise Guide for Local Government (NGLG 2013).

The Protection of the Environment Operations (POEO) Act 1997 has the objective of protecting, restoring and enhancing the quality of NSW environment. Abatement of noise pollution is underpinned by the definition of "offensive noise" as follows:

*"...*

*(a) that, by reason of its level, nature, character or quality, or the time at which it is made, or any other circumstances:*

*(i) is harmful to (or is likely to be harmful to) a person who is outside the premises from which it is emitted, or*

*(ii) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted, or*

*(b) that is of a level, nature, character or quality prescribed by the regulations or that is made at a time, or in other circumstances, prescribed by the regulations.*

*..."*

NGLG 2013 provides a checklist to determine an "offensive noise".

## 4.3 NSW NOISE GUIDE FOR LOCAL GOVERNMENT

NGLG 2013 is a guideline that is at aimed at councils and planners to provide guidance in the management of local noise problems and in the interpretation of existing policy and legislation.

Table 1.3 of NGLG 2013 contains the management for common neighbourhood noise issues and describes Council as the Appropriate Regulatory Authority (ARA) for private educational facilities. The offensive noise test aids in making a systematic judgment about the offensive nature of noise emissions. The NGLG 2013 offensive noise test considers that noise may be offensive in three ways, according to:

- Audibility.
- Duration.
- Inherently offensive characteristics.

## 4.4 PARRAMATTA COUNCIL LEGISLATION

Relevant Planning Documents of Parramatta Council Legislation have been reviewed for any noise requirement or criteria.

### 4.4.1 PARRAMATTA COUNCIL LOCAL ENVIRONMENTAL PLAN

The Parramatta Council Local Environmental Plan (P-LEP 2011) is the environmental planning instrument that applies to the site. The Westmead Catholic Community Education Campus site is zoned as Local Centre (SP2) and the surrounding is zoned as Health Services Facility (SP2), High Density Residential (R4), and Mixed Use (B4). Figure 4 shows the land zoning as per information extracted from P-LEP 2011 map 6250_COM_LZN_004_010_20170505.

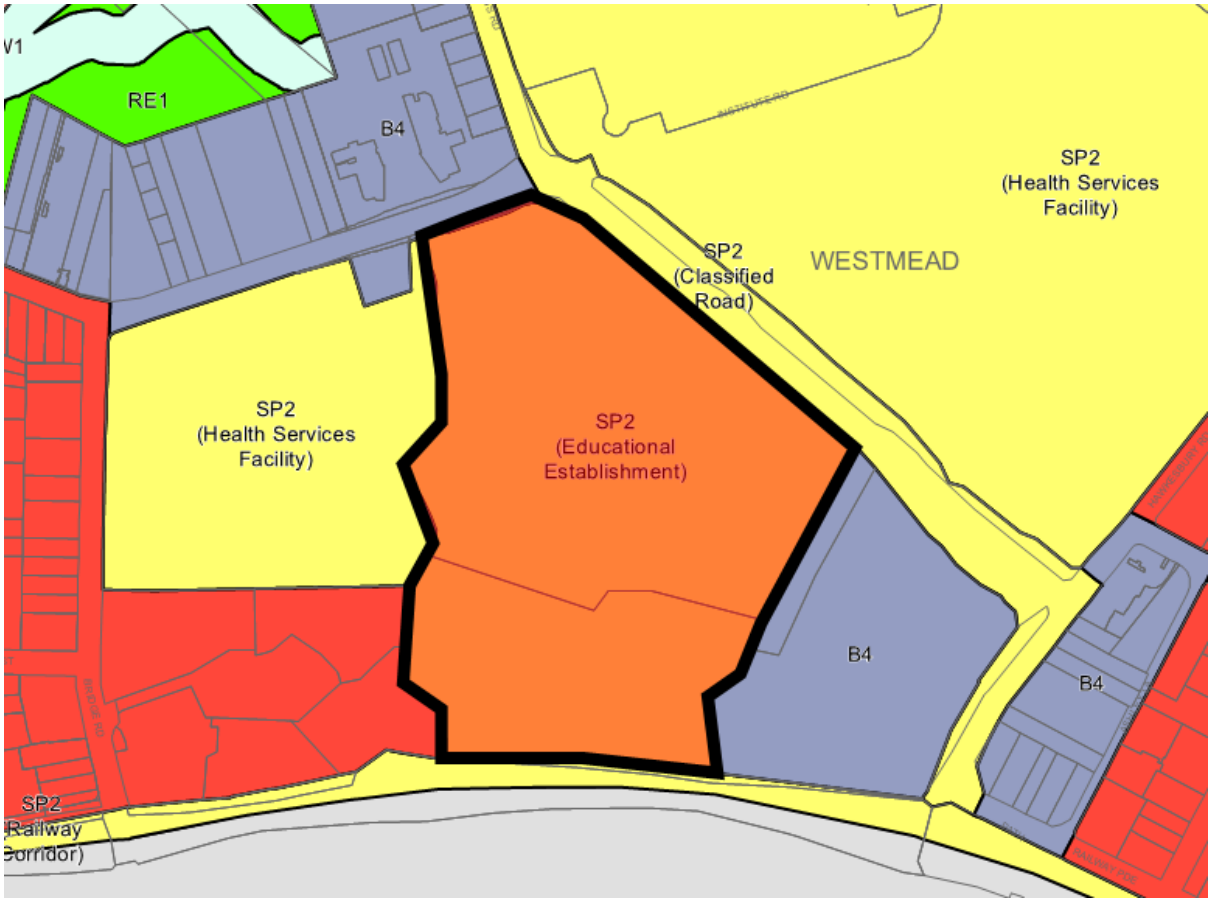



Figure 4: Land Zoning of the site (Orange Shading) and surroundings.

### 4.4.2 PARRAMATTA COUNCIL DEVELOPMENT CONTROL PLAN

The Parramatta DCP has been reviewed to determine any relevant noise information that applies to the development. The following information has been found in Section 5 which applies to Child Care Centres.

*"...*

*Appendix A10. Acoustic Privacy – Child Care Centres*

*Noise Criteria:*

*Intrusiveness*

- *A source noise (sound pressure) level of 75 dB(A) at 1 metre, positioned a minimum of 1 metre, above the ground, must be adopted for noise from children's activities (internal and external).*
- *$L_{Aeq}$ 15 minute from the child centre must not exceed the pre-existing background $L_{A90}$ noise levels plus 5 dB(A), at 1 metre from the façade of sensitive receivers.*

*Applicable to:*

- *Noise emissions from activities at the child care centre (including noise from external and internal play/teaching/sleeping areas, car parking and fixed plant).*

*Notes:*

- *Applies at all sensitive receptors with a potential to be affected by noise emissions from all activities at the child care centre.*

*Noise Criteria*

*External Noise – Playgrounds and Activity Areas*

- *$L_{Aeq\ 1\ Hour}$ 55 dB(A)*

*Applicable to:*

- *All external areas at the Centre that are utilised by children or babies for external recreation and learning activities.*

*Notes:*

- *Existing ambient noise levels at the site must not result in internal noise levels in excess of the criterion.*

..."

Further to the above, the following information has been found in Section 5.3.3.3 which applies to Places of Public Worship and Educational Establishments

*"...*

*5.3.3.3 Acoustic Privacy*

*Objective*

*O.1 To minimize noise levels from places of public worship and educational establishments that may impact upon neighbouring or nearby properties.*

*Design Principles*

*P.1 The design of the proposed place of public worship or educational establishment should minimise the projection of noise from the various activities anticipated to occur within the site. Adjoining and nearby residents should not be exposed to unreasonable levels of noise arising from the proposed use.*

*P.2 A noise impact assessment statement, prepared by a suitably qualified acoustic engineer, is to be submitted with all applications for development within residential zones or which adjoin residential zones. This should describe hours of operation and predicted noise levels for regular lunch and tea breaks and for special events such as festivals and religious celebrations. Where possible, reference should be made to similar operating uses whether or not within the Parramatta Local Government Area.*

..."

## 4.5 NOISE EMISSIONS AND INTRUSIVE NOISE

### 4.5.1 NSW EPA NOISE POLICY FOR INDUSTRY

The NSW EPA Noise Policy for Industry 2017 assesses noise from industrial noise sources - scheduled under the POEO. Mechanical noise from the development shall be addressed following the recommendations in the NSW NPI.

The assessment is carried out based on the existing ambient and background noise levels addressing the following:

- Intrusiveness Criteria, to control intrusive noise into nearby sensitive receivers.
- Amenity Criteria, to maintain the noise level amenity for particular land uses.

These criteria are established for each assessment period (day, evening and night) and the more stringent of the two criteria sets the Project Noise Trigger Level (PNTL).

### 4.5.2 INTRUSIVENESS CRITERIA

The NSW NPI defines the intrusiveness criteria as follows:

*"The intrusiveness of an industrial noise source may generally be considered acceptable if the level of noise from the source (represented by the $L_{Aeq}$ descriptor), measured over a 15 minute period, and does not exceed the background noise level by more than 5 dB when beyond a minimum threshold."*

Based on the intrusiveness criteria definition and the estimated background noise levels on site, Table 4 shows the intrusiveness criteria for the noise sensitive receivers.

| *Indicative Noise Amenity Area* | *Period* | *Rating Background Level $L_{A90,period}$ dB(A)* | *Intrusiveness Criterion dB(A)* |
|---|---|---|---|
| *Residential (R4)* | Day | 48 | 53 |
| | Evening | 44 | 49 |
| | Night | 40 | 45 |

**Table 4:** Determination of the intrusiveness criterion.

### 4.5.3 AMENITY CRITERIA

The NSW NPI states the following to define the amenity criteria:

*"To limit continuing increases in noise levels from application of the intrusiveness level alone, the ambient noise level within an area from all industrial noise sources combined should remain below the recommended amenity noise levels specified in Table 2.2 where feasible and reasonable. The recommended amenity noise levels will protect against noise impacts such as speech interference, community annoyance and some sleep disturbance."*

Based on the amenity criteria definition and the land zoning, Table 5 shows the amenity criteria for the noise sensitive receivers.

| *Indicative Noise Amenity Area* | *Period* | *Amenity Noise Level $L_{Aeq,period}$ dB(A)* | *Adjusted Amenity Criterion dB(A)* |
|---|---|---|---|
| *Residential (R4)* | Day | 60 | 58 $L_{Aeq,15min}$ (60-5+3) |
| | Evening | 50 | 48 $L_{Aeq,15min}$ (50-5+3) |
| | Night | 45 | 43 $L_{Aeq,15min}$ (45-5+3) |
| *Hospital* | Nosiest 1 hour | 50 | 50 |
| *Educational* | (Internal) | 35 | 33 $L_{Aeq,15min}$ (35-5+3) |

**Table 5:** Determination of amenity criterion.

### 4.5.4 PROJECT NOISE TRIGGER LEVELS

Table 6 shows the PNTL for the noise sensitive receivers.

| *Indicative Noise Amenity Area* | *Period* | *Intrusiveness Criterion dB(A)* | *Amenity Criterion, dB(A)* |
|---|---|---|---|
| *Residential (R4)* | Day | 53 | 58 |
| | Evening | 49 | 48 |
| | Night | 45 | 43 |
| *Hospital* | | -- | 50 |
| *Educational* | When In Use | -- | 33 |

**Table 6:** PNTL for noise sensitive receivers.

### 4.5.5 AAAC GUIDELINE FOR OUTDOOR PLAYGROUNDS

There are no prescribed regulations or legislation that apply to noise from outdoor playgrounds. Therefore, there is no prescribed noise criteria that can be used. Furthermore, we understand that common approach of "offensive noise" criteria is not appropriate for a planning situation such as this proposal.

Our noise assessment approach is based on:

- NSW tribunal decisions when assessing noise from the use of child care centres.
- 'Guideline for Childcare Centre Acoustic Assessment' prepared by the Association of Australasian Acoustical Consultants (AAAC).

The AAAC guideline is addressed for assessment of childcare centres and its noise level criterion for outdoor spaces have been considered as adequate by NSW tribunal decisions. As children do not play outdoors continuously for long periods of time, and as the duration of time for children playing outside is reduced, the overall noise annoyance reduces. Therefore, it is reasonable to allow a higher level of noise impact for a shorter duration.

Whilst the AAAC guideline does not apply for schools, there are similarities in noise emissions from uses of outdoor playground areas for schools and child care centres. Therefore, we recommend that the following noise criteria shall be applied to noise impacts arising from the school's outdoor playgrounds.

Table 7 shows the noise level criteria proposed by the AAAC guideline for assessing noise from outdoor spaces. These are the noise levels at which it is considered that complaints are unlikely.

| *Use of outdoor area* | *Noise Level Criteria* | *Criteria* |
|---|---|---|
| Up to 2 hours (total) per day | $L_{Aeq,15min}$ noise level from outdoor area not to exceed the existing background noise level ($L_{A90,15min}$) plus 10 dB<br>$L_{Aeq,15min} < L_{A90,15min} + 10$ dB(A) | $L_{Aeq,15min} \leq 58$ dB(A) |
| More than 2 hours (total) per day | $L_{Aeq,15min}$ noise level from outdoor area not to exceed the existing background noise level ($L_{A90,15min}$) plus 5 dB<br>$L_{Aeq,15min} < L_{A90,15min} + 5$ dB(A) | $L_{Aeq,15min} \leq 53$ dB(A) |

**Table 7:** Noise level criteria for the playground areas as per AAAC guideline.

### 4.5.6 SUMMARY OF OPERATIONAL NOISE LEVEL CRITERIA

Based on the criteria from the relevant noise standards and guidelines detailed above. Table 8 summarizes the noise level criteria. For noise assessment purposes, the corresponding criteria based on background noise level measured, the lowest value has been used.

| *Noise Emission* | *Standard / Guideline* | *Time Period* | *Noise Level Criteria dB(A)* |
|---|---|---|---|
| External Mechanical Plant | NSW EPA NPI | Day Time (7am – 6pm) | 53 $L_{Aeq,15min}$ |
| | | Evening Time (6pm – 10pm) | 48 $L_{Aeq,15min}$ |
| | | Night Time (10pm - 7am) | 43 $L_{Aeq,15min}$ |
| Parish Church | NSW EPA NPI | Day Time | $L_{Aeq,15min} \leq L_{A90,15min} + 5$ dB(A) |
| | | Night Time | $L_{Aeq,15min} \leq L_{A90,15min} + 5$ dB(A) |
| Outdoor Playgrounds | AAAC Guideline | Up to 2 hours | $L_{Aeq,15min} \leq L_{A90,15min} + 10$ dB(A) = 58 dB |
| | | More than 2 hours | $L_{Aeq,15min} \leq L_{A90,15min} + 5$ dB(A) = 53 dB |
| Child Care Centre | Parramatta DCP/AAAC Guideline | When in Use | $L_{Aeq,15min} \leq L_{A90,15min} + 5$ dB(A) = 53 dB |

**Table 8:** Summary of the noise level criteria at the nearest noise sensitive receivers.

## 4.6 TRANSPORT NOISE

### 4.6.1 DEVELOPMENT NEAR RAIL CORRIDORS OR BUSY ROADS – INTERIM GUIDELINE

The guideline details the application of clauses 85, 86, 87, 102 and 103 of the Infrastructure State Environmental Planning Policy (SEPP) which is required to be used when a development is adjacent to a rail corridor, a freeway, a toll-way, a transit-way or a road with an annual average daily traffic volume (AADT) of more than 40,000 vehicles. It is noted that while there is a rail corridor directly south of the proposed site, it is at a distance (approx. 150m) at which a detailed acoustic assessment is not required. Nevertheless, Darcy road has an AADT greater than 40,000. Therefore, this guideline does apply to the proposal and assessments for road noise shall be carried out.

#### 4.6.1.1 Rail Noise

Rail noise assessments are based on the requirement of NSW Department of Planning (DoP) '*Development Near Rail Corridors and Busy Roads – Interim Guideline'*. Railway noise has been considered for the proposed development. An extract of Acoustic Assessment Zones shown below in Figure 5.

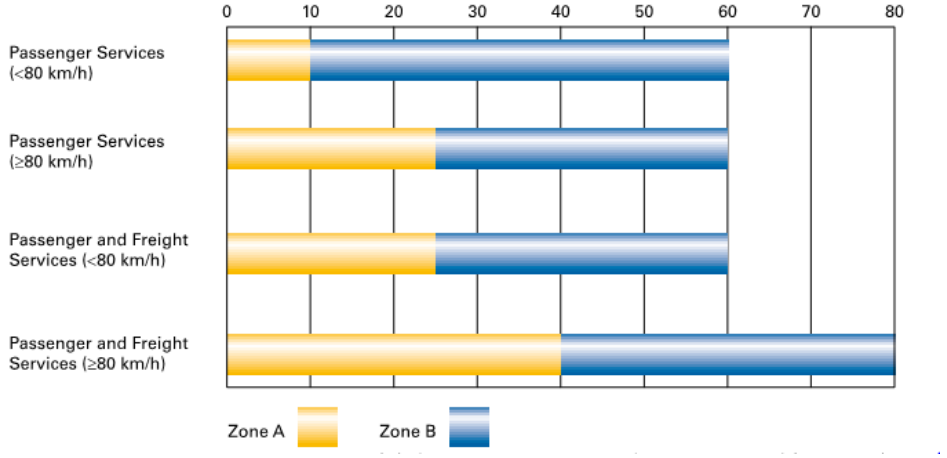



Figure 5: Acoustic Assessment Zones based on distance (m) of noise sensitive development from rail corridor.

As the development is located more than 100 metres from the rail corridor, a detailed acoustic assessment is not required for rail noise.

#### 4.6.1.2 Rail Vibration

Similarly to Section 4.6.1.1, rail vibration has been considered as per the assessment zones shown in Figure 6.

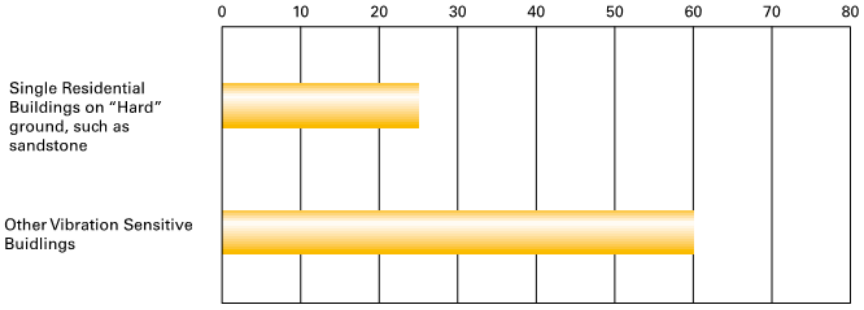



Figure 6: Vibration Assessment Zones based on distance (m) of vibration sensitive development from rail corridor

As the development is located more than 100 metres from the rail corridor, a detailed acoustic assessment is not required for rail vibration.

#### 4.6.1.3 Road Noise

The NSW Department of Planning (DoP) *'Development Near Rail Corridors or Busy Roads – Interim Guideline'* details the application of clauses 102 and 103 of the Infrastructure State Environmental Planning Policy (SEPP) which is required to be used when a residential development is adjacent to a freeway, a toll-way, a transit-way or a road with an annual average daily traffic volume (AADT) of more than 40,000 vehicles.

Darcy Road carries an AADT greater than 40,000 vehicles as per NSW RMS information available. Therefore, there are requirements to assess and include mitigation against road traffic noise for the proposed development and noise mitigation measures are advisable.

The internal noise level criteria as per SEPP's Clause 103 requirements are summarised below in Table 9.

| *Type of Receiver* | *Noise Assessment Criteria dB(A)* |
|---|---|
| Educational Institutions including Child Care Centres | 40 |
| Places of Worship | 40 |

**Table 9:** Internal Design Noise Level Criteria due to traffic noise.

### 4.6.2 NSW ROAD NOISE POLICY

The NSW Road Noise Policy (RNP) establishes criteria for traffic noise from:

- Existing roads,
- New road projects,
- Road development projects,
- New traffic generated by developments.

For existing residences and other sensitive land uses affected by additional traffic on existing roads generated by land use developments, any increase in the total traffic noise level should be limited up to 2.0dB above the existing noise levels. An increase of up to 2.0dB represents a minor impact that is considered barely perceptible to the average person.

### 4.6.3 HELICOPTER NOISE IMPACTS

There is no specific criteria applying to the movements of emergency helicopters from the adjacent Westmead hospital.

However, a detailed assessment is recommended to be conducted considering the emergency helicopter noise impacts from the Westmead Hospital. The assessment should consider the frequency of movements, and provide recommendations in order to achieve a suitable level of amenity in accordance with relevant standards and guidelines.

## 4.7 CONSTRUCTION NOISE AND VIBRATION

### 4.7.1 NOISE CRITERIA

The ICNG suggest construction noise management levels that may minimise the likelihood of annoyance being caused to noise sensitive residential receivers depending on the duration of works. The management levels for long-term duration works are as follows:

- Within recommended standard hours.

  The Management Level ($L_{Aeq,15min}$) measured at the most exposed boundary of any affected residential receiver when the construction site is in operation must not exceed the background noise level (RBL) by more than 10 dB(A). This noise level represents the point above which there may be some community reaction to noise.

  However, in the case of a highly noise affected area, the Management Level ($L_{Aeq,15min}$) at the most exposed boundary of any affected residential receiver when the construction site is in operation should not exceed 75 dB(A). This level represents the point above which there may be strong community reaction to noise.

- Outside recommended standard hours.

  The Management Level ($L_{Aeq,15min}$) measured at the most exposed boundary of any affected residential receiver when the construction site is in operation must not exceed the background noise level (RBL) by more than 5 dB(A). It is noted that a strong justification is required for works outside the recommended standard hours.

ICNG suggests construction noise management levels for other sensitive land uses surrounding construction sites. Table 10 below summarises the airborne construction noise criteria for most affected noise sensitive receivers surrounding the development site.

| *Sensitive Receiver* | | *Airborne Construction Noise Criteria, $L_{Aeq}$ dB(A)* | |
|---|---|---|---|
| | | *Within Standard Hours* | *Outside Standard Hours* |
| *Residential* | Noise affected / External | RBL + 10 | RBL + 5 |
| | Highly noise affected / External | 75 | N/A |
| *Educational* | Internal | - | - |
| *Hospital Wards & Operating Theatres* | Internal | 45 | 45 |

Table 10: ICNG construction airborne noise criteria for sensitive receivers surrounding the site.

The ICNG recommends internal ground-borne noise maximum levels at residences affected by nearby construction activities. Ground-borne noise is noise generated by vibration transmitted through the ground into a structure and can be more noticeable than airborne noise for some sensitive receivers. The ground-borne noise levels presented below from the ICNG are for residential receivers during evening and night-time periods only, as the objective is to protect the amenity and sleep of people when they are at home.

- Evening: $L_{Aeq,15min}$ 40 dB(A) - internal
- Night: $L_{Aeq,15min}$ 35 dB(A) - internal

The internal noise levels are assessed at the centre of the most affected habitable room.

### 4.7.2 VIBRATION CRITERIA

#### 4.7.2.1 Human Comfort

The Department of Environment and Climate Change (DECC) developed the document '*Assessing Vibration: A Technical Guideline*' in February 2006 to assist in preventing people from exposure to excessive vibration

levels within buildings. It is based on the guidelines contained in BS 6472.1:2008 '*Guide to evaluation of human exposure to vibration in buildings – Vibration sources other than blasting*'.

The guideline does not address vibration induced damage to structures or structure-borne noise effects. Vibration and its associated effects are usually classified as continuous (with magnitudes varying or remaining constant with time), impulsive (such as shocks) or intermittent (with the magnitude of each event being either constant or varying with time). Vibration criteria for continuous and impulsive vibration are presented in Table 11 below, in terms of vibration velocity levels.

| *Place* | *Time* | *r.m.s. velocity, mm/s [dB ref $10^{-6}$mm/s]* | | | |
|---|---|---|---|---|---|
| | | *Continuous Vibration* | | *Impulsive Vibration* | |
| | | *Preferred* | *Maximum* | *Preferred* | *Maximum* |
| *Residences* | Day-time | 0.20 [106 dB] | 0.40 [112 dB] | 6.00 [136 dB] | 12.00 [142 dB] |
| | Night-time | 0.14 [103 dB] | 0.28 [109 dB] | 2.00 [126 dB] | 4.00 [132 dB] |
| *Offices, schools, educational and worship* | When in use | 0.40 [112 dB] | 0.80 [118 dB] | 13.00 [142 dB] | 26.00 [148 dB] |
| *Critical Areas (Hospital Wards & Operating Theatres)* | Day Or Night-Time | 0.10 [100 dB] | 0.20 [106 dB] | 0.10 [100 dB] | 0.20 [106 dB] |

**Table 11:** Continuous and impulsive vibration criteria applicable to the site

When assessing intermittent vibration comprising a number of events, the Vibration Dose Value (VDV) it is recommended to be used. Table 12 shows the acceptable VDV values for intermittent vibration.

| *Place* | *Time* | *Vibration Dose Values, $m/s^{1.75}$* | |
|---|---|---|---|
| | | *Preferred* | *Maximum* |
| *Residences* | Day-time | 0.20 | 0.40 |
| | Night-time | 0.13 | 0.26 |
| *Offices, schools, educational and worship* | When in use | 0.40 | 0.80 |
| *Critical Areas (Hospital Wards & Operating Theatres)* | Day Or Night-Time | 0.10 | 0.20 |

**Table 12:** Intermittent vibration criteria applicable to the site.

#### 4.7.2.2 Structural Building Damage

Ground vibration from construction activities can damage surrounding buildings or structures. For occupied buildings, the vibration criteria given in previous section for Human Comfort shall generally form the limiting vibration criteria for the Project.

For unoccupied buildings, or during periods where the buildings are unoccupied, the vibration criteria for building damage suggested by German Standard DIN 4150.3:1993 '*Structural Vibration – Effects of Vibration on Structures*' and British Standard BS 7385.2:1993 '*Evaluation and Measurement for Vibration in Buildings*' are to be adopted. Guideline values from DIN 4150.3:1993 and BS 7385.2:1993 are presented in Table 13 and Table 14 respectively.

| *Structural type* | *r.m.s. velocity, mm/s* | | | |
|---|---|---|---|---|
| | *Foundation* | | | *Plane of floor uppermost full storey* |
| | *Less than 10Hz* | *10 to 50Hz* | *50 to 100Hz* | *Frequency mixture* |
| *Dwellings or similar* | 5 | 5 to 15 | 15 to 20 | 15 |
| *Particularly sensitive* | 3 | 3 to 8 | 8 to 10 | 8 |

**Table 13:** DIN 4150.3:1993 Guideline values of vibration velocity for evaluating the effects of short-term vibration.

| *Structural type* | *Peak particle velocity, mm/s* | |
|---|---|---|
| | *4 to 15Hz* | *15Hz and above* |
| *Unreinforced or light framed structures*<br>*Residential or light commercial type buildings* | 15mm/s @ 4Hz increasing to 20mm/s @ 15Hz | 20mm/s @ 15Hz increasing to 50mm/s @ 40Hz and above |

**Table 14:** BS 7385.2:1993 Guideline values of vibration velocity for evaluating cosmetic damage.

# 5 OPERATIONAL NOISE EMISSIONS ASSESSMENT

Noise break-out from the proposed development has the potential to impact on existing noise sensitive receivers. For the purpose of this noise impact assessment, the noise sources are assumed as follows:

- Noise emissions from mechanical plant.
- Noise emissions from School Bells & Public Address system.
- Noise emissions from the proposed Parish Church.
- Noise emissions from outdoor spaces.
- Noise Emissions from Early Learning Centre.
- Traffic Generation Noise

Each of these noise sources has been considered in the noise impact assessment. The noise impact assessments have also considered the following:

- Noise levels have been considered as continuous over assessment time period to provide the worst-case scenario.
- Distance attenuation, building reflections and directivity.
- Lowest background levels measured.

## 5.1 EXTERNAL MECHANICAL PLANT

Noise from proposed development mechanical plant rooms should be controlled to ensure external noise emissions are not intrusive and do not impact on the amenity of the noise sensitive receivers.

At this stage, mechanical plant selections have not been made; therefore, it is not possible to undertake a detailed assessment of the mechanical plant noise emissions.

Noise controls will need to be incorporated with the design of the mechanical plant rooms to ensure that the cumulative noise levels from plant to the nearest noise sensitive receivers meets the NSW NPI noise level criteria – refer to Table 8.

Usual design noise controls that may need to be implemented will typically include, but are not limited to:

- Strategic location and selection of mechanical plant to ensure the cumulative noise levels at the receiver boundaries is met.
- Selection of appropriate quiet plant.
- Acoustic noise control measures to be put in place to minimise noise impacts such as:
  - In-duct attenuation
  - Noise enclosures as required
  - Sound absorptive panels
  - Acoustic louvres as required
  - Noise barriers as required

Acoustic assessment of all mechanical plant shall continue during the detailed design phase of the project in order to confirm any noise control measures to achieve the relevant noise criteria at the nearest noise sensitive receivers.

## 5.2 PUBLIC ADDRESS AND SCHOOL BELL SYSTEMS

Noise from proposed development public address and school bell systems should be controlled to ensure external noise emissions are not intrusive and do not impact on the amenity of noise sensitive receivers.

At this stage, public address and school bell systems selections have been not made; therefore, it is not possible to undertake a detailed assessment of the public address and school bell noise emissions.

The EPA notes numerous reports of community concern arising from inadequate design and installation as well as inappropriate use of school public address and bell systems. EPA considers that appropriate design, installation and use of those systems can both:

- Meet the proponent's objectives of proper administration of the school and ensuring safety of students, staff and visitors, and
- Avoid interfering unreasonably with the comfort and repose of occupants of nearby residences.

The Public Address and School Bell Systems shall be designed, installed and operated such that the systems does not interfere unreasonably with the comfort and repose of occupants of nearby residences. It is anticipated that the noise impact to the nearest sensitive receivers will be negligible if following measures are implemented:

- Low-powered horn-type speakers shall be located and orientated to provide a good coverage of the school areas whilst being directly away from residences and near sensitive receivers. System coverage shall be reviewed during the detailed design phase.
- Speakers shall be mounted with a downward angle and as close to the floor as possible.
- The noise level of the systems shall be adjusted on site so they will be clearly audible on the school site without being excessive. The systems shall initially be set sot that the noise at nearby residences and sensitive receivers do not exceed noise level criteria.
- Once the appropriate noise level has been determined on site, the systems shall be limited to these noise levels so that staff cannot increase the noise levels.
- The systems shall be set so that it only occurs on school days.

## 5.3 NEW PARISH CHURCH

The New Parish Church is anticipated to host events that include amplified music. The expected noise impacts from the chapel hall have been assessed at the nearest sensitive receivers, using the methodology and assumptions given below.

The noise assessment was made considering the proposed layout as shown on the architectural drawings. The following assumptions have been made for the assessment:

- Events occurring during evening time hours.
- Doors and windows shut during noise generating events
- Typical sound power levels for concerts and events

The noise levels inside the Parish, and form the basis of the expected worst-case noise emission from the proposed use, is expected to be up to 100 dB(A).

The façade, other external building elements and any ventilation openings of the Parish Church will need to be considered throughout the detailed design stage in order to meet the noise level criteria in the nearest commercial and residential receivers. The predicted noise levels of the Parish Church are shown below in Table 15.

| *Calculation* | *Nearest Hospital Receiver* | *Nearest Residential Receiver* |
|---|---|---|
| *Reverberant Internal Noise Level $L_{Aeq,15min}$ at 1m* | 97 | 97 |
| *Increase in Reverberant field, dB* | +3 | +3 |
| *Distance attenuation, dB* | -35 (60m) | -36 (65m) |
| *Sound Reduction of Façade* | -35 | -35 |
| *Predicted Noise Level at Nearest Receiver, $L_{Aeq,15min}$* | 30 | 29 |
| *Noise Level Criteria (evening) / Complies?* | 50 / Yes | 48 / Yes |

**Table 15:** Predicted noise levels from Chapel Hall to Nearest Receivers

## 5.4 K-6 BUILDING OUTDOOR SPACES

The K-6 building is a 5-storey education block with an outdoor rooftop space. Each level has an outdoor space that have the potential to impact on the nearest residential sensitive receivers to the West. The use of the outdoor spaces will occur during school hours. Therefore, the noise assessment considers the worst-case scenario as the day-time period. The following assessment has considered the following parameters:

- Sound power level of 73 dB (A) per child.
- Assumed all children are distributed on or near Western external areas
- Assumed 1 in 2 children speaking at any one time.
- Outdoor spaces spread across 5 levels.

Predicted noise levels at the nearest noise residential receiver associated with the outdoor spaces use are shown in the following table for the worst-case scenarios.

| *Calculation* | *Noise Level dB(A)* |
|---|---|
| *Noise levels from 840 Children* | 94 |
| *Distance attenuation (80m), dB* | -38 |
| *Resulting level at residential receiver* | 56 |
| *Noise Level Criterion day-time (less than 2 hours) / Complies?* | 58 / Yes |

**Table 16:** Noise assessment at nearest residential receiver from the outdoor spaces.

For the worst-case scenario, the predicted noise level from the use of the outdoor spaces at the nearest noise sensitive receiver meets the noise level criteria.

## 5.5 ROOF TOP SPORTS ACTIVITIES

The rooftop sports area of the K-6 building has the potential to impact on the nearest residential sensitive receivers to the West. The use of the rooftop sports area will occur during school hours and out of hours by the community. Therefore, the noise assessment considers the worst-case scenario as evening-time period.

Predicted noise levels at the nearest noise residential receiver associated with the rooftop sports grounds use are shown in the following table for the worst-case scenarios.

| *Calculation* | *Noise Level dB(A)* |
|---|---|
| *$L_{Aeq,15min}$ sports game at 1m in free-field* | 76 |
| *Distance (80 m) attenuation, dB* | -38 |
| *Resulting level at residential receiver* | 38 |
| *Noise Level Criterion Evening-time / Complies?* | 58 / Yes |

**Table 17:** Noise assessment at nearest residential receiver from the rooftop court.

For the worst-case scenario, the predicted $L_{Aeq,15min}$ noise level from the use of the rooftop sports area at the nearest noise sensitive receiver meets the noise level criteria.

## 5.6 EARLY LEARNING CENTRE

Noise emissions from the CELC has the potential to impact on the nearest noise sensitive receivers. The key noise source will be children playing in the outdoor area and the indoor play areas. The CELC centre is proposed to operate from 6:00am to 6:00pm.

### 5.6.1 EARLY LEARNING CENTRE OUTDOOR PLAY AREA NOISE EMISSIONS

The external play area noise impact assessment has considered the following:

- Noise emissions to equal a sound pressure level of 75 dB (A) at 1 metre as required by Parramatta DCP.
- Worst case scenario assumes 100 children are using the Early Learning Centre.
- Criteria is established to be Background $L_{A90,\ 15min}$+ 5 dB(A) as per Parramatta DCP.
- Background noise levels at the nearest noise sensitive receiver have been used to provide worst-case scenario.

The nearest residential receiver to be considered is approximately at 100 metres. Predicted noise levels at the nearest noise residential receiver associated with the outdoor playground are shown in the following table.

| *Calculation* | *Outdoor Playground, dB(A)* |
|---|---|
| *$L_{Aeq,15min}$ of Early Learning Centre at 1m* | 95 |
| *Distance (100 m) attenuation, dB* | -40 |
| *Resulting level at residential receiver* | 55 |
| *Noise Level Criterion Day-time (more than 2 hours) / Complies?* | 58 / Yes |

**Table 18:** Noise assessment at nearest noise sensitive receiver from the outdoor playground.

Based on the noise assessment, outdoor playground shall be restricted to the day-time period (7am to 6pm). For the day-time period scenario, the predicted $L_{Aeq,15min}$ noise level from the use of the outdoor playground area is expected to meet the night-time criteria.

### 5.6.2 EARLY LEARNING CENTRE INDOOR NOISE EMISSIONS

Use of indoor play areas shall not exceed noise level criteria at the nearest noise sensitive receiver. Predicted noise levels with Western open and closed windows are shown in Table 19.

| *Calculation* | *Indoor Areas, dB(A)* | |
|---|---|---|
| | *Open Windows* | *Closed Windows* |
| *$L_{Aeq,15min}$ of Early Learning Centre at 1m* | 95 | 95 |
| *Increase in reverberant field, dB* | 3 | 3 |
| *Distance (100 m) attenuation, dB* | -40 | -40 |
| *Reduction from windows, dB* | -10[1] | -27[2] |
| *Resulting level at residential receiver* | 50 | 33 |
| *Noise Level Criterion Day-time / Complies?* | 53 / Yes | 53 / Yes |

Table 19: Noise assessment at nearest noise sensitive receiver to the south-west – children aged 3 to 6 years.

Based on the noise assessment, open windows shall be restricted to the day-time period (7am to 6pm). For the open windows day-time period scenario, the predicted $L_{Aeq,15min}$ noise level from the use of the indoor playground areas at the nearest residential receiver are expected to meet the required criteria.

## 5.7 OFFENSIVE NOISE

Based on the noise emissions assessments presented in the sections above, following comments regarding "offensive noise" shall be considered:

- The operational key noise sources from the proposed school will be mechanical plant, public address and school bell system, out-of-school-hours events at the Chapel, rooftop basketball court, outdoor playgrounds and the early learning centre.
- Mechanical plant will be selected and noise control measures implemented to ensure that the noise levels at the nearest noise sensitive receiver do not exceed the NSW NPI noise criteria established in Section 4.5.1.
- Recommendations for the implementation and use of the public address and school bell systems has been provided in Section 5.2 in order to meet the noise level criteria at the nearest noise sensitive receivers.
- Noise from out-of-school-hours events held within the Chapel will meet the noise level criteria at the nearest noise sensitive receivers assuming that building envelope construction designed achieves the sound insulation rating provided in Section 5.3 and provided that doors remain closed during use.

[1] Open Window Scenario assumes 10dB reduction through a window open to 5% of the floor area.

[2] Closed windows assumes the minimum sound reduction achieved through a glazed façade. *(Will Reword).

- Noise associated with the rooftop sports court, outdoor spaces within the K-6 building and outdoor CELC are anticipated to meet the noise level criteria.
- By controlling noise emissions (associated with the operation of the proposed development) in accordance with the relevant criteria, amenity of noise sensitive receivers will be maintained and noise emissions should not be intrusive, therefore it is not expected that people and noise sensitive receivers will be adversely affected by the development.

Based on the comments above, the development is able to satisfy the requirements of the POEO for "offensive noise" provided the relevant criteria outlined in Section 4.5 are achieved.

## 5.8 TRAFFIC GENERATION NOISE

A traffic generation noise assessment has been undertaken in order to determine the potential noise impact of traffic generated by the proposed development.

Based on the traffic report prepared by TTPP planning consultants, the additional traffic from the School for the year 2023 as well as the expected traffic volumes on streets surrounding the proposed school are presented below in Table 20.

| *Road / Street* | *Peak Hour Vehicle Trips* | | | |
|---|---|---|---|---|
| | *Existing Traffic 2020* | | *Predicted Traffic 2023* | |
| | *am* | *pm* | *am* | *pm* |
| *Darcy Road* | 4337 | 6555 | 4583 (+246) | 6801 (+246) |

**Table 20:** Current and predicted noise on Darcy Road plus development.

### 5.8.1 NOISE ASSESSMENT

As noted in Section 4.6.1.3, when considering land use development and the impact on sensitive land uses, the NSW RNP states that an increase up to 2.0dB in relation to existing noise levels is anticipated to be insignificant. Considering the predicted traffic volumes as shown above, the increase in traffic noise is summarised below in Table 21.

| *Road / Street* | *Peak Hour Traffic Volume* | | *Increase in Traffic Noise (dB(A))* | *Complies?* |
|---|---|---|---|---|
| | *2020* | *2023* | | |
| *Darcy Road (am)* | 4337 | 4583 (+246) | 0.2 dB | Yes |
| *Darcy Road (pm)* | 6555 | 6801 (+246) | 0.1 dB | Yes |

**Table 21:** Predicted traffic noise levels increase for the roads around the site (2020 – 2023).

Based on the assessment shown above, traffic generated as a result of the proposed school development is not expected to have an adverse noise impact on the surrounding roads.

## 5.9 EXTERNAL NOISE INGRESS

### 5.9.1 PARISH CHURCH

Noise levels from the road were predicted in accordance with the Calculation of Road Traffic Noise (CoRTN) methodology. This method is recognized by regulatory authorities around Australia and is endorsed by the NSW OEH for use in projects of this scale.

The Northern facades of the Parish Church overlook Darcy Road which is a source of continuous traffic noise with and AADT of over 40000. Our assessment has been based on the following:

- Detailed noise survey as shown in Section 3.
- The Parish Church is located approximately 5 metres above the road level.
- The Parish Church is located 15 metres from the edge of the road.
- Internal Church Areas based on Architectural Drawings provided by Alleanza Architecture.
- Solid sections of the façade with a sound reduction index of $R_w$ 50.
- No specific meteorological characteristics such as dominant wind direction and speed of temperature.

Based on the analysis, recommended glazing systems and their corresponding sound insulation performances are presented below in Table 22.

| *Location* | *Weighted Sound Reduction Index ($R_w$)* | *Fixed Single Glazing System* | *Fixed Double Glazing System* |
|---|---|---|---|
| *All glazing areas* | 35 | 10.38mm laminated | 6mm / 12mm air gap / 10mm |

Table 22: Recommended Glazing for New Parish Church

# 6 CONSTRUCTION NOISE AND VIBRATION PLANNING

Currently the project is at an early design stage and a detailed construction program is not yet full defined. This section of the Construction Noise and Vibration Planning provides general recommendations only and provides applicable criteria together with best noise and vibration control practices to be observed during the construction of the proposed development.

This preliminary advice in relation to construction noise and vibration management shall form the basis for the Contractor's Construction Noise and Vibration Management Plan.

Any noise from demolition and construction activities to be carried out on site must not result in *'offensive noise'* to any noise sensitive receiver. To this end, the Contractor employed to undertake the demolition and/or construction works is responsible for ensuring that any site noise and, in particular, any complaints shall be monitored, investigated, managed and controlled.

## 6.1 RELEVANT STANDARDS FOR CONSTRUCTION NOISE AND VIBRATION CRITERIA

Section 4.6.3 of this report contains the relevant legislation, codes and standards plus construction noise and vibration criteria for this project.

## 6.2 WORKING HOURS

The following construction hours are proposed as follows:

- Monday to Friday: 7am to 6pm.
- Saturday: 8am to 1pm.
- Sundays and Public Holidays: No excavation or construction works

## 6.3 PRELIMINARY CONSTRUCTION NOISE ASSESSMENT

A preliminary construction noise assessment has been carried out based on typical plant and machinery expected throughout the construction stages. The preliminary noise assessment has been considered at the nearest existing residential receivers.

These levels are based on the database published by the UK Department for Environmental, Food and Rural Affairs (DEFRA) & Australian Standard AS2436:2010 *'Guide to Noise Control on Construction, Maintenance & Demolition Sites'* for a 15-minute period.

The expected construction noise sources and the predicted noise levels at the nearest residential receiver are shown below in Table 23.

| *Item* | *Typical Power Noise Level $L_{A10}$ (dB ref 10pW)* | *Typical Noise Level $L_{A10,15m}$ at 7m (dB ref 20µPa)* | *Predicted Noise Level $L_{Aeq,15m}$ at nearest residential receiver* |
|---|---|---|---|
| Angle grinders | 104 | 76 | 61-55 |
| Truck | 108 | 80 | 65-59 |
| Circular saw | 115 | 87 | 72-66 |
| Piling rig | 120 | 92 | 77-71 |
| 10-40tn Excavator | 117 | 89 | 74-68 |
| Truck | 114 | 86 | 71-65 |
| 40-50tn Mobile crane | 111 | 83 | 68-62 |
| Concrete pump | 114 | 86 | 71-65 |
| Concrete truck | 110 | 82 | 67-61 |
| Drill | 94 | 66 | 51-45 |

Table 23: Anticipated airborne noise levels for equipment / plant used during construction works.

Based on the results of the preliminary assessment as shown above, the noise associated with the normal construction works is expected to exceed the noise limits for standard hours & out-of-hours works in accordance with the ICNG Guideline. This assessment is based on typical noise levels associated with construction sites and machinery. At such time that a detailed construction plan is provided, a more detailed assessment will be carried out.

## 6.4 CONTROL ELEMENTS

In order to meet the noise and vibration requirements of the site, the Contractor will be required to engage a qualified acoustic consultant to assist in the compilation of a Construction Noise and Vibration Management Plan, and undertake noise and vibration monitoring for the duration of the project.

### 6.4.1 GENERAL CONTROL ELEMENTS

As a general rule, minimising noise and vibration should be applied as universal work practice at any time of day, but especially for any construction works to be undertaken at critical times outside normal daytime/weekday periods. Therefore, it is recommended that noisy construction works will not be undertaken between 6am and 7am in order to minimise any sleep disturbance to the nearest residential receivers.

It is noted that the reduction of noise and vibration at the source and the control of the transmission path between the construction site and the receiver(s) are the preferred options for noise minimisation. Providing treatments at the affected receivers should only be considered as a last resort. Construction noise and vibration shall be managed by implementing the strategies listed below:

- *Plant and equipment*. In terms of both cost and results, controlling noise and vibration at the sources is one of the most effective methods of minimising the impacts from any work site activities. Work practices that will reduce noise and vibration at the source include:
  - Employing quieter techniques for all high noise activities such as rock breaking, concrete sawing, and using power and pneumatic tools.

  - Use quieter plant and equipment based on the optimal power and size to most efficiently perform the required tasks.
  - Selecting plant and equipment with low vibration generation characteristics.
  - Operate plant in a quietest and most effective manner.
  - Where appropriate, limit the operating noise of equipment.
  - Regularly inspecting and maintain plant and equipment to minimise noise and vibration level increases, to ensure that all noise and vibration reduction devices are operating effectively.
- *On site noise management.* Practices that will reduce noise from the site include:
  - Maximising the distance between noise activities and noise sensitive receivers. Strategically locate equipment and plant.
  - Undertaking noisy fabrication work off-site where possible.
  - Avoid the use of reversing beeping alarms or provide for alternative systems, such as broadband reversing alarms, particularly during night or out-of-hours works.
  - Maintaining any pre-existing barriers or walls on a demolition or excavation site as long as possible to provide optimum sound propagation control.
  - Constructing barriers that are part of the project design early in the project to afford mitigation against site noise.
  - Using temporary site building and material stockpiles as noise barriers. These can often be created using site earthworks and may be included as a part of final landscape design.
  - Installing purpose built noise barriers, acoustic sheds and enclosures.
- *Work scheduling.* Scheduling work during periods when people are least affected is an important way of reducing adverse impacts. The following scheduling aspects may reduce impacts:
  - Provide respite periods, including restricting very noisy activities to daytime, restricting the number of nights that after-hours work is conducted near residences, or by determining any specific requirements, particularly those needed for noise sensitive receivers.
  - Scheduling activities to minimise impacts by undertaking all possible work during hours that will least adversely affect sensitive receivers and by avoiding conflicts with other scheduled events.
  - Scheduling work to coincide with non-sensitive periods.
  - Scheduling noisy activities to coincide with high levels of neighbourhood noise so that noise from the activities is partially masked and not as intrusive.
  - Planning deliveries and access to the site to occur quietly and efficiently and organising parking only within designated areas located away from sensitive receivers.
  - Optimising the number of deliveries to the site by amalgamating loads where possible and scheduling arrivals within designated hours.
  - Designating, designing and maintaining access routes to the site to minimise impacts.
  - Including contract conditions that include penalties for non-compliance with reasonable instructions by the principal to minimise noise or arrange suitable scheduling.
- *Consultation, notification and complaints handling.*
  - Provide information to neighbours before and during construction.
  - Maintain good communication between the community and Project staff.
  - Have a documented complaints process and keep register of any complaints.
  - Give complaints a fair hearing and provide for a quick response.
  - Implement all feasible and reasonable measures to address the source of complaint. Implementation of all reasonable and feasible mitigation measures for all works will ensure that

any adverse noise impacts to surrounding receivers are minimised when noise goals cannot be met due to safety or space constraints.

### 6.4.2 ADDITIONAL NOISE AND VIBRATION CONTROL MEASURES

If, during construction, an item of equipment exceeds ether the noise criteria at any location or the equipment noise level limits, the following noise control measures, together with construction best practices, shall be considered to minimise the noise impacts on the neighbourhood.

- Schedule noisy activities to occur outside of the most sensitive times of the day for each nominated receiver.
- Consider implementing equipment-specific screening or other noise control measures recommended in Appendix C of AS 2436:2010.
- Limit the number of trucks on site at the commencement of site activities to the minimum required by the loading facilities on site.
- When loading trucks, adopt best practice noise management strategies to avoid materials being dropped from height into dump trucks.
- Avoid unnecessary idling of trucks and equipment.
- Ensure that any miscellaneous equipment (extraction fans, hand tools, etc) not specifically identified in this plan incorporates silencing/shielding equipment as required to meet the noise criteria.

Implementation of all reasonable and feasible mitigation measures for all internal and underground works will ensure that any adverse noise impacts to surrounding residential, commercial and recreational receivers are minimised when noise goals cannot be met due to safety or space constraints.

The NSW RMS '*Construction Noise and Vibration Guideline*' provides safe working distances for vibration intensive plant and are quoted for both 'cosmetic' damage (in accordance with BS 7385.2:1993) and human comfort (in accordance with DECC's '*Assessing Vibration: A Technical Guideline*'). The recommended safe working distances for typical construction plant are provided in Table 24.

| *Plant Item* | *Description* | *Cosmetic Damage* | *Human Response* |
|---|---|---|---|
| Small Hydraulic Hammer | 5-12 tonne | 2m | 7m |
| Medium Hydraulic Hammer | 12-18 tonne | 7m | 23m |
| Large Hydraulic Hammer | 18-34 tonne | 22m | 73m |
| Vibratory Pile Driver | Sheet piles | 2-20m | 20m |
| Pile Boring | <800mm | 2m | N/A |
| Jackhammer | Hand held | 1m | Avoid Contact with Structure |

Table 24: Recommended minimum working distances for vibration intensive plant from sensitive receivers.

If Contractor has concerns for the disruptions at nearest sensitive receivers due to vibration intensive plant use, it is recommended that prior to the commencement of the works, to undertake a preliminary vibration survey on each key vibration generating activity / equipment.

The preliminary vibration survey and assessment will determine whether the vibration levels might exceed the relevant criteria then vibration mitigation and management measures will need to be put in place to ensure vibration impacts are minimized as far as practicable.

# 7 CONCLUSION

A noise and vibration impact assessment has been carried out for Stage 1 of Westmead Catholic Community Education Campus at Westmead. This report forms part of the documentation package submitted to the Department of Planning as part of the State Significant Development Application.

This report establishes relevant noise level criteria, details the acoustic assessment and provides comments and recommendations for the proposed development.

Ambient and background noise surveys have been undertaken at the existing site to establish the appropriate noise criteria in accordance with the relevant guidelines.

The noise assessment has adopted methodology from relevant guidelines, standards and legislation to assess noise impact. The noise impacts have been predicted at the nearest noise sensitive receiver boundaries.

At this stage, mechanical plant selections have not been made. Therefore, recommendations have been provided to minimise the impact of external noise emissions associated with the mechanical plant of the proposed development to the nearest sensitive receivers.

At this stage, public address and school bell systems have not been selected. Therefore, recommendations have been provided to minimise the impact of external noise emissions associated with the public address and school bell systems of the proposed development to the nearest sensitive receivers.

The use of the chapel during out-of-hours is expected to meet the noise criteria during the evening time at the nearest noise sensitive receivers.

The expected noise impact from the use of the outdoor spaces & rooftop playgrounds are expected to meet the established noise level criteria at the nearest residential receiver. However, it is not to be used during the night-time period.

The CELC outdoor playground area noise impact has been assessed and is expected to be compliant with noise requirements.

An assessment of traffic generation noise has been carried out. Based on the assessment, additional traffic movements will not result in any noticeable change in traffic noise levels and is expected to meet the NSW Road Noise Policy recommendations.

A preliminary construction noise assessment has been carried out. Based on the results of the preliminary assessment as shown above, the noise associated with the normal construction works is expected to exceed the noise limits for standard hours & out-of-hours works in accordance with the ICNG Guideline.

Based on the information presented in this report, relevant objectives will be satisfied and therefore approval is recommended to be granted.

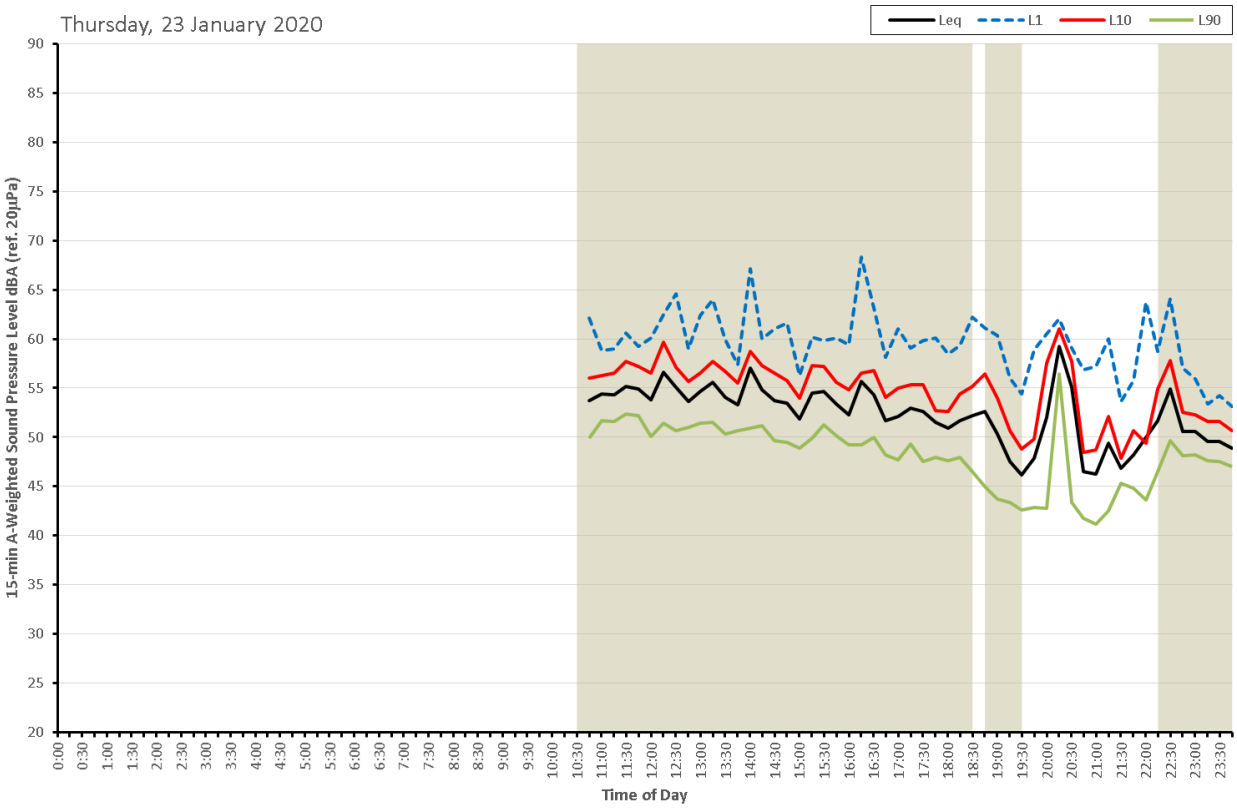
# APPENDIX A: LONG-TERM NOISE MONITORING RESULTS

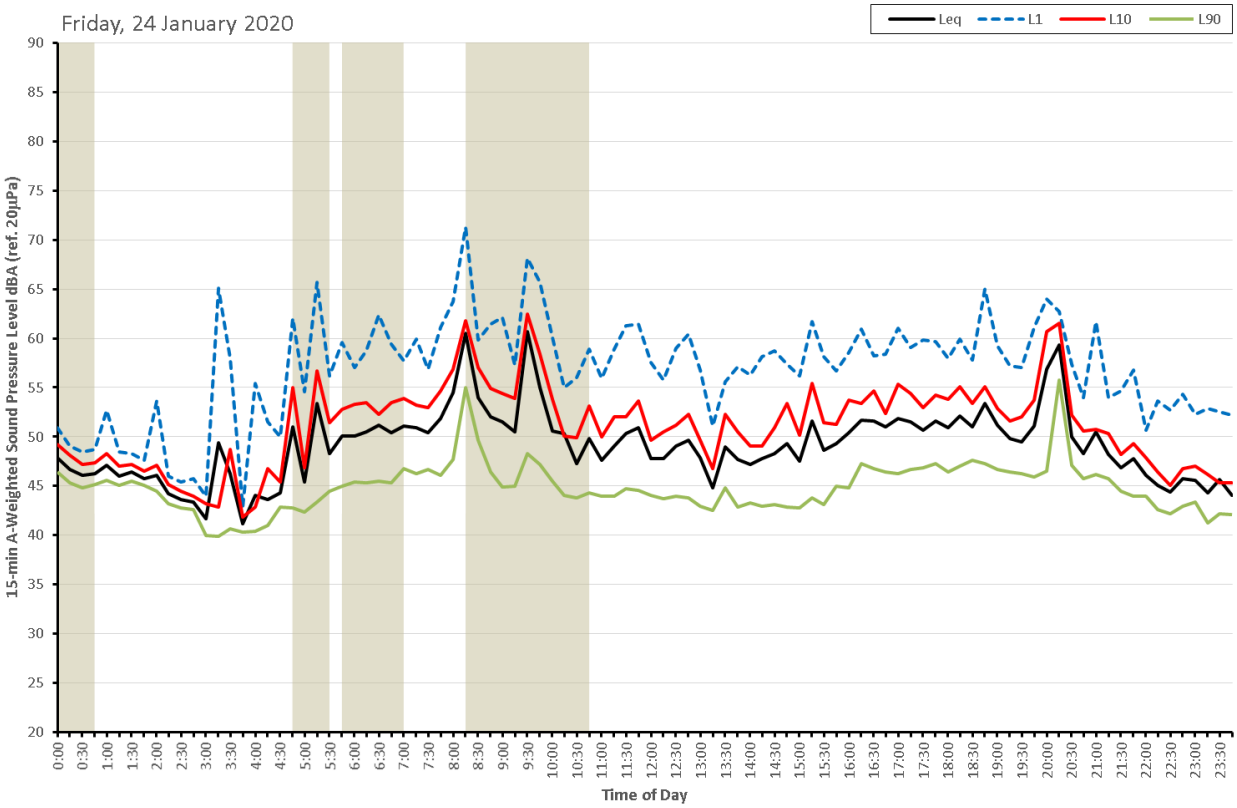
$L_{A1}$ – The $L_{A1}$ level is the noise level which is exceeded for 1% of the sample period. During the sample period, the noise level is below the $L_{A1}$ level for 99% of the time.

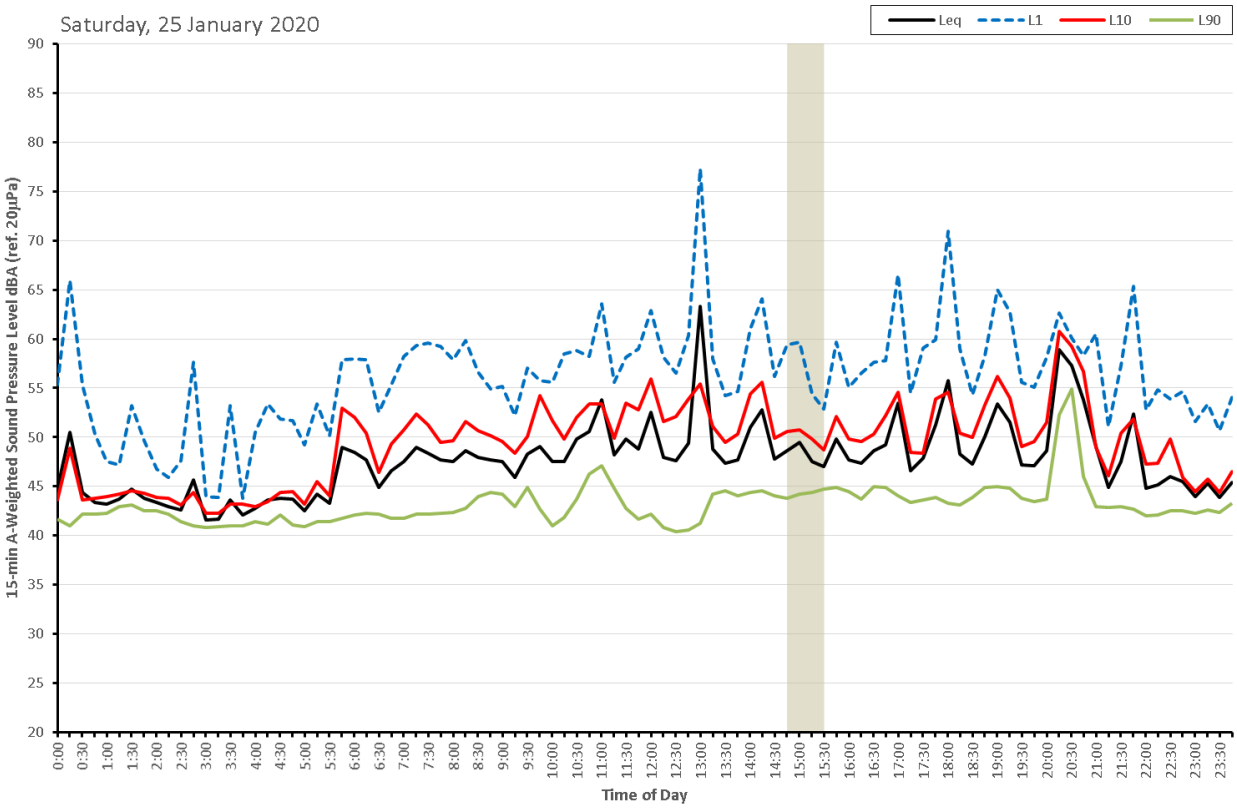
$L_{A10}$ – The $L_{A10}$ level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the $L_{A10}$ level for 90% of the time. The $L_{A10}$ is a common noise descriptor for environmental noise and road traffic noise.

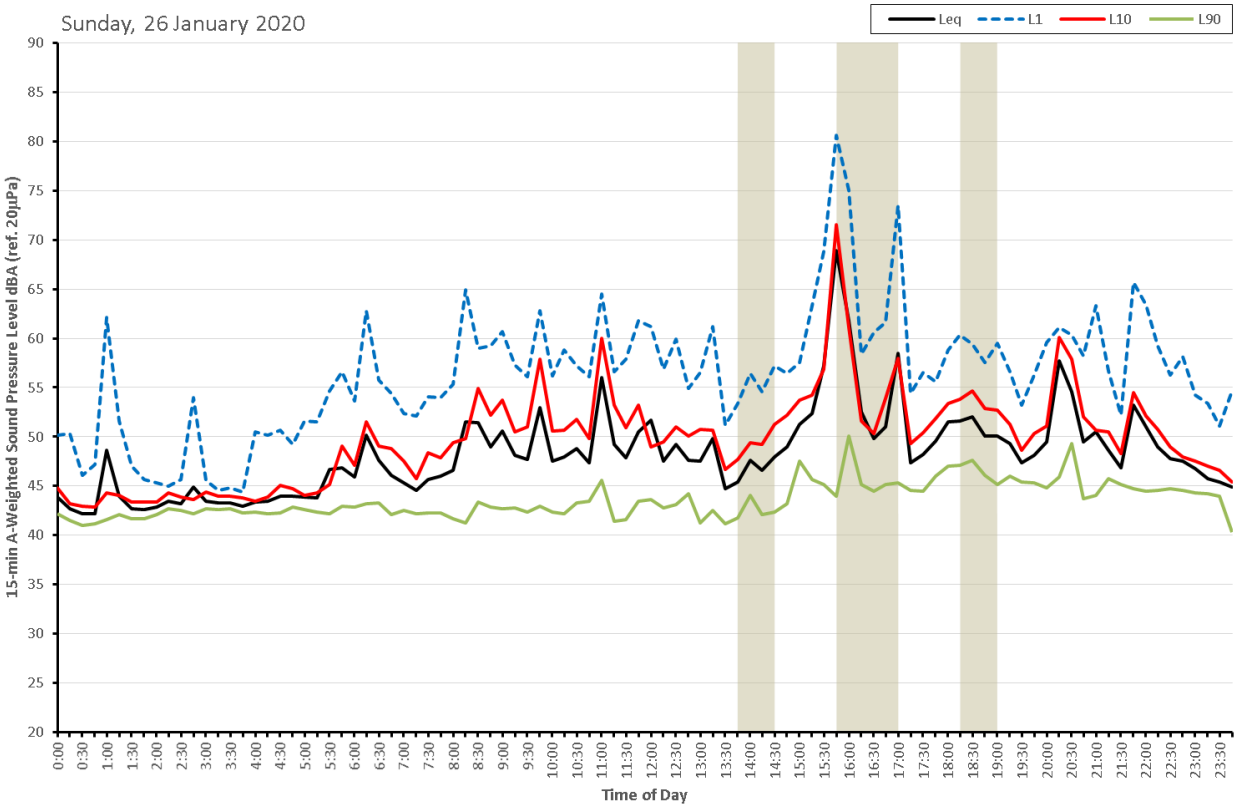
$L_{A90}$ – The $L_{A90}$ level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the $L_{A90}$ level for 10% of the time. This measure is commonly referred to as the background noise level.

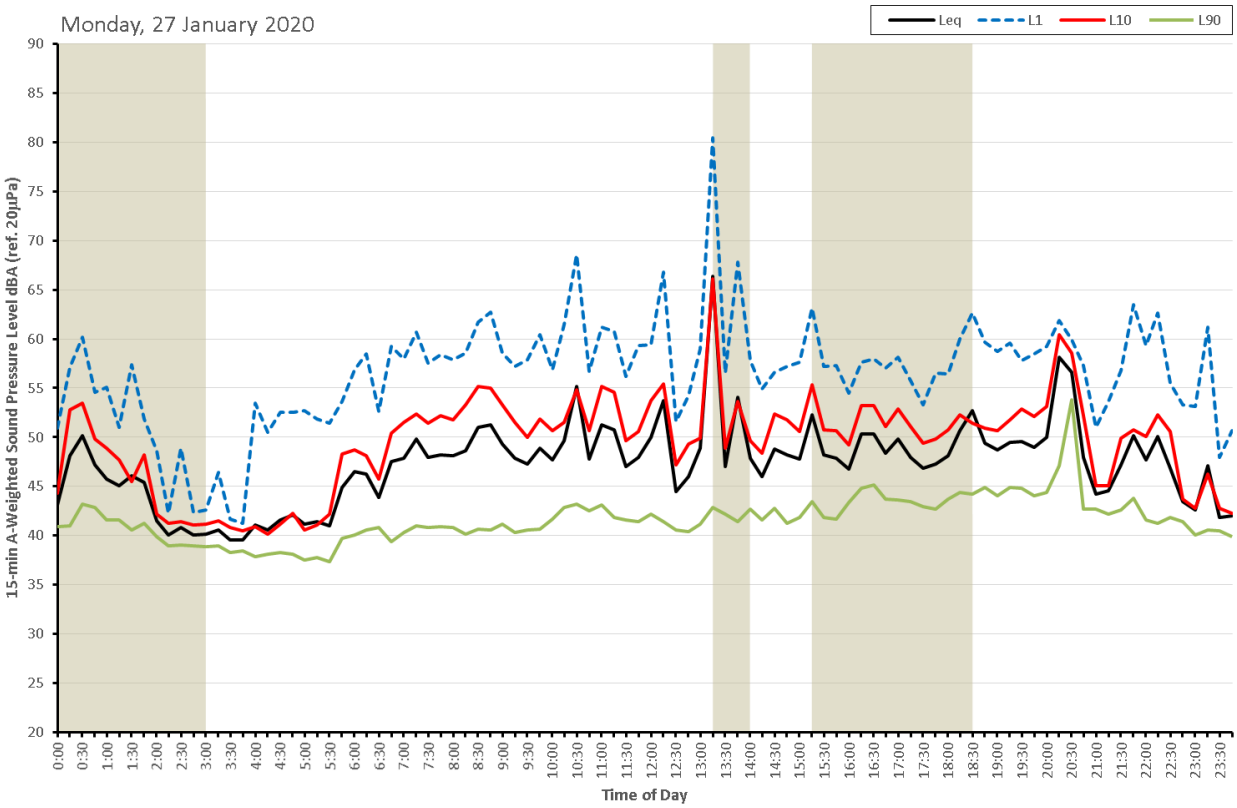
$L_{Aeq}$ – The equivalent continuous sound level ($L_{Aeq}$) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment. This measure is also a common measure of environmental noise and road traffic noise.

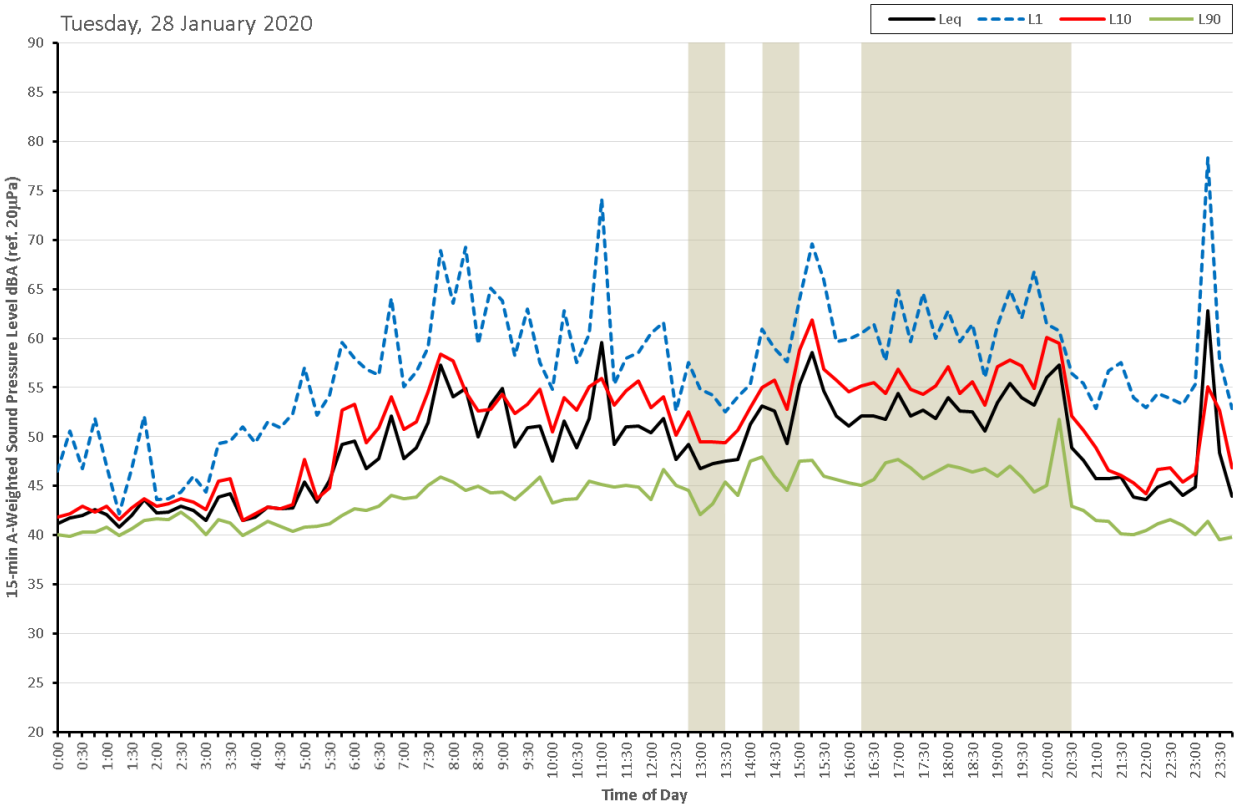

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Leq
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L10
L90
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Time of Day

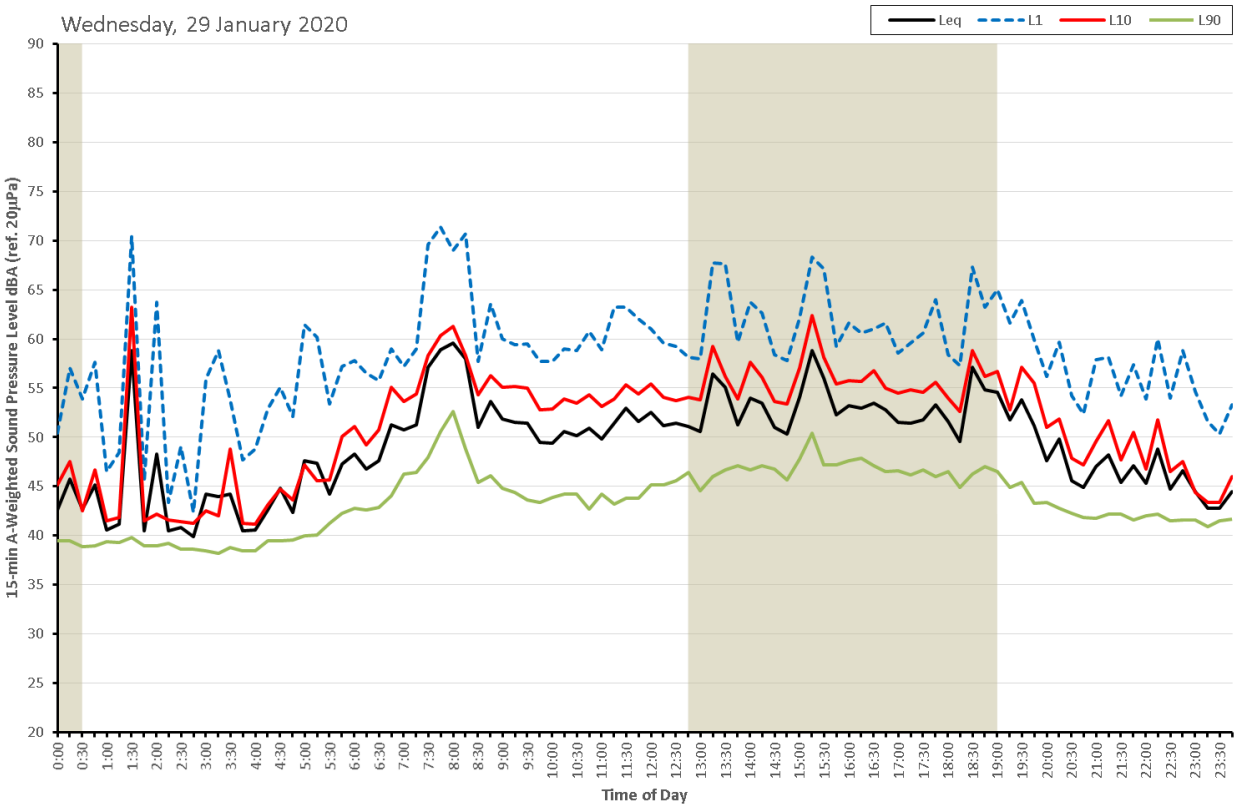

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Time of Day

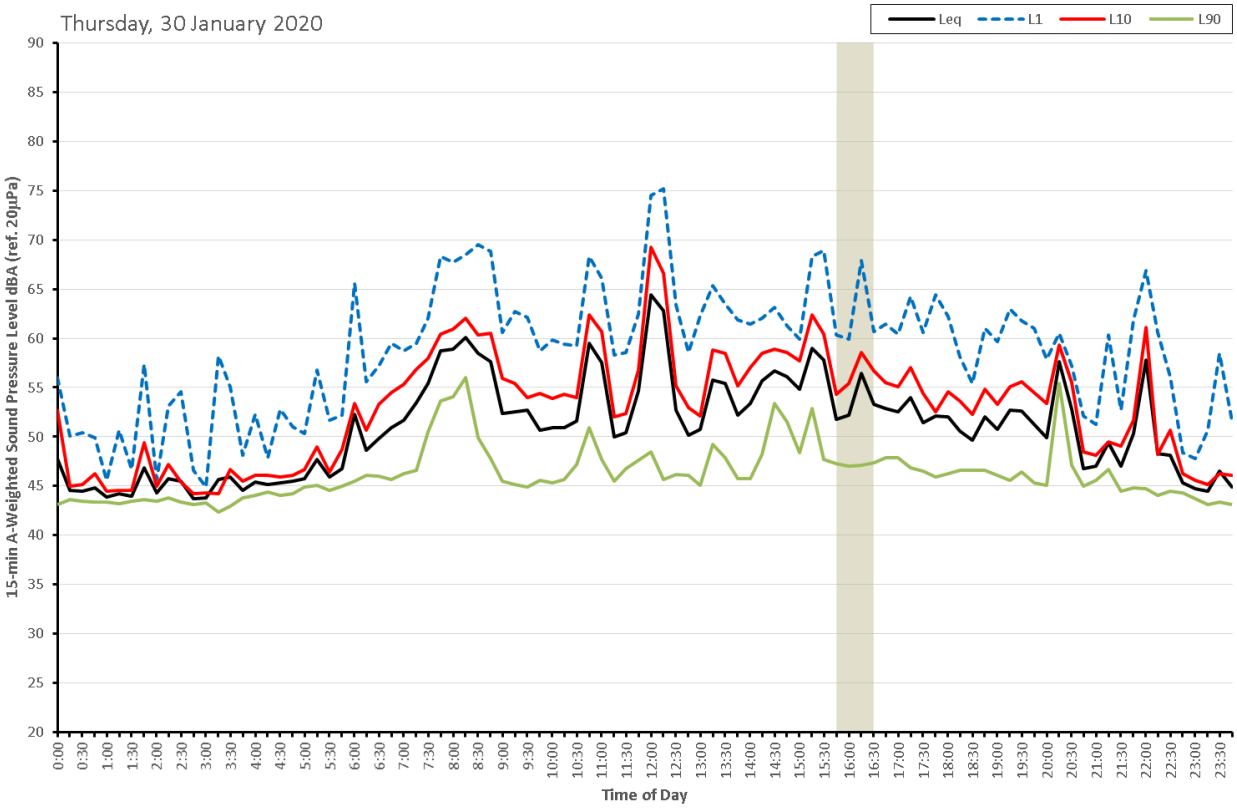

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Time of Day

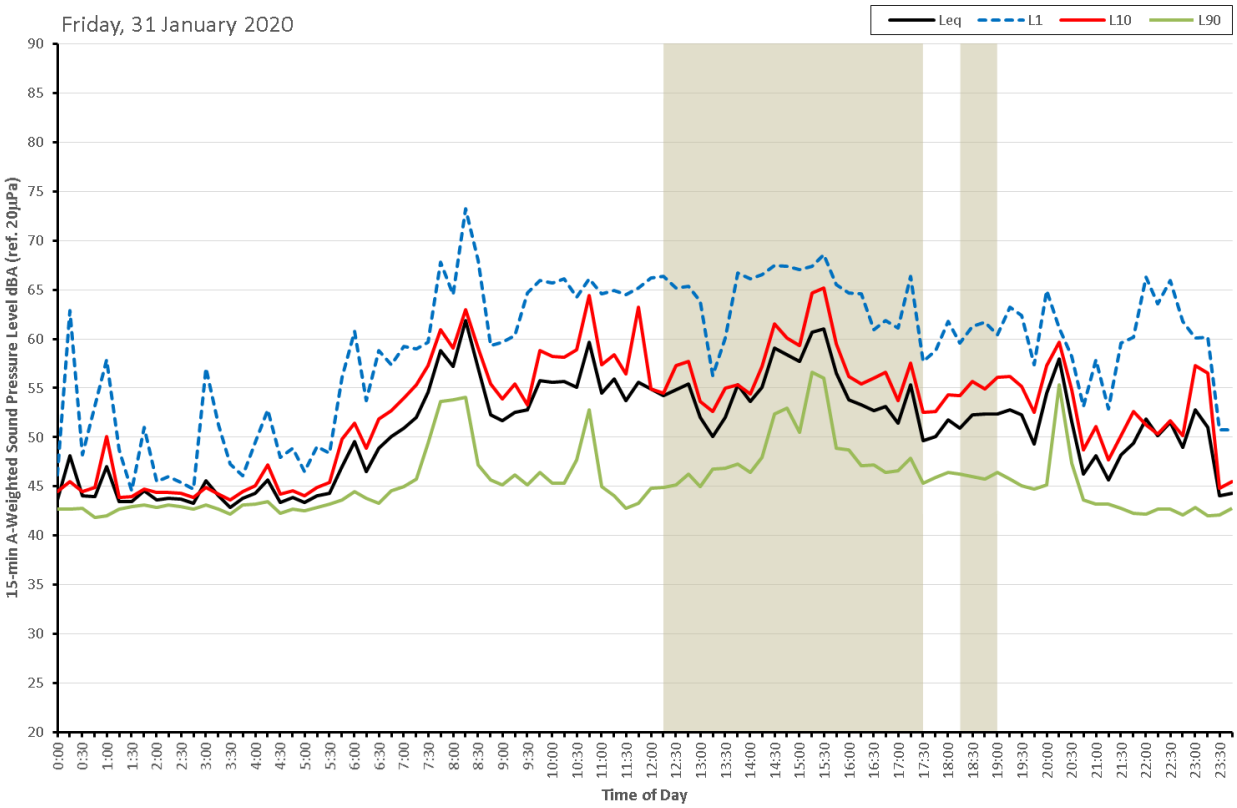

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Time of Day

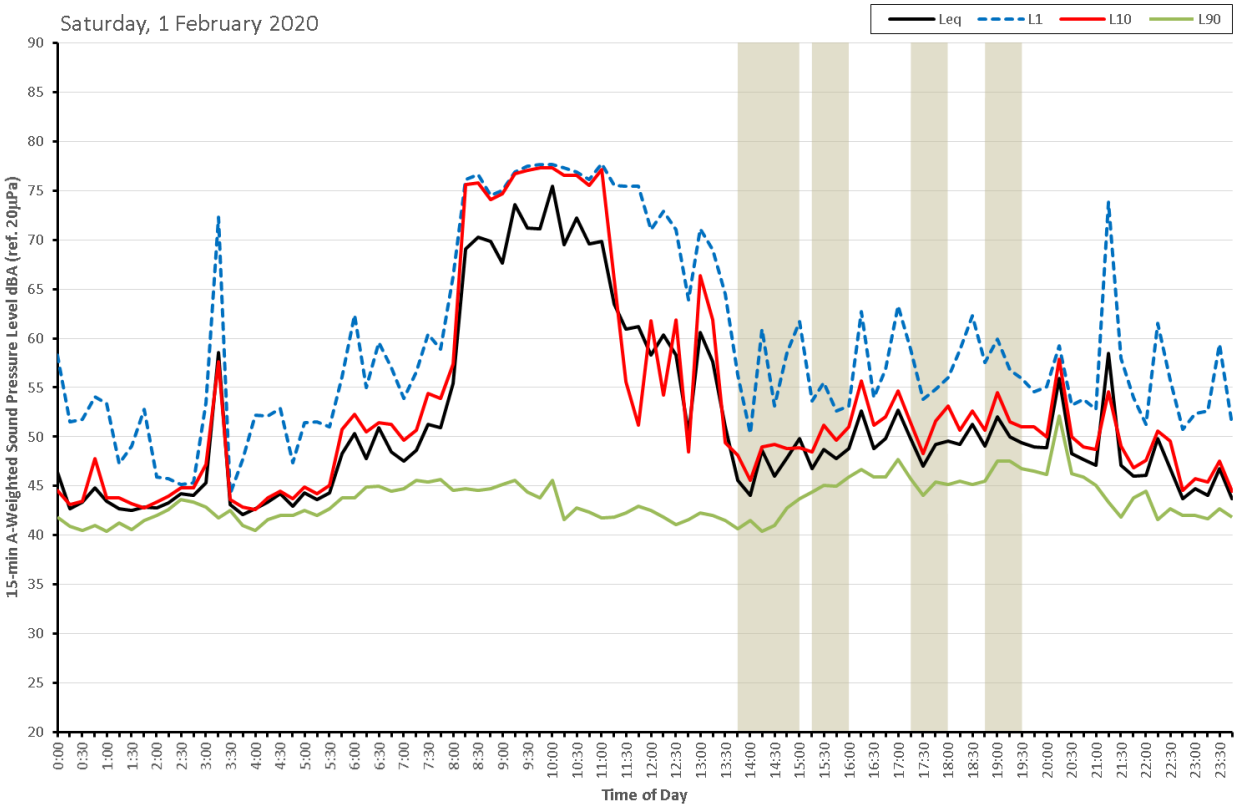

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Time of Day

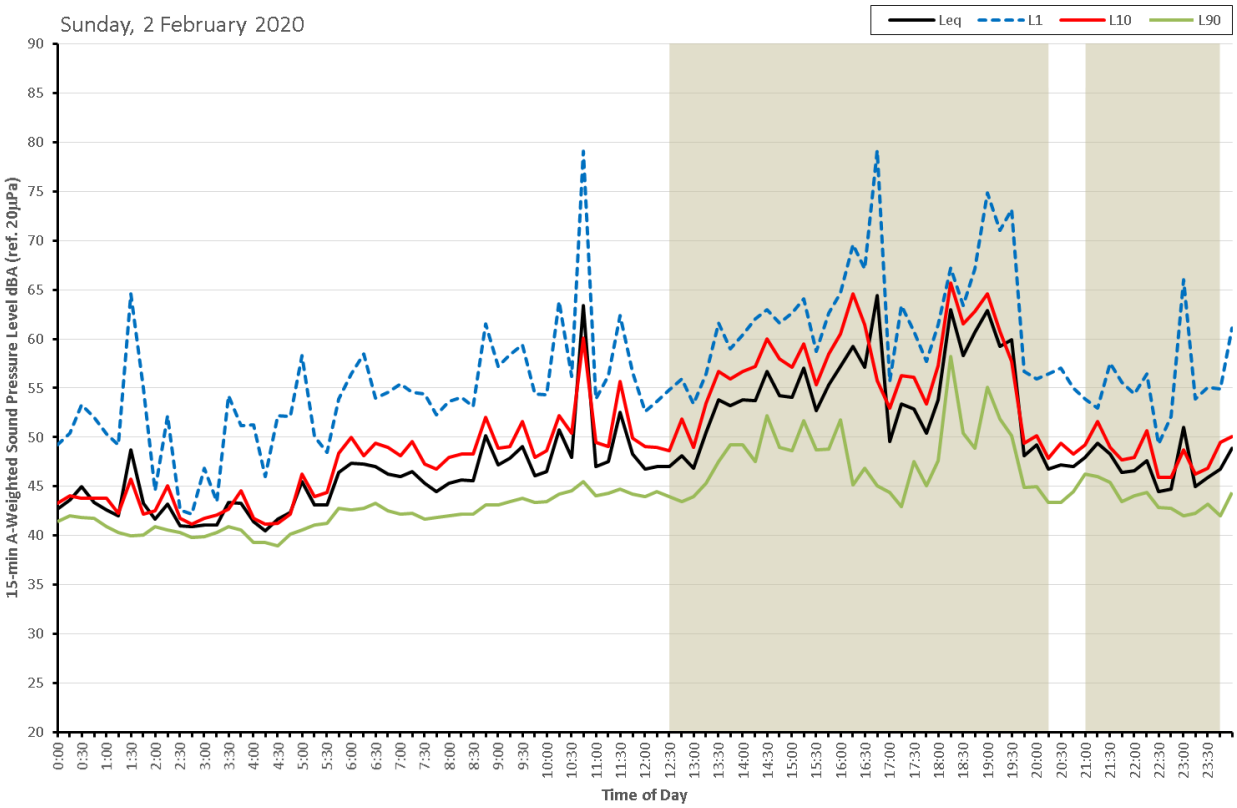

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Time of Day

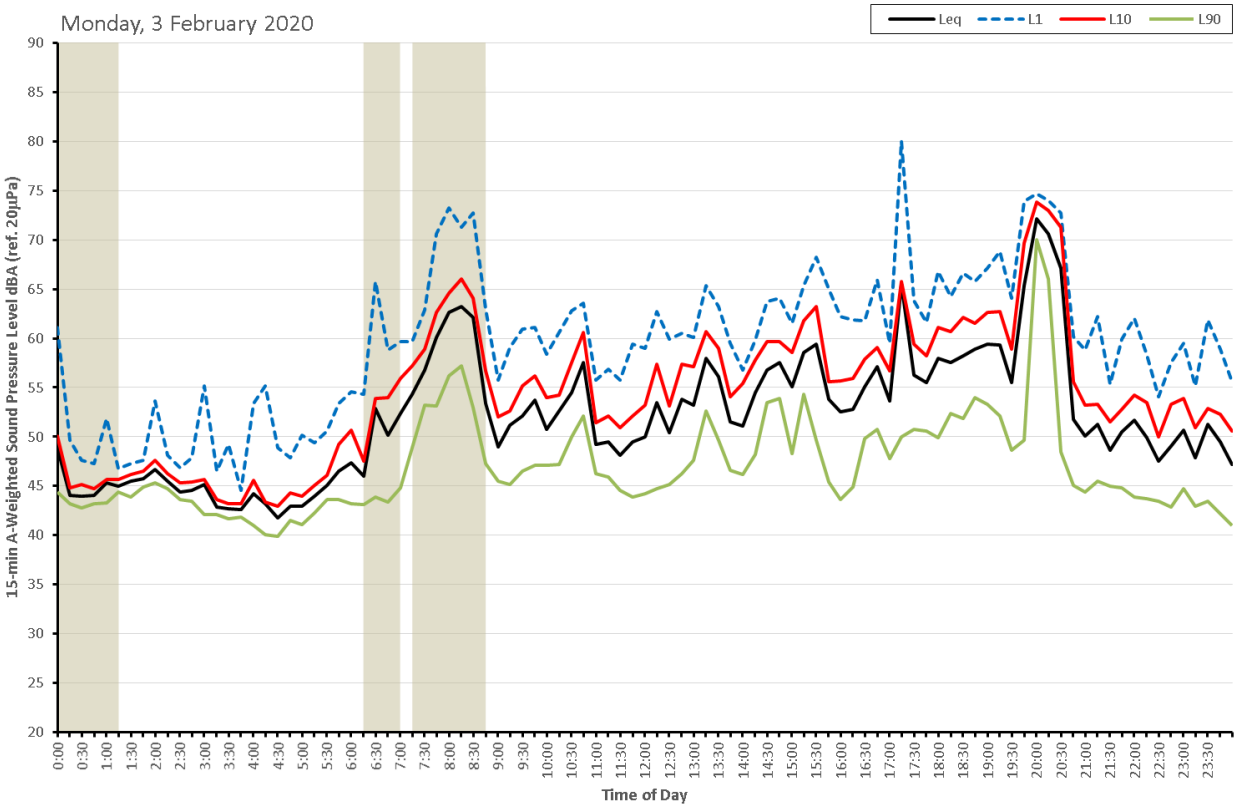

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Time of Day

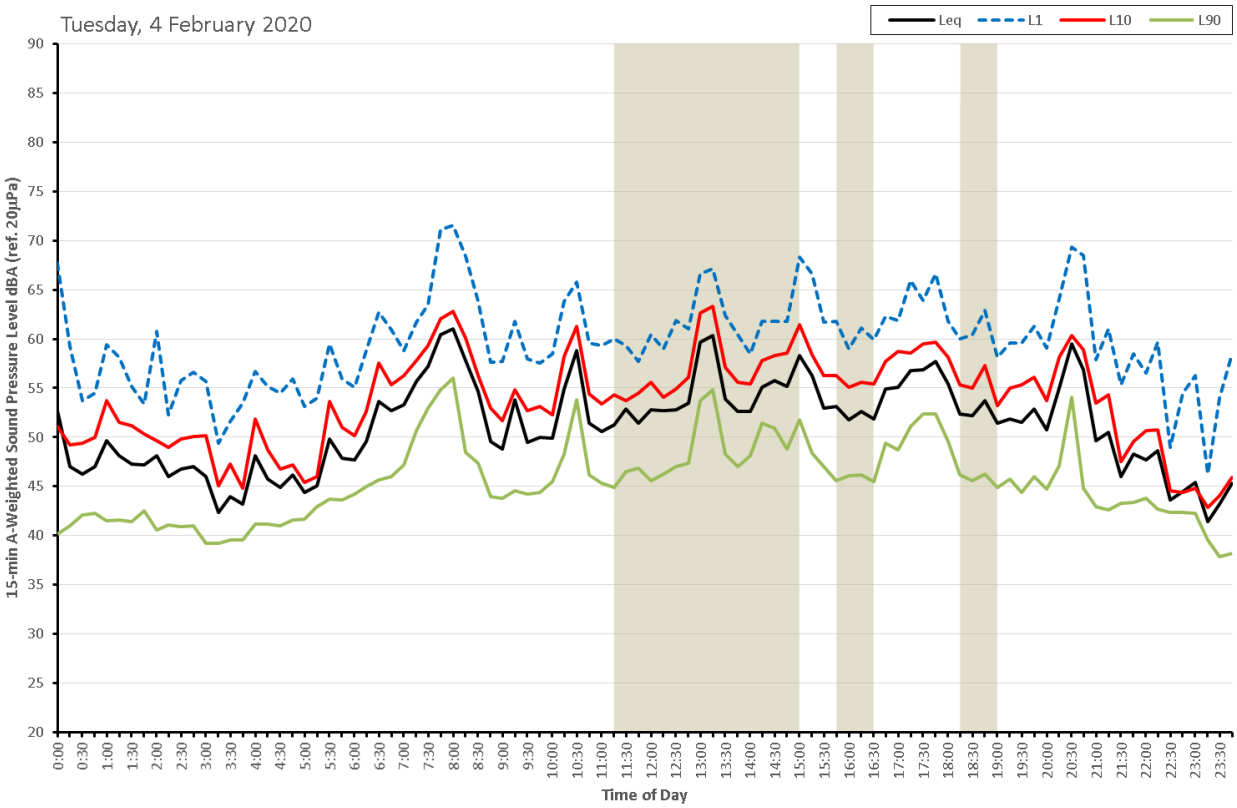

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Time of Day

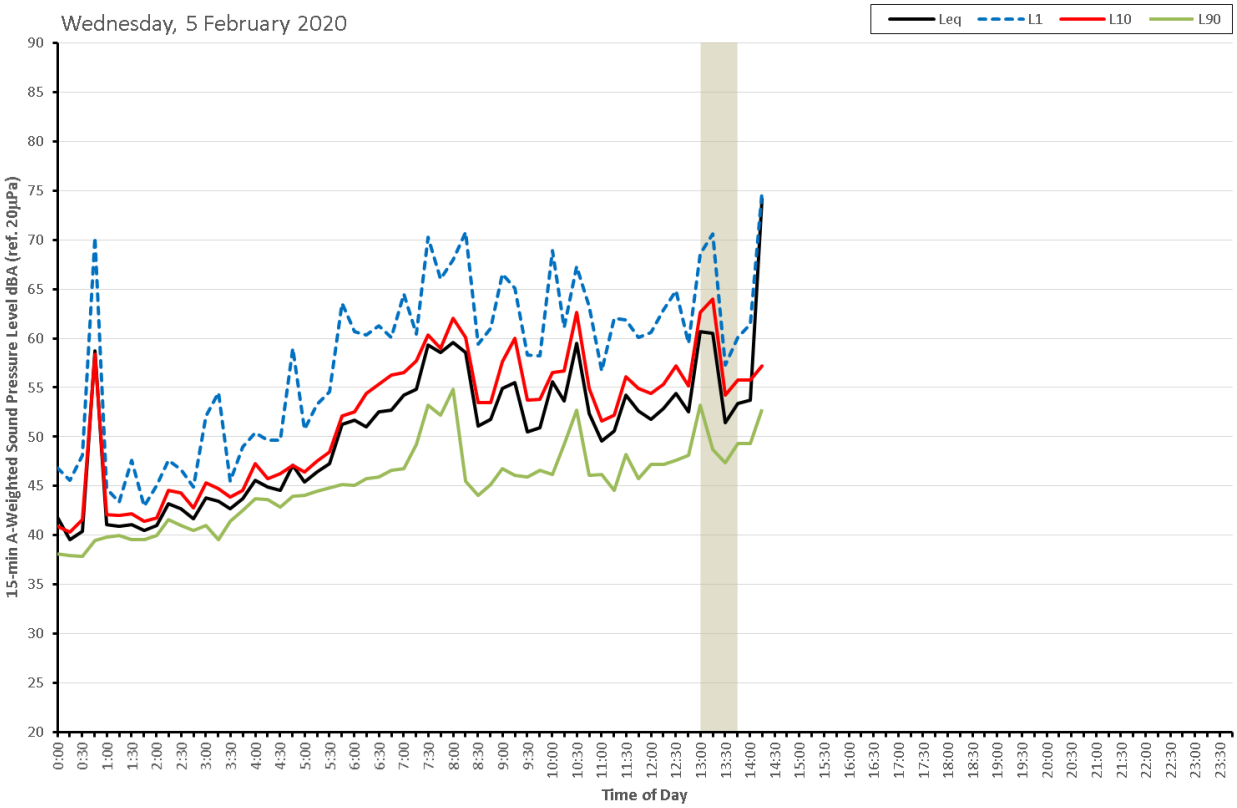

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Time of Day

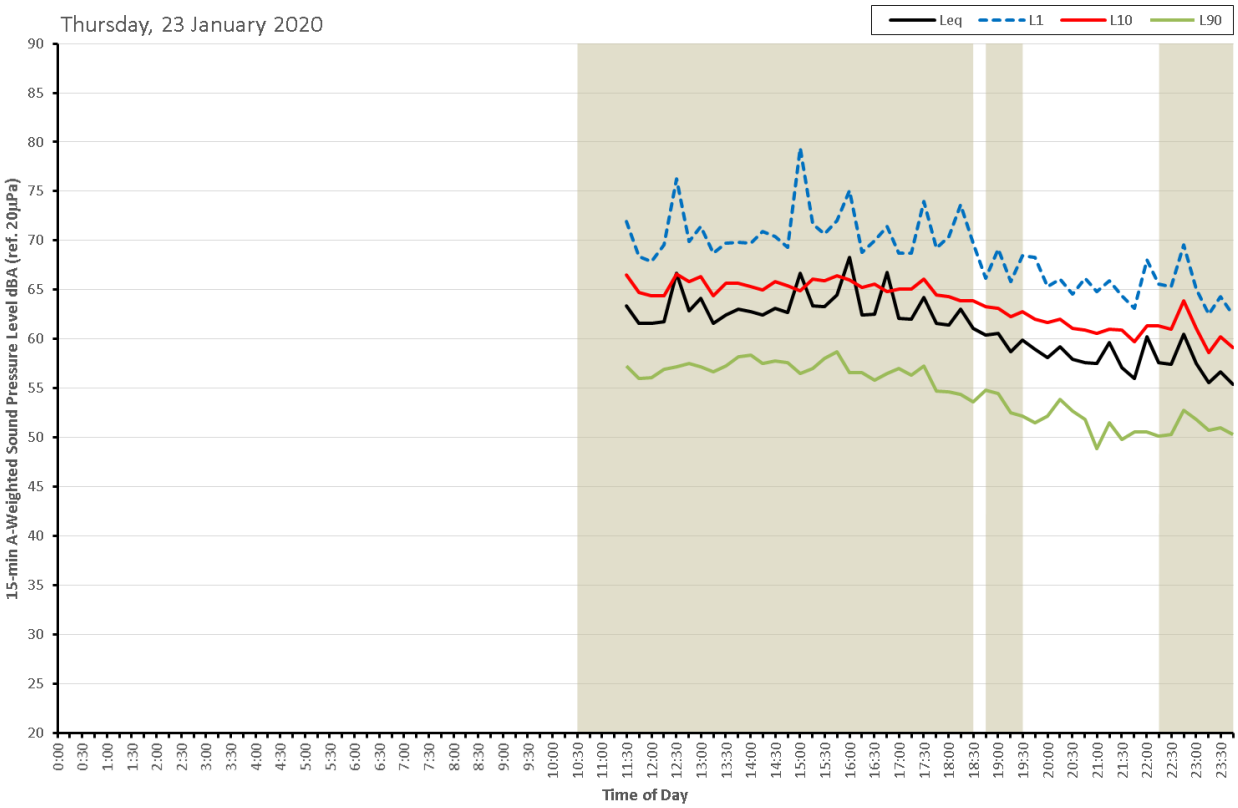

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Time of Day

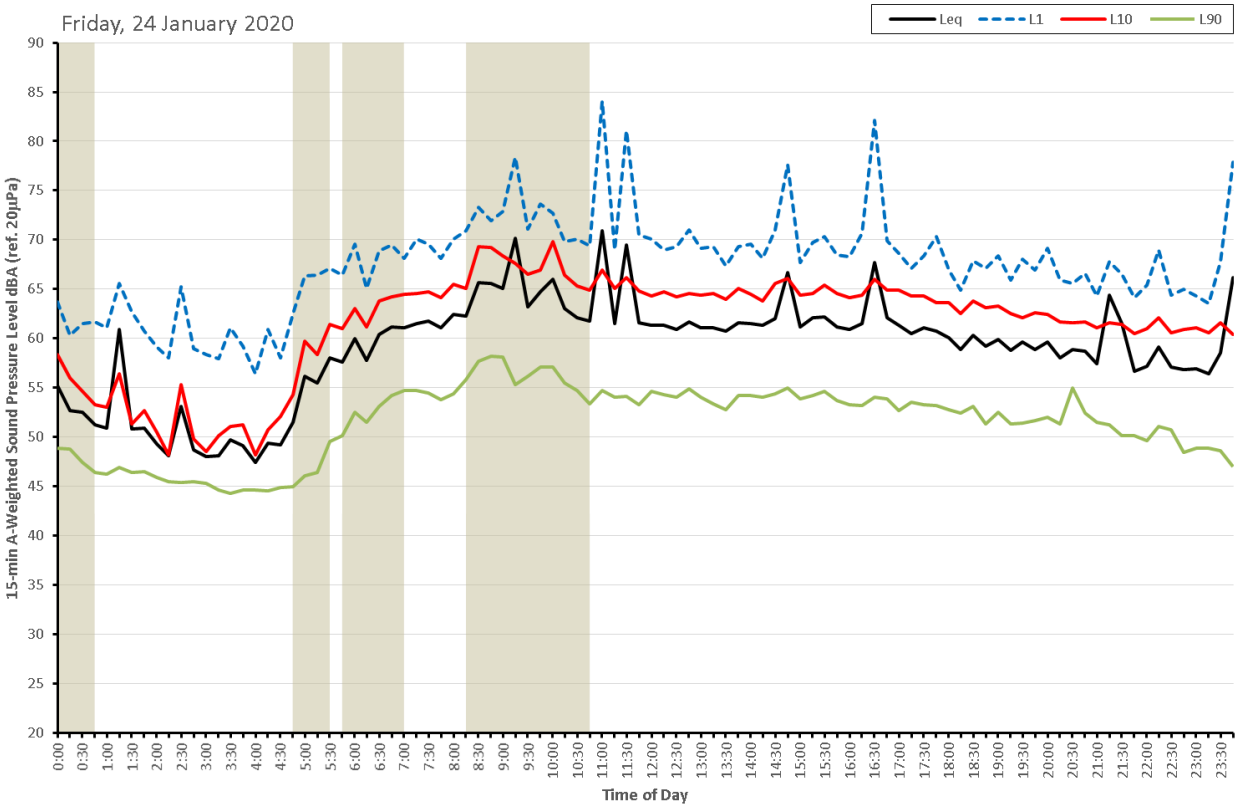

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Time of Day

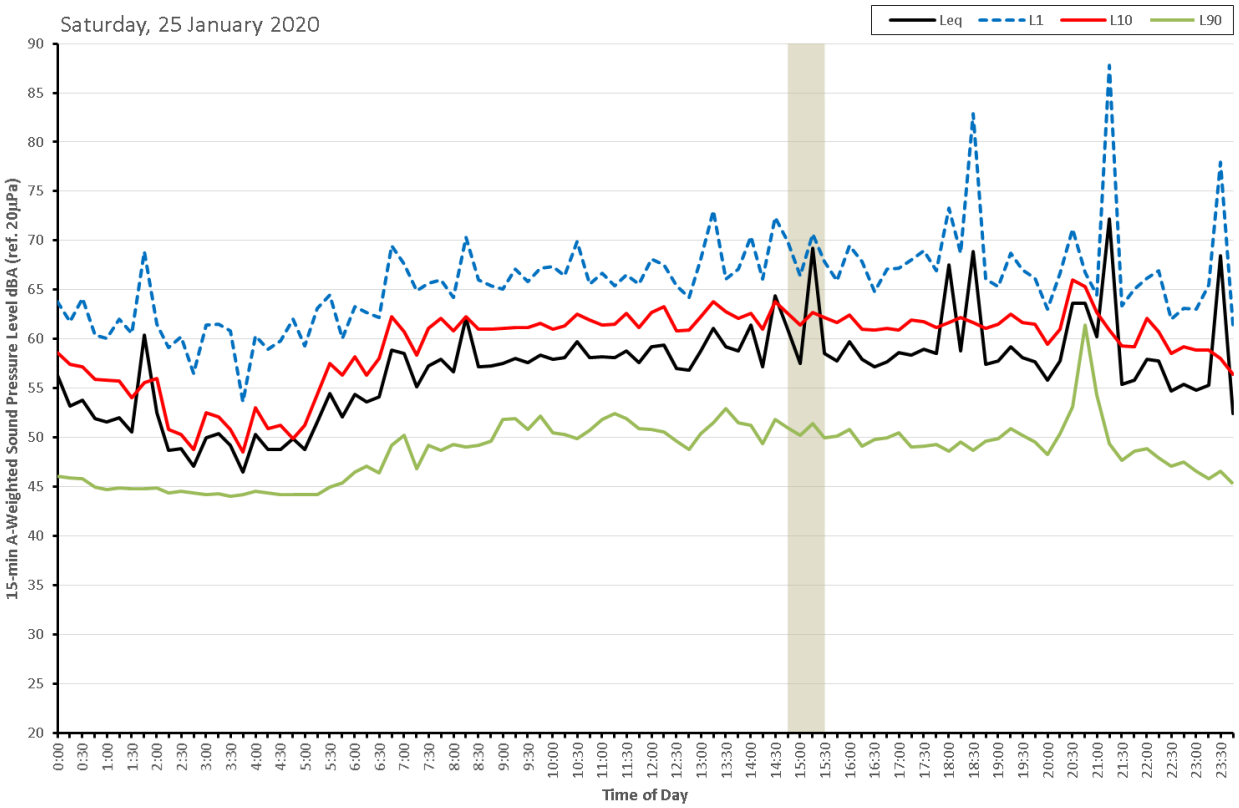

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Time of Day

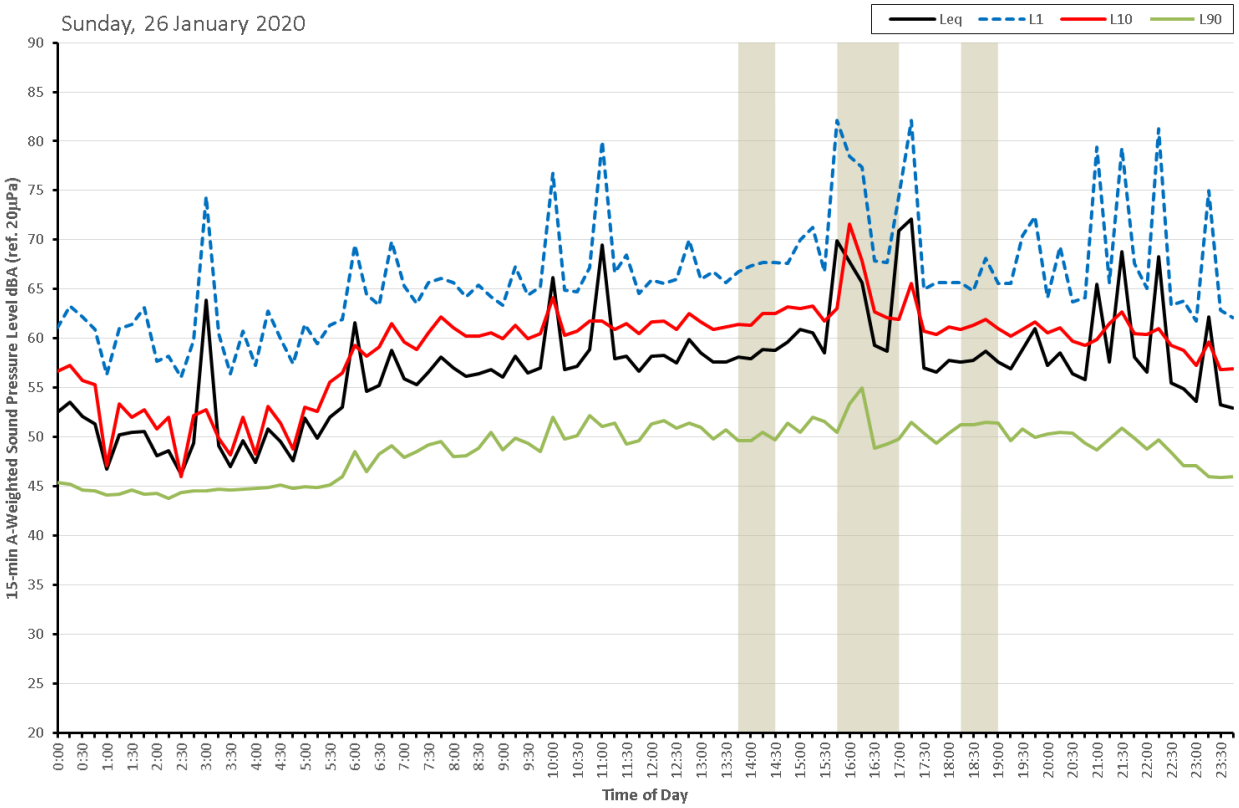

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Time of Day

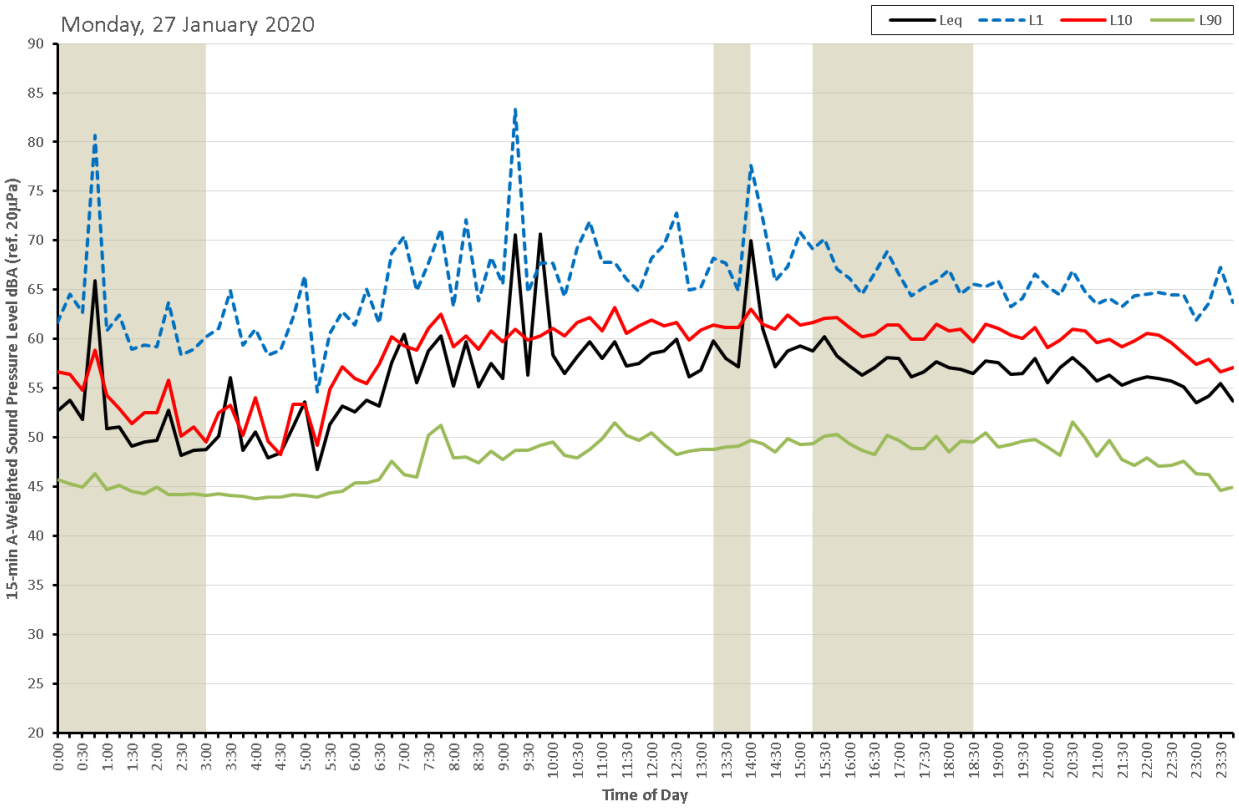

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Time of Day

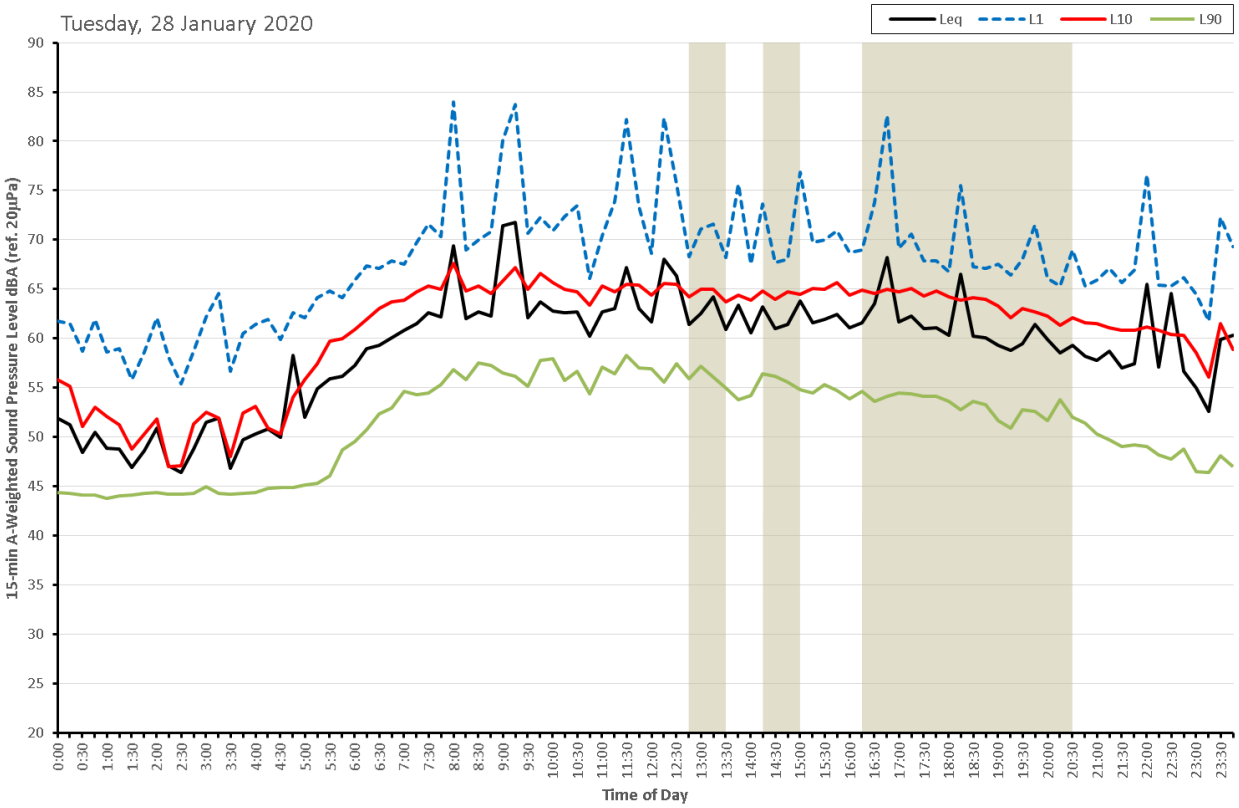

Thursday, 23 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

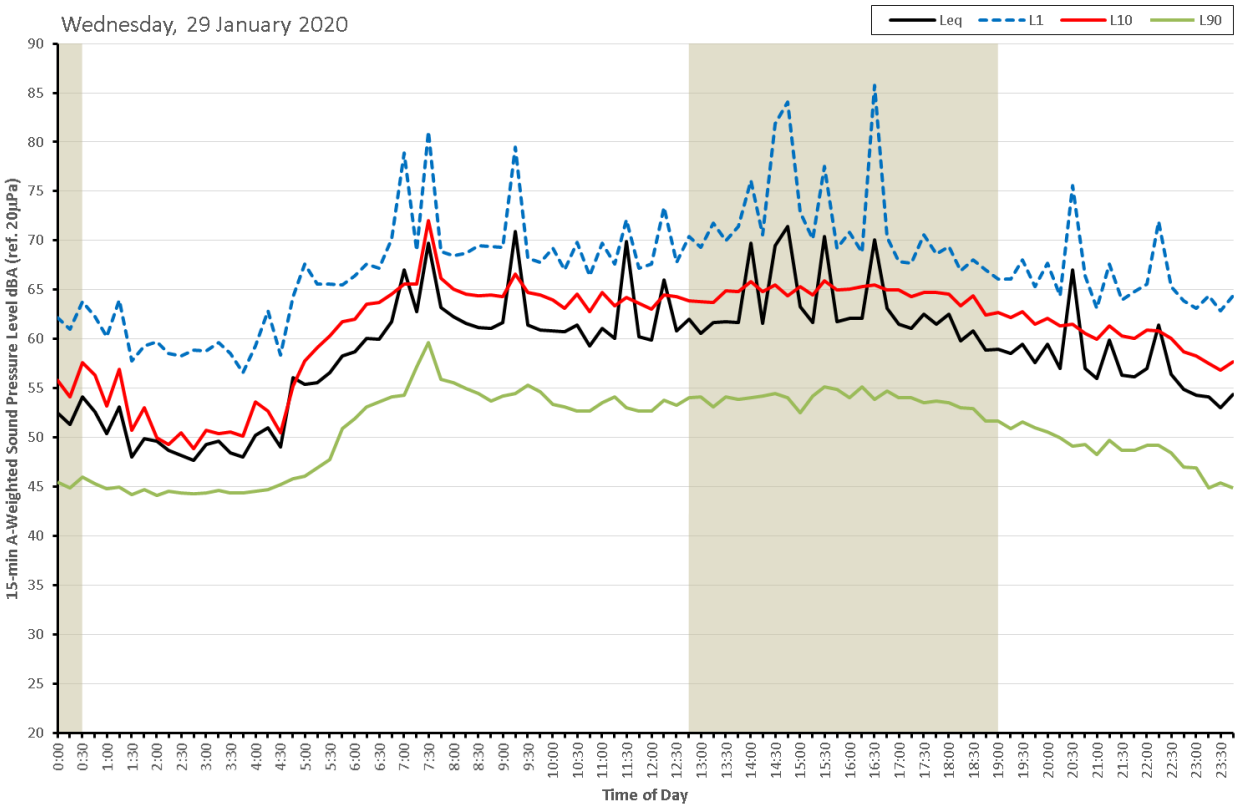

Friday, 24 January 2020
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L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

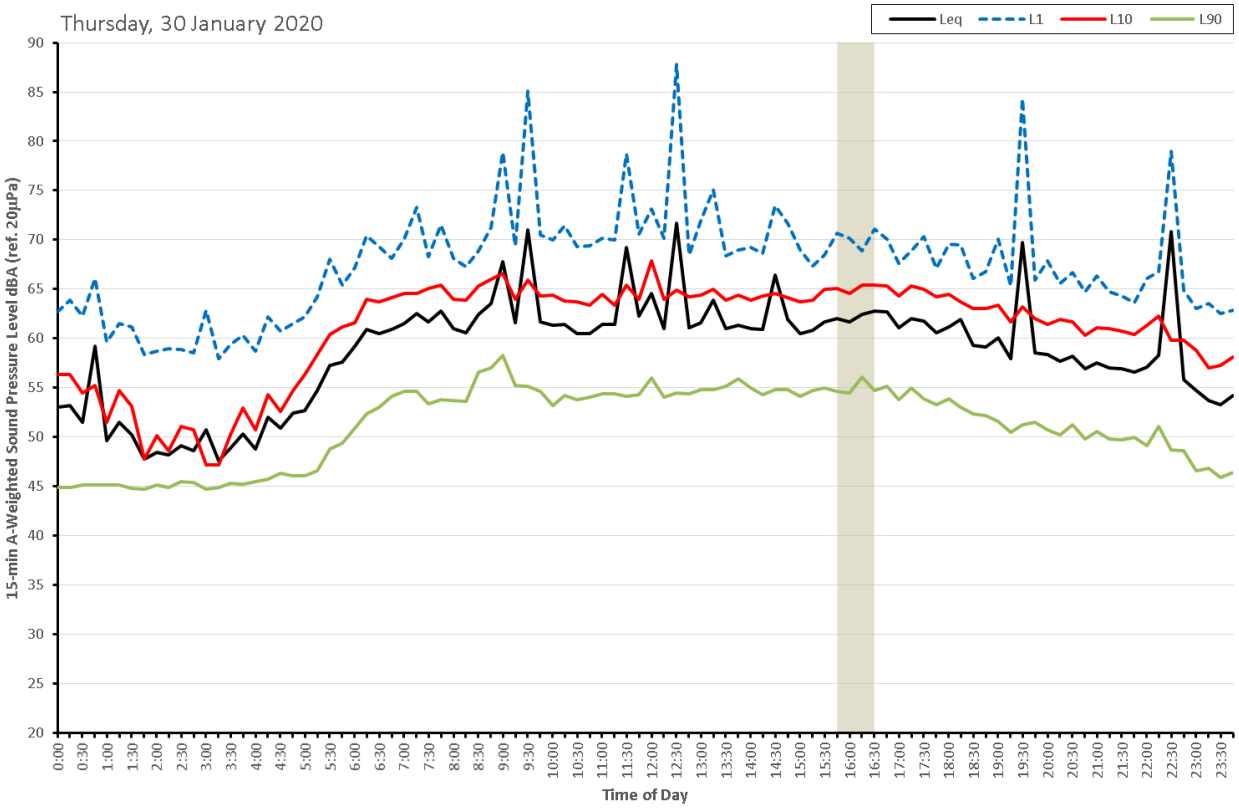

Saturday, 25 January 2020
Leq
L1
L10
L90
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Time of Day

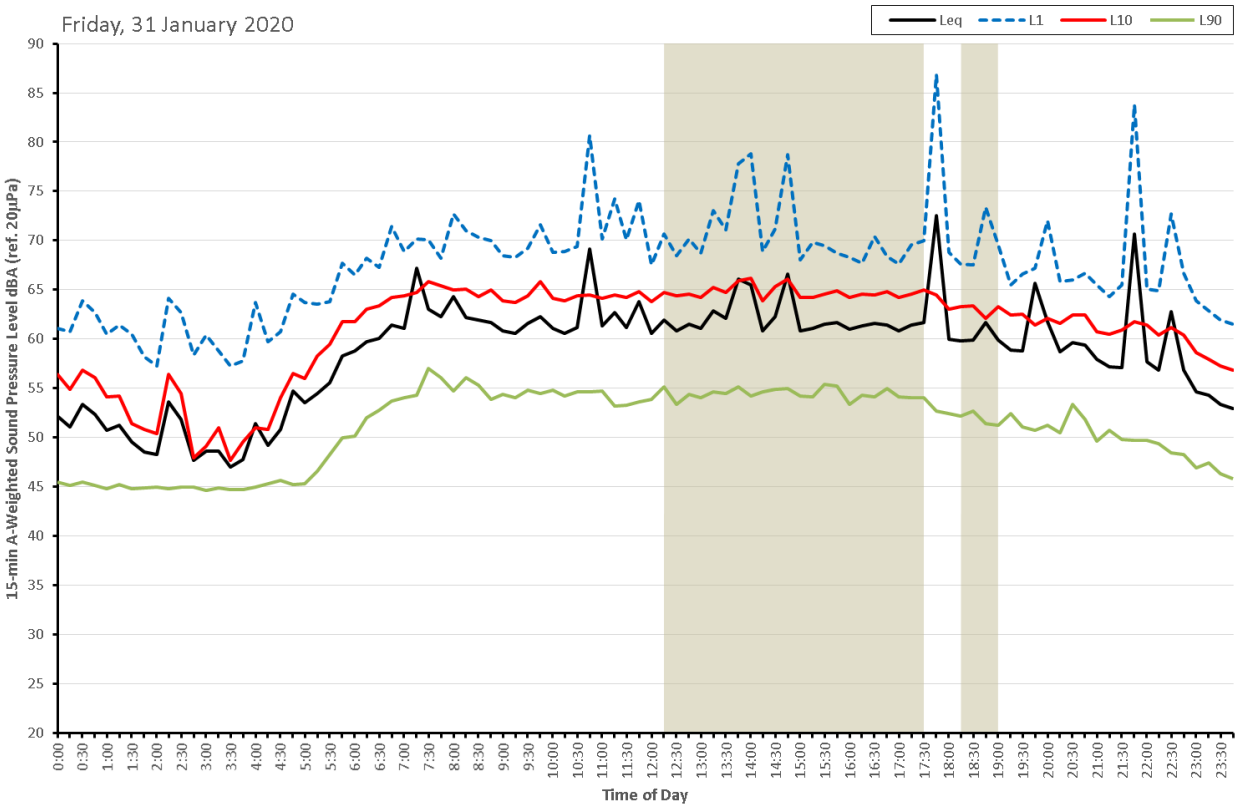

Sunday, 26 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

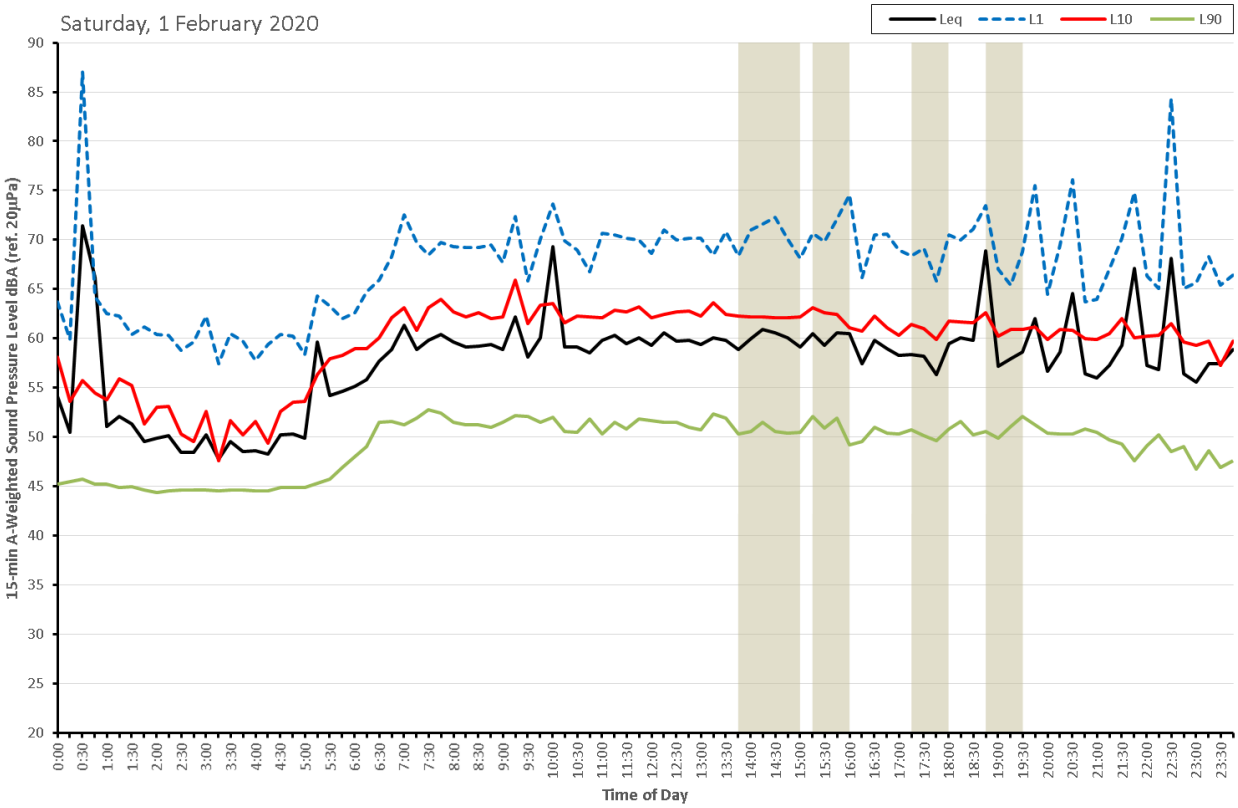

Monday, 27 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

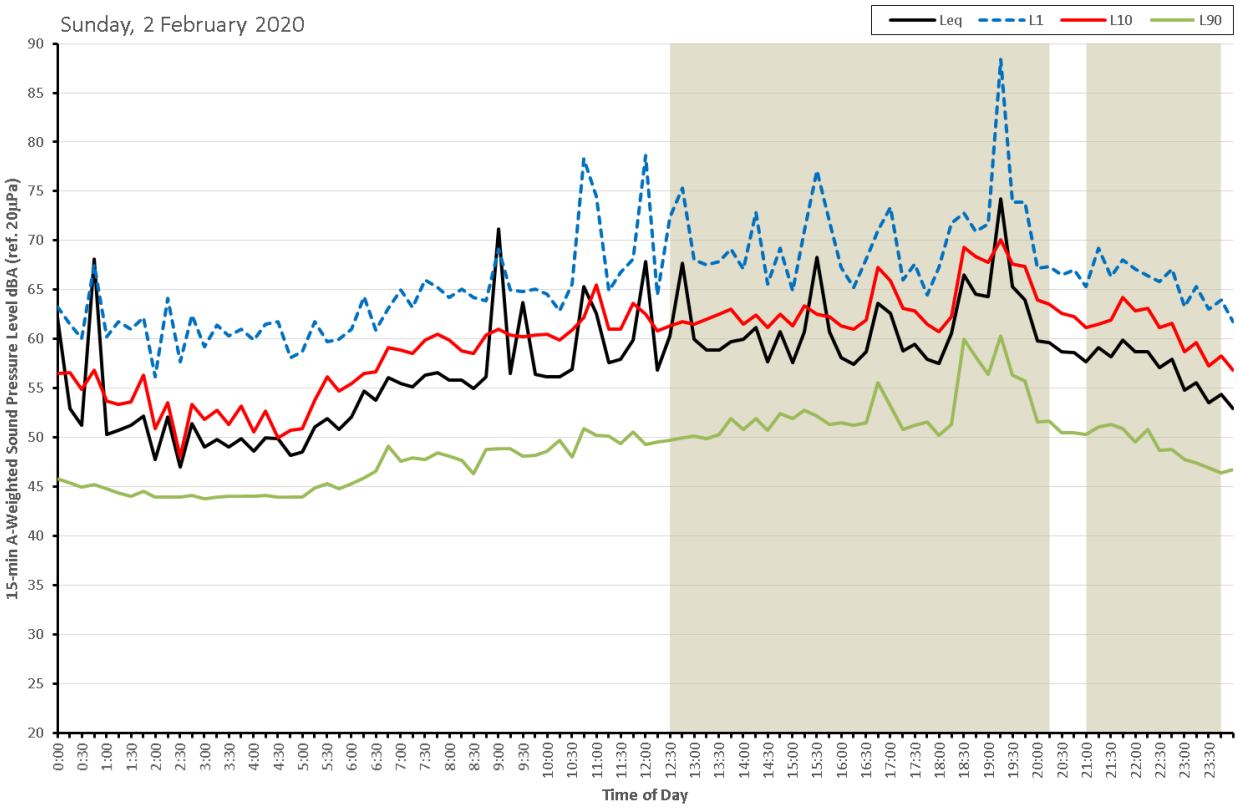

Tuesday, 28 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

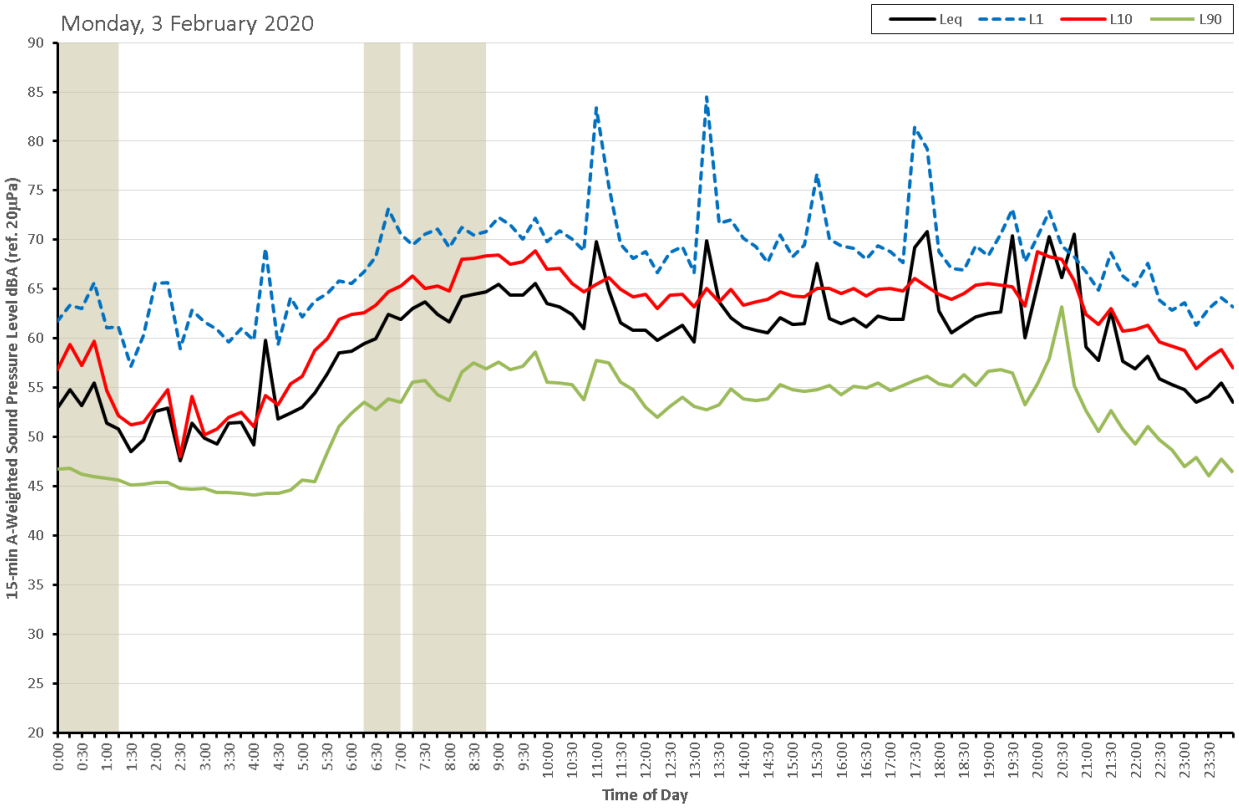

Wednesday, 29 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

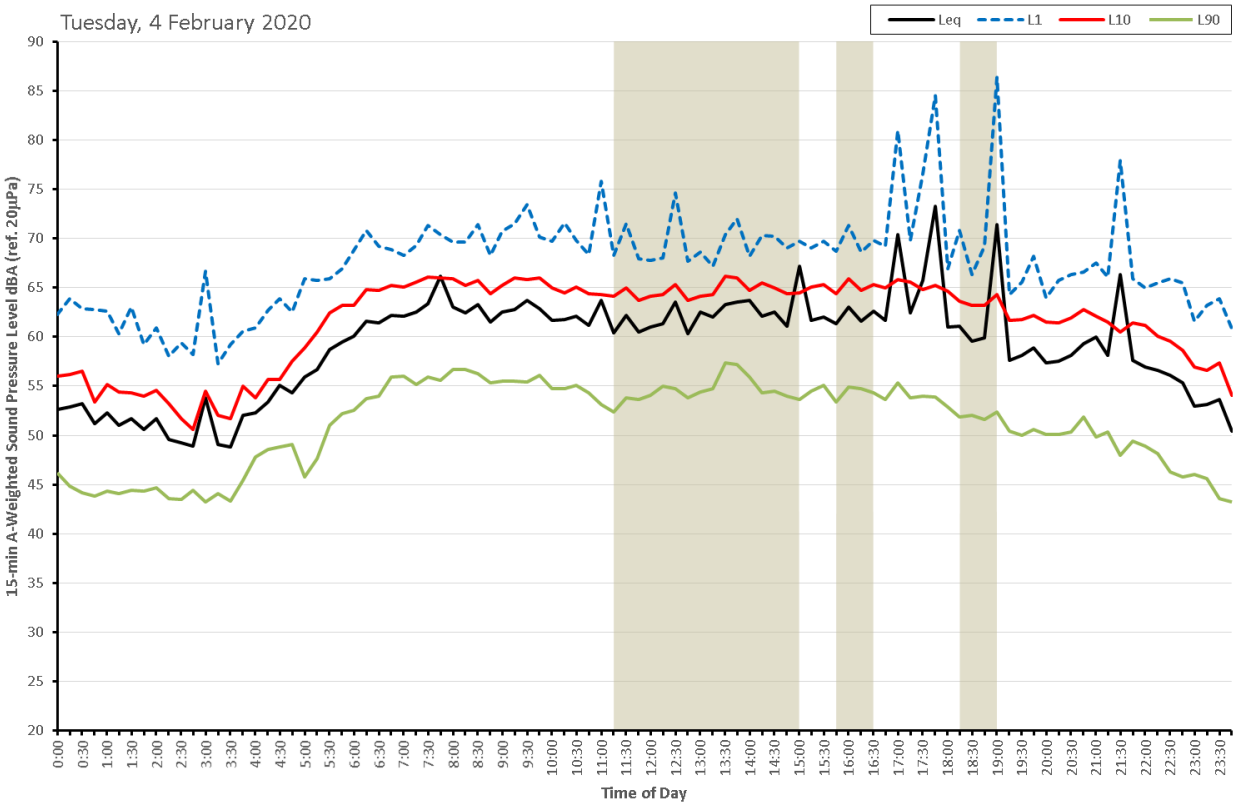

Thursday, 30 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

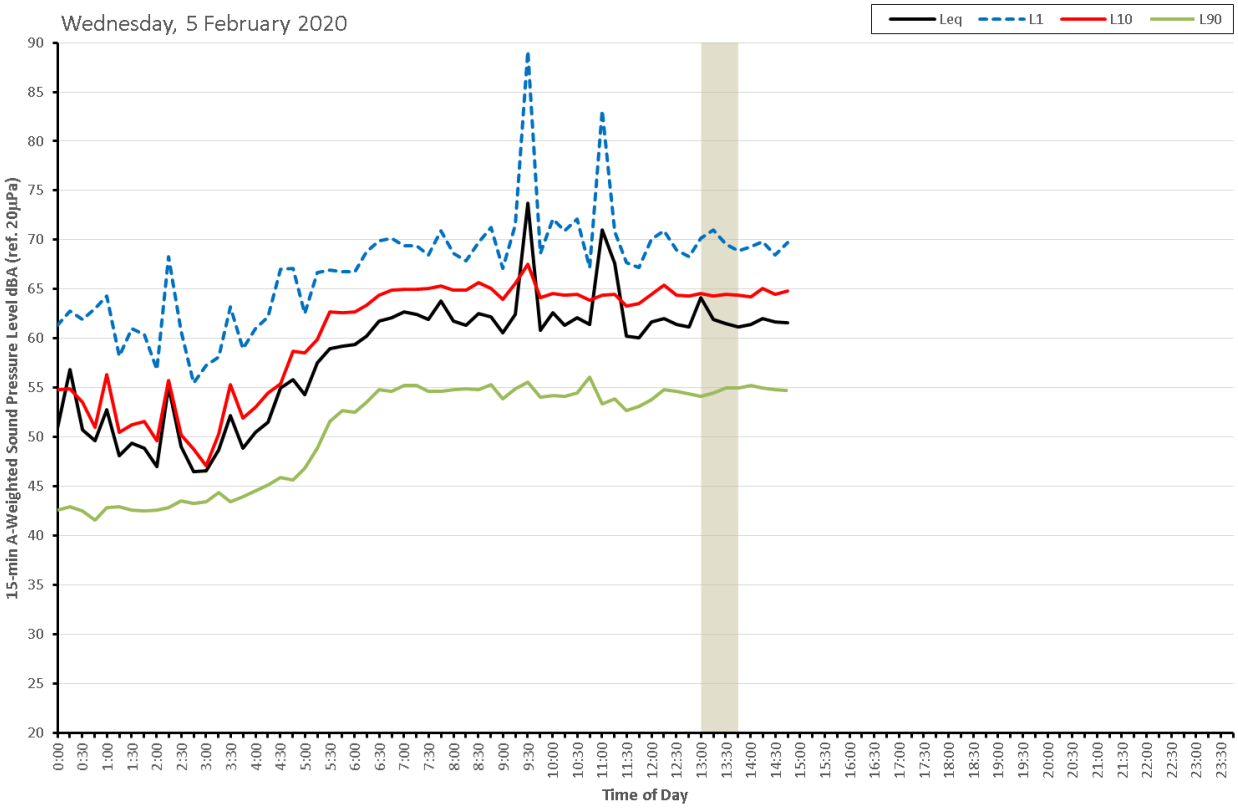

Friday, 31 January 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day


Saturday, 1 February 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day


Sunday, 2 February 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day


Monday, 3 February 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day


Tuesday, 4 February 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day


Wednesday, 5 February 2020
Leq
L1
L10
L90
15-min A-Weighted Sound Pressure Level dBA (ref. 20µPa)
Time of Day

# ANNEXUE D

# Open Space Management Plan

## Westmead Catholic Community Education Campus

**Prepared by Colliers Urban Planning**

18 May 2026 | 2220155



**'Gura Bulga'**

Liz Belanjee Cameron

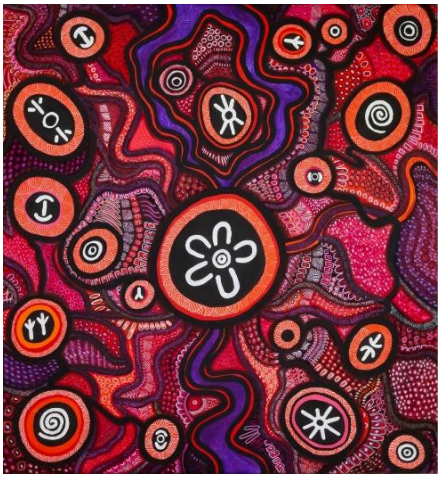
*'Gura Bulga'* – translates to Warm Green Country. Representing New South Wales.



**'Dagura Buumarri'**

Liz Belanjee Cameron

*'Dagura Buumarri'* – translates to Cold Brown Country. Representing Victoria.



**'Gadalung Djarri'**

Liz Belanjee Cameron

*'Gadalung Djarri'* – translates to Hot Red Country. Representing Queensland.

Colliers Urban Planning acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We pay our respects to their Elders past and present.

In supporting the Uluru Statement from the Heart, we walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people for a better future.


| | | |
|---|---|---|
| **Contact** | Jordan Balazs<br>Principal | jordan.balazs@colliers.com<br>+61 493 862 268 |


| **This document has been prepared by Jordan Balazs** | | **This document has been reviewed by** | |
|---|---|---|---|
| Fionnlagh Call | 18 May 2026 | Jordan Balazs | 18 May 2026 |
| **Version No.** | **Date of issue** | **Prepared by** | **Approved by** |
| A (DRAFT) | 31/03/2026 | FC | JB |
| B (DRAFT) | 02/04/2026 | FC | JB |
| C (FINAL) | 22/04/2026 | JB | JB |
| D (FINAL - UPDATES) | 18/05/2026 | JB | JB |


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Colliers

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# 1.0 Introduction

## 1.1 The Site

This Open Space Management Plan was prepared by Colliers Urban Planning on behalf of the Catholic Education Diocese of Parramatta, in relation to the Westmead Catholic Community (**WCC**) site (see **Figure 1**). The site currently accommodates three separate schools, which are:

- Catherine McAuley Westmead (secondary girls school), which predominately occupies the northern portion of the site;
- Parramatta Marist High School (secondary boys school), which occupies the eastern portion of the site; and
- Mother Teresa Primary School (co-educational primary school), which occupies part of one of the Catherine McAuley Westmead buildings.




***Figure 1 Site Location***

Source: Nearmap, edits by Colliers Urban Planning

## 1.2 Approved Development

On 14 February 2022, the Independent Planning Commission of NSW granted development consent to State Significant Development (**SSD**) application SSD 10383 for the redevelopment of, and upgrades to, the site comprising:

- Alterations to the existing Mother Theresa Primary School and change of use to provide an early learning centre for 200 places and 25 full time equivalent (FTE) staff;
- Construction of a six-storey new primary school building including classrooms and learning spaces, recreation spaces, canteen, storage, amenities and rooftop open space;
- Staged increase in student numbers accommodating a total of 1,680 students (1,260 additional) and 76 additional FTE staff;
- Construction of a new parish church with 400 seats;
- Upgrades and alterations to two existing driveways, retention of 212 existing car parking spaces and provision of 12 additional car parking spaces; and

- Associated works including tree removal, pedestrian access and landscaping.

Since the approval of SSD-10383, further design refinement and consideration of the desired learning outcomes have occurred, in the form of three modification applications. A further modification application was approved on 31 March 2026 relating to the Sacred Heart church.

*Table 1 Summary of Modification Applications*

| Mod Number | Objective of Mod |
|---|---|
| SSD-10383 MOD 1 | On 5th September 2023, a modification application was granted to enable a series of design and landscaping changes, summarised below:<br>• A number of Landscape Drawings under Condition A2 were modified to reflect ongoing design development and to provide more unencumbered open space for primary school active play and ball sports.<br>• Conditions B1, B2 and E4 were modified to reduce the scope of the pedestrian connection link to the primary school only and wholly within the lot, which can be used by all school users, but not parish church users. The schematic diagrams will now be submitted to Council.<br>• Conditions F1 and F2 related to the through site pedestrian link and were deleted as part of the modification application to be consistent with the amendments of conditions B1 and E4.<br>• The wording of Condition E5 was modified to ensure that all students of the primary school have sufficient and regular access to all ground level open space and not just the ovals and allows for an increase in the amount of unencumbered active open space.<br>• Condition E43 was modified to ensure that access would be provided to the full range of facilities within the site, and for a broader range of external users when feasible and available.<br>• Condition F14A was introduced, stating 'the through site pedestrian links required under conditions E4(a) and E4(b) must be operational and be maintained by the Applicant for the life of the development.' |
| SSD-10383 MOD 2 | On 6th March 2025, a second modification application was granted to enable a series of design and landscaping changes, summarised below:<br>• Internal layout changes to the K-6 building, including minor changes to structure, locations of internal columns, introduction of smoke risers and smoke management system, new services, vertical circulation to the mezzanine at Level 1, introduction of wheelchair refuges to all stair cores, new mesh balustrades to full height to covered external spaces on Levels 2-4, new netting to enclose rooftop play space, rationalisation of classroom spaces, minor changes to the canteen, as well as a new bridge to connect the existing and new facilities to improve connectivity and manoeuvrability throughout site.<br>• Internal rearrangement of the Catholic Early Learning Centre (CELC), Administrative facility and Resource Centre, with associated structural changes.<br>• Refinement of landscape design throughout the site, including amended access paths, reconfiguration and increase in overall open space figure for the Primary School building including a new kindergarten playground, alongside the relocation and provision of new playscape features, increased outdoor play area for the CELC, as well as amendments to the proposed balustrades around the open areas.<br>• Removal of two existing trees within the substation easement, to be replaced with additional tree planting throughout the site. |
| SSD-10383 MOD 3 | On 11th August 2025, a third modification application was approved to enable the following changes:<br>• **Opening Year** – Construction program delays have impeded the school from opening in 2023 as was originally intended. Any mention of 2023 as the opening year and 2033 as the stabilisation year (being 10 years from opening) will be removed.<br>• **Student and Staff Numbers** – Since the project conception, the Catholic Schools Parramatta Diocese has upgraded its learning delivery model to achieve greater learning outcomes for students. This pedagogical model includes a requirement for classes to be delivered in even number streams (rather than in odd number streams as was approved) to enable opportunities for further collaboration, flexibility and standardised learning outcomes. The implementation of this pedagogical model was not anticipated at the time SSD-10383 was approved. Therefore, an increase in the maximum student and staff numbers for opening |

| | |
|---|---|
| | year is necessary to align with the pedagogical model, without increasing the maximum student and staff numbers at the stabilisation year.<br>• **Dispute and Delay Resolution** – The applicant requires reassurance that compliance with the conditions of consent can still be achieved in the event that a public authority does not undertake their obligations within the required timeframe and delays its endorsement of the required traffic assessment.<br>• **Fence Change -** This modification also seeks minor changes to the alignment of the fence line between the primary school and the administrative facility. |

The development consent, as modified, is subject to Condition E5 which states:

> *To allow for appropriate access to "uncovered and open to air" play spaces (all open spaces outside the footprint and roof overhang of the school building), the Applicant must provide an Open Space Management Plan to the satisfaction of the Planning Secretary, prior to the issue of any occupation certificate. The plan must demonstrate that all students of the school would have sufficient and regular access to ground level open space within the site (Lot 1 DP 1095407 and Lot 1 DP 1211982), without requiring the displacement of other students (such as the high school students) from this open space.*

An extract of the approved plan is provided in **Figure 2** below.

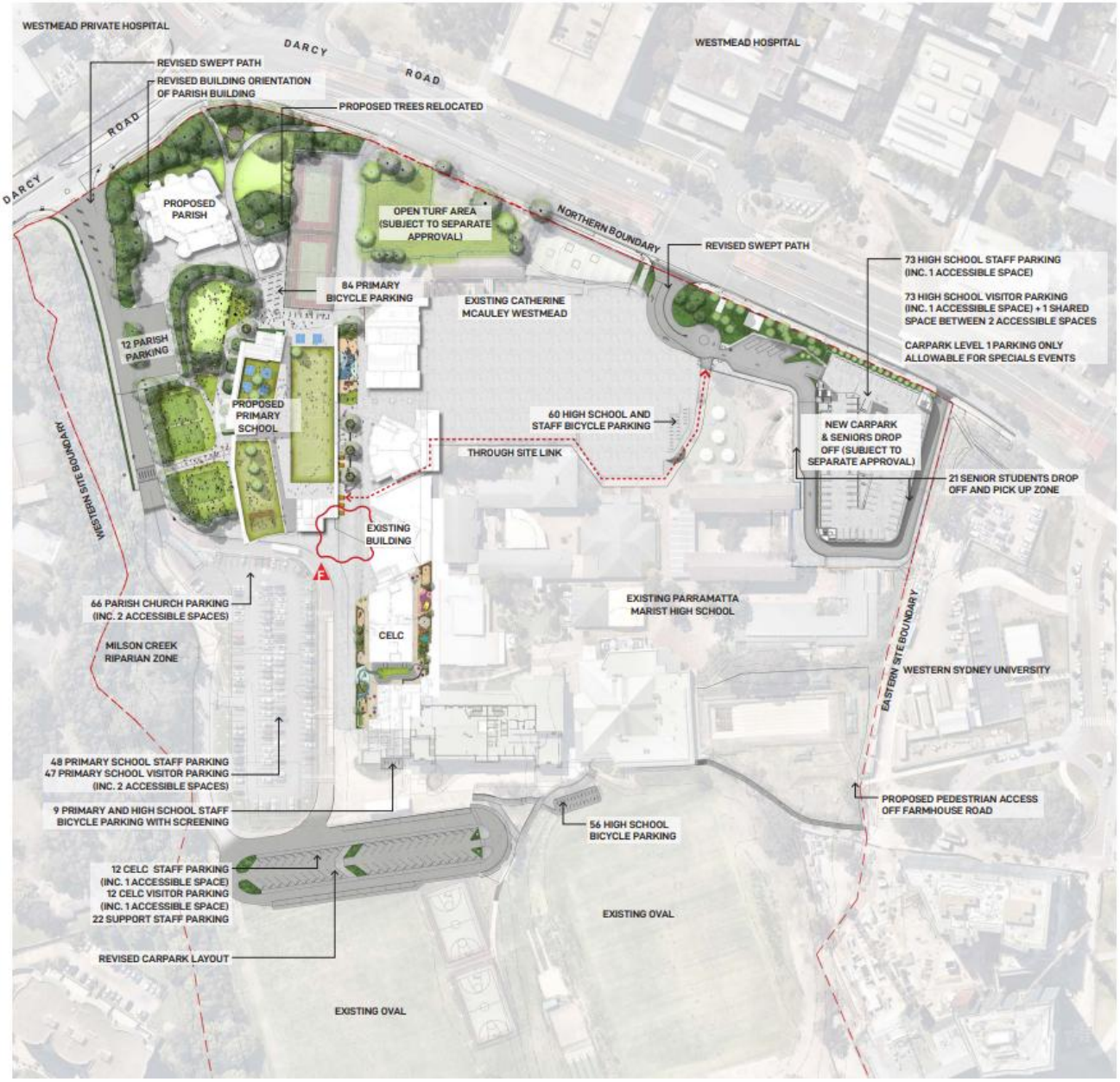



*Figure 2 Landscape Masterplan*

Source: Ground Ink

## 1.3 Purpose of this Open Space Management Plan

The purpose of this Open Space Management Plan is to comply with Condition E5 of the SSD consent to ensure that all students of the Mother Teresa Primary School have sufficient access to ground level open space at all times.

# 2.0 Open Space Management Plan

The Catholic Schools Parramatta Diocese (CSPD) is to ensure that all primary school students on the WCC site will have sufficient and regular access to ground level open space within the site, without requiring the displacement of other students from that open space.

## 2.1 Student Enrolments

As existing, the school enrolment numbers for each primary school is tabulated below.

*Table 2 Existing School Enrolments*

| Year Group | Sacred Heart | Mother Teresa |
|---|---|---|
| **Kindergarten** | 38 | 58 |
| **Year 1** | 23 | 51 |
| **Year 2** | 27 | 56 |
| **Year 3** | 22 | 51 |
| **Year 4** | 30 | 60 |
| **Year 5** | 27 | 57 |
| **Year 6** | 27 | 57 |
| **Total** | **194** | **390** |

It is noted that, under the SSD consent, each cohort from Kindergarten to Year 6 will accommodate a maximum enrolment of 240 students, resulting in a total capacity of 1,680 students (1,260 additional).

## 2.2 Access to Open Space

Primary school students will primarily use the play spaces within and adjacent to the primary school building on the site.

The ovals are currently shared by both high schools at the WCC site. All primary school students must have access to a portion of the existing Oval 1 in the south of the site for delivery of the PDHPE curriculum, as required, outside of recess and lunch times and timetabled on a term-by-term basis to avoid any conflicting uses. The ovals will predominantly be used by the high school students on the site for play and PDHPE.

CSPD must aim to ensure that primary school students have access to the ovals and other ground level open spaces at least once per week, for a minimum of two hours in total, without displacing the high school students.

**Appendix A** provides an indicative timetable for the provision of access to the ovals and other ground level open space over the course of a typical week, once full student numbers are reached. This timetable is indicative only and is subject to change to meet the high schools' curriculum requirements.

# 3.0 Monitoring and Review

This Open Space Management Plan is intended to facilitate access to all open space and play areas across the site for all students of all the schools on the site. This Plan will be reviewed periodically to ensure it is working efficiently and providing adequate open space and play access to all students.

Should any further development consents be issued in the future for any proposed redevelopment of the site, including redevelopment of any open space and play areas, this Open Space Management Plan will be reviewed and updated or replaced accordingly to reflect any changes to the use of open space and play areas by all students as a result of any new development consent.

In light of the above, this Plan will be reviewed:

- Every 12 months, for the first 5 years after receiving an Occupation Certificate; and
- As required, to align with any new development consent or modification approval that changes the open space and play areas.

The CSPD shall write to the Secretary of the Department of Planning, Housing and Infrastructure upon the completion of each review to inform the Secretary of any amendments that have been made to this Open Space Management Plan.

# Appendix A - Indicative oval and ground level open spaces access schedule

| | Monday | | | | | | Tuesday | | | | | | | Wednesday | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Oval 1** | **Oval 2** | **Oval Court/ Cricket Nets** | **PS Ground Level Open Space** | **Sacred Heart Level 5 Roof Space** | **McAuley Courts** | **Oval 1** | **Oval 2** | **Oval Court/ Cricket Nets** | **PS Ground Level Open Space** | **Sacred Heart Level 5 Roof Space** | **McAuley Courts** | **Oval 1** | **Oval 2** | **Oval Court/ Cricket Nets** | **PS Ground Level Open Space** | **Sacred Heart Level 5 Roof Space** | **McAuley Courts** |
| **Before school** | McAuley – free play<br>Primary (KG, Y1, Y2): free play | Marist – free play | | | | | McAuley – free play<br><br>Primary (Y5, Y6): free play | Marist – free play | | | | | McAuley – free play<br><br>Primary (Y3, Y4): free play | Marist – free play | | | | |
| **Before recess** | McAuley – PDHPE / team sports<br><br>Primary (KG, Y1, Y2): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (Y3, Y4): Team / PDHPE Sport | Primary (Y5, Y6): Team / PDHPE Sport | Team Sport / PDHPE | McAuley – PDHPE / team sports<br><br>Primary (Y5, Y6): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (KG, Y1, Y2): Team / PDHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | Team Sport / PDHPE | McAuley – PDHPE / team sports<br><br>Primary (Y3, Y4): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (Y5, Y6): Team / PDHPE Sport | Primary (KG, Y1, Y2): Team / PDHPE Sport | Team Sport / PDHPE |
| **Recess** | McAuley – free play<br><br>Primary (KG, Y1, Y2): free play | Marist – free play | Free Play | Primary (Y3, Y4): Free Play | Primary (Y5, Y6): Free Play | Free Play | McAuley – free play<br><br>Primary (Y5, Y6): free play | Marist – free play | Free Play | Primary (KG, Y1, Y2): Free Play | Primary (Y3, Y4): Free Play | Free Play | McAuley – free play<br><br>Primary (Y3, Y4): free play | Marist – free play | Free Play | Primary (Y5, Y6): Free Play | Primary (KG, Y1, Y2): Free Play | Free Play |
| **Recess to lunch** | McAuley – PDHPE / team sports<br><br>Primary (KG, Y1, Y2): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (Y3, Y4): Team / PDHPE Sport | Primary (Y5, Y6): Team / PDHPE Sport | Team Sport / PDHPE | McAuley – PDHPE / team sports<br><br>Primary (Y5, Y6): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (KG, Y1, Y2): Team / PDHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | Team Sport / PDHPE | McAuley – PDHPE / team sports<br><br>Primary (Y3, Y4): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (Y5, Y6): Team / PDHPE Sport | Primary (KG, Y1, Y2): Team / PDHPE Sport | Team Sport / PDHPE |
| **Lunch** | McAuley – free play<br><br>Primary (KG, Y1, Y2): free play | Marist – free play | Free Play | Primary (Y3, Y4): Free Play | Primary (Y5, Y6): Free Play | Free Play | McAuley – free play<br><br>Primary (Y5, Y6): free play | Marist – free play | Free Play | Primary (KG, Y1, Y2): Free Play | Primary (Y3, Y4): Free Play | Free Play | McAuley – free play<br><br>Primary (Y3, Y4): free play | Marist – free play | Free Play | Primary (Y5, Y6): Free Play | Primary (KG, Y1, Y2): Free Play | Free Play |
| **After lunch** | McAuley – PDHPE / team sports<br><br>Primary (KG, Y1, Y2): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (Y3, Y4): Team / PDHPE Sport | Primary (Y5, Y6): Team / PDHPE Sport | Team Sport | McAuley – PDHPE / team sports<br><br>Primary (Y5, Y6): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (KG, Y1, Y2): Team / PDHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | Team Sport / PDHPE | McAuley – PDHPE / team sports<br><br>Primary (Y3, Y4): Team / PDHPE | Marist – PDHPE / team sports | Team Sport / PDHPE | Primary (Y5, Y6): Team / PDHPE Sport | Primary (KG, Y1, Y2): Team / PDHPE Sport | Team Sport / PDHPE |
| **Post school** | McAuley – team sports<br><br>Primary (KG, Y1, Y2): team sports | Marist – team sports | ✓ | ✓ | ✓ | ✓ | McAuley – team sports<br><br>Primary (Y5, Y6): team sports | Marist – team sports | ✓ | ✓ | ✓ | ✓ | McAuley – PDHPE / team sports<br><br>Primary (Y3, Y4): Team sports | Marist – team sports | ✓ | ✓ | ✓ | ✓ |

| Monday | | | | | | | Tuesday | | | | | | | Wednesday | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **After hours** | Parramatta Eels 4.45-9pm | Parramatta Eels 4.45-9pm | | | | | Parramatta Eels 4.45-9pm | Parramatta Eels 4.45-9pm | | | | | Parramatta Eels 4.45-9pm | Parramatta Eels 4.45-9pm | | | | |

| | Thursday | | | | | | Friday | | | | | | Saturday | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Oval 1** | **Oval 2** | **Oval Court/ Cricket Nets** | **PS Ground Level Open Space** | **Sacred Heart Level 5 Roof Space** | **McAuley Courts** | **Oval 1** | **Oval 2** | **Oval Court/ Cricket Nets** | **PS Ground Level Open Space** | **Sacred Heart Level 5 Roof Space** | **McAuley Courts** | **Oval 1** | **Oval 2** | **Oval Court/ Cricket Nets** | **PS Ground Level Open Space** | **Sacred Heart Level 5 Roof Space** | **McAuley Courts** |
| **Before school** | McAuley – free play<br><br>Primary (KG, Y1, Y2): free play | Marist – free play | | | | | McAuley – free play<br><br>Primary (Y5, Y6): free play | Marist – free play | | | | | Marist home game events | McAuley home game events | | | | |
| **Before recess** | McAuley – PDHPE / team sports<br><br>Primary (KG, Y1, Y2): Team / PDHPE | Marist – PDHPE / team sports | Team / DPHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | Primary (Y5, Y6): Team / PDHPE Sport | Team / DPHPE Sport | McAuley – PDHPE / team sports<br><br>Primary (Y5, Y6): Team / PDHPE | Marist – PDHPE / team sports | PDHPE | Primary (KG, Y1, Y2): Team / PDHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | PDHPE | | | | | | |
| **Recess** | McAuley – free play<br><br>Primary (KG, Y1, Y2): free play | Marist – free play | Marist – Free Play | Primary (Y3, Y4): Free Play | Primary (Y5, Y6): Free Play | McAuley – Free Play | McAuley – free play<br><br>Primary (Y5, Y6): free play | Marist – free play | Free Play | Primary (KG, Y1, Y2): Free Play | Primary (Y3, Y4): Free Play | Free Play | | | | | | |
| **Recess to lunch** | McAuley – PDHPE / team sports<br><br>Primary (KG, Y1, Y2): Team / PDHPE | Marist – PDHPE / team sports | Team Sports | Primary (Y3, Y4): Team / PDHPE Sport | Primary (Y5, Y6): Team / PDHPE Sport | Team Sports | McAuley – PDHPE / team sports<br><br>Primary (Y5, Y6): Team / PDHPE | Marist – PDHPE / team sports | PDHPE | Primary (KG, Y1, Y2): Team / PDHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | PDHPE | | | | | | |
| **Lunch** | McAuley – free play<br><br>Primary (KG, Y1, Y2): free play | Marist – free play | Free Play | Primary (Y3, Y4): Free Play | Primary (Y5, Y6): Free Play | Free Play | McAuley – free play<br><br>Primary (Y5, Y6): free play | Marist – free play | Free Play | Primary (KG, Y1, Y2): Free Play | Primary (Y3, Y4): Free Play | Free Play | | | | | | |
| **After lunch** | McAuley – PDHPE / team sports<br><br>Primary (KG, Y1, Y2): Team / PDHPE | Marist – PDHPE / team sports | Team / DPHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | Primary (Y5, Y6): Team / PDHPE Sport | Team / DPHPE Sport | McAuley – PDHPE / team sports<br><br>Primary (Y5, Y6): Team / PDHPE | Marist – PDHPE / team sports | PDHPE | Primary (KG, Y1, Y2): Team / PDHPE Sport | Primary (Y3, Y4): Team / PDHPE Sport | PDHPE | | | | | | |
| **Post school** | McAuley – team sports<br><br>Primary (KG, Y1, Y2): team sports | Marist – team sports | ✓ | ✓ | ✓ | ✓ | McAuley – team sports<br><br>Primary (Y5, Y6): team sports | Marist – team sports | ✓ | ✓ | ✓ | ✓ | | | | | | |
| **After hours** | Parramatta Eels 4.45-9pm | Parramatta Eels 4.45-9pm | | | | | Parramatta Eels 4.45-9pm | Parramatta Eels 4.45-9pm | | | | | | | | | | |

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9. Annexure B – Sub Operational Management Plan - Ambrose (OHSC)

# Operational Plan of Management

**Ambrose Early Learning Centre– Westmead**

Prepared in Response to Development Consent Condition E37

## 1. Introduction

This Operational Plan of Management (OPM) has been prepared to address Condition E37 of the Development Consent. The Plan outlines operational, capacity, access and management measures for the approved **Ambrose Early Learning** at Westmead.

## 2. E37(a) – Hours of Operation

The approved hours of operation for **Ambrose Early Learning** will be:

- 6:00am to 6:00pm
- Monday to Friday only

The centre will operate approximately 50 weeks per year and will be closed on public holidays and for a short period over the Christmas/New Year break. No staff, children or operational activities associated with **Ambrose Early Learning** will occur outside the approved hours.

## 3. E37(b) – Maximum Capacity

The maximum capacity of **Ambrose Early Learning** will be:

- 120 children
- 20 staff members (maximum number on site at any one time)

Attendance will be managed through electronic sign-in/sign-out systems to ensure that approved capacity limits are not exceeded. Staffing ratios will comply at all times with the Education and Care Services National Law and Regulations.

## 4. E37(c) – Outdoor Play Times

Outdoor play for enrolled children will be restricted to 7:00am to 6:00pm. No children will access outdoor play areas prior to 7:00am. Children arriving prior to 7:00am will be accommodated indoors in designated rooms.

## 5. E37(d) – Outdoor Playground Capacity

No more than 100 children will occupy the outdoor play area at any one time. Compliance will be achieved through staggered outdoor play scheduling by age group, staff monitoring of attendance numbers, and supervision by the Nominated Supervisor or Responsible Person.

## 6. E37(e) – Outdoor Play Programme and Management Measures

A structured outdoor play programme will be implemented incorporating the following measures:

- Staggered play sessions to distribute activity and reduce peak noise levels
- Educator supervision in accordance with regulatory ratios
- Allocation of active and passive play zones
- No amplified music or sound systems in outdoor areas
- Staff training in acoustic awareness and neighbourhood amenity management
- Ongoing monitoring of outdoor noise impacts

## 7. E37(f) – Window Management

Windows will not be opened prior to 7:00am. All internal areas will remain enclosed between 6:00am and 7:00am. Mechanical ventilation (if installed) will operate within approved acoustic limits.

## 8. E37(g) – Access Control Measures

The following access control measures will be implemented:

- Controlled pedestrian access point
- Electronic sign-in/sign-out system for families
- Reception-controlled entry to internal areas
- Swipe card access for authorised staff
- Visitor sign-in procedures with identification and purpose recorded
- Visitors will not be left unsupervised with children

After hours, the premises will be secured by alarm system and locked gates.

## 9. E37(h) – Separation from School Use

The **Ambrose Early Learning Service** will operate independently from the adjoining school use. Separation measures include physical separation via fencing and controlled gates, separate and clearly identified entry points, dedicated parking allocation for **Ambrose Early Learning** staff and families, and no shared playground use during operational hours unless otherwise approved. The **Ambrose Early Learning** service will function as a distinct operational entity.

## 10. Compliance Monitoring

The Nominated Supervisor will be responsible for ensuring compliance with this Operational Plan of Management. The Plan will be implemented prior to commencement of operations, provided to all staff during induction, and reviewed periodically to ensure ongoing compliance with development consent.

10. Annexure C – Sub Operational Management Plan – Sacred Heart Parish

DIOCESE *of* PARRAMATTA

# Sacred Heart Parish

## Operational Management Plan (OMP)

Rev. 1 (23 April 2026)



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*Car Parking Management* ..... *3*

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# Operational Management Plan (OMP)

**Submitted by: Trustee of the Roman Catholic Church for the Diocese of Parramatta**
**Document Date: 23/04/2026**
**SSD Approval No.: SSD-10383**

## Introduction

As required by SSD Condition #E4, the Operational Management Plan (OMP) outlines the operational approach that the new place of worship will take upon completion including:

1. Mass time schedule;
2. Emergency procedures;
3. Car-parking/traffic management;
4. Noise management;
5. Landscape management; and
6. Intended weekly use of the site.

The OMP intends to outline how the building users will ensure that the building operates in accordance with the recommendations of the Noise & Vibration Impact Assessment for SSDA (SSD-10383) provided by JHA Services (dated 30/01/2020).

## Mass Time Schedule

The proposed hours of operation for the place of public worship will be between:

- **Monday to Friday:** 8:00 AM - 10:00 AM
- **Saturday:** 8:00 AM - 10:00 AM & 4:30 PM - 7:00 PM
- **Sunday:** 7:00 AM - 12:00 PM

Specific services/masses/events/functions will be held within these times.

These operating hours have been established to meet the diverse needs of the community while adhering to the requirements for public worship. The schedule is designed to facilitate a balance between community engagement and the sanctity of worship in accordance with the times permitted in the SSD.

## Emergency Procedures

An Emergency Evacuation Plan (for the broader campus) will be developed in accordance with the Sacred Heart Parish Emergency Evacuation Plan, ensuring that it is consistent with best practices for safety.

## Car Parking Management

The peak attendance periods for the place of worship are anticipated to occur outside of standard working hours of the school, particularly on weekends. This timing will create ample available parking spaces for congregants attending services, augmenting the church's existing 78 parking spaces. Measures will be taken to ensure that parking is managed effectively, minimising any potential impact on surrounding residential areas and maintaining a smooth flow of traffic in/out of the site.

## Noise Management Plan

### 1. Entry and Exit Procedures

- **Designated Access:**
  All entry and exit from the worship space will occur through a single set of designated doors located on the southern side of the building, away from neighbours. This measure is intended to:
  - Minimise the amount of noise emission prior to the commencement of worship services.
  - Direct congregants to a designated area, reducing potential noise in surrounding areas.

### 2. Noise Emission Control

- **Door Management:**
  To further limit noise emissions during worship services, the internal entry doors will remain closed once the service has commenced. This action is designed to minimise disturbances to both the congregation and the surrounding community during worship service.

### 3. Noise Creation

- Worship times are scheduled during reasonable hours in accordance with the operational hours specified in the approved SSD Conditions of Consent.

## Landscape Management

In line with the approved SSD, we will carry out landscaping works that enhance the aesthetic appeal of the property. The parish in conjunction with the neighbouring schools will commit to the ongoing maintenance of the landscape (on parish grounds), ensuring that it remains well-kept and harmonious with the surrounding environment.

## Intended weekly use of the site

The building will primarily be utilised for worship during designated mass times with the addition of occasional funerals and weddings. Additionally, the administrative area of the facility will operate Monday through Friday to accommodate the parish's administrative needs.

## Document Revisions

The document will be a live document that will continually be developed over the course of construction and prior to go-live (of the new church). This will include more detailed plans reflecting access/egress paths, travel paths to the site (for pedestrians and those driving a vehicle) etc.

13. Annexure D – CSPD Complaint Management Procedures

Catholic Schools
Parramatta Diocese

# Complaint Management Procedure

## (for Parents, Carers and Community Members)

| | |
|---|---|
| Document Number | 726608 |
| Document Type | Procedure |
| Approval Date | March 2025 |
| Replaces Document & No. | 687428 |
| Owner Service Area | Legal, Governance & Risk |
| Review Date | March 2028 |
| Audience | Public |

**Catholic Schools Parramatta Diocese Ltd**
Bethany Centre 470 Church Street Parramatta NSW 2150
Locked Bag 4 North Parramatta NSW 1750
parra.catholic.edu.au
ABN: 66 661 001 798
+61 2 9840 5600
ACN: 661 001 798

## 1. Introduction and Purpose

These guidelines outline the principles and procedures for managing complaints and concerns raised by parents, carers and community members about Catholic Schools Parramatta Diocese (CSPD).

Our aim is to:

- assure the safety of children and young people
- maintain positive relationships between schools and families
- address concerns promptly and fairly before they escalate
- ensure transparent and consistent complaint handling
- uphold the principles outlined in the Family and School Partnership Principles

## 2. Scope

2.1 This document applies to complaints raised by:

- parents and carers
- visitors
- volunteers
- community members

2.2 While these guidelines provide a framework for addressing concerns, the specific approach may vary depending on the nature, circumstances, and seriousness of each complaint.

2.3 These guidelines **do not** address:

- child protection matters, child safety complaints or safeguarding allegations against staff members (refer to CSPD's Safeguarding Procedures)

2.4 Important Note: CSPD does not intervene in family disputes or custody matters. These matters must be referred to the Courts or NSW Police.

## 3. What is a complaint?

A complaint is an expression of dissatisfaction with:

- services provided by CSPD schools
- behaviour or decisions of staff members (including school principals and CSPD support team staff)
- CSPD and school practices, policies, or procedures.

---

## 4. Core Principles

4.1 Our Commitment:

- all complaints will be taken seriously
- written complaints will be acknowledged within 2 business days. Most complaints are handled within 20 business days however complex complaints may take longer. Where the complaint requires further attention, an update will be provided within 30 business days.
- handling of complaints will be impartial and professional
- a person making a complaint will be protected from victimisation
- principles of procedural fairness (that is, the right to be heard and the right to an unbiased decision [NESA manual pg61] will apply.

4.2 Support During the Process

- complainants may have a support person present at meetings
- clear guidelines about the support person's role will be explained at the commencement of the meeting
- a person making a complaint can request information about the progress of their complaint by contacting parentscarerssupport@parra.catholic.edu.au if no follow-up has been received after 10 days

4.3 Confidentiality

While CSPD maintains strict confidentiality in handling complaints, there are circumstances where information may need to be shared:

- when interviewing relevant parties to make inquiries about the complaint

- when required to notify external authorities (e.g., NSW Police) about potential illegal activity or Child Protection concerns
- when necessary to ensure procedural fairness.

4.4 Anonymous Complaints

While anonymous complaints will be accepted and reviewed where possible, CSPD's ability to inquire and respond may be limited without contact details. Anonymous complainants will not receive updates about actions taken.

---

## 5. Complaints Resolution Process

5.1 General Principles

- Issues are best resolved at the local school level where possible.
- The school principal is the delegated manager of the school and has the authority to make decisions about the management of students and the school, even if you disagree.
- If you have not spoken with the school principal about the matter, you will be encouraged to do so. However, complaints about the school principal or "complex matters", may be escalated to relevant CSPD support teams via parentscarerssupport@parra.catholic.edu.au
- Complaints received by CSPD will typically be referred back to the school in the first instance. If the complaint is then escalated to Heads of Performance, they will review the complaint and make inquiries with relevant stakeholders.
- Documentation relating to complaints will be maintained and kept confidential.

5.2 Raising a Complaint

Complaints can be made:

- by making an appointment via your child's school office
- in writing via the CSPD website form
- by email parentscarerssupport@parra.catholic.edu.au
- by phone to CSPD (02) 9840 5600 - where you will be forwarded to the correct CSPD support team member. (Please see Section 8 for direct support

team numbers).

5.3 Specific Types of Complaints

5.3.1 Student-related matters

For concerns about learning, homework, behaviour, bullying, wellbeing, uniform or student learning support:

STEP1. First discuss with the student's teacher

STEP2. If unresolved, raise the matter with your child's year/stage/subject coordinator

STEP3. If unresolved, meet with the Assistant Principal or Head of School (K-12 Schools)

STEP4. If still unresolved, make an appointment to speak with the school Principal

STEP5. Only once steps 1-4 have been attempted and documented, escalate to CSPD via steps in 5.2 of this guideline

5.3.2 Other School Matters

Raise directly with the school principal for issues relating to:

- Religious Education and Mission
- staff conduct
- banned substances or weapons
- suspension, transfer, and exclusion
- health & safety concerns
- student behaviour outside school
- parent behaviour
- enrolment concerns

Where your concerns have been raised to the principal and still requires an escalation, escalate to CSPD via steps in 5.2 of this guideline

5.3.3 Administrative Matters or Complaints:

- school fees/finance/hardship: Contact fees@parra.catholic.edu.au
- digital services issues (school issued devices, email accounts): Contact familyICT@parra.catholic.edu.au

## 6. Appeals Process

If you are concerned that the management of your complaint has not followed the processes outlined in this Policy, you may appeal in the following ways:

6.1 For school level appeals, you may ask for the matter to be escalated to the Head of Performance for that school. Contact parentscarerssupport@parra.catholic.edu.au

6.2 For matters not resolved by the Head of Performance, a request can be made for a review by the Executive General Manager - Quality and Performance by contacting parentscarerssupport@parra.catholic.edu.au A review will only be undertaken if processes in this document were not followed appropriately.

6.3 Appeals will be managed by someone not involved in the original inquiry and decision.

6.4 The decision of the appeal process will be provided to the complainant with that decision being final. No further correspondence will be entered into unless new information has been provided, even if the decision is not the preferred outcome of the complainant.

6.5 Complaints may be referred by the complainant to external agencies, such as the Human Rights Commission. The external agency will determine the merits of the complaint.

## 7. Related Documents

- Bullying Prevention and Response Procedure
- Banned Substances Procedures
- Banned Weapons Procedures
- Safeguarding Procedures
- Student Attendance Policy
- Suspension, Transfer and Exclusion Procedures
- Student Use of Digital Devices and Online Services Policy
- Student Wellbeing Policy

- Student Behaviour Policy
- Family and School Partnership Principles
- Enrolment Policy
- Privacy Policy

---

## 8. Further information

For further information about this Guideline or to make a complaint, please contact CSPD at parentscarerssupport@parra.catholic.edu.au or telephone (02) 9840 5651.

Community members **other than parents / carers of enrolled children** please contact CSPD at cl@parra.catholic.edu.au or telephone (02) 9840 5796.

**Link to download the Parent Complaint Form**

---

## CATHOLIC SCHOOLS PARRAMATTA DIOCESE – COMPLAINT FORM
## (This form can be used to raise a complaint)

| YOUR DETAILS | |
|---|---|
| Family name: | Given name: |
| Child's Name: | School: |
| Contact email and phone: | |

**PLEASE PROVIDE DETAILS OF THE COMPLAINT**
(Provide as much detail as possible and attach additional pages if space is insufficient. You may also attach supporting documentation)

**PLEASE PROVIDE DETAILS OF THE OUTCOME YOU ARE SEEKING**

| |
|---|
| |
| **HAVE YOU PREVIOUSLY TRIED TO RESOLVE THIS CONCERN?** |
| YES ☐ NO ☐ |

| | |
|---|---|
| If yes, when: | |
| With whom did you speak? | |
| What was the result: | |
| Date: | |

| | |
|---|---|
| **Complaint received by:** | |
| Name: | |
| Position: | |

| | |
|---|---|
| Signature: | Date: |

# 14. Annexure E – Operational Flood Emergency Management Plan

NORTHROP




# Operational Flood Emergency Response Plan

*for*

## Westmead Catholic Community GLA Building, Westmead, NSW 2145

*for* Kane Constructions Pty Ltd

SY192734 / 7 September 2026 / Version 3

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# Report details

**Project:** Westmead Catholic Community GLA Building

2 Darcy Road, Westmead, NSW 2145

**Project Ref:** SY192734_E01

**File Location:** O:\5 Pre-July 24 Projects\Sydney\2019 jobs\192734 -08 - WCC Carpark\C-Correspondence and Reports\C-Civil\Outgoing\SY192734_E01_Operational_FERSP_[3].docx

**Revision History**

| Revision | Report Status | Prepared | Reviewed | Issue Date |
|---|---|---|---|---|
| 1 | For Approval | L Gitzel | L Gitzel | 25/10/2024 |
| 2 | For Approval | L Gitzel | L Gitzel | 13/11/2024 |
| 3 | For Approval | L Gitzel | L Gitzel | 7/09/2026 |

**Limitation Statement**

Northrop Consulting Engineers Pty Ltd (Northrop) has been retained to prepare this report based on specific instructions, scope of work and purpose pursuant to a contract with its client. It has been prepared in accordance with the usual care and thoroughness of the consulting profession for the use by Kane Constructions Pty Ltd.

The report is based on generally accepted practices and standards applicable to the scope of work at the time it was prepared. No other warranty, express or implied, is made as to the professional advice included in this report.

Except where expressly permitted in writing or required by law, no third party may use or rely on this report unless otherwise agreed in writing by Northrop.

Where this report indicates that information has been provided to Northrop by third parties, Northrop has made no independent verification of this information except as expressly stated in the report. Northrop is not liable for any inaccuracies in or omissions to that information.

The report was prepared on the dates shown and is based on the conditions and information received at the time of preparation. It makes no comment or assertions on the structures or their ability to withstand flooding or flood forces.

This report should be read in full, with reference made to all sources. No responsibility is accepted for use of any part of this report in any other context or for any other purpose. Northrop does not purport to give legal advice or financial advice. Appropriate specialist advice should be obtained where required.

To the extent permitted by law, Northrop expressly excludes any liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this report.

| | | Date |
|---|---|---|
| Prepared by | LG | 07/09/2026 |
| Checked by | LG | 07/09/2026 |
| Admin | LG | 07/09/2026 |

# Flood Response Summary

The following provides a summary of the findings of this Flood Emergency Response Plan including a summary of the flood behaviour, floor levels with respect to the flood behaviour, the recommended flood response actions, and the recommended on-site and off-site flood refuge locations.

### Flood Levels

**Table 1 – Summary of Approx. Flood Levels (GLA Building)**

| Event | 5% AEP | 1% AEP | PMF |
|---|---|---|---|
| **Unnamed Creek** | 17.46 | 17.63 | 18.97 |
| **Local Catchment** | - | 20.49 | 20.59 |

### Floor Levels

**Table 2 - Internal Floor Levels**

| Floor | Level (m AHD) | Relationship to Flood Levels |
|---|---|---|
| **Ground Floor** | 20.5 | Above 1% AEP, below Local Catchment PMF |
| **Level 1** | 24.3 | Above 1% AEP and PMF |
| **Level 2** | 29.0 | Above 1% AEP and PMF |
| **Level 3** | 33.0 | Above 1% AEP and PMF |
| **Level 4** | 38.0 | Above 1% AEP and PMF |
| **Level 5** | 42.0 | Above 1% AEP and PMF |
| **Roof** | 46.0 | Above 1% AEP and PMF |

## Flood Response Actions

**Table 3 – Flood Response Actions Summary**

| WHEN | WHAT | BY WHO |
|---|---|---|
| **Prior to Flooding** | Assemble **Floodsafe Emergency Kit** | Chief Flood Warden |
| | Check Floodsafe Kit every three months | Chief Flood Warden |
| | Coordinate **Flood Emergency Response Drills** twice per year (minimum) | Chief Flood Warden |
| | Sign up and maintain **Parramatta Flood Warning Service** and **Hazards Near Me App** subscriptions. | Chief Flood Warden<br>Flood Wardens |
| | **Monitor weather situation** via BOM and Hazard Watch websites at 9am and 4pm every afternoon. | Chief Flood Warden<br>Flood Wardens |
| | **Inductions** for new Staff to include flood risk associated with the subject site and evacuation procedure. | Chief Flood Warden |
| **Site Closure (prior to opening)** | **Receive Moderate or Major Flood Warning from Parramatta Flood Warning Service**<br>And school has not yet commenced for the day. | Chief Flood Warden |
| | Make decision that School is Closed/Cancelled | Chief Flood Warden |
| | Notify parents via **NSW Education Parent App (or equivalent)** and instruct to keep children at home. | Chief Flood Warden |
| **Complete Site Closure (Evacuation)** | **Receive Moderate or Major Flood Warning from Parramatta Flood Warning Service.**<br>School **has commenced** for the day and sufficient warning **time is available for evacuation** prior to rainfall. | Chief Flood Warden |
| | **Activate evacuation procedure and alert over the PA System.** | Chief Flood Warden |
| | **Make decision to Close facility and evacuate**<br>**Initiate Closure Procedures.** | Chief Flood Warden |
| | Flood wardens to coordinate alternative supervision of class and proceed to Emergency Assembly Point to receive instruction from Chief Flood Warden. | Staff<br>Flood Wardens |
| | Communicate site closure to all users. This may be via radios / loudspeaker. Chief Flood Warden to notify Flood Wardens. Flood Wardens to notify remaining staff members onsite. | Flood Wardens |
| | Notify parents via NSW Education Parent App (or equivalent) | Staff |
| | All staff and students onsite to be sent home and parents to be notified to collect. | All |

| | | |
|---|---|---|
| | **Notify expected visitors** to not attend the site and to remain where they are / seek refuge in accordance with advice from emergency services. | Chief Flood Warden |
| | **Continue to monitor** flood warnings in case flood conditions worsen. If conditions worsen quickly, evacuation should cease, and onsite refuge be sought. | Chief Flood Warden |
| **Onsite Refuge** | **Receive Moderate or Major Flood Warning from Parramatta Flood Warning Service.**<br>Rainfall has commenced and / or insufficient time to evacuate and / or unable to return home. | Chief Flood Warden<br>Flood Wardens |
| | **Activate on-site refuge procedure and sound the alert over the PA System.** | Chief Flood Warden |
| | Make decision to Close facility and seek refuge onsite | Chief Flood Warden |
| | Flood wardens to coordinate alternative supervision of class and proceed to Emergency Assembly Point to receive instruction from Chief Flood Warden. | Flood Wardens |
| | Communicate site closure to all users. This may be via radios / loudspeaker. Chief Flood Warden to notify Flood Wardens. Flood Wardens to notify remaining staff members onsite. | Flood Wardens |
| | Notify parents via NSW Education Parent App | Staff |
| | Staff and students to on Ground Floor Level to proceed into upper levels (Level 1 and above).<br>Remaining staff, students and visitors to remain in upper levels of the facility (Level 1 and above). | Staff |
| | Ground floor flood wardens to **Ground Floor.** | Flood Warden |
| | Perform **Roll Call** and confirm all students are accounted for. | Staff |
| | Seek refuge within the upper levels of the facility. Do not attempt to gain access to lower levels and do not attempt to use lifts. | All |
| | Notify the Police & SES of the decision to close the facility and remain on-site. | Chief Flood Warden |
| | **Maintain regular communication with staff, students and visitors** | Chief Flood Warden |
| | **Wait it out at nominated refuge point** until flood water subsided. | All |
| | **Do not attempt to exit the facility or to walk or drive through floodwater. If stranded on-site and water inundates floor level, call 000 immediately.** | Chief Flood Warden |
| **Once Risk has Passed / After a Flood** | Check all services and structural stability of building. | Qualified persons |
| | Return to operation. | Chief Flood Warden |

## Key Personnel

**Table 4 – Key Personal Summary**

| Person Organisation | Name | Number |
|---|---|---|
| Chief Flood Warden | | |
| Deputy Flood Warden | | |
| First Aid Officer | | |
| SES | - | 132 500 |
| Police / Fire / Ambulance | - | 000 |

## On-site Emergency Assembly Point




**Figure 1 – Level 2 Emergency Assembly Point**

# Introduction

Northrop Consulting Engineers have been engaged by Kane Constructions Pty Ltd to prepare an Operational Flood Emergency Response (OFERP) for the proposed Westmead Catholic Community GLA Building located at 2 Darcy Road, Westmead (the subject site).

This report has been prepared in response to the Condition of Consent E38, reproduced in Table 5 below.

Table 5 - Condition E38 and Report Response

| Item | Condition | Response |
|---|---|---|
| a) | Is to be prepared by a suitably qualified and experienced person(s); | This report has been prepared by Northrop Consulting Engineers, Senior Flood Engineer.<br>The author of the report is provided in the Revision History table above. |
| b) | Address the provisions of the Floodplain Risk Management Guideines (EESG); | This report has been prepared with consideration of the latest NSW Flood Risk Management Manual (2023), in particular in particular the Support for Emergency Management Planning Guideline (EM01). |
| c) | Includes details of:<br>i. The flood emergency responses for operational phase of the development including closure of the facility if extreme weather prevails;<br>ii. Predicted flood levels<br>iii. Flood warning time and flood notification<br>iv. Assembly points and evacuation routes<br>v. Evacuation and refuge protocols; and | i. Flood Emergency Response Actions are outlined in the Flood Response Actions section of this report.<br>ii. Predicted flood levels are outlined in the Flood Behaviour section of this report.<br>iii. Flood warning time and flood notification is outlined in the Flood Behaviour and Flood and Evacuation Warnings sections of this report.<br>iv. Assembly points and evacuation routes are outlined in the Emergency Assembly Point and Floor Levels and On-Site Refuge sections of this report.<br>v. Evacuation and Refuge protocols are outlined in the Flood Response Actions section of this report |
| d) | Awareness training for employees, contractors and visitors | Awareness and training for employees, contractors and visitors is outlined in the Flood Response Preparation Sections of this report. |

## Related Reports / Documents

This OFERP has been prepared with consideration to:

- The NSW State Flood Plan (SES, 2024);
- NSW Flood Risk Management Manual (2023), in particular in particular the Support for Emergency Management Planning Guideline (EM01);
- The NSW Shelter-In-Place Guidelines for Flash Flooding (DPHI, 2025);
- Parramatta Local Emergency Management Plan (NSW Gov, 2023);
- Parramatta LGA Flood Emergency Sub Plan (SES, 2021);
- City of Parramatta Council Development Control Plan 2023 in particular Part 5 Environmental Management – Section 5.1.1 – Flood Warning and Emergency Response Planning;
- Flood Assessment Report prepared by Northrop Consulting Engineers and dated 24th of November 2024 [Revision A]; and
- City of Parramatta Council Flood Certificate (FL/82/2024).

## Terminology

It is important to note that the flood events discussed herein are rare to extreme events which are not expected to occur every time it rains. Typical flood events discussed herein are summarised as:

- The 1% Annual Exceedance Probability (AEP) Design Storm Event commonly referred to as the "100-year flood event";
- The PMF or Probable Maximum Flood which has a nominal Annual Exceedance Probability (AEP) of 1 in 10 million.

Note that, although the common terminologies for these events suggest they may occur only once every 100 years, there is the possibility that they may occur multiple times a year. The latest guidance suggests the use of a probability (i.e. percentage) is more appropriate for these events (i.e. 1% AEP rather than a 100-year event) to avoid complacency and misunderstanding of the likelihood of these events. As such, this report has adopted the latest terminology however, the above definitions are provided to assist with understanding the scale of the events discussed.

This Flood Emergency Response (FERP) has been prepared to:

- Promote satisfactory awareness of expected flood behaviour and flood risks associated with the subject site.
- Nominate roles and responsibilities when preparing for and responding to a flood emergency.
- Identify measures to monitor weather forecasts and highlight warning systems available.
- Provide education and awareness material for training programs with respect to flooding of the subject site.
- Identify potential evacuation and evasion procedures including evacuation routes and flood refuge opportunities.

Contained herein is a description of the subject site, study methodology and information used to prepare this report, a summary of the likely flood behaviour, recommendations for flood preparation and recommended response actions during a flood event.

# Subject Site

The subject site is located at 2 Darcy Road, Westmead, otherwise known as the 'Westmead Catholic Community School. The focus of this report is the GLA building which is located in the north-western portion of the subject site.

The subject site is burdened by an unnamed creek that travels along the western boundary of the site, flowing in a northerly direction across Darcy Road before ending at its confluence with Toongabbie Creek. Flows are derived by the upstream Westmead catchment which extend south of the subject site, towards M J Bennet Reserve and the Great Western Motorway.

A subject site locality plan is presented below in Figure 2.

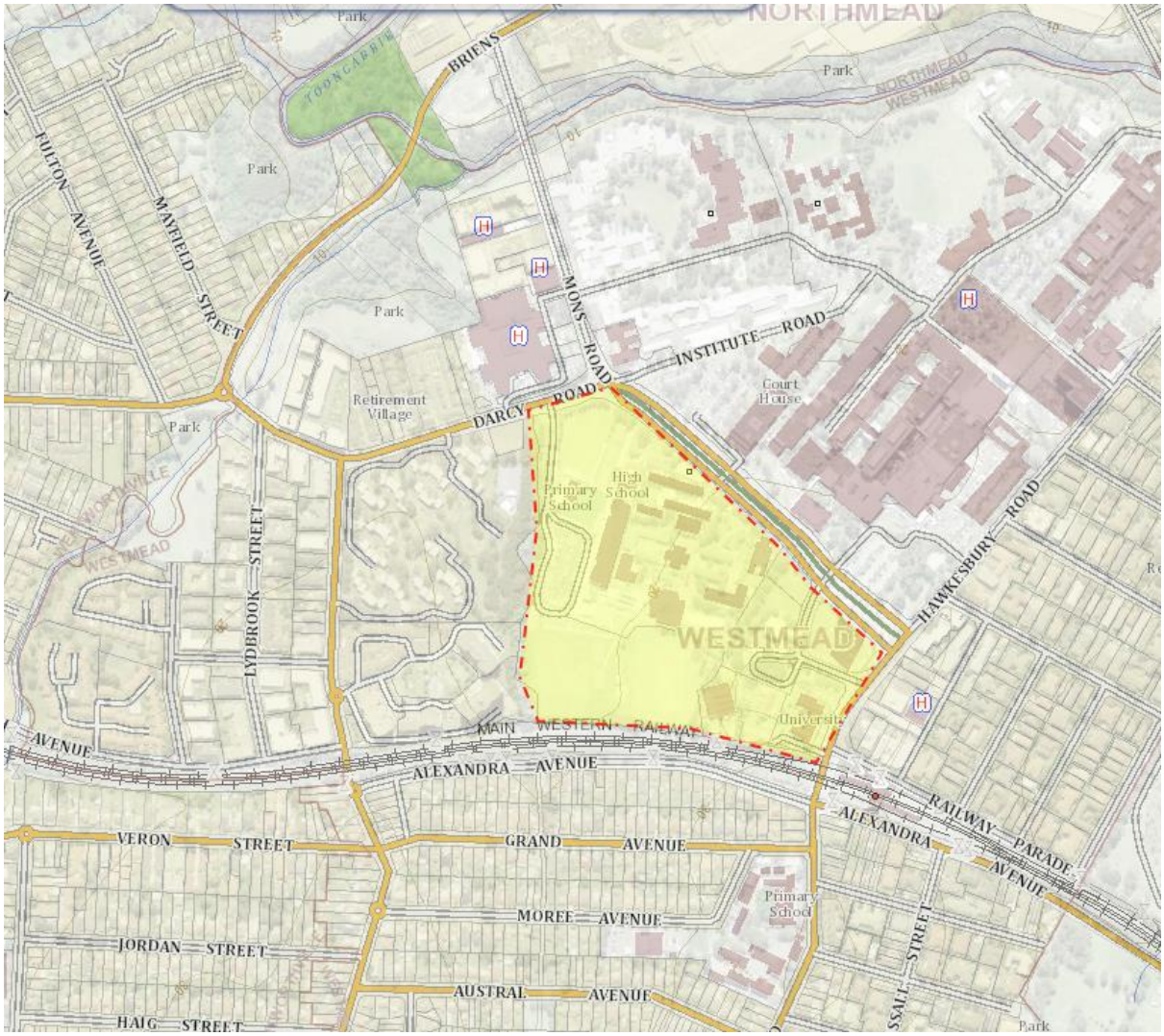



**Figure 2 - Locality Plan (obtained from SIX Maps www.maps.six.nsw.gov.au)**

# Methodology and Available Data

This plan was developed based on the flood information contained within the City of Parramatta Council Flood Certificate (FL/82/2024) dated the 19th of April 2024. Additional information with respect to the flood behaviour for the subject site has been obtained from the following locations:

- Flood Assessment Report prepared by Northrop Consulting Engineers and dated 24th of November 2024 [Revision A].
- Parramatta River Flood Study prepared by Stantec and dated the 13th of June 2024.
- Council's Online interactive flood information portal (https://www.cityofparramatta.nsw.gov.au/environment/floodsmart-parramatta/know-your-flood-risk

The expected flood behaviour for the subject site is based on the above flood information and is summarised in the **Flood Behaviour** section of this plan.

A review of the Bureau of Meteorology (BoM) and State Emergency Service (SES) guidelines and Parramatta Council Website have been undertaken to report on the likely warning types described in the **Flood and Evacuation Warnings** section of this plan.

Consideration has been given to the personnel most likely to be on-site and responsible for flood emergency response. This is outlined in the **Flood Response Personnel** section of this plan.

Analysis of the site and nearby topography, in combination with the likely flood behaviour has informed the assembly points, evacuation routes and on-site refuge points nominated in the **Assembly Point and Evacuation Routes** and **Floor Levels and On-site Refuge** sections of this plan.

Contact numbers for relevant emergency response agencies and the proposed local evacuation centre are noted in the **Emergency Contact** section of this plan.

Finally, a review of the City of Parramatta Council Development Control Plan and aforementioned flood studies, NSW State Flood Plan, Emergency Business Continuity Plan and the NSW Shelter-In-Place guidelines (DPHI, 2025) have contributed to the recommended preparation and response actions outlined in the **Flood Response Preparation** and **Flood Response Actions** sections of this plan.

# Flood Behaviour

## Flood Source and Behaviour

The subject site is affected by flooding by two mechanisms namely; An unnamed creek that travels along the western boundary and the local catchment. These mechanisms as well as their related flood behaviour is summarised in the below sections of this plan.

### Unnamed Creek

The unnamed creek travels along the western boundary of the site, flowing in a northerly direction across Darcy Road before ending at its confluence with Toongabbie Creek. Flows are derived by the upstream Westmead catchment which extend south of the subject site, towards M J Bennet Reserve and the Great Western Motorway.

During the 1% AEP and PMF deep fast flowing flood water is expected in the unnamed creek along the western boundary. During these events, there is also the potential for overland flooding across the site which is presented by the Local Catchment mechanism.

### Local Catchment

The Local Catchment mechanism is congruent with overland flows which are derived largely from the subject site.

The local catchment extends east of the GLA towards Western Sydney University and Darcy Road and includes the majority of the college. Flows derived by the upstream catchment continue across the college in a westerly direction across the landscaped areas before connecting into the unnamed creek to the west.

Due to the high urbanisation of the upstream catchment, a quick response time is expected following commencement of rainfall. The Parramatta River Flood Study (Stantec, 2024) suggests that the critical duration in the vicinity of the subject area ranges from the 15 minutes to one-hour duration and as such, the peak is expected to occur within an hour, following the commencement of rainfall.

It is important that users of the facility do not attempt to evacuate during the peak of these events as there is the potential for hazardous flow behaviour on the subject site and across the regional road network.

## Peak Flood Levels, Depth and Velocities

### Unnamed Creek

Peak flood levels and extent across the site have been obtained from the City of Parramatta Council Flood Certificate (FL/82/2024). The below **Figure 3** presents the 5%, 1% AEP and PMF design storm events and levels.

Peak flood levels in the vicinity of the GLA can be summarised by Cross Section 1394 as summarised by the City of Parramatta Council Flood Certificate (FL/82/2024). These are reproduced in **Table 6** below.

**Table 6 – Peak Flood levels**

| Event | Flood Level (m AHD) |
|---|---|
| 5% AEP | 17.46 |
| 1% AEP | 17.63 |
| PMF | 18.97 |

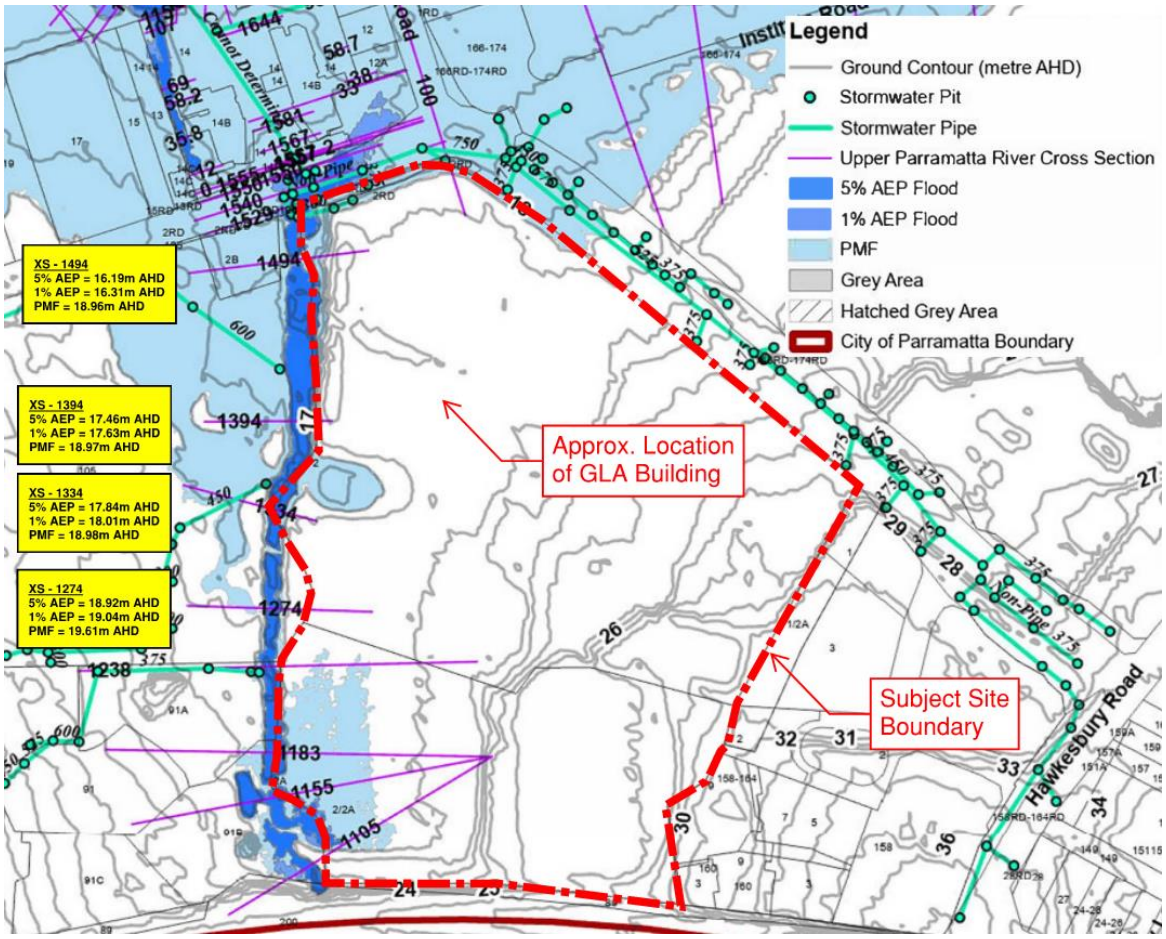



**Figure 3 - Flood Extents and Levels**

It is possible evacuation from the site may be possible during the 1% AEP and PMF during this, although it is not recommended. There is the potential for the broader regional road network to be compromised during these flood events and as such, remaining on site will reduce the risk of the users getting trapped in flood water.

### Local Catchment

Maximum modelled water depth and elevation maps for the 1% AEP and PMF design storm events are presented in Figures C1-1 and C3-1 of Appendix A, respectively.

Figure C1-1 of Appendix A show relatively shallow flood depths (< ~0.1m) across the subject site during the 1% AEP with the exception of some isolated patches of approximately 0.3m observed. This suggests, flows are largely sheet flow across the subject site during the 1% AEP.

During the PMF, Figure C3-1 shows flood depths across the GLA and Parish up to approximately 0.3m.

Flow velocities during the 1% AEP are shown in Figure C1-2 and suggest relatively low velocities are expected with generally less than 0.5m/s expected across the GLA and Parish areas.

## Flood Hazard and Risk to Property and Life

### Unnamed Creek

The City of Parramatta Council Flood Certificate (FL/82/2024) presents the expected flood behaviour at the subject site.

Hazard categories are based on the categories presented in the Floodplain Development Manual (DPHI, 2005), in particular the Provisional Hazard Categorisations presented in the below **Figure 4**.

Note that low hazard is typically considered safe for large vehicles (not small) while high hazard becomes dangerous for buildings, potentially impacting structural capacity for standard construction methods.

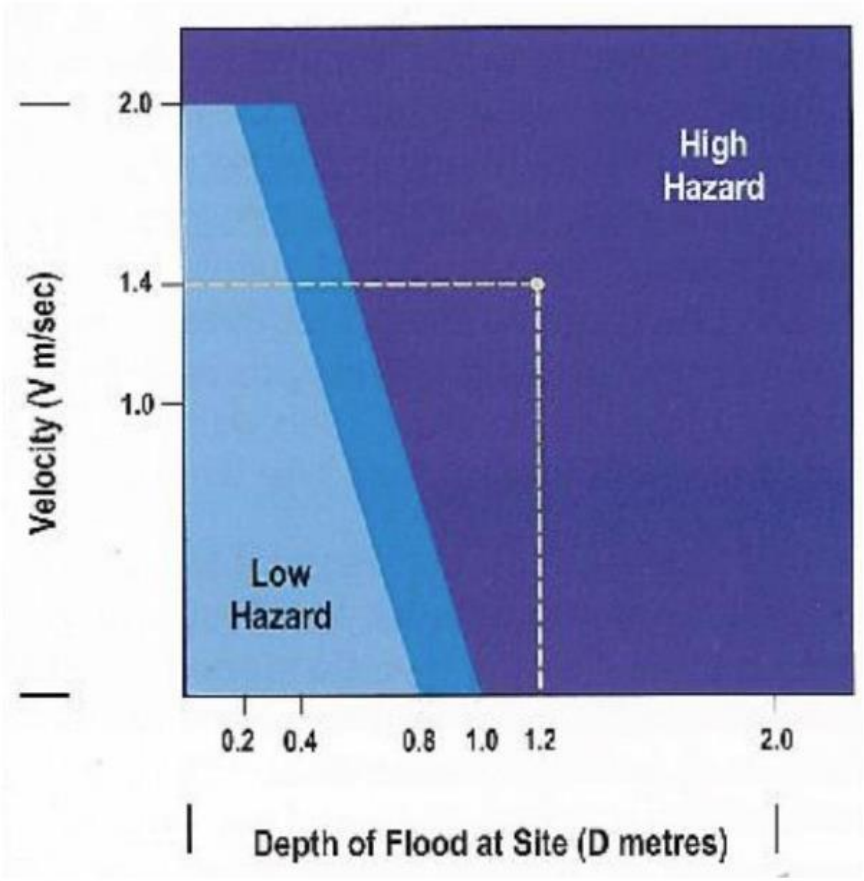



**Figure 4 - Flood Hazard Categories (FPDM, 2005)**

The following Figure 5 presents the flood hazard conditions provided in the Parramatta Council Flood Certificate (FL/82/2024). Note that, these hazards represent the 1% AEP design storm only, and increased hazard conditions are expected during the PMF.

**Never attempt to travel through flood water.**

**If it is Flooded – Forget it**

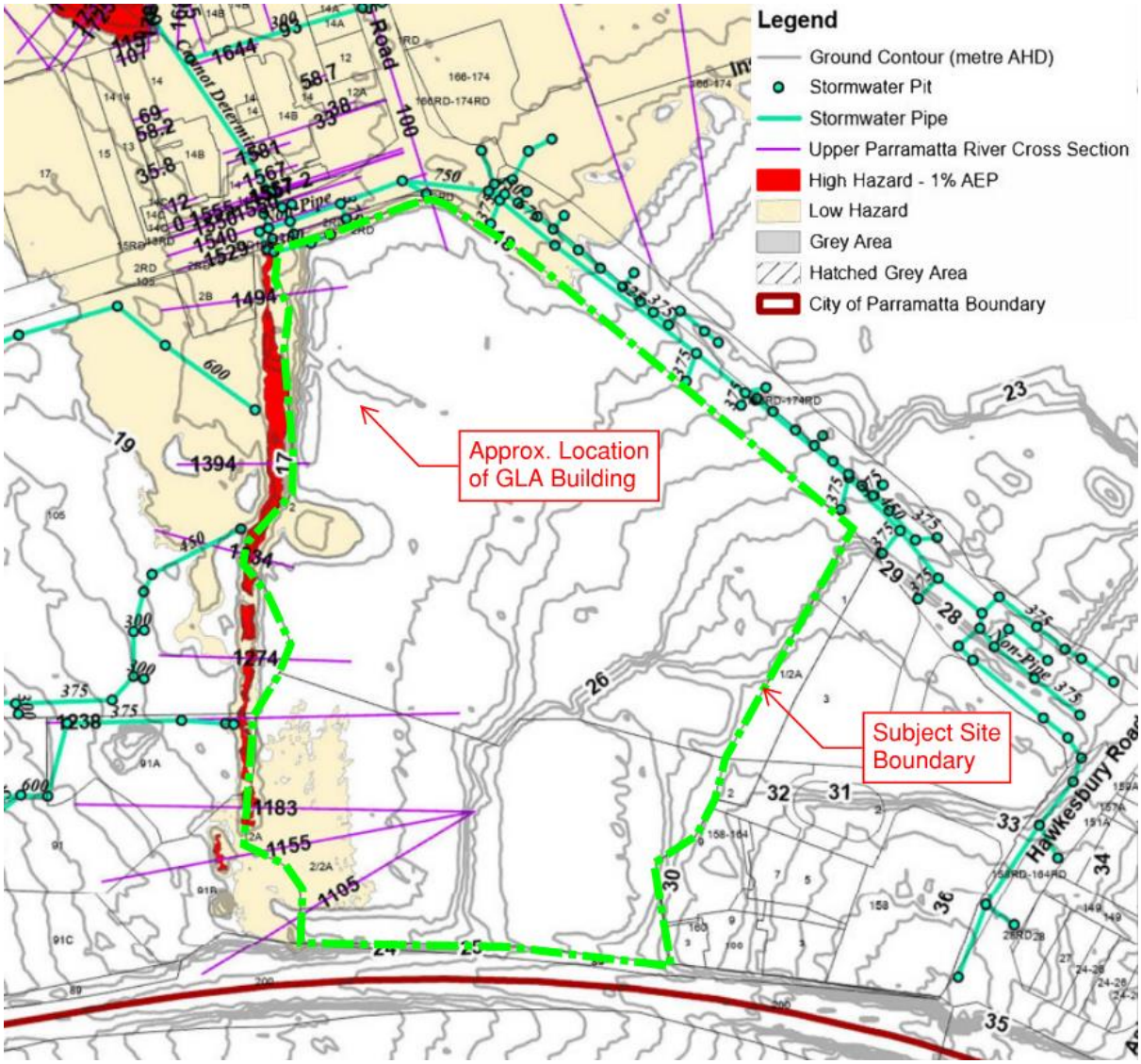



**Figure 5 - Flood Hazard Map**

### Local Catchment

For the Local Catchment mechanism, flood hazard has been based on the latest AR&R 2019 hazard categories as presented in **Figure 6** below. Flood hazard conditions for the 1% AEP and PMF are presented in Figures C1-3 and C3-3 of Appendix A, respectively.

Figures C1-3 and C3-3 suggest hazard conditions are generally safe for pedestrians and vehicles with primarily H1 hazard conditions observed in the vicinity of the GLA building during both the 1% AEP and PMF design storm events.

Note the presence of H5 hazard conditions in Darcy Road, which suggests access / egress to and from the site may become difficult during the 1% AEP and PMF design storm events.

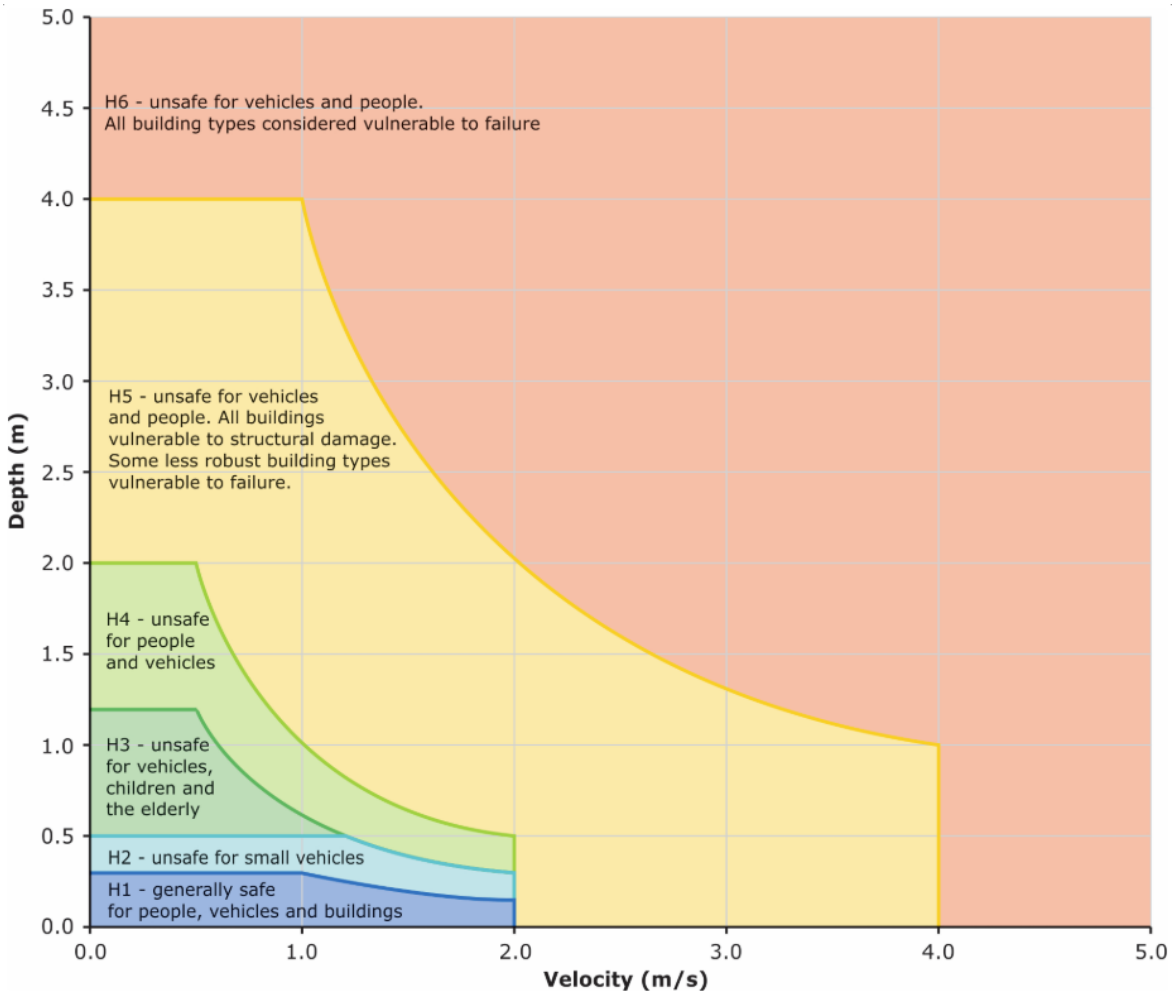



**Figure 6 - Australian Rainfall and Runoff (2019) Hazard Categories**

# Flood and Evacuation Warnings

A network of rainfall gauge stations is maintained throughout the greater Sydney region. These provide information to the Bureau of Meteorology (BoM) as one source of information informing their flood warning system.

The Bureau should issue one of five types of warnings through local radio, television and through their website *http://www.bom.gov.au*. In addition, the SES may issue a flood bulletin, evacuation warning or evacuation order.

Due to the sensitive nature of this location, it is recommended the nominated Chief Flood Warden register for automatic text and email notifications from Council's FloodSmart Parramatta flood warning system. In addition, the Hazards Near Me App and Bureau of Meteorology Weather App / Website provides information for current flood warnings

## Bureau of Meteorology

### Severe Weather Warning

Severe weather warnings are issued by the Bureau for potentially dangerous weather conditions. A description of the threat will be included in the warning along with the time for next issue. It is noted that a severe weather warning does not imply that flooding will eventuate. Warnings are generally updated every six hours, or as the event dictates.

This type of warning should be accompanied by a predicted rainfall depth and storm period as discussed in the Flood Response section. They are also accompanied by observed rainfall values from rainfall that has already occurred across the state.

### Severe Thunderstorm Warning

A severe thunderstorm warning will be issued if there is strong evidence that a severe thunderstorm will develop, or if a severe thunderstorm is reported. Flash flooding may occur during severe thunderstorms. Warnings are generally updated every three hours or shorter as required.

### Flood Alert / Watch / Advice

A flood alert / watch / advice is one of the earliest warnings that will be issued by the BoM with advice provided up to four days in advance of the expected onset of flooding (BoM). Although four days warning may be available, they are also occasionally issued during and after the rainfall has occurred, depending on the level of maturity of the flood warning systems and services (BoM).

### Generalised Flood Warning

A generalised flood warning is typically more specific than the Flood Alert / Watch / Advice and is issued when flooding is expected to occur in a given area. Three hours warning time is expected from issue of warning to peak flood level as per the "Service Level Specification for Flood Forecasting and Warning Services for New South Wales – Version 3.16" (Bureau of Meteorology, 2025).

### Minor / Moderate / Major Flood Warning

A Minor / Moderate / Major Flood Warning typically provides more information than a generalised flood warning and is issued when flooding is expected to occur in a given area. These warnings are usually accompanied by a flood gauge level and timing for the peak to occur.

More detailed flood warning may be issued based on any additional information available. Three hours warning time is expected from issue of warning to peak flood level.

## SES Flood Bulletins

The SES distributes Emergency Bulletins to media outlets and agencies in the event of predicted hazardous conditions. The SES Flood Bulletins may contain the following information:

- Current warnings, together with indications of the likely impact of flooding at any predicted heights.
- Current flood heights and flood behaviour.
- Details of conditions and closures of main roads, and
- Advice on safety matters and means of protecting property.

The NSW SES will issue three levels of warnings.

### Advice

This is typically the first alert that will be issued by the SES and indicates a flood or severe weather event may develop. Stay up to date with SES / BoM warnings and monitor conditions in case the situation changes.

### Watch and Act

The SES will issue a Watch and Act warning when flood conditions are changing and the purpose of this warning to prepare for evacuation / isolation or avoid the area that is expected to impact by flooding.

### Emergency Warning

Emergency warnings issued by the SES indicate the highest level of warning. These are issued typically if evacuation or refuge is required.

If this alert is received, move to the emergency assembly point to receive instruction from the Chief Flood Warden.

All warnings will be issued through the SES/BOM website, radio and television. All public and commercial television stations should broadcast warnings.

## Other Warning Types / Resources

### On-Site Emergency Communication

The PA system is recommended it be configured to sound an emergency tone meaning all staff, students and visitors are to respond to the flood emergency. The tone will be tested every three months as a minimum.

Should a PA system be unavailable or inoperable in the event of an emergency, an air horn and handheld loudspeaker is located within the Flood Emergency Kit. These will be used to obtain people's attention and direct them to the emergency assembly point or facilitate evacuation offsite.

### Standard Emergency Warning Signal

This signal may be played over radio and television stations to alert communities to Evacuation Warnings Evacuation Orders or Special Warnings or Dam-Failure Warnings.

### Early Warning Network Automated Text and Email Services

The Early Warning Network (www.ewn.com.au) filters the above BoM warnings and send texts and emails to notify registered users of an emergency situation.

### Hazards Near Me NSW

The NSW SES and NSW Public Works have created a tool called Hazards Near Me App NSW which is both a webpage and Phone Application. The application filters BoM and RFS warnings relevant to the user and may be used by the Chief Flood Warden as an additional resource. The Application is free and allows the user to input a radius of interest for receiving notifications.

### Hazard Watch

Similar to the Hazards Near Me phone application, the NSW SES and Australian Federal Government have prepared the HazardWatch portal that filters BoM warnings and provides advice on locations and magnitude of predicted hazards. This resource is also free and can be accessed via a smart phone, tablet or laptop.

### NSW Education Parent App

This app can be downloaded through Google and Apple app stores and is intended to be used as a tool to disseminate warnings and notifications around impending extreme weather, or around temporary shelter within school buildings during events in progress. A link to the app is provided below: https://education.nsw.gov.au/about-us/technology/nsw-education-parent-app

For Private Schools, the equivalent parent app should be used to disseminate warnings.

## City of Parramatta Council Warning Systems

### City of Parramatta Council Alerts Dashboard

The City of Parramatta Council also provides an Alerts Dashboard which provided real-time updates on current emergencies. In addition to flood emergencies, the Dashboard provides advice with respect to Road conditions and closures, weather warnings, power outages, fires etc. A link to the Dashboard is provided below:

https://cityofparramatta.nsw.gov.au/alerts-dashboard

It is recommended that the dashboard be reviewed before evacuating the site to gain advice with respect to current road conditions and closures.

### FloodSmart Automatic Warning Service

The City of Parramatta Council offers a free flood warning service the provides early warning messages to residents and businesses within the LGA identifying when flooding may be likely. The service uses the Early Warning Network to coordinate warnings as previously mentioned. It is recommended the Chief Flood Warden and staff register for this service as it is to be used as the primary warning system for the purposes of evacuation.

https://www1.ewn.com.au/parramatta/register.aspx

The warning service is broken up into ten warning areas that cover different communities within the Local Government Area. These ten warning areas are outlined presented in the below Figure 7.

It is recommended that the Chief Flood Warden register to receive warnings provided in the Lower Toongabbie and Wentworthville area (Location 3) and the Westmead and North Parramatta Area (Location 4). These warning areas are the two closest zones to the site and flood warnings issued in these areas are expected to remain appropriate for the subject site.

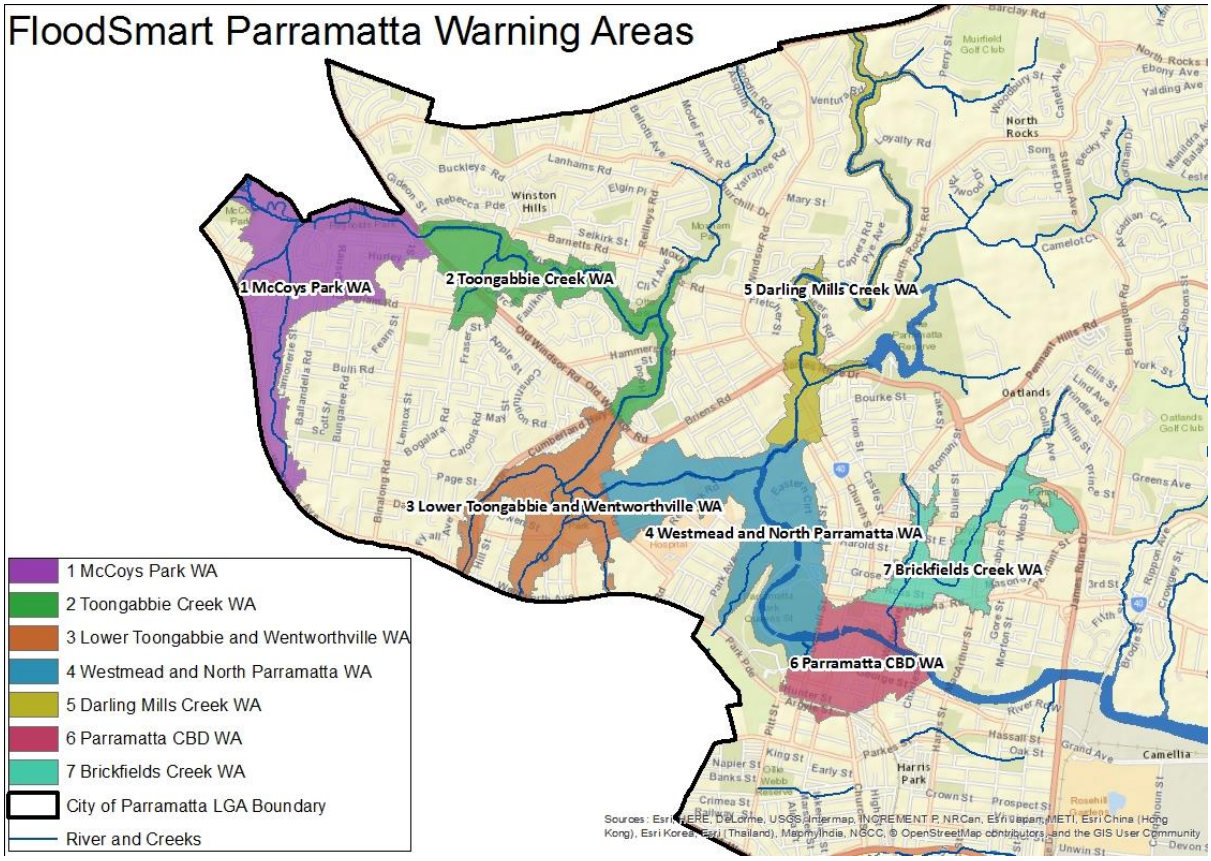



**Figure 7 - FloodSmart Parramatta Warning Zones (COPC, 2026)**

A summary of the warning types that are expected to be issued by Council's flood warning network is presented in the below Figure 8.

| | |
|---|---|
| **Public information message** | **(Parramatta CDB Riverside area only)**<br>Footpaths and footbridges may be flooded - please use alternative travel routes |
| **Minor Flood Warning**<br>• High risk areas may experience property flooding. | **Local area conditions**<br>• Risk to life from fast flowing or deep water near the river or creek<br>• Closure of roads most at risk of flooding<br>• Flooding of land near rivers, creeks, low spots and recreational areas<br>• Water levels may be high for many hours |
| **Moderate flood warning**<br>• High and Medium risk areas may experience property flooding. | **Local area conditions**<br>• High risk to life from fast-flowing or deep water near the river or creek<br>• Closure of many bridges and roads<br>• Widespread flooding in areas not necessarily near the river<br>• Water levels may be high for many hours |
| **Major flood warning**<br>• High, Medium and Low risk areas may experience property flooding | **Local area conditions**<br>• Damage is possible to buildings and infrastructure<br>• Extreme risk to life from fast-lowing deep water even in areas not near the river or creek<br>• Closure of many bridges, roads and transport routes<br>• Widespread deep flooding in many areas not necessarily near the river<br>• Water levels may be high for many hours |
| **No Further Impact** | **Local Area Conditions**<br>The local conditions should now be improving:<br>• No further flooding is expected in the next 12 hours<br>• Flood levels will continue to drop<br>However:<br>• There may still be dangerous fast flowing water near the river or creek<br>• Debris and contamination may still cause problems in areas that have been flooded |

**Figure 8 - Flood Warning Types (COPC, 2023)**

# Flood Response Personnel

Summarised in Table 7 below are the facilities nominated emergency personnel, their location and responsibilities in managing flood response.

**Table 7 - Flood Response Personnel**

| | Location | Responsibilities |
|---|---|---|
| **Chief Flood Warden (Principal)** | On-site | • Coordinate flood evacuation drills.<br>• Monitor weather at 4pm daily for upcoming extreme rainfall events.<br>• Receive notifications from the City of Parramatta Council Flood Alert Service.<br>• Decide when Cancellation of activities or Evacuation / Refuge is required.<br>• Communicate Cancellation and Evacuation / Refuge to staff, students and visitors.<br>• Liaison with SES or Emergency Services personnel if they attend site.<br>• Remain calm and direct visitors and staff through the evacuation procedures. |
| **First Aid Officer** | On-site | • Prepare and maintain Flood Emergency Kit.<br>• Prepare and coordinate assistance for staff, students and visitors with mobility difficulties. |
| **Deputy Chief Flood Warden** | On-Site | • Undertake Chief Flood Warden duties when Chief Flood Warden is unavailable.<br>• Maintain calm and direct staff and visitors through the evacuation process. |
| **Flood Wardens** | On-Site | • Assist Chief and Deputy Chief Flood Warden with evacuations. |
| **Staff** | On-site | • Maintain calm and direct visitors onsite through evacuation or refuge processes. |

It is anticipated the Principal, or a staff member who is in charge of emergencies and evacuation at the site will be nominated the role of Chief Flood Warden.

A staff member who is on-site on a regular basis, with first aid training should be nominated the role as the First Aid Officer. Similarly, staff members who are on-site on a regular basis should be nominated the role of Deputy Chief Flood Warden and general Flood Wardens.

It is recommended that at least one Flood Warden is assigned in each level and section of the facility. A learning support teacher (or similar) should be made available to Flood Wardens during a flood emergency to supervise students and enable the Flood Wardens to move around the upper levels of the facility if required. All remaining staff are to assist the Flood Wardens with Evacuation / Refuge during a flood emergency.

# Emergency Assembly Point

The following Figure 9 presents the nominated **Emergency Assembly Point** for flooding as the **Covered Outdoor Space on Level 2.** Once a learning support officer (or similar) has taken control of their class, all Flood Wardens are to proceed to this location to receive instruction from the Chief Flood Warden.

In the event where a learning support officer (or similar) is not available, the Chief Flood Warden is to convey instructions via the handheld walkie talkies that will be available in each Flood Emergency Kit.

All remaining staff, students and visitors on-site following declaration of an emergency should remain in place until instruction is received from the Chief Flood Warden / Flood Wardens.

It is the responsibility of the Chief Flood Warden to activate the evacuation procedure with all staff, students and visitors to evacuate early, prior to rainfall commencing. If rainfall has commenced, refuge within Level 1 and above is to be sought on-site.




**Figure 9 - Flood Emergency Assembly Point Level 2 (Alleanza, Sept 2024)**

# Floor Levels and On-Site Refuge

## Floor Levels

The proposed GLA building has six floors (1 ground floor and five upper levels). The level of each floor is presented below in Table 8. The floor levels with respect to the 1% AEP and PMF flood events are also presented in the below Table 8.

**Table 8 - Internal Floor Levels**

| Floor | Level (m AHD) | Relationship to Flood Levels |
|---|---|---|
| **Ground Floor** | 20.5 | Above 1% AEP |
| **Level 1** | 24.3 | Above 1% AEP and PMF |
| **Level 2** | 29.0 | Above 1% AEP and PMF |
| **Level 3** | 33.0 | Above 1% AEP and PMF |
| **Level 4** | 38.0 | Above 1% AEP and PMF |
| **Level 5** | 42.0 | Above 1% AEP and PMF |
| **Roof** | 46.0 | Above 1% AEP and PMF |

## On-Site Refuge

In the event where rainfall has commenced or staff, students and visitors become trapped on-site, refuge may be sought on-site as a means of last resort. In the event where refuge onsite is required, all staff and students are to remain within the facility on Level 1 and above.

Staff, students and visitors located within the Ground Floor Level are to proceed into the upper levels of the facility and are to remain in the upper levels of the facility for the duration of the flood emergency. It is recommended a flood warden or staff member be located at each access point into the lower levels of the facility to ensure no one attempts access during a flood emergency.

Lifts should also not be used during a flood emergency. There is the potential for power to be cut to the facility during major and extreme weather events and therefore the potential for people to become trapped. Access to the lifts should be restricted during a flood event.

It is recommend that staff, students and visitors stay within classrooms once rainfall has commenced or if evacuation is impractical. Levels 1 and above are sited is sited at an elevation of 24.3m AHD, approximately 5.33m above the worst case PMF.

Should you become isolated on-site, proceed to **Level 1** or above and do not try to evacuate by foot or vehicle and never enter rising flood water.

**Call the SES on 132 500 if emergency supplies are getting low, or 000 if in a life-threatening situation.**

**Remember if its flooded, forget it.**

### Emergency Provisions for Essential Services

It is recommended the following contingency measures be implemented and maintained to facilitate on-site refuge:

- Staff with first aid training on-site at all times during operation.
- Supply of medicines, non-perishable food items and bottled water to withstand isolation for 12 hours.
- Provision for backup generator/s in the event of loss of power.
- Back up provisions in the event where water supply and sewage services are temporarily unavailable.

## Do not Drive or Walk through Floodwater.

## Remember, If It's Flooded, Forget It!

# Emergency Contact

For emergency assistance during flood events, please call the **SES** on **132 500.**

If you are in a life-threatening situation please call **Police, Fire or Ambulance** on **000.**

For road blockages, fallen trees and other local asset issues, please call **The City of Parramatta Council's Hotline** on (02) 9806 5050 or 1300 617 058.

# Flood Response Preparation

It is the responsibility of the Chief Flood Warden to prepare the facility for a flood event. This will be achieved through; induction training provided by the operator, nomination of flood wardens, education of flood risks and behaviour, and the preparation and maintenance of a *Floodsafe Emergency Kit.*

The information presented above is a summary of the flood behaviour and considered key to understanding the risks associated with flooding. This should be displayed in conjunction with other emergency information (such as fire, etc.) throughout the facility.

### Induction training

Induction training is recommended for all new Staff which is to occur on the first day of employment. Induction training should include a site walkover that identifies the expected flood behaviour. The emergency procedures, namely points of assembly and refuge, are also to be relayed to staff during this induction training as well as all additional information contained within this plan.

Records should be kept which detail who has had the training, when they were trained, the name of the trainer as well as reference to the material used in the training course.

### Flood Emergency Response Drills

Evacuation drills are designed to increase flood awareness within the centre. These drills are to be undertaken twice per year to familiarise staff and facility users of the procedures when responding to a flood event.

It is also an opportunity to outline expected flood levels and dangers of entering flood water. The following link can be used as a resource for evacuating staff, students and visitors that are mobility impaired: https://www.ses.nsw.gov.au/floodsafe/what-floodsafe-means-for-you/mobility-impaired/.

For new staff it is expected they will be made familiar with the site flooding conditions and made familiar with the emergency procedures and response during the initial site induction.

### Floodsafe Emergency Kit

Although the storm event may only last a couple hours, there is the potential for flood water to remain for a longer period following completion of rainfall. As such, enough resources should be contained in the Flood Emergency Kit to ensure anyone trapped on site has enough supplies for up to 24 hours. In the event were resources are getting low, the SES may be contacted to provide a re-supply/evacuation from the facility.

Potential items for a flood emergency kit are outlined at; https://www.ses.nsw.gov.au/floodsafe/prepare-your-home/emergency-kit/. Items outlined on the SES website and some additional items are presented below:

- Drinking water, medicines and non-perishable food items.
- A copy of the facilities emergency management plan.
- Chemical register.
- Air horn and hand-held loudspeaker.
- Portable radios with spare batteries.
- Torches with spare batteries.
- Lanterns with spare batteries.

- Two-way radio with spare batteries.
- A first aid kit.
- Candles and waterproof matches.
- Waterproof bag for valuables.
- A copy of emergency numbers.

When leaving or evacuating add the following items:

- **Register** of Staff, Students and Visitors on-site.
- **Sign in book** for visitors and contractors.
- **Individual Health Care Plans** including asthma puffers, diabetes medication, epi pens, etc.
- **Drinking water** and **non-perishable food items**.

Individual kits should be kept in each classroom in a roll trolley suitable for easy deployment in the event of an evacuation / refuge. The contents of the kit and management during a flood event will be the responsibility of each **Flood Warden / Chief Flood Warden**.

It is essential that the items recommended for the Floodsafe Emergency Kit be maintained to ensure those seeking refuge on-site are as comfortable as possible during a flood event.

**TRIGGER FOR REVIEW AND EDUCATION:**

- Three monthly checking of the emergency kit to ensure all items are in suitable working order.
- Six monthly evacuation drills and reminder of the flood risks.
- Inductions for new staff, highlighting the flood risk associated with the subject site.

**BY WHO**: Chief Flood Warden and Flood Wardens

### Storage of Sensitive Goods

All sensitive goods which are susceptible to damage from flood waters or, if exposed to floodwaters would have significant ramifications to the surrounding area, must not be stored in the basement carparks or ground floors which are susceptible to flooding. The first floor is above the PMF level and are therefore considered appropriate places to store goods which are sensitive to water.

### Monitoring of Weather Situation

It is the responsibility of the Chief Flood Warden to monitor the weather situation and be aware if a warning has been issued. This will be achieved through automatic text messages and emails from Council's Flood Alert Service and checking of the local radio stations and the Bureau website.

**TRIGGER FOR MONITORING:**

- Continuous, 4pm daily

**BY WHO:** Chief Flood Warden

## Signage

Flood warning signage, such as the Flood Response Actions shown at the beginning of this plan is to be placed throughout the building within common areas (i.e. administration spaces, libraries etc.) in addition to each classroom.

It is also recommended that a copy of this Flood Response Summary be placed within each Flood Emergency Kit. All flood warning signage is to be laminated and must identify that the site is flood prone.

It is the responsibility of the Chief Flood Warden to ensure signage is up to date and displayed as recommended above.

# Flood Response Actions

## Early Site Closure / Cancellation of Operations

In order to minimise the risk to life, it is recommended the school be closed on any day where a **Moderate or Major Flood Warning is received from Council's FloodSmart Warning Service**. These warning are equivalent to a 1% AEP flood event or PMF design storm event and present potentially hazardous flood behaviour across the site. Closure is to occur prior to the commencement of operation for the day with all students to be notified.

Closure of the facility should be communicated as early as possible via the various means of school communication available to the operator. This may be made via email and the Parent App (or equivalent app).

If early closure of site upon receipt Flood Warning is not possible, refuge on site is available. Early closure is preferred as it reduces the strain on emergency services during a flood event

## Evacuation

In the event where school has commenced, rainfall has not yet commenced and there is sufficient time to safely coordinate evacuation, the **primary flood Emergency Response Action** for the site **is evacuation.**

In the event where a **Moderate or Major Flood Warning** is received from Council's FloodSmart Warning Service **and sufficient time is available,** the site is to be **closed and evacuated**. All deliveries and visitors expected to attend the site are to be cancelled and staff are to return home if safe to do so.

Once a **Moderate or Major Flood Warning** is received, Flood Wardens are to proceed to the nominated Emergency Assembly Point as soon as possible and following handover of class supervision. It is imperative that the students remain supervised at all times. Where supervision is not possible, walkie talkies remain available in the Floodsafe Emergency Kits and instruction from the Chief Flood Warden can be made through this means.

Once at the Emergency Assembly Point, Flood Wardens are to receive instructions from the Chief Flood Warden.

It is recommended the Chief Flood Warden contract the SES prior to instructing Flood Wardens to notify the SES of the closure and evacuation of the facility. When talking with the SES, it is a good opportunity to seek advice with respect to current flooding and road conditions. Similarly, the Parramatta Council Disaster Dashboard may be used to obtain live information on Road Closures.

The Chief Flood Warden is to coordinate roll call and manage evacuation requirements and with Flood Wardens and staff.

It is the responsibility of the Chief Flood Warden to ensure all staff evacuate the site prior to a flood event. In the event where evacuation is not possible, it is unsafe for staff to return home, staff, students and visitors are to remain on-site and seek refuge within the building.

Early evacuation reduces the strain on emergency services during a flood event. Evacuation should be undertaken in advance of rainfall occurring or as soon as possible after receiving the Moderate Flood Warning

## On-Site Refuge

On-site refuge is recommended if a Moderate or Major flood warning is received from the Council's FloodSmart Warning Service and heavy rainfall has already commenced, school has commenced for the day and evacuation is not feasible.

The procedure for on-site refuge should be carried out as per the following:

- Chief Flood Warden to sound alarm on PA system to notify staff and visitors of imminent risk.
- Flood Wardens to proceed to the Emergency Assembly Point (Level 2 Covered Play Space) and receive instruction from the Chief Flood Warden
- Ground Floor Level to be evacuated with staff, students and visitors on the Ground Floor to proceed into the upper levels of the facility.
- All remaining staff, students and visitors to remain within the classrooms on Level 1 or above and wait it out until flood water subsides / given the "all clear" from emergency services.

It is recommended a back-up generator/s or other forms of emergency power be provided to ensure power remains available within the building, that may otherwise be disrupted during an extreme flood event.

It is strongly recommended that in the event of a flood, the elevators are not used due to the potential for centralised power supply to be cut.

Should you become isolated on-site, move to the **Emergency Assembly Point** and do not try to evacuate by foot or by vehicle and never enter rising flood water.

**Call the SES on 132 500 if emergency supplies are getting low, or 000 if in a life-threatening situation. Remember if its flooded, forget it.**

## Flood Emergency Response Summary

The aim is to eliminate/reduce the risk to life by removing as many staff, students and visitors from the floodplain prior to the commencement of rainfall, provided there is enough time for them to return home or to a safe place of residence.

The Chief Flood Warden is responsible for reviewing the weather forecasts daily and notifying facility users and staff of the decision to close the facility or seek refuge on-site.

When a warning is received, consideration should be given to (if time permits):

- Cancelling services and appointments for the day of the event.
- Blocking floor wastes and toilets on the Ground Floor Level.
- Securing objects that are likely to float and cause damage.
- Turning off mains power, water and gas and other hazardous materials.
- Relocating chemicals above the predicted water level.
- Moving vehicles away from the site where possible.

If time permits the evacuation / refuge procedure should generally as follow:

- **Chief Flood Warden** to **Sound** alarm on PA system / air horn.
- **Chief Flood Warden** to the **Emergency Assembly Point.**

- **Flood Wardens to transfer supervision of classes and proceed to Emergency Assembly Point**
- **Remaining Staff, Students and Visitors to remain in place.**
- **Chief Flood Warden** to contact the **SES to receive instruction / coordinate decision to evacuate / refuge on-site.**
- **Roll call** to ensure everyone is accounted for.
- **Return home** if it is safe to do so and wait out the storm event.
- **If unable to return home:**
    - **Staff, Students and Visitors on Ground Floor Level to proceed into upper levels including Level 1 and above.**
    - **Flood Wardens** clear Ground Floor Level.
    - **Seek refuge on-site until given the "all clear" by emergency services.**
- **If evacuating the facility, leave signage undercover** and notify **Service/Police/ SES** that evacuation has occurred.

**TRIGGERS FOR CLOSURE / EVACUATION / ON-SITE REFUGE:**

- Following receipt of a **Moderate or Major flood warning** from **Council's FloodSmart Warning Service.**

**RESPONSIBLE FOR THE DECISION:** Chief Flood Warden

### Emergency Services Attending Site

It is noted self-motivated evacuation, such as that proposed in this plan, reduces strain on emergency services. There is a possibility that emergency services such as Police, Fire, Ambulance or SES may attend site and assume control from the Chief Flood Warden. Once this has occurred, they are in control of the site and any response operations.

**TRIGGERS FOR EMERGENCY SERVICES TAKE CONTROL:**

- Police, Fire, Ambulance or SES attending site.

**RESPONSIBLE FOR THE DECISION;** Chief Flood Warden

### After a Flood

Once a Final Flood Warning or SES "All Clear" has been received:

- A thorough check of services such as electricity, sewer, water and gas should be undertaken by qualified persons.
- Advice should be sought from a suitably qualified engineer as to the structural integrity of buildings prior to their use.

- Personal protective equipment should be worn during the clean-up and disinfectant used.

**TRIGGER FOR RETURN:**

- All clear given by SES or emergency services and building inspected by representatives appointed by the department of education.

**BY WHO:** SES, Emergency services, Flood wardens

# Revision of this Flood Evacuation Plan

Furthermore, this plan should be revised if there are revisions to the site specific flood modelling (Northrop, 2024) or revisions to the Parramatta River Flood Study (Stantec, 2024) to capture changes in the catchment since the last study.

Notwithstanding the above, this plan shall be **revised every three years** or when there is a major operational change or flood event.

Revisions should be undertaken by a suitably qualified flood emergency response consultant.

# Conclusion

The subject site is affected by flooding caused by overland flow from the upstream catchment. A review of the proposed development has been undertaken in conjunction with the expected flood behaviour and it was concluded that:

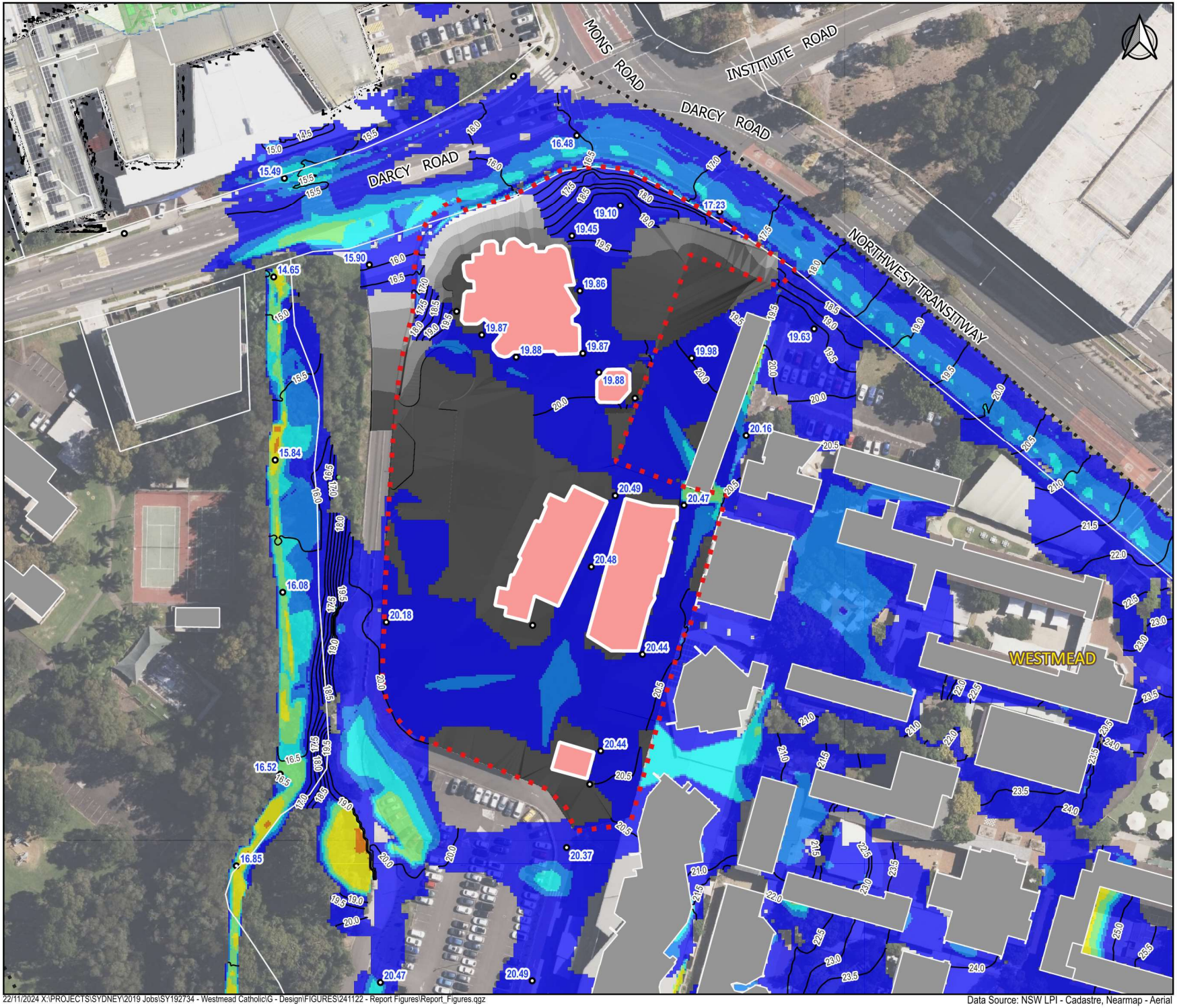
- **Nominated flood wardens** will provide adequate direction in flood emergencies.
- **Cancellation of operations** is preferable prior to major and extreme events to eliminate community exposure to flood hazards and in the event where school has not yet commenced.
- If school has commenced for the day, **evacuation well in advance of a predicted major or extreme event** is preferable with staff, students and visitors recommended to return home and wait out the flood event.
- If staff and visitors are unable to return home, on-site refuge is available in the upper levels of the facility.

Through adoption of this plan, the proposed development adequately minimises the flood risks associated with the subject site. The recommendations contained herein assist in managing the risk to life of the staff, facility users and visitors to the subject site.

# References


| | | |
|---|---|---|
| SES | (2026) | *Flood Disaster Website* accessed from: https://www.ses.nsw.gov.au/disaster-tabs-header/flood/ 4 Accessed September 2026 |
| SES | (2023) | *Emergency Business Continuity Plan* accessed from: https://www.smallbusiness.nsw.gov.au/sites/default/files/2023-11/16370_SBC%20Prepare%20for%20the%20unexpected%20ACCESSIBLE.pdf Accessed September 2026 |
| SES | (2026) | *Flood Planning for the Mobility impaired* accessed from: https://www.ses.nsw.gov.au/floodsafe/what-floodsafe-means-for-you/mobility-impaired/ Accessed September 2026 |
| Bureau of Meteorology | (2025) | Service Level Specification for Flood Forecasting and Warning Services for New South Wales – Version 3.16 accessed from: http://www.bom.gov.au/nsw/NSW_SLS_Current.pdf Accessed September 2026 |
| Parramatta Council | (2024) | Flood Information Certificate (FL/82/2024) dated the 19th of April 2024 |
| Parramatta Council | (2026) | The City of Parramatta Council Know your Flood Risk accessed from: https://www.cityofparramatta.nsw.gov.au/environment/floodsmart-parramatta/know-your-flood-risk Accessed September 2026 |
| Parramatta Council | (2026) | Flood Warning Service Accessed from: https://www.cityofparramatta.nsw.gov.au/environment/floodsmart-parramatta/flood-warning-service Accessed September 2026 |
| Stantec | (2026) | Parramatta River Flood Study: https://www.cityofparramatta.nsw.gov.au/environment/flooding-and-emergencies/flood-studies/2024-parramatta-river-flood-study Accessed September 2026 |

# Appendix A – Flood Figures




**Legend**

- Site Boundary
- Cadastre
- TUFLOW Model Extent
- Buildings
- Proposed Buildings
- Flood Contours (0.5m)
- Spot Water Level (mAHD)

Design Surface(mAHD)

- <= 16.3
- 16.3 - 17.4
- 17.4 - 18.4
- 18.4 - 19.5
- > 19.5

Depth (m)

- Less than 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- Greater than 2.0

0 20 40 Metres

1:1,500

# Figure C1-1

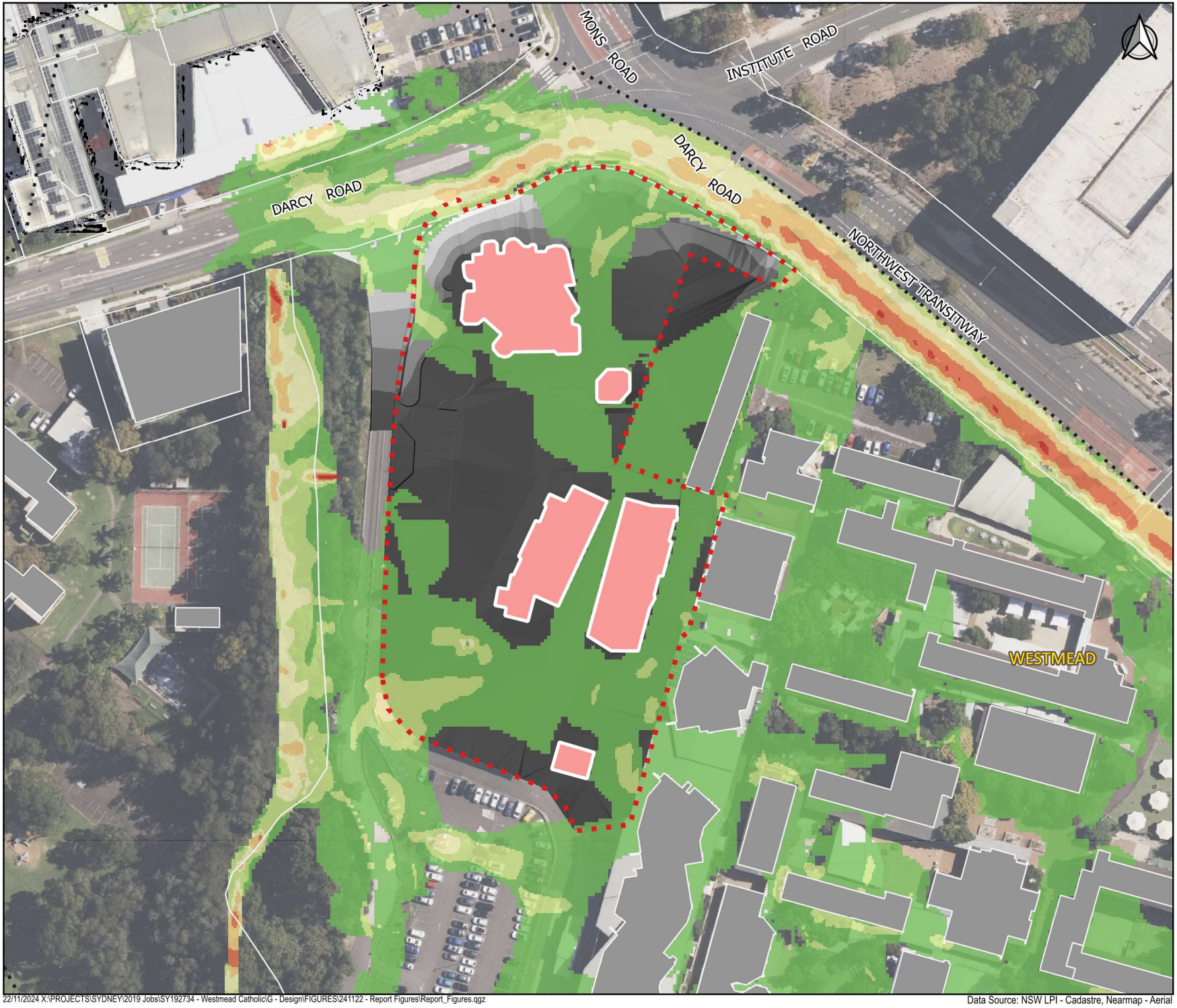
**1% AEP Flood Depth and Elevation Developed Case**

Westmead Catholic

NORTHROP



Data Source: NSW LPI - Cadastre, Nearmap - Aerial




**Legend**

- Site Boundary
- Cadastre
- TUFLOW Model Extent
- Buildings
- Proposed Buildings

Design Surface(mAHD)

- <= 16.3
- 16.3 - 17.4
- 17.4 - 18.4
- 18.4 - 19.5
- > 19.5

Velocity (m/s)

- <= 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 5.0
- > 5.0

0 20 40 Metres

1:1,500

# Figure C1-2

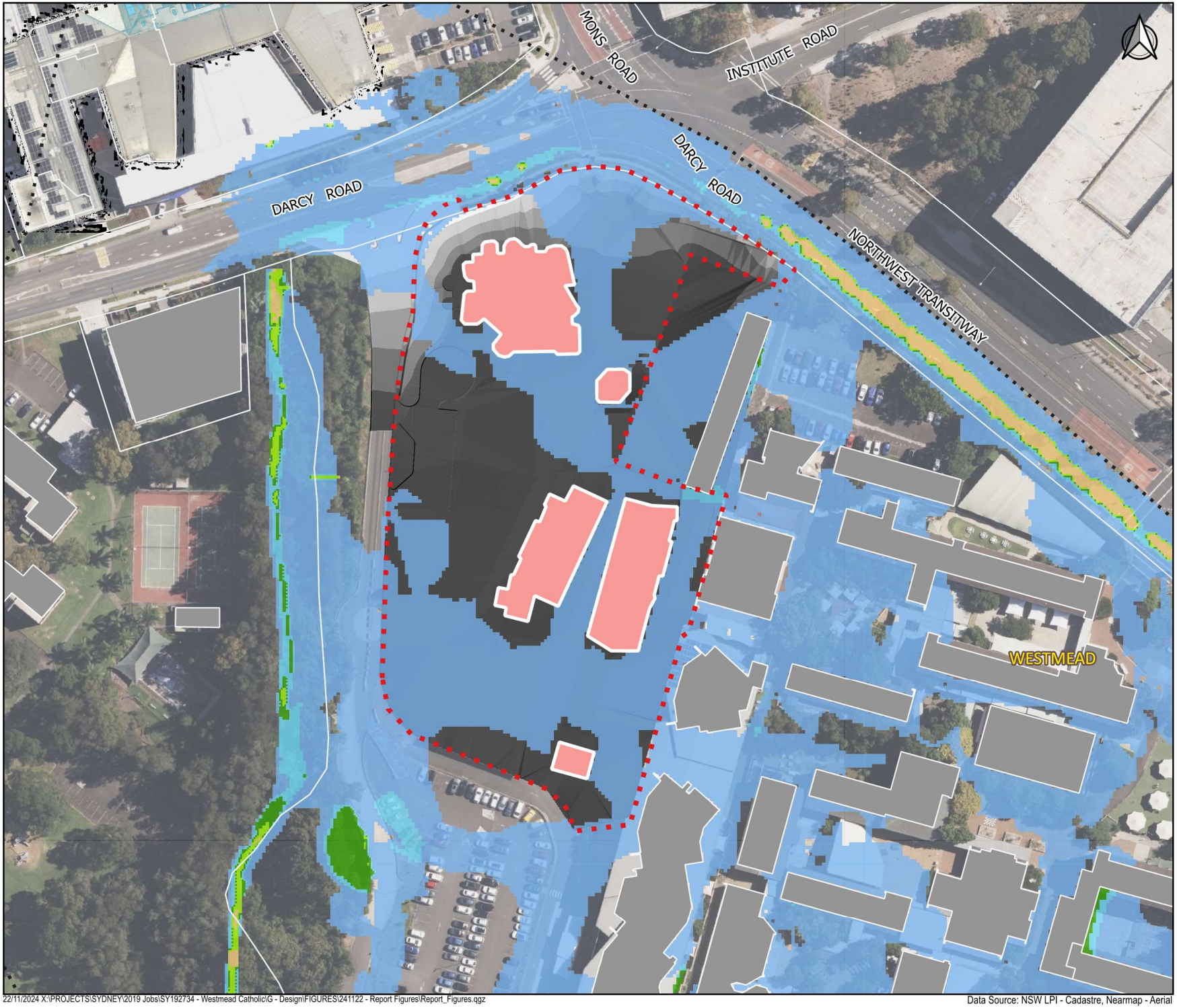
**1% AEP Flood Velocity**
**Developed Case**

Westmead Catholic

NORTHROP



Data Source: NSW LPI - Cadastre, Nearmap - Aerial




**Legend**

- Site Boundary
- Cadastre
- TUFLOW Model Extent
- Buildings
- Proposed Buildings

Design Surface(mAHD)

- <= 16.3
- 16.3 - 17.4
- 17.4 - 18.4
- 18.4 - 19.5
- > 19.5

Flood Hazard

- H1
- H2
- H3
- H4
- H5
- H6

0 20 40 Metres

1:1,500

# Figure C1-3

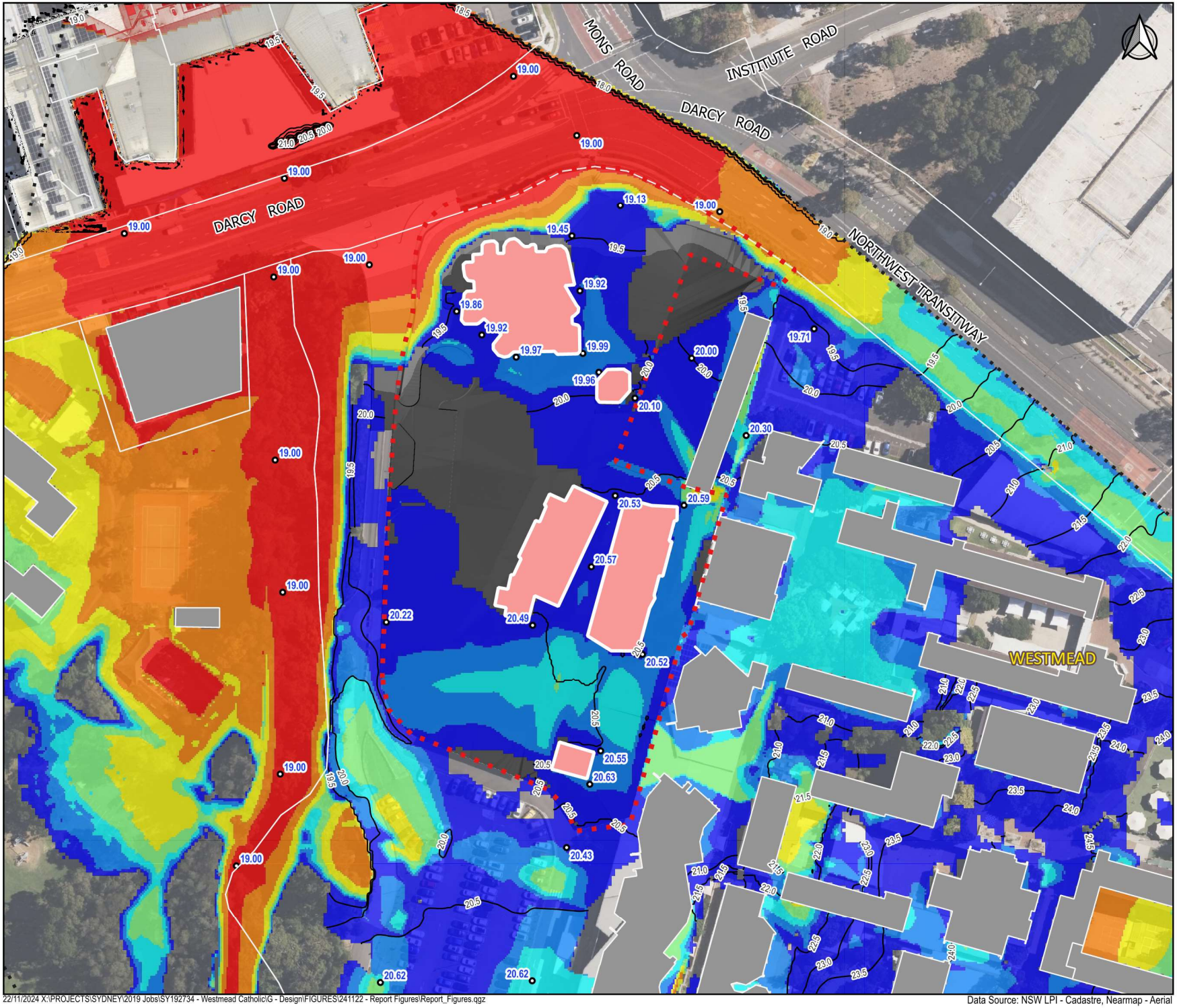
**1% AEP Flood Hazard**
**Developed Case**

Westmead Catholic

NORTHROP



Data Source: NSW LPI - Cadastre, Nearmap - Aerial




**Legend**

- Site Boundary
- Cadastre
- TUFLOW Model Extent
- Buildings
- Proposed Buildings
- Spot Water Level (mAHD)
- 0.5m Contours (mAHD)

Design Surface(mAHD)

- <= 16.3
- 16.3 - 17.4
- 17.4 - 18.4
- 18.4 - 19.5
- > 19.5

Depth (m)

- Less than 0.1
- 0.1 - 0.2
- 0.2 - 0.3
- 0.3 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- Greater than 2.0

0 20 40 Metres

1:1,500

# Figure C3-1

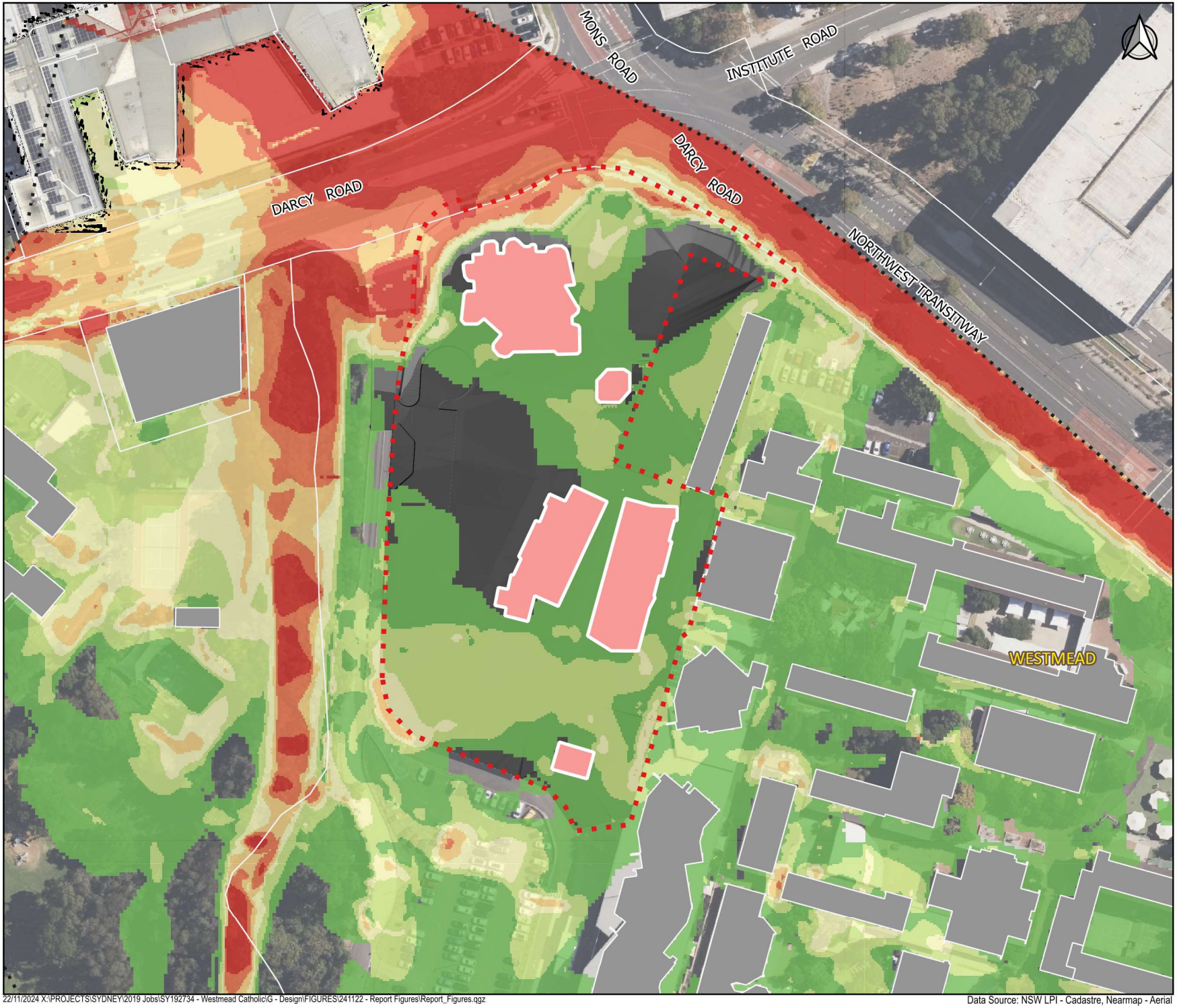
**PMF Flood Depth and Elevation Developed Case**

Westmead Catholic

NORTHROP



Data Source: NSW LPI - Cadastre, Nearmap - Aerial




**Legend**

- Site Boundary
- Cadastre
- TUFLOW Model Extent
- Buildings
- Proposed Buildings

Design Surface(mAHD)

- <= 16.3
- 16.3 - 17.4
- 17.4 - 18.4
- 18.4 - 19.5
- > 19.5

Velocity (m/s)

- <= 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 5.0
- > 5.0

0 20 40 Metres

1:1,500

# Figure C3-2

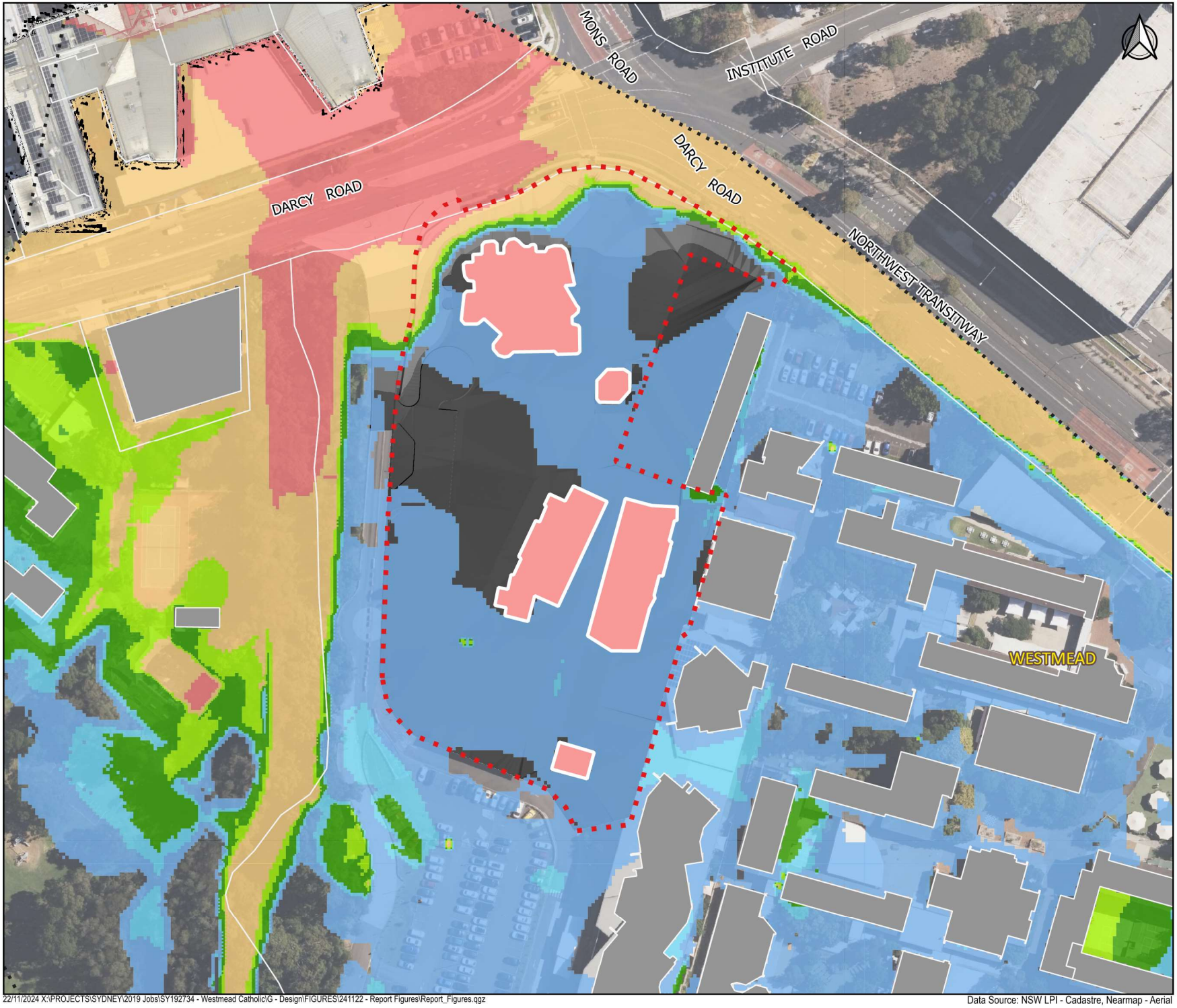
**PMF Flood Velocity**
**Developed Case**

Westmead Catholic

NORTHROP



Data Source: NSW LPI - Cadastre, Nearmap - Aerial




**Legend**

- Site Boundary
- Cadastre
- TUFLOW Model Extent
- Buildings
- Proposed Buildings

Design Surface(mAHD)

- <= 16.3
- 16.3 - 17.4
- 17.4 - 18.4
- 18.4 - 19.5
- > 19.5

Flood Hazard

- H1
- H2
- H3
- H4
- H5
- H6

0 20 40 Metres

1:1,500

# Figure C3-3

**PMF Flood Hazard**
**Developed Case**

Westmead Catholic

NORTHROP



Data Source: NSW LPI - Cadastre, Nearmap - Aerial