PENRITH
CITY COUNCIL

MAJOR ASSESSMENT REPORT

Application number:	DA19/0432
Proposed development:	Demolition of Existing Structures and Construction of a Two Storey, Childcare Centre and Associated Carpark and Landscaping Works
Property address:	49 Gibbes Street, REGENTVILLE NSW 2745
Property description:	Lot 114 DP 1687
Date received:	28 June 2019
Assessing officer	Gemma Bennett
Zoning:	Zone R2 Low Density Residential - LEP 2010
Class of building:	Class 9b
Recommendations:	Refuse

Executive Summary

As the proposed development has received more than 10 unique submissions the application has been referred to the Local Planning Panel for determination.

Council is in receipt of a development application for demolition of existing structures and construction of a 2 storey, 66 place childcare centre with carparking at 49 Gibbes street, Regentville. Under Penrith Local Environmental Plan 2010, the proposal is defined as a 'centre-based child care facility'. The subject site is zoned R2 Low Density Residential and the proposal is a permissible land use in the zoning with Council consent.

Key issues identified for the proposed development and site include:

- Compatibility of the development with the R2 zone objectives.
- Non-compliance with acoustic, waste and public health standards.
- Non-compliance with Penrith Development Control Plan 2014 in relation to building envelope, carparking, landscaped area, built form, fence height, visual and acoustic privacy.
- Public interest in relation to matters including traffic management and on-street parking, noise generation, sewage management, tree removal, and inconsistency with the character of the residential area.

The application was notified to adjoining properties and exhibitied and advertised between 19 July 2019 and 2 August 2019, in accordance with relevant legislation. A total of 43 submissions, including 36 unique submissions, and 1 petition containing 39 signatures, were received by Council during this period. A response to the matters raised in the submissions is provided within this report.

An assessment under Section 4.15 of the Environmental Planning and Assessment Act 1979 has been undertaken and the application is recommended for refusal.

Site & Surrounds

The subject site is legally known as Lot 114 Section C of DP 1687. The site has an area of 1391m^2 and is rectangular in shape, with a width of 30.5m and depth of 45.7m. The lot currently contains a single storey brick and tile dwelling, detached garage and swimming pool, as well as a number of trees.

Surrounding development is residential in nature, predominantly single storey dwellings in an established residential area. A townhouse development is located at 47 Gibbes Street containing one and two storey dwellings.

Gibbes Street is divided into two sections with a creek located between the two parts. The subject site is located in the south western section of Gibbes Street and adjoins Mulgoa Road in proximity to the intersection with Glenmore Parkway. Glenmore Park Town Centre is located approximately 1.3km to the south. The M4 motorway/Mulgoa Road intersection is located 540m to the north east.

History
A Torrens title 1 into 2 lot subdivision was approved in 2014, however it appears that this consent was not enacted (DA14/0486).

Pre-lodgement advice was provided in respect to a child care centre development on 22 January 2019 (PL19/0003). The applicant was advised that the proposal would not be supported for a number of reasons, including:

- Car parking - dominance of car parking in the front setback; Inadequate car parking provision; expanse of hard stand limiting landscaping opportunities, lack of suitable pick up/drop off area, and inadequate path and driveway widths provided.
- Built form - Non-compliance with side and rear upper storey setback standards, as well as building envelope encroachment, and compatibility of contemporary design with traditional residential character of the streetscape.
- Upper storey play area - visibility from the street, noise and privacy impacts.
- Other matters - insufficient landscape screening, inadequate waste infrastructure, non-compliant staff to child ratios, and non-compliant upper level play area relative to number of children proposed.

Proposal

The proposal includes:

- Demolition of all structures on the site
- Removal of 10 of the 11 trees on the site
- Construction of a 2 storey childcare centre with capacity for 66 children
- Provision of carparking area and associated landscaping

Plans that apply

- Local Environmental Plan 2010 (Amendment 4)
- Development Control Plan 2014
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
- State Environmental Planning Policy No 55—Remediation of Land
- State Environmental Planning Policy No 64—Advertising and Signage
- Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

- ## Section 4.15 - Evaluation

The development has been assessed in accordance with the matters for consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979, and having regard to those matters, the following issues have been identified for further consideration:

Section 79C(1)(a)(i) The provisions of any environmental planning instrument

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

Part 3 details the development standards that are applicable to early education and care facilities, including the following:

- **Clause 22 Centre-based child care facility - concurrence of Regulatory Authority required for certain development**

  Concurrence from the Department of Education is required should the development not meet the minimum indoor (3.25m^2) and outdoor (7m^2) unencumbered space per child under Clauses 107 and 108 of the Education and Care Services National Regulation. Based on the number of children to be accommodated at the centre, the minimum indoor space required is 214.5m^2 and outdoor space 462m^2. The proposal achieves the minimum indoor requirements with the provision of 229.8m^2 of indoor space. In relation to outdoor space, while the minimum is achieved over the site overall with 521.43m^2 of outdoor space provided, the play spaces are divided into ground and first floor spaces. While so, the first floor play room is noted to provide the capacity for 20 children, whilst the play space provides for only 15 children. No discussion of management of child numbers across the play spaces is provided in the documentation submitted with the proposal.

- **Clause 23 Centre-based child care facility - matters for consideration by consent authorities**

  The proposal has been assessed against the provisions of the *Child Care Planning Guideline* published by NSW Department of Planning. The Guideline has been considered in the assessment of the proposal and the following comments made in relation to the key aspects of the development that do not meet the Guideline.

Part	***Matters for consideration***	***Comment***
3.1 Site selection and location	C1 To ensure that appropriate zone considerations are assessed when selecting a site	The proposal has not adequately considered the acoustic and privacy impacts on residential properties in the residential zone in accordance with Part 3.1, C1. The subject site is bounded by residential development to each side. Council's Environmental Management Team have raised concerns with the acoustic assessment given the close proximity of these sensitive receivers and the capacity of acoustic fencing alone to attenuate the noise impacts from the outdoor play space. This matter has not been addressed to Council's satisfaction.
	C3 To ensure that sites for child care facilities are appropriately located	The Guideline specifies that childcare facilities should be located in proximity to compatible social uses, such as schools, parks or community facilities, and near or within employment areas, town centres or shops with access to public transport. While regular bus services are available on Mulgoa Road, in other aspects the subject site does not meet the Guidelines in terms of location.

3.2 Local character, streetscape and public domain interface	C5 To ensure that the child care facility is compatible with the local character and surrounding streetscape	The proposal does not contribute to the local area by being designed in character with the locality and the existing streetscape; reflect the predominant form of surrounding land uses, particularly in low density residential areas; and recognise predominant streetscape qualities, such as building form and scale in accordance with Part 3.2, C5. The proposed building width assumes 97% of the lot and dominance of carparking within the front setback is inconsistent with the existing development in the low density residential area. The proposed landscaping does not positively contribute to the streetscape due to the minimal area of landscaped beds proposed within the front setback.
3.3 Building orientation, envelope and design	C11 To respond to the streetscape and site, while optimising solar access and opportunities for shade	The deep setback and length of the building, as well as non-compliant upper floor setback, contributes to overshadowing of the adjacent dwelling at 53 Gibbes Street. The shadow diagrams submitted with the application demonstrate that the proposed development will overshadow the adjacent dwelling from 9am until after 12pm, where a minimum of 3 hours solar access is required to be maintained to living spaces of adjoining properties.
	C12 To ensure the scale of the child care facility is compatible with adjoining development and the impact of adjoining buildings is minimised	The built form of the proposal is inconsistent with the pattern of development in the street. While the building height complies with the Height of Building standard, the bulk and scale of the development, particularly when viewed from the street frontage, is disproportionate in relation to the lot width.
	C13 To ensure that setbacks from the boundary of a child care facility are consistent with the predominant development within the immediate context	The proposal does not technically meet the front setback standards in accordance with the Guidelines in that the 21m setback proposed is significantly greater than the average of the two adjacent dwellings. This pushes the two storey bulk of the development deeper into the lot and increases the visual and amenity impact of the built form on the neighbouring dwellings.
	C14 On land in a residential zone, side and rear boundary setbacks should observe the prevailing setbacks required for a dwelling house	The proposal does not meet the building envelope or second storey rear setbacks that would be required of residential development in the vicinity.

3.4 Landscaping	C18, C19 To provide landscape design that contributes to the streetscape and amenity	The proposal includes two driveways and 18 carparking spaces within the front setback. This is minimally screened by 3 x 2m deep landscape beds on the front boundary and 300mm wide landscape beds on the side boundaries within the front setback. The landscape design is inconsistent with the context of the locality in that the surrounding landscape character is of deep, predominantly landscaped front setbacks, with carparking provided behind the building line (Part 3.4, C18). Minimal deep soil area is available within the front setback to provide for tree planting and the planting proposed is largely grasses and groundcovers which will provide little in the way of effective screening of the extensive hard stand area.
3.5 Visual and acoustic privacy	C23, C24 To minimise the impact of child care facilities on the acoustic privacy of neighboring residential development	As previously indicated, the submitted acoustic report does not satisfactorily demonstrate that the acoustic privacy of neighbouring residential development will be maintained.
3.8 Traffic, parking and pedestrian circulation	C31 To provide parking that satisfies the needs of users and demand generated by the centre	Car parking provided does not meet the parking rates specified in Penrith DCP 2014.
4.8 Emergency and evacuation procedures	Regulations 97 and 168 Education and Care Services National Regulations	The evacuation plan provided (DA10, issue D, dated 18/06/19) indicates two emergency evacuation points within the road reserve adjacent to the proposed driveways. Part 4.8 of the Guideline states that an emergency and evacuation plan submitted with a DA should demonstrate that a suitable location has been identified for safe assembly, away from the evacuated building and large enough to serve the purpose of assembling the total number of children and staff. With 66 children, 11 teaching staff and ancillary staff proposed, it is unclear whether the spaces are sufficient and locations proposed are appropriate to accommodate the number of persons proposed at the centre.

- **Clause 25 Centre-based child care facility - non-discretionary development standards**
  The non-discretionary development standards which, if complied with, prevent a consent authority from requiring more onerous standards. These matters relate to location, indoor and outdoor space, site area and dimensions and the colour of building materials and shade structures.
- **Clause 26 Centre-based child care facility - development control plans**
  The SEPP includes provisions in development control plans that cannot be applied to development of child care centres, such as hours of operation, demonstrated need for services, proximity to other facilities, or any matter set out in the *Child Care Planning Guideline.* Council's DCP does contain specific development standards related to the matters described in Clauses 25 and 26 which are rendered obsolete by the function of the SEPP.

State Environmental Planning Policy No 55—Remediation of Land

The application includes a Preliminary Site Investigation (PSI) in relation to potential contamination

The initial phase of the PSI concluded that *'there is a potential for contamination'*, with the following Areas of Environmental Concern (AEC) identified:

- *'AEC 1: Potential soil contamination from potential fill material of unknown quality; and*
- *AEC 2: Potential for chemicals, including herbicides, to have been used or stored on site'.*

The PSI states that the *"site can be made (be) suitable for the proposed development subject to ..... additional soil assessment"* with *"depending on the outcome of soil assessment, the preparation of a Remedial Action Plan(t) (RAP) if required for the site, or provision of a statement concluding the sites' suitability for the proposed use."*

Section 7.5 of the PSI states that *"data gaps have been identified that will require further investigation to ensure additional contamination issues are addressed prior to redevelopment of the site".* Specifically, the PSI states that *"as no site inspection was conducted, there are some unknowns relating to the potential contamination of the site"* and that *"the depth, extent and quality of any potential fill at the site is not known and will require characterisation to determine its suitability for the future use of the site".*

The second phase of the PSI included soil sampling in 7 locations of the site and the results demonstrated that the soils were all within the assessment criteria for residential use.

The PSI also recommends that a Hazardous Materials Survey of the building be completed prior to demolition to identify, if any, hazardous materials, including asbestos. This aspect of the development could be considered and addressed through the imposition of conditions of consent, should consent be granted.

State Environmental Planning Policy No 64—Advertising and Signage

The proposal documentation does not indicate signage as part of the subject application. If the applicaiton was to be approved, a condition of consent could be recommended in this regard to require approval for future signage or compliance with State Environmental Planning Policy (Exempt and Complying Codes) 2008.

Sydney Regional Environmental Plan No.20 - Hawkesbury Nepean River

An assessment has been undertaken of the application against relevant criteria with Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997) and the application is satisfactory subject to recommended conditions of consent.

Local Environmental Plan 2010 (Amendment 4)

Provision	Compliance
Clause 1.2 Aims of the plan	Does not comply - See discussion
Clause 2.3 Permissibility	Complies
Clause 2.3 Zone objectives	Does not comply - See discussion
Clause 2.7 Demolition requires development consent	Complies
Clause 4.3 Height of buildings	Complies
Clause 4.4 Floor Space Ratio	N/A
Clause 7.1 Earthworks	Complies
Clause 7.2 Flood planning	Complies - See discussion
Clause 7.4 Sustainable development	Does not comply - See discussion
Clause 7.7 Servicing	Complies

Clause 1.2 Aims of the plan

The proposal is inconsistent with the following aims of the LEP:

(b) to promote development that is consistent with the Council's vision for Penrith, namely, one of a sustainable and prosperous region with harmony of urban and rural qualities and with a strong commitment to healthy and safe communities and environmental protection and enhancement,

(h) to ensure that development incorporates the principles of sustainable development through the delivery of balanced social, economic and environmental outcomes, and that development is designed in a way that assists in reducing and adapting to the likely impacts of climate change.

It is considered that the proposed development does not align with the vision for Penrith, in that the bulk and scale of the built form and intensity of land use is disharmonious with the low density residential qualities of the immediately surrounding area. In addition, the technical information supporting the development does not demonstrate that the environment will be protected in regards to acoustic privacy maintenance for adjoining sensitive receivers and that waste can be appropriately managed.

The development is considered to be inconsistent with the principles of sustainable development in that the proportion of landscaped area on the site does not satisfy minimum requirements, which inhibits adequate tree planting and water infiltration. The western elevation of the building provides a two storey expanse of solid brick construction with no windows or contributory eave overhang, which will add significant thermal loading to the building.

Clause 2.3 Zone objectives

The objectives of the R2 Low Density Residential zone are:

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To promote the desired future character by ensuring that development reflects features or qualities of traditional detached dwelling houses that are surrounded by private gardens.*
- *To enhance the essential character and identity of established residential areas.*
- *To ensure a high level of residential amenity is achieved and maintained.*

The proposal does not satisfy the essential character and density objectives of the zone.

The proposed building has a width of 28.5m on a lot 29.5m wide, which equates to 97% of the lot width. The proposed front setback is 21m, when the average of the two adjacent dwellings is 6.6m. The combination of the building width and significantly increased setback to provide for an extensive carparking area is considered to result in a development that is inconsistent with the existing pattern of residential development in the locality, and effectively increases the impact of the development on adjacent dwellings. The streetscape is characterised by single dwellings, dual occupancies and multi-unit dwellings with substantial, landscaped front setbacks. Building widths are typically such that a driveway to the side or rear of the building is available with landscaping present on property boundaries. The proposal does not reflect the existing character of the established residential area.

In addition, the 21.5m unarticulated, unbroken length of the proposed western elevation does not reflect the traditional built form of low density residential areas and traditional detached dwelling houses. The existing multi-unit dwellings at 47 Gibbes Street are divided into separate buildings with maximum lengths of approximately 18m, with indentations and articulation within these buildings. The proposal does not demonstrate the same quality of built form.

Finally, the proposal does not demonstrate that the residential amenity of neighbours can be adequately achieved and maintained in relation to acoustic privacy, environmental amenity through provision of adequate planting of the site, and maintenance of solar access to living spaces of adjoining development.

Clause 7.2 Flood planning

The subject site is not identified as flood prone land.

Clause 7.4 Sustainable development

Clause 7.4 of the LEP requires Council to have regard to the principles of sustainable development as they relate to the development based on a "whole of building" approach by considering each of the following:

(a) conserving energy and reducing carbon dioxide emissions,
(b) embodied energy in materials and building processes,
(c) building design and orientation,
(d) passive solar design and day lighting,
(e) natural ventilation,
(f) energy efficiency and conservation,
(g) water conservation and water reuse,
(h) waste minimisation and recycling,
(i) reduction of vehicle dependence,
(j) potential for adaptive reuse.

The western elevation of the building is provided as a solid brick expanse with no landscaping or shading by eaves. These factors will increase reliance on artificial cooling and increase thermal massing.

50% landscaped area is a minimum standard applied in the R2 zone, which in this instance equates to 695.5m^2. The proposal provides approximately 422m^2 (or 30.3%) of landscaped area. The paucity of landscaping provided by the development is considered likely to contribute to increased stormwater, inhibit adequate replanting of the site and provision for large canopy trees, and contribute to the urban heat experienced in Penrith.

The proposal has not adequately demonstrated how the proposal has had regard to the above matters by its design.

The above aspects display that the proposed development is not designed in such a way that takes into consideration the principles of sustainable design, particularly in relation to (c) and (f) of clause 7.4 of the LEP.

Section 79C(1)(a)(ii) The provisions of any draft environmental planning instrument

Draft Environment State Environmental Planning Policy

The Draft Environment SEPP was exhibited from 31 October 2017 to 31 January 2018. This consolidated SEPP proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

Changes proposed include consolidating a total of seven existing SEPPs being:

- *State Environmental Planning Policy No. 19 – Bushland in Urban Areas*
- *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*
- *State Environmental Planning Policy No. 50 – Canal Estate Development*
- *Greater Metropolitan Regional Environmental Plan No. 2 – Georges River Catchment*
- *Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2-1997)*
- *Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005*
- *Willandra Lakes Regional Environmental Plan No. 1 – World Heritage Property*

It is noted that the proposed changes to State Environmental Planning Policy No 19 – Bushland in Urban Areas (SEPP 19) are not considered to impact the proposed development. In addition, the amendments to Sydney Regional Environmental Plan No 20 – Hawkesbury – Nepean River (No. 2 – 1997) do not impact the proposed development. In this regard, the proposal is not inconsistent with the provisions of this Draft Instrument.

Draft Remediation of Land SEPP

The Department of Planning and Environment has announced a Draft Remediation of Land SEPP, which will repeal and replace the current State Environmental Planning Policy No 55—Remediation of Land.
The proposed new land remediation SEPP will:

- Provide a state-wide planning framework for the remediation of land,
- Maintain the objectives and reinforce those aspects of the existing framework that have worked well,
- Require planning authorities to consider the potential for land to be contaminated when determining development applications and rezoning land,
- Clearly list the remediation works that require development consent, and
- Introduce certification and operational requirements for remediation works that can be undertaken without development consent.

It is also proposed that it will transfer the requirements to consider contamination when rezoning land to a direction under Section 9.1 of the Environmental Planning and Assessment Act 1979.

Whilst the proposed SEPP will retain the key operational framework of SEPP 55, it will adopt a more modern approach to the management of contaminated land. Noting the above, the Draft SEPP will not alter or affect the findings in respect to contamination of the site.

Section 79C(1)(a)(iii) The provisions of any development control plan

Development Control Plan 2014

Provision	Compliance
C1 Site Planning and Design Principles	Does not comply - see Appendix - Development Control Plan Compliance
C2 Vegetation Management	Complies
C3 Water Management	Complies
C4 Land Management	Complies
C5 Waste Management	Does not comply - see Appendix - Development Control Plan Compliance
C6 Landscape Design	Does not comply - see Appendix - Development Control Plan Compliance
C7 Culture and Heritage	Complies
C8 Public Domain	Complies
C9 Advertising and Signage	Complies
C10 Transport, Access and Parking	Does not comply - see Appendix - Development Control Plan Compliance
C11 Subdivision	N/A
C12 Noise and Vibration	Does not comply - see Appendix - Development Control Plan Compliance
C13 Infrastructure and Services	Complies
D2.1 Single Dwellings	N/A
D2.2. Dual Occupancies	N/A
D2.3 Secondary Dwellings	N/A
D2.4 Multi Dwelling Housing	N/A
D2.5 Residential Flat Buildings	N/A
D2.6 Non Residential Developments	Does not comply - see Appendix - Development Control Plan Compliance
D5.1. Application of Certification System	N/A
D5.2. Child Care Centres	Does not comply - see Appendix - Development Control Plan Compliance
D5.3. Health Consulting Rooms	N/A
D5.4. Educational Establishments	N/A
D5.5 Parent Friendly Amenities	N/A
D5.6. Places of Public Worship	N/A
D5.7. Vehicle Repair Stations	N/A
D5.8. Cemeteries, Crematoria and Funeral Homes	N/A
D5.9. Extractive Industries	N/A
D5.10 Telecommunication Facilities	N/A

Section 79C(1)(a)(iiia) The provisions of any planning agreement

There are no planning agreements applying to this application.

Section 79C(1)(a)(iv) The provisions of the regulations

In accordance with Section 143 of the Environmental Planning and Assessment Regulation 2000, an assessment of the fire protection and structural capacity of the proposed building is necessary.

The application has been referred to Council's Building Surveyors for assessment with the following comments being provided:

The classification will be 9b. No objection is raised to the application subject to the recommended building conditions being included should consent be granted.

Council's Environmental Health Officer has reviewed the application in reference to the Food Regulation 2015, Public Health Regulation 2012 and Protection of the Environment Operations (General) Regulation 2009 with the following comments being provided:

The submission does not provide detailed plans of the kitchen, bottle preparation areas and garbage storage area to ensure compliance with the Standard 3.2.3 of the Australian and New Zealand Food Standards Code and AS4674 - 2004 Design, Construction and Fit-out of Food Premises.

The proposal is unsatisfactory in relation to public health matters identified.

The proposal has been publically notified and advertised in accordance with the Regulations.

Section 79C(1)(b)The likely impacts of the development

Likely impacts of the proposed development as identified throughout the assessment process include:

Context and setting
The proposal is not consistent with the bulk, scale and design of other development in the locality within the R2 low density residential zone. The length and width of the building, and use of extensive at grade carparking within the site frontage is inconsistent with the existing pattern of development in the low density residential zone. The excessive hard surface area limits meaningful opportunities for landscaping. The proposed 300mm wide landscape strips located in the front portion of the site along the side boundaries provides insufficient separation between adjoining lots and is likely to result in adverse amenity impacts for adjoining lots, such as vehicle light disturbance from users entering/exiting the child care carpark. The location and design of parking areas is inconsistent with the character of the locality in which parking areas are located predominately behind the primary building line.

Acoustic amenity
As part of the assessment of the application, the proposal was referred to Council's Environmental Management Officer who raised a number of concerns in respect to the detail and assumptions contained within the submitted Acoustic Report. The acoustic assessment submitted with the application has not satisfactorily demonstrated that the development will maintain the acoustic privacy of the neighbours.

Traffic and Car Parking
Under Penrith Development Control Plan 2014, child care centres are required to provide 1 space per 10 children, plus 1 space per employee. The application seeks consent for 66 children, including 11 teaching staff, requiring the provision of 18 car parking spaces, which is provided. However, no consideration for ancillary staff, such as administration or food preparation staff, is provided in the calculation. Therefore the proposal presents a shortfall in carparking.

The subject site is located on a minor residential, no through road. In addition, there is no turning facility provided at the culmination on Gibbes Street. While the local road network may have the capacity to manage the traffic generated by the proposal, the increased traffic flows will provide a significant change to the character and amenity of the low density residential street. The acoustic report has not provided an assessment of the acoustic impacts of the increased traffic to the residential receivers in the vicinity.

Section 79C(1)(c)The suitability of the site for the development

Notwithstanding the permissibility of the land use, the proposed design does not provide an appropriate design response within the R2 Low Density Residential zone, and does not contribute to the local area by being designed in character with the locality and existing streetscape. The scale of the building has not adequately responded to the size of the site and the surrounding residential context, which is demonstrated by the inability of the application to demonstrate compliance with acoustic controls.

Section 79C(1)(d) Any Submissions

Community Consultation

In accordance with the Act and Regulations, consideration has been given to any necessary referrals and any submissions made.

Community consultation

In accordance with Appendix F4 of Penrith Development Control Plan 2014, the proposed development was notified to nearby and adjoining residents notified to adjoining properties and exhibited and advertised between 19 July 2019 and 2 August 2019.

A total of 43 submissions, including 36 unique submissions, and 1 petition containing 39 signatures, was received by Council during this period. A response to the matters raised in the submissions is provided within this report.

Submissions

The following issues were raised in the submissions received and have formed part of the assessment.

Issue Raised	Comments
Traffic • Gibbes Street is a no-through road with no turning bay • There are currently difficulties with congestion and visibility in relation to access to and from Mulgoa Road, particularly due to the proximity to the Glenmore Park roundabout • The street is narrow and additional demand for on-street parking will cause conflicts with residential driveways and inhibit traffic flow • Pedestrian safety may be impacted by the increased traffic generated by the proposal	Council's Traffic Engineer has reviewed the proposed development and traffic report submitted. While acknowledging that the development will increase traffic flows in the residential street during peak periods, it has been noted that the increased generation from this single development is not unmanageable within the surrounding road network. Any regular, ongoing concerns about traffic management in the neighbourhood could be raised with Council's Traffic Committee for discussion and potential resolution of the proposal supported. However, as the turning circle on site does not allow for maneuvering of a waste truck, garbage bins will need to be collected on the street. This is inconsistent with Council's Policy for waste collection for commercial developments and is not supported. In addition, the Council's DCP requires 1 carparking space per 10 children and 1 carparking space per employee. The proposal is for 66 children and 11 staff, requiring 18 spaces. While 18 car parking spaces are included in the carpark design, the proposed staff calculation have not considered administration, food preparation, cleaning staff etc. meaning that the carparking calculation is inadequate.

Noise • The additional noise generated by general operations, air conditioning, traffic, construction etc of the development in the residential area will be unacceptable	Council's Environmental Health Officer has reviewed the proposal and the acoustic report submitted. The report was found to be inadequate in relation to the details and calculations used to support the proposal, and it is noted that the report shows exceedances in noise levels at specific receivers. In addition, it is noted that the report recommends 2.7m fences (1.8m plus 0.9m cantilevered section) from the building line to the rear boundary, and 1.5m fences forward of the building line, to attenuate noise impacts. These fence heights do not comply with the DCP. Should the application be approved, it is acknowledged that demolition and construction would generate noise for a period of time. Demolition and construction hours would be recommended in a condition of consent and align with the Protection of the Environment Operations Act 1997.
Character and amenity • This pocket of Regentville has a residential/semi-rural character and the commercial development is inconsistent with that character • The location of car parking in the front of the block will be detrimental to the amenity of the street • Views to the Blue Mountains will be blocked	As discussed within this report, the development is considered inconsistent with the comparative built form controls of the DCP and is inconsistent with the objectives of the zone. This assessment report has previously discussed the dominance of carparking within the front setback, inconsistency with the surrounding residential development and landscape character of the area. With regards to views, the proposed building height is compliant with the maximum height permitted on the site.
Solar access and privacy • The development will overshadow the adjacent dwelling at 53 Gibbes St, in particular the living room and outdoor areas • The development will result in visual privacy impacts on the adjacent dwelling at 53 Gibbes St, in that direct views will be afforded from proposed windows	In relation to overshadowing, the shadow diagrams submitted with the application demonstrate that the adjacent dwelling at 53 Gibbes Street will be overshadowed between 9am and 12pm, with no shadowing considered likely shortly thereafter for the full afternoon time period. Notwithstanding, the DCP specifies 3 hours sunlight is to be provided to adjoining living areas between 9am and 3pm, and 3 hours of sunlight is to be provided to 40% of the main private open spaces of adjoining development. The shadow diagrams show that any living spaces on the eastern elevation of 53 Gibbes Street will not receive the full 3 hours of sunlight prior to 3pm. The proposed development does not include any windows on the western elevation, adjoining 53 Gibbes Street. While this limits visual privacy impacts it does present an undesirable bulk of unarticulated wall.

Servicing • Servicing in the area is currently a problem and the additional loads from the development will exacerbate the issue • The sewage system backs up regularly and smells • Water pressure is low due to the number of dwellings in the vicinity • Stormwater overflows and pools in the street • Waste trucks have difficulty servicing the street as they cannot turn	Sewerage and potable water systems are not a Council managed asset and therefore it is difficult to comment on the capacity of those systems to manage the increased demand generated by the proposed development. However, were the development to be recommended for approval, a condition of consent would require the developer to obtain a section 73 certificate from Sydney Water to ensure that adequate services are available. In relation to stormwater, the site is not mapped as being affected by localised or mainstream flooding. The proposal was accompanied by a stormwater management plan which has been reviewed by Council's Development Engineer and found to be generally satisfactory, with conditions recommended. Additionally, while not a requirement based on the scale of the development, Water Sensitive Urban Design (WSUD) measures have been proposed. These have been reviewed by Council's Waterways Officer and found to be generally satisfactory with conditions recommended. Waste servicing has been addressed above.
Environmental impact • Mature trees on the property should not be removed due to their amenity and habitat values • Schoolhouse Creek is a wildlife corridor and the development, in particular the large carparking area, will increase the amount of polluted runoff entering the creek • When Schoolhouse Creek overflows, animals look for shelter in surrounding properties and there are concerns about the fate of those animals and the safety of children, especially in relation to snakes	An arboricultural report was submitted with the application and it specifies that all but one existing tree on the subject site is to be removed in order to facilitate the development. While WSUD measures are proposed as part of the development (as detailed above), the extent of hard surface area and non-compliance with minimum landscaped area standards is considered likely to adversely increase the amount of stormwater run-off from the site. The impact on fauna potentially entering the subject site is not a consideration at this time, also noting that the application is recommended for refusal.
Demand • There are a number of childcare centres in proximity to the site and the proposed facility is unnecessary	Clause 26 of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 prevents the application of any development controls related to demonstrated need or demand for services, or proximity to other early education services. The proposal is recommended for refusal on other grounds.
Inaccurate information • Technical reports submitted with the application are inaccurate, specifically in relation to acoustics, traffic, arboriculture and stormwater	The technical reports have been reviewed in detail by specialist Council officers. Whilst some have been found to be generally satisfactory, others are inadequate and unable to be supported as previously discussed.
Property value • The proposal will detrimentally affect property values in the area	Property value is not a consideration at this time, also noting that the application is recommended for refusal.

Referrals

The application was referred to the following stakeholders and their comments have formed part of the assessment:

Referral Body	Comments Received
Building Surveyor	No objections - subject to conditions
Children Services	No objections
Development Engineer	No objections - subject to conditions
Environmental - Environmental management	Not supported
Environmental - Waterways	No objections - subject to conditions
Environmental - Public Health	Not supported
Waste Services	Not supported
Traffic Engineer	No objection subject to conditions

Section 79C(1)(e)The public interest

The proposed development in not in the interest of the public for the following reasons:

- The building design does not meet the zone objectives in reference to enhancing the essential character and identity of established residential areas, and ensuring high levels of residential amenity is maintained.
- The proposal has not demonstrated that the site is suitable for the development with respect to achieving satisfactory acoustic privacy for neighbours.
- The submissions received in relation to the proposal have raised concerns about a number of matters including traffic management and on-street parking, noise generation, sewage management, tree removal, and inconsistency with the character of the residential area.

Section 94 - Developer Contributions Plans

There is no Section 7.11 Contributions Plan applicable to the subject site.

Conclusion

In assessing this application against the relevant environmental planning policies, being State Environmental Planning Policy (Educational Establishments and Childcare Facilities) 2017, State Environmental Planning Policy No. 64 - Advertising and Signage, State Environmental Planning Policy No. 55 - Remediation of Land, Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River, Penrith Local Environmental Plan 2010, and Penrith Development Control Plan 2014, the proposal does not satisfy the aims, objectives and provisions of these policies.

In its current form, the scale and density of the proposal will have a negative impact on the surrounding low density residential character of the area.

The proposed design is not site responsive, does not comply with key development standards and is not in the public interest.

Therefore, the application is not worthy of support for the attached reasons.

Recommendation

1. That DA19/0432 for a 66 place childcare centre at 49 Gibbes Street Regentville, be refused for the following reasons;
2. That those making submissions are notified of the determination.

Refusal

1 X Special 02 (Refusal under Section 79C(1)(a)(i) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(a)(i) of the Environmental Planning and Assessment Act 1979 as the proposal is inconsistent with the following provisions:

State Environmental Planning Policy Educational Establishments and Child Care Centre) 2017
Clause 23 *Centre based child care facility- matters for consideration by consent authorities.*
The application is not satisfactory in respect to the following provisions of the Child Care Planning Guideline dated August 2017:
Part 3.1 Site Selection and Location
Part 3.2 Local Character, streetscape and the public domain interface
Part 3.3 Building orientation, envelope and design
Part 3.4 Landscaping
Part 3.5 Visual and acoustic privacy
Part 3.8 Traffic, parking and pedestrian circulation
Part 4.8 Emergency and evacuation procedures

Penrith Local Environmental Plan 2010
Clause 1.2 Aims of the plan
Clause 2.3 Objectives of the zone
Clause 7.4 Sustainable development

2 X Special 04 (Refusal under Section 79C(1)(a)(iii) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 79C(1)(a)(iii) of the Environmental Planning and Assessment Act as the proposal is inconsistent with the following provisions of Penrith Development Control Plan 2014:

Part C1 Site Planning and Design Principles
Part C5 Waste Management
Part C6 Landscape Design
Part C10 Traffic, Access and Parking
Part C12 Noise and Vibration
Part D2.6 Non Residential Development
Part D5.2 Child Care Centres

3 X Special 06 (Refusal under Section 79C(1)(a)(iv) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(a)(iv) of the Environmental Planning and Assessment Act as the proposal has not demonstrated that it meets the standards required by the Food Regulation 2015, Public Health Regulation 2012 and Protection of the Environment (General) Operations Regulation 2009 in relation to kitchen, bottle preparation areas and waste storage as prescribed.

4 X Special 07 (Refusal under Section 79C(1)(b) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(b) of the Environmental Planning and Assessment Act 1979 in terms of the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts on the locality, including:

- The proposed built form and extensive carpark is inconsistent with the prevailing low density residential character of the setting.
- The application has not demonstrated that the development is satisfactory in regards to achieving acceptable noise levels.
- The proportion of the front setback area proposed for carpark use limits the provision of landscaping and replacement tree planting.
- The number of car parking spaces provided does not cater for the number of staff to be employed at the centre.

5 X Special 08 (Refusal under Section 79C(1)(c) of EPA Act 1979)
The application is not satisfactory for the purpose of Section 4.15(1)(c) of the Environmental Planning and Assessment Act 1979 as it has not been sufficiently demonstrated that the site is suitable for the proposed development due to its size and proportions, setbacks and potential adverse impacts on surrounding land.

6 X Special 9 (Refusal under Section 79C(1)(d) of EPA Act 1979)
Based on the above deficiencies and submissions received, approval of the proposed development would not be in the public interest pursuant to Section 4.15(1)(d) of the *Environmental Planning and Assessment Act 1979.*

Appendix - Development Control Plan Compliance

Development Control Plan 2014

Part C - City-wide Controls

C1 Site Planning and Design Principles

The proposal is considered inconsistent with the aims and objectives of Chapter C.1 of Penrith Development Control Plan 2014, as summarised below:

- In accordance with the Planning Principle set out in Project Venture Developments v Pittwater Council (2005) NSW LEC 191 the following tests apply in determining whether development is compatible with surrounding development:
  Where compatibility between a building and its surroundings is desirable, its two major aspects are physical impact and visual impact. In order to test whether a proposal is compatible with its context, two questions should be asked. Are the proposal's physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites. Is the proposal's appearance in harmony with the buildings around it and the character of the street?
- In its current form, the proposed design is incompatible with the character of the locality. Specifically, the location of the car parking within the front setback results in a poor visual outcome being in conflict with the surrounding development which predominately locates car parking behind primary building lines.

- C1.2.3 specifies that were the dimension of a building is 20m or more, an applicant must demonstrate how the building or surface has been articulated through built form or materials to minimise impact on bulk and scale. The western elevation is 21.5m in length with minimal relief from the expanse of unarticulated two storey wall. The alternate use of render and face brick does not assist in minimising the impact of the building's length on the perception of bulk and scale that it creates, particularly as viewed from the dwelling to the west (53 Gibbes Street).

C5 Waste Management

The proposal does not comply with Part C5 of the DCP in the following aspects:

- The proposal provides for kerbside collection, however this is not permitted in accordance with section 3.5 of the *'Industrial, commercial and mixed-use waste management guideline'* document.

- The waste generation rates proposed are not in accordance with section 3.3.1 of the 'Industrial, commercial and mixed-use waste management guideline' document. Based on the generation rates of 80L/100m^2 floor area/day for residual waste and 80L/100m^2 floor area/day for recycling, 398L per day of both waste and recycling is to be planned for.

- The proposal does not provide a waste collection room that complies with the design guidelines in accordance with section 3.4 of the *'Industrial, commercial and mixed-use waste management guideline'* document.

C6 Landscape Design

The proposed landscape design does not meet the objectives of Chapter C.6 of Penrith Development Control Plan 2014, as summarised below:

- *To ensure landscape design adequately complements the proposed built form and minimises the impacts of scale, mass and bulk of the development in its context.*
  The proposal provides 2m of landscaping along the front boundary, and 300mm landscaping strips on the eastern and western boundaries within the front setback. In considering the existing streetscape and future desired character, this landscaping area provided does not have sufficient capacity to screen the proposed 18 car parking spaces and associated driveway areas. The minimal available deep soil zones and nature of the use limit the potential for establishment of trees on the site.

C10 Transport, Access and Parking

18 car parking spaces are provided in an at grade car park within the front setback of the centre. The proposal does not meet the parking rate for child care centres provided in Table C10.2 of 1 space per 10 children, plus 1 per employee. Based on 66 children, 7 spaces are required for parents/visitors, and 11 teaching staff are provided to meet educator to child ratios. However ancillary staff, such as administration and food preparation, have not been included in this calculation, therefore the proposal falls shorts of the parking requirement.

C12 Noise and Vibration

As part of the assessment of the application, the proposal was referred to Council's Environmental Management Officer who raised a number of concerns in respect to the detail and assumptions contained within the submitted Acoustic Assessment (AA), including the following:

- *The AA modelled scenarios are based upon a total of 60 children at play in Table 5-2. The application proposes a total of 66 children. The AA is required to reflect the proposal as detailed in the SOEE and elsewhere in the application.*
- *Table 5-1 provides predicted sound power levels based upon the AAAC Guideline 2013. The noise prediction for the 0-2 year age group is based upon the maximum recommended level nominated in the AAAC Guideline. However, it is noted that the sound power levels predicted in the AA for the 2-3 and 3-5 year age groups is not based on the maximum recommended level. An explanation for this is not provided in the AA. Given the play equipment proposed and the close proximity of the outdoor play areas to adjoining receivers, it is considered appropriate that the worst case scenario be used in noise modelling and that the maximum sound power levels as recommended in the AAAC Guideline be applied throughout all age groups.*
- *Page 2 of the AA states that "the proposed child care centre will accommodate up to 10 children between the ages of 0 and 2", however, the SOEE and Plan of Management states that 16 children within this age group shall be accommodated. The AA is required to be consistent with the SOEE and the application overall.*
- *The Plan of Management submitted with the application states that the hours of operation will be 7:00am to 6:30pm. However, the SOEE and AA states that hours of operation will be 7am to 6pm. The application is required to be consistent throughout and should the hours of operation be 7am until 6:30pm, then a noise assessment based on these hours is required. "The Noise Policy for Industry 2017" categorises the period after 6pm (until 10pm) as "evening" and this potentially affects the noise assessment undertaken.*
- *The AA establishes operational noise criteria based upon a maximum of 2 hours play each day. However, the Plan of Management Daily Routine identifies three separate indoor/outdoor play sessions with a nominated total duration of six hours, comprising three hours, one and a half hours, and one and a half hours respectively. The Plan of Management Daily Routine and AA are therefore inconsistent and this aspect of the operation requires clarification. Outdoor play exceeding a two hour duration in total each day will trigger more stringent noise criteria. It must also be noted that the criteria established in the AA is based upon the "Association of Australian Acoustical Consultants Guideline for Child Care Acoustic Assessment October 2013" (AAAC Guideline 2013) which refers to a total of two hours outdoor play each day, for example one hour in the morning and one hour in the afternoon. The Plan of Management proposed Daily Routine does not demonstrate compliance with this requirement.*
- *The predicted noise from onsite vehicles was modelled without a traffic impact assessment report being available at the time. Therefore the AA traffic modelling is based upon the number of children attending the premises as being sixty. The AA is required to model traffic noise based upon the number of children being 66 as proposed elsewhere in the application and giving consideration to the vehicle movements as detailed in the Traffic and Parking Assessment Report now available and submitted with the application.*
- *The AA predicts noise from onsite vehicles based upon a "typical car starting Sound Power Level of 95dBA". Confirmation is required as to whether this Sound Power Level also reflects the noise associated with car doors closing as well.*
- *The AA does not predict noise levels from mechanical plant as it states that "the design and selection of the mechanical equipment...has not been finalised". The AA proposes locating mechanical plant to the eastern wall of Playroom 2 as an option. Concern is raised at this proposal due to the close proximity of this location to the*

boundary of adjoining receiver R08. Whilst it is acknowledged that plant and equipment will not be finalised at this stage, given the nature of the proposal and the close proximity to receivers, it is considered reasonable and appropriate that the likely impact of plant and equipment noise be modelled as this will potentially be a significant noise source and will require careful consideration in regard to location.

- *The AA does not discuss or assess the noise that will be generated by waste collection activities and deliveries to the centre. This aspect of the operation requires consideration also.*
- *The outdoor play areas contain elevated play equipment including a bridge and mounds, however, details of the height and design of these elements is not provided. Specifications for these elements are required to be included in the AA accompanied by a thorough assessment of the use of these play apparatus, including the provision of the mound on the balcony. The height of the cubby house, mounds, bridge, tree log climb and balance beam may affect noise modelling predictions.*
- *Noise exceedances at various nearby receivers are predicted in the AA based upon the modelling to date. The issues raised above may further increase the degree of non-compliance and further modelling is required to be undertaken to address these issues.*

In addition to the concerns detailed above, it is noted that the proposal includes 1.8m high acoustic fencing to the rear with an additional 900mm angled top, and 1.5m high acoustic fencing forward of the building line. This is inconsistent with the height of fencing generally provided in the locality.

D2 Residential Development

D2.6 Non Residential Developments

The objective of Part 2.6 is that *Non-residential development should be planned and designed according to principles of traditional suburban design, and to preserve the amenity of residential neighbourhoods.*

B. Controls
1) Principles of urban form and urban design that apply to permissible residential development should be adopted for non-residential development.

2) Particular attention should be paid to:
The development site including front setbacks, rear setbacks dual frontage situations.
a) Urban form including:
i) traditional building design features;
ii) traditional garden frontages;
vii) driveways and parking including: □

- provision of on-site parking appropriate to the proposed use, and in accordance with the parking requirements of this DCP; □
- minimise site coverage by paved areas; □
- locate driveways and parking areas away from any neighbouring residential development;

b) landscaped area- provision and design of the required minimum area with detailed design of gardens and paving;

c) side setbacks to provide for effective landscaped separation from adjacent developments;
d) solar planning and energy efficiency - minimised overshadowing of adjacent properties and minimise requirements for mechanical heating and cooling of interiors; and

e) privacy - protect the amenity of adjacent properties.

It is considered that the development in it's proposed design does not meet the objective of this part as it does not reflect relevant controls applicable to development within the R2 Low Density Residential zone, including:

- The R2 zone building envelope prescribes 6m rear setbacks for upper floor components. The proposed development provides 4m upper floor setbacks to the rear. Variation to this

control is not supported as the portion of building that encroaches on the setback comprises partly of a staff room. As such it is considered that there is potential for adverse privacy impacts for adjacent development resulting from the encroachment (D2.1.2).

- The development does not comply with the building envelope controls on the western elevation as specified by (D2.1.2, Figure D2.1).
- The development does not provide a minimum 50% landscaped area as prescribed in the R2 zone (D2.1.4). In this instance the minimum requirement equates to 695.5m^2. The proposal provides approximately 422m^2 (or 30.3%) of landscaped area.
- The western elevation does not incorporate windows and presents as a mass of unarticulated, blank wall (D2.1.5). The 21.5m unbroken length of the proposed western elevation does not reflect the traditional built form of low density residential areas and traditional detached dwelling houses.
- Fences within the front setback are proposed at 1.5m, which exceeds the 1.2m control (D2.1.7).
- The predominance of car parking located within the front setback is inconsistent with residential development in the locality. The narrow landscape beds and low level groundcover and shrub planting proposed is considered unlikely to provide adequate mitigation of the visual impacts of the hard surface area as viewed from the street (D2.6).
- The deep setback and length of the building, as well as non-compliant upper floor setback, contributes to overshadowing of the adjacent dwelling at 53 Gibbes Street. The shadow diagrams submitted with the application demonstrate that the proposed development will overshadow the adjacent dwelling from 9am until after 12pm, where a minimum of 3 hours solar access is required to be maintained to living spaces of adjoining properties (D2.1.6).
- The visual privacy and acoustic amenity of adjacent developments is not protected as a result of the location of upper floor play spaces, and significant carparking area located within the front setback.

D5 Other Land Uses

Part 5.2 the DCP describes a number of development controls that apply to child care centres, however it should be noted that the operation of SEPP (Educational Establishments and Child Care Facilities) 2017, which include the application of the Child Care Planning Guidelines, effectively mitigates the application of a number of these controls. The Child Care Planning Guidelines include reference to local character, street scape and the public domain interface, building form and scale which have been previously addressed.

An assessment of the application has been undertaken against the relevant criteria of D.5.2 Child Care Centres of Penrith Development Control Plan 2014, and the proposal inconsistent with the following objectives and controls:

B. Objectives
b) To ensure that child care centres are located and designed to minimise any impact on the amenity of the surrounding area, particularly from noise and traffic; and
d) To ensure the provision of safe, convenient and attractive car parking areas
The proposed design results in unacceptable visual impacts. The proposal in its current form does provide an appropriate design response with the R2 Low Density Residential zone, and does not contribute to the local area by being designed in character with the locality and existing streetscape. Specifically, the proposal provides 18 at grade car parking spaces within the front setback, resulting in excessive hardstand area within the front setback and minimal opportunities for meaningful landscaping. The location and design of parking areas is inconsistent with the character of the locality in which parking areas are located predominately behind the primary building line.

C. Controls
2d) Access to the site shall not be located in a cul-de-sac, at an intersection, or on a minor residential road unless it can be demonstrated that additional vehicles associated with the child care centre will not create traffic conflict or have an adverse impact on the amenity of the locality.
The subject site is located in a minor residential, no through road without the benefit of a turning bay. A traffic assessment has been submitted with the application and has been reviewed by Council's Traffic Officer. It is noted that while the local road network is considered to have the capacity to accommodate the additional traffic generated by the proposed development, the significant increase to traffic flows will have an impact on amenity for local residents, which has not been addressed in the acoustic assessment.

3a) The scale and character of the development shall be compatible with surrounding development; and
4b) In residential areas, the built form of the child care centre shall be sympathetic to adjoining development in terms of height, bulk and scale.
The width of the development across the lot presents a bulk and scale that is inconsistent with the existing built form in the surrounding locality. The location and design of parking areas is inconsistent with the character of the locality in which parking areas are located predominately behind the primary building line.

6a) Outside playing areas shall be designed and located to minimise noise impact on any noise sensitive adjacent properties. Separation between boundary fencing and areas occupied by the children may be required.
The acoustic assessment provided has not adequately demonstrated that the acoustic privacy of adjacent residential dwellings can be maintained notwithstanding the attenuation measures proposed, including acoustic fencing.

8a) Landscape planting shall complement the building(s) and the streetscape, and provide screening for car parking and outdoor playing areas.
The landscaping treatment proposed is insufficient in area and height to provide for screening of the car park area.

FRONT VIEW

REAR VIEW

EXTERNAL FINISHES SCHEDULE

F1-
Main Facade:
Biowood Facade screen with Clip 50x50
Natural oak
Linished/Spotted gum
Sanded

F2-
Main Facade:
Elmich Versiwall GP
Green wall system

F3-
Feature Facade Wall:
Acrylic render
Dulux *Billiard Ball*

F4-
Brickwork
Austral Bricks
La Paloma *Miro*

F5-
Decking
Biowood Composite Decking
90x28 Spotted Gum

F6-
Metal roofing
Trimdek
Colorbond
Woodland gray

F7-
Fascia & downpipes, aluminiumm door /windows
Woodland Grey

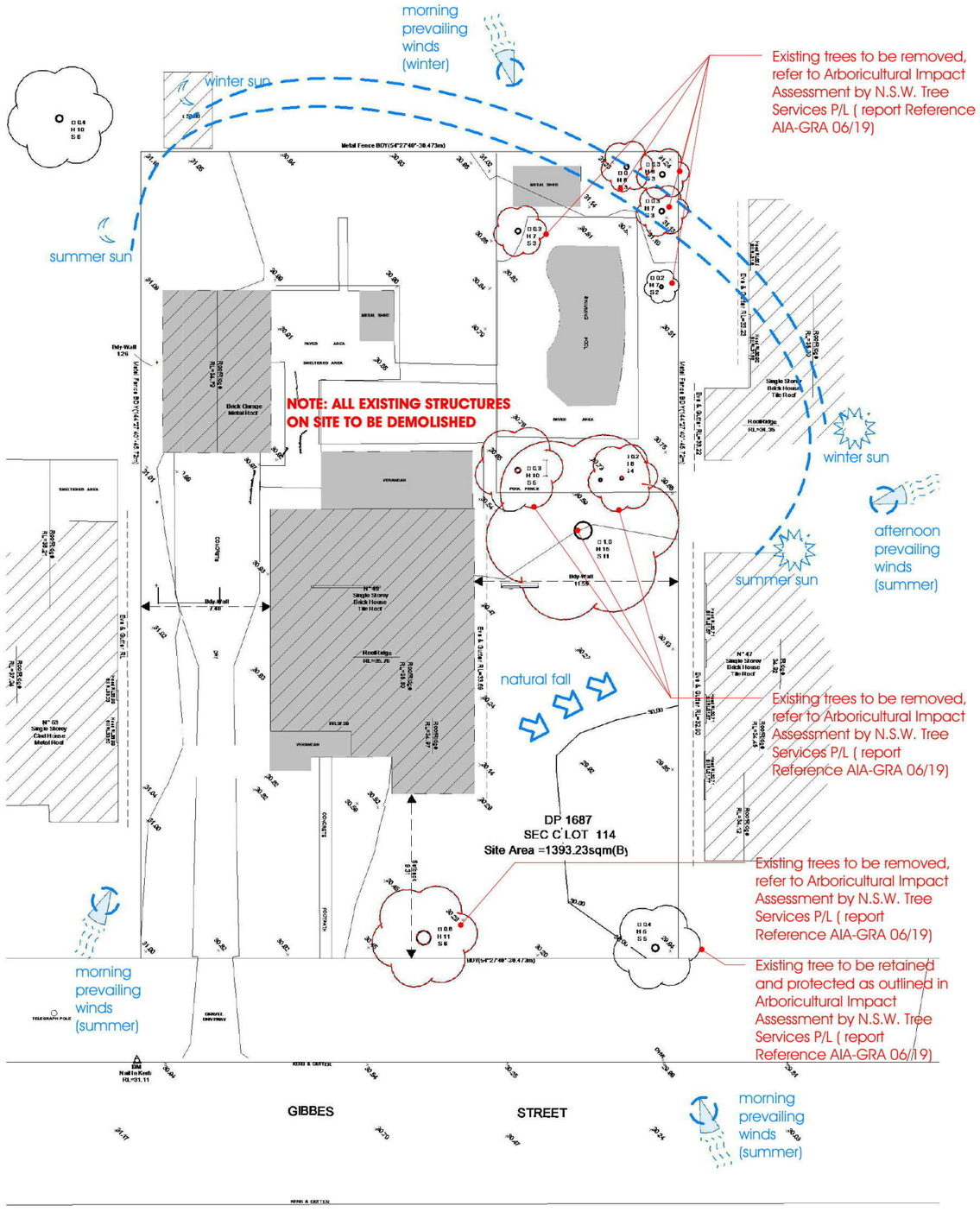
F8-
Accent Colour
Arcylic Render on Brickwork
Dulux *Teahouse*

NO. 51 GIBBES STREET **SUBJECT SITE -** NO. 49 GIBBES STREET NO. 47 GIBBES STREET

EXISTING STREETSCAPE

LOCATION PLAN

SCALE: NTS (A3)



SITE ANALYSIS & DEMOLITION PLAN

SCALE: 1:300 (A3)

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PO Box 3371, Wetherill Park, NSW, 2164
envisiongroup.com.au

bdaa ACCREDITED BUILDING DESIGNER

AMENDMENTS:

A	Issued for Comments	01.04.2019
B	Revised Sketch issued for Comments	07.05.2019
C	Issued for Comments	28.05.2019
D	Revised as per Consultants Comments/Issued for DA	18.06.2019

PROJECT NO.: #82

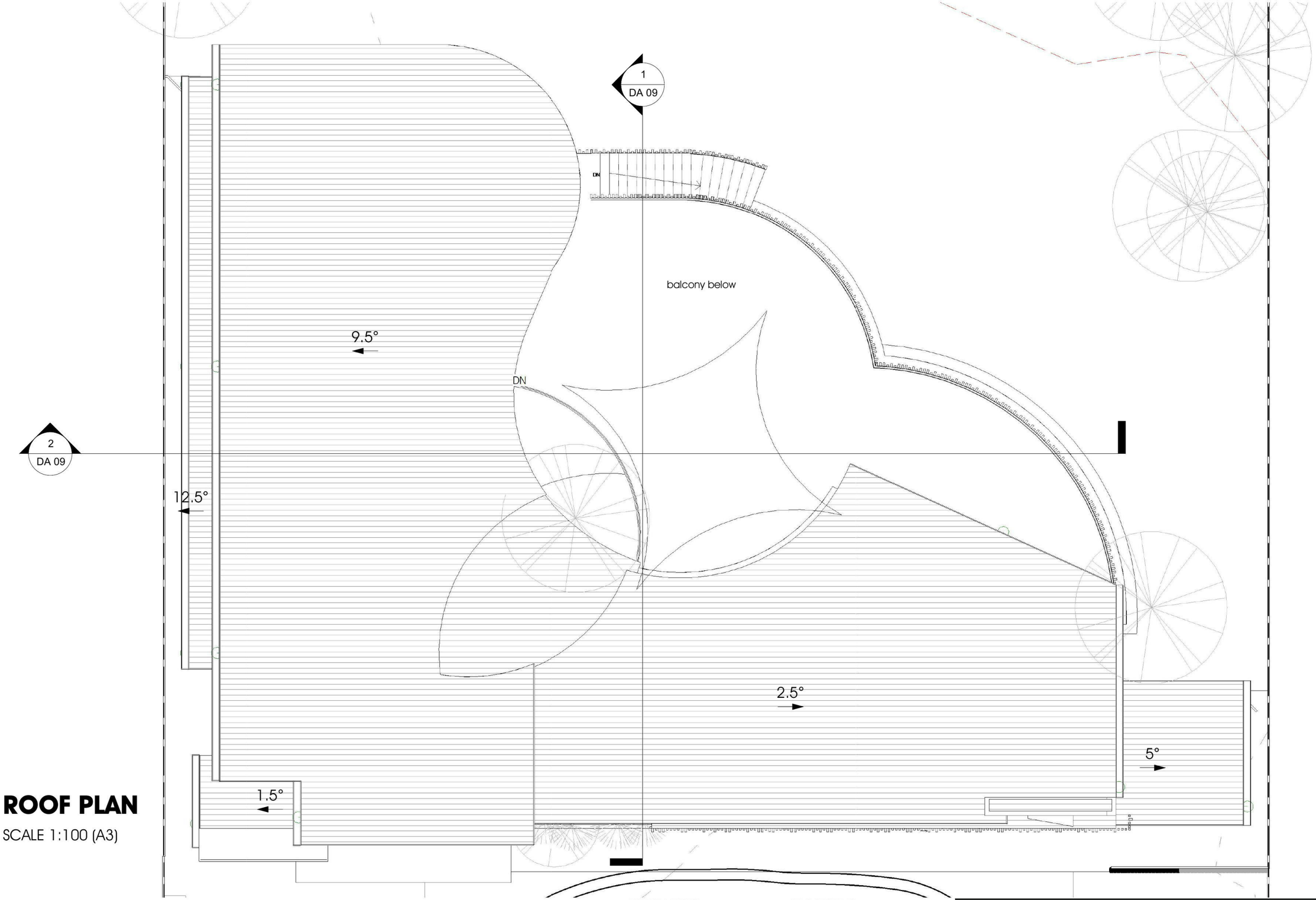
DA 01

Grace Village Child Care Center

Proposed Child Care Center

0 1 2m

Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW



ROOF PLAN

SCALE 1:100 (A3)

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PROJECT NO.: #82

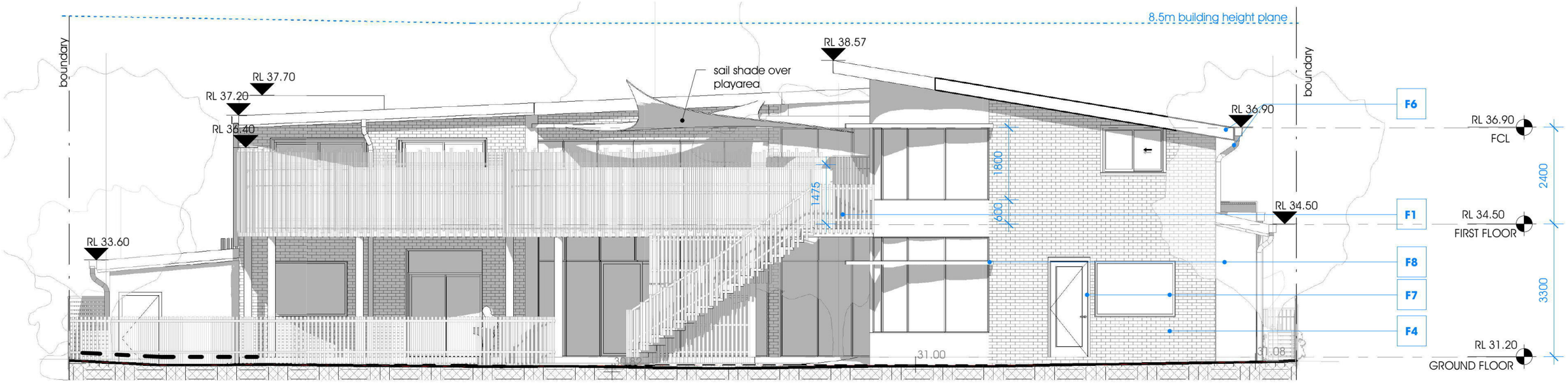
DA 05

Grace Village Child Care Center

Proposed Child Care Center

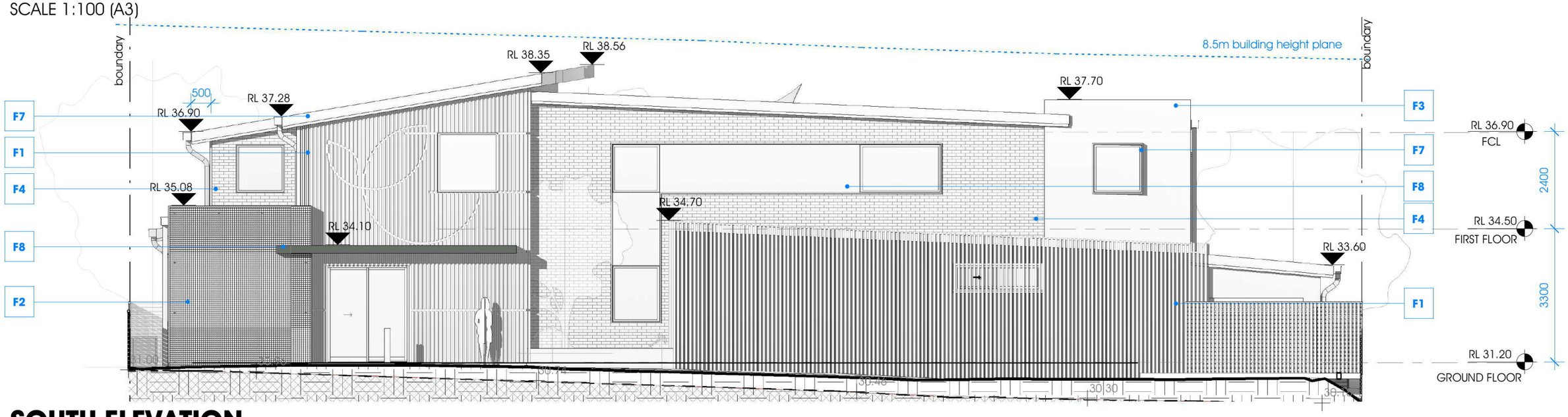
0 1 2m

Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW



NORTH ELEVATION

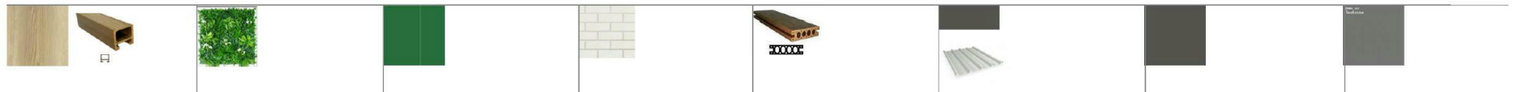
SCALE 1:100 (A3)



SOUTH ELEVATION

SCALE 1:100 (A3)

EXTERNAL FINISHES SCHEDULE



F1-
Main Facade:
Biowood Facade screen with Clip 50x50
Natural oak
Linished/Spotted gum
Sanded

F2-
Main Facade:
Elmich Versiwall GP
Green wall system

F3-
Feature Facade Wall:
Acrylic render
Dulux *Billiard Ball*

F4-
Brickwork
Austral Bricks
La Paloma *Miro*

F5-
Decking
Biowood Composite Decking
90x28 Spotted Gum

F6-
Metal roofing
Trimdek
Colorbond
Woodland gray

F7-
Fascia & downpipes, aluminiumm door /windows
Woodland Grey

F8-
Accent Colour
Arcylic Render on Brickwork
Dulux *Teahouse*

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D	Revised as per Consultants Comments/Issued for DA	18.06.2019

PROJECT NO.: #82

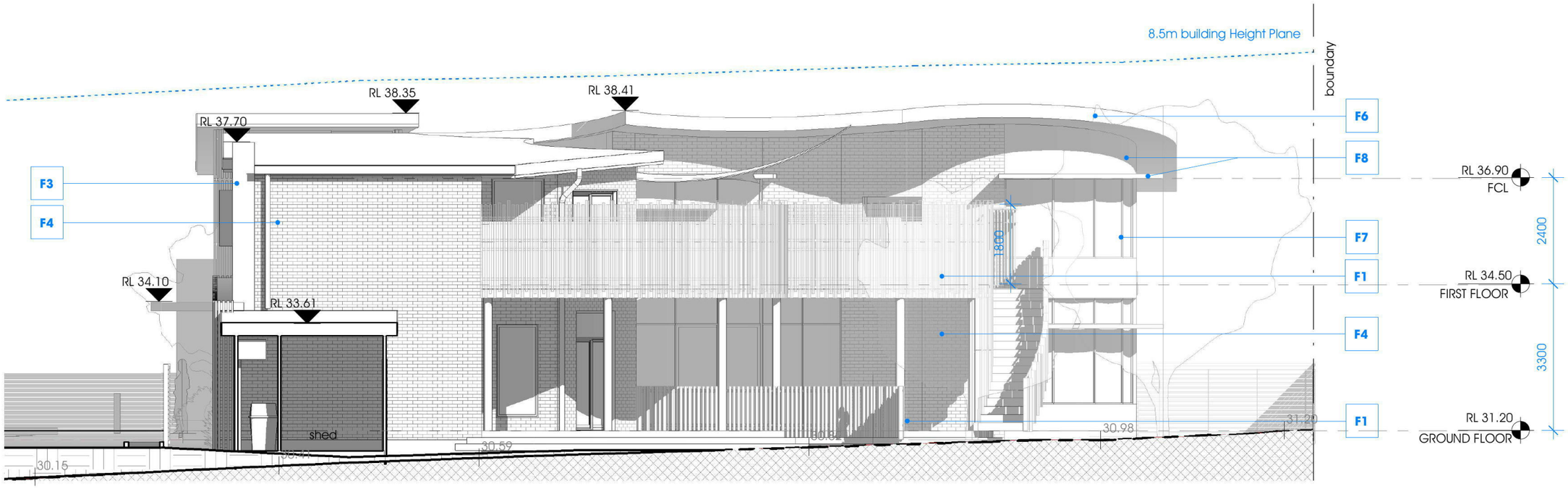
DA 07

Grace Village Child Care Center

Proposed Child Care Center

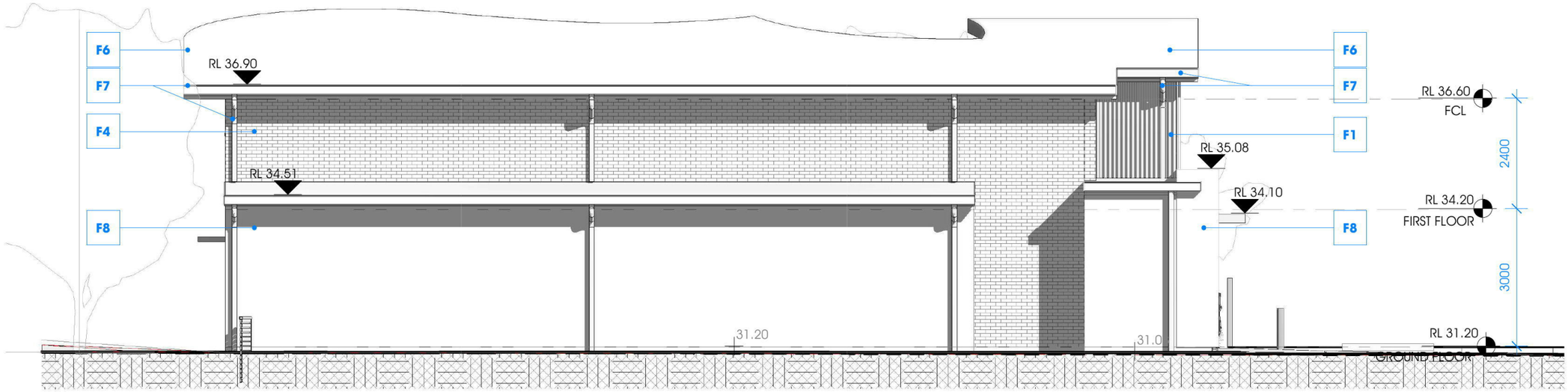
0 1 2m

Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW



EAST ELEVATION

SCALE 1:100 (A3)



WEST ELEVATION

SCALE 1:100 (A3)

EXTERNAL FINISHES SCHEDULE

F1-
Main Facade:
Biowood Facade screen with Clip 50x50
Natural oak
Linished/Spotted gum
Sanded

F2-
Main Facade:
Elmich Versiwall GP
Green wall system

F3-
Feature Facade Wall:
Acrylic render
Dulux *Billiard Ball*

F4-
Brickwork
Austral Bricks
La Paloma *Miro*

F5-
Decking
Biowood Composite Decking
90x28 Spotted Gum

F6-
Metal roofing
Trimdek
Colorbond
Woodland gray

F7-
Fascia & downpipes, aluminiumm door /windows
Woodland Grey

F8-
Accent Colour
Arcylic Render on Brickwork
Dulux *Teahouse*

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bdaa ACCREDITED BUILDING DESIGNER

AMENDMENTS:

A	Issued for Comments	01.04.2019
B	Revised Sketch issued for Comments	07.05.2019
C	Issued for Comments	28.05.2019
D	Revised as per Consultants Comments/Issued for DA	18.06.2019

PROJECT NO.: #82

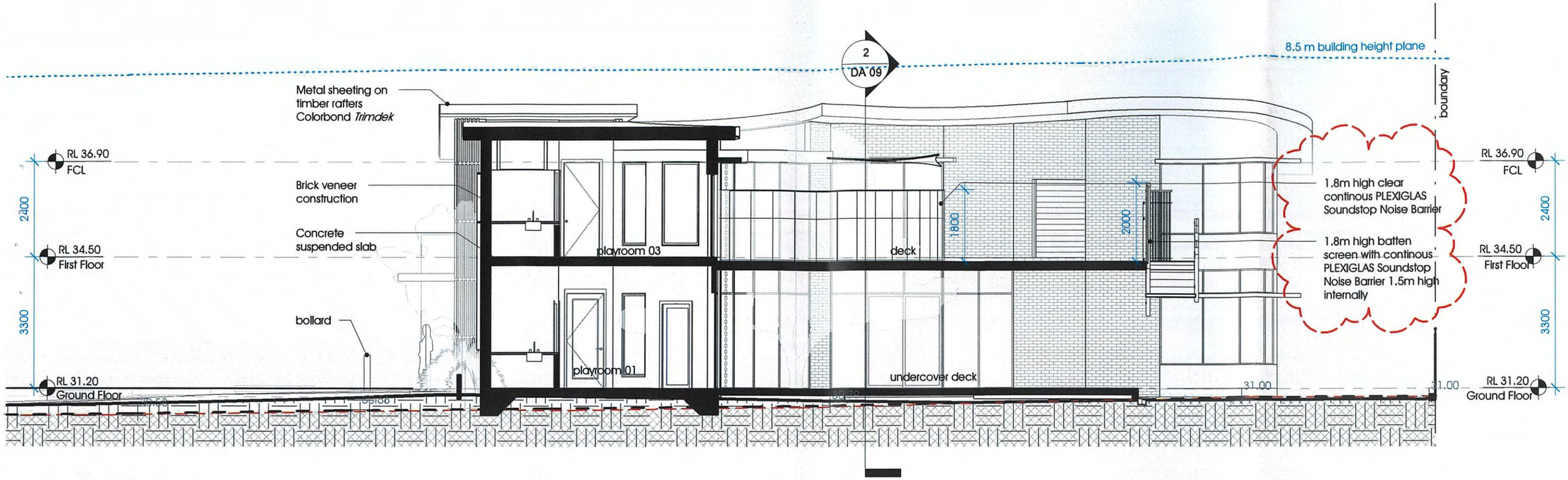
DA 08

Grace Village Child Care Center

Proposed Child Care Center

0 1 2m

Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW



SECTION A-A

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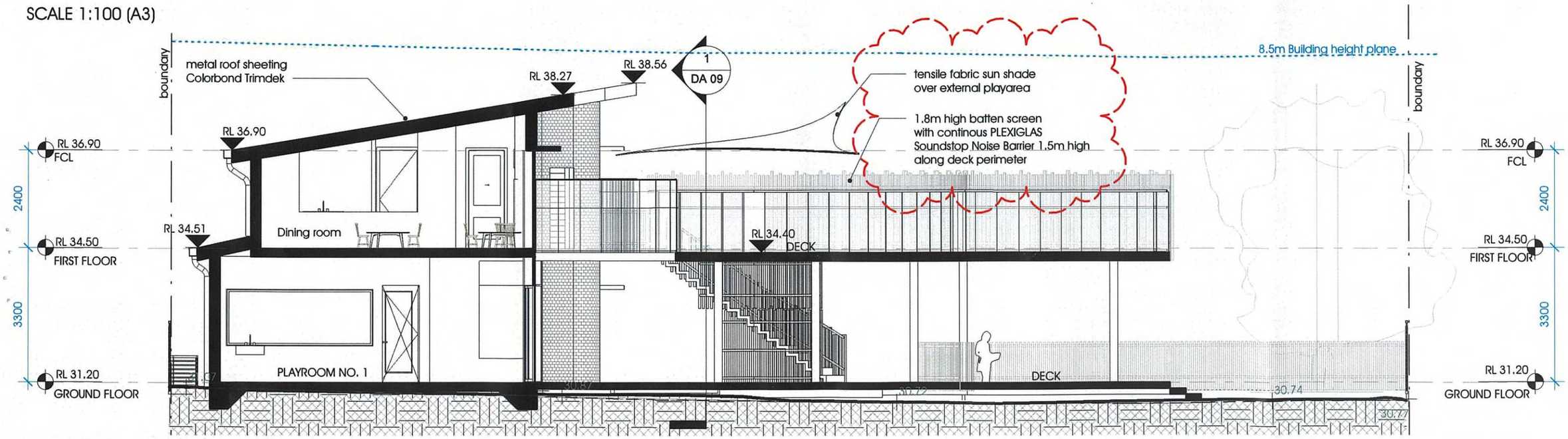

SECTION B-B

SCALE 1:100 (A3)

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PROJECT NO.: #82

DA 09

Grace Village Child Care Center

Proposed Child Care Center

0 1 2m

Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW

SHADOW DIAGRAMS

21 JUNE 9AM

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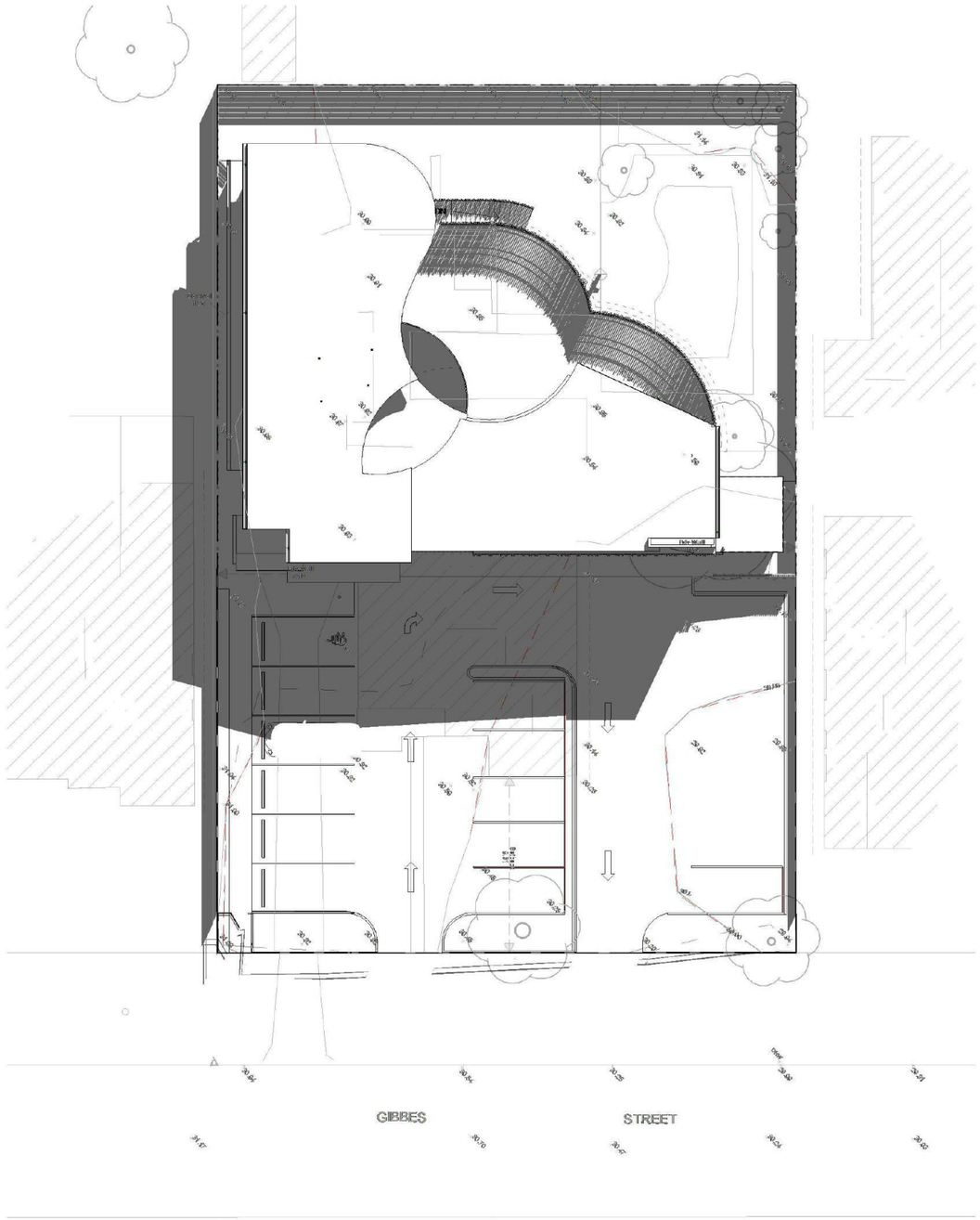

SHADOW DIAGRAMS

21 JUNE 12PM

SCALE 1:300 (A3)

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PROJECT NO.: #82

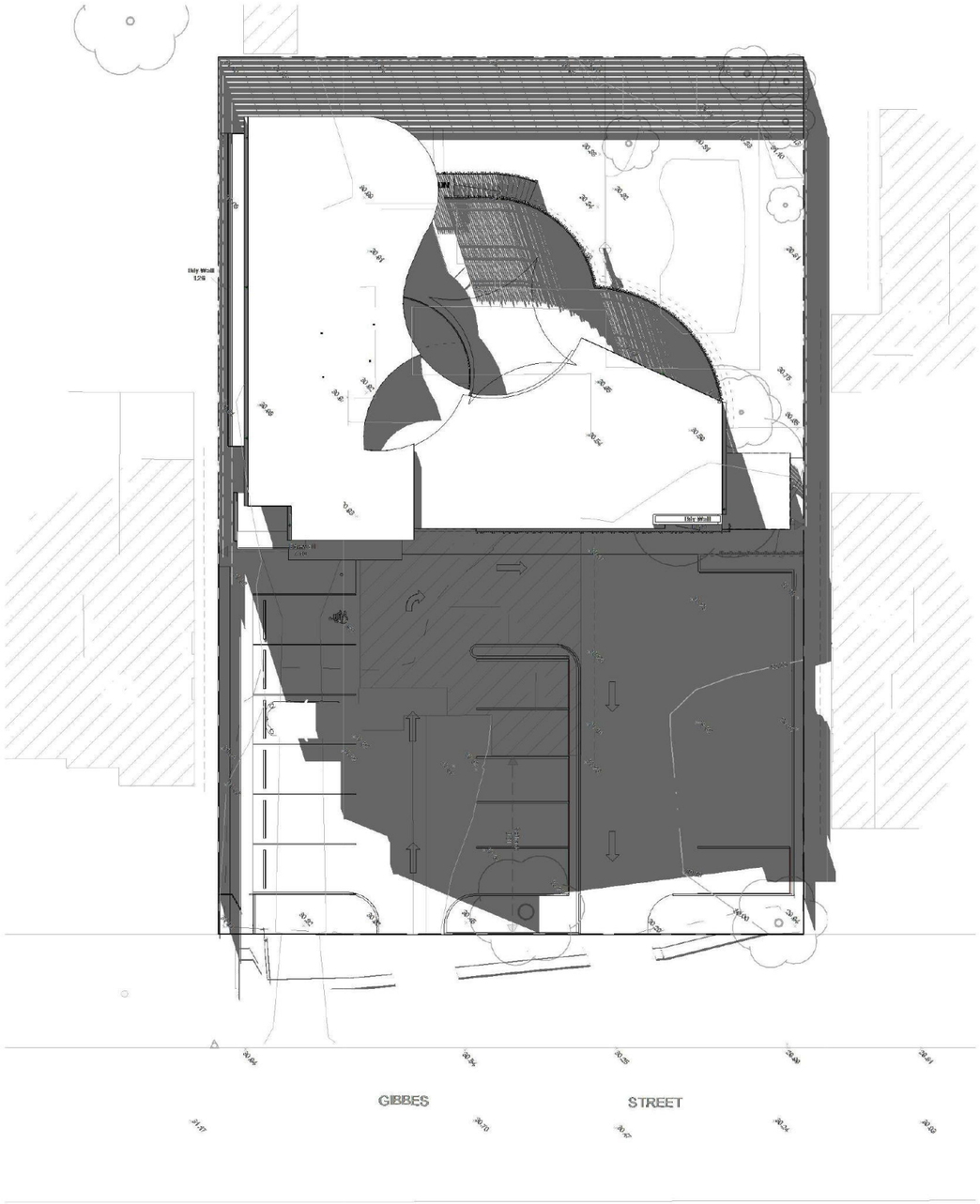
DA 11

Grace Village Child Care Center

Proposed Child Care Center

0 1 2m

Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW



SHADOW DIAGRAMS

21 JUNE 3PM

SCALE 1:300 (A3)

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PROJECT NO.: #82

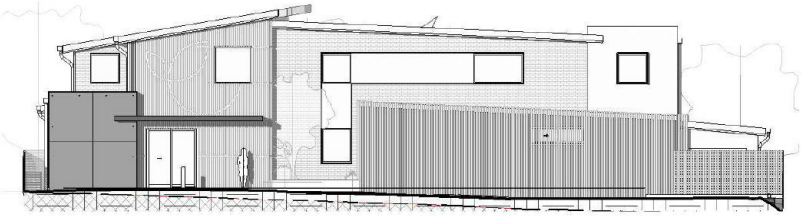
DA 12

Grace Village Child Care Center

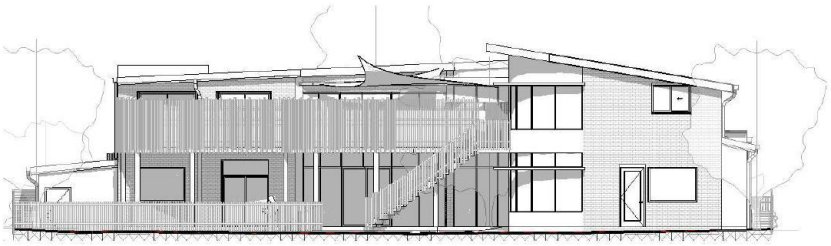
Proposed Child Care Center

0 1 2m

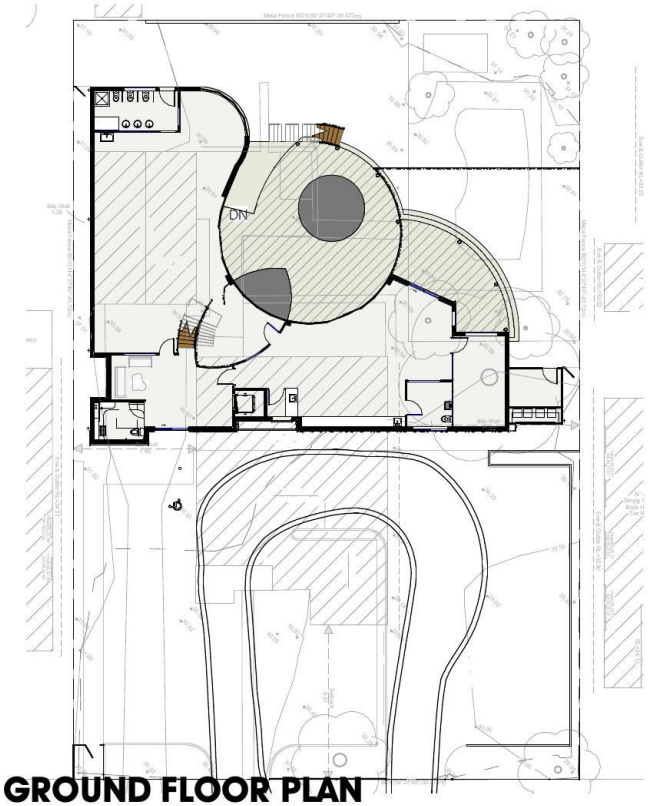
Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW



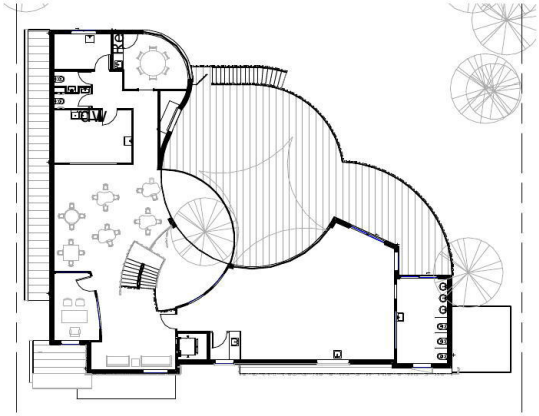
SOUTH ELEVATION
SCALE: NTS



NORTH ELEVATION
SCALE: NTS

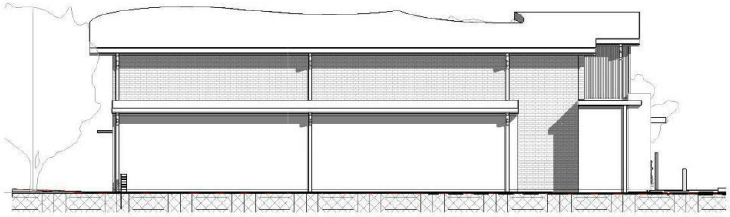


GROUND FLOOR PLAN
SCALE: NTS



FIRST FLOOR PLAN
SCALE: NTS

EAST ELEVATION
SCALE: NTS



WEST ELEVATION
SCALE: NTS

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bdaa ACCREDITED BUILDING DESIGNER

AMENDMENTS:

PROJECT NO.: #82

DA 13

Grace Village Child Care Center

Proposed Child Care Center

0 1 2m

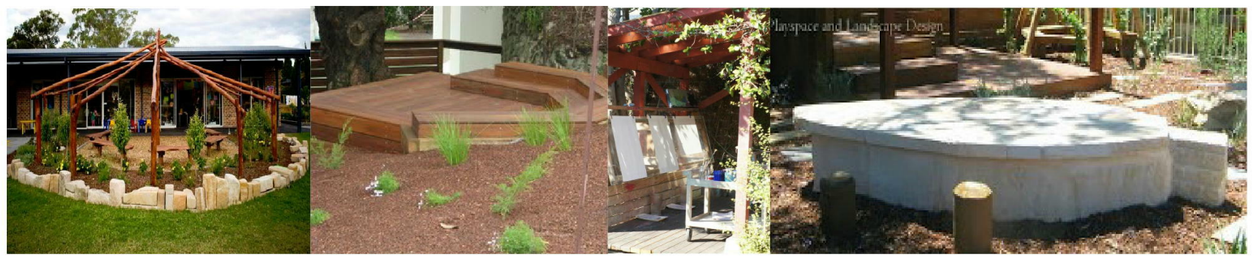
Lot 114 Sec C, DP 1687,49 Gibbes St, Regentville NSW

Sample board 1 for Grace Village CCC - Proposed - 49 Gibbes St., Regentsville, NSW - Prepared by Tessa Rose Playspace and Landscape Design Monday, 24 June 2019

Left to right: : Sandstone edged sandpit with building platforms, Timber seat, Blackboard panel, Perspex easel panel, Mirror panel, Multipurpose Rainwell - Stainless steel pump, Triangular cubby - Left, Timber letter box

Left to right: Log steppers, Log rounds for climbing, balancing & seating, Boulders for seating, Balance beam – Elevated, Circular timber seat, Low artificial grass mound, Timber poles for hanging herbs/wind chimes, AG tunnel in mound, Tunnnel with logs steps,

Left to right: Toddler slide mound, Water channel, Cube cubby house, Dipped artificial grass playspace for babies, Blonde wood decking with planters, Decking with cutouts for plants in pots,



Left to right: Tree log pergola over deck, Ampitheatre seat, Art studio, Sandstone flagging leaf table with seats,

* Please note these images are to be considered in conjunction with your plan and are used to give an idea of colours, textures & constructs that will be present in the completed playspace.

Sample board 2 for Grace Village CCC - Proposed - 49 Gibbes St., Regentsville, NSW - Prepared by Tessa Rose Playspace and Landscape Design Monday, 24 June 2019

Left to right: Artifcial turf, Cobblestones –beige, Sandstone flagging stepper pathway, Wooden insert –bike track, Wetpour surfacing - Polysoft - Desert, Oz Logs concrete sleepers, Deco granite –Deco gold, Bluestone crazy paving stepping stones, Turf –Empire Zoysia,

Plant selection

TREES

Left to right: *Tristaniopsis Laurina* 'Luscious' - Tree and foliage, , *Corymbia eximia* 'Yellow bloodwood', *Acacia implexa* 'Hickory wattle', Gingko '"Princeton sentry',

Plant selection

SHRUBS

Left to right: *Syzigium Australe* 'Pinnacle', *Hymenosporum flavum* 'Gold nugget', *Leptospermum petersonii* 'Little lemon scents', *Agonis flexuosa* 'Copper wave', *Philotheca myoporoides,* 'Ruby cascade'

Plant selection

GRASSES/
GROUNDCOVERS

Left to right: Lomandra confertifolia 'Tanika', Dianella caerulea ' Breeze', *Themeda australis,* 'Mingo', *Liriope muscari* 'Just Right' , *Hardenbergia violacea* 'Sea of Purple', *Goodenia hederacea,*

* Please note these images are to be considered in conjunction with your plan and are used to give an idea of colours, textures & constructs that will be present in the completed playspace.

CONCISE PLANNING

Address:	**49 GIBBES STREET, REGENTSVILLE NSW 2745**
Project:	**DEMOLITION OF EXISTING DWELLING HOUSE AND CONSTRUCTION OF A NEW TWO STOREY CHILDCARE CENTRE AND ASSOCIATED CAR PARKING**
Report:	**STATEMENT OF ENVIRONMENTAL EFFECTS**
Reference:	190013– Development Application
Date:	28 June 2019
To:	Envision Group Pty Ltd PO Box 3371 WETHERILL PARK NSW 2164
Contact:	Khadija Motiwala projects@envisiongroup.com.au

TABLE OF CONTENTS

DOCUMENT CONTROL TABLE

Document Reference:	PR190013_02		
Date:	**Version:**	**Author:**	**Checked By:**
27 June 2019	Draft	Rohan Johnston	Adam Mainey
28 June 2019	Draft	Rohan Johnston	Adam Mainey

1. INTRODUCTION

This Statement of Environmental Effects (SEE) has been prepared to accompany a Development Application to the Penrith City Council for the demolition of the existing dwelling house and construction of a new two storey childcare centre and associated car parking No.49 Gibbes Street, Regentsville.

This Statement has been prepared in accordance with the following:

- Acoustic Report, prepared by Wilkinson Murray, dated 21 June 2019.
- Arboricultural Impact Assessment, prepared by NSW Tree Services, dated 20 June 2019.
- Childcare Compliance Report, prepared by Childcare by Design, dated 20 June 2019.
- Plan of Management, prepared by Childcare by Design, Not Dated.
- Preliminary Site Investigation Report, prepared by SESL Australia, dated May 2019.
- Traffic Report, prepared by Varga Traffic Planning, dated 21 June 2019.
- Stormwater Drawings Prepared by Stormwater Engineers Pty Ltd, dated June 2019.
- Architectural Plans, prepared by Envision Group, including:

Drawing No:	Description:	Date:
-	Cover Page	-
-	External Finishes Schedule	-
DA 01	Exisitng Streetscape/ Location Plan/ Site Analysis & Demolition Plan	18 June 2019
DA 02	Site Plan	18 June 2019
DA 03	Ground Floor Plan	18 June 2019
DA 04	First Floor Plan	18 June 2019
DA 05	Roof Plan	18 June 2019
DA 06	Ground Floor Play Area Plan/ First Floor Plan Area Plan	18 June 2019
DA 07	North Elevation/ South Elevation / External Finishes Schedule	18 June 2019
DA 08	East Elevation/ West Elevation/ External Finishes Schedule	18 June 2019
DA 09	Section A-A/ Section B-B	18 June 2019
DA 10	Ground Floor Evacuation Plan/ First Floor Evacuation Plan	18 June 2019
DA 11	Shadow Diagrams	18 June 2019
DA 12	Shadow Diagrams	18 June 2019

The purpose of this report is to describe the proposed development and review the relevant planning controls relating to the proposal. It provides an amended assessment of the proposed development in light of the provisions of Section 4.15 of the Environmental Planning and Assessment Act 1979.

This report aims to demonstrate that the proposed development is appropriate within its context and within the framework of the relevant planning policies.

This statement addresses issues arising from the change of use in light of the following planning controls:

- Environmental Planning and Assessment Act 1979;
- Environmental Planning and Assessment Regulation 2000;
- Penrith Local Environmental Plan 2010;
- Penrith Development Control Plan 2014;
- Provisions of Section 4.15 of the Environmental Planning and Assessment Act 1979.
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
- Child Care Planning Guideline - Delivering quality child care for NSW August 2017
- Education and Care Services National Regulations

The assessment relies upon the following information:

- The subject land is zoned R2 Low Density Residential under the Penrith LEP 2010.

- The immediate context of the site and surrounding area is residential character.
- The relevant provisions of the development control plans for childcare centres, parking and public notification.

2. SITE & CONTEXT ANALYSIS

2.1 Subject Site Description

The site is legally described as Lot 114, Section C in Deposited Plan 1687 and is known as 49 Gibbes Street, Regentsville. The area of the site is 1393.23 m². The site is located within a residential area.

The subject site is located in Regentville, and is located approximately 1.4 kms south-west of Jamisontown, 1.2 kms north-east of Mulgoa, 2.3 kms metres south-east of Glenmore Park and is located within the Local Government Area (LGA) of Penrith. Figure 1 illustrates the context of the site within the locality.

The subject site has a frontage to Gibbes Stret. The site is rectangular in shape with an effective width of 29.474 metres and an average depth of 45.72 metres. The subject is relatively flat with a fall from the rear to the front of the allotment of approximately 0.3 metres.

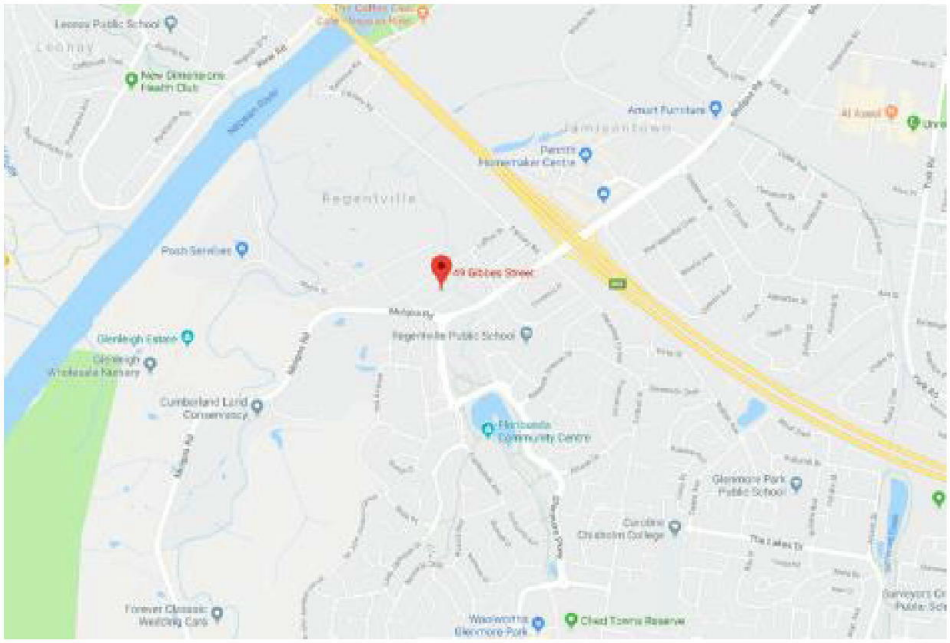


Figure 1: Map location of site (Google Maps, 2019)

2.1. Existing Building and Associated Structures

The site is occupied by an existing single storey dwelling house, detached garage, garden shed and swimming pool. The existing dwelling is of masonry (brick) construction with a tiled hip roof (Figure 2). The existing dwelling house has a front setback that is consistent with the predominant street setback. The existing dwelling has a setback of 9.31 metres from the primary road (front) allotment boundary (measured to the external wall of the dwelling). The front setback area contains vehicular access to the site and landscaped (grassed) area. The existing dwelling has a setback of 7.4 metres from the western boundary and 11.59 metres from the eastern allotment boundary. The existing dwelling has setback of 16.95 metres from the rear allotment boundary. The rear setback area contains a large grassed area and swimming pool.

Figure 2: Subject site as viewed from Gibbes Street (Source: Concise Planning, 2019)

2.2. Land Zoning

The subject site is zoned R2 Low Density Residential under the Penrith Local Environmental Plan 2010 (PLEP2010) (Figure 2). Clause 2.3 of the PLEP2010 sets out the land use table for the R2 Low Density Residential zone as follows **(emphasis added):**

Permitted with consent

Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; ***Centre-based child care facilities;*** *Community facilities; Dual occupancies; Dwelling houses; Emergency services facilities; Environmental protection works; Exhibition homes; Flood mitigation works; Group homes; Health consulting rooms; Home-based child care; Home businesses; Home industries; Information and education facilities; Neighbourhood shops; Oyster aquaculture; Places of public worship; Pond-based aquaculture; Recreation areas; Residential care facilities; Respite day care centres; Roads; Secondary dwellings; Shop top housing; Tank-based aquaculture*

Prohibited

Any other development not specified in item 2 or 3

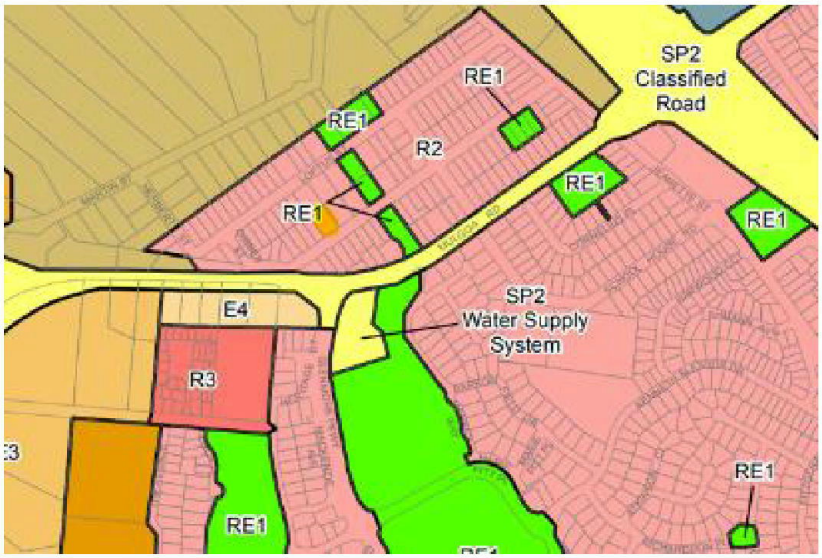


Figure 2: Land Zoning Map (Map Ref 006). Extract from Penrith Local Environmental Plan 2010 (Source: NSW Legislation, 2019).

2.3. Heritage

The subject site is not listed as an item of environmental heritage, nor is it located within a heritage conservation area under the provisions of the Penrith Local Environmental Plan 2010. Figure 3 presents an extract from the Heritage Map which forms part of the PLEP2010, illustrating the physical relationship of the subject site to existing heritage items and heritage conservation areas.

Figure 3: Heritage Map (Map Ref 006) Extract from Penrith Local Environmental Plan 2010 (Source: NSW Legislation, 2019).

2.4. Neighbouring Buildings

As stated above, the subject site is located within a low-density residential area and is surrounded by a number of single and two storey dwelling houses. Figure 4 provides an aerial view and illustrates the configuration of the site and its relationship to adjoining developments.

Figure 4: Relationship of the site to adjoining properties (Source: Six Maps, 2019).

No. 53 Gibbes Street (west)

To the west of the subject site is No. 53 Gibbes Street consisting of a single storey dwelling house. The building is of timber frame construction with cladded external walls and a coloubond gabled roof (Figure 5). The existing dwelling has a setback of 7.7 metres from the primary road (front) allotment boundary (measured to the external wall of the dwelling). The front setback area contains vehicular access to the site, carport and a landscaped (grassed) area. The existing dwelling has a 0.9 metre setback from the eastern allotment boundary and a 1.5 metre setback from the western allotment boundary. The existing dwelling has setback of 17.5 metres from the rear allotment boundary. The rear setback area contains a large landscaped area.

Figure 5: No. 53 Gibbes Street, as viewed from Gibbes Street (Source: Concise Planning, 2019)

No. 47 Gibbes Street (east)

To the east of the subject site is No. 47 Gibbes Street consisting of a single and two storey dwellings in a multi-dwelling housing development. The building is of masonry (brick) construction with a tiled hipped roof (Figure 6). The existing buildings have a setback of 5.5 metres from the primary road (front) allotment boundary (measured to the external wall of the dwelling). The front setback area contains vehicular access to the site and small courtyards. The front allotment boundary is delineated by a low height masonry fence. The existing buildings have a 0.9 metre setback from each side allotment boundary. The existing buildings have setback of 2.8 metres from the rear allotment boundary. The rear setback area contains small courtyards to the rear dwellings.

Figure 6: No. 47 Gibbes Street, as viewed from Gibbes Street (Source: Concise Planning, 2019)

52 Gibbes Street (south)

To the south of the subject site is No. 52 Gibbes Street consisting of a single storey dwelling house. The building is of timber frame construction with cladded external walls and a tiled gabled roof (Figure 7). The existing dwelling has a setback of approximately 24 metres from the primary road boundary. The front setback area contains a vehicular access to the site and a large grassed area. The dwelling has a setback of approximately 9 metres from the rear allotment boundary. The rear setback area consists of a rear courtyard and grassed area.

Figure 7: No. 52 Gibbes Street, as viewed from Gibbes Street (Source: Concise Planning, 2019)

2.5. Surrounding Area

Locality

The subject site is located within a R2 Low Density Residential zone under the Penrith Local Environmental Plan 2010. The site is located along Gibbes Street, in a low-density residential area in Penrith. The street character immediately surrounding the subject site consists of detached single and two storey dwelling houses.

Street Pattern

The residential area in which the subject site is located, is defined by a distinct grid pattern of streets with long narrow linear blocks orientated north-east to south-west. Gibbes Street is the primary road and is a two-way street. On-street parking is available on each side of the carriageway and is not time limited (Figure 8).

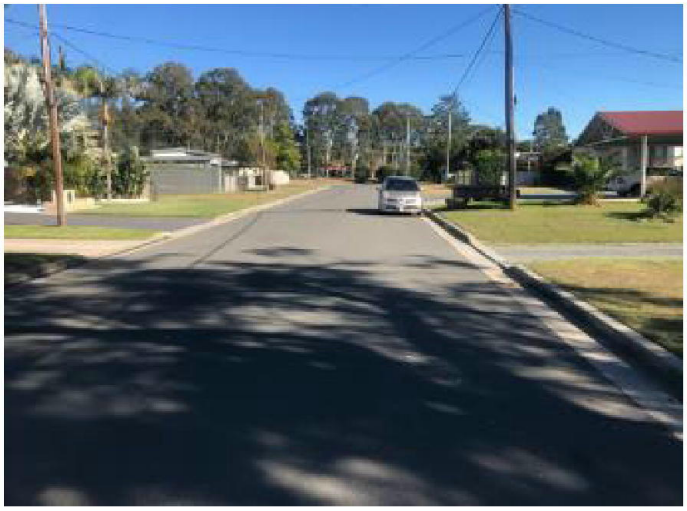


Figure 8: View looking south-west along Gibbes Street (Source: Concise Planning, 2019).

3. THE PROPOSAL

3.1. Description of Works

This section of the report should be read in conjunction with the architectural plans prepared by Envision Group. This application seeks approval for the demolition of the existing dwelling house and construction of a new two storey childcare centre and associated car parking No.49 Gibbes Street, Regentsville. The following physical works are depicted on the architectural plans:

- Demolition of the existing dwelling house and associated structures.
- Removal of existing trees.
- Construction of a new two storey child care centre.
- Construction of a new car parking area.

3.2. Description of Operations

The internal layout of the proposed centre has been designed by Envision Group to accommodate a maximum of 66 children. It is envisaged that the centre will accommodate a maximum of 16 children of age 0-2 years, 20 children aged 2-3 years, 30 children of age 3-5 years.

The site is proposed to be purpose designed and built, to satisfy the requirements of the Penrith LEP 2010, Penrith DCP 2014, and the requirements of the NSW Department of Community Services.

The tenancy will consist of up to eleven (11) equivalent full-time staff members.

The proposed hours of operation are 7:00am to 6:00pm Monday to Friday. These hours of operation are proposed in order to:

- Provide suitable opening and closing times for the drop-off and pick-up of children from the childcare centre.

- Maintain the low density residential setting by providing reasonable hours of operation that will not impact upon the amenity of neighbouring dwellings.

The centre will not operate on gazetted public holidays and the 2 week period between Christmas and New Years.

It is considered that the hours of operation of the proposed childcare centre are appropriate as they will generally be carried out between normal business hours. The hours of operation proposed as part of this application have been designed to not be open late at night or on weekends and thereby will not have a unacceptable impact on the amenity of nearby residents.

The Childcare Centre will consist of eighteen (18) parking spaces off site. The site is located in an accessible area with the nearest bus station located 80 metres to the south-east of the development providing regular connection with adjoining suburbs and the Sydney CBD.

Waste collection for the proposed development is to be undertaken from the kerbside area directly outside the site frontage in Gibbes Street by a private contractor. Collection will be undertaken outside of peak periods when traffic activity in Gibbes Street will be minimal.

3.3. Design Statement

The application seeks approval for the demolition of the existing dwelling house and construction of a new two storey childcare centre and associated car parking.

The design intent of the proposal is to provide a childcare centre having a focus on providing a high quality of service in an accessible location, whilst ensuring the proposal is in keeping with the scale, design and character of the low density residential locality of Gibbes Street.

The development will maintain the low/medium density residential setting of the area and has been designed to maintain the amenity of neighboring residential developments. This will ensure that the building is compatible with the overall streetscape and character of the area.

The proposal has been designed with the outdoor play areas orientated to the north-west to enable solar penetration to these spaces whilst maximizing shade for children.

3.4. Response to Pre-DA Advice

Formal Pre-Da advice was received on the **22 January 2019** from S. Nguyen **REF PL19/0003**.

The advice provided the following points to be addressed and responded to as follows.

a) Car parking spaces being situated within the front and rear setback areas
The car parking design has been revised to incorporate additional landscaping areas in the front and side setbacks. The additional space will allow for native plantings that will contribute to the appearance of the natural environment space within the streetscape in accordance with C10.5.3 B) ii) and iii)(Additional Controls for Residential Developments) of the Penrith DCP 2010. The design has been revised to have all car parking areas located in the front setback (with landscaped areas providing visual relief) as to mitigate any privacy impacts on neighbouring residential developments.
b) Non-compliance with the minimum parking rate requirement
The proposal incorporates 18 car parking spaces for 11 staff and 7 parents/visitors in accordance with the parking rate as stipulated by Table C10.2: Car Parking Rates of C10.5.1 c) of the Penrith DCP 2014.
c) Encroachment into the minimum 2m side setback requirement for the second storey component
The proposal has been revised to ensure the first floor of the building achieves the 2m side setback to the boundary, and is further enhanced as the western elevation provides articulation and does not included any side facing windows to prevent any overlooking or opportunity to harm the visual or acoustic privacy of the neighboring property in accordance with Clause D 2.1.2 B – D of the Penrith DCP 2010.
d) Encroachment into the minimum 6m rear setback requirement for the second storey component
Addressed in section 4.11 of this report. Whilst the proposal encroaches in the 6m rear setback, the building has been oriented to prevent direct overlooking to properties to the rear and to minimise any adverse amenity impacts to adjoining properties in accordance with Clause D 2.1.2 B – F (Setbacks) of the PDCP 2014
e) Encroachment into the building envelope along the eastern side boundary
The proposal includes a 4.2m setback from the eastern boundary to provide open setback from 47 Gibbes Street to the East and maintain open sight lines in accordance with Clause D 2.1. 8 C-5 (Significant Landscapes) of the PDCP 2014.
f) Minimum play space requirements to provide 7sqm per child.
The proposal has been revised to reduce student numbers to 66 students. The proposed generation of 66 children requires 462 sqm of outdoor space. The proposal includes one consolidated outdoor play space with 521sqm in area. The proposal includes 413.33sqm at ground level, and 108sqm at first floor verandah. The breakdown of spaces is as follows:

# Children	Required m^2	Provided m^2

Ground Floor 46	322	413 (+91)
First Floor 20	140	108 (-32)
Total 66	**462**	**521 (+59)**

Whilst the first-floor external play area has a deficiency of 32 m^2 of directly accessible outdoor space, the ground floor backyard provides an additional 91 m^2 of playspace accessible for all children.

In accordance with the draft plan of management, all students will have managed and equitable access to these play areas, and the site will numerically provide an additional 59 m^2 of play space beyond the regulations and guidance.

The proposal satisfies the requirements of Section 108 of the Regulations, State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017, and Child Care Planning Guidance 2017

g) Acoustic impacts

Acoustic Report No. 19156 Ver. C by Wilkinson Murray has been prepared to ensure the proposal is designed and operated to minimize noise impact on any noise sensitive adjacent properties in accordance with Clauses C12 (Noise and Vibration) and D5.2.C.6 (Noise) of the Penrith DCP 2014 and C.29 of the Child Care Planning Guidance 2017

h) Emergency and evacuation procedures

Preliminary evacuation procedure has been included on plan #82 DA 10 Rev D Lot 114 Sec C, DP 1687 and has been designed to satisfy requirements of Section 98 of the Regulations, State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017, and Child Care Planning Guidance 2017

i) Stormwater

A Stormwater Management Plan has been prepared by Stormwater Engineers Pty Ltd and supports the application. The Stormwater Design has been carried out by a qualified Civil Engineer and demonstrate compliance with the PDCP2010, Stormwater Drainage Specification for Building Developments Policy; and Water Sensitive Urban Design Policy and Technical Guidelines. On-site Detection is indicated on Drawing No. 070419.

j) Traffic

A traffic report has been prepared by Varga Traffic Planning, dated 14 May 2019. addressing parking, access, traffic generation, and any potential impacts on intersection of Gibbes Street and Mulgoa Road, as well as the path of travel for pickup/drop off, waste collection and emergency services.

k) Waste Management

The application has been designed in co-ordination with waste contractor company REMONDIS Australia Pty Ltd, who has confirmed that a small rigid vehicle can be used for collection outside of peak hours. This can either be collected onsite or from the kerb . The sweep demonstrates that an SRV can enter and leave the site in a forward direction.

4. EVAULATION PURSUANT TO PLANNING INSTRUMENTS

The application has taken into consideration relevant provisions of:

- State Environmental Planning Policy No. 55 – Remediation of Land.
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017,
- Child Care Planning Guidance 2017,
- Education and Care Services National Regulations - 1 July 2018,
- Penrith Local Environmental Plan 2010, and
- Penrith Development Control Plan 2014.

4.1. State Environmental Planning Policy No 55- Remediation of Land

The intent of State Environmental Planning Policy No.55 – Remediation of Land (SEPP 55) is to provide a consistent approach to the remediation of land across the State by specifying certain matters that consent authorities must consider when determining development applications on land which is potentially contaminated.

Under the provisions of Clause 7 of SEPP 55 the consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated. If the land is found to be contaminated, the Consent Authority must be satisfied that the land is suitable in its contaminated state or can and will be remediated in order for it to be suitable for the purpose for which the development is proposed.

A preliminary site investigation report has been prepared by SESL, dated March 2019 that concludes that the site is suitable for the proposed use without the need for remediation and/ or validation.

4.2. State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 - Child Care Planning Guideline

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (the SEPP) determines that a Consent Authority must take into consideration this Guideline when assessing a Development Application (DA) for a centre based child care facility ('child care facility').

The Guideline establishes the assessment framework to deliver consistent planning outcomes and design quality for centre-based child care facilities in NSW. It also determines this Guideline will take precedence over a Development Control Plan (DCP), with some exceptions, where the two overlap in relation to a child care facility.

This Guideline informs state and local government, industry and the community regarding how good design can maximise the safety, health and overall care of young children. At the same time, it aims to deliver aesthetic buildings that are sympathetic to the streetscape and appropriate for the setting while minimising any adverse impacts on surrounding areas.

The Guideline will provide a consistent Statewide Planning and Design Framework for preparing and considering DAs for child care facilities.

Clause	Provision	Compliance Comment
C5 To ensure that the child care facility is compatible with the local character and surrounding streetscape.	• Contribute to the local area by being designed in character with the locality and existing streetscape • Reflect the predominant form of surrounding land uses, particularly in low density residential areas • Recognise predominant streetscape qualities, such as building form, scale, materials and colours • Include design and architectural treatments that respond to and integrate with the existing streetscape	Gibbes street is largely characterised by a mix of single and two storey residential dwellings with irregular side and front setbacks. To the north east of the site is a two storey multi dwelling housing development, with traditional hipped roof, plain stock brick, and low height masonry fencing. To the south west is a single storey fibro dwelling with extensive front setback. Opposite the site is a two storey dwelling. As such it is considered the immediate context of the site it's characterized by a wide range of building types, bulks and scales.

	• Use landscaping to positively contribute to the streetscape and neighbouring amenity • Integrate car parking into the building and site landscaping design in residential areas.	Notwithstanding, a typology of the street can be ascertained as being characterized by a wide frontages, with simple, low pitch hip and gabled roofs, and the materiality of the surrounding buildings is largely a range of brick, cladding and timber. In order to ensure that the child care facility is compatible with the local character and surrounding streetscape, the proposal has been designed to complement this predominantly low-density residential nature of the street. The proposal includes a pitched roof design with heights characteristic to that of similar two storey dwellings in the street. The proposal will have eave heights of 5.9m and pitch heights of 7.8m, significantly below the 8.5m maximum height limits as determined under the Height of Buildings Map under the Penrith LEP 2010. The proposal has a 21% site coverage and total Floor space ratio of 0:35:1, which is inkeeping with the density of residential development in the area. The proposal would be in keeping with the bulk and scale of two storey developments within Gibbes Street. The proposed front setback would be beyond the adjoining properties and appear subservient to the predominant building lines of the adjoining properties. The design includes 1m setbacks from the side boundaries at ground floor, and 4.2m side setback at the first floor to the eastern side boundary, in order to reflect the general pattern of development for side setbacks within the streetscape. The proposed material palette for the building includes Brickwork Austral Bricks La Paloma Miro and Blowood Façade screen in Natural oak Linished/Spotted gum Sanded finish, and a new Feature Facade Wall inAcrylic render in Dulux Billiard Ball

		and Elmich Versiwall GP Green wall system. The proposed materials incorporate the timber and brick elements characteristic of the neighboring properties, whilst providing modern interpretations and enhancing the natural material palette of the green vegetation area surrounding the site.
C6 - To ensure clear delineation between the child care facility and public spaces. And C8 To ensure that front fences and retaining walls respond to and complement the context and character of the area and do not dominate the public domain.	▪ fencing to ensure safety for children entering and leaving the facility ▪ windows facing from the facility towards the public domain to provide passive surveillance to the street as a safety ▪ integrating existing and proposed landscaping with fencing. ▪ Front fences and walls within the front setback should be constructed of visually permeable materials and treatments.	The proposal includes secure fencing for children entering and existing the building. The proposal integrates 1.2m front boundary fencing with landscaping to allow for safe sightlines whilst retaining the predominantly vegetated front setback that characterizes the streetscape.
To respond to the streetscape and site, while optimising solar access and opportunities for shade.	▪ optimise solar access to internal and external play areas ▪ avoid overshadowing of adjoining residential properties ▪ minimise cut and fill ▪ ensure buildings along the street frontage define the street by facing it ▪ ensure that where a child care facility is located above ground level, outdoor play areas are protected from wind and other climatic conditions.	The proposed bulk, scale, orientation and siting of the proposal has been designed to maximize solar access for the subject site and protection for neighbouring properties. Submitted shadow diagrams demonstrate that the neighbouring properties to the south west will be provided with in excess of 3 hours direct solar access measured at the winter solstice.

C12 - Objective: To ensure that the scale of the child care facility is compatible with adjoining development and the impact on adjoining buildings is minimised. C13 To ensure that setbacks from the boundary of a child care facility are consistent with the predominant development within the immediate context.	▪ building height should be consistent with other buildings in the locality ▪ building height should respond to the scale and character of the street ▪ setbacks should allow for adequate privacy for neighbours and children at the proposed child care facility ▪ setbacks should provide adequate access for building maintenance ▪ setbacks to the street should be consistent with the existing character.	The proposed building height is in keeping with the two storey character of 47 and 50 Gibbes Street, which form an immediate context for the site. The proposed setbacks retain sufficient privacy and solar access for the rear gardens and habitable spaces of 47 and 53 Gibbes Street. Noting the range of irregular setbacks within the street, the proposed front setback would not detract from the prevailing development pattern within the street.
C14To ensure that the built form, articulation and scale of development relates to its context and buildings are well designed to contribute to an area's character.	respects and responds to its physical context such as ▪ adjacent built form, neighborhood character, streetscape, quality and heritage ▪ contributes to the identity of the place ▪ retains and reinforces existing built form and vegetation where significant ▪ considers heritage within the local neighborhood ▪ responds to its natural environment including local landscape setting and climate ▪ contributes to the identity of place.	Complies, refer to assessment under 4.11 of this report.
C15-16 To ensure that buildings are designed to create safe environments for all users. To ensure that child care facilities are designed to be accessible by all potential users	Entry to the facility should be limited to one secure point which is: ▪ located to allow ease of access, particularly for pedestrians. ▪ directly accessible from the street where possible. ▪ directly visible from the street frontage ▪ easily monitored through natural or camera surveillance. ▪ not accessed through an outdoor play area.	Complies The proposal includes a single point of entry, clearly visible from streetscape with clear line of access from car park. The entry point is provided at grade, and provides full accessibility for a range of different mobility's to all areas of the premises.

	▪ in a mixed-use development, clearly defined and separate from entrances to other uses in the building Accessible design can be achieved by: ▪ providing accessibility to and within the building in accordance with all relevant legislation ▪ linking all key areas of the site by level or ramped pathways that are accessible to prams and wheelchairs, including between all car parking areas and the main building entry ▪ providing a continuous path of travel to and within the building, including access between the street entry and car parking and main building entrance. Platform lifts should be avoided where possible ▪ minimising ramping by ensuring building entries and ground floors are well located relative to the level of the footpath.	
C.29 To minimise the impact of the child care facility on the amenity of neighbouring residential developments.	Hours of operation within areas where the predominant land use is residiential should be confined to the core hours of 7.00am to 7.00pm weekdays. The hours of operation of the proposed child care facility may be extended if it adjoins or is adjacent to non-residential land uses.	The proposed hours are 7am to 6pm Monday-Friday only. Additionally, Acoustic Report No. 19156 Ver. C by Wilkinson Murray has been prepared to ensure the proposal is designed and operated to minimise noise impact on any noise sensitive adjacent properties.
C.33-34 To provide parking that satisfies the needs of users and demand generated by the centre. . To provide a safe and connected environment for pedestrians both on and around the site	A Traffic and Parking Study should be prepared to support the proposal to quantify potential impacts on the surrounding land uses and demonstrate how impacts on amenity will be minimised. The study should also address any proposed variations to parking rates and demonstrate that: ▪ the amenity of the surrounding area will not be affected ▪ there will be no impacts on the safe operation of the surrounding road network	The application is supported by Traffic and Parking Assessment Report Prepared By Varga Traffic Planning - 14 May 2019 Ref 19185 Study has demonstrated that the proposed parking facilities satisfy the relevant requirements specified in Council's DCP 2014, the RMS Guidelines as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.
4.8 Emergency and evacuation procedures	An emergency and evaluation plan should be submitted with a DA and should consider: ▪ the mobility of children and how this is to be accommodated during an evacuation	Complies Emergency evacuation paths for a range of mobilities has been demonstrated on plan, and provides clear guidance as to the location of a safe congregation/assembly point,

	▪ the location of a safe congregation/assembly point, awayfrom the evacuated building, busy roads and other hazards, and away from evacuation points used by other occupants or ▪ tenants of the same building or of surrounding buildings ▪ how children will be supervised during the evacuation and at the congregation/assembly point, relative to the capacity of the facility and governing child-to-staff ratios.	away from the evacuated building, busy roads and other hazards, and away from evacuation points used by other occupants of surrounding buildings;

4.3. Education and Care Services National Regulations - 1 July 2018

103 Good Repair	The approved provider of an education and care service must ensure that the education and care service premises and all equipment and furniture used in providing the education and care service are safe, clean and in good repair.	Complies The proposal is for new build construction and will require for new and good quality installations, furniture and materials.
104 Fencing	The approved provider of an education and care service must ensure that any outdoor space used by children at the education and care service premises is enclosed by a fence or barrier that is of a height and design that children preschool age or under cannot go through, over or under it.	Complies The proposed fencing plan demonstrates protection for safety and security of students.
105 Furniture and materials	The approved provider of an education and care service must ensure that each child being educated and cared for by the education and care service has access to sufficient furniture, materials and developmentally appropriate equipment suitable for the education and care of that child.	Complies The proposal is for new build construction and will require for new and good quality installations, furniture and materials.
106 Laundry and hygiene facilties	The approved provider of an education and care service must ensure that the service has— (a) laundry facilities or access to laundry facilities; or (b) other arrangements for dealing with soiled clothing, nappies and linen, including hygienic facilities for storage prior to their disposal or laundering—that are adequate and appropriate for the needs of the service. The approved provider of the service must ensure that laundry and hygienic facilities are located and maintained in a way that does not pose a risk to children	Complies The proposal includes extensive laundry facilities at first floor, with sufficient separation from play areas to ensure the layout does not pose risk to children.

<table>
<tr><td>107
Indoor space</td><td>The approved provider of an education and care service must ensure that, for each child being educated and cared for by the service, the education and care service premises has at least 3.25 square metres of unencumbered indoor space</td><td>Complies

The proposed generation of 66 children requires 214 sqm of indoor space.

The proposal includes 3 separate play rooms which have internal GFA of 66, 98 and 66 sqm.

In total the proposal has 230 sqm of indoor space which satisfies the requirements of Section 107 of the Regulations.

<table><tr><th># Children</th><th>Required m²</th><th>Provided m²</th></tr><tr><td>66</td><td>214</td><td>230</td></tr></table></td></tr>
<tr><td>108
Outdoor Space</td><td>The approved provider of an education and care service must ensure that, for each child being educated and cared for by the service, the education and care service premises has at least 7 square metres of unencumbered outdoor space</td><td>Complies

The proposed generation of 66 children requires 462 sqm of outdoor space.

The proposal includes one consolidated outdoor play space with 521sqm in area.

The proposal includes 413.33sqm at ground level, and 108sqm at first floor verandah.

Whilst the first floor verandah provides a deficiency of 32 m² of directly accessible outdoor space, the ground floor backyard provides an additional 91 m² of playspace accessible for all children. In accordance with the draft plan of management, all students will have access to this play area, and the site will numerically provide an additional 59 m² of play space beyond the regulations and guidance.

The proposal satisfies the requirements of Section 108 of the Regulations.

<table><tr><th># Children</th><th>Required m²</th><th>Provided m²</th></tr><tr><td>Grnd Floor
46</td><td>322</td><td>413
(+91)</td></tr><tr><td>First Floor
20</td><td>140</td><td>108
(-32)</td></tr><tr><td>Total
66</td><td>462</td><td>521
(+59)</td></tr></table></td></tr>
<tr><td>109
Toilet and hygiene facilities</td><td>The approved provider of an education and care service must ensure that—</td><td>Complies

In accordance with Part F2 – FP2.1 Personal Hygiene Facilities, of the NCC</td></tr>
</table>

	(a) adequate, developmentally and age-appropriate toilet, washing and drying facilities are provided for use by children being educated and cared for by the service; and (b) the location and design of the toilet, washing and drying facilities enable safe use and convenient access by the children.	BCA Volume 1, the proposal would require 5 closet pans and sinks. This is calculated at 66 children requiring 2 closet pans and sink for first 30 children, and an additional 1 closet and sink for each additional 15 students. The proposal includes 6 closet pans and sinks (3 at each level) to meet the needs of the children and comply with Section 109 of the regulations Additionally, the site provides 2 ambulant toilets and 2 accessible toilet for Staff and disabled children.
110 Ventilation and natural light	The approved provider of an education and care service must ensure that the indoor spaces used by children at the education and care service premises— (a) are well ventilated; and (b) have adequate natural light; and (c) are maintained at a temperature that ensures the safety and wellbeing of children	Complies The design, orientation and openings for the proposed design provided adequate light and ventilation.
111 Administrative space	The approved provider of a centre-based service must ensure that an adequate area or areas are available at the education and care service premises for the purposes of— (a) conducting the administrative functions of the service; and (b) consulting with parents of children; and (c) conducting private conversations.	Complies Proposal includes office, lobby and staff rooms to facilitate administrative functions of the centre.
112 Nappy Change facilities	The approved provider of the service must ensure that adequate and appropriate hygienic facilities are provided for nappy changing.	Complies The proposal includes 3 nappy change areas which comply with requirements of F2.3 of the NCC BCA requirements.
113 Natural environment	The approved provider of a centre-based service must ensure that the outdoor spaces provided at the education and care service premises allow children to explore and experience the natural environment.	Complies The proposal incorporates natural features such as trees, sand and natural vegetation into the rear play areas to ensure the natural environment is able to be explored by the proposed students.
114 Shade	The approved provider of a centre-based service must ensure that outdoor spaces provided at the education and care service premises include adequate shaded areas to protect children from overexposure to ultraviolet radiation from the sun.	Complies The proposal incorporates 108 sqm of first floor deck to function as solar protection space at ground floor, equating to 25% of the open space being dedicated cover space.

115 Supervision	The approved provider of a centre-based service must ensure that the education and care service premises (including toilets and nappy change facilities) are designed and maintained in a way that facilitates supervision of children at all times that they are being educated and cared for by the service, having regard to the need to maintain the rights and dignity of the children.	Complies Passive surveillance for proposed students and surround area has been incorporated into the design.

4.4. Penrith Local Environmental Plan 2010

The following provisions of the Penrith Local Environmental Plan 2010 are relevant to the proposal:

4.5. LEP Part 2 .1 Land Use Zoning

Clause 2.1 of the PLEP2010 outlines the requirements for Land Zoning. The site is located within the R2 Low Density Residential Zone. The development is permissible with the consent of Council within the land use zone. The objectives of the R2 Low Density Residential zone are as follows:

- *To provide for the housing needs of the community within a low density residential environment.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *To promote the desired future character by ensuring that development reflects features or qualities of traditional detached dwelling houses that are surrounded by private gardens.*
- *To enhance the essential character and identity of established residential areas.*
- *To ensure a high level of residential amenity is achieved and maintained.*

The use of the site as a childcare centre is considered to be in accordance with the objectives for the R2 Low Density Residential zone. The development will provide a land use that will provide childcare facilities for residents within the locality in an accessible location. The development strives to provide a compatible built form with the existing streetscape.

LEP Part 4.3 Height of Buildings

Clause 4.3 of the PLEP2010 outlines the requirements for the Height of Buildings. The maximum building height is as specified under the PLEP2010 is 8.5 metres. The proposed development has a maximum building height of 7.8 metres above ground level (existing) (RL 38.56 – RL 30.74) and therefore complies with the requirements of this Clause.

Figure 9: Height of Buildings Map. Extract from Penrith Local Environmental Plan 2010 (Source: NSW Legislation, 2019).

LEP Part 4.4 Floor Space Ratio

Clause 4.4 of the PLEP2010 outlines the requirements for Floor Space Ratio. The floor space ratio of the subject site is not specified under the PLEP2010. The proposal comprises of the following gross floor areas (as defined under the PLEP2010) as calculated below:

Site Area	1393.23 m^2
Ground Floor	275.44 m^2
First Floor	222.97 m^2
Total GFA	498.41 m^2
FSR	0.35:1

Figure 10: Floor Space Ratio Map. Extract from Penrith Local Environmental Plan 2010 (Source: NSW Legislation, 2019).

4.6. Penrith Development Control Plan 2014

The following provisions of the DCP are relevant to the proposal:

- C1 Site Planning and Design Principles
- C10 Transport, Access and Parking
- C12 Noise and Vibration
- D2 Residential Development
- D5.2 Childcare Centres

DCP Part C1.2. Design Principles

Clause	Provision	Compliance Comment
C1.2- B A)	To ensure that development is undertaken in a sustainable manner, demonstrating this through the application of the Building Sustainability Index (BASIX), Green Star and/or Australian Buildings Greenhouse Ratings certification system, where appropriate;	Complies. The proposal will be subject to Section J (Energy Efficiency) requirements prior to the issue of a Construction Certificate.

		A Section J Report will be submitted with the application for a Construction Certificate.
C1.2- B B)	To ensure that development is designed on a 'whole of building' approach by: i) responding to the site's context, the desired scale and character of an area, and minimising impacts on key views, scenic values and where applicable, rural character;	Complies, - Refer to section 4.11 Below
	ii) responding to climatic and contemporary environmental conditions by: ▪ encouraging passive solar building design; ▪ allowing reasonable daylight access to all developments and the public domain; ▪ reducing the necessity for, or improve the control of, mechanical heating and ▪ cooling; ▪ reducing the energy consumed by installed appliances and equipment; ▪ improving the indoor environmental quality of occupants; ▪ minimising greenhouse gas emissions	Complies, - Refer to section 4.11 Below
	iii) minimising likely bulk and scale impacts of a building;	Complies, - Refer to section 4.11 Below
	iv) considering the natural topography and landform and minimise excavation and likely visual impacts of the development;	Complies, - Refer to section 4.11 Below
	v) ensuring that the development (including the public domain): ▪ has incorporated the Crime Prevention Through Environmental Design (CPTED) principles of surveillance, access control, territorial management and space management into its design; and ▪ is accessible and useable for all members of the community	Complies – Refer to Section 4.10 below.

DCP Part C1.2.3 Building Form - Height, Bulk and Scale

Clause	Provision	Compliance Comment
C1.2.3 a) Context:	An applicant must demonstrate how all proposed buildings are consistent with the height, bulk and scale of adjacent buildings and buildings of a similar type and use.	Complies The proposal is set below the allowable 8.5m high height limit, and has a GFA of 0.35:1 which is comparable to

		residential development with the R2 Zone. The use of sufficient setbacks, sighting and landscaping preserves the open and natural character of the low density residential zone in the immediate streetscape and wider Regentsville locality.
C1.2.3 b) Character	An applicant must demonstrate how any building's height, bulk and scale will avoid or minimise negative impacts on an area's landscape, scenic or rural character (where relevant) taking into account the topography of the area, the surrounding landscape and views to and from the site.	Complies In addition to the above, the material palette proposed incorporates a range of materials that take reference to the adjoining properties, as well as the predominantly vegetated landscape of the site, neighbouring properties and the nearby RE1 open space. The use of significant landscapes, low scale fencing and extensive vegetation both at grade and within green walls provides an appropriate response to the character of the locality.
C1.2.3 c) Articulation:	Where the dimension of the building is 20m or more, an applicant must demonstrate how the building or surface has been articulated (either through built form or materials) to minimise impact on bulk and scale.	Complies The material choice above provides an appropriate response by creating a sense of diversity and relief in materials and colours when viewed from the public realm, which is further enhanced by the appropriate variations to front and side setbacks.
C1.2.3 d) Over shadowing	Building locations, height and setbacks should seek to minimise any additional overshadowing of adjacent buildings and/or public spaces where there would be a significant reduction in amenity for users of those buildings/spaces.	Complies The architectural plans are supported by shadow diagrams demonstrating the neighbouring properties retain sufficient solar access for in excess of 3 hours between 12 and 3pm measured at the winter solstice.
C1.2.3 e) Setbacks /Separations:	Buildings should be sufficiently set back from property boundaries and other buildings to: i) Maintain consistency with the street context and streetscape character, especially street/front setbacks; ii) Maximise visual and acoustic privacy, especially for sensitive land uses; iii) Maximise deep root planting areas that will support landscape and significant tree plantings integrated with the built form, enhancing the streetscape character and reducing a building's visual impact and scale;	Complies The front setback allows for a reduction of the appearance of the visual bulk of the building when viewed from the public realm and creates an appropriate transition between the heights of 47 and 53 Gibbes street. The front setback has allowed for the replacement of tree clusters, as well as for extensive space for additional planting for the side setbacks.

	iv) Maximise permeable surface areas for stormwater management; and v) Minimise overshadowing.	The additional planting provides further permeable spaces for drainage, and the species selection will maximize visual and acoustic privacy for neighbouring properties. Overall the front and side setbacks would allow the building to present as a two storey single building, with a relationship of bulk and scale appropriate to the low-medium density residential character that forms the streetscape.
C1.2.3 f) Building Façade Treatment:	The aim is to ensure that any built form will: i) promote a high architectural quality commensurate with the type of building and land use; ii) adopt façade treatments which define, activate and enhance the public domain and street character; iii) ensure that building elements are integrated into the overall building form and façade design; iv) compose façades with an appropriate scale, rhythm and proportion that responds to the building's desired contextual character; v) Design façades to reflect the orientation of the site using elements such as sun shading, light shelves and appropriate glazing as environmental controls; vi) express important corners by giving visual prominence to parts of the façade, for example, a change in building articulation, material or colour, roof expression or building height, and vii) co-ordinate and integrate building services to improve the visual presentation.	Complies The proposal successfully defines a low-medium density building inkeeping with the prevailing development character of the residential streetscape. The proposal and is enhanced by a variety of high quality materials to the façade of the building that make direct reference to the built and natural environment that forms the locality of Regentsville in this location. The proposed material palette for the building includes Brickwork Austral Bricks La Paloma Miro and Blowood Façade screen in Natural oak Linished/Spotted gum Sanded finish, and a new Feature Facade Wall inA crylic render in Dulux Billiard Ball and Elmich Versiwall GP Green wall system. The proposed materials incorporate the timber and brick elements characteristic of the neighboring properties, whilst providing modern interpretations and enhancing the natural material palette of the green vegetation area surrounding the site. The façade treatments proposal is considered to be of high architectural quality and provides a considered design response
C1.2.3 g) Roof Design:	The roof is an important architectural element of any building and: i) the shape and form of the roof should respond to its surrounding context and minimise visual impact from any key viewpoints; and ii) should consider opportunities for incorporating 'green roofs'	Complies The use of a long, shallow pitched roof is reflective of the traditional roof pitch form of neighbouring properties. Whilst not a direct copy of hipped roof form, the roof contributes to forming a complementary form of building design that is inkeeping with the

		residential and open space nature of the site. The proposal incorporates a new green wall for ecological benefits whilst enhancing the natural material palette for the new build.

DCP Part C1.2.5 Safety and Security (Principles of Crime Prevention through Environmental Design)

Clause	Provision	Compliance Comment
C1.2.5 Principle 1: Natural Surveillance	Providing opportunities for effective surveillance, both natural and technical, can reduce the attractiveness of crime targets. Good surveillance means that people can see what others are doing thereby deterring 'would-be offenders' from committing crime in areas with high levels of surveillance.	The proposal incorporates the controls of C.1.2.5 to ensure the development fulfills the principles of CPTED. The proposal includes wide beam illumination designed to reduce glare to neighbouring properties whilst illuminating access routes in outdoor public spaces should the minimum Australian Standard of AS1158. The proposed fencing to the front is of maximum 1.2m height with appropriate materials to facilitate casual surveillance. The car park has been designed with safety and function in mind, with the spaces, aisles and maneuvering areas, including accessible spaces, achieving AS 2890 requirements. Pedestrian spaces and movement predictors are clearly delineated and the access paths, exit and access points, security intercoms are clearly identified and accessible. The single entrance has clear sightlines across the car park to the entrance, and prevents the creation of Entrapment spots and blind corners. The low level planting to the car park will allow for passive surveillance from the main building. The main building is designed and sited with a high level of ground level interaction with the street to ensure adequate natural surveillance is provided.
C1.2.5 Principle 2: Access Control	Physical and symbolic barriers can be used to attract, channel or restrict the movement of people, and in turn, minimise opportunities for crime.	
C1.2.5 Principle 3: Territorial Reinforcement	This principle relies on the users of spaces or areas feeling that they have some ownership of public space and therefore are more likely to gather and enjoy that space. The ownership of space increases the likelihood that people who witness crime in or adjacent to that space will respond by quickly reporting it or by attempting to prevent it.	
Principle 4: Space Management	Public space that is attractive and well maintained is inviting to users and becomes a well-used space. Linked to the principle of territorial reinforcement, space management ensures that the space is appropriately utilised and well cared for.	

DCP Part C2.6 – Non Residential Developments

In accordance with the Penrith DCP 2014, Non-residential development should be planned and designed according to principles of traditional suburban design, and to preserve the amenity of residential neighbourhoods.

Principles of urban form and urban design that apply to permissible residential development should be adopted for non-residential development.

Clause	Provision	Compliance Comment
D2 Residential Development D2.11.2 setbacks and building envelope	a) Front setback is the greater of either i) 5.5m, or ii) The average of the setbacks of the adjoining properties	Complies The proposal has a 21m setback from the front boundary
	d) Side setbacks to external walls should be a minimum of 900mm.	Complies Western Side Setback – 1-2m at both levels. Eastern Side Setback – 1m at Ground Level 4.2m at First Floor Level
	e) Rear setbacks i) The minimum rear setback for a single storey building (or any single storey component of a building) is 4m ii) The minimum rear setback for a two storey building (or any two storey component of a building) is 6m	It is recognised that the first floor level has the following minimum setbacks from the rear allotment boundary. Ground Floor Level – 4 metres. First Floor Level – 4 metres.
	f) Exceptions to rear setbacks - consideration may be given to the erection of a nonhabitable building or structure that does not comply with the minimum setback requirements if it can be demonstrated it will have minimal adverse impact on the subject property or any adjoining property.	Whilst the proposal encroaches on the second storey rear setback by 2m, the floor space in this location is used by utility space with highlight windows, or oriented to the side boundary (20m Setback). In addition to the above, it is recognised that the departure from the first floor level setback relates to the north-western corner of the building only with the remainder of the building displaying complaint setbacks in accordance with this Clause (e.g. the rear first floor play area has a setback of 7.32 metres from the rear allotment boundary). As such the proposal is not considered to have adverse impact to the neighbouring property to the rear.
D2.1.5 – Building Design and Site Works	1) Articulation a) "Articulate" all building forms and facades: i) stepping floor plans should be capped by a variety of roof forms and pitches; ii) every elevation should incorporate windows;	Complies The proposal has distinct roof forms for both first and second floor, open windows to the front and rear elevations to allow for surveillance, and a variety of materials including timber,

	iii) walls should be overhung by shady verandahs, awnings and carports	brick and cladding, as well as vertical garden.
	2) Bulk and Scale a) Two storey buildings to be designed as a combination of one and two storey elements with a variety of setbacks from boundaries b) External walls are not to be longer than 8m between distinct corners or features such as projecting verandahs and awnings or banks of windows. c) All balconies and decks higher than 800mm above existing ground level shall incorporate privacy measures such as screening or landscape planting.	Complies The proposal presents as a two storey building, with a bulk and scale appropriate to a residential property. The proposal includes a pitched roof design with heights characteristic to that of similar two storey dwellings in the street. The proposal will have eave heights of 5.9m and pitch heights of 7.8m, significantly below the 8.5m maximum height limits as determined under the Height of Buildings Map under the Penrith LEP 2010. The proposal has a 21% site coverage and total Floor space ratio of 0:35:1, which is inkeeping with the density of residential development in the area.
	3) Design a) Dwellings should front the street, and display a traditional configuration with: i) The front door and a window to a habitable room facing the street ii) Garages integrated within the building façade iii) The size of driveways minimised, retaining sufficient area for landscaping of front gardens	The proposed design includes a clear and prominent main entry, with high quality materials and glazing to address the street. The parking has been minimized in its presentation to the street with landscaped edging to the public domain and side setbacks to provide an appropriate setting for the new building in relation to the adjoining properties.
	Garages	N/A
	Corner Lots	N/A
	Parking	N/A – See Section 4.12 below
D2.1.6 Solar Planning	a) maximise potential for solar gain by placing windows in all exterior walls that are exposed to eastern sun;	Complies The proposal includes shadow diagrams demonstrating that both the subject site and neighbouring properties retain minimum of 3 hours sunlight between 9am and 3pm on 21 June, to 40% of the main private open spaces of the dwelling and main private open spaces of any adjoining dwellings
	b) ensure that the proposed development provides a minimum of 3 hours sunlight between 9am and 3pm on 21 June, to living zones of the dwelling, and the living zones of any adjoining dwellings;	
	c) ensure that the proposed development provides a minimum of 3 hours sunlight between 9am and 3pm on 21 June, to 40% of the main private open spaces of the dwelling and main private open spaces of any adjoining dwellings, and	
	where existing overshadowing by buildings and fences reduces sunlight to less than this, sunlight is not further reduced by more than 20%.	
	1) maintain natural topography and features such as rock outcrops;	Complies

D2.1.8 Significant Landscapes	2) preserve established trees, preferably as blocks or corridors of several trees;	The site falls within a significant landscape precinct. The proposal has been supported by Arboricultural Impact Assessment by N.S.W. Tree Services P/L (report Reference AIA-GRA 06/19) The proposal incorporates sufficient landscaped areas for the replacement of significant established cluster of trees and vegetation in the streetscape, as well as a comprehensively designed additional planting within the front and rear setbacks of the proposal. The application has been supported by an arborists report providing support and recommendations for the removal of non-significant trees located in the rear yard of the property.
	3) ensure that long term survival of established trees is not affected by the location of buildings and pavements or construction works;	
	4) preserve clusters of established trees as blocks or corridors;	
	5) consider a wider side boundary setback as landscaped corridor to preserve trees and provide vistas between neighbouring buildings;	
	6) on sloping sites garages may be located at street-level within the front set-back, subject to an "open" design similar to a screened carport;	
	7) on sloping sites dwellings should be split-level designs, with the lowest floor level no higher than 1m above natural ground level;	
	8) in general, new plantings should be species indigenous to the local soil type, reinforcing visual and habitat values.	

DCP Part C10 – Transport, Access, and Parking.

The site is located on a local road in proximity to the M4 motorway and Mulgoa Road

The M4 Motorway is classified by the RMS as a State Road and provides the key east-west road link in the area, which extends from Concord in Sydney's inner west to Lapstone at the foothills of the Blue Mountains. It typically carries two traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a central median island. All intersections with the M4 Motorway are grade-separated.

Mulgoa Road is also classified by the RMS as State Road which provides the key north-south road linking Penrith to Wallacia. It typically carries one to two traffic lanes in each direction in the vicinity of the site with turning lanes provided at key locations.

Gibbes Street itself is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

The application has been accompanied by a Traffic And Parking Assessment Report Prepared By Varga Traffic Planning - 14 May 2019 Ref 19185 which has provided a detailed assessment of the impact of projected pedestrian and vehicular traffic associated with the proposal, with recommendations on the extent and nature of the traffic facilities necessary to preserve or improve the safety and efficiency of the adjacent road system.

The report has been accompanied by Acoustic Report No. 19156 Ver. C by Wilkinson Murray, which demonstrates that the proposed childcare centre will not have any impact on nearby sensitive receivers subject to implementation of the recommended designs and operations.

This report has been prepared by a suitably qualified acoustic consultant, and considers:

i) The NSW 'Noise Policy for Industry' in terms of assessing the noise impacts associated with development, including noise from inside the childcare centre, the outdoor play areas, plant and equipment, the use of the driveway and carpark, deliveries and garbage removal;

ii) The 'Guideline for Child Care Centre Acoustic Assessment' by AAAC to demonstrate noise generated by the childcare centre, particularly the outdoor spaces, can be appropriately mitigated;
iii) The potential impact from road traffic noise resulting from vehicles entering and exiting site, demonstrating compliance with NSW 'Road Noise Policy'; and

The 'Interim Construction Noise Guideline' in assessing the impacts associated with the construction phase of the development.

The application has taken into consideration relevant provisions the Penrith Development Control Plan (PDCP) – Transport Access, and parking

Clause	Provision	Compliance Comment
C10-B- 1	Depending on the scale, type and nature of the use proposed, Council may determine that a Traffic Report or Traffic Impact Statement is required for certain development which is not listed under Column 2 or 3 of SEPP (Infrastructure) 2007.	Complies. The application is supported by Traffic And Parking Assessment Report Prepared By Varga Traffic Planning - 14 May 2019 Ref 19185 The plan demonstrates that at peak pick up and drop off times, the use of the site will generate a potential 70 vehicle movements per hour. Noting the amount and design of parking spaces, the report concludes the site can accommodate this potential on site for the 2 hour peak periods.
C10-B-2 A)	Each development should demonstrate how it will: i) Provide safe entry and exit for vehicles and pedestrians which reflect the proposed land use, and the operating speed and character of the road; ii) Minimise the potential for vehicular/pedestrian conflicts, providing protection for pedestrians where necessary; iii) Not restrict traffic flow or create a hazard to traffic on roads in the vicinity of the development; iv) Provide suitable off-street parking facilities to accommodate vehicles generated by the development; and v) Identify the need, where apparent, for any additional on-street traffic facilities or road works which may be required to maintain the safe and efficient movement of vehicles and pedestrians	Complies The Traffic And Parking Assessment Report Prepared By Varga Traffic Planning - 14 May 2019 Ref 19185 demonstrates that the access and egress from the site can be achieved in a forward manner, Additionally, the proposal has been designed with low level fencing and vegetation to preserve sightlines and maintain adequate safety and security. The proposal includes 18 off street parking spaces for 11 staff, 7 parents including 1 accessible space.

C10-B-2 C)	The design of direct vehicular access to developments should consider the traffic impacts on the surrounding road network. This may require the provision of deceleration, acceleration, right turn lanes and road widening, as necessary.	Complies
C10-B-2 D)	Provision must be made for all vehicles to enter and leave properties in a forward direction other than for single dwellings.	The modelling and swept path analysis demonstrate that the proposal will protect vehiceles and pedestrians from collisions, and provides suitable off street parking faciltiies.

DCP Part D5.2 Child Care Centres

Child care centres are an increasingly important service to families with parents who work outside the home. Centres need to be conveniently located close to homes or to centres of employment, and need to be in surroundings which are both safe and enjoyable for the children. The objectives of the controls are as follows:

Clause	Provision	Compliance Comment
D5.2- B A)	To provide a clear planning framework for the development of child care services in the City of Penrith;	Complies.
D5.2- B B)	To ensure that child care centres are located and designed to minimise any impact on the amenity of the surrounding area, particularly from noise and traffic;	Achieved
D5.2- B C)	To ensure a safe and efficient road system, and to prevent direct vehicular access to or from any child care centre from a designated road	Achieved
D5.2- B D)	To ensure the provision of safe, convenient and attractive car parking areas;	Achieved
D5.2- B E)	To ensure child care centres are not adversely affected by safety hazards; and	Achieved
D5.2- B F)	To encourage the provision of facilities which aim to satisfy identified unmet demands within the City for child care	Achieved

Clause 5.2 – Controls – 2) Location

Clause 2 Location	Provision	Compliance Comment
D5.2- C 2 A)	Any proposed centre which: Will cater for in excess of 40 children (including 2 or more centres in very close proximity which together will cater for more than 40 children); and Does not propose to cater for 0 – 2 year olds; Must demonstrate that the service to be provided meets an unmet need in the community. Unmet demand in the community can be assessed through waiting lists of centres in surrounding areas, a	Complies. The proposal caters for 0-5 year olds only, and demonstration of need is not required in accordance with the policy. Notwithstanding, the following assessment has been undertaken. According to the 2016 ABS statistics, the immediately surrounding neighborhoods have 3153 children under the age of 5 years old.

	comparison of the number of children aged 0-5 recorded in the census for the area and the number of child care places available	Additionally, the background of the families within the locality is made up of 51% couple with children, and 15% lone parents. Of the lone parents, 81% are single mothers within the area. The statistics detail that 29% of these families both work, 40% are single income families, and 15% include both parents being unemployed. Of these households, 34% of respondents reported already undertaking unpaid child care. Within the suburbs of these families, a total of 16 child care centres are available. When extrapolated at a maximum 60 children in each centre, there is a maximum of 1080 places in the immediate locality, or already meeting 34% of the required need. Therefore, it is considered there is considerable need for additional childcare spaces. The provision of an additional 66 childcare spaces in a safe, secure and readily accessible location will assist in providing care relief, and/or encouraging residents of the local area to engage in additional employment to support the socio-economic opportunities for local families.
D5.2- C 2 B)	Child care centres shall be located in close proximity to other community activities and facilities, such as schools, community facilities, and places of public worship, parks that contains child play equipment, larger formal public reserves and local shopping centres.	Complies. The site is located in proximity to neighbouring open spaces and parks including RE1 recreation zones.
D5.2- C 2 C)	The site shall not rely on direct access from, nor be located on, a designated road, unless it can be demonstrated that the safe operation of the road and the amenity of the children attending the centre will not be affected.	Complies. Gibbes street does not form a designated road.
D5.2- C 2 D)	Access to the site shall not be located in a cul-de-sac, at an intersection, or on a minor residential road unless it can be demonstrated that additional vehicles associated with the child care centre will not	Complies. Whilst the street forms a no through road, the transport assessment prepared by (REF) demonstrates the proposal will not create traffic conflict or have an

	create traffic conflict or have an adverse impact on the amenity of the locality.	adverse impact on the amenity of the locality. The on site transport management program is provided to protect movements to and within the site, as well as pedestrian safety. The operation of the car park is further supported by the acoustic assessment prepared by
D5.2- C 2 E)	A child care centre shall not be located on land within an 85m radius of an existing or approved service station, or on land in a specific radius of an existing/approved flammable storage area under State Environmental Planning Policy No 33 Hazardous and Offensive Development.	Complies. Proposal is not within 85m radius of existing or approved service station. A service station is located 145m due east of the subject site, beyond the 85m radius.
D5.2- C 2 F)	A child care centre shall not be located on land that is directly opposite to or adjacent to (including behind) an existing and lawful sex services premises and/or restricted premises.	Complies. The site is within a residential street, and not directly opposite to or adjacent to (including behind) an existing and lawful sex services premises and/or restricted premises.
D5.2- C 2 G)	A child care centre shall not be permitted on land on which there is an electricity transmission easement, mobile phone tower or similar, or on land immediately adjacent to those structures. Centres should be located at least 500m from mobile phone towers or electricity transmission easements.	Complies. The site is not on land which there is an electricity transmission easement, mobile phone tower or similar, or on land immediately adjacent to those structures.
D5.2- C 2 H)	*A child care centre should not be located on land below the flood planning level and on land that cannot be safely and effectively evacuated during a 1:100 ARI flood event. (See the Water Management section of this Plan for further details on the flood planning level and 1:100 ARI flood event).*	Complies. The site is not located in a flood affected area.

Clause 5.2 – Controls – 3) Design, Scale and Site Frontage

Clause	Provision	Compliance Comment
D5.2- C 3) A)	The scale and character of the development shall be compatible with surrounding development.	Complies The proposal has been designed in accordance with Child Care Planning Guideline 2017 (CCPG). The provisions of the Child Care Planning Guideline will generally take precedence over a DCP, other than building height, side and rear setbacks and car parking rates.
D5.2- C 3) B)	The design of the child care centre must take into account nearby traffic generators,	Complies

	street design and the existing environment for pedestrians and cyclists.	The location of the site centrally within Gibbes Street provides sufficient distance from the nearest intersections and traffic generators. Due to the significant frontage of the site, the location and design of the access and egress points will provide be inkeeping with the pattern of development within the streetscape, and will provide safe sightlines and refuge points for the protection of local pedestrians and cyclists.
D5.2- C 3) C)	Sites must be of sufficient area to accommodate the child care centre, all required associated parking and traffic maneuvering areas.	Complies The extensive site area and condensed site coverage has allowed for sufficient parking area to allow for safe traffic maneuvering areas including parking and drop off spaces.
D5.2- C 3) D)	To ensure the safe operation of car parking areas and the amenity of neighbouring residents, sites shall have a minimum frontage of 22m.	Complies The site has a 30m frontage with separate entry and exist points to facilitate safe and clear movement of
D5.2- C 3) E)	Safe sight distances must be provided for all points of access to the site.	Complies The proposed landscaping is to be maintained through plan of management to retain clear sightlines for vehicles entering and exiting the site.

Clause 5.2 – Controls – 4) Built Form

Clause	Provision	Compliance Comment
D5.2- C 4) A)	Child care centres catering for 15 or more children shall be purpose designed and built, to satisfy the requirements of this section and the requirements of the NSW Department of Community Services. Modifications to existing dwellings will not be supported.	Complies The proposal is for a new building, and has been designed in accordance with the controls set out by the • Local development framework of the Penrith LEP2010 and DCP 2014, • requirements of nsw department of community services, • SEPP (Educational Establishments and Child Care Facilities) 2017, • Child Care Planning Guideline 2017, and • Education and Care Services National Regulations - 1 July 2018
D5.2- C 4) B)	In residential areas, the built form of the child care centre shall be sympathetic to adjoining development in terms of height, bulk and scale	Complies Addressed previously in section 4.9
D5.2- C 5) C)	The external façade of the centre shall incorporate building materials and colours	Complies

	that complement the surrounding development. Council discourages the use of bright or garish colours.	The proposed material palette for the building includes Brickwork Austral Bricks La Paloma Miro and Blowood Façade screen in Natural oak Linished/Spotted gum Sanded finish, and a new Feature Facade Wall inAcrylic render in Dulux Billiard Ball and Elmich Versiwall GP Green wall system. The proposed materials incorporate the timber and brick elements characteristic of the neighboring properties, whilst providing modern interpretations and enhancing the natural material palette of the green vegetation area surrounding the site.
D5.2- C 4) D)	Whilst it is preferable that child care centres are located at ground level, this may not be possible in commercial or industrial areas. Applications for centres above ground level will need to address the following: i) Access for parents and caregivers to drop off/pick up children; and *ii)* ii) Availability of outdoor play space, or its equivalent.	N/A Proposal for ground level development.

Clause 5.2 – Controls – 5 Vehicle Access, Circulation and Parking

Clause	Provision	Compliance Comment
D5.2- C 5) A)	Vehicle circulation and car parking areas shall be designed to allow safe drop-off and collection of children as well as the safe movement and parking of staff, parents, visitor and service vehicles.	Complies The design of the proposed access, dropoff/pickup an egress point are supported by transport assessment (Ref) which demonstrates safe movements for staff, parents, visitor and service vehicles.
D5.2- C 5) B)	Access driveways should not be located opposite, or in close proximity to, road intersections.	Complies The access and egress points are located 87m from the nearest intersection.
D5.2- C 5) C)	Parking shall be provided in accordance with the standards in the Transport, Access and Parking section of this Plan.	Complies
D5.2- C 5) D)	The parking area is to be designed to ensure: i) The safe drop off and collection of children, including direct, safe pedestrian access between the parking area and the entrance to the centre; ii) Safe movement and parking of staff, parents, visitors and service vehicles; and iii) All vehicles can enter and exit the site in a forward direction	The application has been supported by the Traffic Report from Varga Traffic Planning Pty Ltd dated 21 June 2019 Ref 19185, which demonstrates safe movements for staff, parents, visitor and service vehicles.
	Layout of the parking area must allow for safe access for service and emergency	Complies

	vehicles, such as ambulances, delivery and maintenance vehicles.	The proposed car park arrangement allows for the efficient access of the site for emergency services vehicles with sufficient turning widths to accommodate swept paths and turning.
	Where the child care centre is located in the same building or development as other land uses, the parking and access arrangements for each separate use will need to be separately calculated and provided on site.	N/A Single use of site only for Child Care Centre.
	A traffic impact assessment may be required for the development of a child care centre proposing to cater for 40 children or more	A traffic assessment (REF) has been completed and incorporates the following data i) Site characteristics and the surrounding area; ii) Expected trip generation; iii) Parking requirements, including the design of parking areas, and any pick-up and drop-off facilities; iv) Existing traffic conditions and any future changes expected to the traffic conditions; v) Current road safety conditions, including an accident history in the locality; and vi) he expected impact of the proposed development on the existing and future traffic conditions.

Clause 5.2 – Controls – 6) Noise

Clause	Provision	Compliance Comment
D5.2- C 6) A)	Outside playing areas shall be designed and located to minimise noise impact on any noise sensitive adjacent properties. Separation between boundary fencing and areas occupied by the children may be required.	Acoustic Report No. 19156 Ver. C by Wilkinson Murray has been prepared to ensure the proposal is designed and operated to minimise noise impact on any noise sensitive adjacent properties
D5.2- C 6) B)	Where there may be noise impact on adjacent properties, fencing shall be of a height, design and material (e.g. masonry) suitable to contain noise generated by the children's activities. This ensures the children may play outside without time limitations in accordance with licensing requirements.	Complies Acoustic Report No. 19156 Ver. C by Wilkinson Murray has been prepared to ensure the protection of acoustic amenity for neighbouring properties including planting and fence treatments. Such recommendations have been incorporated into the design of the proposal including 1.5m high side fences within front setback, and 1.8m fencing to backyard play area.
D5.2- C 6) C)	Where a site may be affected by traffic, rail or aircraft noise, the child care centre shall be designed to minimise any impact on the children and staff.	

D5.2- C 6) D)	A noise impact assessment may be required for the development of a child care centre proposing to cater for 40 children or more, or where surrounding land uses may have an impact on the proposal. The objectives should be to limit the impact of the child care centre on adjacent properties, and also to limit the impact noise from external sources may have on the child care centre. While noise can be measured, the intent is to also minimise nuisance which is subjective by nature. This may be achieved either by physical separation, design and layout of the centre or by implementing noise mitigation measures, such as acoustic treatments to buildings.	Complies Acoustic Report No. 19156 Ver. C by Wilkinson Murray addresses the relevant sections of the DCP 2014 has provided a number of design technologies and treatments, as well as operation procedures to be implemented for the protection of acoustic amenity to the site and surrounding area. The recommendations including screening and planting have been included in the design of the proposal, and incorporated into the draft plan of management.
	A noise impact assessment report should address the relevant provisions of the Noise and Vibration section of this Plan.	Complies Acoustic Report No. 19156 Ver. C by Wilkinson Murray addresses the relevant sections of the DCP 2014

Clause 5.2 – Controls – 7) Shade

Clause	Provision	Compliance Comment
D5.2- C 7) A)	Outdoor play areas and transition areas (between indoor and outdoor areas) are to be provided with appropriate safe shade requirements. Safe shade may be created by vegetation or shade structures.	Complies The first floor verandah and shade sails provide sufficient solar protection to the indoor learning areas, outdoor learning, areas, and outdoor eating spaces.
D5.2- C 7) B)	All active areas containing play equipment or areas where children play for extended periods of time (such as a sand pit) are to be shaded throughout the year.	Complies
D5.2- C 7) C)	Movable play equipment used for active play should be placed in the shade. (This should be a combination of built and natural shade).	Complies
D5.2- C 7) D)	All shade structures in the play areas should be designed in accordance with AS/NZS 4486.1. If located over play equipment, the shade structure should not have footholds or grip surfaces that will allow for climbing	Complies Shade sails will be constructed and maintained in accordance with AS/NZS 4486.1
D5.2- C 7) E)	Outdoor teaching areas are to be provided with year round protective shade	Complies Outdoor eating areas to be provided with shade sails and/or cover from verandah.
D5.2- C 7) F)	Outdoor eating areas are to be provided with year round protective shade.	Complies

		Outdoor eating areas to be provided with shade sails and/or cover from verandah.
D5.2- C 7) G)	Other open areas are to be partially shaded.	Complies The provision of revised planting is to provided to maximize shading to play areas within the site where possible.
D5.2- C 7) H)	Any transition zone, between indoor and outdoor areas, such as a verandah, should be permanently shaded and protected in wet weather	Complies The proposal includes a 108 sqm with verandah with 4m width for the provision of solar protection to ground floor play areas (indoor and outdoor)
D5.2- C 7) I)	The minimum width of a verandah should be 4m to allow for shaded play space underneath.	

Clause 5.2 – Controls – 8) Landscaping

Clause	Provision	Compliance Comment
D5.2- C 8) A)	Landscape planting shall complement the building(s) and the streetscape, and provide screening for car parking and outdoor playing areas	Complies The landscape plan proposes new plantings within the front setback as to maintain the character of the street. The proposed front fence and planting line will be inkeeping with number 47 Gibbes Street to the north of the site and form a defined streetline.
D5.2- C 8) B)	Landscaping shall be established prior to the use commencing	Complies Landscaping is critical to the provision of high quality education spaces for this type of development and will be incorporated into the construction phase inorder to provide a good quality outdoor space and natural environment for the future students in accordance with *'Education and Care Services National Regulations - 1 July 2018'*
D5.2- C 8) C)	Childproof fencing and gates shall be provided around the outdoor play areas, and to the entrance of the child care centre. Details of all fencing shall be included on the landscape plan.	Complies Fencing will be provided to the front entrances in accordance with *'Education and Care Services National Regulations - 1 July 2018'*, and side boundary fencing is to be installed in line with Acoustic Consultant's recommendations as provided in
D5.2- C 8) D)	Landscape planting (a minimum width of 2m) shall be provided along the front boundary of the site	Complies Minimum width of 2m landscaping provided to front boundary, with maximum 1.2m high fence to allow sufficient visability.

D5.2- C 8) E)	Additional landscape planting may be required along the side boundaries to integrate the development with neighbouring buildings and the streetscape, and to reduce the impact of vehicle lights on adjoining properties.	Complies Minimum width of 0.6m landscaping provided to side boundaries, with maximum 1.5m high fence within the front setback of the site to allow sufficient visual protection for neighbouring properties.
D5.2- C 8) F)	A landscape plan shall be prepared and submitted with the development application, in accordance with the Landscape and Design section of this Plan.	Complies
D5.2- C 8) G)	Plant species shall be chosen to address the characteristics of the site and shall: i) Provide protection from prevailing winds; ii) Provide screening to minimise impacts on privacy and/or the streetscape andadjacent buildings; iii) Provide shelter and shade; iv) Reduce reflection from bright surfaces; v) Emphasise pedestrian and vehicular routes; vi) Ensure visibility of outdoor playing areas; vii) Not include plants which may be toxic, create allergic reactions, or which are prickly or otherwise unsafe; and viii) Provide interest and variety to enhance children's experience.	Complies The proposed landscape plan demonstrates how the species selection and location will protect the site from environmental impacts, promote a green vegetated environment, and implement safety and amenity mitigation techniques as recommended by specialist acoustic and transport specialists.

Clause 5.2 – E – Other Relevant Information.

Clause	Provision	Compliance Comment
D5.2- E A)	All child care centres must be approved by Council and licensed by the NSW Department of Education and Communities under the Children (Education and Care Services) National Law (NSW); Education and Care Services National Regulations and National Quality Framework prior to commencing operation.	Noted
D5.2- E B)	Home-based child care may be licensed as a Family Day Care service or within the requirements of the Department of Education and Communities.	Not applicable. The propose development does not relate to a home based childcare centre.
D5.2- E C)	Where a child care centre for pre-school aged children and an OOSH service operate together, or from the same building, both services must be approved by Council, and the Department of Education and Communities must be notified.	No OOSH services provided.
D5.2- E D)	Development consent is required from Council for an expansion or alteration to an existing, approved child care centre.	Noted.

	Changes may include an increase to the approved number of children, an alteration to the hours of operation or the establishment of OOSH care.	Any further expansion will be subject to further assessment by the determining authority and will require full consultation with relevant bodies.
D5.2- E E)	Any application for an expansion or alteration to an existing child care centre will be considered on its merits, and include an assessment of the current operation of the centre	
	Any subsequent development consent issued by Council may require a new licence from the Department of Education and Communities	

4.7. Section 4.15 Assessment

1 (a) (i) Environmental Planning Instruments

The proposed development is permitted with the consent of Council under the Penrith Local Environmental Plan 2010. The proposal meets the objectives and relevant development standards of the Penrith Local Environmental Plan 2010 and State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and accordingly, approval is supported as discussed in detail within this Statement of Environmental Effects (SEE).

1 (a) (ii) Draft Environmental Planning Instruments

There are no known draft environmental planning instruments that are applicable to the subject site.

1 (a) (iii) Development Control Plan

As discussed in Part 4 of this report, the proposal generally complies with the Penrith Comprehensive Development Control Plan 2014.

1 (a) (iv) The Regulations

The proposal satisfies the relevant provisions of the Environmental Planning and Assessment Regulation 2000.

The Environmental Planning and Assessment Regulation 2000 has Building Code of Australia (BCA) requirements. These requirements will be satisfied at the time of the Construction Certificate (CC).

1 (a) (v) Coastal Zone Management Plan

Not applicable.

1 (b) Likely Impacts of Development

(i) Impact on the Natural Environment:

The proposed development will not result in any adverse impacts on the natural environment and results in the orderly development of land. The proposal will result in additional child care services in area where there is proven demand for these services.

(ii) Impact on the Built Environment:

The built form of the new works is appropriate to the site, in terms of bulk, scale, alignment and proportion. The proposed development has been sited in a manner that is not obtrusive to adjoining

properties and complements the character of the street in terms of architectural type, design and materials. Overall, there are no unreasonable impacts created by the proposal.

(iii) Social and Economic Impacts in the Locality:

The proposed development will have a positive social and economic impact on the area.

As outlined in Part 3 of this report, the area suffers from a chronic shortage of childcare centres and therefore a new childcare centre in an accessible area will add to the social infrastructure and social capital of the LGA and Regentsville which will have a significant positive social impact.

The proposal will provide employment for eight (8) time full time staff members and one (1) casual staff member as well as ancillary employing relating to cleaning and maintenance and the like. Accordingly, the proposal is likely to have a positive economic impact in the locality by providing long term local employment opportunities.

1 (c) Suitability of the site for the proposed development

Having regard to the characteristics of the site and its location, the proposed development is considered to be appropriate in that:

- The land is zoned to permit the works;
- The nature and form of the proposed development is broadly consistent with the development controls which apply to the site.
- The size and dimensions of the land are suitable for the scale of the works;
- The site has access to all utility services to accommodate demand for water, electricity, gas and telecommunications.

The site is well located for a childcare facility being located in an accessible location in Regentsville. The location of the site provides a convenient opportunity for parents to drop-off and pick-up their children on the way to work or on their way to public transport opportunities nearby (reducing traffic and parking demand).

1 (d) Any submission made

Penrith City Council will undertake a notification period in accordance with their policies.

1 (e) The public interest

The proposed development is considered to be in the wider in the public interest for the following reasons:

- It is consistent with the objectives of the *Environmental Planning and Assessment Act 1979*, specifically because it represents the economic and orderly development of land.
- The proposal is in accordance with the *Penrith Local Environmental Plan 2010* and the *Penrith Development Control Plan 2014*.
- The proposal provides a responsive design in terms of relationship to adjoining development and establishes an appropriate streetscape and human scale through the adoption of sound urban design principles;
- The design incorporates a number of ESD initiatives that will achieve a high standard of environmental design and sustainability; and

The proposal will provide for much needed additional childcare accommodation in the Regentsville area in a well-designed, new premises providing high quality finishes without any adverse built or environmental impacts. The proposal will also provide local employment opportunities. Accordingly, the proposal is considered to be in the public interest.

The centre will be required to be licensed by the NSW Department of Family and Community Services and will be required to operate in accordance with the provisions of the Children's Service Regulation.

Whilst not a matter for consideration under Section 4.15 of the EP & A Act, the proposed has been designed to accord with the Children's Services Regulation.

5. CONCLUSION

This Development Application (DA) seeks development approval for the demolition of the existing dwelling house and construction of a new two storey childcare centre and associated car parking at No.49 Gibbes Street, Regentsville.

The aim of this report has been to:

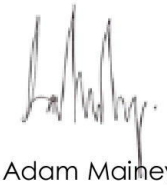
- Describe the proposal;
- Detail the background investigations that have been carried out prior to the preparation of the Development Application (DA);
- Illustrate compliance of the proposal will relevant statutory considerations;
- Provide an assessment of the likely environmental effects of the proposal.

From this statement it is concluded that the proposed development is appropriate within the given context responding to the streetscape character of the surrounding area. The proposal is considered to have negligible impacts in terms of built form and natural environments. Impacts of noise amenity and traffic generation have been assessed by suitably qualified consultants and recommendations have been provided to maintain the residential setting of the area.

The proposed development has been assessed in accordance with the provisions of:

- Penrith Local Environmental Plan 2010;
- Penrith Development Control Plan 2014;
- State Environmental Planning Policy No. 55 – Remediation of Land.
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017.
- Section 4.15 of the Environmental Planning and Assessment Act 1979.

Having regard to the aforementioned assessments it is considered that the proposed development is acceptable and that it should be approved.



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Bachelor of Urban and Regional Planning (Hons)
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ACOUSTICS AND AIR

CHILD CARE CENTRE
49 GIBBES STREET, REGENTVILLE

DA ACOUSTIC ASSESSMENT

REPORT NO. 19156
VERSION C

JUNE 2019

PREPARED FOR

GRACE EARLY LEARNING PTY LTD
44 HUNTINGWOOD DRIVE
HUNTINGWOOD NSW 2148

WILKINSON MURRAY

DOCUMENT CONTROL

Version	Status	Date	Prepared By	Reviewed By
A	Draft	13 May 2019	Brian Mendieta	Neil Gross
B	Final	16 May 2019	Brian Mendieta	Neil Gross
C	Revised Final	21 June 2019	Brian Mendieta	Neil Gross

Note

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Wilkinson Murray operates a Quality Management System which complies with the requirements of AS/NZS ISO 9001:2015. This management system has been externally certified by SAI Global and Licence No. QEC 13457 has been issued.

AAAC

This firm is a member firm of the Association of Australasian Acoustical Consultants and the work here reported has been carried out in accordance with the terms of that membership.

Celebrating 50 Years in 2012

Wilkinson Murray is an independent firm established in 1962, originally as Carr & Wilkinson. In 1976 Barry Murray joined founding partner Roger Wilkinson and the firm adopted the name which remains today. From a successful operation in Australia, Wilkinson Murray expanded its reach into Asia by opening a Hong Kong office early in 2006. Today, with offices in Sydney, Newcastle, Wollongong, Orange, Queensland and Hong Kong, Wilkinson Murray services the entire Asia-Pacific region.

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GLOSSARY OF ACOUSTIC TERMS

Most environments are affected by environmental noise which continuously varies, largely as a result of road traffic. To describe the overall noise environment, a number of noise descriptors have been developed and these involve statistical and other analysis of the varying noise over sampling periods, typically taken as 15 minutes. These descriptors, which are demonstrated in the graph below, are here defined.

Maximum Noise Level (L_{Amax}) – The maximum noise level over a sample period is the maximum level, measured on fast response, during the sample period.

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.

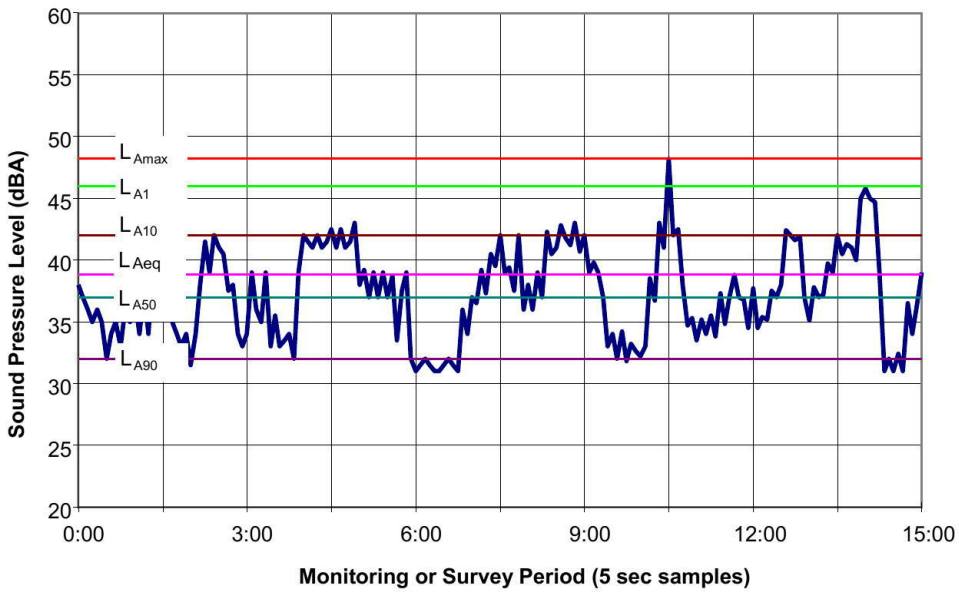
L_{A90} – The L_{A90} level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the L_{A90} level for 10% of the time. This measure is commonly referred to as the background noise level.

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.

ABL – The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night time) for each day. It is determined by calculating the 10th percentile (lowest 10th percent) background level (L_{A90}) for each period.

RBL – The Rating Background Level for each period is the median value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period – daytime, evening and night time.

Typical Graph of Sound Pressure Level vs Time



1 INTRODUCTION

Wilkinson Murray Pty Limited has been commissioned by Grace Early Learning to undertake a noise impact assessment for the Development Application of a proposed child care centre located at 49 Gibbes Street, Regentville (the site). The site is currently occupied by a single storey residential dwelling, surrounded by residential properties.

This report presents the noise assessment of children playing indoors and outdoors, mechanical plant, vehicle noise associated with the centre and road traffic noise impacting on the site. This assessment report provides details of the identified nearby receivers and their relevant noise criteria, the noise impact calculation and assumptions used in the assessment, and recommendations to minimise the noise impact on the affected receivers, if required.

The *Association of Australasian Acoustical Consultants (AAAC) Guideline for Child Care Centre Acoustic Assessment*, and other appropriate NSW guidelines are used to assess noise issues. This guideline is consistent with the Penrith Council's Development Control Plan noise requirement for a child care centre.

2 SITE DESCRIPTION

According to the Penrith City Council, the site and the nearby surrounding receivers are located within a low-density residential area. Mulgoa Road is the nearest arterial road from the site and is located 80m south of the site. The M4 highways is located approximately 600m north-east from the site. Table 2-1 presents the nearest identified residential receivers from the site. A site map of the existing site (outlined in red) and the surrounding receivers are shown in Figure 2-1.

Table 2-1 Closest Noise Sensitive Receivers

Receiver ID	Receiver Type	Address
R01	Double storey Residential	50A Loftus Street, Regentville
R02	Single storey Residential	46 Loftus Street, Regentville
R03	Single storey Residential	42 Loftus Street, Regentville
R04	Single & Double storey Townhouses	47 Gibbes Street, Regentville
R05	Single storey Residential	48 Gibbes Street, Regentville
R06	Single storey Residential	50 Gibbes Street, Regentville
R07	Single storey Residential	52 Gibbes Street, Regentville
R08	Single storey Residential	51 Gibbes Street, Regentville

Figure 2-1 Existing Site & Surrounding Receivers

The proposed development is a double storey structure which comprises of 3 separate playrooms, an office/staff space, outdoor play area in the backyard (located north) and a carpark at the front with 19 car spaces. An additional outdoor play area is located on the first floor, outside of playroom 3, approximately 79m^2.

The proposed child care centre will accommodate up to 10 children between the ages of 0 and 2 years old, 20 children between the ages of 2 and 3 years old and 30 children between the ages of 3 and 5 years old. The centre will operate from 7.00am-6.00pm, Monday to Friday.

The proposed layout is presented in Figure 2-2.

3 EXISTING AMBIENT NOISE LEVELS

3.1 Existing Noise Levels

Long-term unattended noise monitoring was conducted between 16 and 25 April 2019, using two ARL 215 noise loggers. The noise monitoring equipment were set to A-weighted, fast response, continuously monitoring over 15-minute sampling periods. The equipment calibration was checked before and after the survey and no significant drift was noted.

The loggers determine L_{A1}, L_{A10}, L_{A90} and L_{Aeq} levels of the ambient noise. L_{A1}, L_{A10} and L_{A90} are the levels exceeded for 1%, 10% and 90% of the sample time respectively (see Glossary of Acoustic Terms for definitions). The noise loggers were configured to measure instantaneous noise levels with a 'Fast' time weighting and 'A' frequency weighting.

The noise loggers were installed on front and backyard of the existing residential property located at 49 Gibbes Street, Regentville.

Table 3-1 presents a summary of the relevant noise descriptors, in particular the Rating Background Level (RBL) which is considered appropriate to establish the relevant noise criteria. Logger 1 represents the backyard noise logger and Logger 2 represents the logger in the front yard. The noise results exclude noise measurements taken on a public holiday.

Table 3-1 Daytime (7am-6pm) Ambient Noise Levels

Logger	Noise Level (dBA)		Comment
	RBL (L_{A90})	L_{Aeq}	
1 Rear	40	62	Ambient noise was affected by traffic noise along Mulgoa Road and barking dogs
2 Front	41	51	Ambient noise was mainly influenced by distant traffic noise from Mulgoa Road

4 NOISE CRITERIA

The following noise issues should be considered for the child care centre:

- Noise produced by children primarily from outdoor play areas;
- Mechanical plant;
- Vehicle noise on site (carpark and drop off/pick up); and
- Additional traffic noise on nearby local/arterial roads.

4.1 AAAC Guidelines

4.1.1 Child at Play, Onsite Vehicles and Mechanical Plant

The AAAC Guidelines state that cumulative noise $L_{Aeq,15min}$ generated by mechanical plant and traffic on site should not exceed the background level by more than 5dBA at the assessment location for residential receivers.

For noise generated by outdoor play, the AAAC Guidelines provide different criteria depending on the amount of time that outdoor play occurs. For surrounding residential receivers, the criteria are as follows:

- Up to 2 hours (total) per day – $L_{eq,15\ min}$ must not exceed Background Level + 10dBA
- More than 2 hours per day – $L_{eq,15min}$ must not exceed Background Level + 5dBA

The adopted criteria for operational noise are presented in Table 4-1.

Table 4-1 Operational Noise Criteria

Receivers	Operational Noise Criteria $L_{Aeq,15min}$	Up to 2 Hours Play $L_{Aeq,15min}$
R01 – R03	45	50
R04 – R08	46	51

4.2 Additional Traffic Generated by the Site

Additional road traffic movements generated by the proposed centre will result in increased traffic noise that may potentially impact residential receivers along Gibbes Street. We note that there will also be additional traffic on Mulgoa Road. However, given the existing traffic volumes on Mulgoa Road, the impact of the additional traffic generated by the child care centre will be negligible.

The assessment should be based on the road traffic noise assessment criteria for residential land uses contained within Table 3 of the NSW EPA *Road Noise Policy (RNP).*

Anyone using a vehicle to travel to and from the proposed centre will pass residential receivers along Gibbes Street. As required by the *RNP*, the functional category of these roads is to be confirmed so that noise criteria can be determined.

The applicable *RNP* criteria during the daytime (when vehicular movements associated with this proposed Centre will occur) is presented in Table 4-2.

Table 4-2 Road Noise Criteria

Road Category	Type of Project/Land Use	Assessment Criteria, dBA Daytime 7am-10pm (1)
Local Roads (Gibbes Road)	Existing residences affected by noise from new local road corridors	$L_{Aeq,1hr}$ 55 (external)

Note: (1) These criteria are for assessment against façade-corrected noise levels when measured in front of a building façade.

5 NOISE ASSESSMENT

5.1 Noise Modelling

Site related noise emissions were modelled using the SoundPLAN 8 noise prediction software. Factors that are addressed in the modelling are:

- Equipment sound level emissions and locations;
- Screening effects from buildings;
- Receiver locations;
- Ground topography;
- Noise attenuation due to geometric spreading;
- Ground absorption; and
- Atmospheric absorption.

Continuous cumulative operational noise levels have been predicted at the nearest receivers surrounding the site, using the ISO 9613-2 predication algorithm.

5.2 Sound Power Level of Children Playing

Based on the AAAC document, *Guideline for Child Care Centre Acoustic Assessment* (2010) and Wilkinson Murray's sound power level measurement of previous child care noise assessment, a typical sound power levels (L_w) of children playing is established. Resulting sound power levels for each age group are shown in Table 5-1.

Table 5-1 Children Playing Sound Power Level

Age Group	Number of Children in Group		
	10	20	30
0-2 years old	80	83	86
2-3 years old	84	88	92
3-5 years old	86	90	94

5.3 Operational Scenario

Two noise prediction scenarios are modelled to assess the worst-case scenario. The first scenario assesses all children engaged in active play inside the centre with the centre windows open. The second scenario assesses 30 children playing outside (20 in the outdoor play area and 10 on the first level play deck) and the remaining 30 children playing indoors with the centre windows open. The second scenario assumes children between 3-5 years old are outdoor, as they have the highest sound power level.

Table 5-2 summarises the layout of the two noise prediction scenarios. The table provides the location of the children and the number of children in each area.

Table 5-2 Modelled Scenarios

Scenario	Children	Location	Quantity
Scenario 1 – Children playing indoors with windows open	0-2 years	Playroom 1 – Ground Floor	10
	2-3 years	Playroom 3 – First Floor	20
	3-5 years	Playroom 2 – Ground Floor	30
Scenario 2 – 31 Children playing outdoors and 44 playing indoors	0-2 years	Playroom 1 – Ground Floor	10
	2-3 years	Playroom 3 – First Floor	20
	3-5 years	Outdoor Play space	20
	3-5 years	Outdoor play area deck – First Floor	10

The worst-case operational noise prediction scenarios also assume the following items:

- The fence surrounding the outdoor play area to be 1.8m high;
- The child care centre playrooms in both scenarios have window/doors open;
- The play area deck on the first floor has a 1m high barrier surrounding the deck; and
- The playground area consists of either grass or soft ground.

5.4 Noise Modelling Results

Table 5-3 and Table 5-4 present the predicted noise levels of each scenarios as presented in Table 5-2.

Table 5-3 Operational Scenario 1 – All Children Playing Indoors

ID	Address	Noise Prediction $L_{Aeq,15min}$	Noise Criteria	Compliance
R01	50A Loftus Street – Ground	42	45	Compliant
	50A Loftus Street – 1st Floor	44	45	Compliant
R02	46 Loftus Street	46	45	Non-Compliant
R03	42 Loftus Street	46	45	Non-Compliant
R04	47 Gibbes Street	52	46	Non-Compliant
R05	48 Gibbes Street	28	46	Compliant
R06	50 Gibbes Street	32	46	Compliant
R07	52 Gibbes Street	34	46	Compliant
R08	51 Gibbes Street	36	46	Compliant

It was noted that open windows/doors nearest to residential receivers are the cause of the non-compliance at receivers R01 to R04. Noise control recommendation including extension of noise barrier and a window to be closed when children are playing inside are provided in Section 6.

Table 5-4 Operational Scenario 2 – 30 Children Playing Outdoors & 30 Playing Indoors

ID	Address	Noise Prediction $L_{Aeq,15min}$	Noise Criteria		Compliance
			Criteria More than 2 hours Play	Criteria Up to 2 hours Play	
R01	50A Loftus Street – Ground	47	45	50	No/Yes
	50A Loftus Street – 1st Floor	49	45	50	No/Yes
R02	46 Loftus Street	48	45	50	No/Yes
R03	42 Loftus Street	48	45	50	No/Yes
R04	47 Gibbes Street	53	46	51	No/No
R05	48 Gibbes Street	39	46	51	Yes/Yes
R06	50 Gibbes Street	37	46	51	Yes/Yes
R07	52 Gibbes Street	36	46	51	Yes/Yes
R08	51 Gibbes Street	36	46	51	Yes/Yes

Noise exceedance is predicted at receiver locations R01 to R04. Noise control recommendations to satisfy the more than 2 hours play noise criteria (background level + 5dB) are provided in Section 6.

5.5 Noise from Onsite Vehicles

At this stage, a traffic impact assessment report has been not been prepared. Therefore, the following onsite vehicle noise assessment are based on the design plans and the proposed number of children within the centre. It is assumed peak drop-offs at the centre will be made between 7.00am and 9.00am and peak pick-ups will be made between 4.00pm and 6.00pm.

To assess the noise impact on surrounding receivers, SoundPLAN noise modelling software has been used. The onsite vehicle noise impact prediction assumes the following items:

- 38 parking events per hour/9.5 parking events per 15 minutes;
- Parking lot consists of an asphalt road surface;
- 1.2m high barrier on the east and west boundary of the parking lot;
- Parking Lot type: visitors and staff; and
- Typical car starting Sound Power Level of 95dBA.

The predicted noise levels from vehicles on site are presented in Table 5-5.

Table 5-5 Predicted Noise Levels from Vehicles Onsite

ID	Address	Noise Prediction $L_{Aeq,15min}$	Noise Criteria	Compliance
R01	50A Loftus Street	34	45	Compliant
R02	46 Loftus Street	39	45	Compliant
R03	42 Loftus Street	39	45	Compliant
R04	47 Gibbes Street	44	46	Compliant
R05	48 Gibbes Street	42	46	Compliant
R06	50 Gibbes Street	39	46	Compliant
R07	52 Gibbes Street	41	46	Compliant
R08	51 Gibbes Street	45	46	Compliant

5.6 Mechanical Plant Noise

At this stage, the design and selection of the mechanical equipment required to service the centre has not been finalised. However, the following noise control should be considered:

- Install the external condenser units on the east wall of Playroom 2 or at the front of the child care centre to ensure sufficient shielding and distance between the units and surrounding receivers is made.
- Ensure the Sound Power Level of the condenser units do not exceed 70dBA.

When the mechanical plant has been selected, the units should be checked prior to their installation to ensure noise emissions do not exceed the relevant noise standard.

5.7 Road Traffic Noise on Public Roadways

It should be noted at this stage, a road traffic impact assessment report has not been provided to Wilkinson Murray. Therefore, the following assessment of vehicle noise on public roadways are based on the proposed number of children within the centre.

It is assumed peak drop-offs at the centre will be made between 7.00am and 9.00am and peak pickups will be made between 4.00pm and 6.00pm. The centre is likely to generate 38 vehicles entering and 38 vehicles departing the childcare centre per hour. Therefore, a total of 76 vehicle movements along Gibbes Street within an hour period is assumed.

Receiver R06 is the nearest property to Gibbes Street. If the road traffic noise complies at this location, then compliance is achieved at all receiver locations along Gibbes Street. The road traffic noise assessment is calculated in accordance with the *Calculation of Road Traffic Noise* methodology.

Table 5-6 presents the façade-reflected noise level prediction at 50 Gibbes Street from road traffic noise from Gibbes Street.

Table 5-6 Predicted Noise Levels from Vehicles Movement along Gibbes Street

ID	Address	Noise Prediction $L_{Aeq,1hr}$	Noise Criteria	Compliance
R06	50 Gibbes Street	55	55	Compliant

6 NOISE CONTROL RECOMMENDATIONS

The worst-case daytime operational scenarios presented in Section 5.4 are predicted to exceed the relevant noise standards at four receiver locations. The following recommendations in this section is to achieve the noise criteria for children to play outdoors throughout the whole day, background level + 5dB noise criterion.

6.1 Noise Barrier

The proposed noise barrier should consist of the following properties:

- All joints between noise barrier panels should be sealed airtight and should not have an air gap between the screens. If a gap is required underneath the barrier, we recommend that the gap be kept to a minimum so that it is installed close to the ground as much as possible;
- The construction of the proposed noise barrier may be formed solid material with a density of greater than 20kg/m^2;
- The surrounding playground barrier height should be no less than 1.8m high and is to be fitted with a 45 ° angled cantilevered top, approximately 0.9m long. The internal walls of the playground noise barrier should be fitted with sound absorbers with a Noise Reduction Coefficent (NRC) of 0.8;
- The east and west boundary barrier adjacent to the parking lot should be no less than 1.5m high;
- Figure 6-1 presents the layout of the playground (red) and parking lot (purple) noise barrier.
- The balustrade on the first-floor playroom deck should also have the barrier qualities as outline above and should be no less than 1.5m high.

6.2 Assigned Windows/Sliding Doors to be Closed

The following windows should remain closed while all children are actively playing inside:

- North-East side of sliding door Playroom 2;
- Playroom 3 window facing east.

6.3 Mechanical Plant

The following noise control for mechanical units should be considered:

- Install the condenser unit on the east wall of Playroom 2 or at the front of the child care centre site as shown in Figure 6-1.
- Ensure the Sound Power Level of the condenser units do not exceed 70dBA.

Figure 6-1 presents the recommended noise control plan as outlined in Sections 6.1, 6.2 and 6.3 on the proposed site plan.

Reducing the Number of Children Outside

Site personnel should ensure a maximum of **20** children to play outdoors at one time to satisfy noise amenity.

6.4 Noise Management Plan

During the operation of the childcare centre, we recommend the following noise management plan to be implemented to ensure the noise amenity of the surrounding receivers. This includes:

- Only allow a maximum of 20 children in the outdoor play area. Additionally, if children are playing on the first level deck then only 10 children playing outside is permitted;
- Programs should be made available to parents and neighbours;
- Proposed external condenser units should be organised, as outlined in Section 5.6;
- Parents and guardians should be informed of the importance of noise minimisation when entering the site, dropping off or picking up children. This includes:
    - no door slamming;
    - do not raise voices at the front of the centre;
    - vehicles should not be left idling on site.
- Contact phone number of the centre's director should be made available to neighbours to facilitate communication and to resolve any neighbourhood issues that may arise due to the operation of the centre;
- Crying children should be taken inside the centre and be comforted; and
- Doors and windows of indoor playroom should remain closed during high/intense noise level activities.

7 CONCLUSION

Wilkinson Murray has assessed potential noise impacts from the operation of the proposed child care centre at 49 Gibbes Street, Regentville with respect to the requirements from the AAAC Guidelines and the NSW noise standard.

The operation of a childcare centre is able to meet the requirements of Council, provided that the mitigations as recommended in Section 6 of this report are correctly implemented.

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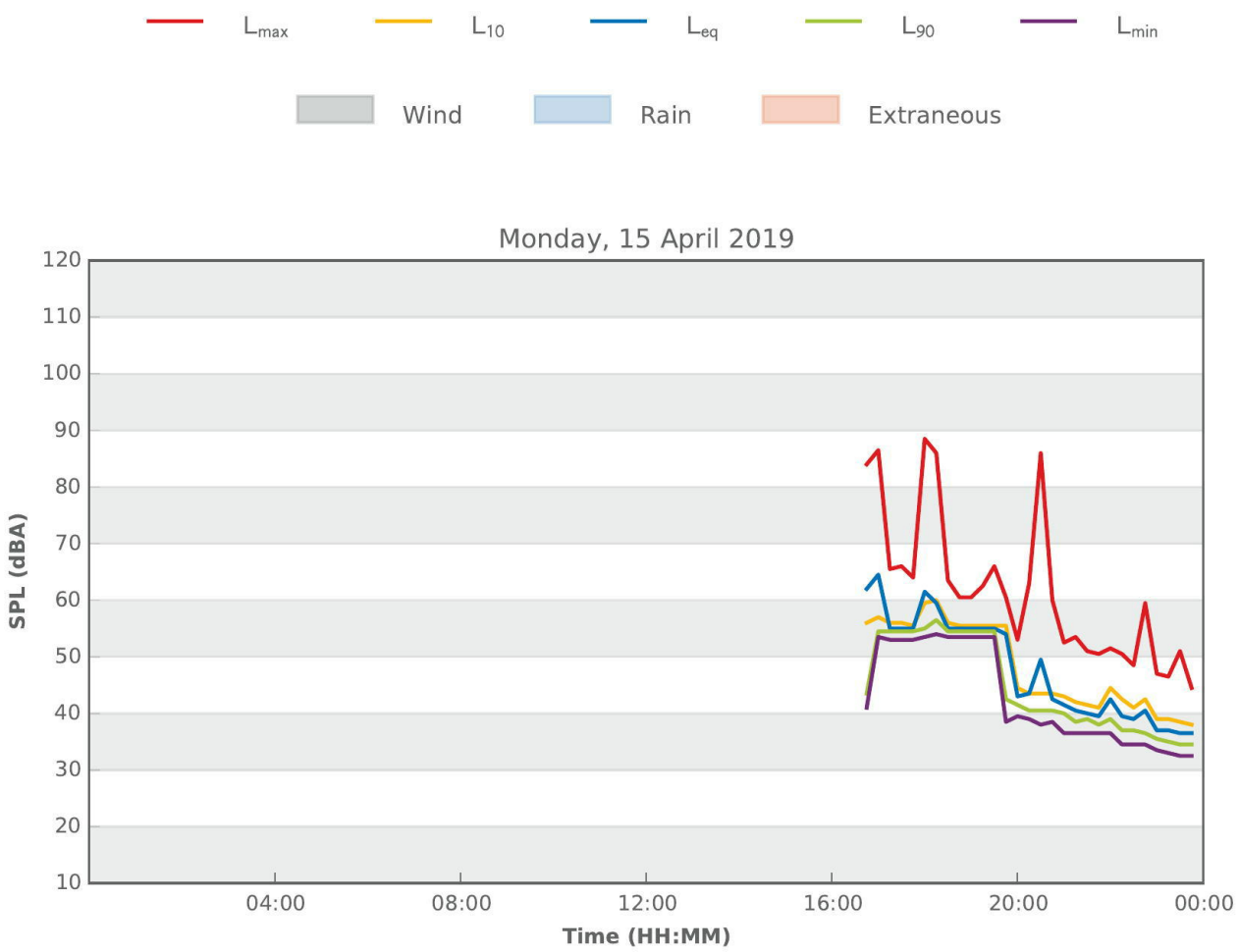

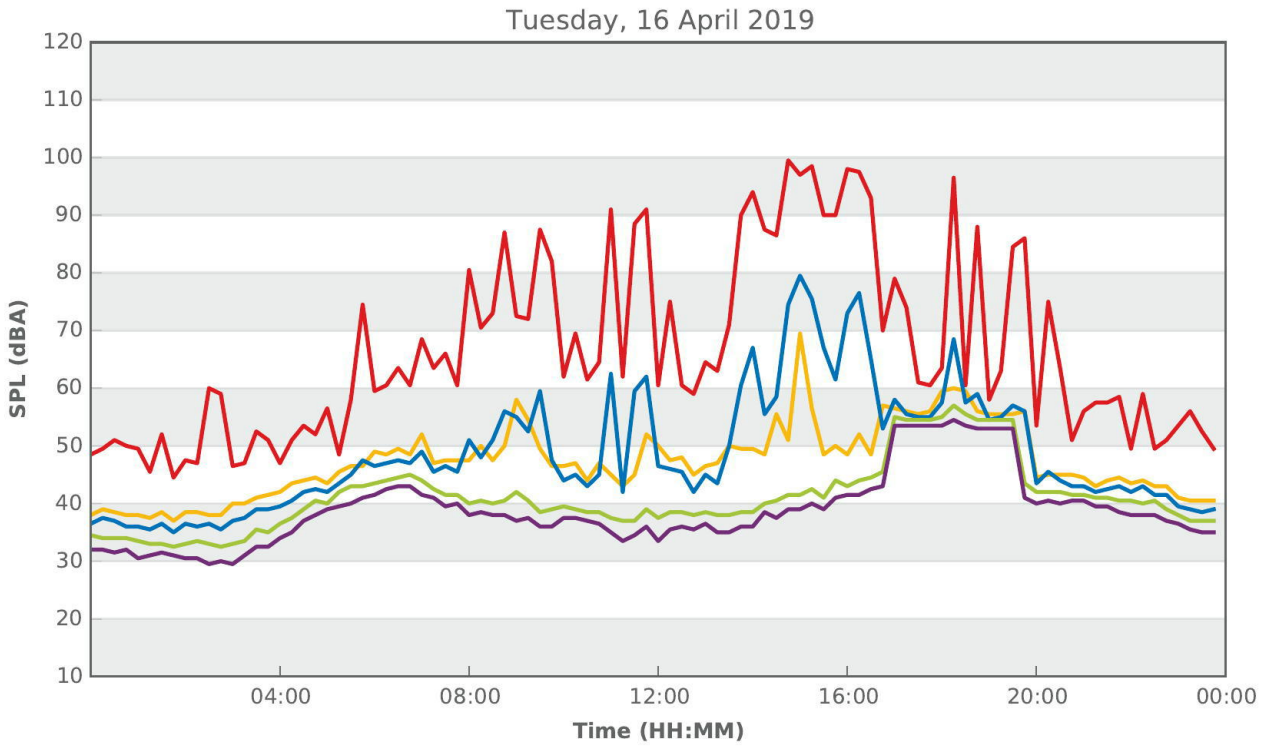

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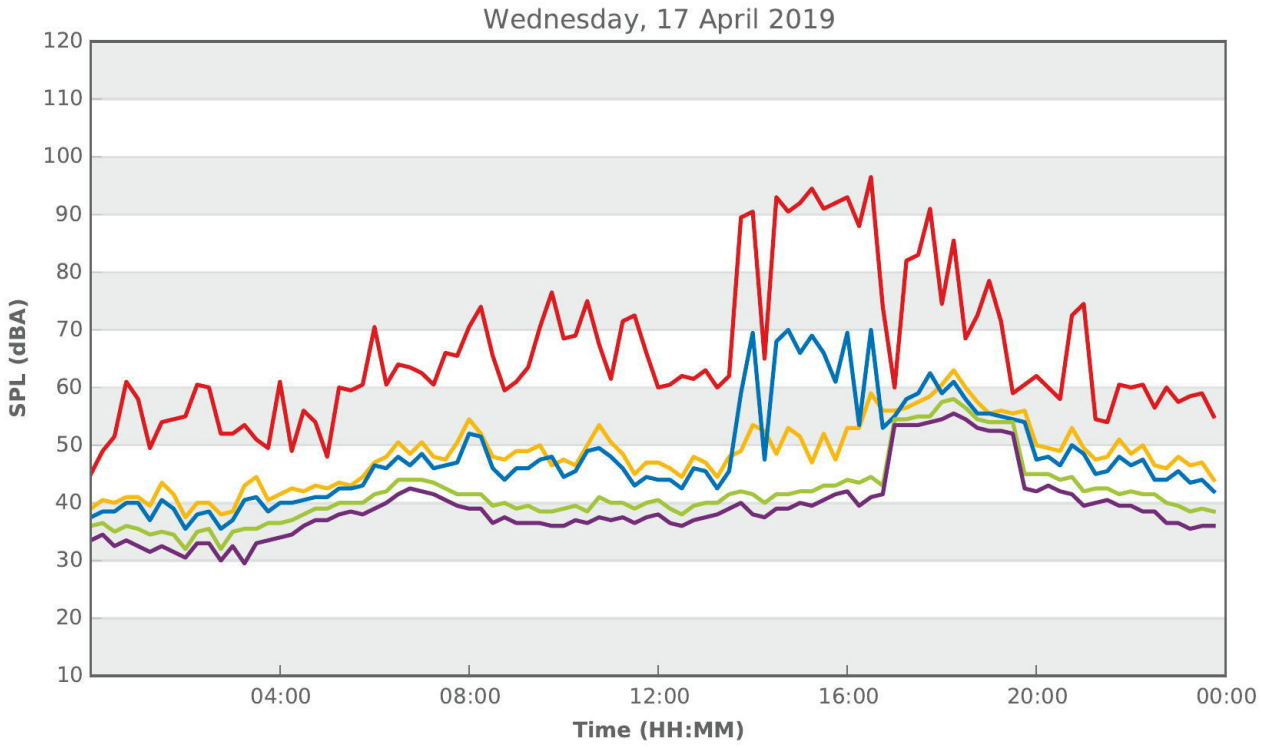

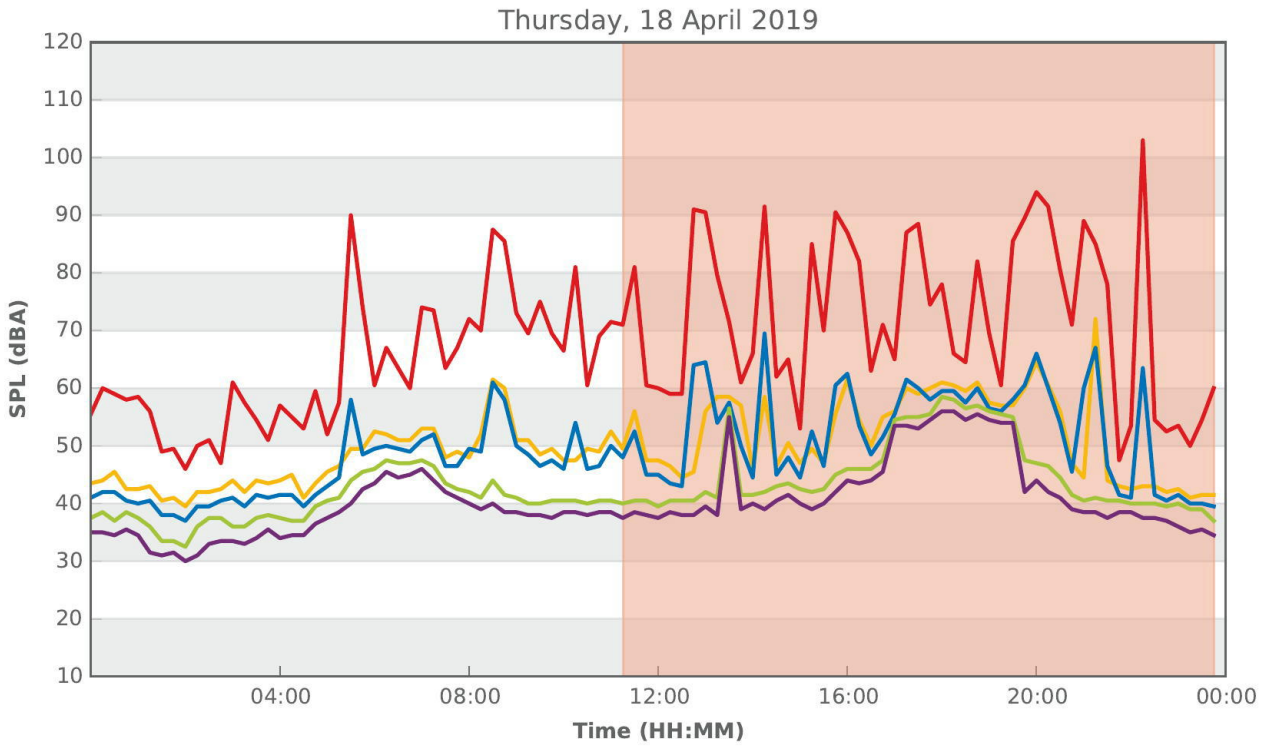

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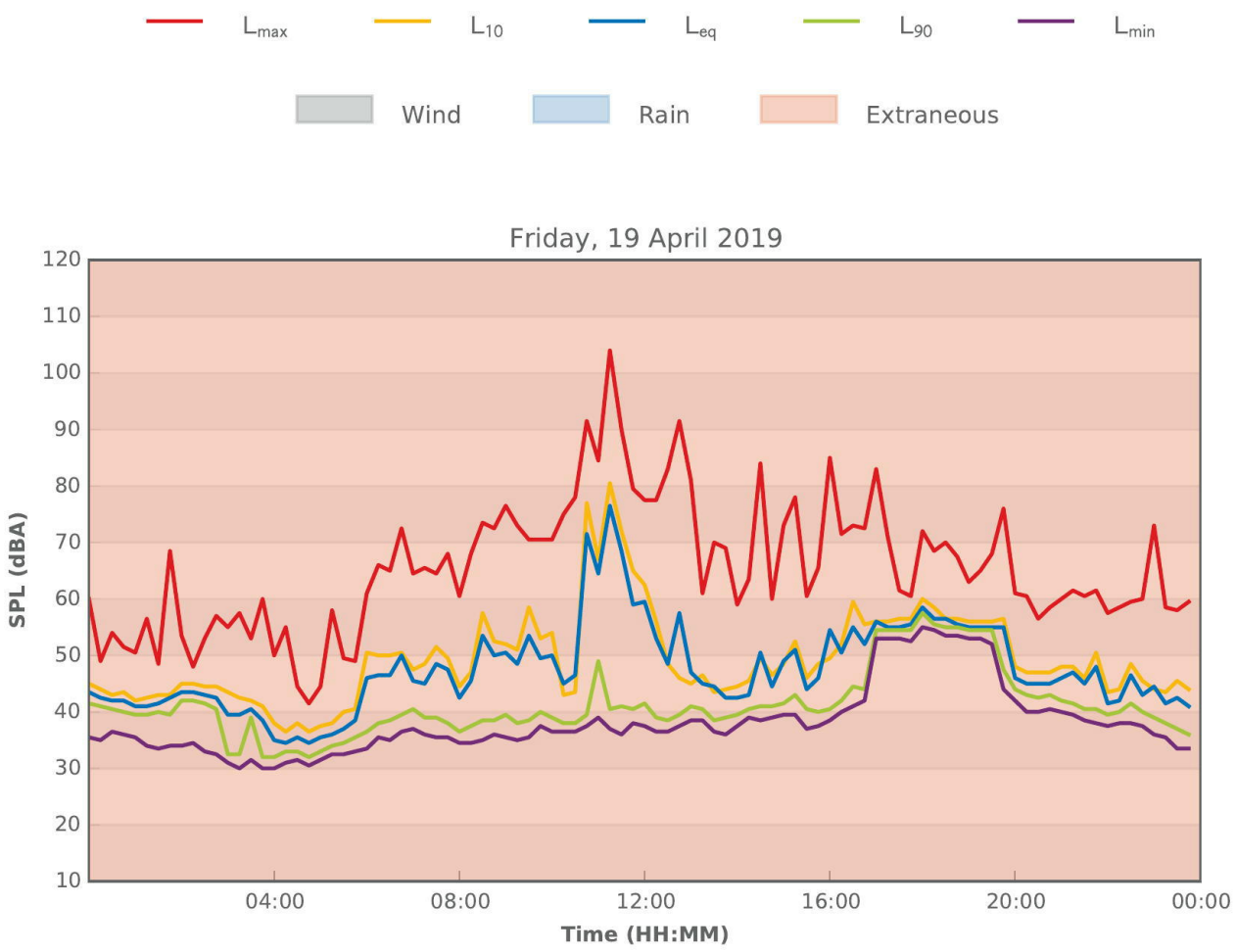

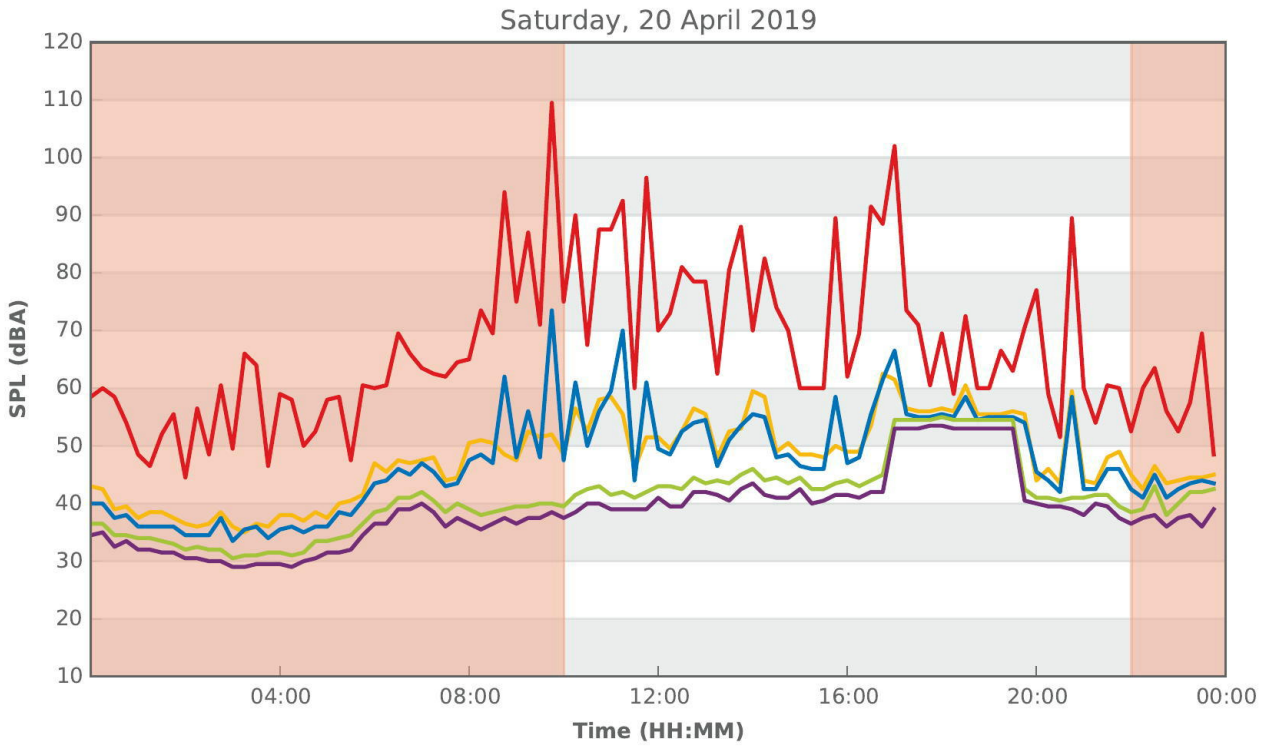

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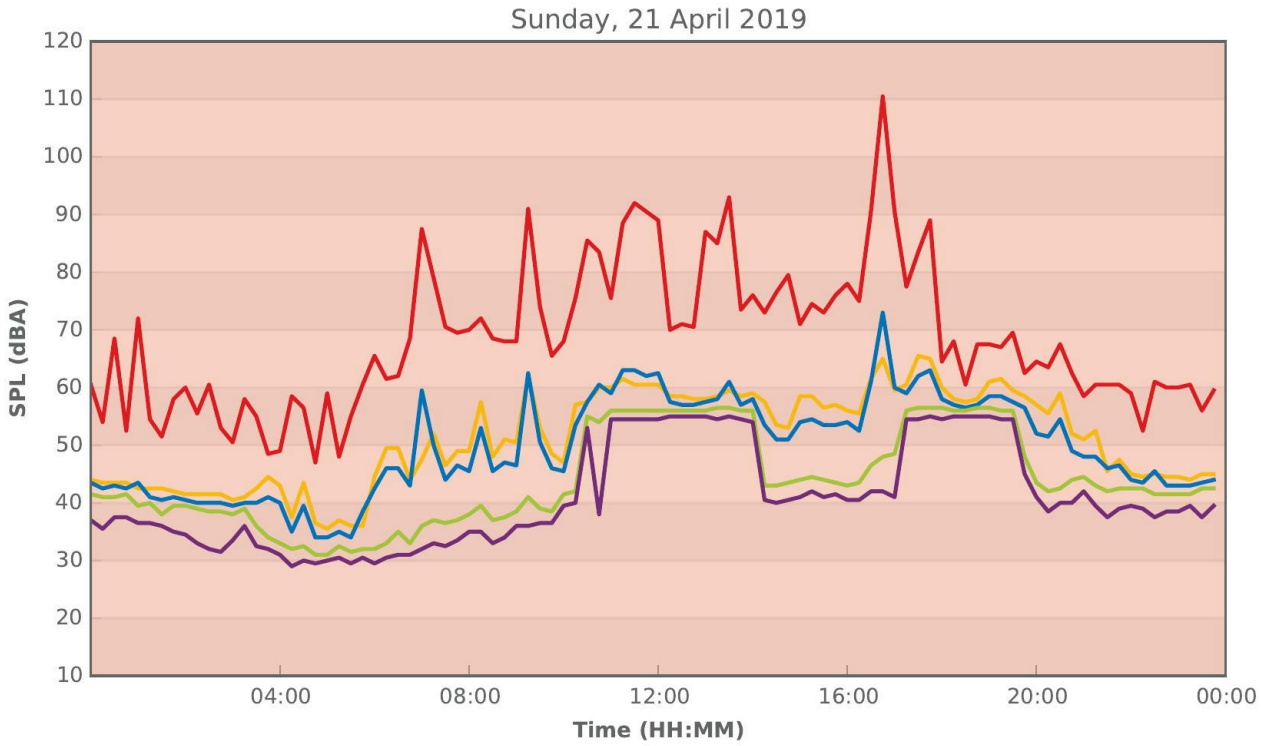

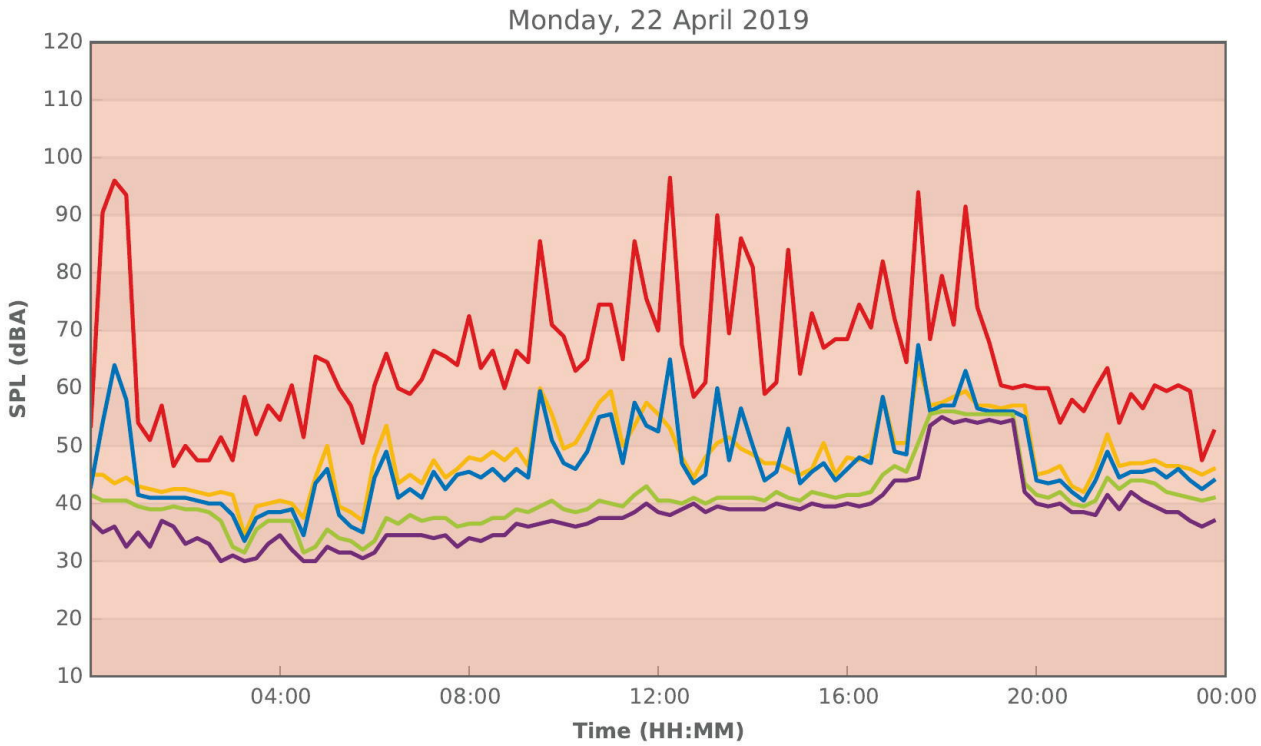

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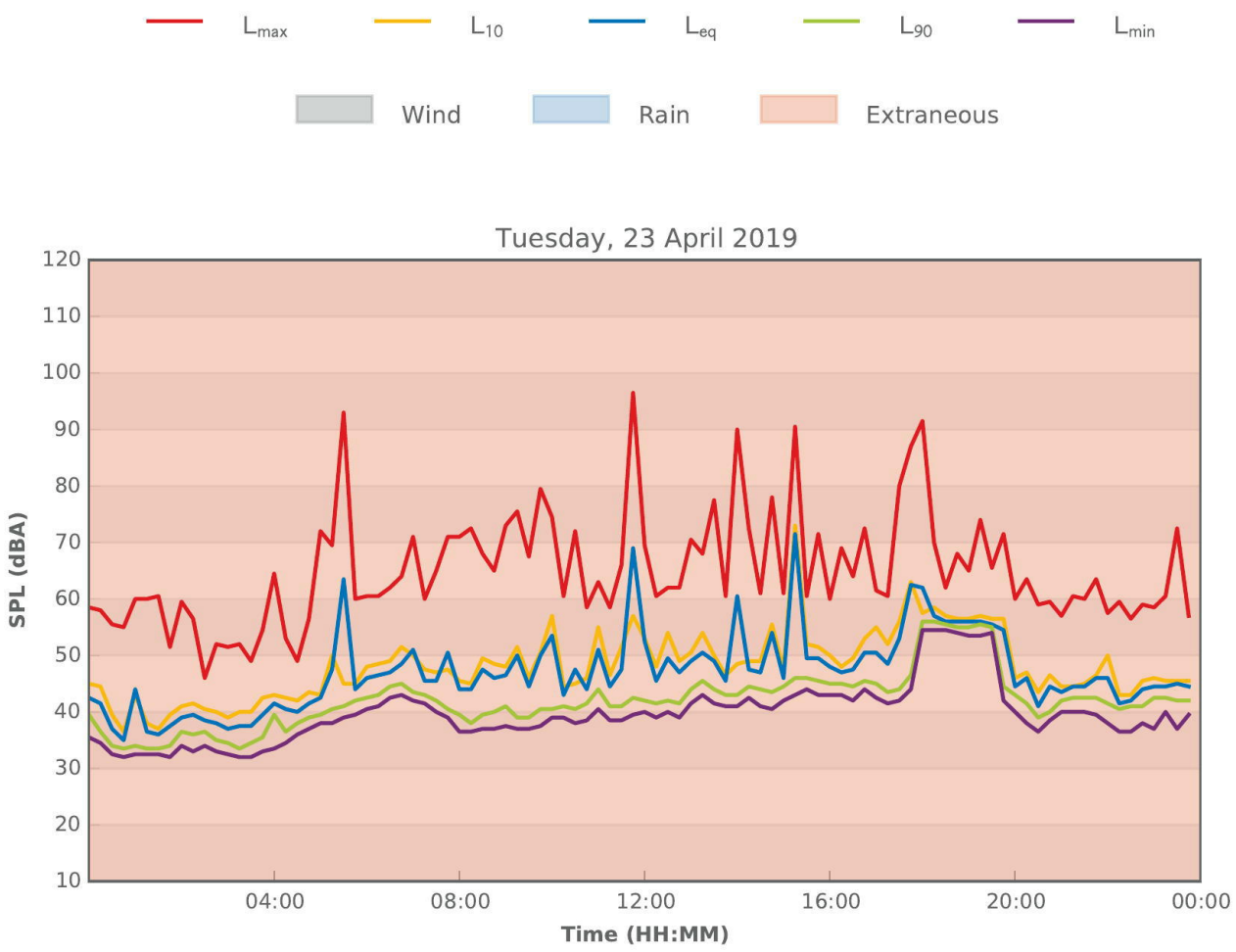

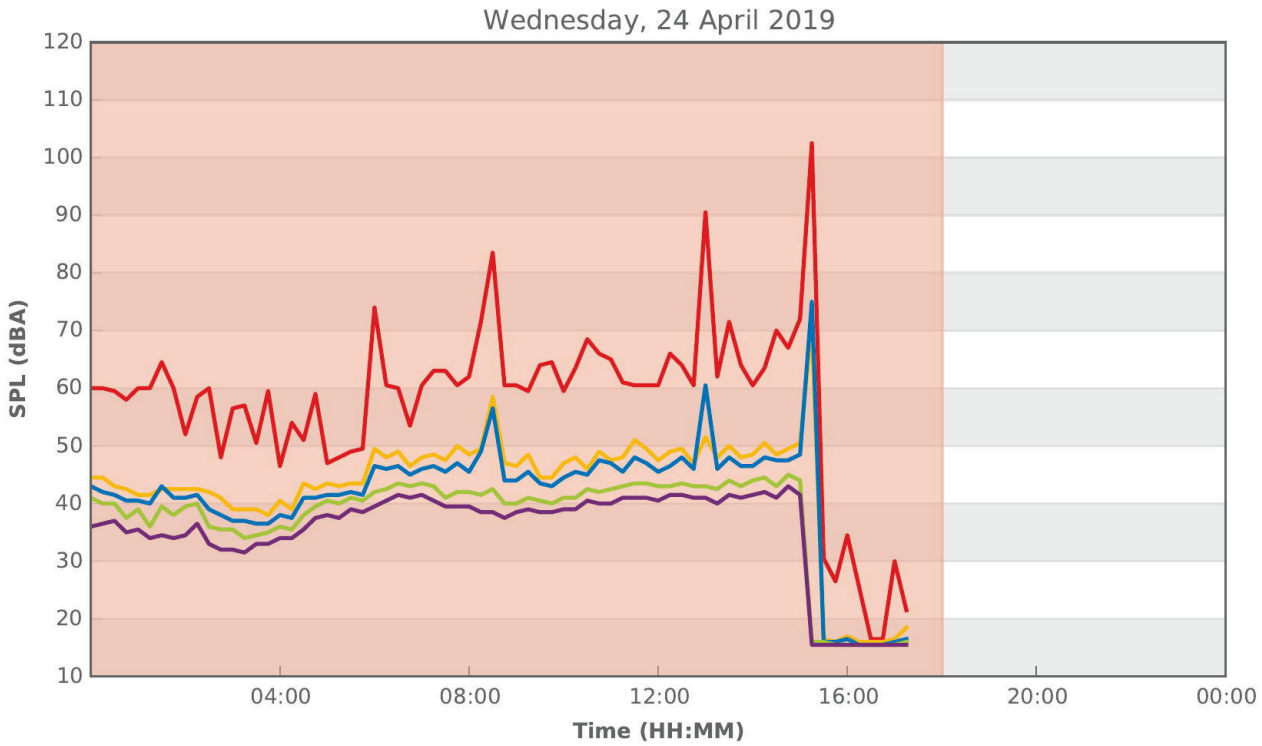

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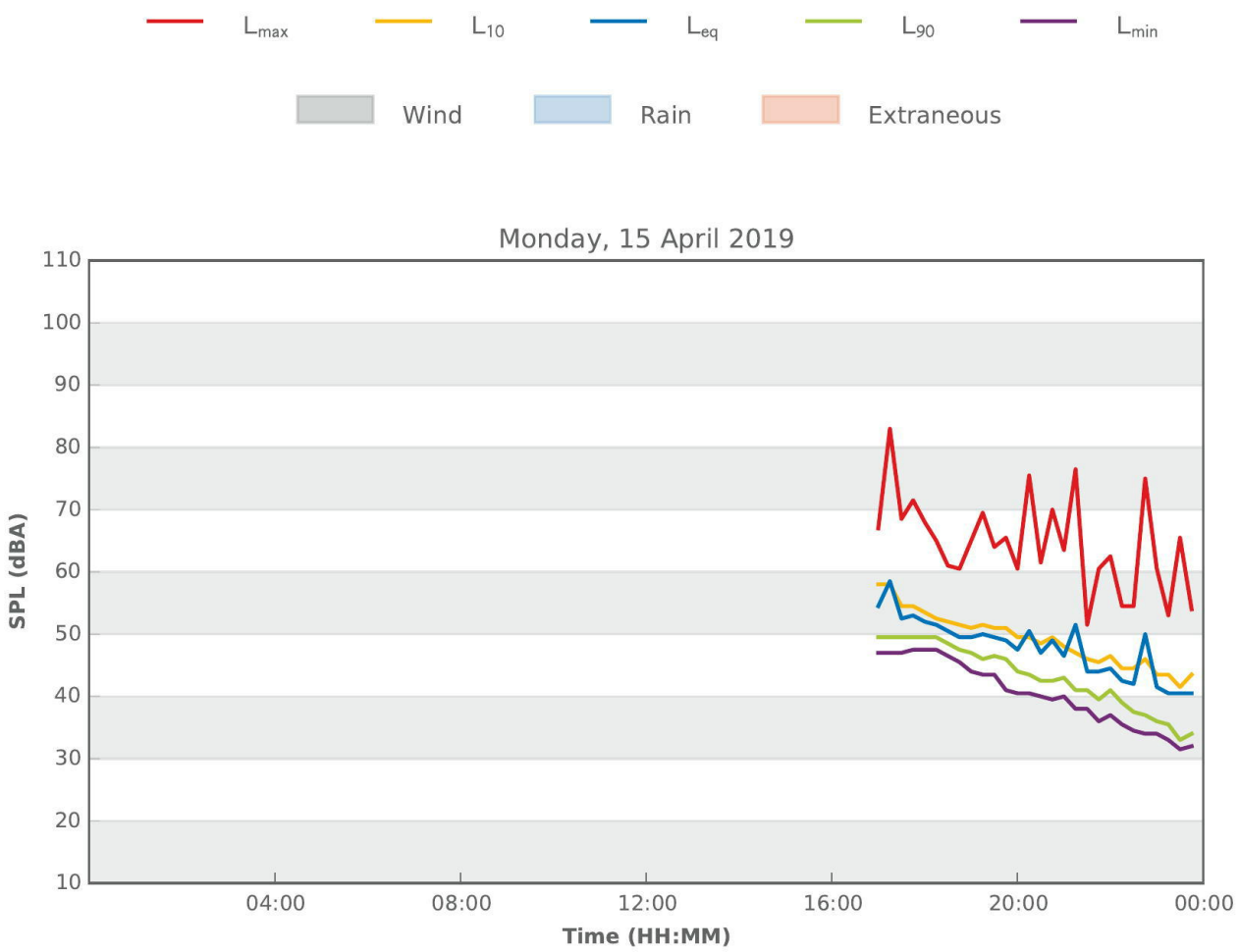
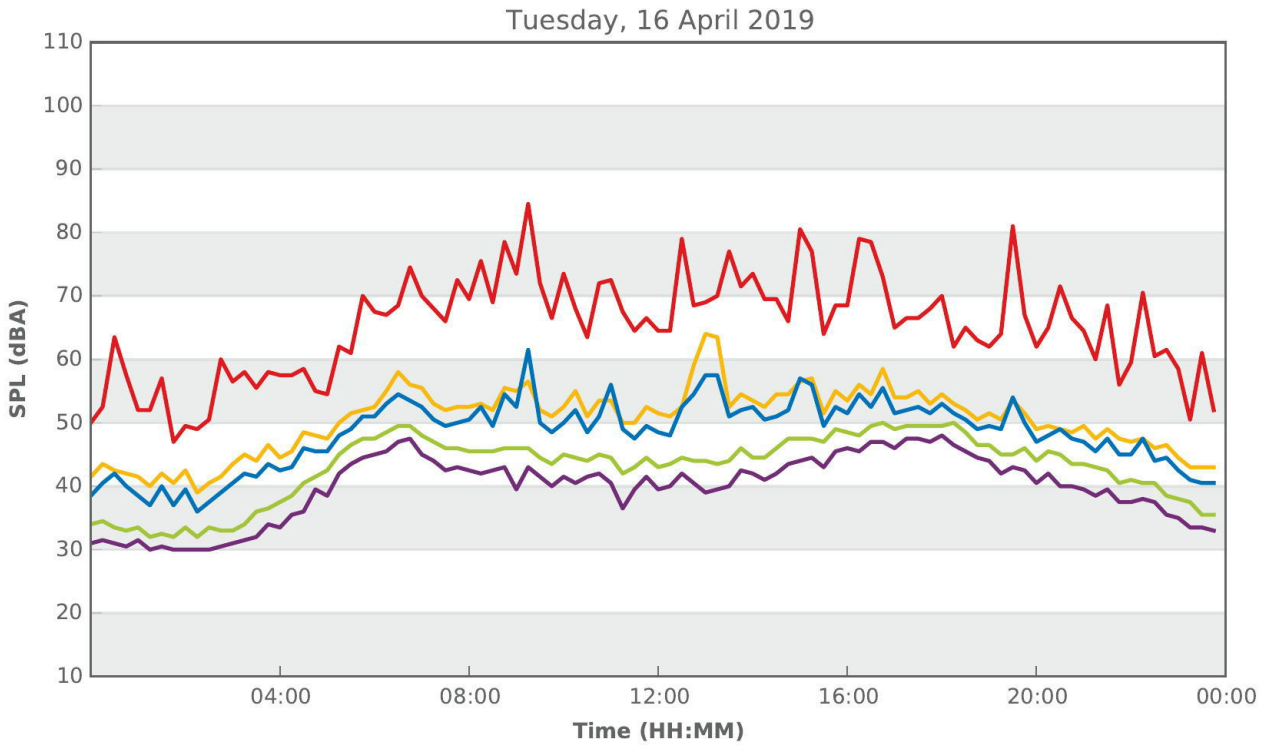
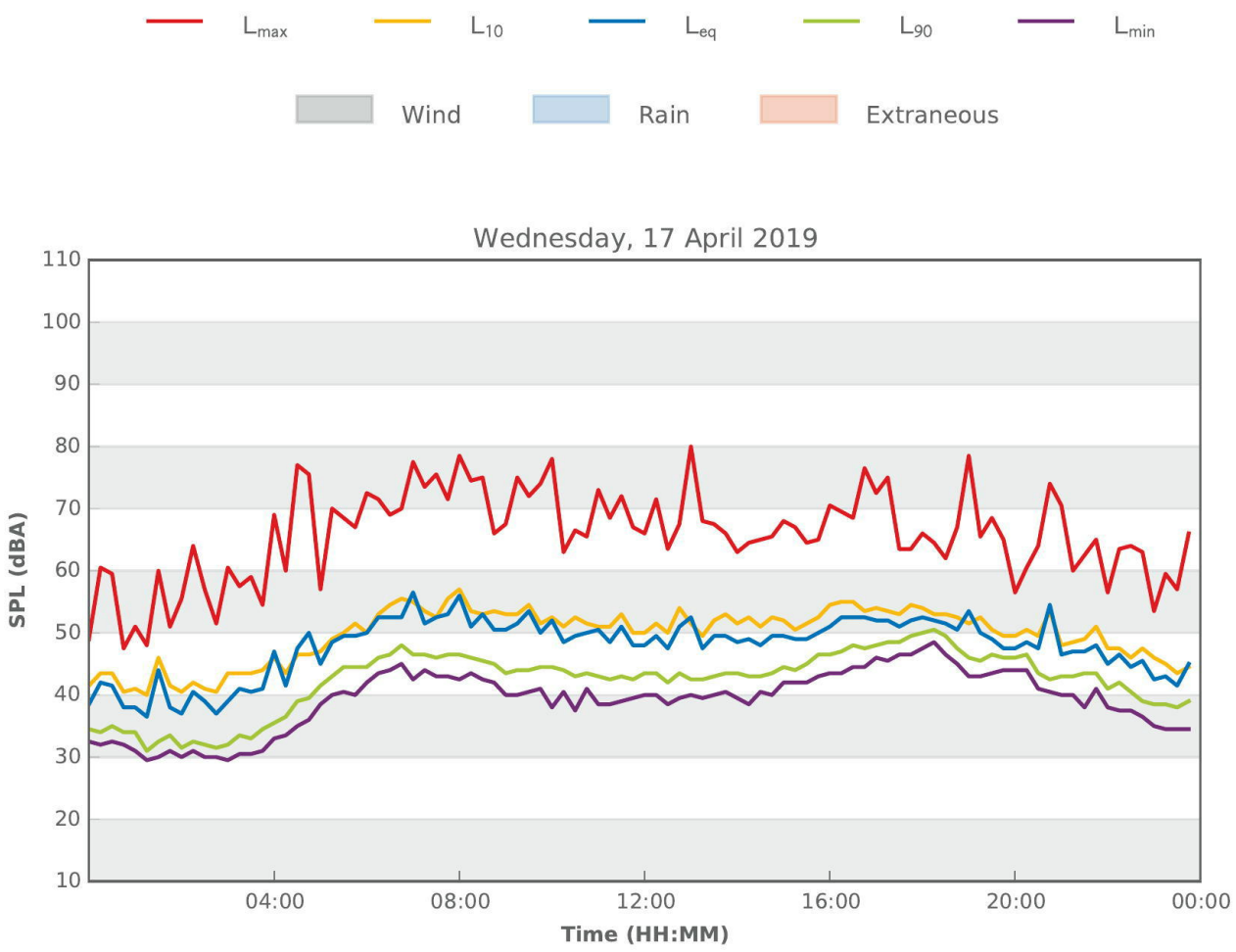
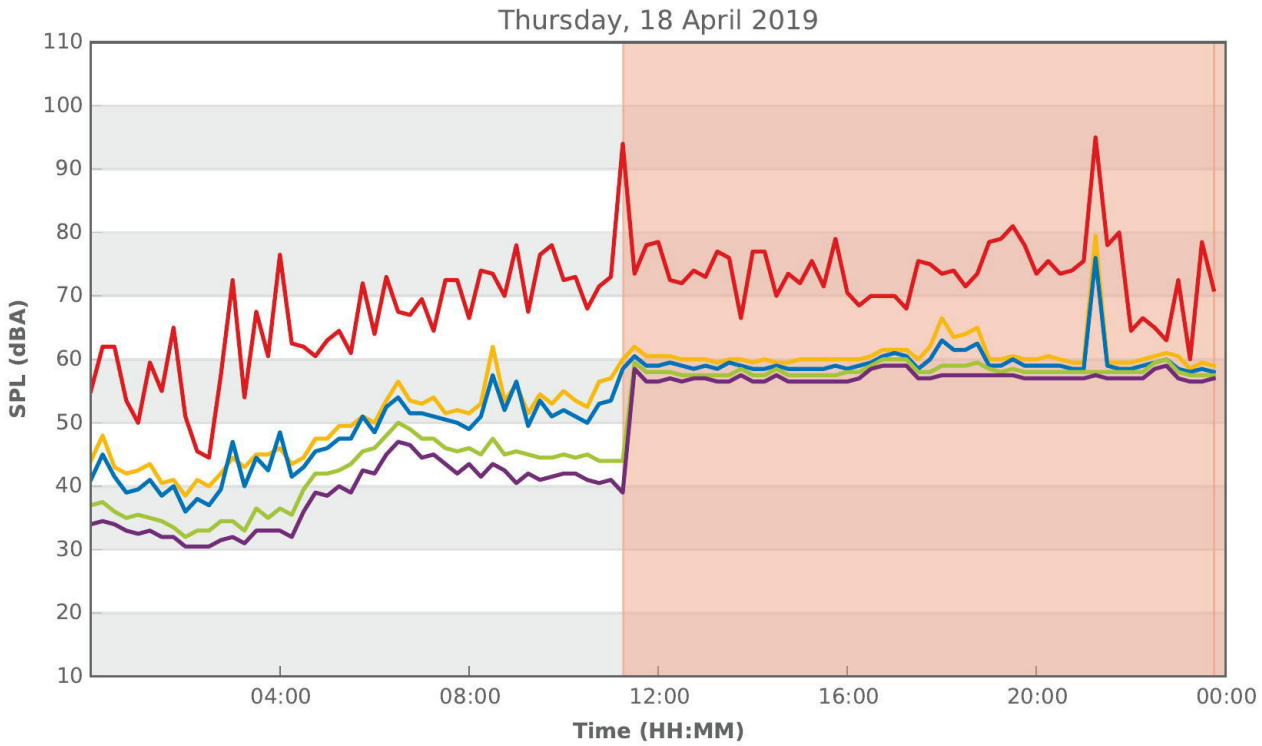




49 Gibbes Street Regentville Nsw





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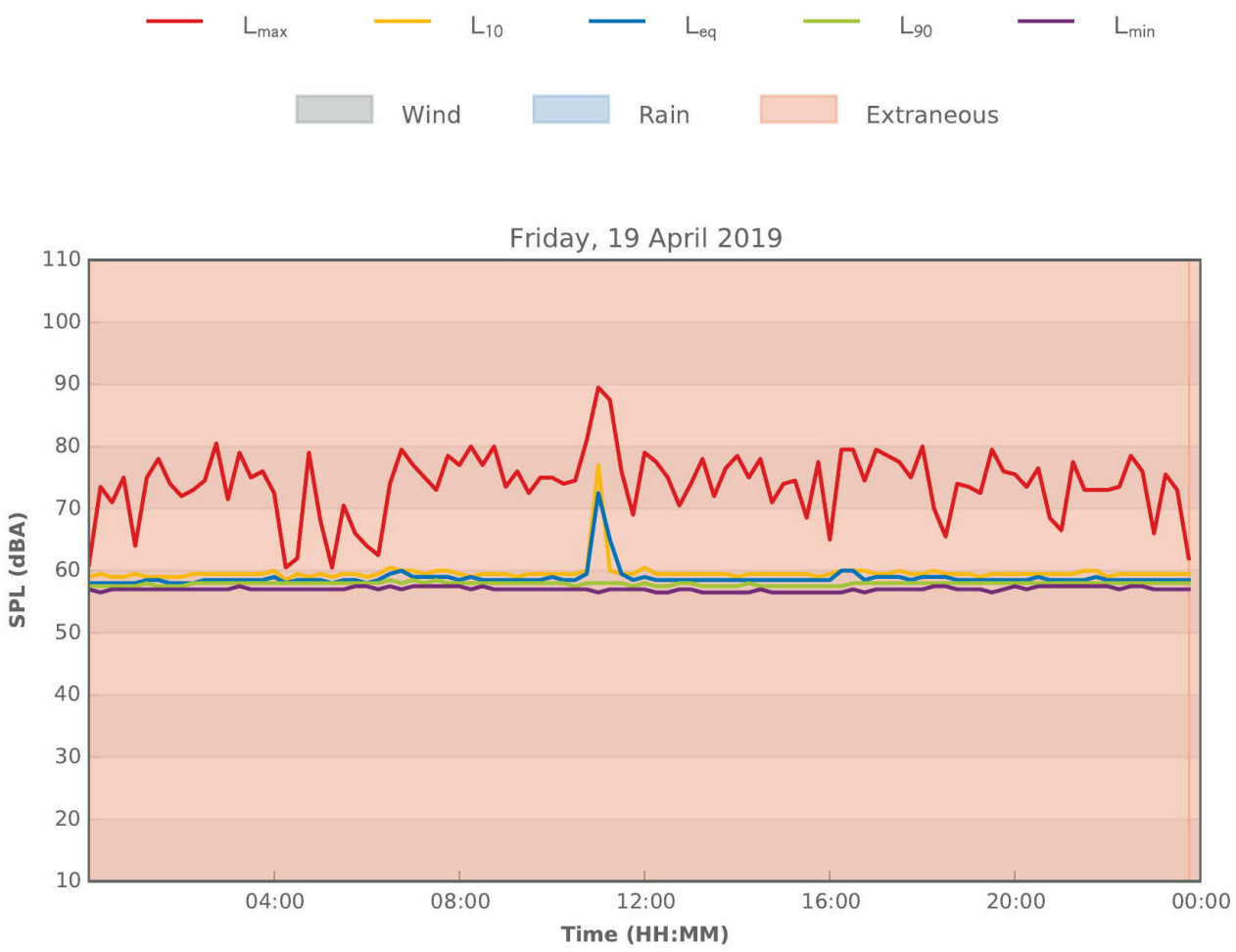

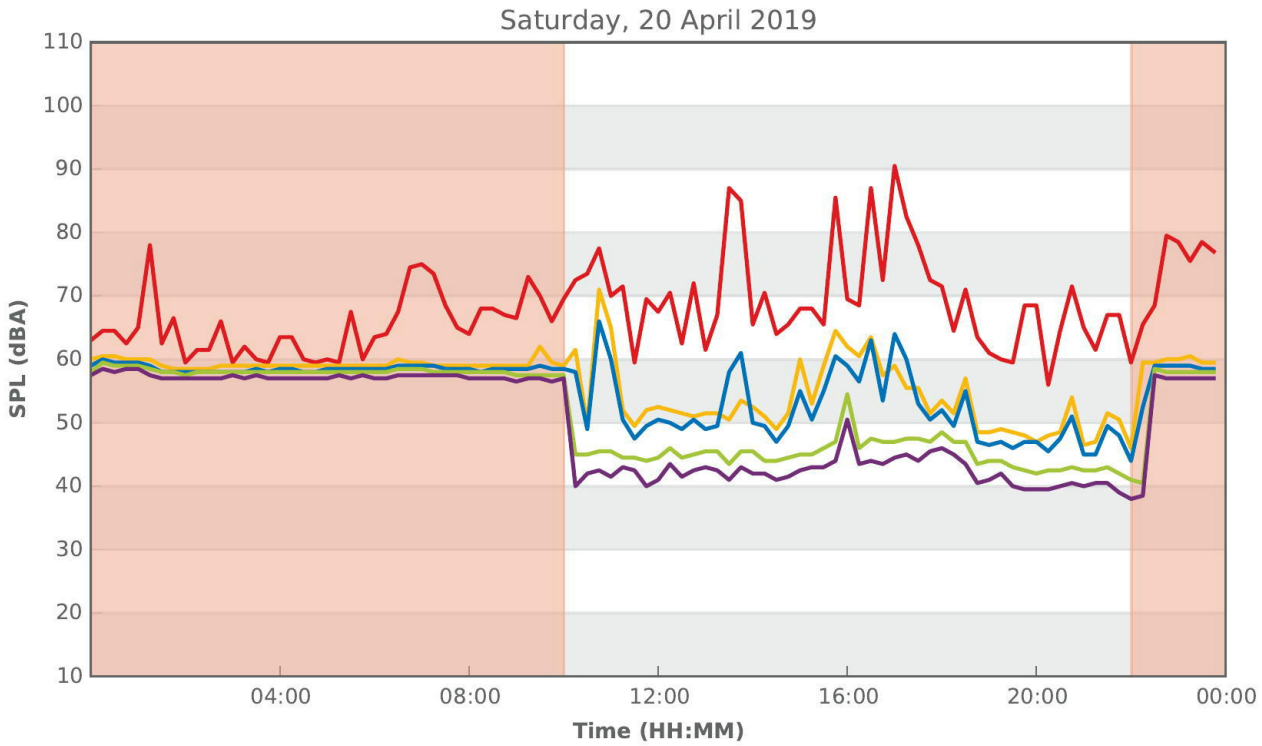

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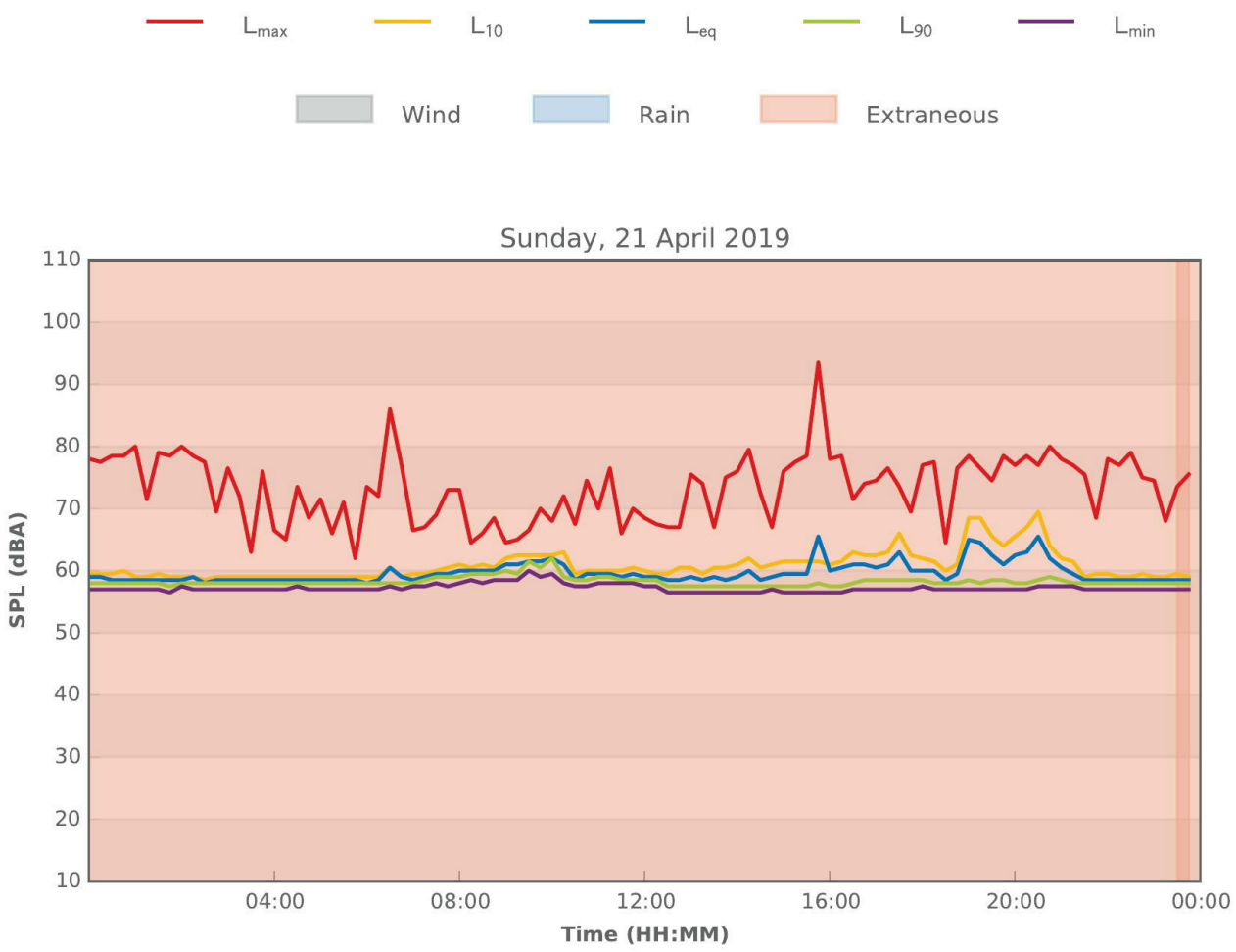

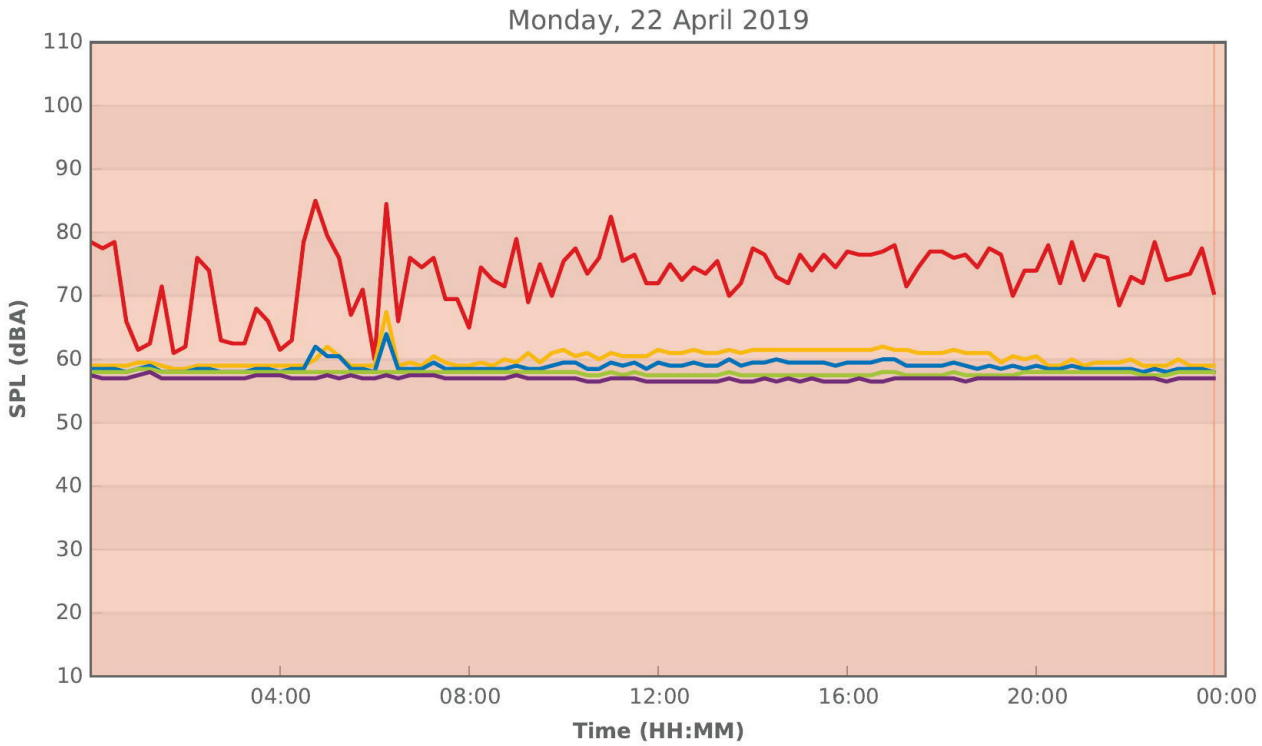

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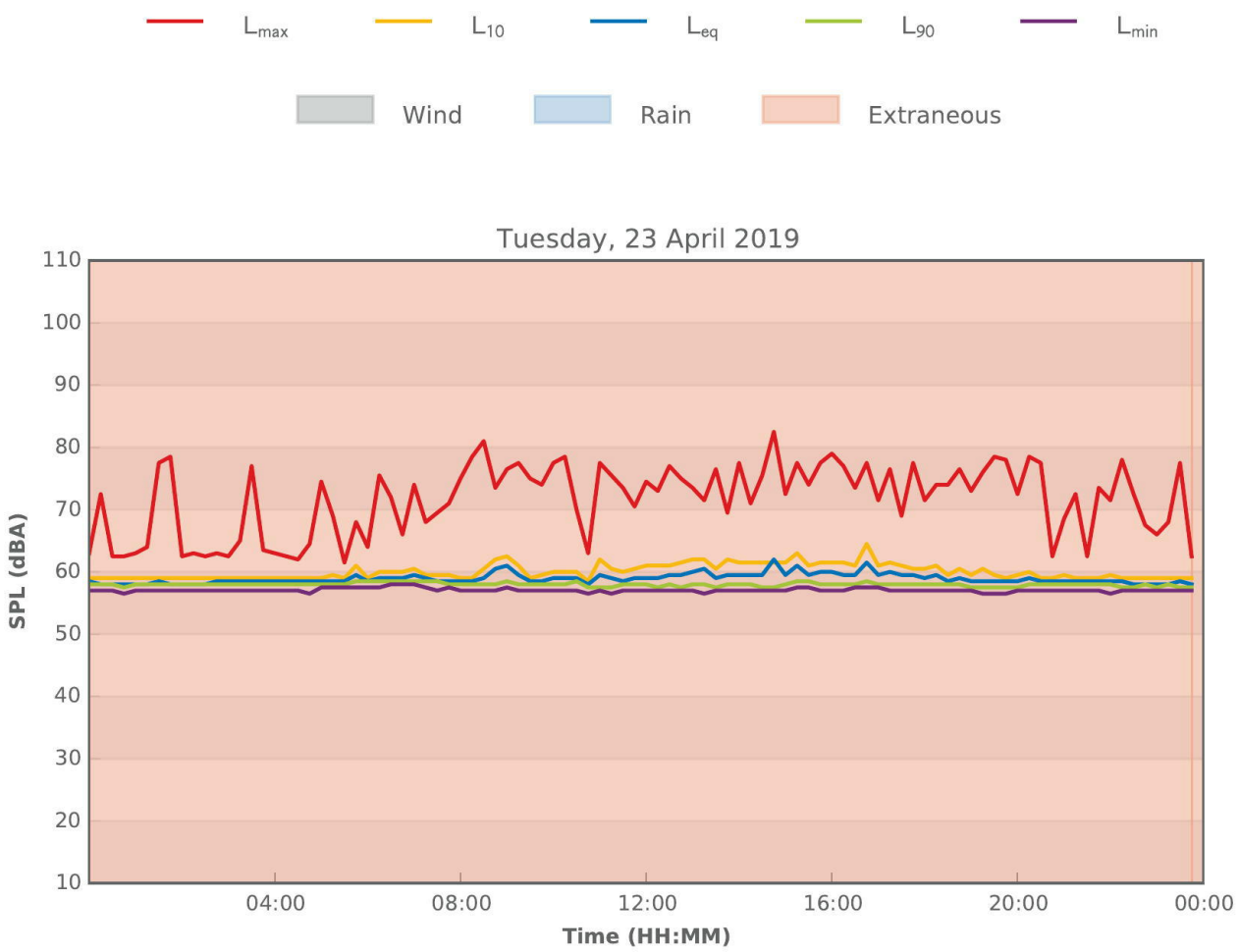
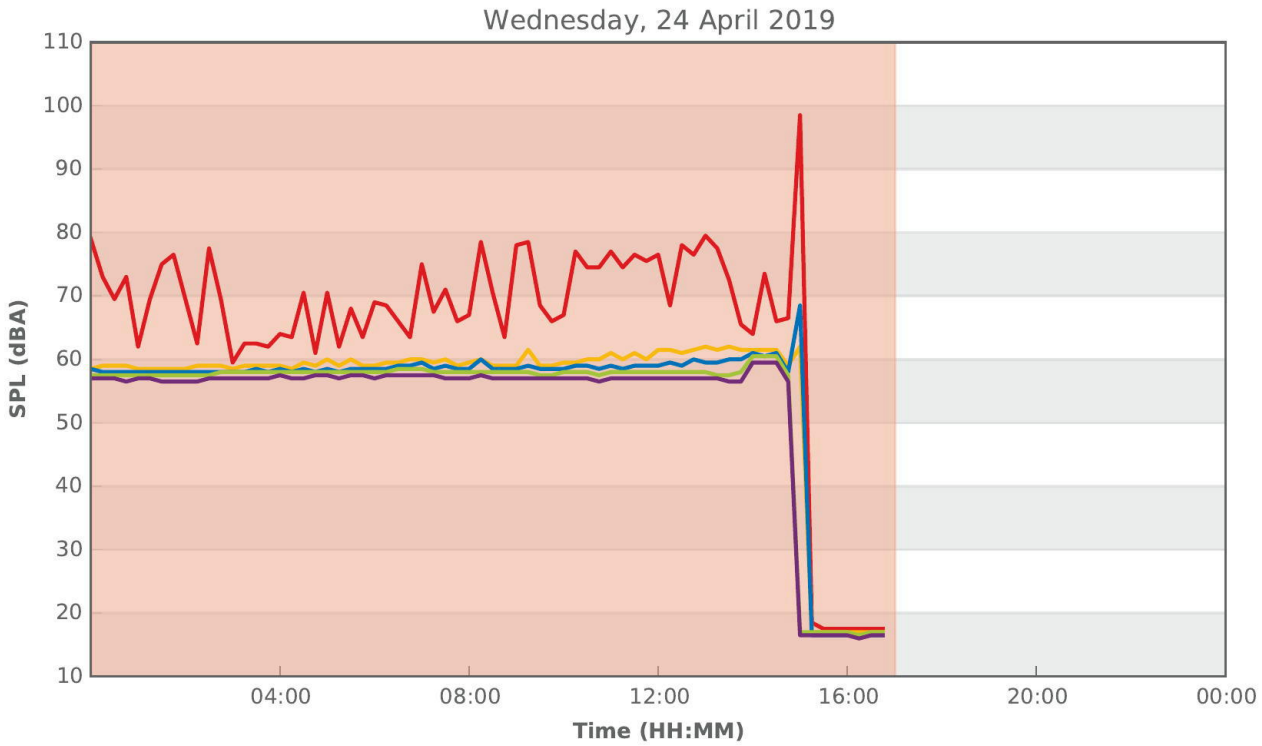




Proposed Childcare Centre

49 Gibbes Street, Regentville

TRAFFIC AND PARKING ASSESSMENT REPORT

21 June 2019

Ref 19185

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089, Ph: 9904 3224

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

1. INTRODUCTION

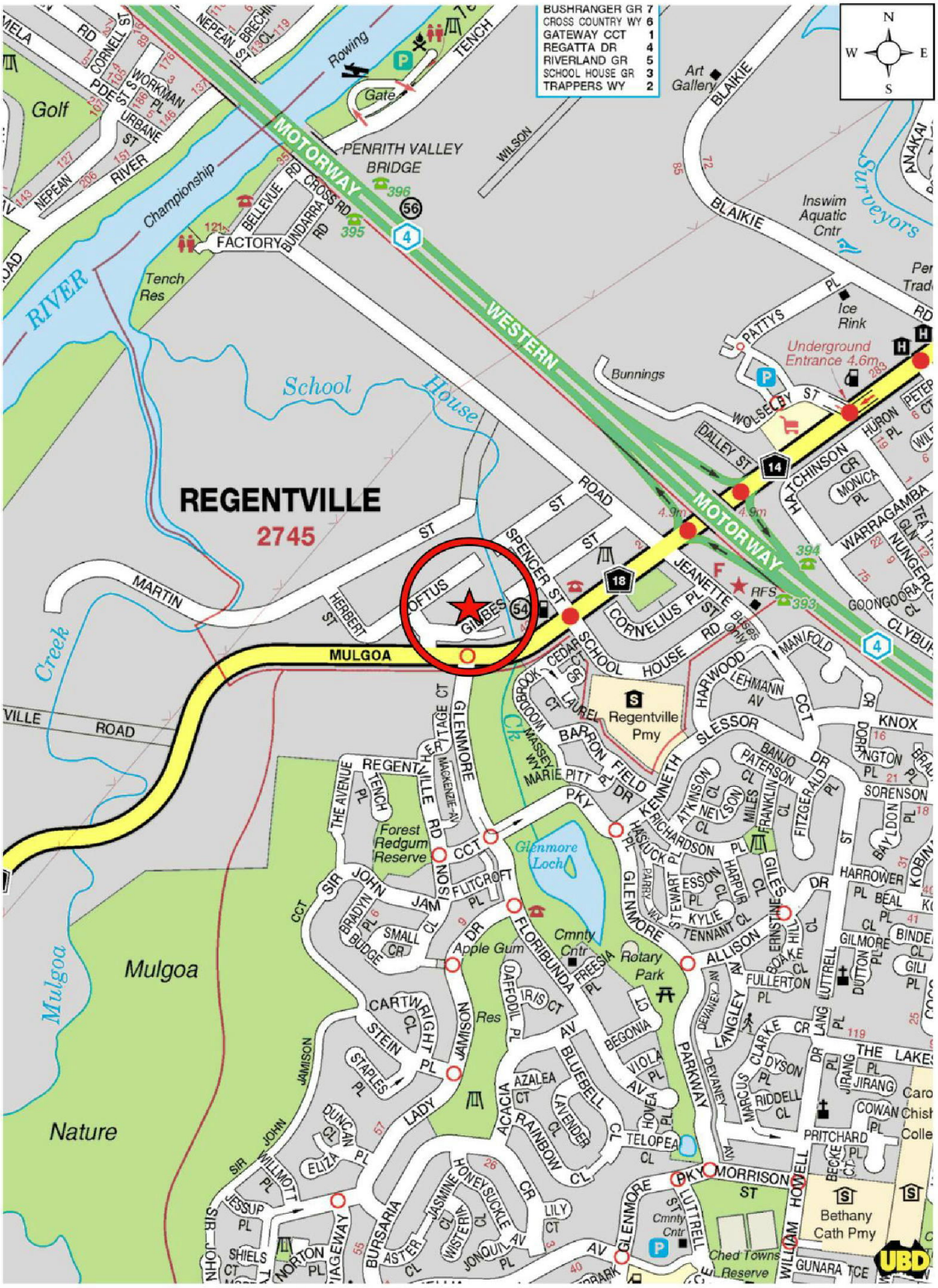
This report has been prepared to accompany a development application to Council for a proposal to construct a new childcare centre which is to be located at 49 Gibbes Street, Regentville (Figures 1 and 2).

The proposed development involves the demolition of the existing dwelling house on the site to facilitate the construction of a new purpose-built childcare centre which seeks to accommodate up to 66 children and 11 staff and operate between 7:00am and 6:00pm, Monday to Friday.

Off-street parking for the childcare centre is to be provided for a total of 18 cars in a new at-grade car parking area within the front setback of the site. Vehicular access to the car parking facilities is to be provided via separate entry and exit driveways located off Gibbes Street.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site, and the traffic conditions on that road network
- estimates the traffic generation potential of the development proposal, and assigns that traffic generation to the road network serving the site
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking provided on the site.



VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants

LOCATION
FIGURE 1

2. PROPOSED DEVELOPMENT

Site

The subject site is located on the northern side of Gibbes Street, approximately 120m north-east of Mulgoa Road. The site has a street frontage of approximately 30m in length to Gibbes Street and occupies an area of 1,393m².

The subject site is currently occupied by a single residential dwelling house with off-street parking. Vehicular access to the site is provided via a single driveway located off Gibbes Street. A recent aerial image of the site and its surroundings is reproduced below.

Proposed Development

The proposed development involves the demolition of the existing dwelling house on the site to facilitate the construction of a new purpose-built childcare centre. The proposed childcare centre seeks to cater for 66 children and 11 staff and operate between 7:00am and 6:00pm, Monday to Friday.

Off-street parking is proposed for a total of 18 cars in a new at-grade car parking area, in accordance with Council and RMS's numerical requirements, comprising 7 drop-off/pick-up spaces (including a disabled space) and 11 staff spaces. In this regard, the drop-off/pick-up spaces are located closest to the building entry in accordance with desirable design principles. Vehicular access to the car parking facilities is to be provided via separate new entry and exit driveways located off Gibbes Street.

Deliveries to the proposed childcare centre are expected to be undertaken by a variety of light commercial vehicles such as white vans, utilities and the like, which are capable of fitting into a conventional parking space. In this regard, deliveries will be scheduled to arrive *outside* of peak periods when the on-site car park will be largely empty, with the exception of the staff parking area.

Waste collection for the proposed development is to be undertaken from the kerbside area directly outside the site frontage in Gibbes Street by a private contractor. Collection will be undertaken *outside* of peak periods when traffic activity in Gibbes Street will be minimal.

Plans of the proposed development have been prepared by *Envision Group* and are reproduced in the following pages.

3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

The M4 Motorway is classified by the RMS as a *State Road* and provides the key east-west road link in the area, which extends from Concord in Sydney's inner west to Lapstone at the foothills of the Blue Mountains. It typically carries two traffic lanes in each direction in the vicinity of the site, with opposing traffic flows separated by a central median island. All intersections with the M4 Motorway are grade-separated.

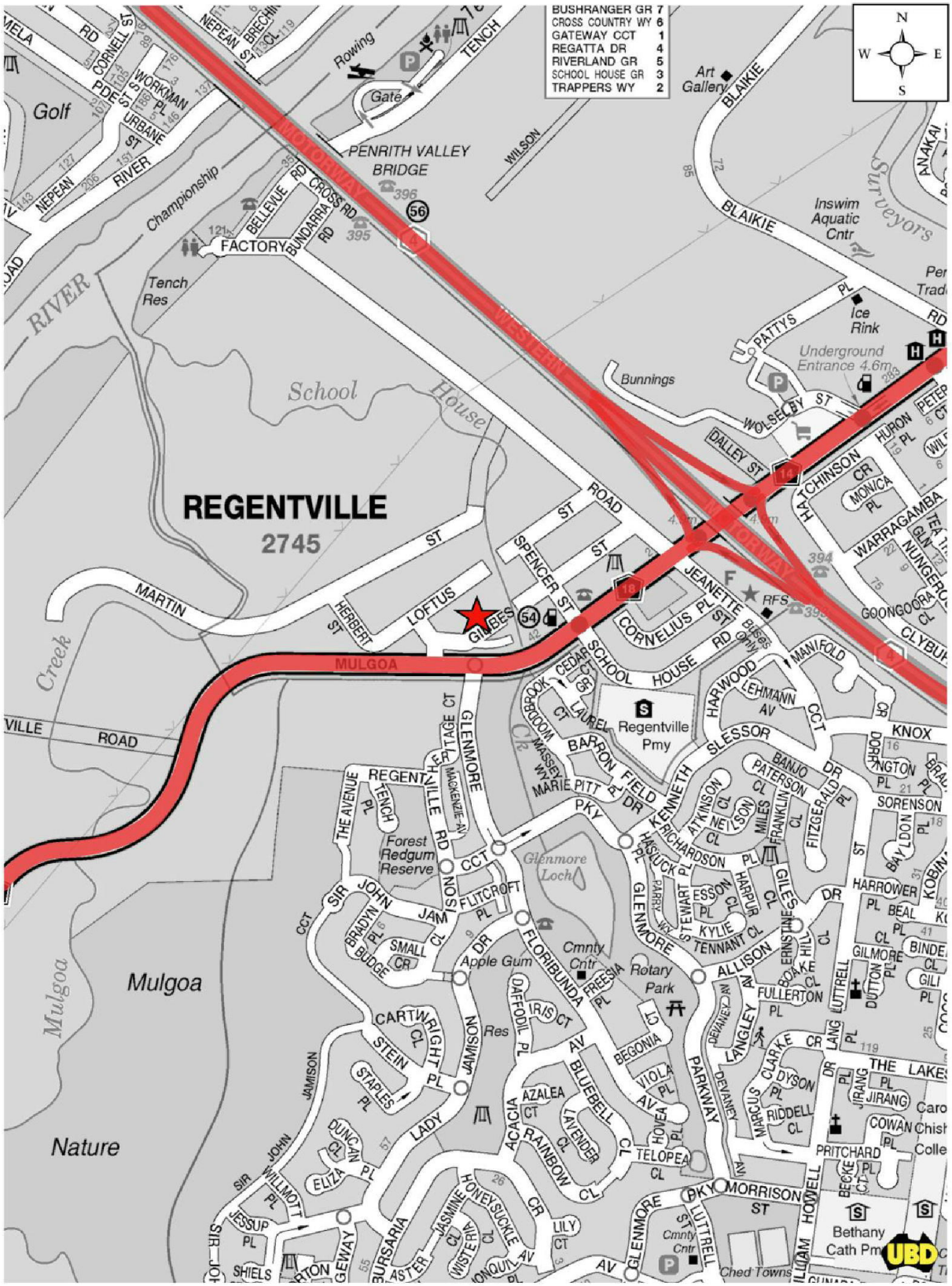
Mulgoa Road is also classified by the RMS as *State Road* which provides the key north-south road linking Penrith to Wallacia. It typically carries one to two traffic lanes in each direction in the vicinity of the site with turning lanes provided at key locations.

Gibbes Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 60km/h SPEED LIMIT which applies to Mulgoa Road
- a 50 km/h SPEED LIMIT which applies to Gibbes Street and all other local roads in the area
- a ROUNDABOUT in Mulgoa Street where it intersects with Glenmore Parkway



- TRAFFIC SIGNALS in Mulgoa Road where it intersects with Spenser Street/School House Road

- an UNFORMED section of road in Gibbes Street which precludes vehicular access between the western and eastern ends.

Existing Traffic Conditions

An indication of the existing traffic conditions on the road network in the vicinity of the site is provided by peak period traffic surveys undertaken as part of this traffic study. The traffic surveys were undertaken in Mulgoa Road where it intersects with Gibbes on Tuesday 30th April, 2019. The results of the traffic surveys are reproduced in full in Appendix A and reveal that:

- two-way traffic flows in Mulgoa Road are typically in the order of 800-900 vehicles per hour (vph) during weekday commuter peak periods

- two-way traffic flows in Gibbes Street are lower, typically in the order of 70-90 vph during weekday commuter peak periods.

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002).*

The RMS *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following traffic generation rates which are applicable to the development proposal:

Childcare Centres

AM: 0.8 peak vehicle trips per child

PM: 0.7 peak vehicle trips per child

Application of the above traffic generation rates to the 66 children outlined in the development proposal yields a traffic generation potential of approximately 53 vehicle trips during the AM commuter peak period (i.e. 26 vehicle movements TO and 27 vehicle movements FROM) and approximately 46 vehicle trips during the PM commuter peak period (i.e. 23 vehicle movements TO and 23 vehicle movements FROM).

That projected increase in the traffic generation potential of the site as a consequence of the development proposal is minimal and will not have any unacceptable traffic implications in terms of road network capacity, as is demonstrated by the following section of this report.

Traffic Implications - Road Network Capacity

The traffic implications of development proposals primarily concern the effects that any *additional* traffic flows may have on the operational performance of the nearby road network. Those effects can be assessed using the SIDRA NETWORK program which is widely used by the RMS and many LGA's for this purpose. Criteria for evaluating the results of SIDRA analysis are reproduced in the following pages.

The results of the SIDRA NETWORK capacity analysis of the surrounding intersections are reproduced in Appendix B and summarised in the table on the following page, revealing that:

- the Mulgoa Road and Gibbes Street intersection currently operates at a *Level of Service "A"*, including all individual turning movements, with overall average vehicle delays in the order of 1 second per vehicle

- under the projected increase in projected future traffic demands expected to be generated by the development proposal, the Mulgoa Road and Gibbes Street intersection is expected to continue to operate at *Level of Service "A"*, with increases in average vehicle delays of ***less than 1*** second per vehicle.

In essence, the capacity analysis confirms that the traffic generation potential of the development proposal on the subject site will not have any appreciable effect on the performance of nearby intersections, nor will any intersections upgrades be required.

TABLE 3.1 - SUMMARY RESULTS OF SIDRA ANALYSIS OF SURROUNDING ROAD NETWORK

Key Indicators	Existing Traffic Demand		Projected Development Traffic Demand	
	AM	PM	AM	PM
Mulgoa Road & Gibbes Street				
LOS	A	A	A	A
DOS	0.272	0.315	0.274	0.329
AVD (Sec/Veh)	0.8	0.6	1.3	1.0
Gibbes Street & Gibbes Street				
LOS	A	A	A	A
DOS	0.027	0.024	0.303	0.036
AVD (Sec/Veh)	3.1	0.9	3.8	2.3

LOS – Level of Service; DOS – Degree of Saturation; AVD – Average Vehicle Delays

Criteria for Interpreting Results of Sidra Analysis

1. Level of Service (LOS)

LOS	Traffic Signals and Roundabouts	Give Way and Stop Signs
'A'	Good operation.	Good operation.
'B'	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
'C'	Satisfactory.	Satisfactory but accident study required.
'D'	Operating near capacity.	Near capacity and accident study required.
'E'	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.
'F'	Unsatisfactory and requires additional capacity.	Unsatisfactory and requires other control mode.

2. Average Vehicle Delay (AVD)

The AVD provides a measure of the operational performance of an intersection as indicated on the table below which relates AVD to LOS. The AVD's listed in the table should be taken as a guide only as longer delays could be tolerated in some locations (ie inner city conditions) and on some roads (ie minor side street intersecting with a major arterial route).

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabout	Give Way and Stop Signs
A	less than 14	Good operation.	Good operation.
B	15 to 28	Good with acceptable delays and spare capacity.	Acceptable delays and spare capacity.
C	29 to 42	Satisfactory.	Satisfactory but accident study required.
D	43 to 56	Operating near capacity.	Near capacity and accident study required.
E	57 to 70	At capacity; at signals incidents will cause excessive delays. Roundabouts require other control mode.	At capacity and requires other control mode.

3. Degree of Saturation (DS)

The DS is another measure of the operational performance of individual intersections.

For intersections controlled by traffic signals[1] both queue length and delay increase rapidly as DS approaches 1, and it is usual to attempt to keep DS to less than 0.9. Values of DS in the order of 0.7 generally represent satisfactory intersection operation. When DS exceeds 0.9 queues can be anticipated.

For intersections controlled by a roundabout or GIVE WAY or STOP signs, satisfactory intersection operation is indicated by a DS of 0.8 or less.

[1] *The values of DS for intersections under traffic signal control are only valid for cycle length of 120 secs.*

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

Given the residential nature of Gibbes Street and the surrounding area, there are generally no kerbside parking restrictions which apply in the vicinity of the site, including along the site frontage.

Off-Street Parking Provisions

The off-street parking requirements applicable to the development proposal are specified in Council's *Development Control Plan 2014, Section C10 Transport Access and Parking* in the following terms:

> **Childcare centres**
> 1 space per 10 children, *plus*
> 1 per employee

Application of the above *DCP 2014* parking requirements to the 66 children and 11 staff outlined in the development proposal yields an off-street parking requirement of 18 off-street parking spaces.

By way of comparison, reference is also made to the Roads and Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 5 – Parking Requirements for Specific Land Uses (October 2002).*

The RMS *Guidelines* are based on extensive surveys of a wide range of land uses and nominates the following off-street parking requirement for childcare centres:

> **Childcare centres**
> 1 space per 4 children

Application of the above RMS *Guidelines* parking requirements to the 66 children outlined in the development proposal yields an off-street parking requirement of 17 off-street parking spaces.

The proposed development makes provision for a total of 18 off-street parking spaces, comprising 7 drop-off/pick-up spaces and 11 staff spaces, thereby satisfying both Council's *DCP 2014* and RMS requirements.

Furthermore, the RMS *Guidelines* indicates that the average length of stay for parents dropping off or picking up children at a childcare centre is in the order of "6.8 minutes". As such, each drop-off/pick-up parking space is capable of turning over 8.8 cars per hour.

Application of this turnover rate to the provision of 7 off-street parking spaces yields a total of 62 cars (i.e. children) per hour being accommodated. Given that drop-offs are typically dispersed over a 2 hour period in the morning and afternoon, this equates to a potential 124 drop-offs in the morning and afternoon i.e. *well in excess* of likely requirements.

The geometric design layout of the proposed car parking facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1 – 2004* in respect of parking space dimensions, aisle width, driveway width and driveway location.

The vehicular access arrangements have been designed to accommodate the swept turning path requirements of the 6.4m long small rigid truck (i.e. similar in size to an ambulance), allowing it, and vehicles smaller, to circulate through the car park without difficulty and to enter and exit the site in a forward direction at all times.

In summary, the proposed parking facilities satisfy the relevant requirements specified in Council's *DCP 2014*, the RMS *Guidelines* as well as the Australian Standards and it is therefore concluded that the proposed development will not have any unacceptable parking implications.

APPENDIX A

TRAFFIC SURVEY DATA

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 7071 REGENTVILLE Gibbes St
Day/Date : Tuesday 30th April 2019

Lights	NORTH		EAST		SOUTH		
	Gibbes St		Gibbes St		Gibbes St		
Time Per	T	L	R	L	R	T	TOT
0730 - 0745	5	0	0	1	0	1	7
0745 - 0800	6	1	1	5	3	2	18
0800 - 0815	16	0	0	2	1	6	25
0815 - 0830	9	0	0	2	1	8	20
0830 - 0845	7	1	1	2	1	5	17
0845 - 0900	15	0	0	1	1	8	25
0900 - 0915	6	0	0	2	3	7	18
0915 - 0930	8	0	1	5	5	2	21
Per End	**72**	**2**	**3**	**20**	**15**	**39**	**151**

Heavies	NORTH		EAST		SOUTH		
	Gibbes St		Gibbes St		Gibbes St		
Time Per	T	L	R	L	R	T	TOT
0730 - 0745	0	0	0	0	0	0	0
0745 - 0800	0	0	0	0	0	0	0
0800 - 0815	0	0	0	0	0	0	0
0815 - 0830	0	0	0	0	0	0	0
0830 - 0845	1	0	0	0	0	0	1
0845 - 0900	0	0	0	0	0	0	0
0900 - 0915	0	0	0	0	0	0	0
0915 - 0930	0	0	0	0	0	0	0
Per End	**1**	**0**	**0**	**0**	**0**	**0**	**1**

Combined	NORTH		EAST		SOUTH		
	Gibbes St		Gibbes St		Gibbes St		
Time Per	T	L	R	L	R	T	TOT
0730 - 0745	5	0	0	1	0	1	7
0745 - 0800	6	1	1	5	3	2	18
0800 - 0815	16	0	0	2	1	6	25
0815 - 0830	9	0	0	2	1	8	20
0830 - 0845	8	1	1	2	1	5	18
0845 - 0900	15	0	0	1	1	8	25
0900 - 0915	6	0	0	2	3	7	18
0915 - 0930	8	0	1	5	5	2	21
Per End	**73**	**2**	**3**	**20**	**15**	**39**	**152**

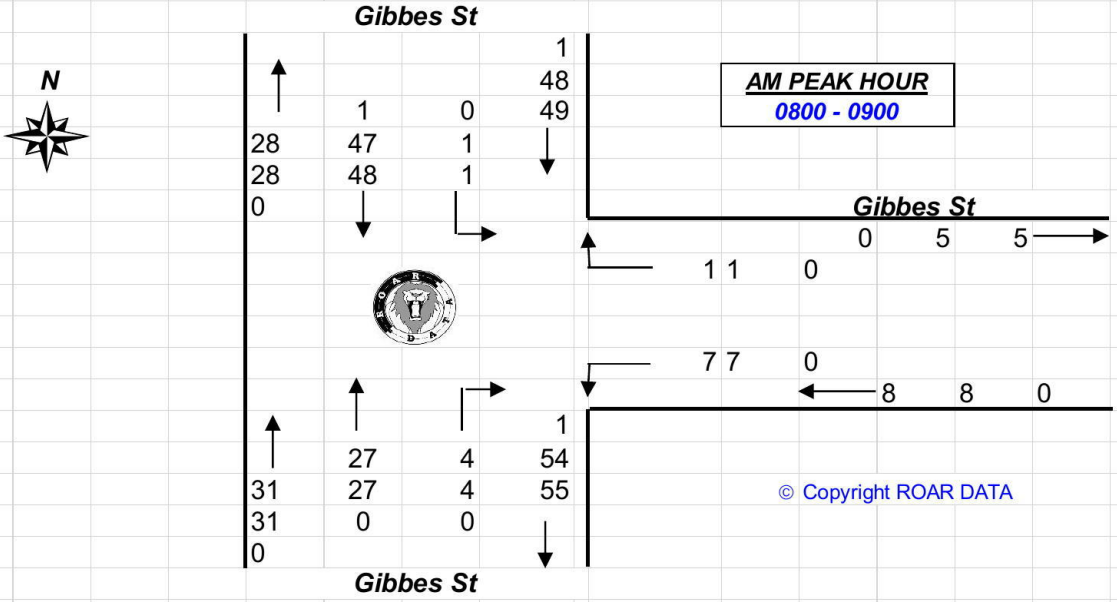
Lights	NORTH		EAST		SOUTH		
	Gibbes St		Gibbes St		Gibbes St		
Peak Per	T	L	R	L	R	T	TOT
0730 - 0830	36	1	1	10	5	17	70
0745 - 0845	38	2	2	11	6	21	80
0800 - 0900	47	1	1	7	4	27	87
0815 - 0915	37	1	1	7	6	28	80
0830 - 0930	36	1	2	10	10	22	81
PEAK HR	**47**	**1**	**1**	**7**	**4**	**27**	**87**

Heavies	NORTH		EAST		SOUTH		
	Gibbes St		Gibbes St		Gibbes St		
Peak Per	T	L	R	L	R	T	TOT
0730 - 0830	0	0	0	0	0	0	0
0745 - 0845	1	0	0	0	0	0	1
0800 - 0900	1	0	0	0	0	0	1
0815 - 0915	1	0	0	0	0	0	1
0830 - 0930	1	0	0	0	0	0	1
PEAK HR	**1**	**0**	**0**	**0**	**0**	**0**	**1**

Combined	NORTH		EAST		SOUTH		
	Gibbes St		Gibbes St		Gibbes St		
Peak Per	T	L	R	L	R	T	TOT
0730 - 0830	36	1	1	10	5	17	70
0745 - 0845	39	2	2	11	6	21	81
0800 - 0900	48	1	1	7	4	27	88
0815 - 0915	38	1	1	7	6	28	81
0830 - 0930	37	1	2	10	10	22	82
PEAK HR	**48**	**1**	**1**	**7**	**4**	**27**	**88**

Peds	NORTH	EAST	SOUTH	
Time Per	Gibbes St	Gibbes St	Gibbes St	TOT
0730 - 0745				0
0745 - 0800		NOT		0
0800 - 0815		REQUIRED		0
0815 - 0830				0
0830 - 0845				0
0845 - 0900				0
0900 - 0915				0
0915 - 0930				0
Per End	**0**	**0**		**0**

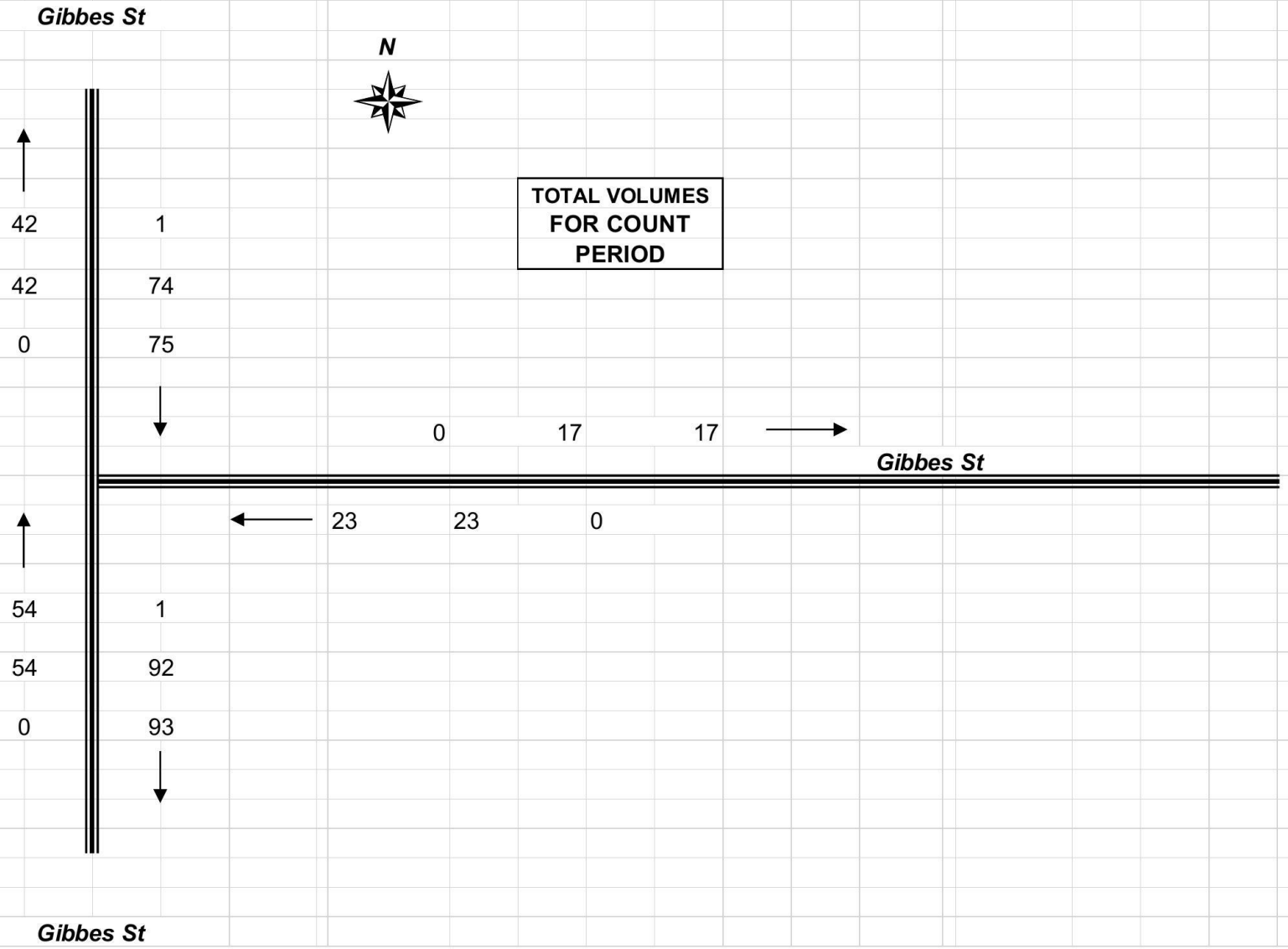
	NORTH	EAST	SOUTH	
Peak Per	Gibbes St	Gibbes St	Gibbes St	TOT
0730 - 0830	0	0	0	0
0745 - 0845	0	0	0	0
0800 - 0900	0	0	0	0
0815 - 0915	0	0	0	0
0830 - 0930	0	0	0	0
PEAK HR				



R.O.A.R DATA
Reliable, Original & Authentic Results
Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 7071 REGENTVILLE Gibbes St
Day/Date : Tuesday 30th April 2019

AM



R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client	: Varga Traffic Planning
Job no/Name	: 7071 REGENTVILLE Gibbes St
Day/Date	: Tuesday 30th April 2019

Lights

	NORTH		EAST		SOUTH		
	Gibbes St		*Gibbes St*		*Gibbes St*		
Time Per	T	L	R	L	R	T	TOT
1430 - 1445	4	0	0	1	0	4	**9**
1445 - 1500	7	1	0	1	0	4	**13**
1500 - 1515	4	0	0	2	1	4	**11**
1515 - 1530	7	0	0	1	2	14	**24**
1530 - 1545	9	0	0	2	1	4	**16**
1545 - 1600	7	1	1	0	1	9	**19**
1600 - 1615	5	1	0	0	1	10	**17**
1615 - 1630	3	0	0	2	3	9	**17**
1630 - 1645	9	0	0	2	2	8	**21**
1645 - 1700	6	0	0	0	3	10	**19**
1700 - 1715	5	0	0	2	4	5	**16**
1715 - 1730	8	0	0	0	4	5	**17**
1730 - 1745	5	0	0	1	4	6	**16**
1745 - 1800	9	0	1	3	5	9	**27**
1800 - 1815	3	0	0	1	1	11	**16**
1815 - 1830	7	0	0	2	2	4	**15**
Per End	**98**	**3**	**2**	**20**	**34**	**116**	**273**

Heavies

	NORTH		EAST		SOUTH		
	Gibbes St		*Gibbes St*		*Gibbes St*		
Time Per	T	L	R	L	R	T	TOT
1430 - 1445	0	0	0	0	0	0	**0**
1445 - 1500	0	0	0	0	0	0	**0**
1500 - 1515	0	0	0	0	0	0	**0**
1515 - 1530	0	0	0	0	0	0	**0**
1530 - 1545	0	0	0	0	0	0	**0**
1545 - 1600	0	0	0	0	0	1	**1**
1600 - 1615	0	0	0	0	0	0	**0**
1615 - 1630	0	0	0	0	0	1	**1**
1630 - 1645	0	0	0	0	0	0	**0**
1645 - 1700	0	0	0	0	0	0	**0**
1700 - 1715	0	0	0	0	0	0	**0**
1715 - 1730	0	0	0	0	0	0	**0**
1730 - 1745	0	0	0	0	0	0	**0**
1745 - 1800	0	0	0	0	0	0	**0**
1800 - 1815	0	0	0	0	0	0	**0**
1815 - 1830	0	0	0	0	0	0	**0**
Per End	**0**	**0**	**0**	**0**	**0**	**2**	**2**

Combined

	NORTH		EAST		SOUTH		
	Gibbes St		*Gibbes St*		*Gibbes St*		
Time Per	T	L	R	L	R	T	TOT
1430 - 1445	4	0	0	1	0	4	**9**
1445 - 1500	7	1	0	1	0	4	**13**
1500 - 1515	4	0	0	2	1	4	**11**
1515 - 1530	7	0	0	1	2	14	**24**
1530 - 1545	9	0	0	2	1	4	**16**
1545 - 1600	7	1	1	0	1	10	**20**
1600 - 1615	5	1	0	0	1	10	**17**
1615 - 1630	3	0	0	2	3	10	**18**
1630 - 1645	9	0	0	2	2	8	**21**
1645 - 1700	6	0	0	0	3	10	**19**
1700 - 1715	5	0	0	2	4	5	**16**
1715 - 1730	8	0	0	0	4	5	**17**
1730 - 1745	5	0	0	1	4	6	**16**
1745 - 1800	9	0	1	3	5	9	**27**
1800 - 1815	3	0	0	1	1	11	**16**
1815 - 1830	7	0	0	2	2	4	**15**
Per End	**98**	**3**	**2**	**20**	**34**	**118**	**275**

Lights

	NORTH		EAST		SOUTH		
	Gibbes St		*Gibbes St*		*Gibbes St*		
Peak Per	T	L	R	L	R	T	TOT
1430 - 1530	22	1	0	5	3	26	**57**
1445 - 1545	27	1	0	6	4	26	**64**
1500 - 1600	27	1	1	5	5	31	**70**
1515 - 1615	28	2	1	3	5	37	**76**
1530 - 1630	24	2	1	4	6	32	**69**
1545 - 1645	24	2	1	4	7	36	**74**
1600 - 1700	23	1	0	4	9	37	**74**
1615 - 1715	23	0	0	6	12	32	**73**
1630 - 1730	28	0	0	4	13	28	**73**
1645 - 1745	24	0	0	3	15	26	**68**
1700 - 1800	27	0	1	6	17	25	**76**
1715 - 1815	25	0	1	5	14	31	**76**
1730 - 1830	24	0	1	7	12	30	**74**
PEAK HR	**24**	**2**	**1**	**4**	**7**	**36**	**74**

Heavies

	NORTH		EAST		SOUTH		
	Gibbes St		*Gibbes St*		*Gibbes St*		
Peak Per	T	L	R	L	R	T	TOT
1430 - 1530	0	0	0	0	0	0	**0**
1445 - 1545	0	0	0	0	0	0	**0**
1500 - 1600	0	0	0	0	0	1	**1**
1515 - 1615	0	0	0	0	0	1	**1**
1530 - 1630	0	0	0	0	0	2	**2**
1545 - 1645	0	0	0	0	0	2	**2**
1600 - 1700	0	0	0	0	0	1	**1**
1615 - 1715	0	0	0	0	0	1	**1**
1630 - 1730	0	0	0	0	0	0	**0**
1645 - 1745	0	0	0	0	0	0	**0**
1700 - 1800	0	0	0	0	0	0	**0**
1715 - 1815	0	0	0	0	0	0	**0**
1730 - 1830	0	0	0	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**	**0**	**2**	**2**

Combined

	NORTH		EAST		SOUTH		
	Gibbes St		*Gibbes St*		*Gibbes St*		
Peak Per	T	L	R	L	R	T	TOT
1430 - 1530	22	1	0	5	3	26	**57**
1445 - 1545	27	1	0	6	4	26	**64**
1500 - 1600	27	1	1	5	5	32	**71**
1515 - 1615	28	2	1	3	5	38	**77**
1530 - 1630	24	2	1	4	6	34	**71**
1545 - 1645	24	2	1	4	7	38	**76**
1600 - 1700	23	1	0	4	9	38	**75**
1615 - 1715	23	0	0	6	12	33	**74**
1630 - 1730	28	0	0	4	13	28	**73**
1645 - 1745	24	0	0	3	15	26	**68**
1700 - 1800	27	0	1	6	17	25	**76**
1715 - 1815	25	0	1	5	14	31	**76**
1730 - 1830	24	0	1	7	12	30	**74**
PEAK HR	**24**	**2**	**1**	**4**	**7**	**38**	**76**

R.O.A.R. DATA

Reliable, Original & Authentic Results

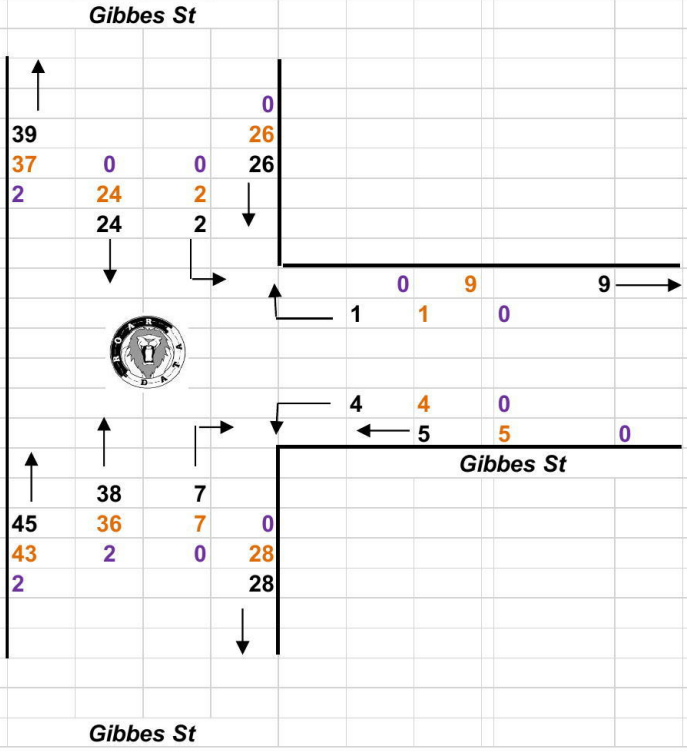
Ph.88196847, Mob.0418-239019

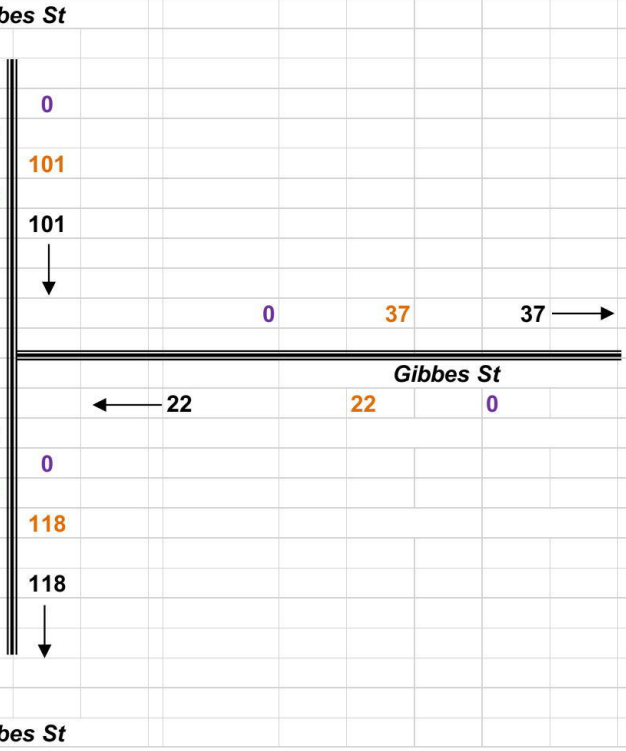
Client	: Varga Traffic Planning
Job no/Name	: 7071 REGENTVILLE Gibbes St
Day/Date	: Tuesday 30th April 2019

PM PEAK HOUR
1545 - 1645

TOTAL VOLUMES FOR COUNT PERIOD

N





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client	: Varga Traffic Planning
Job No/Name	: 7071 REGENTVILLE Gibbes St
Day/Date	: Tuesday 30th April 2019

Intersection Layout

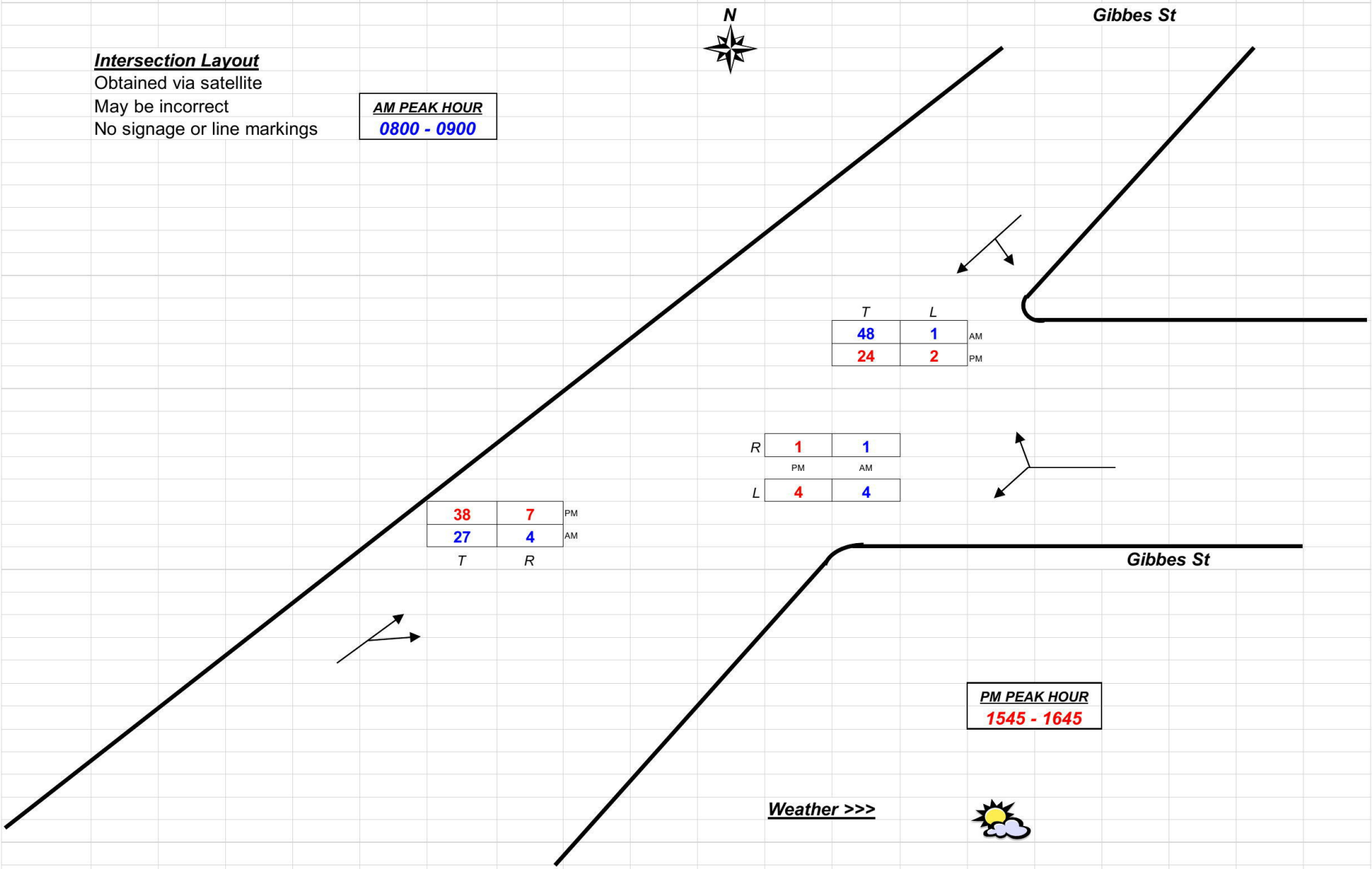
Obtained via satellite

May be incorrect

No signage or line markings

AM PEAK HOUR

0800 - 0900



PM PEAK HOUR

1545 - 1645

Weather >>>

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 7071 REGE

Day/Date : Tuesday 30th April 2019

Lights	WEST		NORTH		EAST		
	Mulgoa Rd		Gibbes St		Mulgoa Rd		
Time Per	T	L	R	L	R	T	TOT
0730 - 0745	96	1	0	6	0	59	**162**
0745 - 0800	106	0	0	11	5	48	**170**
0800 - 0815	137	1	1	17	6	59	**221**
0815 - 0830	140	1	0	11	8	76	**236**
0830 - 0845	121	1	0	9	5	81	**217**
0845 - 0900	117	0	0	16	9	69	**211**
0900 - 0915	95	1	0	8	9	92	**205**
0915 - 0930	111	0	1	12	7	59	**190**
Per End	**923**	**5**	**2**	**90**	**49**	**543**	**1612**

Heavies	WEST		NORTH		EAST		
	Mulgoa Rd		Gibbes St		Mulgoa Rd		
Time Per	T	L	R	L	R	T	TOT
0730 - 0745	1	0	0	0	0	3	**4**
0745 - 0800	4	0	0	0	0	2	**6**
0800 - 0815	3	0	0	0	0	1	**4**
0815 - 0830	1	0	0	0	0	0	**1**
0830 - 0845	1	0	0	1	0	2	**4**
0845 - 0900	2	0	0	0	0	2	**4**
0900 - 0915	1	0	0	0	0	3	**4**
0915 - 0930	1	0	0	0	0	0	**1**
Per End	**14**	**0**	**0**	**1**	**0**	**13**	**28**

Combined	WEST		NORTH		EAST		
	Mulgoa Rd		Gibbes St		Mulgoa Rd		
Time Per	T	L	R	L	R	T	TOT
0730 - 0745	97	1	0	6	0	62	**166**
0745 - 0800	110	0	0	11	5	50	**176**
0800 - 0815	140	1	1	17	6	60	**225**
0815 - 0830	141	1	0	11	8	76	**237**
0830 - 0845	122	1	0	10	5	83	**221**
0845 - 0900	119	0	0	16	9	71	**215**
0900 - 0915	96	1	0	8	9	95	**209**
0915 - 0930	112	0	1	12	7	59	**191**
Per End	**937**	**5**	**2**	**91**	**49**	**556**	**1640**

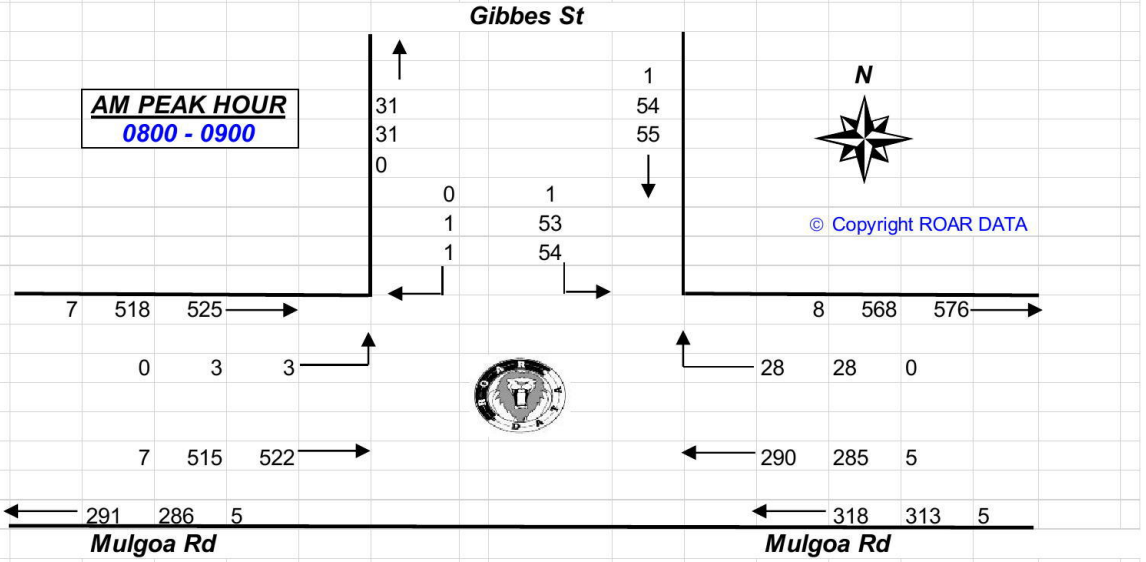
Lights	WEST		NORTH		EAST		
	Mulgoa Rd		Gibbes St		Mulgoa Rd		
Peak Per	T	L	R	L	R	T	TOT
0730 - 0830	479	3	1	45	19	242	**789**
0745 - 0845	504	3	1	48	24	264	**844**
0800 - 0900	515	3	1	53	28	285	**885**
0815 - 0915	473	3	0	44	31	318	**869**
0830 - 0930	444	2	1	45	30	301	**823**
PEAK HR	**515**	**3**	**1**	**53**	**28**	**285**	**885**

Heavies	WEST		NORTH		EAST		
	Mulgoa Rd		Gibbes St		Mulgoa Rd		
Peak Per	T	L	R	L	R	T	TOT
0730 - 0830	9	0	0	0	0	6	**15**
0745 - 0845	9	0	0	1	0	5	**15**
0800 - 0900	7	0	0	1	0	5	**13**
0815 - 0915	5	0	0	1	0	7	**13**
0830 - 0930	5	0	0	1	0	7	**13**
PEAK HR	**7**	**0**	**0**	**1**	**0**	**5**	**13**

Combined	WEST		NORTH		EAST		
	Mulgoa Rd		Gibbes St		Mulgoa Rd		
Peak Per	T	L	R	L	R	T	TOT
0730 - 0830	488	3	1	45	19	248	**804**
0745 - 0845	513	3	1	49	24	269	**859**
0800 - 0900	522	3	1	54	28	290	**898**
0815 - 0915	478	3	0	45	31	325	**882**
0830 - 0930	449	2	1	46	30	308	**836**
PEAK HR	**522**	**3**	**1**	**54**	**28**	**290**	**898**

Peds	WEST	NORTH	EAST	
Time Per	Mulgoa Rd	Gibbes St	Mulgoa Rd	TOT
0730 - 0745	0	0	0	**0**
0745 - 0800	0	0	0	**0**
0800 - 0815	0	0	0	**0**
0815 - 0830	0	0	0	**0**
0830 - 0845	0	0	1	**1**
0845 - 0900	0	0	0	**0**
0900 - 0915	0	0	0	**0**
0915 - 0930	0	0	0	**0**
Per End	**0**	**0**	**1**	**1**

	WEST	NORTH	EAST	
Peak Per	Mulgoa Rd	Gibbes St	Mulgoa Rd	TOT
0730 - 0830	0	0	0	**0**
0745 - 0845	0	0	1	**1**
0800 - 0900	0	0	1	**1**
0815 - 0915	0	0	1	**1**
0830 - 0930	0	0	1	**1**
PEAK HR	**0**	**0**	**1**	**1**



R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

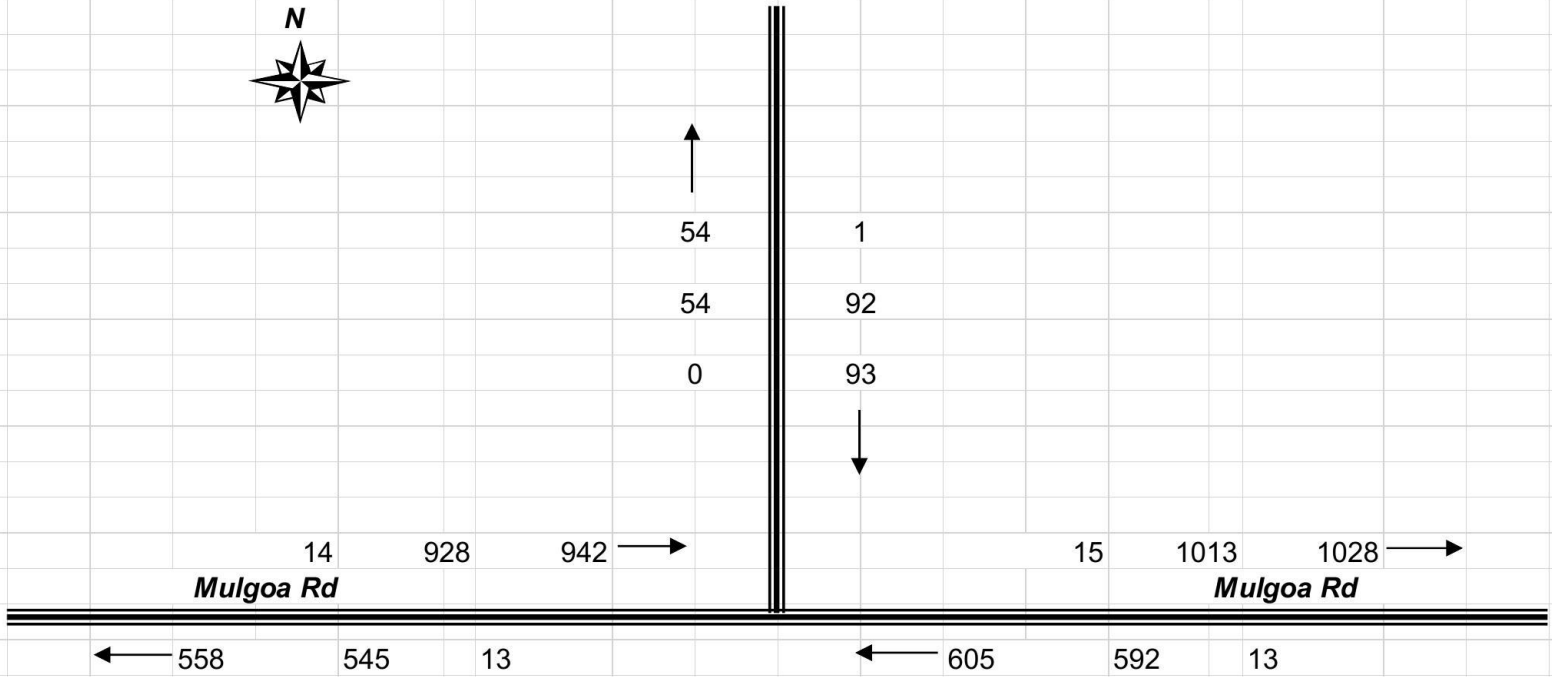
Client : Varga Traffic Planning

Job No/Name : 7071 REGENTVILLE Gibbes St

Day/Date : Tuesday 30th April 2019

TOTAL VOLUMES FOR COUNT PERIOD

AM



R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name : 7071 REGENTVILLE Gibbes St

Day/Date : Tuesday 30th April 2019

Number of queues from roundabout to Gibbes St

Queues	EAST	
	Mulgoa Rd	
Time Per	To	Block
0730 - 0745	0	0
0745 - 0800	0	0
0800 - 0815	0	0
0815 - 0830	0	0
0830 - 0845	0	0
0845 - 0900	0	0
0900 - 0915	0	0
0915 - 0930	0	0
Per End	**0**	**0**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 7071 REGENTVILLE Gibbes St
Day/Date : Tuesday 30th April 2019

Lights

	WEST		NORTH		EAST		
	Mulgoa Rd		*Gibbes St*		*Mulgoa Rd*		
Time Per	**T**	**L**	**R**	**L**	**R**	**T**	**TOT**
1430 - 1445	61	0	0	5	4	53	**123**
1445 - 1500	65	0	0	8	4	90	**167**
1500 - 1515	54	1	0	6	4	113	**178**
1515 - 1530	91	1	0	8	15	114	**229**
1530 - 1545	121	0	3	8	5	105	**242**
1545 - 1600	126	1	0	7	9	101	**244**
1600 - 1615	104	1	0	5	10	108	**228**
1615 - 1630	85	1	0	5	11	108	**210**
1630 - 1645	76	0	1	10	10	129	**226**
1645 - 1700	100	0	0	6	13	120	**239**
1700 - 1715	82	0	1	6	9	158	**256**
1715 - 1730	84	1	1	7	8	132	**233**
1730 - 1745	74	1	2	4	9	119	**209**
1745 - 1800	71	1	0	12	13	141	**238**
1800 - 1815	58	0	0	4	12	125	**199**
1815 - 1830	44	1	0	9	5	97	**156**
Per End	**1296**	**9**	**8**	**110**	**141**	**1813**	**3377**

Heavies

	WEST		NORTH		EAST		
	Mulgoa Rd		*Gibbes St*		*Mulgoa Rd*		
Time Per	**T**	**L**	**R**	**L**	**R**	**T**	**TOT**
1430 - 1445	0	0	0	0	0	2	**2**
1445 - 1500	2	0	0	0	0	3	**5**
1500 - 1515	2	0	0	0	0	3	**5**
1515 - 1530	1	0	0	0	0	7	**8**
1530 - 1545	1	0	0	0	0	3	**4**
1545 - 1600	3	0	0	0	1	5	**9**
1600 - 1615	2	0	0	0	0	2	**4**
1615 - 1630	2	0	0	0	1	6	**9**
1630 - 1645	2	0	0	0	0	3	**5**
1645 - 1700	6	0	0	0	0	4	**10**
1700 - 1715	2	0	0	0	0	0	**2**
1715 - 1730	3	0	0	0	0	1	**4**
1730 - 1745	1	0	0	0	0	0	**1**
1745 - 1800	2	0	0	0	0	4	**6**
1800 - 1815	0	0	0	0	0	1	**1**
1815 - 1830	1	0	0	0	0	1	**2**
Per End	**30**	**0**	**0**	**0**	**2**	**45**	**77**

Combined

	WEST		NORTH		EAST		
	Mulgoa Rd		*Gibbes St*		*Mulgoa Rd*		
Time Per	**T**	**L**	**R**	**L**	**R**	**T**	**TOT**
1430 - 1445	61	0	0	5	4	55	**125**
1445 - 1500	67	0	0	8	4	93	**172**
1500 - 1515	56	1	0	6	4	116	**183**
1515 - 1530	92	1	0	8	15	121	**237**
1530 - 1545	122	0	3	8	5	108	**246**
1545 - 1600	129	1	0	7	10	106	**253**
1600 - 1615	106	1	0	5	10	110	**232**
1615 - 1630	87	1	0	5	12	114	**219**
1630 - 1645	78	0	1	10	10	132	**231**
1645 - 1700	106	0	0	6	13	124	**249**
1700 - 1715	84	0	1	6	9	158	**258**
1715 - 1730	87	1	1	7	8	133	**237**
1730 - 1745	75	1	2	4	9	119	**210**
1745 - 1800	73	1	0	12	13	145	**244**
1800 - 1815	58	0	0	4	12	126	**200**
1815 - 1830	45	1	0	9	5	98	**158**
Per End	**1326**	**9**	**8**	**110**	**143**	**1858**	**3454**

Lights

	WEST		NORTH		EAST		
	Mulgoa Rd		*Gibbes St*		*Mulgoa Rd*		
Peak Per	**T**	**L**	**R**	**L**	**R**	**T**	**TOT**
1430 - 1530	271	2	0	27	27	370	**697**
1445 - 1545	331	2	3	30	28	422	**816**
1500 - 1600	392	3	3	29	33	433	**893**
1515 - 1615	442	3	3	28	39	428	**943**
1530 - 1630	436	3	3	25	35	422	**924**
1545 - 1645	391	3	1	27	40	446	**908**
1600 - 1700	365	2	1	26	44	465	**903**
1615 - 1715	343	1	2	27	43	515	**931**
1630 - 1730	342	1	3	29	40	539	**954**
1645 - 1745	340	2	4	23	39	529	**937**
1700 - 1800	311	3	4	29	39	550	**936**
1715 - 1815	287	3	3	27	42	517	**879**
1730 - 1830	247	3	2	29	39	482	**802**
PEAK HR	**342**	**1**	**3**	**29**	**40**	**539**	**954**

Heavies

	WEST		NORTH		EAST		
	Mulgoa Rd		*Gibbes St*		*Mulgoa Rd*		
Peak Per	**T**	**L**	**R**	**L**	**R**	**T**	**TOT**
1430 - 1530	5	0	0	0	0	15	**20**
1445 - 1545	6	0	0	0	0	16	**22**
1500 - 1600	7	0	0	0	1	18	**26**
1515 - 1615	7	0	0	0	1	17	**25**
1530 - 1630	8	0	0	0	2	16	**26**
1545 - 1645	9	0	0	0	2	16	**27**
1600 - 1700	12	0	0	0	1	15	**28**
1615 - 1715	12	0	0	0	1	13	**26**
1630 - 1730	13	0	0	0	0	8	**21**
1645 - 1745	12	0	0	0	0	5	**17**
1700 - 1800	8	0	0	0	0	5	**13**
1715 - 1815	6	0	0	0	0	6	**12**
1730 - 1830	4	0	0	0	0	6	**10**
PEAK HR	**13**	**0**	**0**	**0**	**0**	**8**	**21**

Combined

	WEST		NORTH		EAST		
	Mulgoa Rd		*Gibbes St*		*Mulgoa Rd*		
Peak Per	**T**	**L**	**R**	**L**	**R**	**T**	**TOT**
1430 - 1530	276	2	0	27	27	385	**717**
1445 - 1545	337	2	3	30	28	438	**838**
1500 - 1600	399	3	3	29	34	451	**919**
1515 - 1615	449	3	3	28	40	445	**968**
1530 - 1630	444	3	3	25	37	438	**950**
1545 - 1645	400	3	1	27	42	462	**935**
1600 - 1700	377	2	1	26	45	480	**931**
1615 - 1715	355	1	2	27	44	528	**957**
1630 - 1730	355	1	3	29	40	547	**975**
1645 - 1745	352	2	4	23	39	534	**954**
1700 - 1800	319	3	4	29	39	555	**949**
1715 - 1815	293	3	3	27	42	523	**891**
1730 - 1830	251	3	2	29	39	488	**812**
PEAK HR	**355**	**1**	**3**	**29**	**40**	**547**	**975**

R.O.A.R. DATA

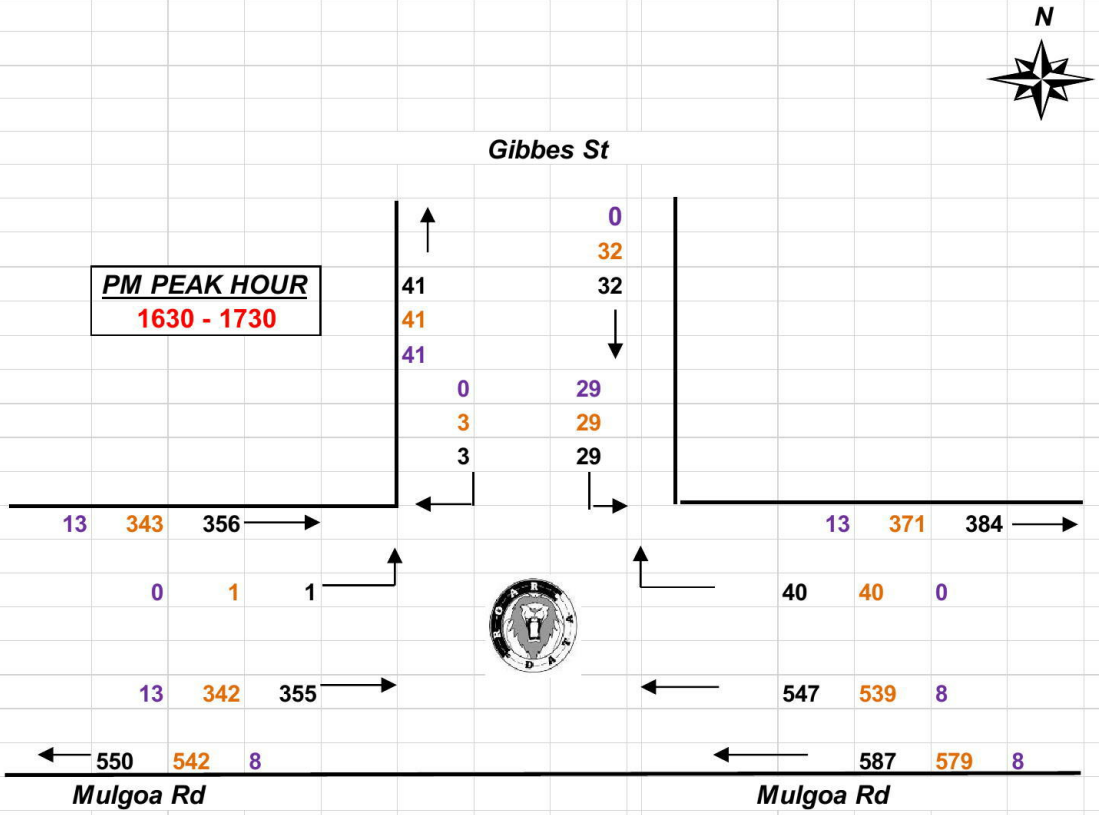
Reliable, Original & Authentic Results

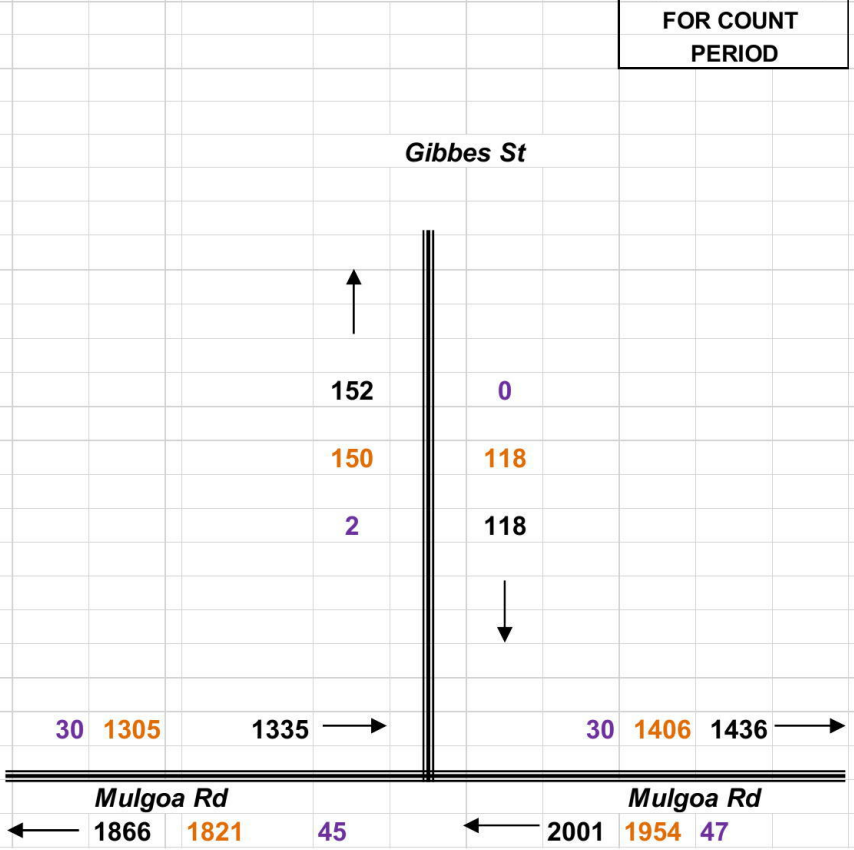
Ph.88196847, Mob.0418-239019

Client	: Varga Traffic Planning
Job No/Name	: 7071 REGENTVILLE Gibbes St
Day/Date	: Tuesday 30th April 2019

TOTAL VOLUMES FOR COUNT PERIOD

PM PEAK HOUR
1630 - 1730





R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning
Job No/Name : 7071 REGENTVILLE Gibbes St
Day/Date : Tuesday 30th April 2019

PEDS	WEST	NORTH	EAST	
	Mulgoa Rd	*Gibbes St*	*Mulgoa Rd*	
Time Per	UNCLASS	UNCLASS	UNCLASS	TOT
1430 - 1445	0	0	0	**0**
1445 - 1500	0	0	0	**0**
1500 - 1515	0	0	0	**0**
1515 - 1530	0	0	0	**0**
1530 - 1545	0	0	0	**0**
1545 - 1600	0	0	0	**0**
1600 - 1615	0	0	0	**0**
1615 - 1630	0	0	0	**0**
1630 - 1645	0	0	0	**0**
1645 - 1700	0	0	0	**0**
1700 - 1715	0	0	0	**0**
1715 - 1730	0	0	0	**0**
1730 - 1745	0	0	0	**0**
1745 - 1800	0	0	0	**0**
1800 - 1815	0	0	0	**0**
1815 - 1830	0	0	0	**0**
Per End	**0**	**0**	**0**	**0**

PEDS	WEST	NORTH	EAST	
	Mulgoa Rd	*Gibbes St*	*Mulgoa Rd*	
Peak Per	UNCLASS	UNCLASS	UNCLASS	TOT
1430 - 1530	45	0	1954	**1999**
1445 - 1545	45	0	1954	**1999**
1500 - 1600	0	0	0	**0**
1515 - 1615	0	0	0	**0**
1530 - 1630	0	0	0	**0**
1545 - 1645	0	0	0	**0**
1600 - 1700	0	0	0	**0**
1615 - 1715	0	0	0	**0**
1630 - 1730	0	0	0	**0**
1645 - 1745	0	0	0	**0**
1700 - 1800	0	0	0	**0**
1715 - 1815	0	0	0	**0**
1730 - 1830	0	0	0	**0**
PEAK HR	**0**	**0**	**0**	**0**

R.O.A.R DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client : Varga Traffic Planning

Job No/Name: 7071 REGENTVILLE Gibbes St

Day/Date : Tuesday 30th April 2019

Number of queues from roundabout to Gibbes St

Queues	EAST	
	Mulgoa Rd	
Time Per	**To**	**Block**
1430 - 1445	0	0
1445 - 1500	0	0
1500 - 1515	0	0
1515 - 1530	0	0
1530 - 1545	0	0
1545 - 1600	0	0
1600 - 1615	0	0
1615 - 1630	0	0
1630 - 1645	0	0
1645 - 1700	0	0
1700 - 1715	0	0
1715 - 1730	0	0
1730 - 1745	0	0
1745 - 1800	0	0
1800 - 1815	0	0
1815 - 1830	0	0
Per End	**0**	**0**

R.O.A.R. DATA

Reliable, Original & Authentic Results

Ph.88196847, Mob.0418-239019

Client	: Varga Traffic Planning
Job No/Name	: 7071 REGENTVILLE Gibbes St
Day/Date	: Tuesday 30th April 2019

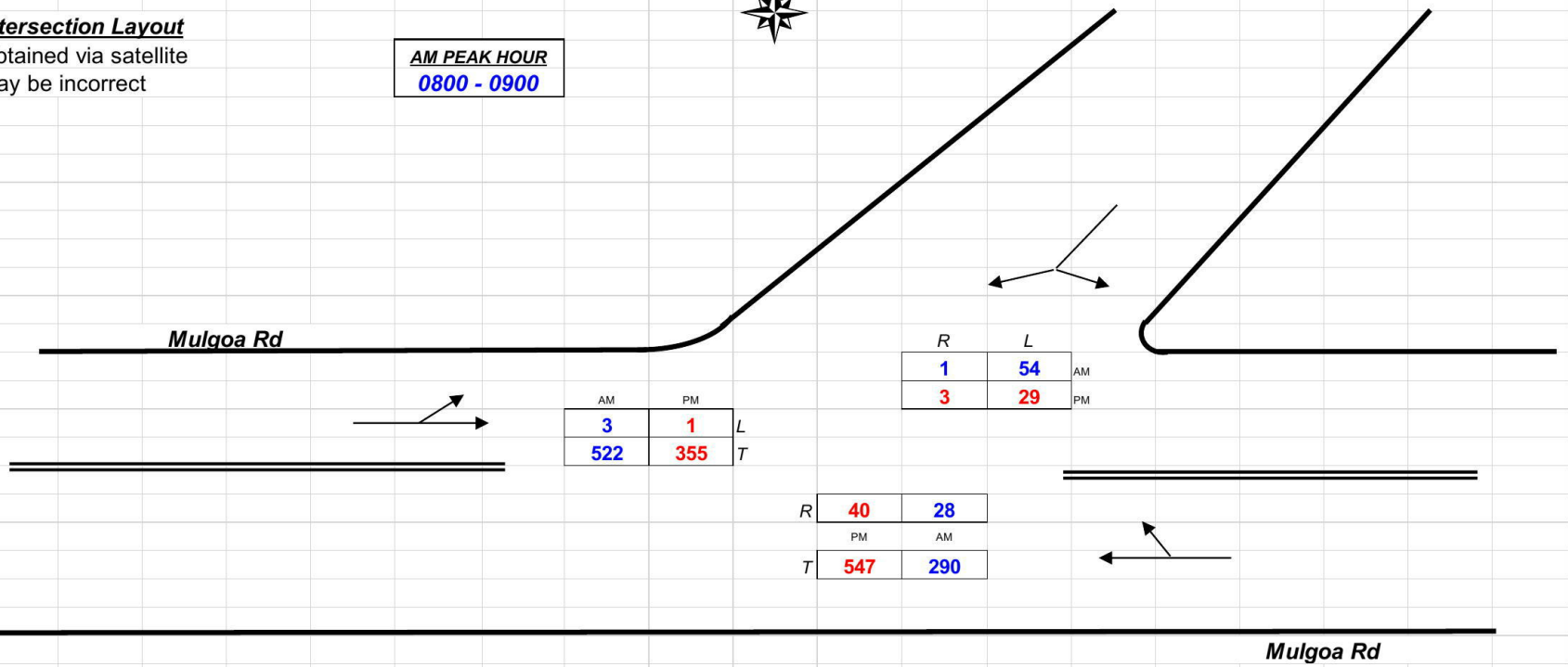
Intersection Layout

Obtained via satellite

May be incorrect

AM PEAK HOUR

0800 - 0900



PM PEAK HOUR

1630 - 1730

Weather >>>

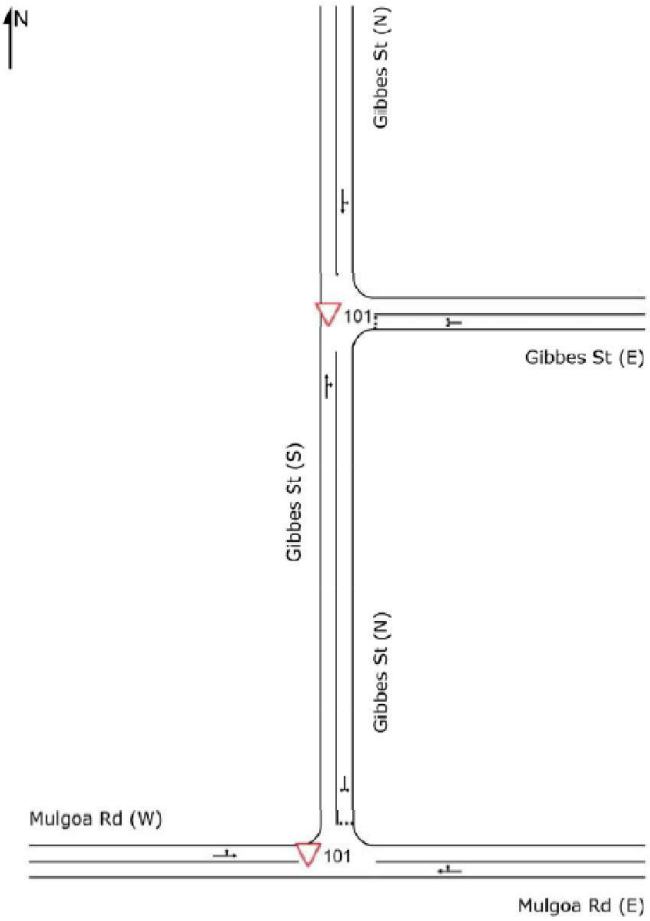
APPENDIX B

SIDRA MOVEMENT SUMMARIES

NETWORK LAYOUT

Network: N101 [Existing AM]

New Network
Network Category: (None)



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽101	NA	MUL_GIBX AM
▽101	NA	GIB_GIBX AM

Organisation: VARGA TRAFFIC PLANNING | Created: Tuesday, 14 May 2019 8:41:44 AM
Project: Z:\DATA\Data\Jobs01\Jobs\19work\19185T_49GibbesStRegentville\SIDRA\Existing Network.sip8

MOVEMENT SUMMARY

Site: 101 [MUL_GIBX AM]

Network: N101 [Existing AM]

Mulgoa Road & Gibbes Street, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Mulgoa Rd (E)														
5	T1	290	1.7	290	1.7	0.178	0.4	LOS A	0.1	0.9	0.13	0.06	0.13	58.9
6	R2	28	0.0	28	0.0	0.178	8.0	LOS A	0.1	0.9	0.13	0.06	0.13	57.9
Approach		318	1.6	318	1.6	0.178	1.1	NA	0.1	0.9	0.13	0.06	0.13	58.9
North: Gibbes St (N)														
7	L2	54	1.9	54	1.9	0.059	6.7	LOS A	0.1	0.6	0.49	0.67	0.49	48.3
9	R2	1	0.0	1	0.0	0.059	9.5	LOS A	0.1	0.6	0.49	0.67	0.49	47.9
Approach		55	1.8	55	1.8	0.059	6.8	LOS A	0.1	0.6	0.49	0.67	0.49	48.3
West: Mulgoa Rd (W)														
10	L2	3	0.0	3	0.0	0.272	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
11	T1	522	1.3	522	1.3	0.272	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		525	1.3	525	1.3	0.272	0.1	NA	0.0	0.0	0.00	0.00	0.00	59.9
All Vehicles		898	1.4	898	1.4	0.272	0.8	NA	0.1	0.9	0.08	0.06	0.08	58.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [MUL_GIBX PM]

Network: N101 [Existing PM]

Mulgoa Road & Gibbes Street, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Aver. Back of Queue Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Mulgoa Rd (E)														
5	T1	547	1.5	547	1.5	0.315	0.2	LOS A	0.2	1.2	0.09	0.04	0.09	59.2
6	R2	40	0.0	40	0.0	0.315	7.3	LOS A	0.2	1.2	0.09	0.04	0.09	58.5
Approach		587	1.4	587	1.4	0.315	0.7	NA	0.2	1.2	0.09	0.04	0.09	59.2
North: Gibbes St (N)														
7	L2	29	0.0	29	0.0	0.031	5.8	LOS A	0.0	0.3	0.41	0.59	0.41	48.7
9	R2	3	0.0	3	0.0	0.031	10.6	LOS A	0.0	0.3	0.41	0.59	0.41	48.3
Approach		32	0.0	32	0.0	0.031	6.2	LOS A	0.0	0.3	0.41	0.59	0.41	48.7
West: Mulgoa Rd (W)														
10	L2	1	0.0	1	0.0	0.187	5.6	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
11	T1	355	3.7	355	3.7	0.187	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.9
Approach		356	3.7	356	3.7	0.187	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.9
All Vehicles		975	2.2	975	2.2	0.315	0.6	NA	0.2	1.2	0.07	0.05	0.07	59.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [MUL_GIBP AM]

Network: N101 [Proposed AM]

Mulgoa Road & Gibbes Street, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Mulgoa Rd (E)														
5	T1	290	1.7	290	1.7	0.196	0.6	LOS A	0.2	1.5	0.20	0.09	0.20	58.4
6	R2	46	0.0	46	0.0	0.196	8.1	LOS A	0.2	1.5	0.20	0.09	0.20	56.9
Approach		336	1.5	336	1.5	0.196	1.7	NA	0.2	1.5	0.20	0.09	0.20	58.3
North: Gibbes St (N)														
7	L2	59	1.7	59	1.7	0.101	6.8	LOS A	0.1	1.0	0.52	0.72	0.52	47.8
9	R2	20	0.0	20	0.0	0.101	9.8	LOS A	0.1	1.0	0.52	0.72	0.52	47.5
Approach		79	1.3	79	1.3	0.101	7.6	LOS A	0.1	1.0	0.52	0.72	0.52	47.7
West: Mulgoa Rd (W)														
10	L2	8	0.0	8	0.0	0.274	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
11	T1	522	1.3	522	1.3	0.274	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.9
Approach		530	1.3	530	1.3	0.274	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.9
All Vehicles		945	1.4	945	1.4	0.274	1.3	NA	0.2	1.5	0.12	0.10	0.12	58.0

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [MUL_GIBP PM]

Network: N101 [Proposed PM]

Mulgoa Road & Gibbes Street, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
East: Mulgoa Rd (E)														
5	T1	547	1.5	547	1.5	0.329	0.3	LOS A	0.3	1.8	0.13	0.06	0.13	58.9
6	R2	57	0.0	57	0.0	0.329	7.4	LOS A	0.3	1.8	0.13	0.06	0.13	57.9
Approach		604	1.3	604	1.3	0.329	1.0	NA	0.3	1.8	0.13	0.06	0.13	58.9
North: Gibbes St (N)														
7	L2	33	0.0	33	0.0	0.074	5.8	LOS A	0.1	0.7	0.47	0.67	0.47	47.7
9	R2	20	0.0	20	0.0	0.074	11.0	LOS A	0.1	0.7	0.47	0.67	0.47	47.3
Approach		53	0.0	53	0.0	0.074	7.8	LOS A	0.1	0.7	0.47	0.67	0.47	47.6
West: Mulgoa Rd (W)														
10	L2	5	0.0	5	0.0	0.189	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
11	T1	355	3.7	355	3.7	0.189	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.9
Approach		360	3.6	360	3.6	0.189	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.9
All Vehicles		1017	2.1	1017	2.1	0.329	1.0	NA	0.3	1.8	0.10	0.07	0.10	58.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [GIB_GIBX AM]

Network: N101 [Existing AM]

Mulgoa Road & Gibbes Sttreet, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gibbes St (S)														
2	T1	27	0.0	27	0.0	0.016	0.0	LOS A	0.0	0.1	0.04	0.07	0.04	49.5
3	R2	4	0.0	4	0.0	0.016	4.7	LOS A	0.0	0.1	0.04	0.07	0.04	48.5
Approach		31	0.0	31	0.0	0.016	0.6	NA	0.0	0.1	0.04	0.07	0.04	49.4
East: Gibbes St (E)														
4	L2	7	0.0	7	0.0	0.005	4.6	LOS A	0.0	0.1	0.01	0.53	0.01	44.5
6	R2	1	0.0	1	0.0	0.005	4.7	LOS A	0.0	0.1	0.01	0.53	0.01	46.2
Approach		8	0.0	8	0.0	0.005	4.6	LOS A	0.0	0.1	0.01	0.53	0.01	44.9
North: Gibbes St (N)														
7	L2	48	2.1	48	2.1	0.027	4.6	LOS A	0.0	0.0	0.00	0.52	0.00	46.7
8	T1	1	0.0	1	0.0	0.027	0.0	LOS A	0.0	0.0	0.00	0.52	0.00	44.6
Approach		49	2.0	49	2.0	0.027	4.5	NA	0.0	0.0	0.00	0.52	0.00	46.6
All Vehicles		88	1.1	88	1.1	0.027	3.1	NA	0.0	0.1	0.01	0.36	0.01	47.5

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: 101 [GIB_GIBX PM]

Network: N101 [Existing PM]

Mulgoa Road & Gibbes Sttreet, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gibbes St (S)														
2	T1	38	5.3	38	5.3	0.024	0.0	LOS A	0.0	0.1	0.03	0.09	0.03	49.4
3	R2	7	0.0	7	0.0	0.024	4.6	LOS A	0.0	0.1	0.03	0.09	0.03	48.5
Approach		45	4.4	45	4.4	0.024	0.7	NA	0.0	0.1	0.03	0.09	0.03	49.3
East: Gibbes St (E)														
4	L2	4	0.0	4	0.0	0.003	4.6	LOS A	0.0	0.0	0.08	0.51	0.08	44.2
6	R2	1	0.0	1	0.0	0.003	4.8	LOS A	0.0	0.0	0.08	0.51	0.08	46.0
Approach		5	0.0	5	0.0	0.003	4.7	LOS A	0.0	0.0	0.08	0.51	0.08	44.8
North: Gibbes St (N)														
7	L2	2	0.0	2	0.0	0.013	4.6	LOS A	0.0	0.0	0.00	0.04	0.00	49.3
8	T1	24	0.0	24	0.0	0.013	0.0	LOS A	0.0	0.0	0.00	0.04	0.00	49.5
Approach		26	0.0	26	0.0	0.013	0.4	NA	0.0	0.0	0.00	0.04	0.00	49.5
All Vehicles		76	2.6	76	2.6	0.024	0.9	NA	0.0	0.1	0.02	0.10	0.02	49.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [GIB_GIBP AM]

Network: N101 [Proposed AM]

Mulgoa Road & Gibbes Sttreet, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gibbes St (S)														
2	T1	27	0.0	27	0.0	0.030	0.1	LOS A	0.0	0.3	0.12	0.27	0.12	48.2
3	R2	27	0.0	27	0.0	0.030	4.7	LOS A	0.0	0.3	0.12	0.27	0.12	47.3
Approach		54	0.0	54	0.0	0.030	2.4	NA	0.0	0.3	0.12	0.27	0.12	47.7
East: Gibbes St (E)														
4	L2	10	0.0	10	0.0	0.027	4.6	LOS A	0.0	0.3	0.01	0.55	0.01	44.3
6	R2	25	0.0	25	0.0	0.027	4.8	LOS A	0.0	0.3	0.01	0.55	0.01	46.1
Approach		35	0.0	35	0.0	0.027	4.7	LOS A	0.0	0.3	0.01	0.55	0.01	45.8
North: Gibbes St (N)														
7	L2	51	2.0	51	2.0	0.028	4.6	LOS A	0.0	0.0	0.00	0.52	0.00	46.7
8	T1	1	0.0	1	0.0	0.028	0.0	LOS A	0.0	0.0	0.00	0.52	0.00	44.6
Approach		52	1.9	52	1.9	0.028	4.5	NA	0.0	0.0	0.00	0.52	0.00	46.6
All Vehicles		141	0.7	141	0.7	0.030	3.8	NA	0.0	0.3	0.05	0.43	0.05	46.9

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [GIB_GIBP PM]

Network: N101 [Proposed PM]

Mulgoa Road & Gibbes Sttreet, Regentville
Site Category: (None)
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Arrival Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	Aver. Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: Gibbes St (S)														
2	T1	38	5.3	38	5.3	0.036	0.0	LOS A	0.1	0.4	0.07	0.23	0.07	48.5
3	R2	28	0.0	28	0.0	0.036	4.6	LOS A	0.1	0.4	0.07	0.23	0.07	47.6
Approach		66	3.0	66	3.0	0.036	2.0	NA	0.1	0.4	0.07	0.23	0.07	48.1
East: Gibbes St (E)														
4	L2	25	0.0	25	0.0	0.018	4.6	LOS A	0.0	0.2	0.08	0.51	0.08	44.2
6	R2	3	0.0	3	0.0	0.018	4.9	LOS A	0.0	0.2	0.08	0.51	0.08	46.0
Approach		28	0.0	28	0.0	0.018	4.6	LOS A	0.0	0.2	0.08	0.51	0.08	44.5
North: Gibbes St (N)														
7	L2	4	0.0	4	0.0	0.014	4.6	LOS A	0.0	0.0	0.00	0.08	0.00	49.1
8	T1	24	0.0	24	0.0	0.014	0.0	LOS A	0.0	0.0	0.00	0.08	0.00	49.1
Approach		28	0.0	28	0.0	0.014	0.7	NA	0.0	0.0	0.00	0.08	0.00	49.1
All Vehicles		122	1.6	122	1.6	0.036	2.3	NA	0.1	0.4	0.06	0.26	0.06	47.6

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.