CITY OF MARIBYRNONG
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11/06/2024
URBAN PLANNING

CITY OF MARIBYRNONG
ADVERTISED PLAN

11 June 2024

Town Planning Department
Maribyrnong City Council

Re : Section 72 application - Maribyrnong City Council - Planning Application TP268/2021(2)
At : 379 Geelong Rd, 1A Lewis St, 1 Lewis St KINGSVILLE

Att: Anthony McBride

Response to Town planning RFI letter dated 2 April 2024

Given the amount and content of objections to the proposal during the original round of notice, the items requested by point 2 of the above section will be required prior to the application being placed on notice.

- Acoustic Report – attached.
- Traffic/transport report - attached.
- Town Planning report - attached.

The items requested by point 3 would be beneficial to be provided prior to notice, otherwise conditions to provide updated reports will be added/modified on any potential decision to amend the permit.

- Technical reports/plans will be provided during the application process.

Upon receipt of the requested reports, the application will be referred to the following entities for comment:
o Department of Transport and Planning (Section 52 referral)
o Council's Traffic and Engineering Department
o Council's Environmental Health Department

- Technical reports/plans will be provided during the application process.

Included with the above documents is the updated architectural drawings (Rev-B)

Kind regards,

Carmelo Michienzi
Senior Designer

DCA Design

Building Design Consultants

Elegant | Functional | Responsible | Design

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TOWN PLANNING SUBMISSION

1 & 1A LEWIS STREET & 379 GEELONG ROAD, KINGSVILLE

MARIBYRNONG PLANNING SCHEME

MAY 2021

01

Introduction

Planning permission is sought for the use and development of the land for a childcare centre at 1 & 1A Lewis Street and 379 Geelong Road, Kingsville.

The land is located within the General Residential Zone (Schedule 1) and is not affected by any overlay controls pursuant to the Maribyrnong Planning Scheme ("the Scheme").

The application requires the following planning approvals under the Scheme:

- Use land for a childcare centre under Clause 32.08-2 of the General Residential Zone.
- Construct a building or construct or carry out works for a Section 2 use pursuant to Clause 32.08-9.

This report provides an assessment of the proposal against relevant provisions of the Maribyrnong Planning Scheme and should be read in association with:

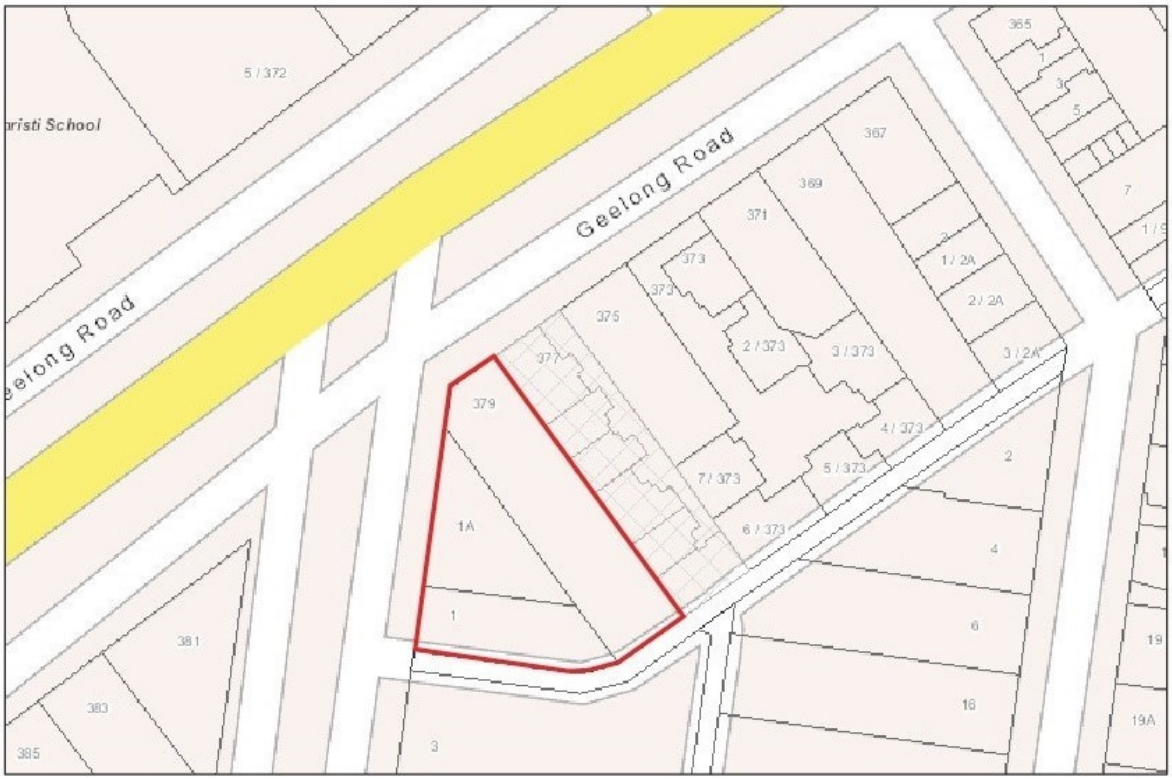
- Architectural Plans prepared by DCA Design.

02

SITE ANALYSIS

02.1 Subject Site

The subject site is located on the corner of Geelong Road and Lewis Street within a predominantly residential area of Kingsville.



The subject site comprises three separate parcels of land that combine to form an irregular shape. The combined parcels feature a frontage to Geelong Road of 10.12 metres, an abuttal to Lewis Street of 50.02 metres and a maximum depth of 60.96 metres to the north-east boundary. To the south and the rear of the subject site the land abuts a right of way. The overall area is 1791 square metres.

Aerial Photo

The site is described as Lot 1 and Lot 2 on Lodged Plan 35910 for 1 and 1a Lewis Street respectively together with Lot 169 on Lodged Plan 4982 for 379 Geelong Road. No easements or restrictive covenants encumber the land.

The land has been developed as follows:

- The land at Lot 1 Lewis Street has been developed with a single storey weatherboard dwelling. The dwelling is setback from site boundaries with an area of secluded private open space to the rear. A crossover and accessway abuts the southern boundary of the frontage.
- The land at Lot 1A Lewis Street has been developed with a single storey brick dwelling which is setback from site boundaries. An area of secluded private open space is located to the rear of the dwelling. A crossover and accessway abuts the northern boundary of the frontage.
- The land at 379 Geelong Road has been developed with a single storey brick dwelling that features a hipped tiled roof form. A large area of secluded private open space area is featured to the rear of the dwelling. A crossover and accessway is located on the western side of the frontage to Geelong Road providing access to a detached garage that abuts the western boundary.

1 Lewis Street, Kingsville

1A Lewis Street, Kingsville

379 Geelong Road, Kingsville

02.2 Surrounds

The site is located within a residential area of Kingsville, 400 metres north-east of the Kingsville Local Activity Centre.

Location Map

In relation to the site's immediate context, the land to the east of the site at 377 Geelong Road, has been developed with six double storey attached dwellings that are arranged in tandem down the length of the site. The built form features a rendered façade, with a pitched roof form.

The dwelling orientated to Geelong Road features a front setback of 7.5 metres. A crossover and accessway is featured to the eastern side of the frontage.

The land to the south of the site, at 3 Lewis Street, with two triple storey apartment buildings. The frontage (and rear setback) is occupied by a hardstand car parking area together with attached carports.

The built form is setback from side boundaries and is setback 11.5 metres from the frontage. Two crossovers to Lewis Street service the development with the rear carports accessed via the right of way.

Photos of these adjoining properties is provided on the following page.

377 Geelong Road, Kingsville

3 Lewis Street, Kingsville

The Maribyrnong Neighbourhood Character Review Character Guidelines which is a reference document in Clause 22.05 locates the subject site within the Garden Suburban 4 Precinct describes the precinct as:

Despite the mix of architectural styles and materials throughout this precinct, there is a commonality to the built form with regard to its compactness and generally consistent setbacks. Dwellings are predominantly single storey, giving the streets an open, unenclosed feel. This is strengthened by the generally low-level front gardens, low front fences and width of the streets. Certain areas of the precinct have examples of 1970s multi-unit dwellings; however, they do not dominate the street due to moderate front and side setbacks that recess these buildings from the street boundary. This precinct has a green and leafy feel due to the exotic gardens planted in the front setbacks. Occasional avenues of large street trees contribute to this feature.

The following key characteristics are described as:

- *Architectural styles are a combination of Victorian, Edwardian, Interwar, Postwar, 1960s to 1990s, and some contemporary.*
- *Building materials are brick or weatherboard, with tile and some iron roofs.*
- *Dwellings are generally single storey, with some two storey dwellings.*
- *Front setbacks vary from 3 – 4 metres to 6 – 7 metres. Side setbacks are between 1 and 3 metres.*
- *Gardens are established and low level, with mostly exotic planting and occasional tall trees.*
- *Front fences are generally low, with limited examples of fences up to 1.5 metres high.*
- *Street tree planting is mixed, with some examples of consistent species and spacing.*
- *Nature strips are 1 to 2 metres wide, with some wider strips of 3 to 5 metres. A small section of this precinct, located in Footscray, do not have nature strips.*
- *Bluestone kerbs can be found through some areas.*

03

Proposal

Planning permission is sought for the use and development of the land for a childcare centre at 1 & 1A Lewis Street and 379 Geelong Road, Kingsville. The proposed hours of operation will be 7:00am to 7:00pm Monday-Friday.

The existing dwellings on the three allotments will be demolished, for which planning approval is not required.

The site layout will be arranged with a car parking on the eastern part of the site, providing 29 under croft car parking spaces accessed via a double crossover to Lewis Street. Landscaping will be located to the perimeter of the parking area.

The childcare centre will operate within a double storey building with its entrance addressing both the frontage to Lewis Street and the rear under croft car parking area. The proposed childcare centre will cater for 120 children over two levels as follows:

- Ground Floor: Room 1 and Room 2 will accommodate 32 Children with 225 square metres of outdoor space. A kitchen and office are also provided at ground floor.
- First Floor: Room 3, 4, 5, 6 will accommodate 88 Children with 673 square metres of outdoor space.

The building will be setback 5.9 metres from Lewis Street and 2.05 metres from the northern east boundary at ground floor level with the first-floor deck cantilevering over. The first-floor deck will be set back 3.05 metres from Lewis Street, 2.0 metres from the south east boundary, 2.0 metres from the north east boundary. The overall building height will be approximately 8.25 metres.

The built form will exhibit high architectural design with a curvilinear form around a central garden.

The building will have a lightweight appearance with rendered cladding the predominant material together with powder coated aluminium framed windows/doors while the battened ground floor fence and the battened glazed first floor screen & rendered first screen with the light-coloured banding along the first floor screening provide visual interest.

04

Relevant Planning Provisions

Clauses of the Maribyrnong Planning Scheme of relevance to the application are identified below:

04.1 Planning Policy Framework

- **Clause 11 Settlement**
- 11.01-1R1 Settlement - Metropolitan Melbourne
- 11.03-1S Activity centres
- 11.03-1R Activity centres - Metropolitan Melbourne
- 11.06-1 Jobs and investment
- **Clause 15 Built Environment and Heritage**
- 15.01-1R Urban design - Metropolitan Melbourne
- 15.01-2S Building design
- 15.01-5S Neighbourhood character
- 15.02-1S Energy and resource efficiency
- **Clause 17 Economic Development**
- 17.01-1 Business
- **Clause 18 Transport**
- 18.01-1S Land use and transport planning
- 18.02-1 Sustainable personal transport
- 18.02-4S Car parking

04.2 Local Planning Policy Framework

- Clause 21.02 Municipal Profile
- Clause 21.03 Council vision
- Clause 21.04 Settlement
- Clause 21.06 Built Environment and Heritage
- Clause 21.10 Community Development and Infrastructure
- Clause 22.05 Preferred Neighbourhood Character Statements

04.4 Zoning

- Clause 32.08 General Residential Zone (Schedule 1)

04.5 Overlays

- No overlay controls.

04.6 Particular Provisions

The following Particular and General Provisions are relevant to the proposal:

- Clause 52.06 Car Parking
- Clause 65 Decision Guidelines

05

Planning Assessment

05.1 Preamble

An assessment of the proposed development requires consideration of the following issues:

- The level of support for the use within the Maribyrnong Planning Scheme.
- The appropriateness of the proposed development having regard for the surrounding context and the relevant neighbourhood character and urban design policies contained in the Planning Scheme.
- Amenity considerations associated with the use and for the surrounding properties.
- The suitability of access and car parking.

An assessment against these issues has been provided below.

05.2 Strategic Considerations

There is strong policy support for the proposed use and development at both State and local levels.

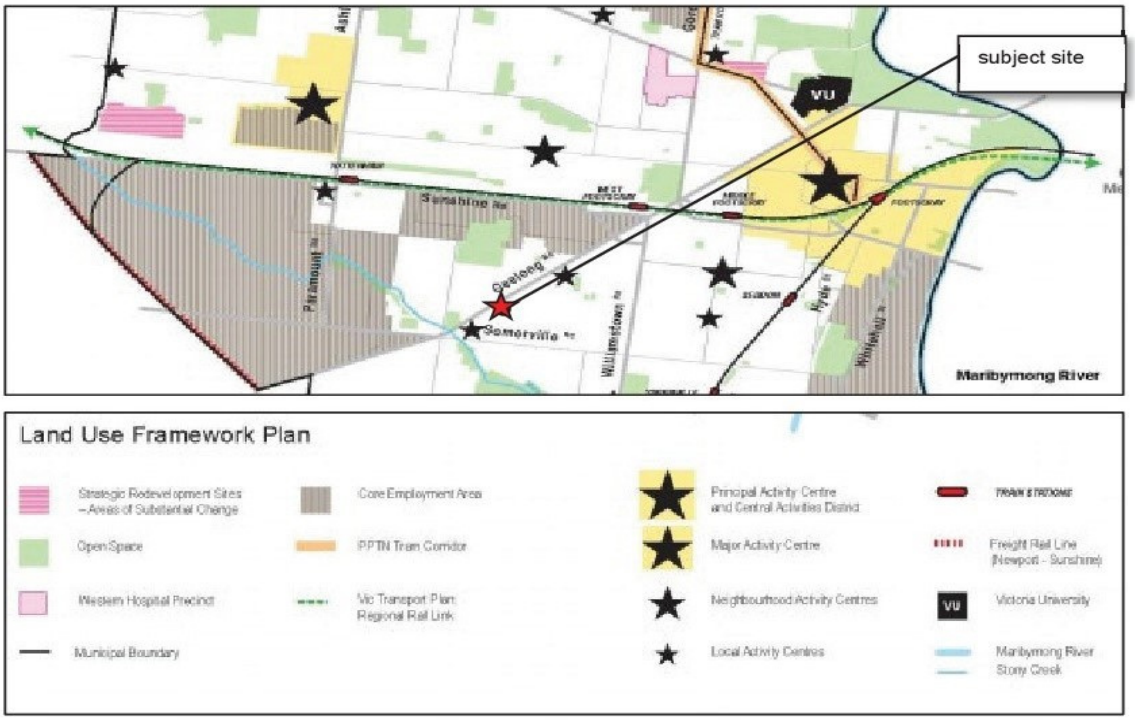
The proposed use addresses policy directions outlined in the Maribyrnong Planning Scheme that encourage use and development which makes effective use of existing infrastructure. Clause 11 (Settlement) in particular enshrines the values of Plan Melbourne which seeks to facilitate development that provides for the necessary social infrastructure to support the growing city.

The proposed use will provide employment and appropriate social infrastructure that services the local community as the following objectives of the State Policy Frameworks identify:

Clause 19.02-4 Distribution of social and cultural infrastructure

Objective: To provide fairer distribution of and access to of social and cultural infrastructure.

> Council's Local Planning Policy Framework also identifies that population increases will need to be accommodated. With a projected population increase, there will be the need to provide well located, high quality childcare for the growing residential population.



Excerpt from Clause 21.03

Council's Land Use Framework Plan at Clause 21.03 is provided above and it is noted that the site is on an arterial road and is embedded within a large residential areas while it is located between two activity centres. It is also accessible from the Core Employment Areas to the north and west.

Clause 21.03 seeks to accommodate that demand by providing development opportunities within areas that are close to Activity Centres, employment areas and the transport network. In particular, the Land Use vision at Clause 21.03 identifies:

… Significant redevelopment will transform the city and give it a greater residential character. The city's valued heritage and neighbourhood character will be complemented by new development on key redevelopment sites and within activity centres. More people will be living and working in the city attracted by its choice of housing, accessibility and employment opportunities…

Whilst accommodating development and indicating transformation of the city the Scheme recognises that new development is to be respectful of its site characteristics and context. Clause 21.02 (Municipal Profile) recognises under Built Environment and Heritage that:

The context for development varies from established residential neighbourhoods and commercial centres to large scale new estates. New development needs to be responsive to its context. The extent of new development provides opportunities to build on the qualities of the city's heritage and neighbourhood character and streetscapes whilst also introducing new forms of development that can enhance the city's role, design, image and liveability.

Furthermore, Clause 21.10 Community Development and Infrastructure acknowledges the need to:

Objective 1: To provide facilities which meet the needs of the community.

Strategies: Encourage co-location of complementary facilities…

Encourage the development of education facilities, including private education facilities, to service the needs of the community.

The childcare centre proposed by the application will provide an accessible community use that services the surrounding area and is close to core employment areas. It follows that residents will not be required to travel further afield to access such uses with associated opportunities to reduce car dependence. As a result, the use and its location are supported by objectives of the Maribyrnong Planning Scheme that encourage the development of liveable communities and neighbourhoods.

On the basis of these polices, it is submitted that the current proposal

represents an appropriate response to the site's strategic context. The application provides a considered response to the zoning of the site as addressed below.

General Residential Zone (Schedule 1)

The subject site is located within a General Residential Zone (Schedule 1) where the stated purpose is (*inter alia)*:

To implement the Municipal Planning Strategy and the Planning Policy Framework

To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.
As previously noted in section 5.2, there is strong strategic support for the use and development proposed by this application. It is submitted that the proposed non-residential "use" and associated development provides an acceptable response to the decision guidelines by:

- Providing for development and a use that is compatible with the surrounding residential use.

- Providing a childcare centre that serves the needs of the local community.

• By providing a scale and intensity of use and development that is appropriate for a main road location that is located near complementary educational facilities and education precincts.

• By providing an architecturally designed building that is relates well to the surrounding context with respect to the height and setbacks as discussed further below. The built form will provide a high level of visual interest.

• By providing a well landscaped development where the built form will be softened by shrubs and canopy trees.

• Providing appropriate car parking, accessway and bicycle parking and refuse facilities on the land.

05.3 Neighbourhood Character and Urban Design

The most relevant provisions in determining the appropriateness of the proposed development in terms of respecting neighbourhood character and contributing to urban design are:

• Clause 21.06-1 Urban Design which seeks *to encourage well designed residential development* via number of strategies that encourage high quality design and contemporary architecture. Whilst the application does not propose residential development, the location is predominately residential and thus "Urban Design" should be a considered.

• Clause 21.06-2 Environmentally Sustainable Design which seeks *to provide sustainable building design* that encourages sustainable design principles and the use of sustainable building materials.

• Clause 22.05 Preferred Neighbourhood Character Statements and the appropriateness of the development when assessed against the Maribyrnong Neighbourhood Character Review Guidelines (February 2010) which are a reference document within the Scheme.

The response to this policy direction is provided below:

Maribyrnong Neighbourhood Character Review Guidelines

The Preferred Neighbourhood Character Statement at Clause 22.05-3 for Garden Suburban 4 is as follows:

> *The mix of architectural styles and the consistencies across the built form will be maintained and strengthened through the provision of new development that adds to the layers of history throughout the precinct. Older dwellings that contribute to the character of the area, including those from the Victorian, Edwardian and Interwar eras will be retained and complemented by newer development that is distinguishable from original building stock. New development will respect the low-scale nature of buildings and will provide pitched roofs and other features that respond to the building form. Garden settings will be strengthened through new planting that provide canopy trees, shrubs and garden beds that contribute to the leafiness of streetscapes. Where present, front fences will maintain the openness of streetscapes and allow views to gardens and dwellings.*

An assessment against the design guidelines is provided below:

Character Elements	Objective	Design Response
Existing Buildings	To encourage the retention of older dwellings that contribute to the valued character of the area.	The existing dwellings on the land comprise of three unremarkable older dwellings that are not Victorian, Edwardian or Interwar era and thus hold no heritage value.
Vegetation	To maintain and strengthen the garden setting of the dwellings.	The existing condition on the subject site comprises a grassed area surrounding each dwelling with shrubs with no significant vegetation to be retained. The design proposes a landscape scheme that will include substantial planting (including canopy trees and shrubs) across the site within open space areas and alongside the frontage and accessway.
Siting	To maintain the consistency, where present, of front boundary setbacks. To maintain gaps between dwellings where this is a characteristic of the street. To minimise the loss of front garden space and the dominance of car parking structures.	The proposed building will be setback behind a landscaped frontage with additional landscaping to the permitter of the car parking area. The building will be setback 5.9 metres from Lewis Street with the first-floor deck cantilevering slightly so as the upper floor setback is 4.26 metres. This is acceptable having regard for the existing setback of the dwelling on the site and the prevailing setbacks in the street. The built form is setback from all site boundaries so as to provide for gaps between buildings. There is a lane along the south boundary of the site. Carparking is set behind the built form and will not be visible from the public realm. The proposal has minimised the need for additional crossovers providing a single double crossover to the Lewis Street frontage, with minimal paving proposed.

Character Elements	Objective	Design Response
Height and building form	To ensure that buildings and extensions do not dominate the streetscape. To maintain a balance between tree canopies and built form within the Maribyrnong River corridor and on hill faces and escarpment edges.	The proposed development features a triple storey height with a maximum building height of 10.73 metres through the use of a flat roof form. Triple storey-built form is part of the emerging character within the immediate area where townhouse developments orientated to Geelong Road commonly feature three storeys and at 3 Lewis Street, which is also triple storey. The application proposes an innovative highly contemporary architectural design with upper level is articulated via the use of curvilinear form and increased/varied setbacks to the upper levels. The subject site is within a relatively flat area of Kingsville and is not located near the Maribyrnong River.
Materials and design detail	To encourage innovative and contemporary architectural responses that are in harmony with surrounding older buildings and streetscapes.	The application comprises a highly contemporary and innovative, architecturally designed building that is “of its time” and clearly distinguishable from the older building stock proximate to the area. The building presents a well-articulated form with the use of varied glazing and balcony arrangements providing both vertical and horizontal articulation across the building. These balconies and glazing will also enhance passive surveillance across Geelong Road and Lewis Street.
Front boundary treatment	To enhance the security of properties and maintain views into front gardens.	The building will provide an active frontage to Geelong Road and Lewis Street with the office area to address the public realm at ground level and an outdoor play area in the level above. A visually permeable front fence is proposed along the frontage to both Geelong Road and Lewis Street which will ensure views into the front garden areas are provided.

Having regard for the above considerations, it is submitted that the proposed development provides a considered response to the policy objectives of the Maribyrnong Planning Scheme and the preferred Neighbourhood Character Statement for the Garden Suburban 4 precinct.

05.4 Amenity Considerations

The development proposed by the application provides a considered response to the surrounding properties and residential land uses. In broad terms, the design responds to the surrounding context by providing built form that will be massed to the rear and southern side of the subject site, which abuts the right of way.
Potential offsite impacts can be managed by screening and noise attenuation barriers to the perimeter of outdoor play areas which will minimise both overlooking and noise emissions from the site.
A more detailed response is provided below regarding the various interfaces:

377 Geelong Road, Kingsville

The land at 377 Geelong Road, to the north-east of the site, has been developed with six double storey attached townhouses. The townhouses have been designed so that at ground floor level a service yard is provided alongside the common boundary together with a bedroom window and door to the garage. At first floor level, the design response includes a bedroom and bathroom that faces the subject site, with living and balcony areas provided to the north-east elevation.
The application provides a appropriate response to the adjoining site by including a ground floor setback of 2.0 metres with the setback increasing to 5.2 metres at first floor level and 9.8 metres to the upper level. Play areas at ground floor are orientated to the Geelong Road elevation or the internal courtyard.
As a result of these arrangements and the location of the adjoining secluded private open space areas at 377 Geelong Road being on the north-eastern side, the proposed use and layout is provides an acceptable response with respect to any offsite amenity impacts, in particular overshadowing and visual impact to the SPOS of these dwellings.

3 Lewis Street, Kingsville

The land at 3 Lewis Street, to the south of the laneway that abuts the subject site, has been developed with a triple storey apartment block. As shown below, the built form is setback from the boundary with hardstand parking areas a characteristic throughout the site. A paling fence delineates the boundary to the laneway.

The application provides a considered response to the southern elevation by providing built form where overshadowing is minimised as a result of appropriate setbacks with shadows falling on the laneway. Play areas are orientated away from the south or are well setback from site boundaries which will result in noise spill being directed away from the south.

The built form is tiered and well articulated through the use of materials, with increased setbacks to upper levels which will reduce the visual impact when viewed from the adjoining site. It is submitted that the application provides an acceptable response to the southern elevation.

Rear Elevation

The land benefits from a wide rear laneway junction immediately to the rear of the site. The form at 16 Bishop Street which is opposite laneway to the subject site is well setback from rear boundary. Overshadowing will fall on laneway and any potential offsite amenity impacts as a result of overlooking or noise are well-resolved and managed by the design response.

Onsite Amenity

In considering the onsite amenity of the childcare centre, the application provides a well-designed layout that offers a comfortable floor plan with good access arrangements from the car park and from the street.
Each children's room is provided with natural light and ventilation and is arranged with direct access to substantial landscaped balcony or terrace play areas both internally and to the perimeter of the building.
The landscape scheme which has been prepared for the site also includes a focus on creating natural and playful spaces for the children to enjoy.

05.5 Car Parking, Access and Waste Collection

In accordance with the requirements of Clause 52.06, the proposed use generates the following statutory car parking requirements:

Land Use	Applied Parking Rate	Parking Measure	Required Parking	Provided Parking
Childcare Centre	0.22 spaces to each child	120 children	26 spaces	29 spaces

As the table above demonstrates in accordance with requirements of the Maribyrnong Planning Scheme, onsite car parking will be satisfied by the arrangement onsite.

The design and layout of the car park also address the design standards at Clause 52.06-8 related to car parking as a result of the following:

- Providing car parking spaces of 4.9 metres in length and 2.6 metres in width, serviced by an accessway 4.5 metres wide;
- Allowing all vehicles to safely enter and exit the site in a forward direction;
- Providing visual splays at the entrance/exit to the car park;
- Achieving a flat gradient for parking spaces and the accessway; and
- Providing passive surveillance and landscaping of the car park area.

Waste collection from at the site will be performed by a private contractor. This will occur outside of peak operating times and will occur within site boundaries with bin receptacles returned to their designated storage area after collection.

05.6 General Provisions

Clause 65 requires that before deciding on an application or approval of a plan, the Responsible Authority must consider a number of matters. It is submitted that the proposal addresses the following:

- The proposal is consistent with the matters set out in Section 60 of the *Planning and Environment Act 1987*.
- The proposal is consistent with the Planning Policy Framework, including the Municipal Strategic Statement.
- The proposal is consistent with the purpose of the General Residential Zone affecting the land.
- The proposed use and proposed development respect the orderly planning of the area.
- The proposed use would not have an adverse impact on the amenity of the area.
- The subject site does not interface with any public open space areas.
- The proposed use would not cause or contribute to land degradation, salinity or reduce water quality.
- The proposed development will be connected to underground drainage and as such will not have any adverse impact on the quality of stormwater within and exiting the site.
- The subject site does not contain any indigenous native vegetation in the meaning of the Planning Scheme.
- The proposed development would not contribute to any flood, erosion or fire hazard.

06

Conclusion

The proposed use of the land for a childcare centre together with the associated building and works is consistent with the State and Local Policy Frameworks and relevant provisions set out in the Maribyrnong Planning Scheme.

The proposed childcare centre will provide an easily accessible service to the surrounding community within a locality where the amenity of the area will not be affected.

The location, layout and design of the centre responds to policy direction of the Maribyrnong Planning Scheme.

As a result of these considerations, it submitted that the application warrants support.

CITY OF MARIBYRNONG
ADVERTISED PLAN

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12/06/2024
URBAN PLANNING

CLARITY
ACOUSTICS

Report R01 24071

6 June 2024

1 & 1A Lewis Street & 379 Geelong Road, Kingsville
Amendment Application Acoustic Report

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Yarraville VIC 3013

www.clarityacoustics.com.au

ABN 86 301 701 872

PROJECT SUMMARY:

R01 24071

1 & 1A Lewis Street & 379 Geelong Road, Kingsville - Child Care Centre Amendment Application Acoustic Report

PREPARED FOR:

I9 Kingsville PL

47 Translink Drive

Airport West VIC 3042

ATTENTION:

Ahsan Zafar

REFERENCE	REV	STATUS	DATE	AUTHOR	REVIEWER
R01 24071	-	ISSUED	6 JUN 2024	R LEO	A CHANDHOK

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AAAC

Clarity Acoustics is a member of the *Association of Australasian Acoustical Consultants* (AAAC), the not-for-profit peak body representing the acoustic consulting industry in Australia and New Zealand.

Contents

1.0 INTRODUCTION

It is proposed to develop a new 120-place childcare centre at 1 & 1A Lewis Street and 379 Geelong Road in Kingsville. The development will include a two-level childcare centre with outdoor play areas on each level and a ground level car park with parking for 25 cars.

Maribyrnong City Council has issued a Planning Permit (TP268/2021(1)) for the previous scheme for the development that includes the following condition relating to acoustics:

> *12. Concurrent with the submission of plans pursuant to condition 1, an amended Acoustic Report must be submitted and be to the satisfaction of the Responsible Authority.*
>
> *When approved, the report will be endorsed and will then form part of the permit. The amended Acoustic Report must be generally in accordance with the report dated 10 December 2021 prepared by Clarity Acoustics P/L, except that the report must include:*
>
> *a. Acoustic protection measures of the undercover carpark to mitigate any noise impacts to the dwellings at 377 Geelong Road Kingsville.*
>
> *The recommendations of this report must be implemented and maintained to the satisfaction of the Responsible Authority until such time that Condition 13 is fulfilled.*

Clarity Acoustics Pty Ltd (Clarity Acoustics) has been engaged by i9 Kingsville PL to prepare an updated acoustic report for the proposed development which reflects the updated site layout and addresses condition 12 of the Planning Permit.

This report provides details of the following:

- proposed childcare centre operations
- measurements of background and traffic noise levels in the vicinity of the subject site
- relevant noise criteria applicable to the subject site
- recommended noise controls
- an assessment of operational noise from the childcare centre.

A glossary of acoustic terminology used in this report is provided in APPENDIX A.

2.0 PROJECT DESCRIPTION

2.1 Subject site

The subject site is located at 1 & 1A Lewis Street and 379 Geelong Road in Kingsville and is bounded by:

- Geelong Road to the north with residential properties beyond
- Residential properties on Geelong Road to the north-east and east
- Residential properties on Lewis Street directly to the south
- Lewis Street to the west with commercial and residential properties beyond.

The subject site is located in a General Residential Zone 1 (GRZ1) further GRZ1, Transport Zone 2 – Principal Road Network (TRZ2) and Mixed-Use Zone (MUZ) in the immediate environs. The relevant planning map for the subject site is provided in APPENDIX B.

The nearest receivers are dwellings on Lewis Street to the south of the subject site, on Geelong Road to the north-east of the subject site and on Bishop Street to the south-east of the subject site.

2.2 Nearest affected noise sensitive receivers

Table 1 provides details of the nearest affected receivers that have been considered in the following assessment.

Table 1 - Details of the nearest noise sensitive receivers

ID	Address	Description
R1	3 Lewis Street	Three storey residential apartment building to the south of the subject site
R2	18 Bishop Street	Double storey residential apartment building to the south-east of the subject site
R3	16 Bishop Street	Single storey dwelling to the east of the subject site
R4	6 Bishop Street	Single storey dwelling to the east of the subject site
R5	6/377 Geelong Road	Double storey dwelling to the north-east of the subject site
R6	5/377 Geelong Road	Double storey dwelling to the north-east of the subject site
R7	4/377 Geelong Road	Double storey dwelling to the north-east of the subject site
R8	3/377 Geelong Road	Double storey dwelling to the north-east of the subject site
R9	2/377 Geelong Road	Double storey dwelling to the north-east of the subject site
R10	1/377 Geelong Road	Double storey dwelling to the north-east of the subject site

An aerial photograph of the subject site and nearest affected receivers is provided in Figure 1.

Figure 1 - Aerial photograph of the subject site and receivers (source: Nearmap)

2.3 Proposed operation of childcare centre

The proposed childcare centre will cater for up to 120 children with outdoor play areas on the ground floor and first floor. Parking for 25 cars will be provided with access to the car park from Lewis Street.

The proposed site layout is provided in APPENDIX C.

The anticipated age distribution of the 120 children that will attend the centre is as follows:

Table 2 – Age distribution of children attending childcare centre

Age group	Number
0-2 years	25
2-3 years	38
3-5 years	57

It is proposed that the childcare centre will operate between 0700-1900 hours, Monday to Friday.

3.0 RELEVANT GUIDELINES AND CRITERIA

The following sections outline the guidelines and standards commonly referenced in Victoria relevant to this application.

3.1 Environment Protection Act 2017

The Environment Protection Act 2017 (the Act) provides a legislative framework for the protection of the environment in Victoria and establishes obligations for environmental noise control. The Act does not specify noise limits but sets out the legal requirements for compliance with the subordinate legislation tools. Subordinate legislation tools have been designed to support the Act which include the Environment Protection Regulations.

Part 3.2 of the Act introduces the General Environmental Duty (GED) which requires any person/business engaging in an activity posing a risk of harm to human health or to the environment, to minimise those risks to prevent harm as far as reasonably practicable. The GED requires individuals/businesses conducting activities that may pose a risk to human health and the environment to understand these risks and demonstrate how they have eliminated or minimised them as far as reasonably practicable.

3.2 Environment Protection Regulations 2021

The Environment Protection Regulations 2021 (S.R. No. 47/2021) set out the framework for noise from residential, commercial, industrial and trade premises as well as from indoor and outdoor entertainment venues and events. The Regulations require that noise levels from commercial, industrial and trade premises and indoor and outdoor entertainment venues and events are set to protect noise sensitive areas from unreasonable noise.

Regulation 113 (Part 5.3) of the Regulations requires that the prediction, measurement and analysis of noise from commercial, industrial and trade premises and indoor and outdoor entertainment venues and events must be undertaken in accordance with the Noise Protocol (i.e., EPA Publication 1826-4).

It is noted that, under Regulation 117 (Part 5.3) of the Regulations, voices are excluded from any assessment of noise from commercial, industrial and trade premises. As such, EPA Publication 1826-4 will not apply to noise from children in play areas associated with the proposed development.

3.3 1826-4

EPA Publication 1826-4 *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (Noise Protocol) is incorporated into the Environment Protection Regulations and outlines the EPA's approach to the determination of noise limits and to the measurement, prediction and analysis of noise.

Part I of the Noise Protocol outlines the methodology to establish noise limits applicable to noise from commercial, industrial or trade premises in both urban and rural areas of Victoria. The subject site is located within a Major Urban Area (MUA) boundary and, therefore, noise limits for noise sources associated with the subject site that are covered under the Noise Protocol are derived using the urban area method.

For commercial, industrial or trade premises in urban areas, the noise limits are determined on the basis of land zoning and background noise levels and are separately defined for the day, evening and night periods. Once a noise limit is established, the noise level from the premises is measured or predicted as a 30-minute equivalent average noise level ($L_{Aeq,\,30\,min}$) and, if necessary, adjusted to account for duration, measurement position and noise character (such as tonality, intermittency and impulsiveness) to determine the effective noise level (L_{eff}).

Refer to APPENDIX D for further detail on the derivation of noise limits and the assessment of noise from commercial, industrial or trade premises under the Noise Protocol.

3.4 Guideline for Child Care Centre Acoustic Assessment

The Association of Australasian Acoustical Consultants (AAAC) guideline relating to childcare centres (originally published in May 2008, updated September 2020) provides criteria to be used for the assessment of noise from children in outdoor play areas associated with childcare centres impacting on nearby receivers as well as assessment of the impact of extraneous noise on children within childcare facilities.

3.4.1 Impact of Road, Rail Traffic and Industry on children

The AAAC guideline recommends that the noise level $L_{Aeq,\ 1hour}$ from road, rail traffic or industry at any location within the outdoor play or activity area during the hours when a centre is operating shall not exceed 55 dB and should not exceed 40 dB within the indoor play areas and 35 dB in sleeping areas associated with childcare centres.

It should be noted that, for the subject site, if the external criterion of 55 dB $L_{Aeq,\ 1\ hour}$ is achieved, conventional facade construction will be sufficient to achieve the internal criteria.

3.4.2 Noise to neighbouring residential receivers

The AAAC guideline relating to childcare centres nominates design criteria for assessing noise from children in outdoor play areas. The guideline provides a base criterion of 45 dB $L_{Aeq,\ 15\ min}$ for the assessment of noise from outdoor play areas where the background noise level is less than 40 dB L_{A90}. Where the background noise level is greater than 40 dB $L_{A90,\ 15\ minute}$ it nominates the following criteria for outdoor play areas:

Table 3 – AAAC childcare centre design criteria

Duration of outdoor play	Criteria
Up to 4 hours play per day (2 hours in the morning, 2 hours in the afternoon)	$L_{Aeq,\ 15\ min} \leq L_{A90,\ 15\ min} + 10$ dB
More than 4 hours of play per day	$L_{Aeq,\ 15\ min} \leq L_{A90,\ 15\ min} + 5$ dB

Childcare centres typically no longer limit outdoor play times, therefore, criteria based on limiting outdoor play area not considered relevant. Several other issues with the implementation of the AAAC design criteria have been identified by Clarity Acoustics (and other acoustic consultants in Victoria) which are summarised below:

- In most contexts, a L_{A90} + 5 dB criterion results in more stringent criteria applicable to noise from children in outdoor play than would apply to noise from industrial/commercial premises
- The design criterion of L_{A90} + 5 dB does not consider that noise from children playing outdoors does not have the same character as other forms of environmental noise such as industrial noise or music from licensed venues
- The design criterion of L_{A90} + 5 dB can result in very onerous noise mitigation controls such as noise barriers that are excessive in height and not consistent with visual amenity
- The nominated criteria do not account for other factors such as nature of the noise, time of day that the noise occurs, number of people exposed or affected, duration of exposure, whether the noise is typical for the area etc., which can all influence noise impact.

A review of relevant VCAT decisions demonstrates that noise from children in outdoor play areas associated with childcare centres is considered to be consistent with residential amenity and that a background (L_{A90}) + 10 dB approach is appropriate in the majority of circumstances. Accordingly, the assessment in subsequent sections of this report compares the predicted noise levels from outdoor play areas associated with the development against a 10 dB margin above the existing background noise levels at nearby existing dwellings in the vicinity of the subject site. A summary of relevant VCAT decisions is provided in APPENDIX E.

3.5 Environment Reference Standard (ERS)

The Environment Reference Standard (ERS) was gazetted on 26 May 2021 under Section 93 of the EP Act and describes the environmental values of the ambient sound environment that are sought to be achieved and maintained in Victoria. The ERS also sets out objectives and indicators for ambient sound based on land use settings that can be measured to determine whether the environmental values are being met. The land use category and associated indicators and objectives set out in the ERS that are considered relevant to the proposed development are outlined in Table 4.

Table 4 – Relevant environmental values and ambient sound indicators and objectives, dB

Land Use Category	General Description	Outdoor ambient sound indicators and objectives
Category II	Medium rise building form with a strong urban or commercial character. Typically contains mixed land uses including activity centres and larger consolidated sites, and an active public realm	Day: 55 dB $L_{Aeq, 16\ hour\ (0600\text{-}2200\ hours)}$ Night: 50 dB $L_{Aeq, 8\ hour\ (2200\text{-}0600\ hours)}$

The ERS is not a compliance standard and as such, the values nominated under the ERS for different land uses are not prescribed noise limits. EPA Publication 1992 *Guide to the Environment Reference Standard* also states that *indicators and objectives within the ERS are generally not relevant considerations where they relate to an aspect of the environment that is the subject of prescriptive regulation.*

As such, the ERS is considered relevant for activities that are not directly regulated under the Regulations/Noise Protocol and the EPA, local government and other decision makers may consider the ERS in their decision-making process. In this instance, the ERS may be relied upon in relation to noise from children in outdoor play areas associated with the proposed use as noise from voices is specifically excluded from the Regulations. However, it is noted that the nominated noise targets for children in outdoor play areas (L_{A90} + 10 dB as outlined in Section 3.4.2) are more stringent for the subject site than the ERS indicators outlined above.

Additionally, the proposed use of the carpark may be assessed against the ERS as an assessment of non-commercial vehicle movements is specifically excluded under the Regulations.

4.0 EXISTING NOISE ENVIRONMENT

4.1 Background noise levels

As outlined in Section 3.0 above, environmental noise criteria for the proposed development are set accounting for existing background noise levels in the vicinity of the proposed use. Accordingly, background noise levels in the vicinity of the site were measured using a continuous noise monitoring device (Svantek 977B Class 1 Sound and Vibration Analyser, serial number 59804) between Tuesday, 9 November and Wednesday, 17 November 2021.

The noise monitor was installed in the rear yard of the existing dwelling at 379 Geelong Road with the microphone located at 1.5 metres above ground level. The noise monitoring position was afforded significant shielding from traffic on Geelong Road and is, therefore, considered a conservative representation of the noise environment at existing dwellings in the vicinity of the site.

Refer to Figure 2 for the noise monitoring location.

Figure 2 – Noise monitoring location (Image source: Nearmap)

The equipment was checked before and after the survey using a Svantek Class 1 Acoustic Calibrator (serial number 58085) and no significant calibration drifts were observed.

Table 5 summarises the lowest daily average background noise levels (L_{A90}) measured during the monitoring period during the hours relevant to the proposed operation of the childcare centre. In determining the background noise levels, any data affected by rainfall and high wind speeds (i.e., above 5 m/s) has been excluded from the noise monitoring data.

It is noted that background noise levels are assessed differently under the Noise Protocol and under the AAAC guideline. The Noise Protocol requires an assessment of hourly background noise levels (dB $L_{A90, 1\ hour}$) whereas under the AAAC guideline, 15-minute background noise levels (dB $L_{A90, 15\ min}$) need to be considered. As such, both are presented separately in Table 5 below.

Table 5 – Measured lowest daily average background noise levels, dB

Period	Time period	Measured background noise level, $L_{A90, 15\ min}$	Measured background noise level, $L_{A90, 1\ hour}$
Day	(0700-1800 hours)	43	43
Evening	(1800-1900 hours)	43	43

4.2 Traffic Noise Levels

In order to quantify the level of traffic noise at the subject site, traffic noise monitoring was undertaken at the subject site between 1300 hours on 9 November 2021 and 1300 hours on 12 November 2021. A noise monitor was installed in the front yard of the existing dwelling at 379 Geelong Road with the microphone set at a height of approximately 1.5 m above ground level. The monitoring position had direct line of sight to traffic on Geelong Road.

The traffic noise monitoring position is provided in Figure 3.

Figure 3 – Traffic monitoring location (Image source: Nearmap)

The traffic noise monitoring was conducted using a Svantek 971 Class 1 Sound and Vibration Analyser (serial number 60697). The equipment was checked before and after the surveys using a Svantek Class 1 Acoustic Calibrator (serial number 58085) and no significant calibration drifts were observed.

The results of the traffic noise monitoring are presented in Table 6 below.

Table 6 – Traffic noise monitoring results

Description	Measured traffic noise level
Highest day time hourly traffic noise level (0700-1900 hours)[1]	68 dB $L_{Aeq,\ 1\ hour}$

The highest measured day time hourly traffic noise level detailed in Table 6 above has been used to design acoustic screening for the childcare centre to limit traffic noise impacts on children in outdoor play areas as well as internal areas of the development.

5.0 RECOMMENDED NOISE CONTROLS

A 3-D noise model of the childcare centre and the surrounding area has been created to predict noise from the subject site to neighbouring receivers. Outcomes of the noise modelling indicate that acoustic fences/screens will be required to outdoor play areas to minimise noise egress to neighbouring receivers and also minimise traffic noise impacts on children within outdoor play areas and within indoor activity and sleeping areas.

The location and extent of the proposed acoustic fences/screens for the child care centre and recommended barrier construction are outlined in the following sections.

5.1 Acoustic screening to the Ground Floor Outdoor Play Area

It is proposed to provide a combination of aluminium batten fencing and solid colorbond sheet screening to the perimeter of the outdoor play area on the ground floor of the proposed development.

The proposed screening to the north-western, western and southern ends of the ground floor outdoor play area should be a minimum of 2.2 m high (above NGL) and the proposed screening to the northern-eastern side of the play area should be a minimum of
2.0 m high (above NGL).

The height and extent of the proposed acoustic fences is provided in Figure 4.

[1] Relevant to the proposed hours of operation of the child care centre.

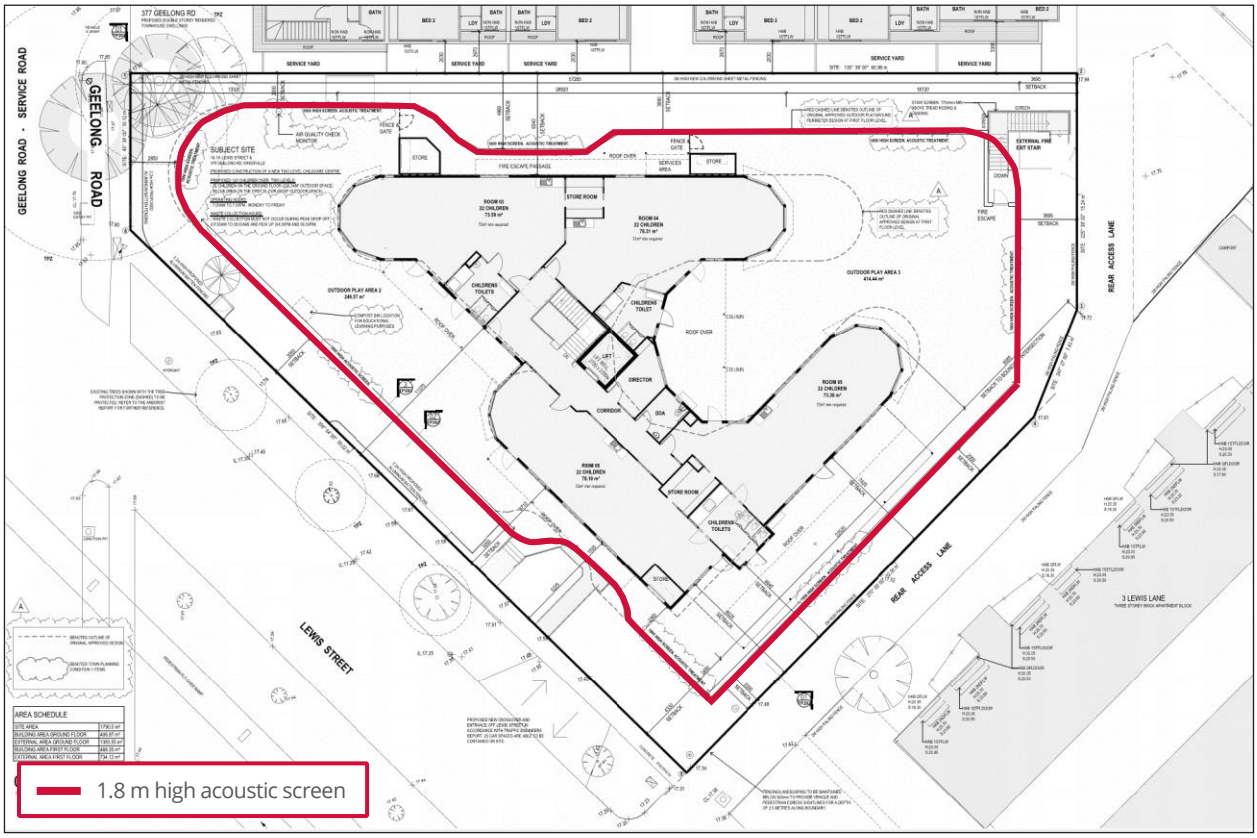
Figure 4 – Acoustic mitigation to Ground Floor Outdoor Play Area

Where aluminium batten fencing is proposed, it is recommended that a solid backing be provided such as 12 mm thick Perspex, 9 mm thick compressed fibre cement sheet or 6 mm thick glass or any other approved material which meets the minimum surface density specification outlined in Section 5.3. The solid colorbond screen to the north-eastern end of the play area should also meet the minimum surface density requirements outlined in Section 5.3.

5.2 Acoustic screening to First Floor Outdoor Play Area

1.8 m high acoustic screening is proposed to the first-floor outdoor play area. The height and extent of the proposed acoustic screening is provided in Figure 5 below.

Figure 5 – Acoustic mitigation to First Floor Outdoor Play Area



5.3 Recommended fence/screen construction

To provide adequate noise attenuation, the construction material of the recommended/proposed acoustic fences/screens must have a minimum surface density of 12 kg/m^2 and be free from holes and gaps. The required surface density can be achieved by materials such as 9 mm thick fibre cement sheet, 6 mm thick float glass or 25 mm thick plywood timber panelling.

If a material which meets the above acoustic requirements and does not restrict light is required, 12 mm thick Perspex, 16 mm thick Thermoclear or 6 mm thick float glass can be used.

Where a perforated finish or batten screen finish is preferred such as metal or timber perforated balustrades or a timber look batten screen, the chosen finish will require a solid backing such as 12 mm thick Perspex or 6 mm thick glass or any other approved material which meets the minimum surface density specification.

A typical acoustic fence detail is provided in APPENDIX F.

5.4 Perimeter fencing to car park area

The proposed car parking area includes 2.0 m high sheet metal perimeter fencing to the north-eastern site boundary. It is recommended that the north-eastern boundary fencing be either replaced with an acoustic fence or upgraded to have a minimum surface mass of minimum surface density of 12 kg/m^2 and be free from holes and gaps. As a guide, based on the existing fence being 0.42 mm thick colorbond, an additional mass layer of 6 mm thick fibre cement sheet or 15 mm thick plywood would be sufficient to meet the minimum surface density requirements.

The height and extent of the north-eastern boundary fence requiring upgrade or replacement is provided in Figure 6 below.

Figure 6 – Extent of new acoustic fence or fence upgrade to north-east boundary

5.5 Absorption to the underside of the carpark slab soffit

To minimise reverberant noise build up with the car parking area, it is recommended that absorptive treatment be provided to the underside of the carpark slab soffit. The absorptive lining will need to have a minimum Noise Reduction Coefficient (NRC) of 0.65. The necessary acoustic performance can be achieved by a layer of 25-50 mm thick polyester or fibreglass with a protective facing.

6.0 ASSESSMENT OF NOISE FROM CHILDREN PLAYING OUTDOORS

Noise levels from the subject site have been calculated using the proprietary noise modelling software SoundPLAN v8.2 which implements International Standard ISO 9613-2:1996 *Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation* (ISO 9613-2). Noise levels from children playing in outdoor play areas are calculated considering the following:

- Source noise levels for children playing outdoors taken from the AAAC guideline outlined in Table 7
- Number of children using the proposed outdoor play areas simultaneously
- Attenuation of noise provided by distance between the source and receiver and any intervening screening structures
- Attenuation of noise provided by the built form of the development including the proposed ground floor acoustic fences and the first-floor acoustic screens
- Reflections from built form, adjacent buildings, screening structures and the ground surface
- The noise prediction methodology outlined in APPENDIX G.

The following sections detail the source noise data used in our noise model, outline the noise criteria applicable to outdoor play areas associated with the childcare centre and compare the predicted noise levels from children in outdoor play areas with the relevant noise criteria.

6.1 Noise source data

The AAAC guideline provides typical sound power levels for groups of 10 children playing within different age groups. The AAAC sound power level data for groups of 10 children in active play and the anticipated age distribution of the 140 children that will attend the centre is provided in Table 7.

Table 7 – Children age distribution and AAAC effective sound power level per group of 10 children

Age group	Number of children	AAAC Sound Power Level per group of 10 children in active play, dB L_{Aeq}
0-2 years	25	78
2-3 years	38	85
3-5 years	57	87

The AAAC guideline also notes that an adjustment of -6 dB can be applied to the above sound power levels for children involved in passive play.

As recommended by the AAAC guidelines, a source height of 1 m (AGL) has been used for all age groups.

6.2 Noise criteria

Based on the discussion in Section 3.4.2 and the background noise levels provided in Table 5, the design criteria for noise from children in outdoor play areas associated with the subject site are summarised in Table 8.

Table 8 – Noise criteria for outdoor play areas, dB

Period	Noise criteria, $L_{Aeq,\ 15\ min}$
Day (0700-1800 hours)	53 (43 + 10 dB)
Evening (1800-1900 hours)	53 (43 + 10 dB)

6.3 Predicted noise levels

Predictions of noise levels from children in the outdoor play areas are based on up to 75 % of the children attending the centre (90 children) being outside in active play at the same time during the day and evening periods (0700-1900 hours). This is considered a conservative estimate and in practice, typical percentages of children playing outside simultaneously are generally lower than those used in this assessment.

The predicted noise levels from children playing in the outdoor play areas are provided in Table 9 and account for the proposed built form of the subject site as well as the noise mitigation measures detailed in Section 5.0.

Table 9 - Predicted noise levels - children playing in outdoor play areas (Day/Evening period), dB

Receiver	Predicted noise level from outdoor play areas, $L_{Aeq,15\ min}$	Criteria (Day/Evening), $L_{Aeq,15\ min}$	Compliance?
3 Lewis Lane	52	53	Yes
18 Bishop Street	42	53	Yes
16 Bishop Street	40	53	Yes
6 Bishop Street	40	53	Yes
6/377 Geelong Road	51	53	Yes
5/377 Geelong Road	47	53	Yes
4/377 Geelong Road	47	53	Yes
3/377 Geelong Road	44	53	Yes
2/377 Geelong Road	48	53	Yes
1/377 Geelong Road	49	53	Yes

As outlined above, noise levels from children playing within the outdoor play areas associated with the proposed childcare centre are predicted to comply with the nominated noise criteria at the nearest affected receivers with the incorporation of the recommended mitigation measures outlined in Section 5.0.

In addition, the ERS indicators and objectives for the area surrounding the subject site will also be met when adjusted for the ERS day-time 16-hour metric.

7.0 TRAFFIC NOISE IMPACTS ON PROPOSED CHILD CARE CENTRE

As outlined in Section 3.4.1, the proposed childcare centre should be designed for traffic noise levels to not exceed 55 dB $L_{Aeq,\ 1\ hour}$ within outdoor play areas, 40 dB $L_{Aeq,\ 1\ hour}$ within the indoor activity areas and 35 dB $L_{Aeq,\ 1\ hour}$ in sleeping areas.

Based on the measured traffic noise levels provided in Table 6:

- The recommended acoustic fences and screening detailed in 5.0 will enable compliance with the 55 dB $L_{Aeq,\ 1\ hour}$ requirement within outdoor play areas associated with the proposed childcare centre
- Based on conventional facade construction for enclosed spaces associated with the proposed childcare centre, the 40 dB $L_{Aeq,\ 1\ hour}$ requirement within indoor activity areas and 35 dB $L_{Aeq,\ 1\ hour}$ requirement for sleeping areas will be readily achieved.

8.0 ASSESSMENT OF NOISE FROM MECHANICAL PLANT

Mechanical plant associated with the childcare centre will need to be designed to be compliant with the Noise Protocol noise limits at the nearest affected receivers. Noise limits applicable to the operation of mechanical plant associated with the childcare centre have been calculated in accordance with the Noise Protocol and are provided in Table 10.

Table 10 – Noise Protocol noise limits, dB

Period	Time Period	Noise Protocol noise limit, L_{eff}
Day	0700-1800 hours	52
Evening	1800-1900 hours	46

Further detail on the derivation of the Noise Protocol noise limits is provided in APPENDIX D.

At this stage, the mechanical services plant selections have not been undertaken for the development. It is recommended that a detailed assessment of noise associated with the mechanical plant is undertaken once the plant selection is finalised.

To enable compliance with the Noise Protocol noise limits, all plant will need to be designed/located to achieve a cumulative level of **46 dB L_{eff}** at the nearest affected receivers when assessed over a 30-minute period. In our experience, the main mechanical plant associated with childcare centres such as this is generally limited to air-conditioning condenser units which can either be sited or appropriately mitigated to be compliant with the Noise Protocol noise limits. If mitigation is deemed to be required, it could be implemented in the form of localised acoustic screening and/or providing silencers or attenuators on plant items.

9.0 ASSESSMENT OF CARPARK NOISE TO NEIGHBOURING PROPERTIES

An assessment of noise from non-commercial vehicles is specifically excluded under the Regulations/Noise Protocol. As such, as outlined in Section 3.5, noise associated with the use of the proposed car park has been assessed against the ERS objectives for the area.

Noise from the proposed car park has been modelled in SoundPLAN using methods prescribed in the Bavarian State Office for the Environment's *Parking Area Noise* (BayLfU, 2007). Noise from the car park has been modelled based on 25 parking bays and all 120 children arriving or leaving in separate vehicles which is considered a conservative approach.

The calculated noise levels due to vehicle movements associated with childcare centre carpark are presented in Table 11. The calculated noise levels account for an upgraded/replaced acoustic fence to the north-eastern boundary of the subject site and the proposed absorption to the underside of the car park soffit.

Table 11 - Predicted noise levels – carpark area, dB

Receiver	Predicted noise level from carpark area, $L_{Aeq,16\ hour}$	ERS criteria $L_{Aeq,16\ hour}$	Compliance?
3 Lewis Lane	41	55	Yes
18 Bishop Street	33	55	Yes
16 Bishop Street	31	55	Yes
6 Bishop Street	27	55	Yes
6/377 Geelong Road	40	55	Yes
5/377 Geelong Road	43	55	Yes
4/377 Geelong Road	44	55	Yes
3/377 Geelong Road	44	55	Yes
2/377 Geelong Road	43	55	Yes
1/377 Geelong Road	43	55	Yes

10.0 SUMMARY

It is proposed to develop a new 120-place childcare centre at 1 & 1A Lewis Street and 379 Geelong Road in Kingsville. The development will include a two storey childcare centre with outdoor play areas on each level and a ground level car park with parking for 25 cars.

Noise criteria for the proposed development have been developed considering the following:

- Environment Protection Regulations 2021
- EPA Publication 1826.4: *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues*
- AAAC Guideline for Child Care Centre Acoustic Assessment (Version 3.0)
- Recent relevant VCAT decisions
- Environment Reference Standard.

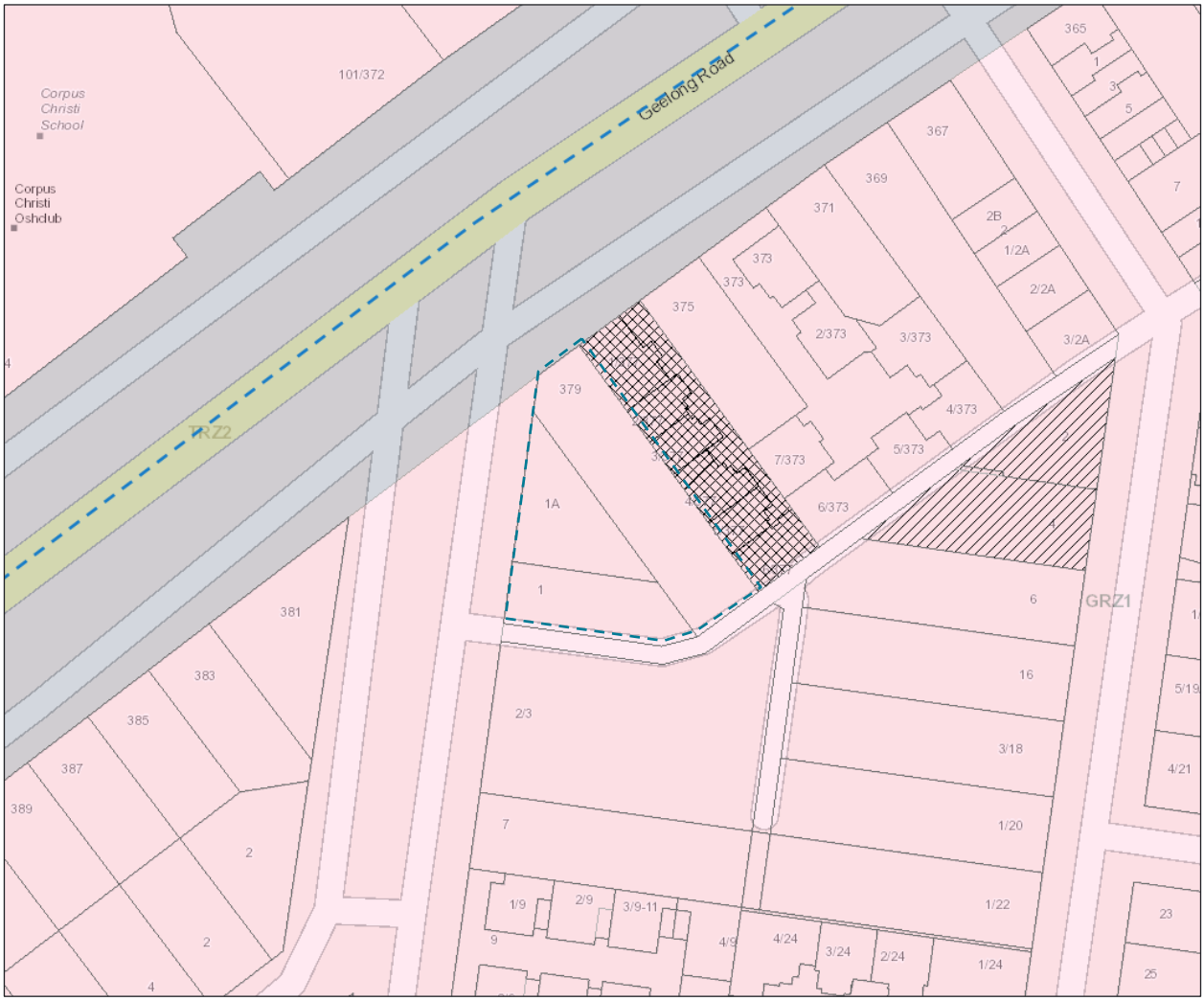
Clarity Acoustics has undertaken an assessment of environmental noise associated with the proposed development and found the following:

- noise levels from children in outdoor play areas associated with the childcare centre will be compliant with the proposed acoustic criteria based on the proposed design of the subject site and the incorporation of the acoustic fences/screens outlined in 5.0 of this report. In addition, with the incorporation of the recommended mitigation measures, traffic noise will be compliant with the AAAC recommended criteria in both external and internal areas associated with the childcare centre
- based on the predicted levels (adjusted for the ERS day time 16-hour metric), noise from children in outdoor play areas will be below the ERS objectives and indicators for the area surrounding the subject site
- noise levels from the car park operation can achieve the ERS objectives and indicators for the area surrounding the subject site with inclusion of absorption to the underside of the carpark slab soffit and an upgraded/new acoustic fence to the north-eastern boundary
- all mechanical plant associated with the childcare centre will need to be designed/sited to achieve a cumulative level of 46 dB L_{eff} at the nearest affected receivers.

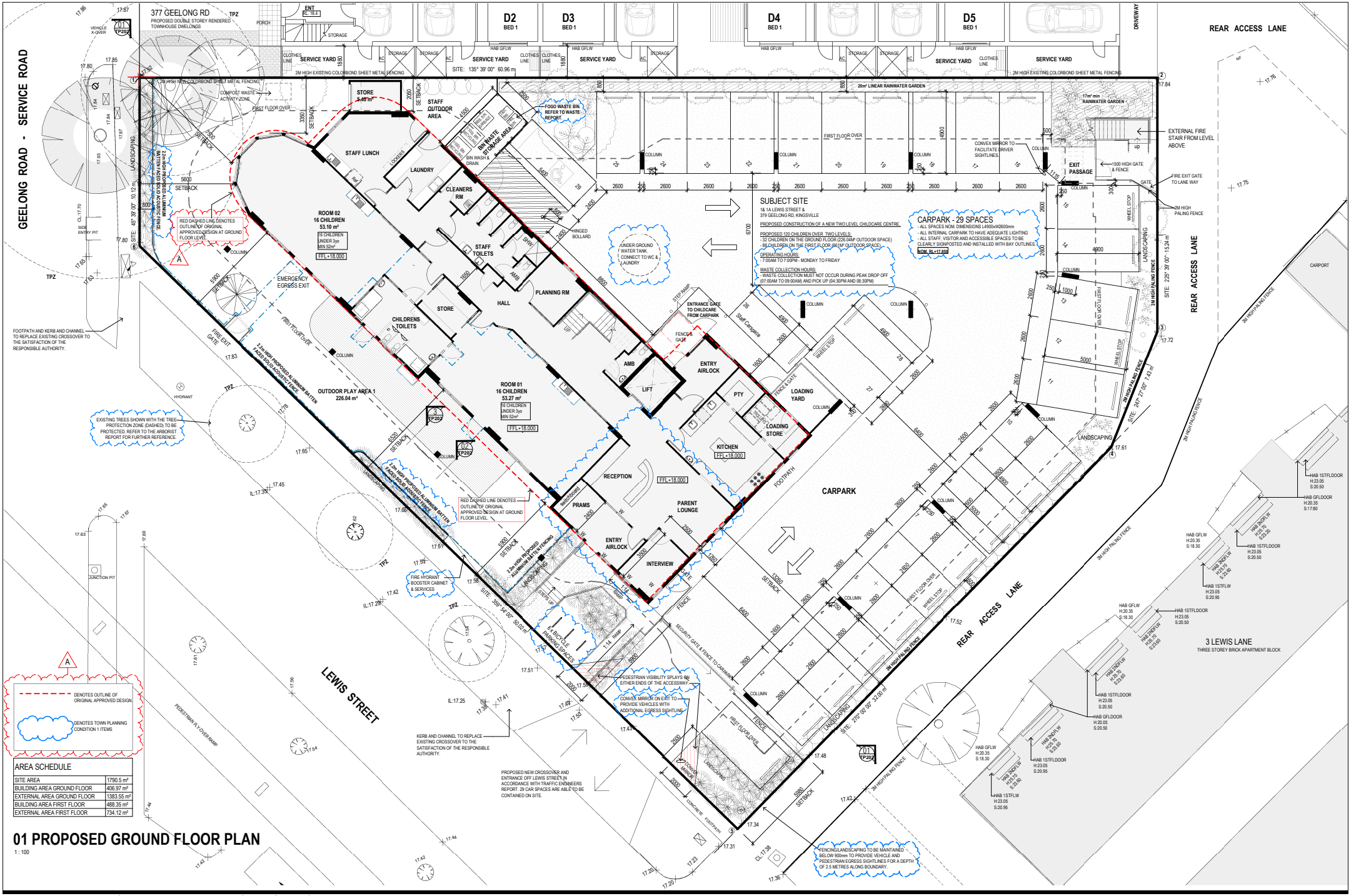
APPENDIX A GLOSSARY OF TERMINOLOGY

A-weighting	The A-weighting filter covers the full audio range - 20 Hz to 20 kHz and the shape is similar to the response of the human ear at lower levels. A-weighted measurements correlate well with the perceived loudness at low sound levels, as originally intended.
dB	Decibel (dB) a relative unit of measurement widely used in acoustics, electronics and communications. The dB is a logarithmic unit used to describe a ratio between the measured sound level and a reference or threshold level of 0 dB.
Hertz	Hertz (Hz) the unit of Frequency or Pitch of a sound. One hertz equals one cycle per second. 1 kHz = 1000 Hz, 2 kHz = 2000 Hz, etc.
$L_{A90\,(t)}$	The sound level exceeded for 90 % of the measurement period, A-weighted and averaged over time (t) and commonly referred to as the background sound level.
$L_{Aeq\,(t)}$	A –weighted equivalent continuous sound Level is the sound level equivalent to the total sound energy over a given period of time (t). Commonly referred to the average sound level.
L_{eff}	Effective Noise Level - The level of noise emitted from the commercial, industrial or trade premises adjusted if required for character and duration.

APPENDIX B PLANNING MAP



APPENDIX C SITE PLAN



AREA SCHEDULE	
SITE AREA	1790.5 m²
BUILDING AREA GROUND FLOOR	406.97 m²
EXTERNAL AREA GROUND FLOOR	1383.55 m²
BUILDING AREA FIRST FLOOR	488.35 m²
EXTERNAL AREA FIRST FLOOR	734.12 m²

01 PROPOSED GROUND FLOOR PLAN

1 : 100

TOWN PLANNING

DCA Design authorize the use of this drawing only for the purpose described by the status stamp shown above. This drawing should be read in conjunction with all relevant contracts, specifications, reports & drawings. DCA Design.©

No.	Revision Description	Drawn	Approved	Date
A	Amend TP Application	CM		16.01.24
B	Town Planning RFI	CM		22.04.24

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PROJECT:	PROPOSED CHILDCARE CENTRE	JOB NO.:	5203
ADDRESS:	379 GEELONG RD, KINGSVILLE		
CLIENT:	I9 KINGSVILLE P/L		
SHEET TITLE:	PROPOSED GROUND FLOOR PLAN		
DRAWN:	CM SCALE: 1 : 100 @ A1 PAPER SIZE	DWG NO:	TP100
DATE:	OCTOBER 2023	REV:	B

27/05/2024 3:03:28 PM

APPENDIX D 1826-4 (NOISE PROTOCOL)

The Environment Protection Regulations 2021 (S.R. No. 47/2021) set out a framework for noise from residential, commercial, industrial and trade premises. Regulation 113 (Part 5.3) of the Regulations requires that the prediction, measurement and analysis of noise from commercial, industrial and trade premises and indoor and outdoor entertainment venues and events must be undertaken in accordance with the Noise Protocol (i.e., EPA Publication 1826-4 *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues*).

Part I of the Noise Protocol outlines the methodology to establish noise limits applicable to noise from commercial, industrial or trade premises in both urban and rural areas of Victoria. The Noise Protocol also outlines the methodology to undertake a measurement of prediction of the effective noise level at a noise sensitive area from the noise generator. The subject site is located within the Melbourne Major Urban Area (MUA) boundary and, therefore, noise limits for the subject site are derived using the urban area method.

The calculation of noise limits for commercial, trade and rural premises in urban areas takes into account a zoning noise level, which is based on the land zoning types in the surrounding 200 metre radius of the noise sensitive area, and the background noise level in the vicinity of the relevant noise sensitive areas.

Once a noise limit is established, the noise level from the premises is measured or predicted as a 30-minute equivalent average noise level ($L_{Aeq,\ 30\ min}$) and if necessary, adjusted to account for duration, measurement position and noise character (such as tonality, intermittency and impulsiveness) to determine the effective noise level (L_{eff}).

Table 12 provides a summary of relevant definitions under the Noise Protocol.

Table 12 – Noise Protocol definitions

Term	Definition
Commercial, industrial and trade premises	any premises except the following: (a) residential premises (other than common plant under the control of an owner's corporation); b) a street or road, including every carriageway, footpath, reservation and traffic island on any street or road; (c) a railway track used by rolling stock in connection with the provision of a freight service or passenger service – (i) while travelling on a railway track or tramway track; or (ii) while entering or exiting a siding, yard, depot or workshop; (d) a railway track used by rolling stock in connection with the provision of a passenger service, while in a siding yard, depot or workshop and is – (i) powering up to commence to be used in connection with the provision of a passenger service; or (ii) shutting down after being used in connection with the provision of a passenger service; (e) the premises situated at Lower Esplanade, St Kilda and known as "Luna Park" and being the whole of the land more particularly described in Certificate of Title Volume 1204 Folio 109.
Residential premises	Any building or part of a building used as or for the purposes of a private residence or residential flat

Term	Definition	
Noise sensitive residential use	a community care accommodation, dependent person's unit, dwelling, residential aged care facility, residential village, retirement village or rooming house	
Background noise level	The arithmetic average of the hourly L_{A90} levels that represents the background sounds in a noise sensitive area, in the absence of noise from any commercial, industrial or trade premises which appears to be intrusive at the point where the background level is measured, when measured according to Part I, section A4 of the Noise Protocol	
Effective noise level	the level of noise emitted from commercial, industrial and trade premises and, if appropriate, adjusted to take into account the character and duration of the noise and the measurement conditions, as determined in accordance with the Noise Protocol	
Noise sensitive area	(a) that part of the land within the boundary of a parcel of land that is - (i) within 10 metres of the outside of the external walls of any of the following buildings – a dwelling (including a residential care facility but not including a caretaker's house), a residential building, a noise sensitive residential use; or (ii) within 10 metres of the outside of the external walls of any dormitory, ward, bedroom or living room of one of more of the following buildings – a caretaker's house, a hospital, a hotel, a residential hotel, a motel, a specialist disability accommodation, a corrective institution, a tourist establishment, a retirement village, a residential village; or (iii) within 10 metres of the outside of the external walls of a classroom or any room in which learning occurs in the following buildings (during their operating hours) – a childcare centre, a primary school, a secondary school; or (b) in the case of a rural area only, that part of the land within the boundary of – (i) a tourist establishment, or (ii) a campground; or (iii) a caravan park.	
Day period	Monday-Saturday (excluding public holidays)	0700-1800 hours
Evening period	Monday-Saturday	1800-2200 hours
	Sunday and public holidays	0700-2200 hours
Night period	Monday-Sunday/Public Holidays	2200-0700 hours

The Noise Protocol noise limits applicable to the subject site have been derived in accordance with the methodology prescribed in the Noise Protocol and the background noise levels outlined in Section 4.1. The derived noise limits are provided in Table 13.

Table 13 – Noise limits derived under the Noise Protocol, dB

Period	Measured background noise level, dB L_{A90}	Zoning Level, dB	Background relative to zoning level	Noise limit, dB L_{eff}
Day	43	52	Neutral	52
Evening	43	46	Neutral	46

Compliance with the Noise Protocol is achieved when the effective noise level from all of the subject site noise sources covered under the Noise Protocol/Environment Protection Regulations do not exceed the noise limit in the relevant noise period when assessed over a 30-minute period.

APPENDIX E CHILDCARE GUIDELINES AND RELEVANT VCAT DECISIONS

Design criteria

The AAAC guideline relating to childcare centres nominates the following design targets for assessing noise from children in outdoor play areas:

Table 14 - Design criteria for outdoor play areas, dB

Use of outdoor area	Design criteria
Up to 4 hours (total) per day	$L_{Aeq,\ 15\ min} \leq L_{A90,\ 15\ min} + 10$ dB
More than 4 hours per day	$L_{Aeq,\ 15\ min} \leq L_{A90,\ 15\ min} + 5$ dB

However, based on previous project experience, key planning precedents and discussions with other acoustic consultants, issues have been identified with the AAAC design criteria which are detailed in Section 3.4.2.

Revised approach

A revised approach to the use of the AAAC design targets has been adopted by Clarity Acoustics (and other consultants). Accordingly, this assessment compares the noise from children playing at nearby dwellings against a margin of 10 dB above the background noise levels. This approach is consistent with the VCAT decisions discussed in the next section.

Relevant VCAT decisions

A review of relevant VCAT decisions has been undertaken to determine an approach to noise assessment of childcare centres and noise control design that is consistent with planning precedents in Victoria. The review concludes that noise from children playing in outdoor areas associated with childcare centres is considered to be consistent with residential amenity. It has also identified that there is a need to consider appropriate noise mitigation strategies for such developments.

Furthermore, the review also supports the view of Clarity Acoustics (and other acoustic consultants) that the design targets for noise from children in outdoor play areas nominated by the AAAC guideline are highly conservative. This is discussed below.

The following VCAT decisions are of relevance:

Petzierides v Hobsons Bay CC (includes Summary) (Red Dot) [2012] VCAT 686 (28 May 2012)

This Red Dot VCAT decision is of significance as it notes that there is a general agreement that noise from childcare centres is considered reasonable in residential areas. Notwithstanding this, it emphasises the need for appropriate noise controls to minimise noise impacts to an acceptable level. The Member states the following in her decision:

> *Ms Hayes responded to this concern by pointing out there have been many decisions of the Tribunal and its predecessors that have viewed noise emanating from child care centres or, more specifically, from the children themselves as being reasonable within a residential area. Whilst I agree with this in general terms, it does not mean that a child can centre can obviate the need to act responsibly and appropriately by ensuring any noise impact is of an acceptable level, particularly given the size of child care centres today.*

Basic Element Pty Ltd v Hobsons Bay CC [2017] VCAT 522

This decision is of significance as it identifies the highly conservative approach nominated in the AAAC guideline for the assessment of noise from outdoor play areas.

With regards to the evidence given by the acoustic expert witness, it states the following:

> *There is no accepted standard for noise from people. Mr Tardio referred to a guideline for child care centres prepared by the Association of Australian Acoustical Consultants (the AAAC guideline) that sets out recommendations for assessment methodology and acceptable noise levels. Other divisions of the Tribunal have determined that the AAAC Guideline should be given little weight in these matters as it is highly conservative and it has no statutory basis in any planning schemes. I see no reason to give this guideline any weight in this matter.*

PHHH Investments Pty Ltd v Bayside CC (Amended) [2015] VCAT 922

This decision is of significance as it identifies the use of the AAAC guideline as a guide to inform decision making and the design of noise control. It states:

> *There is currently no policy or guidelines on noise. The AAAC guidelines would hence be useful in informing a decision making to determine whether noise emitted is excessive, and amelioration measures that can be used.*

The member in his/her decision agrees with the acoustic expert witness and makes the following comments:

> *On this point, I agree with Mr. Marks and the NSW Land and Environment Court that noise from children playing outdoors are not equivalent to continuous industrial noise, the basis of the tougher guidelines.*

Following this the member accepts that the L_{A90} + 5 dB criteria is not appropriate and states the following:

> *In all, I adopt AAAC's approach to noise and the criterion of 10dB above background noise and adoption of permit conditions with regard to noise attenuation measures and management plan*.

Motherwell v Bayside CC [2016] VCAT 1918 (15 November 2016)

The role of the AAAC guideline as a guide for decision making is reiterated in this matter. It states the following in relation to the evidence given by the acoustic expert witness:

> *There are no statutory noise regulations relating to the noise from children in a childcare centre. Mr Liu referred to guidelines prepared by the Association of Australian Acoustic Consultants (AAAC) which have been prepared to assist in the acoustic assessment of child-care centres. These guidelines have no statutory force, have not been adopted by government and are not referenced in the planning scheme. In Mr Liu's evidence they should be applied flexibly and do no more than provide a useful guide to noise criteria. In Mr Liu's evidence, a balance should be struck between applying the guidelines and ensuring that the acoustic treatments are appropriate in a residential setting.*

Xanthopoulos v Booroondara CC [2021] VCAT 834 (28 July 2021)

In this recent decision, the Member states the following in relation to the conservative nature of the AAAC guideline:

> *I find the noise benchmarks established under the AAAC Guidelines somewhat conservative when noise from what is considered more incongruent to a residential area, such as industry can have similar noise criteria applied to it. There is a significant difference between the two forms of land use and the nature of noise that may be generated with the sounds of children playing compared to what can occur with industrial activity. In this sense, care needs to be exercised with the use of the AAAC Guidelines.*

Beis Efraim College Limited v Bayside CC [2014] VCAT 856 (16 July 2014)

This case relates to the change of use of a site that was previously used as a child care centre to a pre-school. Objectors to the application noted that noise was not a negative impact at their properties when the site was used a child care centre.

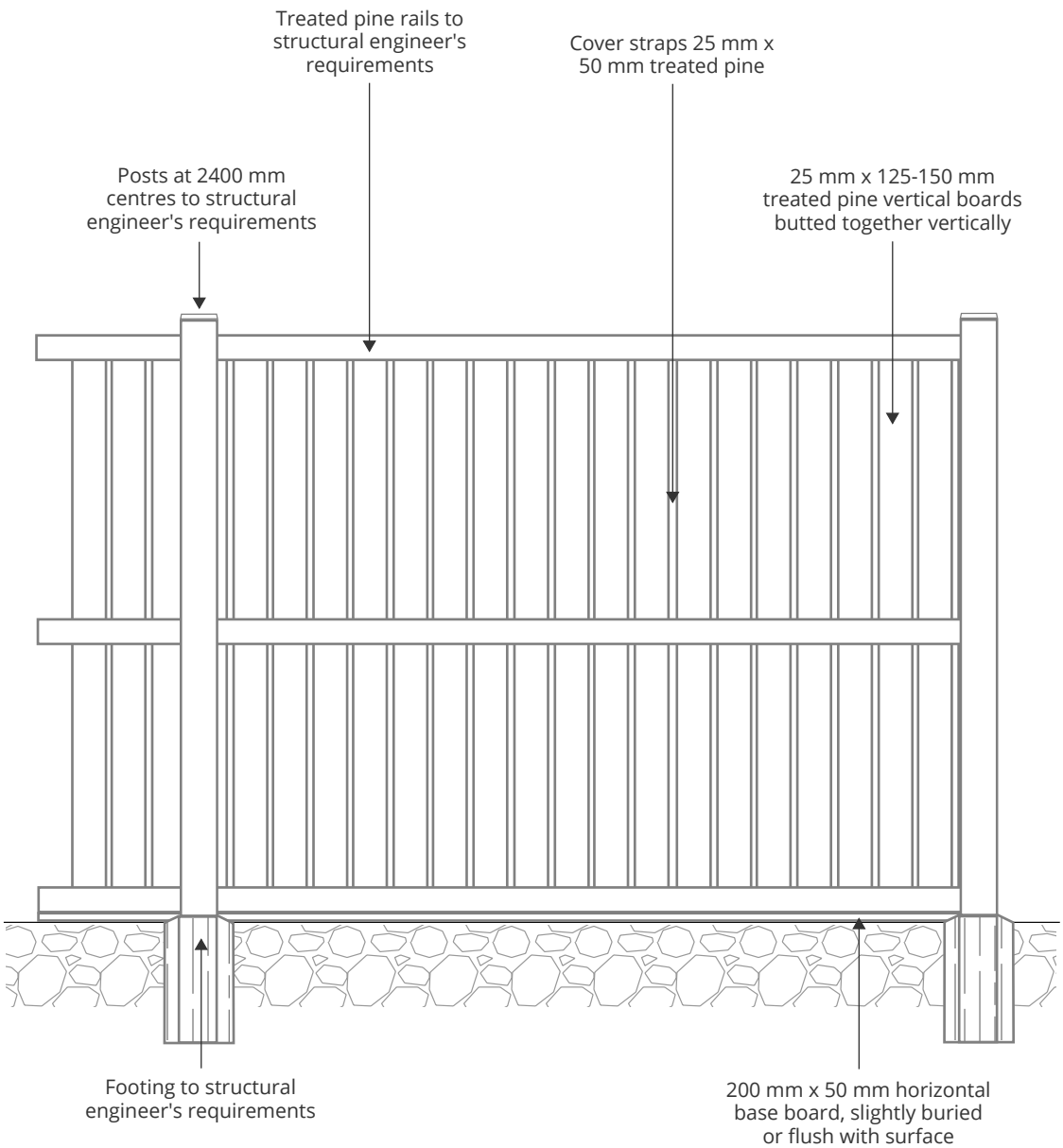
Furthermore, an assessment in strict accordance with the AAAC's more stringent design criterion (L_{A90} + 5 dB) resulted in the need for barriers between up to 4 metres in height which was considered excessive. When the less stringent criterion of L_{A90} + 10 dB was applied, the maximum barrier height required for compliance to be achieved was 2.7-3.0 metres high.

This decision supports the findings that noise from children in outdoor play areas is considered reasonable in residential areas and that the AAAC's design criterion of L_{A90} + 5 dB is highly conservative.

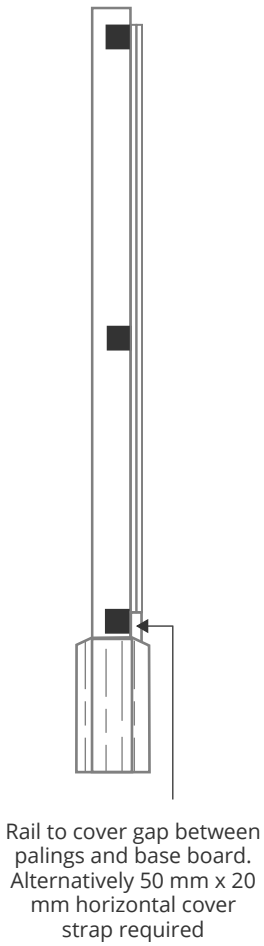
APPENDIX F TYPICAL ACOUSTIC FENCE DETAIL

TYPICAL ACOUSTIC FENCE SPECIFICATION

CLARITY ACOUSTICS



ELEVATION



SECTION

NOTES:
1. Drawing is not to scale.
2. Specification provided for indicative purposes only. Final specification will be based on individual requirements.
3. Fence, fastenings and footings should be designed by a suitably qualified structural engineer.

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APPENDIX G PREDICTION METHODOLOGY

Predictions of operational noise from the subject site have been undertaken on the basis of:

- The sound emissions of noise sources associated with the subject site as outlined in Table 7
- A digital noise model of the site and surrounding environment
- International standard(s) used for the calculation of environmental noise propagation.

Details of the prediction methodology are summarised in Table 15 below.

Table 15 - Noise prediction methodology

Detail	Description
Software	Proprietary noise modelling software SoundPLAN v8.2
Method	International Standard ISO 9613-2:1996 *Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation* (ISO 9613-2).
Ground conditions	Ground factor of G = 0.5 i.e., 50 % hard ground
Atmospheric conditions	Temperature 10°C and relative humidity 70% This represents conditions which result in relatively low levels of atmospheric sound absorption.
Receiver heights	1.5 m AGL for ground floor and 1.5 above FFL for subsequent floors.

CITY OF MARIBYRNONG
RECEIVED
12/06/2024
URBAN PLANNING

Client	Date
19 Kingsville Pty Ltd	31 May 2024

Transport Impact Assessment Report

Proposed Childcare Centre

1 & 1A Lewis Street and 379 Geelong Road, Kingsville

Planning
Transport
Urban Design
Waste

ratio:

ratio.com.au

Project
1 & 1A Lewis Street and 379 Geelong Road, Kingsville

Prepared for
I9 Kingsville Pty Ltd

Our reference
18020T

Directory path	https://ratioconsultants1.sharepoint.com/sites/18020T663/Shared Documents/Work/Reports/18020T-REP02-F01.docx

Version	Date	Issue	Prepared by	Checked by
REP02-D01	30/05/24	Draft	S. Naidu	R. Fairlie
REP02-F01	31/05/24	Final	S. Naidu	R. Fairlie

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Acknowledgement of Country

We acknowledge the Traditional Owners of the land we work, live and travel on, and appreciate the rich cultures of the Aboriginal and Torres Strait Islander Peoples and their enduring connection to country.

Table of Contents

Appendices

1. Introduction

Ratio Consultants has been engaged by DCA Design on behalf of the permit applicant (i9 Kingsville Pty Ltd) to assess the transport and parking implications of the proposed childcare centre on the subject site located at the 1 & 1A Lewis Street and 379 Geelong Road, in Kingsville.

The proposal seeks to construct a two-storey childcare centre to accommodate a maximum of 120 children with a total of 29 on-site car parking spaces.

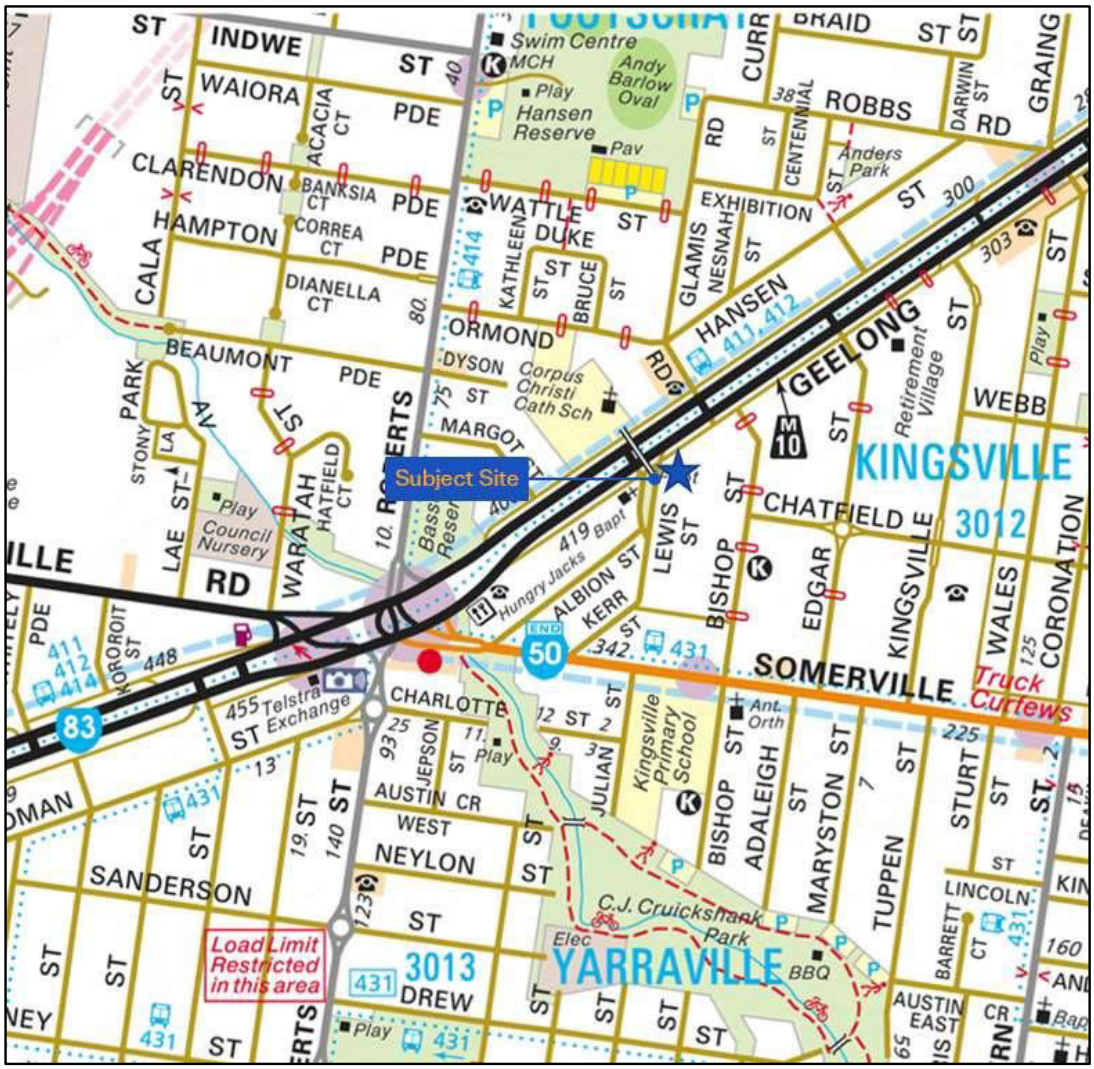
This report has been prepared to address the parking and transport matters of the proposed development and is based on observations and surveys in the vicinity of the site and on previous studies of other childcare centre developments elsewhere in Melbourne.

2. Existing Conditions

2.1. Site Locality

The subject site is located on the southeast corner of the Geelong Road and Lewis Street intersection in Kingsville. The location of the site relative to the surroundings is shown below in Figure 2.1:

Figure 2.1: Site Location & Surrounds



Source: Melways

The subject site is irregular in shape with abuttals to Lewis Street, the Geelong Road Service Road and a Right of Way. The site falls within the General Residential Zone (GRZ) and is subject to Schedule 1 with majority of the land use in the surroundings being residential.

Some of the key non-residential uses within the vicinity include:

— Corpus Christi School and Corpus Christi Catholic Church, located approximately 250 metres northwest of the subject site.

— Uniting AgeWell Kingsville Community, located approximately 350 metres east of the subject site.

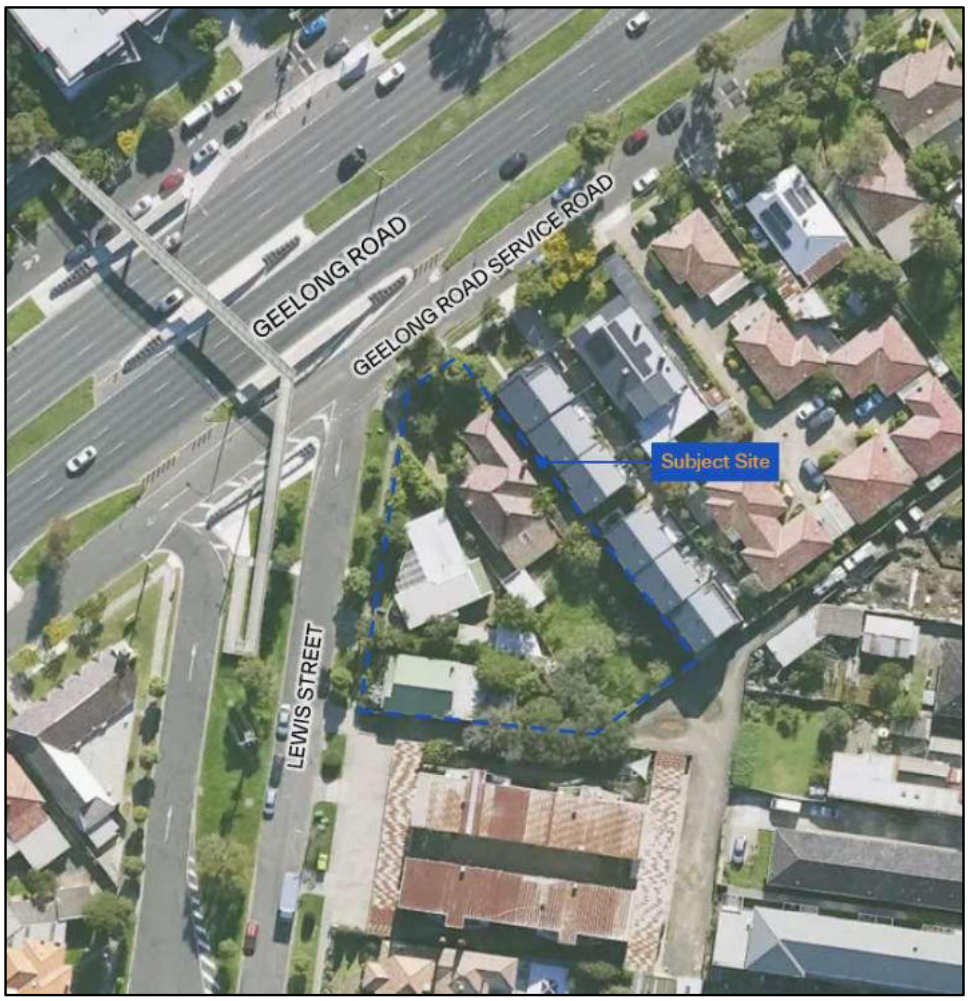
— Kingsville Primary School, located approximately 450 metres south of the subject site.

— Bassett Reserve, located approximately 650 metres to the west of the subject site.

— Charlotte Street Playground located approximately 750 metres southwest of the subject site.

An aerial view of the subject site and the surrounding road network is presented in Figure 2.2 below.

Figure 2.2: Aerial View of the Subject Site



Source: Landchecker

2.2. Road Network

Geelong Road is a classified Primary State Arterial Road under the management of the Department of Transport and Planning (DTP, formerly VicRoads). The road essentially has a southwest to northeast alignment between Princes Highway in Laverton North and Ballarat Road in Footscray.

Geelong Road has a typical carriageway width of 49 metres, which accommodates three lanes of traffic in each direction separated by a central median, and service roads located on either side of the road, which provide access to/from the properties fronting Geelong Road. The service roads are separated from the main carriageway of Geelong Road by grass medians on both sides of the road.

The service roads allow kerbside parallel parking on both sides and have concrete footpaths on one side. Geelong Road has a posted speed restriction of 80 km/hr in both directions while the service roads have the default speed limit of 50 km/hr that is applicable to built-up areas.

In the south-westbound direction, two separate median openings were previously available near the subject site which allowed vehicular movements to and from Geelong Road onto the service road and Lewis Street. Both of these median openings were closed (late 2020) and therefore access for vehicles approaching via Geelong Road (southwest bound), need to utilise the service road via the Edgar Street intersection to access the site.

It is noted that the vehicles already travelling in the northeast direction on Geelong Road are prohibited to use this central median opening for making right turns or U-turns.

Lewis Street is a Local Road under the management of the Council that runs in a north south alignment. In the vicinity of the subject site, Lewis Street has a carriageway width of approximately 24 metres, accommodating one lane of traffic in each direction, separated by a central grass median along with footpaths along both sides of the road.

Kerbside parallel parking is permitted along both sides of Lewis Street, and it has the default speed limit of 50 km/hr that is applicable to built-up areas. South of the subject site, Lewis Street has a narrower carriageway of approximately 6.6 metres, catering for one lane of traffic in each direction with kerbside parallel parking permitted on both sides of the road.

A **Right of Way** abuts the southern boundary of the subject site and essentially has a south-west to north-east alignment between Lewis Street and Edgar Street in Kingsville. Proximate to the subject site, the Right of Way is paved with gravel and has a width of 3.5 metres.

2.3. Traffic Conditions

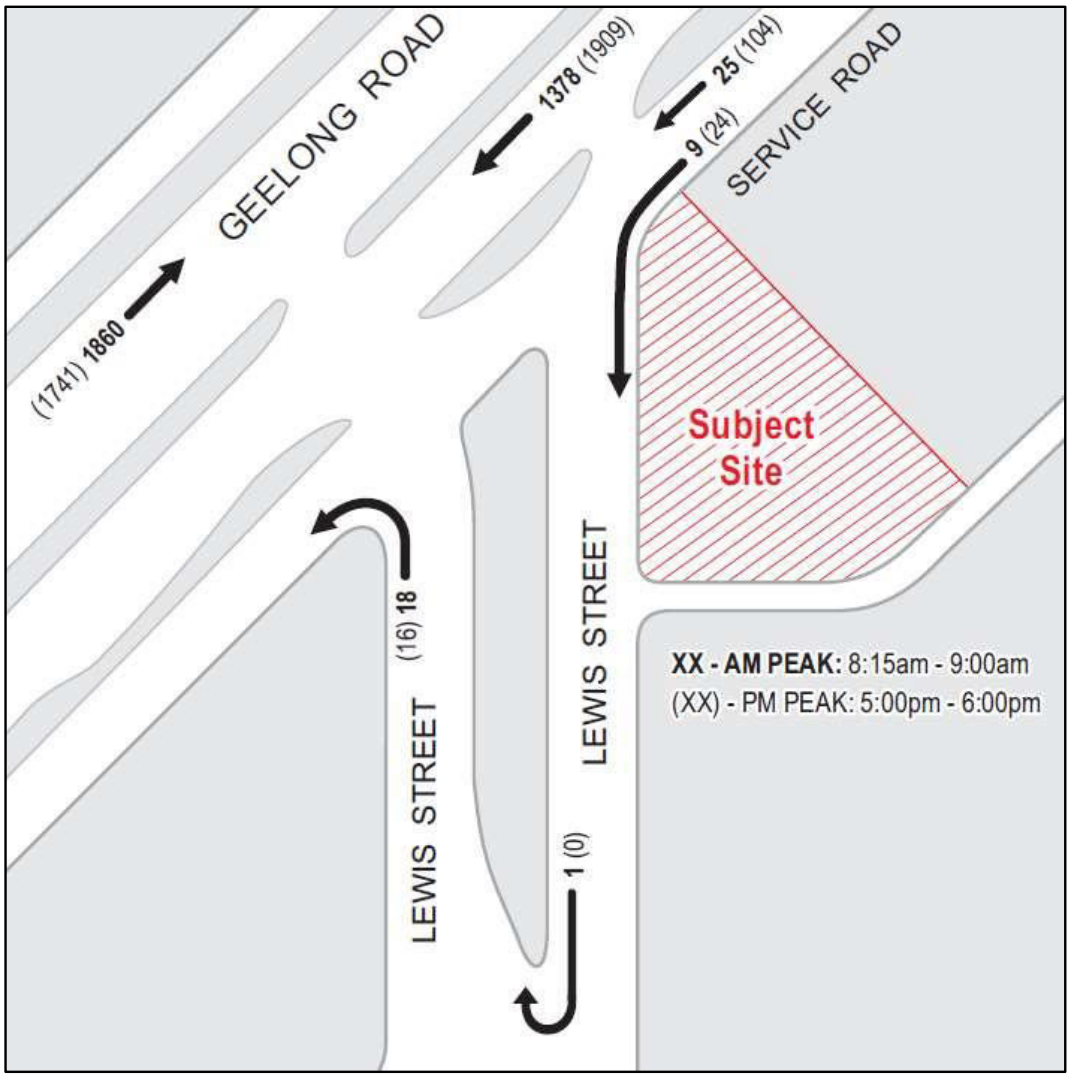
In order to determine the current traffic conditions in the vicinity of the subject site, Ratio Consultants commissioned traffic movement surveys at the following intersection in close proximity of the subject site:

— Geelong Road / Service Road (Southwest bound) and Lewis Street.

— Geelong Road / Service Road (Southwest bound) and Edgar Street.

The surveys were conducted on Thursday 20 May 2021 between 7:00 am & 10:00 am and between 3:00pm & 6:30pm. The peak hour turning movements for the Geelong Road / Service Road (southwest bound) and Lewis Street intersection are shown in Figure 2.3 below, with detailed results presented in Appendix A.

Figure 2.3: Peak Hour Turning Movement Volumes

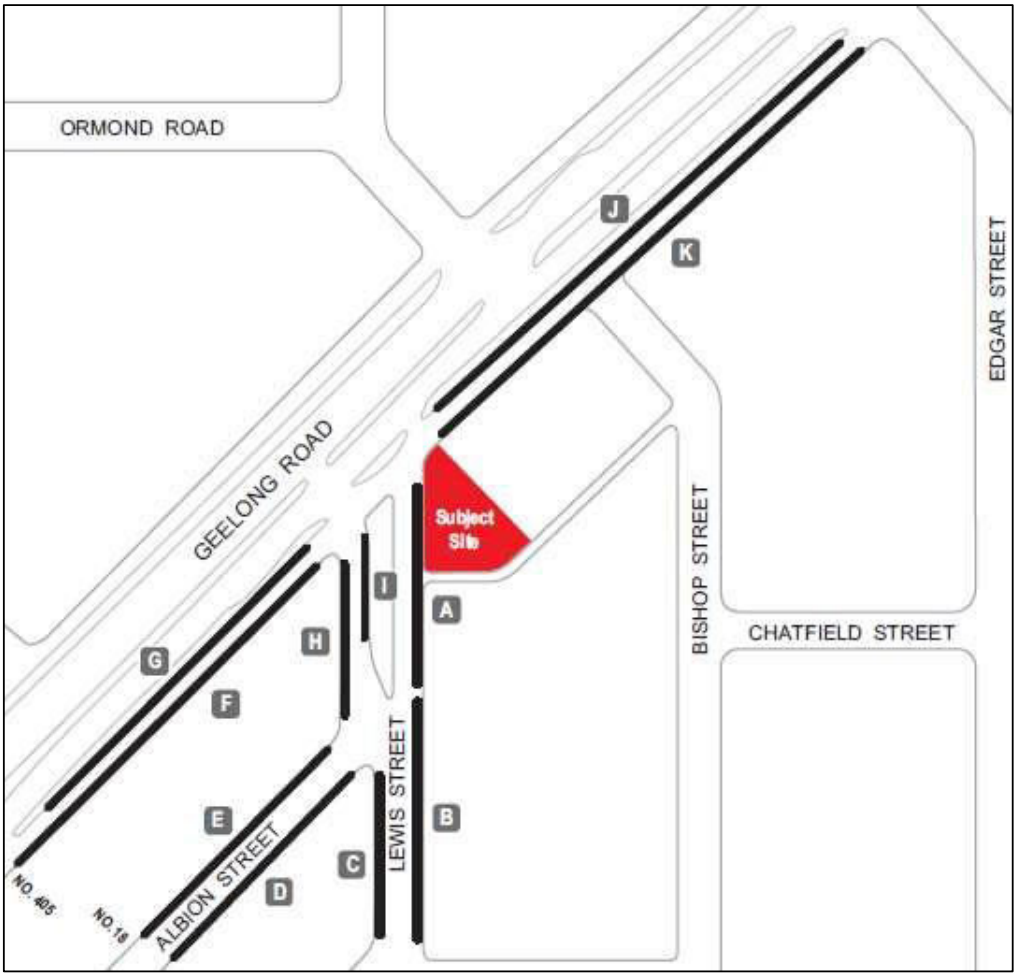


2.4. Parking Conditions

In order to assess the current parking conditions in the vicinity of the site, car parking occupancy surveys were commissioned for Thursday 20 May 2021 between 7:00 am & 10:30 am and between 3:00pm & 6:30pm.

The area surveyed is shown in Figure 2.4 below, with detailed results presented in Appendix B.

Figure 2.4: Car Parking Occupancy Survey Area



The parking survey inventory indicates that there is a supply of 180 publicly available on-street car parking spaces which are all unrestricted.

In summary, the survey results showed the following:

AM Peak Period

— At 7:00am (start of the survey period) 43 parking spaces were recorded as occupied out of a total parking supply of 180 spaces, representing a 24% occupancy. This was the highest occupancy recorded during the AM peak survey period. There was a minimum of 137 vacant car parking spaces at this time.

— At all other times in the AM peak period, the parking occupancy was generally constant (around 23% occupancy) with at least 138 vacant car parking spaces.

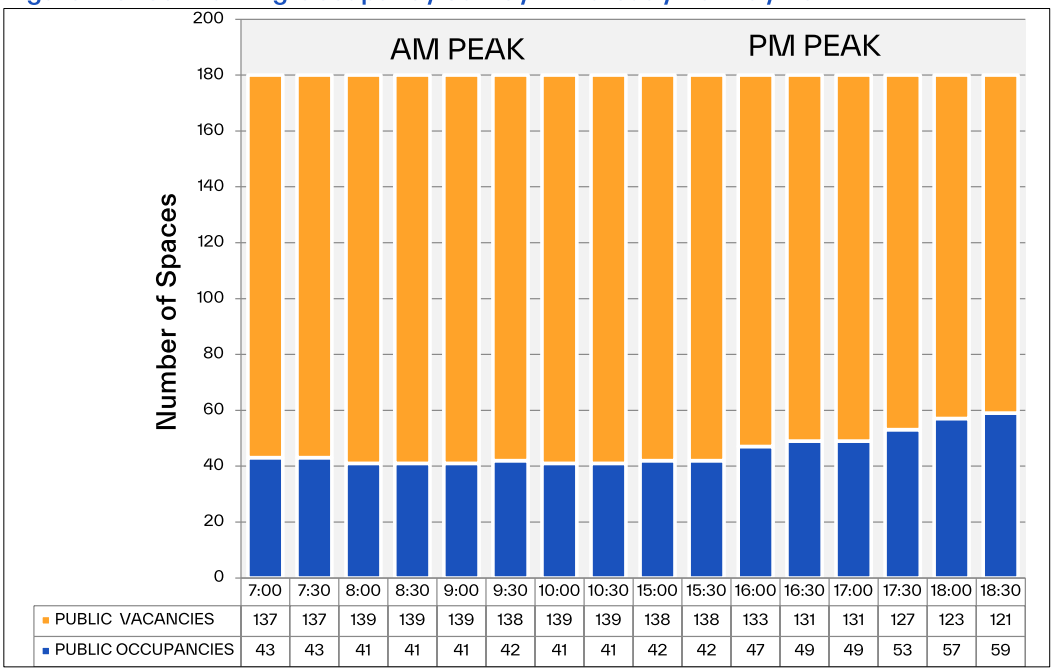
PM Peak Period

— The peak parking demand during the PM peak survey period occurred at 6:30pm (end of the survey period) when a total of 59 parking spaces were recorded as being occupied out of a total parking supply of 180 spaces, representing a 33% occupancy. There was a minimum of 121 vacant car parking spaces at this time.

— At all other times in the PM peak period, the parking occupancy varied between 23% and 32% with at least 123 vacant car parking spaces.

The temporal parking demands in the AM and PM peak periods on surveyed Thursday are shown below in Figure 2.5.

Figure 2.5: Car Parking Occupancy Survey – Thursday 20 May 2021



	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
PUBLIC VACANCIES	137	137	139	139	139	138	139	139	138	138	133	131	131	127	123	121
PUBLIC OCCUPANCIES	43	43	41	41	41	42	41	41	42	42	47	49	49	53	57	59

The survey results indicate that the overall on-street parking demand in the precinct is relatively low during the peak hours on a typical weekday. During the entire survey period, there were a minimum of 121 available on-street parking spaces at all times.

2.5. Sustainable Transport

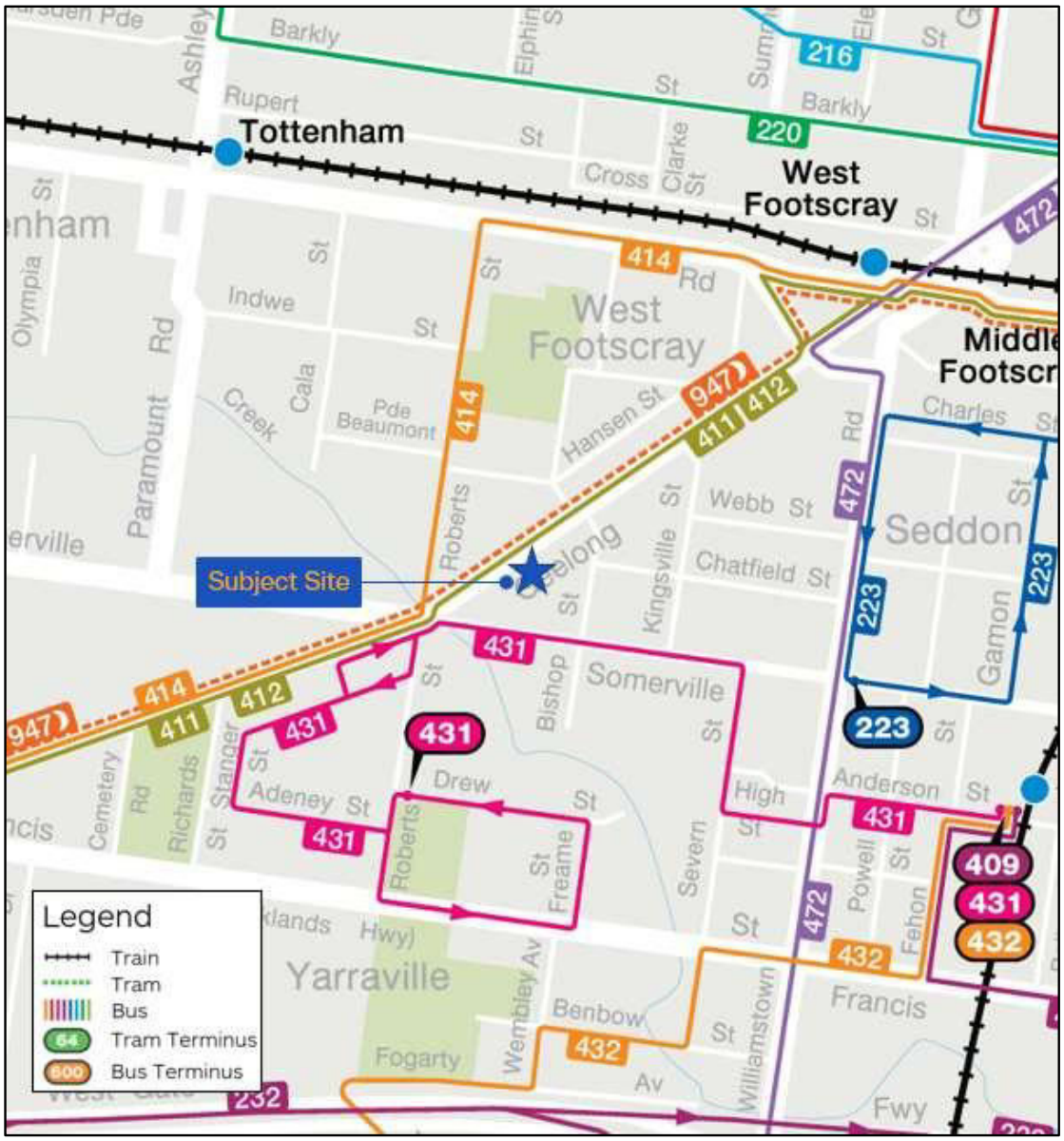
Public Transport

The site is located within the Principal Public Transport Network (PPTN) Area and has good access to Melbourne's public transport network. The public transport services operating in the vicinity of the subject site are summarised in Table 2.1 and presented in Figure 2.6 below.

Table 2.1: Public Transport Services in the vicinity of the Subject Site

Service Type	Route Number	Route Description	Nearest Stop	Walking Distance (Time)
Bus	411	Laverton Station - Footscray via Altona Meadows & Altona & Millers Road	Lewis St / Geelong Rd	100 metres (1 minute)
	412	Laverton Station - Footscray via Altona Meadows & Altona & Mills Street		
	947	Footscray – Newport Station via Altona North		
	431	Yarraville - Kingsville via Somerville Road	Bishop St / Somerville Rd	450 metres (6 minutes)
	414	Laverton Station - Footscray via Geelong Rd	Ormond Rd / Roberts St	750 metres (10 minutes)

Figure 2.6: Public Transport Services in the vicinity of the Subject Site



Source: Public Transport Victoria

Bicycle Network

The site has good access to bicycle facilities, including:

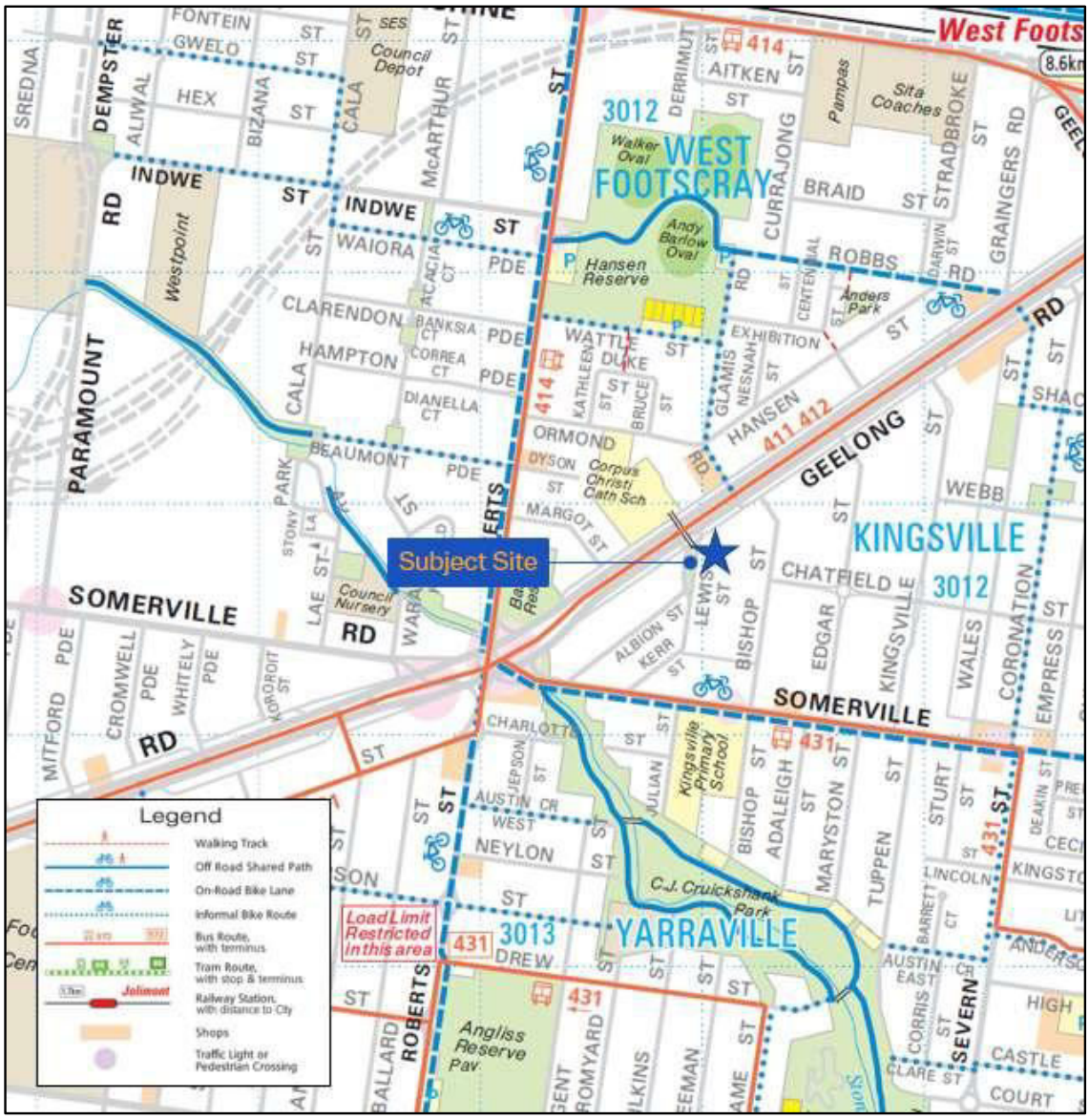
— Off-road bicycle trail adjacent to the Stony Creek.

— On-road bicycle lanes along Somerville Road, Roberts Street (north of Geelong Road), Gamon Street and Victoria Street.

— Informal bicycle routes along Glams Road, Coronation Street and Sanderson Street.

The bicycle network within the vicinity of the subject site is presented in the TravelSmart Map in Figure 2.7.

Figure 2.7: Bicycle and Pedestrian Network near the Subject Site



Source: Maribyrnong City Council

Pedestrian Facilities

Pedestrians are well facilitated with footpaths provided along the site frontages of Lewis Street and Geelong Road service road. Additionally, a foot-bridge is located directly opposite the site that provides a safe pedestrian link across both carriageways of Geelong Road.

These facilities provide a link between the subject site and surrounding public transport services, retail facilities, amenities and shopping precincts for pedestrians.

3. The Proposal

It is proposed to demolish the existing buildings to construct a purpose built childcare centre at the subject site located at 1 & 1A Lewis Street and 379 Geelong Road, in Kingsville.

The proposed development will comprise the following key elements:

— A total of 120 child places.

— A total of 29 car parking spaces (including one DDA space) within an undercover ground floor parking area.

— A total of six bicycle parking spaces to cater the needs of the staff and parents/carers.

— Vehicular access to the on-site car park is proposed via a double width vehicle crossover located at the south-eastern corner of the subject site along Lewis Street.

— Primary pedestrian access to the childcare centre is proposed to/from Lewis Street, with secondary access provided to/from the car parking area.

— Refuse and recycling storage is proposed within the ground floor in a designated area, and waste will be collected outside the peak operating hours of the childcare centre.

4. Parking Assessment

4.1. Car Parking Requirements – Clause 52.06-5

Parking requirements for new developments are set out under in Clause 52.06 of the Maribyrnong Planning Scheme. The purpose of Clause 52.06 is defined in the Scheme as follows:

- To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.
- To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.
- To support sustainable transport alternatives to the motor car.
- To promote the efficient use of car parking spaces through the consolidation of car parking facilities.
- To ensure that car parking does not adversely affect the amenity of the locality.
- To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.

The number of car parking spaces required for the specified uses is listed under Table 1 of Clause 52.06-5. As per Amendment VC148, Column B rates of Table 1 from Clause 52.06 of the Maribyrnong Planning Scheme apply if:

- Any part of the land is identified as being within the Principal Public Transport Network Area as shown in the Principal Public Transport Network Area Maps (State Government of Victoria, 2018); or
- A Schedule to the Parking Overlay or another provision of the planning scheme specifies that Column B applies.

As the subject site falls within the Principal Public Transport Network Area, Column B rates of Table 1 in Clause 52.06 are applicable for the number of car spaces to be provided, which are outlined in Table 4.1 below:

Table 4.1: Statutory Car Parking Requirements

Use	Size/Number	Column B Rates	Car Parking Requirement
Childcare Centre	120 children	0.22 spaces to each child	**26 spaces**

Accordingly, the proposed development has a statutory requirement to provide a total of 26 car parking spaces on-site in accordance with the Maribyrnong Planning Scheme.

Given that the development proposes to provide a total of 29 car parking spaces on site, the proposal satisfies the statutory requirements of Clause 52.06-5 of the Maribyrnong Planning Scheme.

5. Access and Parking Layout

5.1. Design Standard Assessment – Clause 52.06-9

The proposed vehicular access arrangements and car park layout have been designed in accordance with the objectives and design requirements of Clause 52.06-9 of the Maribyrnong Planning Scheme, and in accordance with the relevant sections of AS/NZS 2890.1:2004.

An assessment against the relevant design standards of Clause 52.06-9 of the Planning Scheme is provided below:

Design Standard 1 – Accessways

Vehicular access to the on-site car park is proposed via a 6.1-metre-wide double width vehicle crossover located at the south-eastern corner of the subject site along Lewis Street.

Design Standard 1 of Clause 52.06-9 relates to the design of accessways. The requirements of Design Standard 1 are assessed against the proposal in Table 5.1 below:

Table 5.1: Design Standard 1 Assessment - Accessways

Requirement	Comments
Must be at least 3m wide.	Satisfied: The accessway width readily exceeds 3 metres and accommodates for two-way vehicular movements throughout the site.
Have an internal radius of at least 4m at changes of direction or intersection or be at least 4.2m wide.	Satisfied: The accessway has been widened appropriately at changes of direction.
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.	Satisfied: Vehicles parked in the last space of a dead-end accessway can exit the car park in a forward direction with one manoeuvre.
Provide at least 2.1m headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8m.	Satisfied: A minimum headroom clearance of 2.2 metres has been maintained throughout the car park.
If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	Satisfied: All vehicles are able to enter and exit the site in a forward direction.

Provide a passing area at the entrance at least 5m wide and 7m long if the accessway serves ten or more car parking spaces and is either more than 50m long or connects to a road in a Transport Zone 2 or Transport Zone 3.	Satisfied: The accessway at the entrance of the site is 6.5 metres in width which caters for simultaneous two-way vehicle movements to/from the site, and accordingly complies with the requirement to provide a passing area.
Have a corner splay or area at least 50% clear of visual obstructions extending at least 2m along the frontage road from the edge of an exit lane and 2.5m along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900mm in height.	Satisfied: A pedestrian sight splay measuring 2.5 metres along the exit lane and 2 metres along the site frontage has been provided. In addition, a convex mirror has been provided within the sight splay to enhance pedestrian visibility from the northern side of the crossover.
If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6m from the road carriageway.	N/A: Car spaces are not accessed directly to/from a road in a Transport Zone 2 or Transport Zone 3.
If entry to the car space is from a road, the width of the accessway may include the road.	N/A: Entry to the car spaces is not accessed directly from a road.

Design Standard 2 - Car Parking Spaces

A total of 29 standard at-grade car parking spaces are provided on-site for the proposed development, in the following arrangement:

— 28 x 90-degree car parking spaces.

— One DDA car parking space.

Design Standard 2 of Clause 52.06-9 relates to the design of car parking spaces. The requirements of Design Standard 2 are assessed against the proposal in Table 5.2 below:

Table 5.2: Design Standard 2 Assessment – Car Parking Spaces

Requirement	Comments
Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2 of Design Standard 2.	Satisfied: All car spaces are dimensioned in accordance with Table 2 of Design Standard 2.
A wall, fence, column, tree, tree guard or any other structure that abuts a car space must not encroach into the area marked 'clearance required' on Diagram 1 of Design Standard 2, other than:	Satisfied: All car spaces have been designed in accordance with Diagram 1 of Clause 52.06-9 of the Planning Scheme, with sufficient clearance provided from any adjacent obstructions.

- A column, tree or tree guard, which may project into a space if it is within the area marked 'tree or column permitted' on Diagram 1. - A structure, which may project into the space if it is at least 2.1m above the space.	
Car spaces in garages or carports must be at least 6m long and 3.5m wide for a single space and 5.5m wide for a double space measured inside the garage or carport.	N/A: There are no garages proposed in the development.
Where parking spaces are provided in tandem (one space behind the other) an additional 500mm in length must be provided between each space.	N/A: No car parking spaces have been provided in tandem format.
Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	N/A: No resident parking is provided on-site. Notwithstanding this, all car spaces are provided under cover.
Disabled car parking spaces must be designed in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 of Design Standard 2 by 500mm.	Satisfied: The single DDA space (along with the adjacent shared zone) has been designed in dimensional accordance of AS2890.6:2022. The DDA space and the adjacent shared zone each have a width of 2.4 metres and a length of 5.4 metres. A headroom clearance of 2.5 metres has been provided within the area where the DDA space and shared zone is located.

5.2. Swept Path Assessment

Site Access

An assessment of the accessibility to/from the site using the 'Autodesk Vehicle Tracking' software has been conducted. It was found that two opposing B99 design vehicles (99.8th percentile car), could pass at the site access point in a suitable manner. Further, all vehicles will be able to enter / exit the site in a forward direction.

Car Parking Spaces

An assessment of the accessibility to/from the critical parking bays was also undertaken using the B85 design vehicle (85th percentile car) and it was found that each of the critical parking space could be accessed (ingress and egress) in a satisfactory manner.

Summary

The assessment indicates that the access arrangements and car parking layout have been designed appropriately and in accordance with the requirements of the Maribyrnong Planning Scheme and/or AS2890.1:2004.

The swept path assessment has been provided within Appendix C.

6. Bicycle Parking Requirements & Layout

6.1. Bicycle Parking Requirements – Clause 52.34

Clause 52.34 of the Maribyrnong Planning Scheme outlines the statutory requirements for bicycle parking. The Planning Scheme does not specify bicycle parking rates for childcare centres.

Notwithstanding this, it is proposed to provide six bicycle parking spaces. Given the nature of the proposed use, the provision of six on-site bicycle parking spaces is considered adequate to cater for any staff or parent/carer bicycle parking demand.

6.2. Bicycle Parking Layout

The development proposes to provide a total of six bicycle parking spaces near the pedestrian entrance of the building.

The six bicycle parking spaces are provided within three floor mounted double sided 'hoop' rails (such as the Arc De Triomphe bicycle parking rails) located within the ground floor parking. These floor mounted rails are spaced at 1.0 metre intervals, with an envelope of 0.5 metres in width and 1.8 metres in length for each bicycle, which is accessed via an aisle with a width exceeding 1.5 metres.

Accordingly, it is considered that the bicycle parking has been designed appropriately and in accordance with the relevant sections of AS2890.3:2015.

The bicycle parking specifications are provided within Appendix D.

7. Waste Collection and Loading Arrangement

7.1. Loading and Unloading Arrangements

Clause 65.01 of the Maribyrnong Planning Scheme outlines the provision of loading facilities and states the following:

"Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate:

- The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts."

Loading and unloading activities associated with the proposed childcare centre will be primarily related to the delivery of goods.

Deliveries are anticipated to be undertaken by small trucks and vans. Loading activities can be appropriately undertaken in the on-site car parking bays outside AM and PM peak times (i.e. from 10:00am until 2:00pm).

7.2. Waste Collection

Waste will be collected using a 6.4 metre long Mini-rear loader, which will access the site via the proposed access point connecting to/from Lewis Stret. The vehicle will complete a three-point-turn using the turnaround bay and exit the site in a forward direction after waste collection. The swept path for the waste collection vehicle has been illustrated in Appendix C.

Waste collection is proposed to occur between the hours of 10:00am and 2:00pm when there will be limited, if any parent parking on-site.

Please refer to the Waste Management Plan that accompanies the Town Planning Application for further details.

8. Traffic Assessment

8.1. Traffic Generation

The RTA Guide to Traffic Generating Developments (October 2002) indicates a peak hourly traffic demand of between 0.7 to 0.8 vehicle trips per child in the AM and PM peak hours.

A survey conducted by Ratio Consultants at the existing 'Ariston' childcare centre in Newtown (Geelong) confirms that childcare centres typically generate a peak hourly traffic demand in the order of 0.8 vehicle trips per child during the PM peak hours. The 'Ariston' childcare centre study also indicated that the peak traffic generation AM and PM hours of childcare centres typically occurs between 8:00am to 9:00am and between 4:45pm and 5:45pm.

Applying a rate of 0.8 vehicle trips per child, the proposed 120 place childcare centre would generate approximately 96 vehicle movements (combined for staff and visitors of the proposed childcare centre).

It is anticipated that all staff trips will be arrivals in the morning peak and departures in the afternoon peak, whilst parent/carer trips will be evenly split between inbound and outbound during both the morning and afternoon peak hours.

As such, it is expected that the 10 spaces allocated to staff during AM and PM peak times will generate 10 arrivals and 10 departures during the AM and PM peak hours respectively, whilst the remaining 86 anticipated vehicle movements will be evenly split between inbound and outbound movements. The resultant anticipated traffic generation associated with the proposal is summarised in Table 8.1 below:

Table 8.1: Childcare Centre Traffic Generation

	AM Peak	PM Peak
Arriving Trips	53 vph (Including 10 staff)	43 vph
Departing Trips	43 vph	53 vph (Including 10 staff)
Total Trips	**96 vph**	**96 vph**

8.2. Traffic Distribution and Impact

Based on the above assessment, the proposal is estimated to generate in the order of 2 vehicle movements per minute in the peak periods. The majority of traffic generated by childcare centres at peak times is primarily associated with parents dropping off and collecting children before and after work, with the turnover of this activity generally short.

As such, peak period traffic generated by the proposed childcare centre is anticipated to display the following characteristics:

— Inbound and outbound vehicle movements to/from the centre are evenly split.

— As part of a linked trip where trips are typically part of a diverted existing trip rather than a new trip to the road network.

The traffic generated by the proposed development will flow to/from the site via the site access point connecting to Lewis Street and then on to the surrounding road network via Geelong Road service road, Kerr Street and Albion Street.

The additional traffic generated by the proposed childcare centre will flow directly to/from Lewis Street and then primarily travel to/from west to access Geelong Road service road and the surrounding road network.

The surrounding road network can accommodate the expected increase in traffic volume associated with the proposed childcare centre and on the existing and proposed traffic volumes, it is expected that the development will not create adverse traffic safety or operational impacts on the surrounding road network.

9. Response to RFI

A Request for Information for the proposed development was received on 19 July 2021 (Council Reference: TP268/2021(1)).

The relevant Council comments are reproduced are ***italicised and bolded*** and are followed by Ratio's response.

> ***11. Councils Transport department requirements (the concerns are in the preliminary concern sections below):***
>
> ***a)*** ***Amended swept paths for the following:***
> ***i)*** ***At the site entrance, indicating parked cars to the north side of the crossover and along the west side of Lewis Street.***

The swept path diagrams demonstrate parked cars (B85 vehicles) along the western side of Lewis Street, and the north side of the proposed crossover. Refer to Appendix C for the swept path assessment.

> ***ii)*** ***All the swept paths must be amended to indicate adjacent spaces as occupied;***

The swept path diagrams have been amended to demonstrate the presence of cars parked in the adjacent spaces.

> ***iii)*** ***Swept paths for the waste collection truck at the site entrance, indicating parked cars to the north side of the crossover and along the west side of Lewis Street;***

The swept path diagrams for the waste truck have been amended to show parked cars to the north side of the crossover and along the western side of Lewis Street.

> ***b)*** ***Amended Plans for the On-site Car Park:***
> ***i)*** ***All the parking spaces must be clearly dimensioned;***

All car parking spaces have been clearly dimensioned with minimum dimensions of 2600mm in width and 4900mm in length.

> ***ii)*** ***A convex mirror must be installed on the exit side of the access point to provide clear sightlines of pedestrians and approaching vehicles;***

Council's comment has been noted and a convex mirror has been provided within the pedestrian sight triangle along the exit lane of the double-width crossover.

> ***iii)*** ***The line marking for the spaces CP05 to CP16 must not be separated as the separation may create an unsafe narrow 0.42m walkway, and cannot be considered acceptable;***

In the latest version of the proposed car park layout, there are no tandem car parking spaces. The car parking spaces labelled CP27 and CP28 have been arranged to operate independently from separate aisles with wheel stops to control vehicle movement and there will be no space between them that could potentially be used as a narrow walkway.

[It is noted that the previous tandem car parking arrangement (no longer applicable) had been provided with the required additional length of 500mm between them in strict accordance with the requirements of Design Standard 2 of Clause 52.06 of the Maribyrnong Planning Scheme].

iv) The line marking for the parking spaces CP05 to CP16 must be proposed as interconnected tandem arrangement, with one space at 4.9m and the tandem space at 5.4m deep as per the specifications, and clearly dimensioned on the plan. The bay outlines must reflect the same arrangement;

As discussed, In the latest version of the proposed car park layout, there are no tandem spaces.

v) The column locations must be between 0.25m and 1.25m for standard car spaces 4.9m deep and, 0.75m and 1.75m for standard spaces 5.4m deep. The applicant must clearly dimension the column locations, based on the depth of the car space;

The column locations have been provided at a minimum distance of 250mm from the aisle, which meets the 'clearance required' area shown in Diagram 1 of Clause 52.06 of the Maribyrnong Planning Scheme. The columns are 1 metre in length and do not intrude beyond the acceptable 1250mm distance from the aisle.

vi) The applicant must provide sectional plans of the car park clearly dimensioning the head clearance within the car park as 2.2m and above the accessible space as 2.5m;

The section plans through the internal courtyard identifies that there is headroom clearance in excess of 2.5 metres within the car park.

vii) The three bicycle hoops within the car park must be relocated to near the pedestrian main entrance to prevent conflicts between the vehicles/cyclists/ pedestrians, especially child pedestrians;

The bicycle hoops have been relocated to a location near the site entrance to prevent potential conflicting movements between vehicles, pedestrians and cyclists, as sought by Council.

viii) The proposed bike location must be converted into a landscape area, to improve internal traffic movements;

The previously proposed bicycle area has become landscape area. Enhanced accessibility throughout the car park is evident in the attached swept path assessment.

ix) Wheel stops must be provided for the parking spaces CP03 to CP10 (eight spaces) to restrict vehicle movements and improve internal traffic operation;

Wheel stops have been provided for all car parking spaces at 620mm from the closed end of the space, compliant with the AS/NZS2890.1:2004.

x) Adequate internal lighting must be provided;

This requirement has been noted and it will be met.

xi) All staff, visitor and accessible spaces must be clearly signposted and installed with bay outlines.

This requirement has been noted and it will be met.

15. Section 5.2 Waste Collect Time of the Waste Management Plan amended to state:

"Waste collection will not occur during peak drop off (7am – 9am) and pick up (4:30pm – 6:30pm) hours." This change will ensure that the waste trucks will not block access to the car parking areas. Given the Waste removal proposes the use of a car space for the turning circles, notation will be required to state that Waste collection time must be within hours that the car spaces are not occupied.

Waste collection will be conducted during non-peak times of the proposed childcare centre, namely between 10:00am and 2:00pm when there will be limited, if any parent parking on-site.

It is also noted that the swept path assessment in Appendix C of this letter demonstrates that the waste vehicle is able to undertake waste collection in a suitable manner without needing to utilise a car parking space.

Councils Transport Department concerns

Access Arrangements:

— *Lewis Street is 7m wide (one-way) and allows for parallel kerb side parking on both sides of the street, thus resulting in 2.8m width for through movements. The applicant's survey area does not include parking on the west side of Lewis Street (opposite the subject site), which is not a true reflection of the parking survey, as this area currently allows for parking;*

This comment has been noted and raised with our parking surveyor. However, it is understood that including the western side of Lewis Street in the parking survey would reflect an increased potential off-site car parking capacity.

— *The proposed crossover allows for simultaneous two-way movements;*

— *The additional traffic generation of 112vph (IN and OUT) movements in the AM and PM peak hours will result in two vehicles (one IN and one OUT) expected to occur every minute;*

— *We envisage that parents and carers are likely to park on Lewis Street to easily access the pedestrian main entrance, and likely to create conflicting pedestrian and vehicular movements;*

It is noted that the revised proposal seeks to provide 120 child places, which lowers the traffic generated to a total of 96 vehicle movements in the peak periods (in the order of 2 vehicle movements per minute on average). The development provides on-site car parking in excess with the statutory requirements of the Maribyrnong Planning Scheme which is considered appropriate and is suitably designed to encourage staff and parents to utilise the on-site car park.

— *The applicant's swept paths for the staff parallel tandem parking arrangement, CP01 and CP02, both entry and U-turn exit movements is likely to create queuing on Lewis Street for entering vehicles;*

As noted in the latest version of the proposed car park layout, there are no tandem car parking spaces.

However, it is understood that movements associated with staff spaces of childcare developments typically occur only once in each of the peak periods (inbound in the AM peak and outbound in the PM peak). Furthermore, these movements generally occur at the start of

the AM peak and towards the end of the PM peak, when the majority of the traffic associated with the development is either yet to arrive (in the AM peak) or has already departed (in the PM peak).

Therefore, the likelihood of queuing along Lewis Street for entering vehicles as they wait for the vehicles either parking into or manoeuvring out of the car space CP01 is very low. In the very rare occasion of such an instance, we note that the delay associated for the entering vehicles along Lewis Street (operating in a one-way southbound direction fronting the access point) will not be significant as the vehicles parking to/from CP01 perform corrective manoeuvres on site.

— *The proposed site has an existing laneway along its southern boundary, adjacent to the proposed crossover, which connects Lewis Street and Bishop Street. We envisage that parents and carers are likely to utilise this laneway for ease of access to the site, which will further create conflicting traffic movements with exiting vehicles likely to U-turn to access the laneway;*

Firstly, it is noted that for vehicles departing the subject site, making the U-turn manoeuvre to access the narrow laneway is difficult. Secondly, it is unclear as to why Council Traffic Engineers foresee both approaching and departing vehicles seeking to gain access to/from the on-site car park by utilising a narrow single lane laneway to travel to/from Bishop Street. Motorist will have safer and more convenient access to/from the site by traveling along the street network.

Nonetheless, the latest version of plans illustrates a crossover design which separates the site access point and the rear access laneway by 4 metres. This will reduce the potential for any conflicts between vehicles accessing the site and those utilising the rear laneway and provides refuge opportunities for pedestrians walking past the laneway and the proposed car park entrance/exit.

— *The U-turn movement on Lewis Street to access Geelong Road service lane is approximately 45m from the proposed crossover, and can create congestion/queuing in the peak hours;*

The proposed crossover to service the site is provided in an optimum location and well clear of the Geelong Road intersection. In addition, the number of movements expected to perform a U-turn along Lewis Street to access Geelong Road Service Road is reasonably low (as detailed further below) and is not expected to create any adverse traffic safety or operational issues.

— *The applicant has not provided a clear depiction of the peak hour traffic movements at the site entrance, through traffic on Lewis Street and, directional split of vehicles undertaking U-turn movements to access Geelong Road service lane and Kerr Street;*

As requested, the peak hour turning movements at the site entrance and within the surrounding road network is provided below. The traffic distribution assumes the following:

- All traffic arriving the site will access the site via the Geelong Road Service Road and Lewis Street to enter the site.
- 50% of the departing traffic will perform a U-turn on to Lewis Street to travel to the west via the Geelong Road Service Road.
- 10% of the departing traffic will travel via Albion Street to access Somerville Road to travel west/south.

- 40% of the departing traffic will travel via Kerr Street to access Somerville Road to travel east.

— *Based on the above, the proposed crossover appears to be at a vulnerable location, and must be relocated to reduce conflicting and unsafe traffic movements.*

As discussed, the proposed crossover to service the site is provided in the optimum location and well clear of the Geelong Road intersection. On that basis it is considered that the current location of the access point for the subject site is ideal, noting that no alternate location would be better for site access.

Swept paths:

— *The applicant's swept paths are not a true reflection of the post-development scenario as adjacent spaces affected by the space are shown as unoccupied;*

The swept path assessments have been amended to illustrate the adjacent space as occupied.

— *The applicant's U-turn exit swept paths for CP01 and CP02 cannot be considered acceptable from a safety and operational perspective;*

The layout of the car parking design has been amended such that there is no requirement for users of parking bays CP01 and CP02 to exit the facility using a U-turn manoeuvre.

— *The applicant must provide swept paths for entry and exit movements of CP03 and CP04, whilst the surrounding spaces are shown as occupied;*

Given the amended car parking layout, car parking spaces CP03 and CP04 are no longer critical car parking spaces.

Notwithstanding this, the swept path assessment conducted for car parking space CP01 is applicable to the ingress and egress movements of CP03 and CP04. The adjacent car space in the swept path assessment for CP01 has been shown as occupied and therefore, this clause has been satisfied.

— *The applicant must provide swept paths for entry and exit movements of CP19, whilst CP18 (accessible space) is occupied;*

In the latest version of the car parking layout, the accessible space has been relabelled as CP29. A swept path assessment has been completed to demonstrate the accessibility of CP25 with CP26 appearing as occupied.

— *The outside clearance of CP11, CP17 and CP30 appears to encroach into the adjacent space (shown as unoccupied), and cannot be considered acceptable from a safety and operational perspective;*

In the latest version of the car parking layout, car parking spaces CP11 and CP17 are no longer critical spaces, and CP30 does not exist.

It is acknowledged that the clearance line of the vehicles parking in the critical car parking spaces (CP1, 2 and 25) spaces encroach with the adjacent spaces however they remain clear of the vehicle body line of cars parked in adjacent bays and therefore are considered satisfactory.

Other issues:

— *Parking surveys for childcare centres must be limited only to the street side of the development, and must not exceed 100m, to discourage parents/carers and child pedestrians from crossing the road/live lanes;*

This is noted and it should also be acknowledged that no car parking reduction is being sought.

— *A Green Travel Plan must be adopted and incentives given to staff, to encourage public and active transport;*

A Green Travel Plan will be completed for the proposed development as a Permit Condition.

— *The applicant must confirm that all loading and unloading activities will be undertaken from within the site.*

All loading and unloading activities will be undertaken on site within the internal car park.

— *The largest vehicle to access the site must not exceed 6.4m in length;*

This requirement has been noted and will be adhered to.

— *All loading, unloading and waste collection activities must be undertaken in the off peak hours for the safe operation of the internal car park.*

As stated in the Waste Management Plan (WMP) and mentioned in response to Clause 15, waste collection activities and loading activities will be undertaken on site within the internal car park, outside peak operating times.

10. Conclusion

A proposed childcare centre on 1 & 1A Lewis Street and 379 Geelong Road, in Kingsville will have a capacity to accommodate a maximum of 120 child places. The development proposes to provide a total of 29 car parking spaces and six bicycle parking spaces to cater for the parking needs of the staff and parents.

Based on the above assessment, following conclusions have been reached:

— The proposed provision of 29 car parking spaces exceeds the requirements of Clause 52.06-5 of the Maribyrnong Planning Scheme and is considered satisfactory.

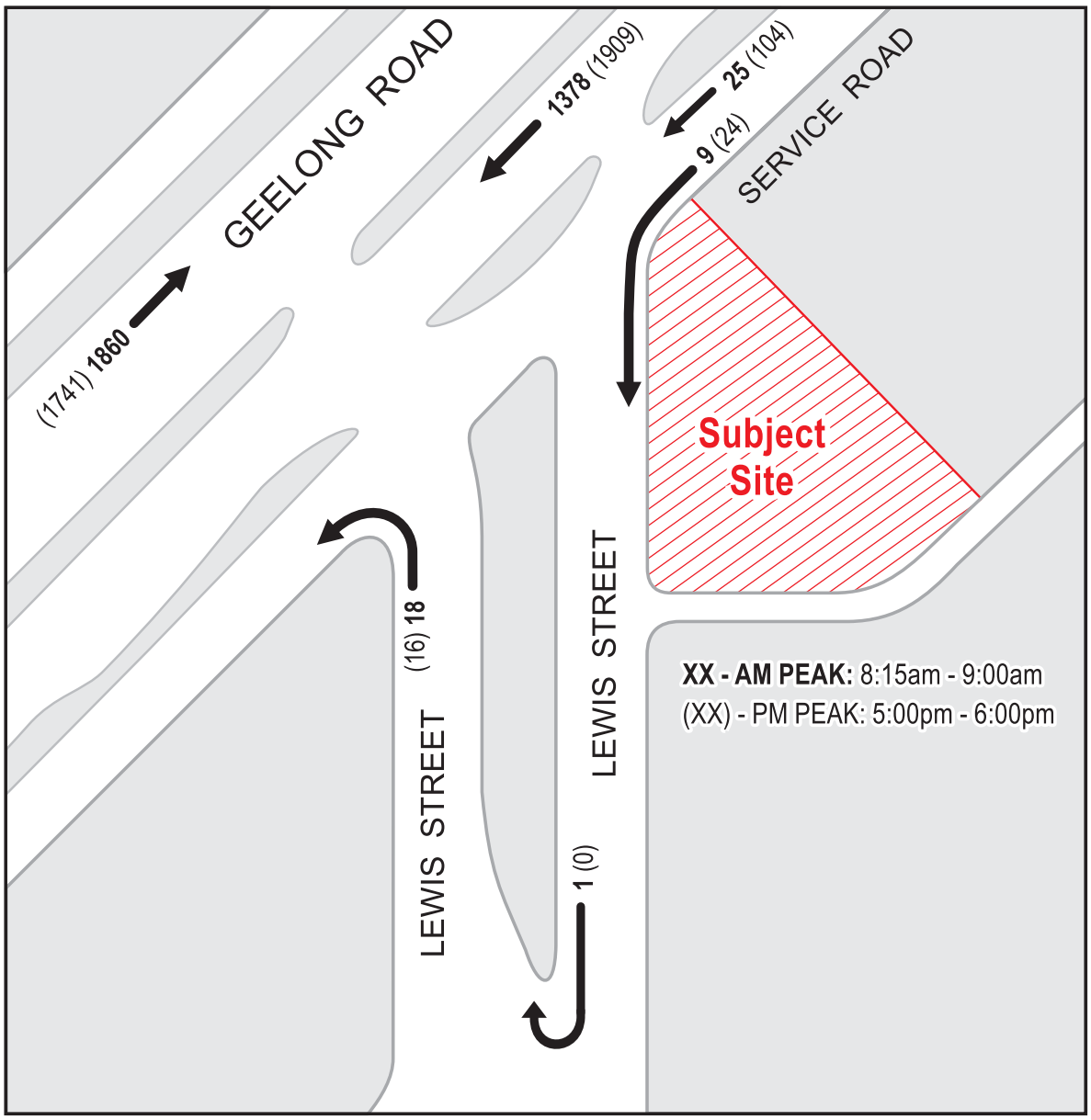
— The development does not trigger a requirement for bicycle parking provision for childcare centres. Nevertheless, a total of six bicycle parking spaces are proposed to be provided which is considered satisfactory.

— The proposed access arrangements, car/bicycle parking layout have been designed in accordance with the dimensional requirements of Clause 52.06-9 of the Maribyrnong Planning Scheme and/or the relevant sections of the AS2890 series.

— The level of traffic generated by the proposed development can be accommodated by the adjacent road network without creating adverse traffic safety or capacity impacts.

Overall, the proposed development has been suitably designed and is not expected to create adverse traffic or parking impacts in the precinct.

Appendix A
Turning Movement Counts



Project : 18020T May 2021

FIGURE 2.4
TURNING MOVEMENTS

TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Geelong Rd and Lewis St, Kingsville

GPS *-37.809031,144.873659*

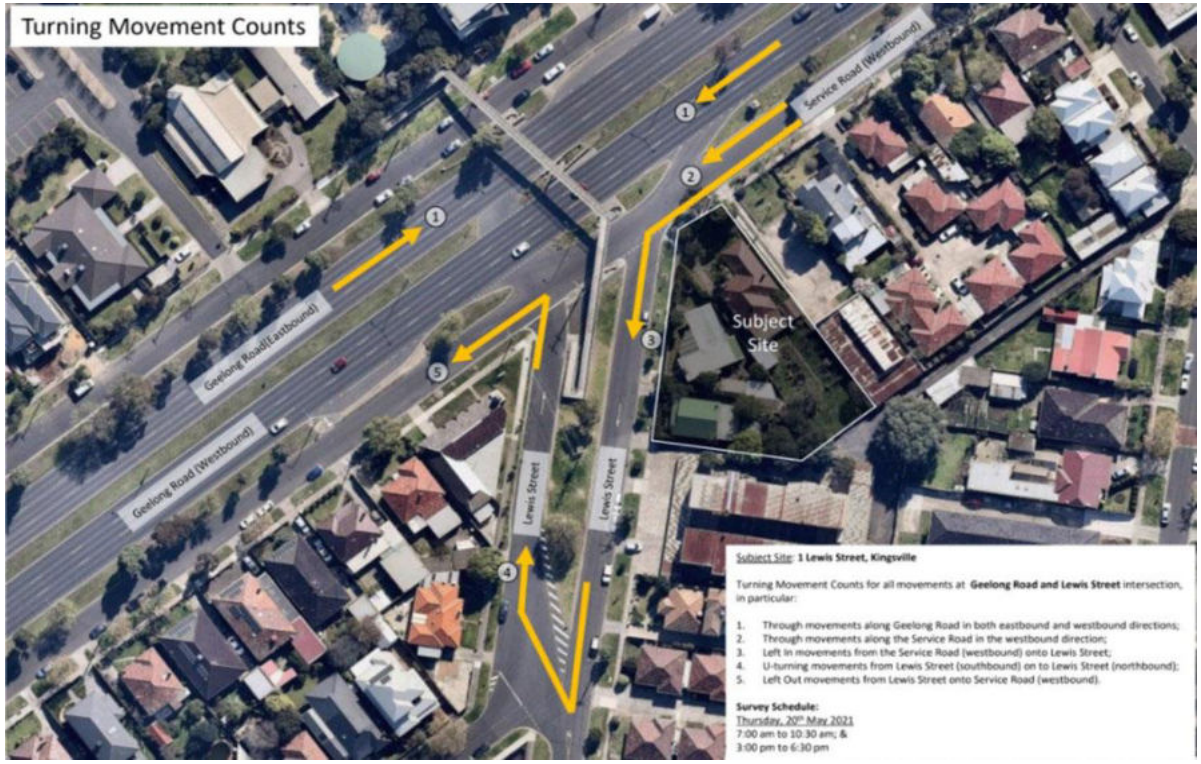
Date:	Thu 20/05/21
Weather:	Fine
Suburban:	Kingsville
Customer:	Ratio

North:	N/A
East:	Geelong Rd
South:	Lewis St
West:	Geelong Rd

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	10:00 AM-2:00 PM
Traffic Peak	AM:	N/A
	PM:	N/A

All Vehicles

Time		1		2	3	4	5
Period Start	Period End	WB	EB	Through	Left	Uturn	Left
7:00	7:15	269	368	4	2	0	3
7:15	7:30	304	386	1	0	0	1
7:30	7:45	392	408	2	0	1	1
7:45	8:00	410	439	3	0	1	3
8:00	8:15	377	437	4	0	0	2
8:15	8:30	317	474	6	2	0	1
8:30	8:45	378	422	6	3	0	4
8:45	9:00	306	527	9	4	1	11
9:00	9:15	308	427	6	2	1	12
9:15	9:30	259	434	2	6	0	2
9:30	9:45	216	394	3	0	0	6
9:45	10:00	216	362	6	5	0	7
10:00	10:15	223	296	5	3	0	7
10:15	10:30	216	325	1	2	0	0
15:00	15:15	445	380	7	3	1	1
15:15	15:30	439	329	5	8	0	2
15:30	15:45	370	387	4	8	0	5
15:45	16:00	346	403	11	2	0	3
16:00	16:15	309	446	8	4	0	3
16:15	16:30	323	354	29	4	0	1
16:30	16:45	254	406	26	10	0	11
16:45	17:00	319	337	46	9	0	2
17:00	17:15	459	447	44	10	0	4
17:15	17:30	502	441	28	3	0	3
17:30	17:45	487	446	20	5	0	3
17:45	18:00	461	407	12	6	0	6
18:00	18:15	331	305	14	3	0	2
18:15	18:30	349	287	5	3	0	5



TRANS TRAFFIC SURVEY

TURNING MOVEMENT SURVEY

trafficsurvey.com.au

Intersection of Geelong Rd and Edgar St, Kingsville

GPS *-37.807380,144.876645*

Date:	Thu 20/05/21
Weather:	Fine
Suburban:	Kingsville
Customer:	Ratio

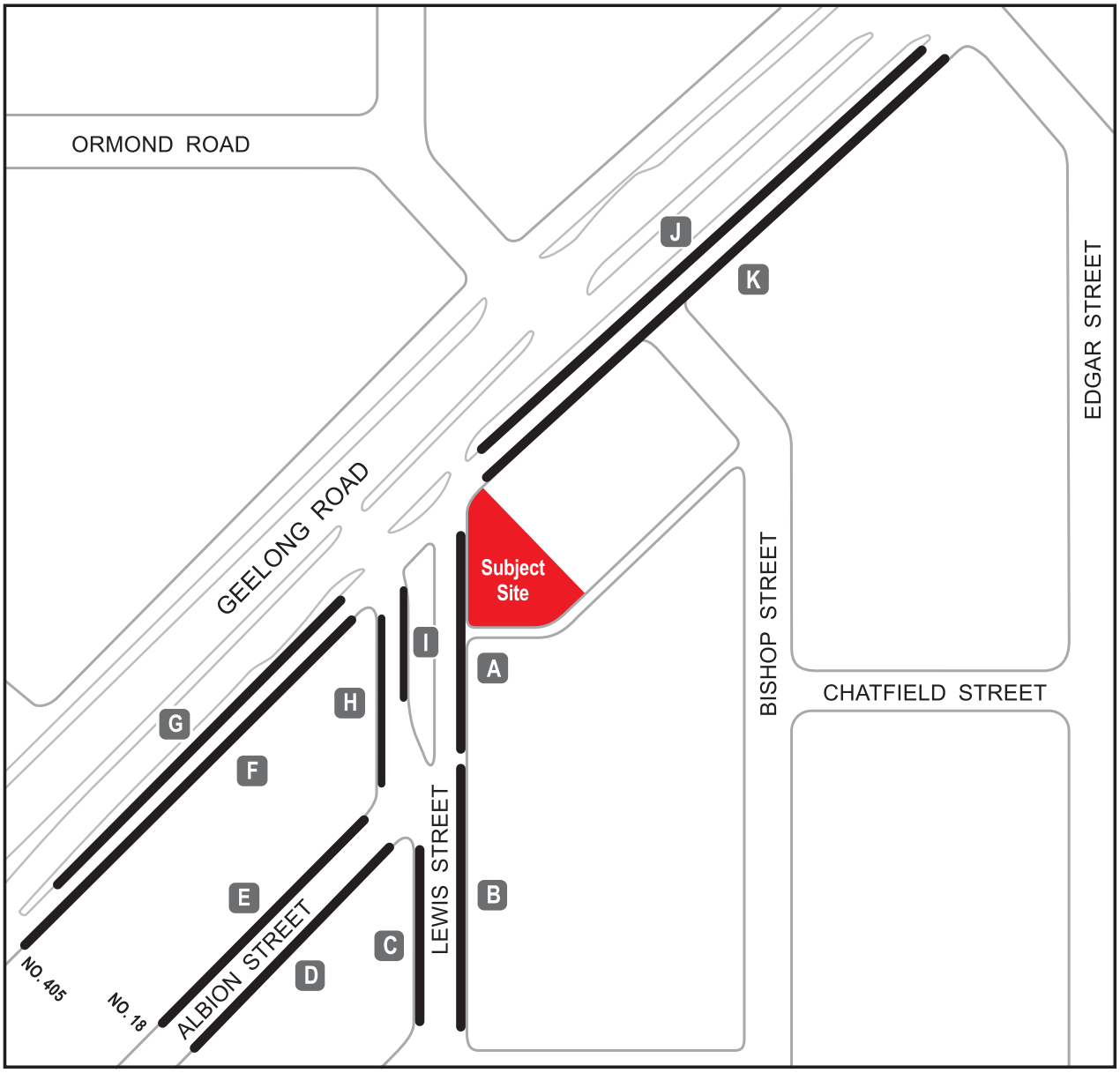
North:	N/A
East:	Geelong Rd
South:	Edgar St
West:	Geelong Rd

Survey Period	AM:	7:00 AM-10:00 AM
	PM:	10:00 AM-2:00 PM
Traffic Peak	AM:	7:30 AM-8:30 AM
	PM:	4:00 PM-5:00 PM

All Vehicles

Time		Geelong Rd East Approach					Service Rd East Approach					Edgar St South Approach					Service Rd West Approach					Geelong Rd West Approach				
Period Start	Period End	U	o Edgar S	ervice Rd	eelong Rd	ervice Rd	U	o Edgar S	ervice Rd	eelong Rd	eelong Rd	U	ervice Rd	eelong Rd	eelong Rd	ervice Rd	U	o Edgar S	eelong Rd	eelong Rd	ervice Rd	U	o Edgar S	ervice Rd	eelong Rd	ervice Rd East
7:00	7:15	0	1	1	246	0	0	2	2	1	1	0	0	3	5	0	0	0	0	0	0	0	6	0	352	0
7:15	7:30	0	3	0	300	0	0	0	0	1	0	0	0	4	6	0	0	0	0	0	0	0	6	0	375	0
7:30	7:45	0	1	1	353	0	0	2	1	7	4	0	1	7	9	0	0	0	0	0	0	0	4	0	363	0
7:45	8:00	0	3	0	402	0	0	2	1	4	1	0	0	8	3	0	0	0	0	0	0	0	5	0	454	0
8:00	8:15	0	2	0	323	0	0	2	1	3	3	0	1	2	5	0	0	0	0	0	0	0	7	1	414	0
8:15	8:30	1	1	1	303	0	0	2	5	2	2	0	0	6	6	0	0	0	0	0	0	1	6	1	476	0
8:30	8:45	0	3	0	374	0	0	7	4	5	3	0	1	9	8	0	0	0	0	0	0	0	12	2	432	0
8:45	9:00	0	4	2	312	0	0	1	4	4	0	1	0	9	3	0	0	0	0	0	0	2	14	3	504	0
9:00	9:15	0	3	1	290	0	0	4	2	2	2	0	1	16	6	0	0	0	0	0	0	2	8	1	425	0
9:15	9:30	0	1	0	254	0	0	0	3	3	2	0	1	1	3	0	0	0	0	0	0	0	2	0	409	0
9:30	9:45	0	0	1	208	0	0	3	1	1	4	0	0	1	7	0	0	0	0	0	0	3	6	0	383	0
9:45	10:00	0	1	1	214	0	0	6	2	4	4	0	3	4	3	0	0	0	0	0	0	2	4	1	343	0
10:00	10:15	0	4	2	194	0	0	2	4	4	3	0	0	1	3	0	0	0	0	0	0	0	3	0	274	0
10:15	10:30	0	1	2	216	0	0	1	2	5	2	0	0	2	5	0	0	0	0	0	0	1	4	1	311	0
15:00	15:15	0	3	4	417	0	0	2	5	9	3	0	0	8	4	0	0	0	0	0	0	0	9	2	374	0
15:15	15:30	0	1	5	430	0	0	6	5	12	2	0	1	4	1	0	0	0	0	0	0	0	7	1	334	0
15:30	15:45	0	2	1	391	0	0	4	4	9	3	0	1	9	4	0	0	0	0	0	0	0	9	5	406	0
15:45	16:00	0	4	2	332	0	0	0	7	4	1	0	0	4	10	0	0	0	0	0	0	1	3	4	419	0
16:00	16:15	0	2	7	376	0	0	5	4	4	5	0	1	8	7	0	0	0	0	0	0	0	11	2	458	0
16:15	16:30	1	5	15	326	0	0	4	17	2	3	0	3	7	2	0	0	0	0	0	0	0	7	5	414	0
16:30	16:45	1	8	10	298	0	0	5	22	0	5	0	5	2	2	0	0	0	0	0	0	0	5	3	390	0
16:45	17:00	0	5	7	307	0	0	9	41	6	0	0	11	4	6	0	0	0	0	0	0	0	9	0	355	0
17:00	17:15	2	3	5	453	0	0	8	38	6	2	0	7	7	6	0	0	0	0	0	0	0	2	1	456	0
17:15	17:30	3	5	9	444	0	0	4	10	5	3	0	2	4	7	0	0	0	0	0	0	0	7	1	475	0
17:30	17:45	0	3	3	526	0	0	1	6	6	2	0	4	5	2	0	0	0	0	0	0	0	9	3	442	0
17:45	18:00	0	1	1	434	0	0	1	9	9	1	0	5	10	6	0	0	0	0	0	0	2	11	2	424	0
18:00	18:15	0	4	5	360	0	0	4	4	4	1	0	3	7	3	0	0	0	0	0	0	2	7	0	283	0
18:15	18:30	1	3	2	328	0	0	2	5	7	4	0	0	1	7	0	0	0	0	0	0	0	2	3	300	0

Appendix B
Car Parking Survey Results



Project : 16248T June 2019

FIGURE 2.3
PARKING SURVEY AREAS

Parking 1 Lewis St, Kingsville

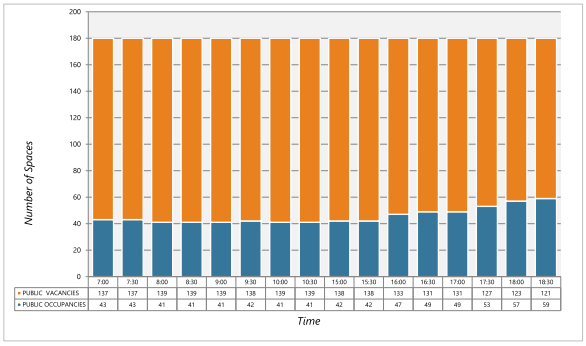
TRANS TRAFFIC SURVEY
trafficsurvey.com.au

Parking Occupancy Survey

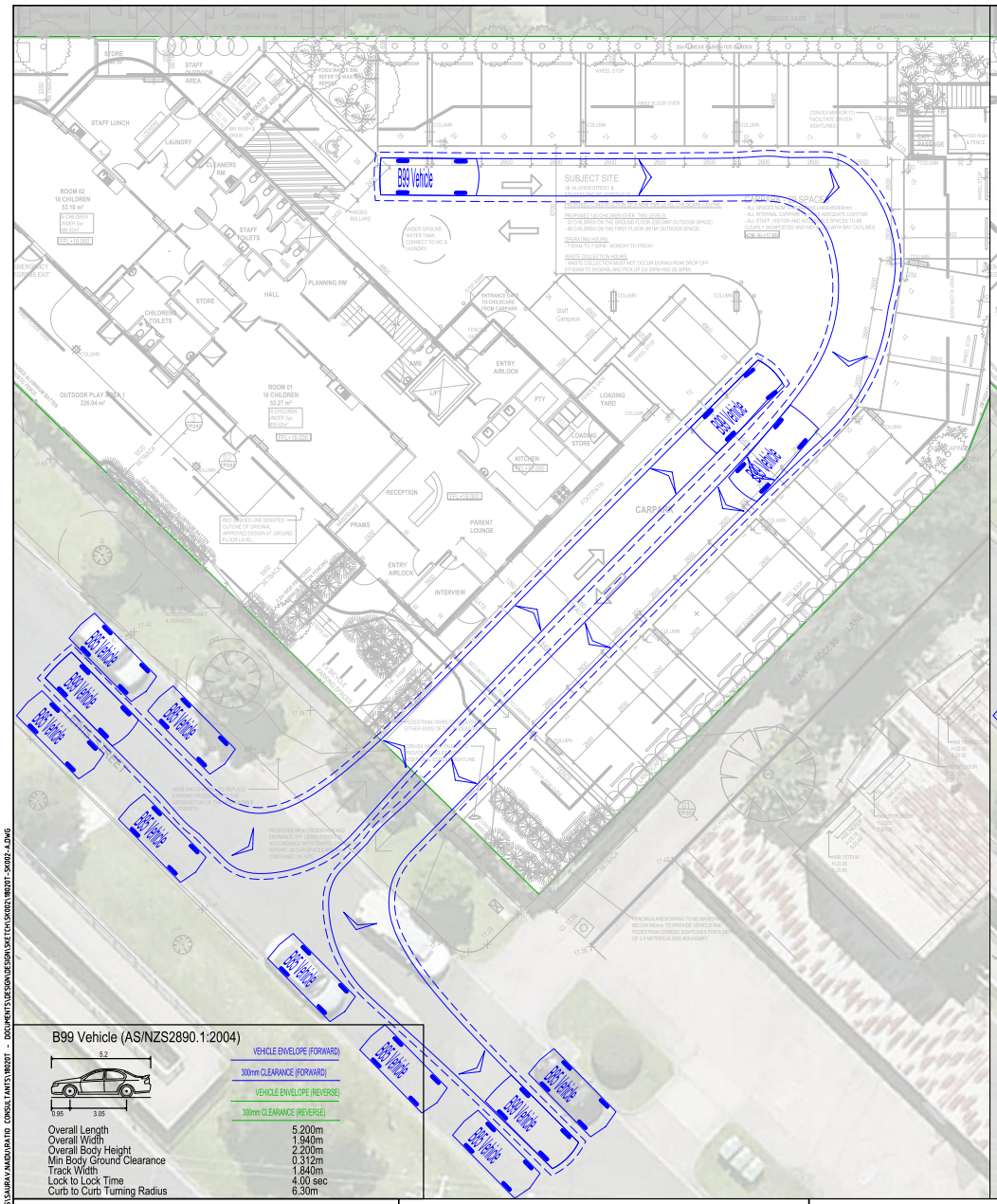
Date:	Thursday, 20 May 2021
Location:	1 Lewis Street, Kingsville
GPS:	-37.809031,144.873659
Weather:	Fine
Customer:	Ratio

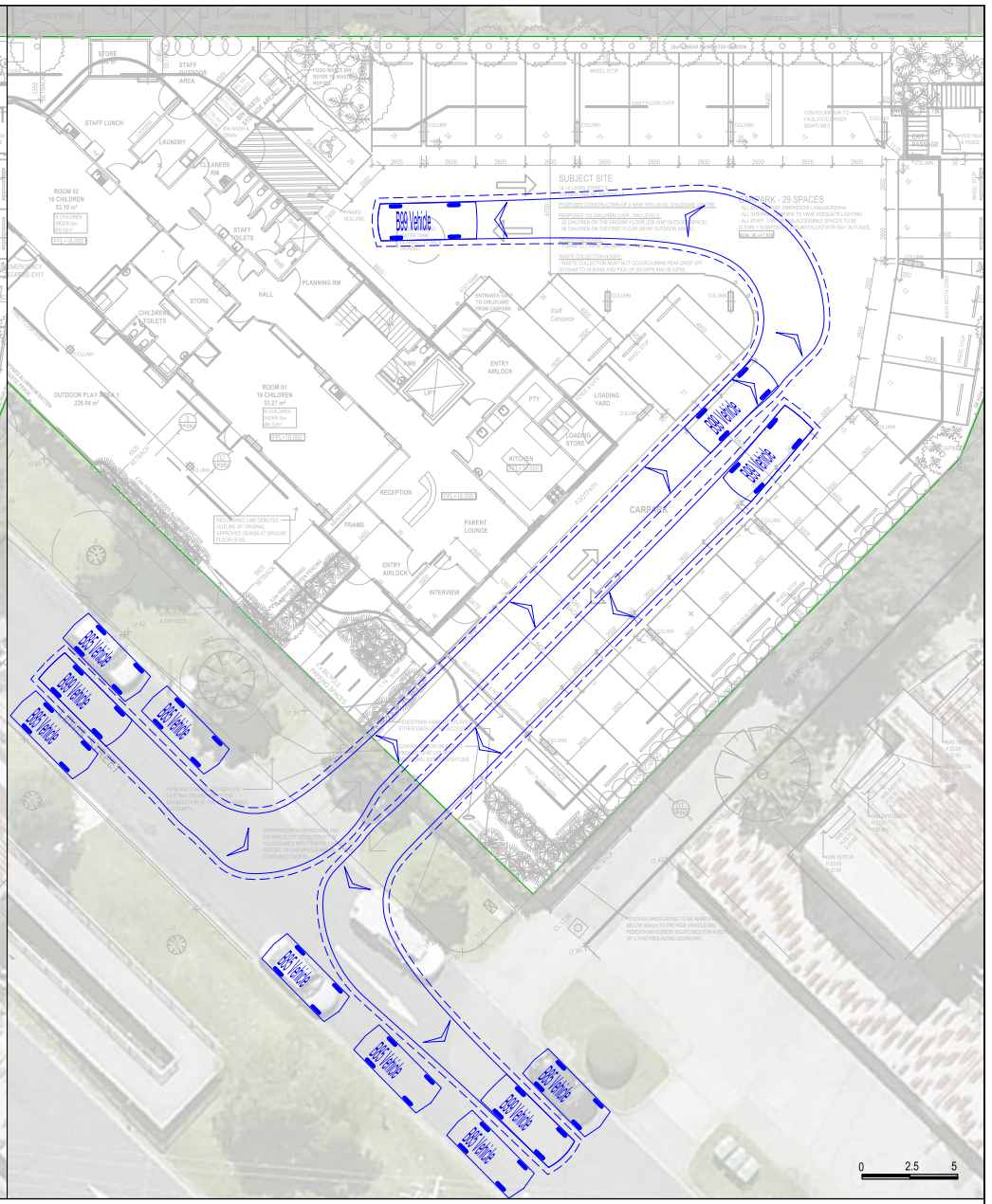
Public Parking (1/0)	Map Ref	Street	Section (GPS/Street Address if Off-Street Car Park)	Side	Restriction	Capacity	Parking Occupancy															
							7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30
1	A	Lewis St	From Geelong Rd To Albion Rd	E	Unrestricted	8	2	2	2	1	0	0	0	1	1	1	1	1	1	1	1	1
1	B		From Albion Rd To Kerr St	E	Unrestricted	10	4	4	4	4	3	3	2	2	3	3	4	4	4	4	5	5
1	C			W	Unrestricted	8	2	2	2	2	2	2	2	2	2	2	3	3	4	4	4	4
1	D	Albion Rd	From Lewis St To #18	S	Unrestricted	12	8	8	7	7	6	6	5	4	5	5	5	6	7	7	8	8
1	E			N	Unrestricted	14	8	7	6	6	6	5	5	4	6	6	7	8	8	9	9	9
1	F	Service Rd	From Lewis St To End	S	Unrestricted	21	4	4	4	4	5	5	5	5	6	6	7	7	7	8	9	9
1	G			N	Unrestricted	26	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
1	H	Lewis St	From Albion Rd To Geelong Rd	W	Unrestricted	10	0	0	0	1	1	2	2	2	2	2	2	2	1	1	0	0
1	I		From Median To Geelong Rd	E	Unrestricted	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	J	Service Rd	From Edgar St To Lewis St	N	Unrestricted	40	7	8	8	8	9	10	11	12	10	10	10	9	9	10	11	11
1	K			S	Unrestricted	25	8	8	8	8	9	9	9	9	7	7	7	8	8	9	10	12
	PUBLIC CAPACITY						**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**	**180**
	PUBLIC OCCUPANCIES						**43**	**43**	**41**	**41**	**41**	**42**	**41**	**41**	**42**	**42**	**47**	**49**	**49**	**53**	**57**	**59**
	PUBLIC VACANCIES						**137**	**137**	**139**	**139**	**139**	**138**	**139**	**139**	**138**	**138**	**133**	**131**	**131**	**127**	**123**	**121**
	PUBLIC % OCCUPANCIES						**24%**	**24%**	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**	**23%**	**26%**	**27%**	**27%**	**29%**	**32%**	**33%**

not available for public parking



Appendix C
Swept Path Assessment



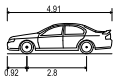


B99 Vehicle (AS/NZS2890.1:2004)

VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	2.200m
Min Body Ground Clearance	0.312m
Track Width	1.840m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.30m

B85 Vehicle (AS/NZS2890.1:2004)



VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	5.80m

0 2.5 5

ratio:
RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

Proposed Childcare Centre
1 & 1A Lewis Street and 379 Geelong Road, Kingsville
Swept Path Assessment

NOTE:
1) Base Survey Provided by DCA Building Design Consultants on 2024.05.29
2) Maximum Design Speed 10km/h

RATIO REFERENCE	SHEET No.	PREPARED BY	SCALE	DATE
18020T-SK002-A	1 of 4	S.N.	1:250 @A3	29/05/2024

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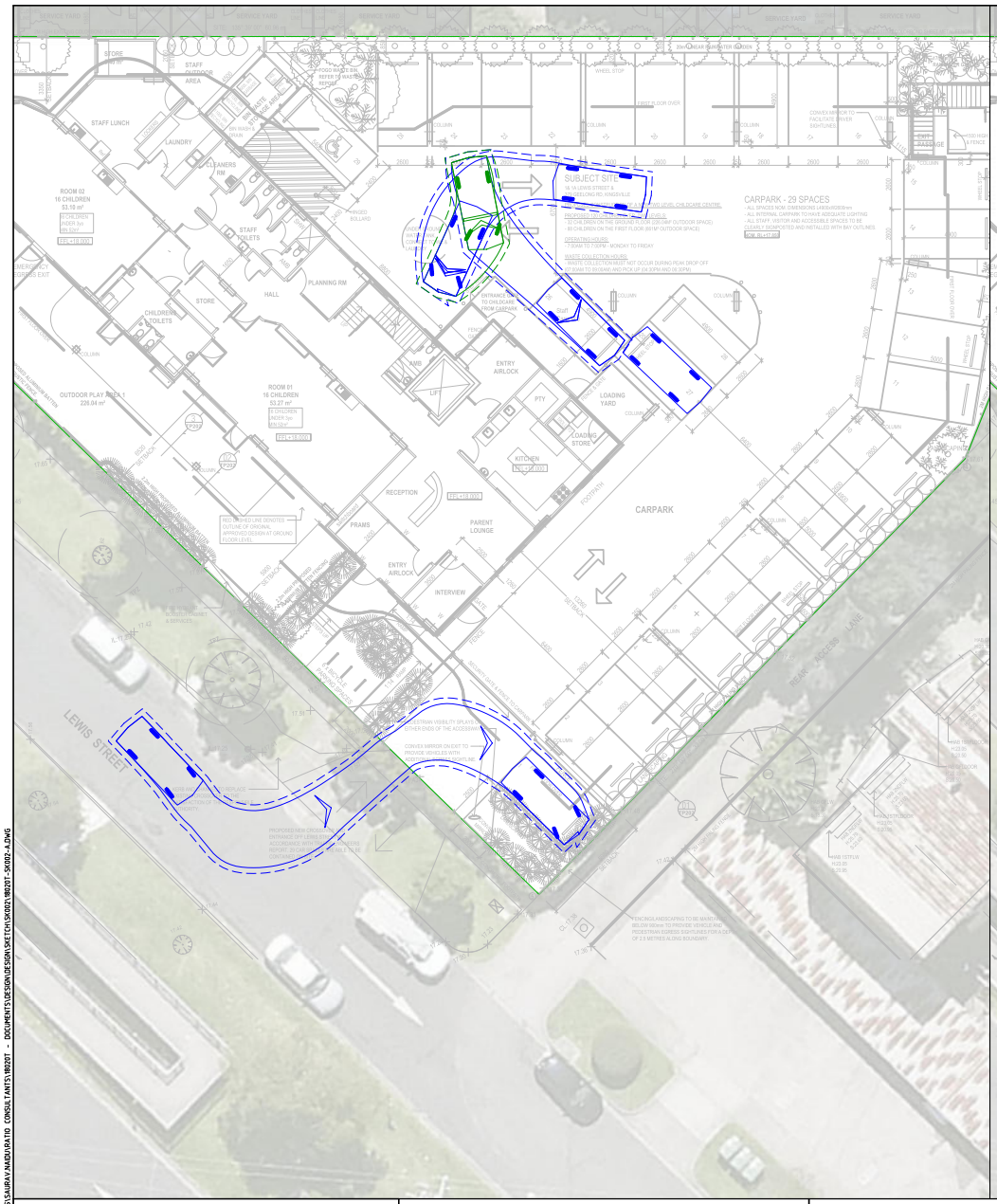
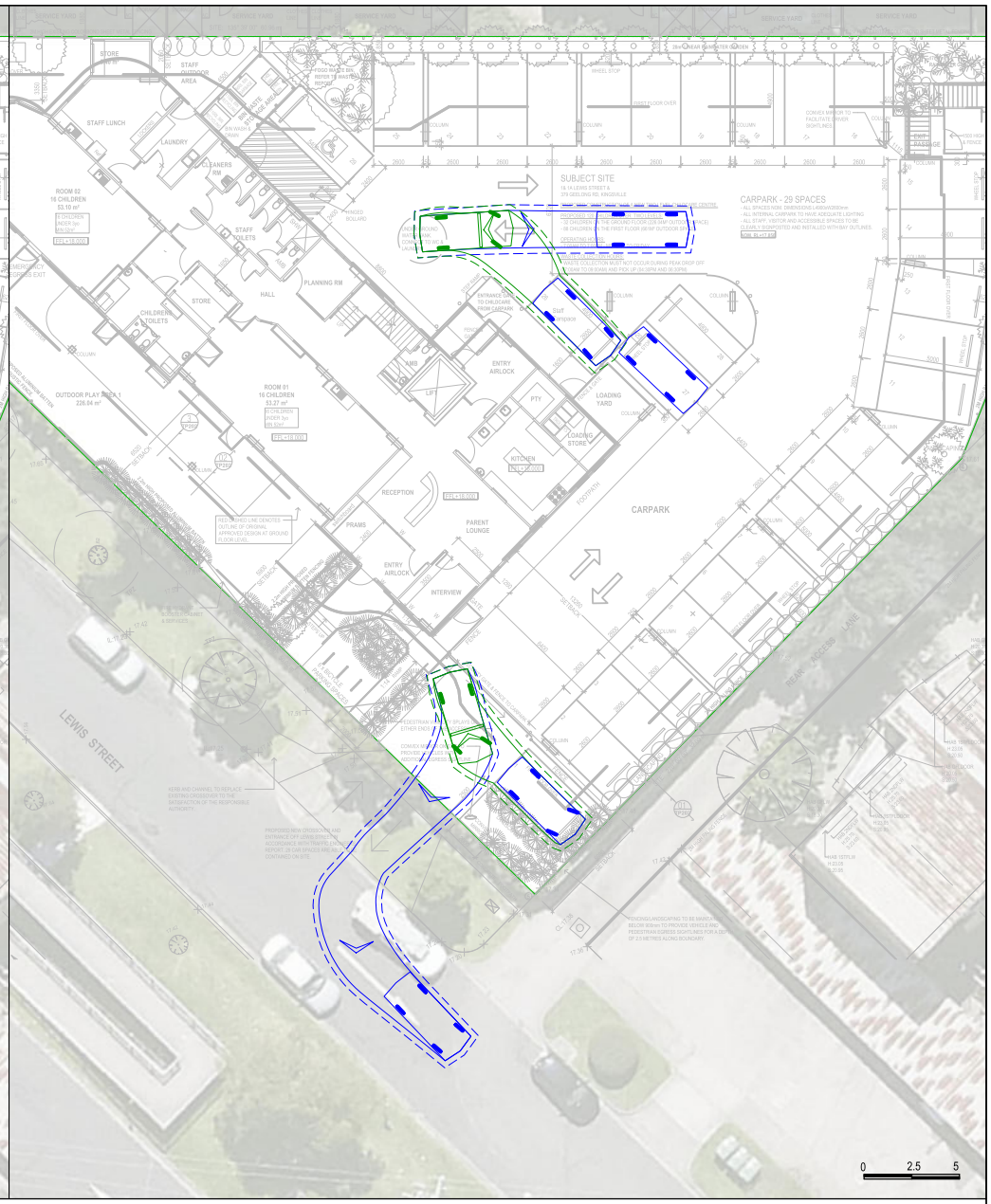
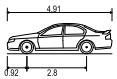




ratio:
RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

B85 Vehicle (AS/NZS2890.1:2004)



Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	5.80m

VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Proposed Childcare Centre
1 & 1A Lewis Street and 379 Geelong Road, Kingsville
Swept Path Assessment

NOTE:
1) Base Survey Provided by DCA Building Design Consultants on 2024.05.29
2) Maximum Design Speed 10km/h

RATIO REFERENCE	SHEET No.	PREPARED BY	SCALE	DATE
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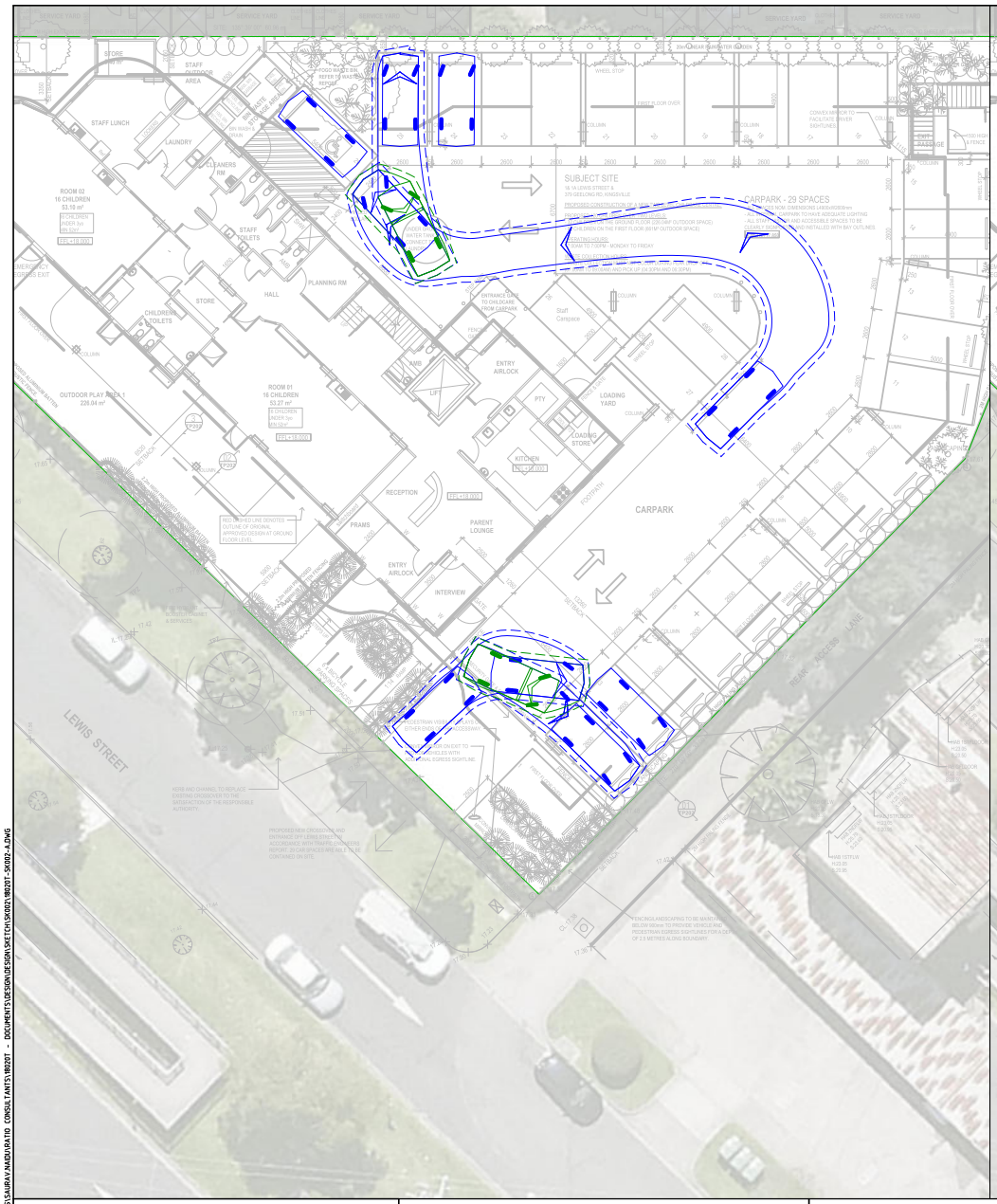

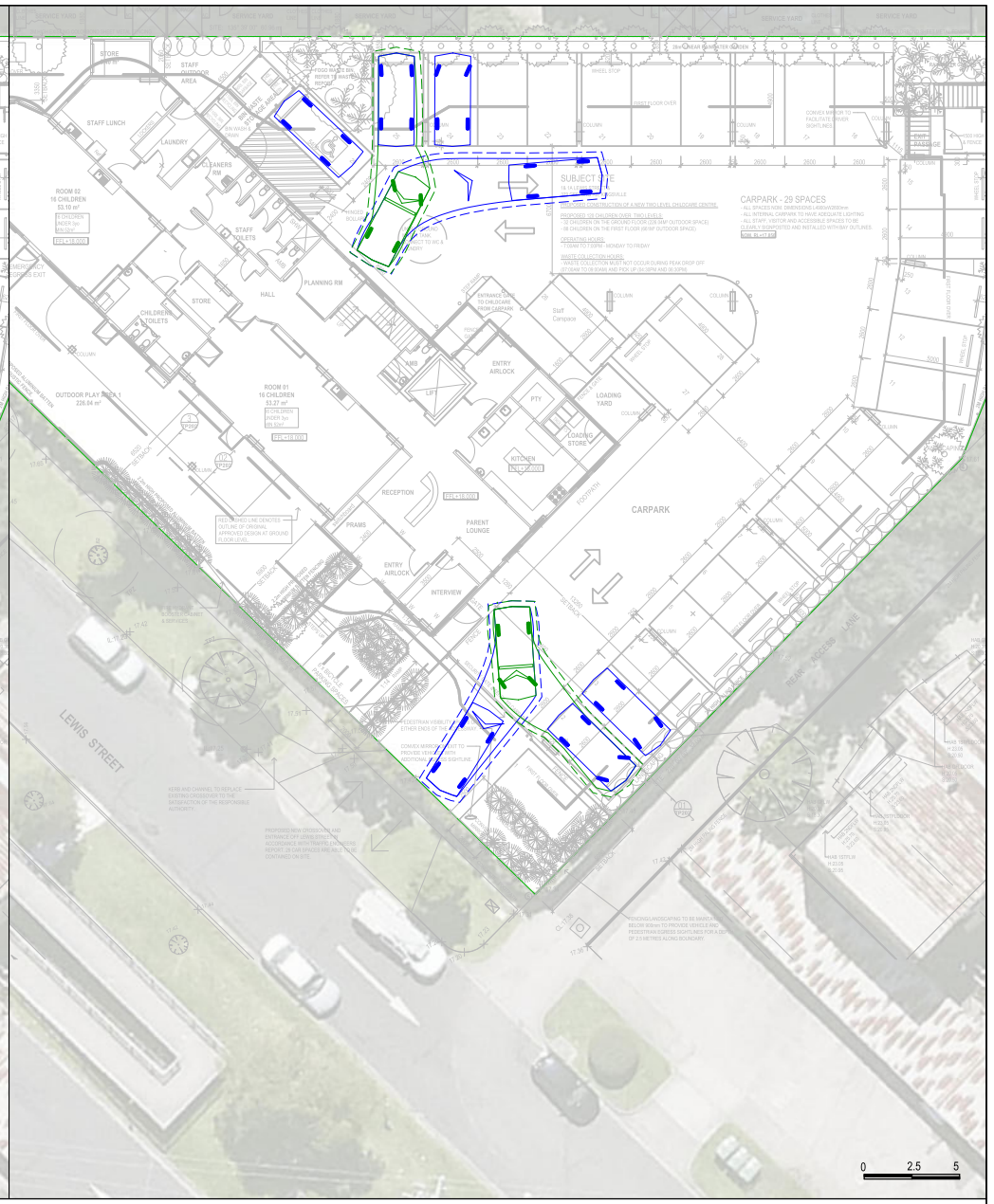

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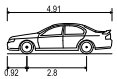
RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

B85 Vehicle (AS/NZS2890.1:2004)



Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	5.80m

VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Proposed Childcare Centre
1 & 1A Lewis Street and 379 Geelong Road, Kingsville
Swept Path Assessment

NOTE:
1) Base Survey Provided by DCA Building Design Consultants on 2024.05.29
2) Maximum Design Speed 10km/h

RATIO REFERENCE	SHEET No.	PREPARED BY	SCALE	DATE
18020T-SK002-A	3 of 4	S.N.	1:250 @A3	29/05/2024

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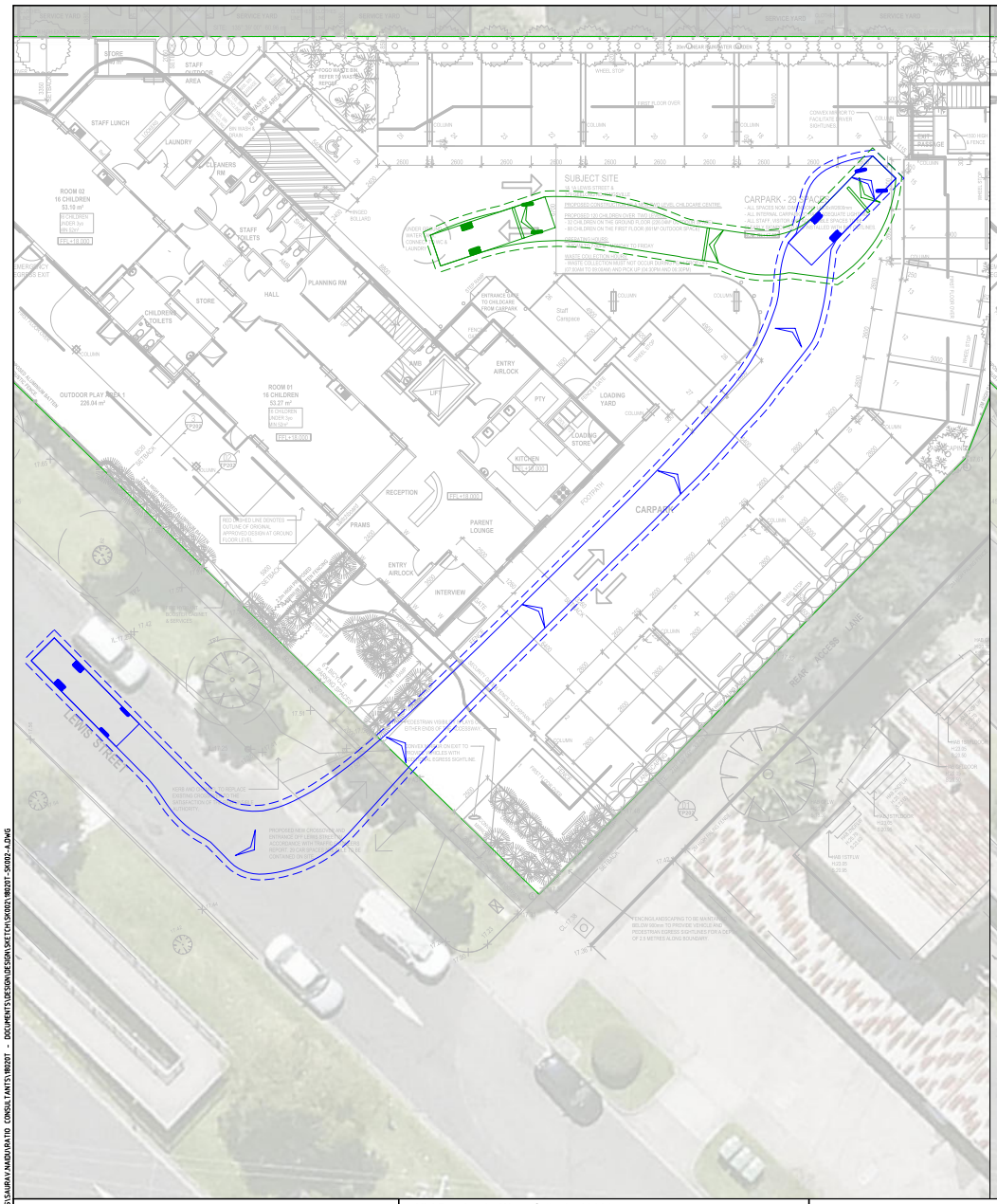
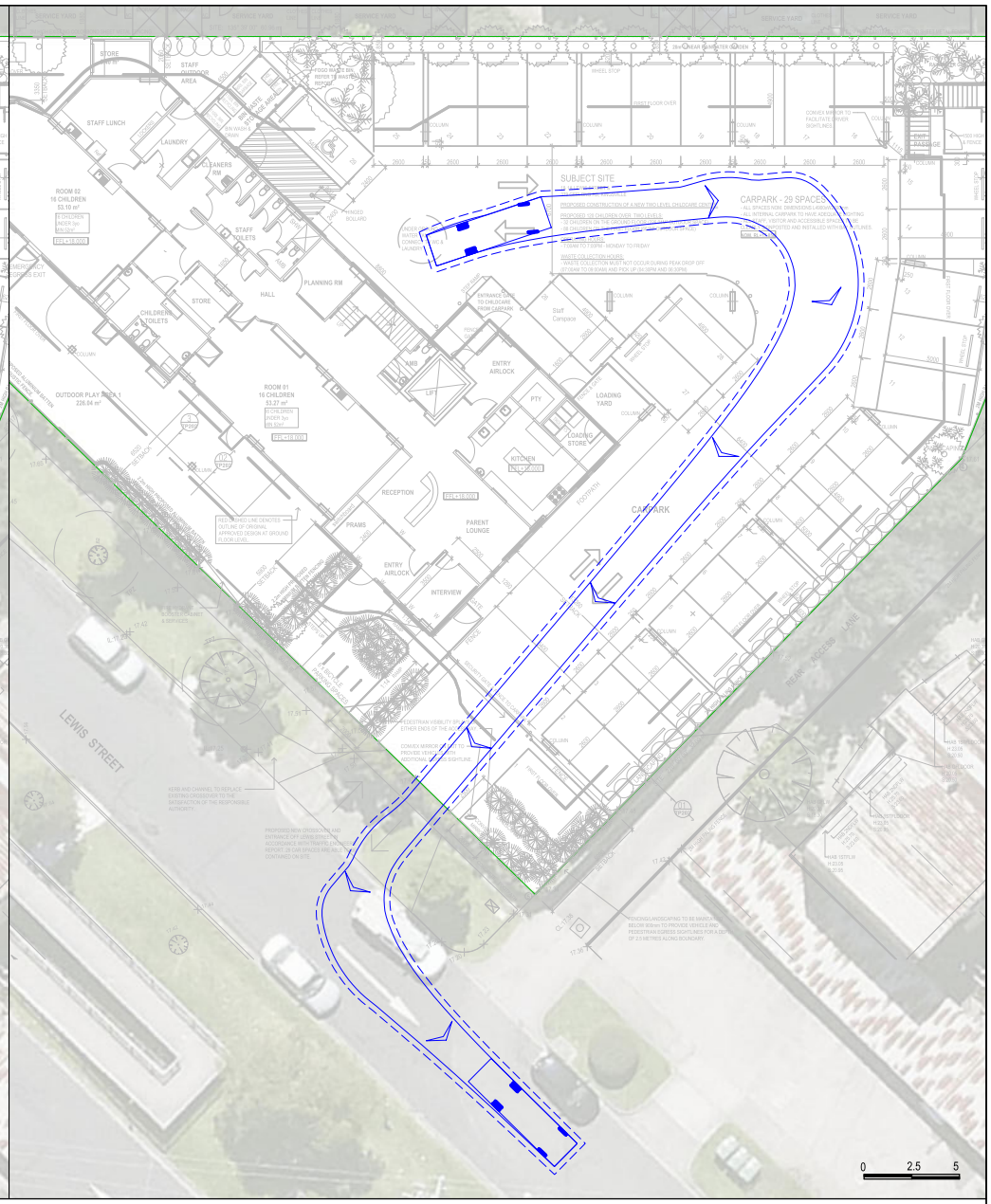
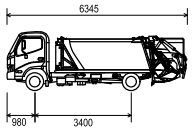




ratio:

RATIO CONSULTANTS PTY LTD
ABN 005 422 104
8 GWYNNE STREET
CREMORNE, VICTORIA 3121
TELEPHONE (03)9429 3111
FACSIMILE (03)9429 3011

Mini-Rear Loader Waste Collection Vehicle



VEHICLE ENVELOPE (FORWARD)
300mm CLEARANCE (FORWARD)
VEHICLE ENVELOPE (REVERSE)
300mm CLEARANCE (REVERSE)

Overall Length	6.345m
Body Width	1.700m
Overall Body Height	2.980m
Min Body Ground Clearance	0.205m
Track Width	1.670m
Lock to Lock Time	4.00 sec
Curb to Curb Turning Radius	6.450m

Proposed Childcare Centre
1 & 1A Lewis Street and 379 Geelong Road, Kingsville
Swept Path Assessment

NOTE:
1) Base Survey Provided by DCA Building Design Consultants on 2024.05.29
2) Maximum Design Speed 10km/h

RATIO REFERENCE	SHEET No.	PREPARED BY	SCALE	DATE
18020T-SK002-A	4 of 4	S.N.	1:250 @A3	29/05/2024

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Appendix D
Bicycle Parking Specifications

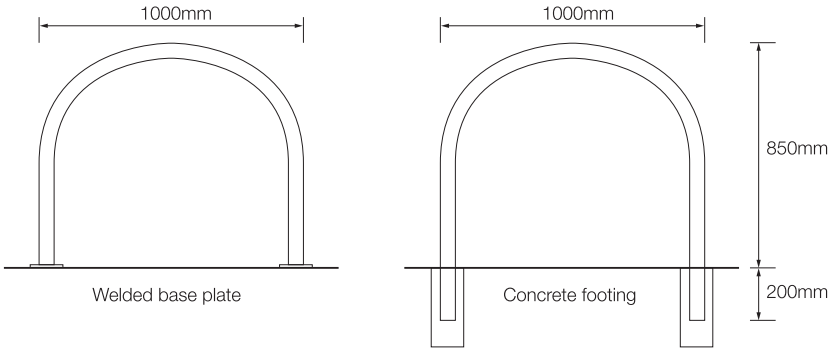
Arc de Triomphe™

Galvanised finish / Stainless Steel finish

Features

- Each rail supports two adult bikes in an upright position
- Can be either bolted to a concrete slab or concreted in situ
- Available in stainless steel or galvanised steel
- Provides the ability to lock both wheels and frame
- Suitable for foyers and entry areas

Dimensions



Specifications

Material options

- Galvanised (Duragal)
- 316 Marine grade stainless steel

Fixing options

- Welded flange - Bolt on
- In situ

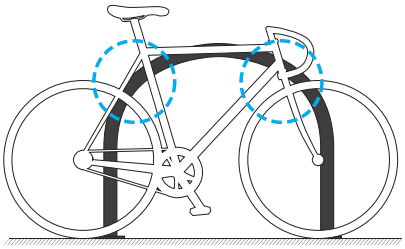
Recommended fasteners

- Galvanised Dynabolts (M10 x 65mm)
- Stainless Dynabolts (M10 x 65mm)
- Shear Nut security fasteners

Dimensions

1000mm [w] x 850mm [h]

Locking Points



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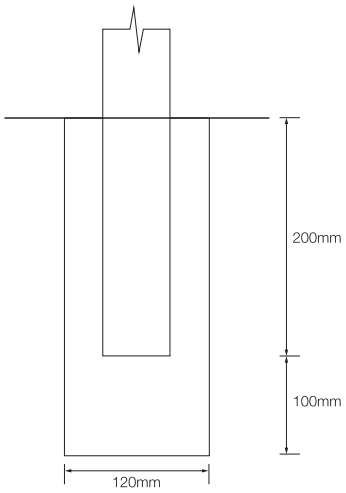
BICYCLE NETWORK BIKE PARKING

DESIGN. SUPPLY. INSTALL.

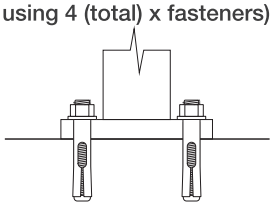
Bicycle Network ABN 41 026 835 903
p. 1300 727 563 e. parking@bicyclenetwork.com.au bikeparking.com.au
VIC Level 4, 246 Bourke Street, Melbourne VIC 3000 NSW 234 Crown Street, Darlinghurst NSW 2010
TAS 210 Collins Street, Hobart TAS 7000 NT Suite 5, 18-20 Cavenagh Street, Darwin 0800

Fixing options

In situ (Concrete footing)

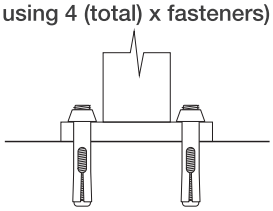


Welded flange (Bolt on)
using 4 (total) x fasteners



Shown with M10 x 65mm fastener

Welded flange (Security heads)
using 4 (total) x fasteners

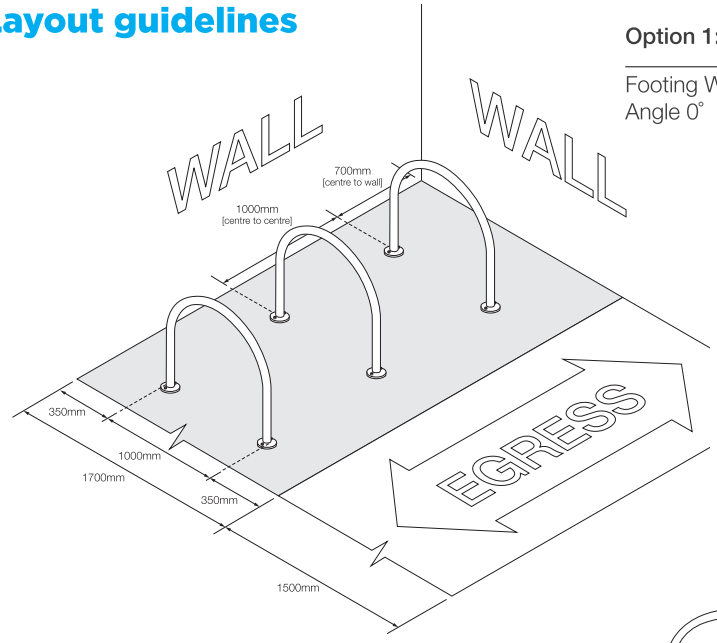


Shown with M10 x 65mm Shear Nuts

Layout guidelines

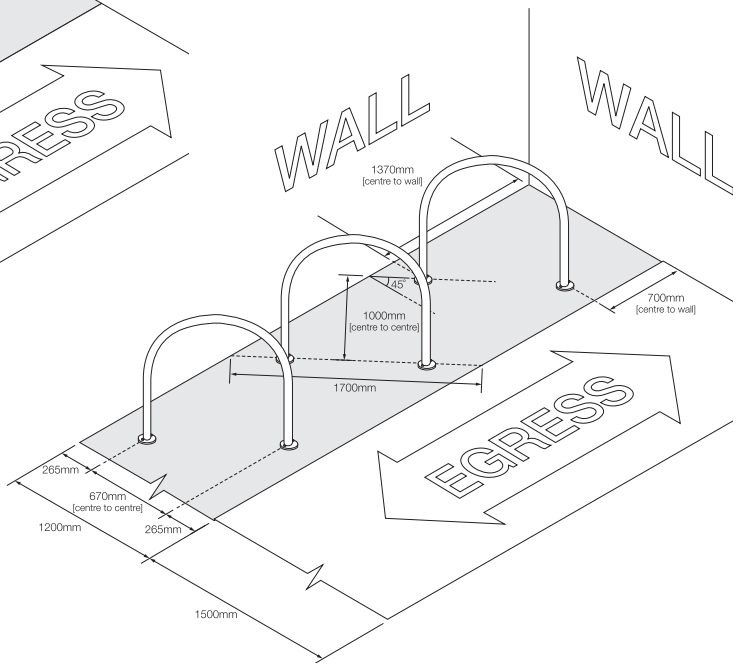
Option 1:

Footing Width 1700mm
Angle 0˚

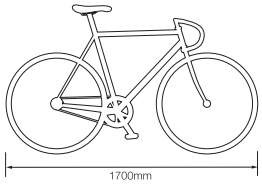


Option 2:

Footing Width 1200mm
Angle 45˚



Typical Bicycle Length



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BICYCLE NETWORK BIKE PARKING

DESIGN. SUPPLY. INSTALL.
Bicycle Network ABN 41 026 835 903
p. 1300 727 563 e. parking@bicyclenetwork.com.au bikeparking.com.au
VIC Level 4, 246 Bourke Street, Melbourne VIC 3000 NSW 234 Crown Street, Darlinghurst NSW 2010
TAS 210 Collins Street, Hobart TAS 7000 NT Suite 5, 18-20 Cavenagh Street, Darwin 0800