Traffix Group

Traffic Engineering Assessment

Proposed Childcare Centre

66 & 72 Miller Street, Preston

Prepared for
Bambini Early Learning

July 2024

G34540R-01C

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AS/NZS ISO 45001-2018 Occupational Health & Safety Management Systems
AS/NZS ISO 14001 Environmental Management Systems
AS/NZS ISO 9001-2016 Quality Management Systems

Table of Contents

List of Figures

List of Tables

List of Appendices

1. Introduction

Traffix Group has been engaged by Bambini Early Learning to undertake a Traffic Engineering Assessment for a proposed childcare centre at 66 & 72 Miller Street, Preston.

This report also provides a response to Council's internal referral comments. A response to the items related to traffic engineering is outlined at Section 5.

2. Proposal

The proposal is for a childcare centre accommodating 84 childcare places.

The development provides 18 on-site car spaces for staff and parents, including 1 disabled car space within a ground level undercroft carpark. The carpark also includes a turnaround bay at its eastern end.

Vehicle access to the site is proposed via two single width crossovers to Devon Street, located near the site's north-western corner, with a one-way arrangement (northern crossover entry only, southern crossover exit only). The vehicle access has been designed to retain a street tree within the verge along the Devon Street frontage.

A new footpath is proposed within the site's boundary along the site's frontage to Devon Street, between the pedestrian entrance and Miller Street. Pedestrian entry into the centre from the carpark is provided via the shared area of the DDA car space.

Post-development, a total of 2 on-street spaces will be available along the site's frontage to Devon Street and 6 car spaces to Miller Street. One redundant crossover is to be reinstated along the Miller Street frontage, while the proposed entry crossover replaces an existing access to an access gate for No. 72 Miller Street.

A total of 4 bicycle spaces are proposed.

The proposed operating hours of the childcare centre are 6:30am to 6:30pm, Monday to Friday.

A copy of the development plans prepared by The ELLIS Group Architects is attached at Appendix A to this report.

3. Existing Conditions

3.1. Subject Site

The subject site is 66 & 72 Miller Street, Preston. The table below summarises the key characteristics of the subject site.

Table 1: Subject Site Description

Characteristic	Description
Address	66 & 72 Miller Street, Preston
Area	1,117m^2
Frontages	36.58m to Devon Street 30.61m to Miller Street 30.65m to ROW
Zoning	General Residential Zone – Schedule 2 (GRZ2)
Current use of site	2 x single dwelling
Vehicle access	1 x single width crossover to Miller Street 1 x single width crossover to Devon Street Additional access to 66 Miller Street provided via ROW
On-street parking along site frontage	Total of 9 on-street car spaces along the site's frontages: • 4 unrestricted on-street indented 60 angled car spaces along the site's frontage to Devon Street • 5 unrestricted on-street car spaces along the site's frontage to Miller Street

A locality plan, aerial photograph, photograph of the site's frontage from Miller Street and Devon Street and land use zoning map are provided at Figure 1 to Figure 5, respectively.

Significant nearby land uses include:

- **Bell Primary School,** located approximately 400m north of the site,
- **H Swain Reserve,** located approximately 450m west of the site,
- **Ray Bramham Gardens,** located approximately 800m northeast of the site, and
- **Thornbury Railway Station,** located approximately 900m east of the site.

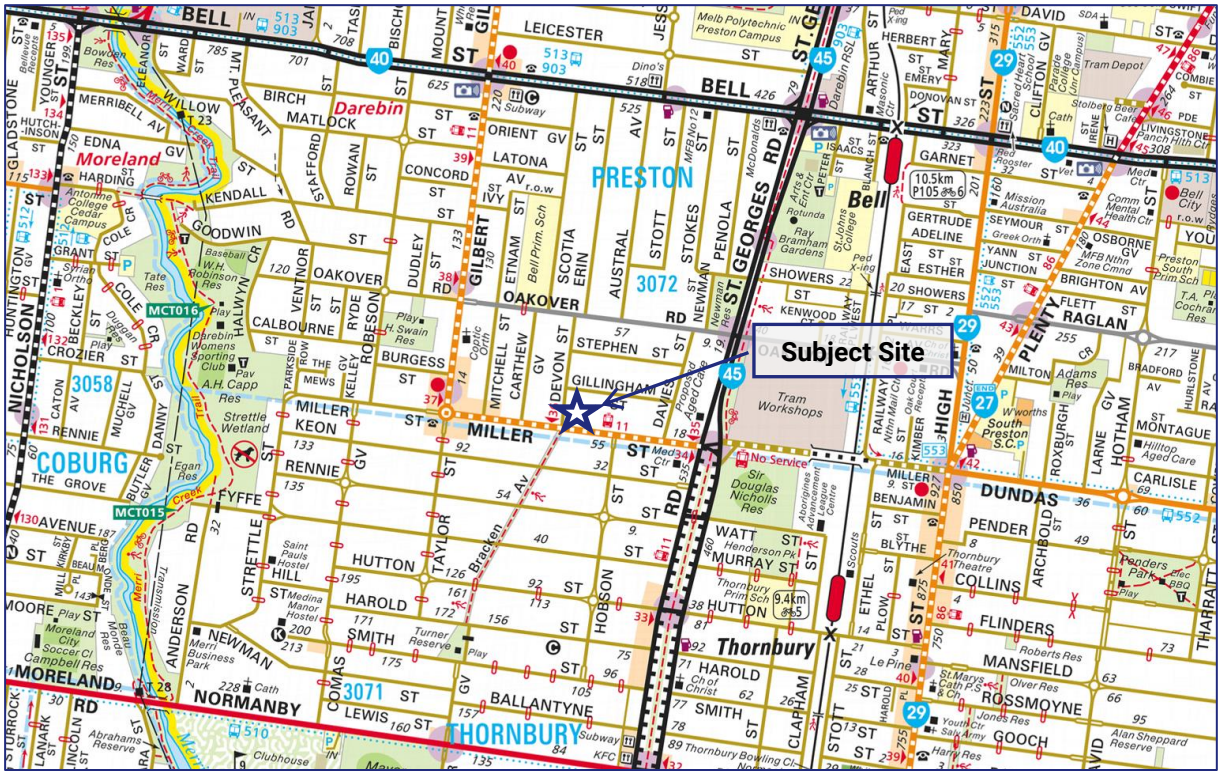


Figure 1: Locality Plan (Source: Melway)

Figure 2: Aerial photograph (Source: Nearmap)

Figure 3: Subject Site (view north-west from Miller Street)

Figure 4: Subject Site (view east from Devon Street)

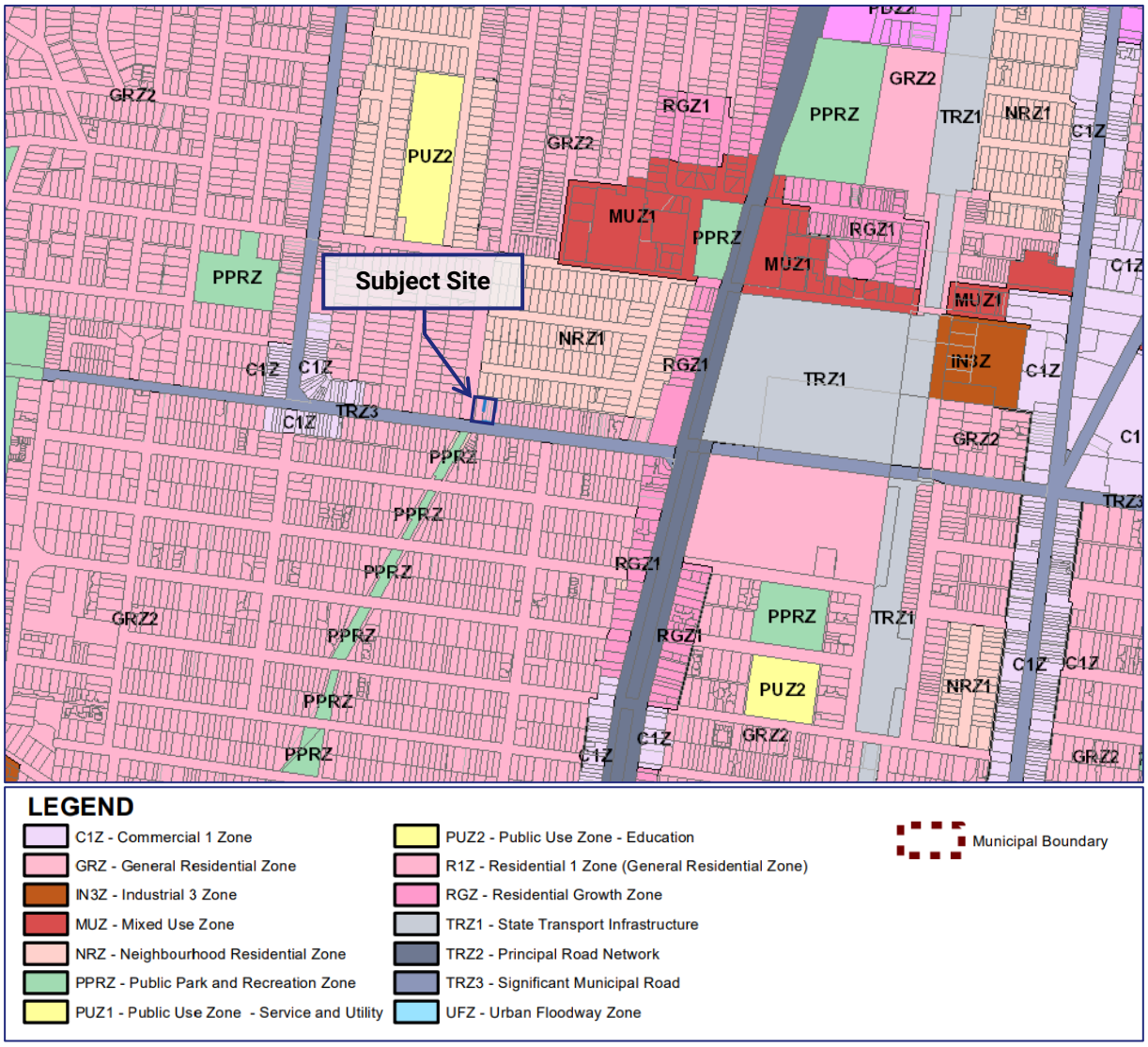


Figure 5: Land use zoning map (Source: Planning Schemes Online)

3.2. Transport Network

3.2.1. Road Network

A summary of the local road network is provided in the table below.

Photographs of the surrounding road network are presented in the figures below.

Table 2: Local Road Network

Road Name	Classification[1]	Transport Zone	Configuration	Speed Limit	On-Street Parking
Miller Street	Council Arterial Road	TRZ3	Aligned in an east-west direction and provides a traffic lane in each direction. The lanes accommodate tram tracks. Indented parking on both sides of the carriageway.	A posted 40km/h speed limit applies to the west of the site and a 50km/h speed limit applies to the east of the site	Unrestricted both sides
Devon Street	Sealed Access	-	A 6.8m wide carriageway Footpath on the western side. Indented angled parking on the eastern side of the carriageway.	Urban default 50km/h	Unrestricted both sides
Laneway	Sealed ROW	-	A 3.15m wide carriageway. Provides access to several residential properties. Accessed via Devon Street and Davis Street.	Urban default 50km/h	No legal parking

Notes:

1. According to the Darebin City Council Road Register – dated 31/10/2022

Figure 6: Miller Street – view east

Figure 7: Miller Street – view west

Figure 8: Devon Street – view north

Figure 9: Devon Street – view south

Figure 10: Laneway – view east

Figure 11: Laneway – view west

3.2.2. Car Parking Conditions

Traffix Group completed an inventory of on-street parking during the site inspection on Tuesday 30th January, 2024 at 10am.

The purpose of the inventory was to ascertain the supply and management of car parking in the area.

The detailed parking inventory is presented at Appendix B. The parking inventory area is presented in the figure below.

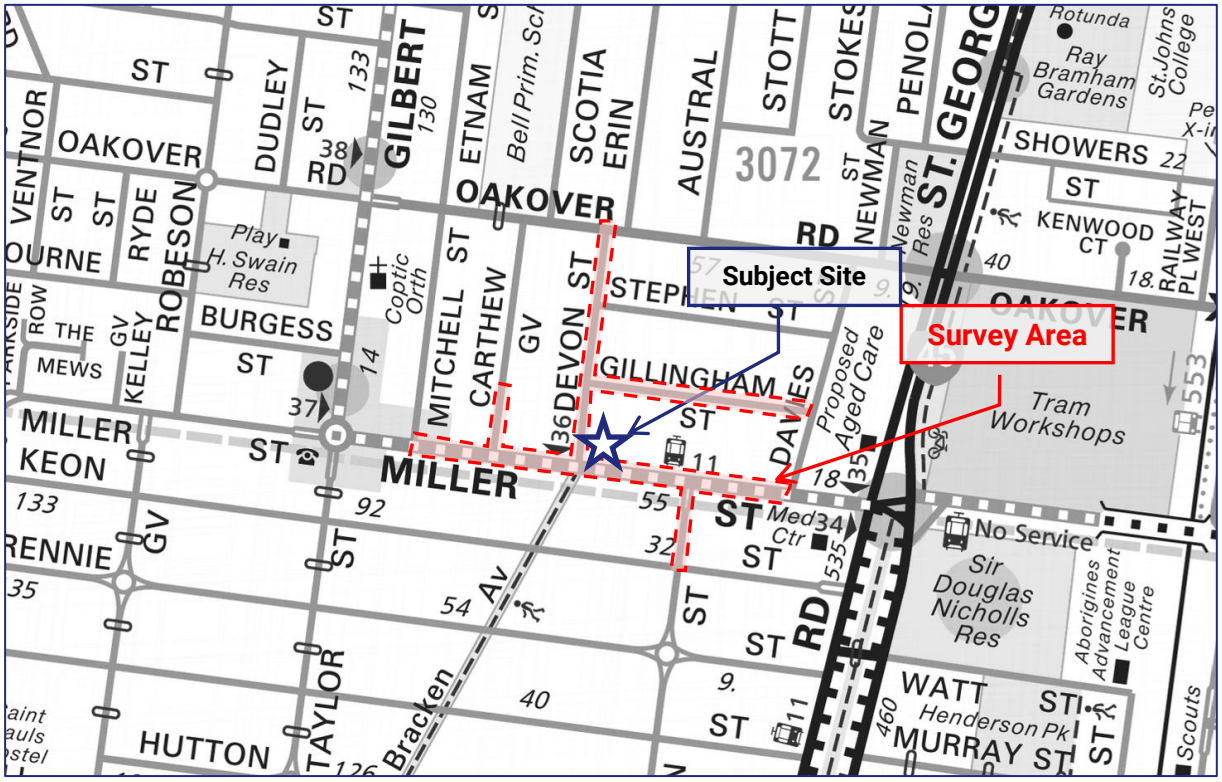


Figure 12: Parking inventory area (Source: Melway)

The key findings of the inventory were:

- There were 221 publicly available on-street car spaces within approximately 200m walking distance of the site during the site inspection.
- The demand for on-street parking during the site inspection was moderate, with 105 spaces recorded as occupied (116 vacant car spaces, 48% occupancy).
- On-street parking is generally unrestricted within the vicinity of the site.

3.2.3. Road Safety Review

A review of the State Road Accident Records (Crashstats) has been undertaken in the vicinity of the site for the past 5 years of available data (01/05/2018 to 30/04/2023)[1].

The review area is shown in Figure 13.

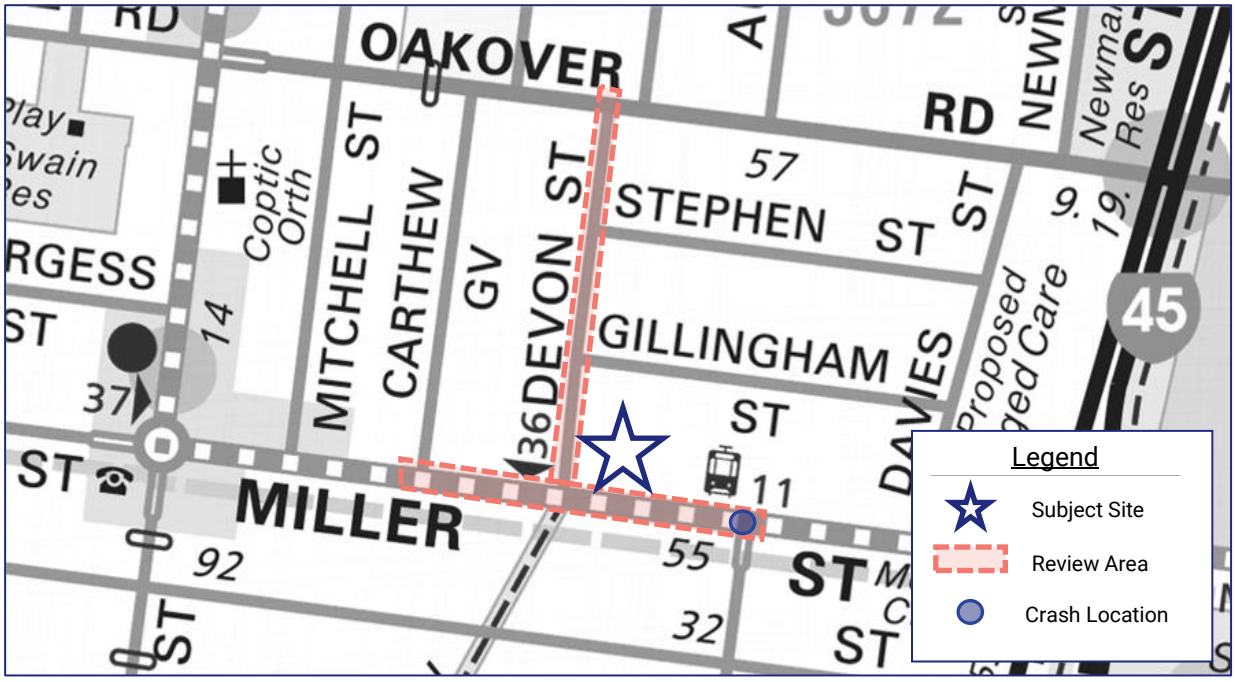


Figure 13: Crash History Investigation Area (Source: Melways)

One casualty crash was recorded within the review area. The casualty crash (right near, DCA code 113) occurred on 18th January 2019. The one casualty crash does not indicate an obvious and clear crash pattern which warrants concern for this proposal.

[1] Casualty crash data is contained in the VicRoads' *Crashstats Internet Database* and includes all reported casualty crashes (i.e. injury crashes), which are classified into Fatal Injury, Serious Injury and Other Injury (i.e. minor injury) crashes. Property damage only or non-injury crashes are not included in the database.

3.3. Alternative Transport Modes

3.3.1. Public Transport

The site is served by public transport services, with train and tram services available. The site is located within the Principal Public Transport Network area (PPTN).

A summary of available public transport services is provided in Table 3 and map of the broader services provided at Figure 14. The PPTN network map is provided at Figure 15.

Table 3: Public Transport Services

Service	Between	Via
Devon Street/Miller Street – approximately 50m west of the site (1min walk)		
Tram Route 11	West Preston & Victoria Harbour Docklands	Preston, Fitzroy, Northcote & CBD
Thornbury Station – approximately 900m south-east of the site (13min walk)		
Mernda Train Line	Mernda & CBD	Reservoir, Northcote, Collingwood, & Richmond
Erin Street/Bell Street – approximately 900m north of the site (13min walk)		
Bus Route 513	Eltham & Glenroy	Lower Plenty
Bus Route 514	Eltham & Glenroy	Greensborough
Bus Route 903 SMARTBUS	Altona & Mordialloc	Several Eastern and Western suburbs
Miller Street/High Street – approximately 950m east of the site (14min walk)		
Tram Route 86	Bundoora RMIT & Waterfront City Docklands	Bundoora, Reservoir, Fitzroy & CBD
Bus Route 552	North East Reservoir & Northcote Plaza	High Street
Bus Route 553	Preston & West Preston	Reservoir
Leinster Grove/Normanby Avenue – approximately 950m east of the site (13min walk)		
Bus Route 510	Essendon Station & Ivanhoe Station	Brunswick, Northcote & Thornbury

Figure 14: Public Transport Map (Source: PTV)

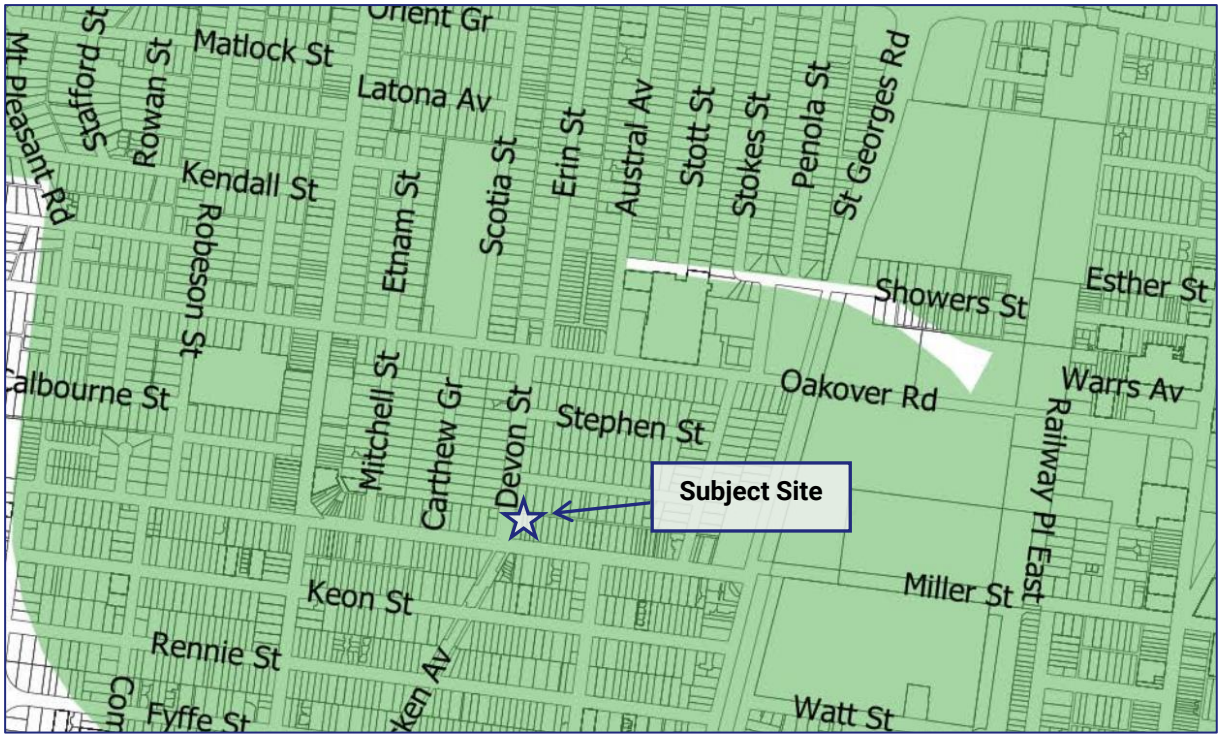


Figure 15: Principal Public Transport Network Area (Source: Vicplan)

4. Traffic Engineering Assessment

4.1. Statutory Car Parking Assessment

The proposed development falls under the land-use category of 'childcare centre' under Clause 73.03 of the Planning Scheme. The Planning Scheme sets out the parking requirements for new developments under Clause 52.06.

The purpose of Clause 52.06 is:

- *To ensure that car parking is provided in accordance with the State Planning Policy Framework and Local 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 Planning Scheme sets out the parking requirements for new developments under Table 1 at Clause 52.06-5. In this regard Clause 52.06-5 states:

> *Column B applies if:*
>
> - *any part of the land is identified as being within the Principal Public Transport Network Area as shown on 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.*

The site is located within the Principal Public Transport Area (PPTN Area) and accordingly, the Column B rates set out at Table 1 of Clause 52.06-5 apply to the site.

An assessment of the car parking requirement of the development against the rates presented at the car parking table at Clause 52.06-5 of the Planning Scheme is set out in the table below.

Table 4: Statutory car parking assessment

Use	No.	Statutory Parking Rate (Column B)	Car Parking Req. (Note 1)	Car Parking Provision	Shortfall/Surplus
Childcare Centre	84 places	0.22 spaces to each childcare place	18	18	0

Note 1: Clause 52.06-5 specifies that where a car parking calculation results in a requirement that is not a whole number, the number of spaces should be rounded down to the nearest whole number.

As stated above, the proposal satisfies the statutory requirements of Clause 52.06-5, and a car parking reduction is not required.

Disabled Parking

Clause 52.06-9 states that:

> *The car parking requirement specified in Table 1 includes disabled car parking spaces. The proportion of spaces to be allocated as disabled spaces must be in accordance with Australian Standard AS2890.6-2009 (disabled) and the Building Code of Australia.*

One disabled car space is required under the NCC for the childcare centre, and one has been provided on the site.

4.2. Bicycle Parking Provision

Clause 52.34 of the Planning Scheme specifies bicycle parking requirements for new developments.

No bicycle parking is required for the land use of a childcare centre under Clause 52.34. The development proposes 4 formal bicycle spaces as follows:

- 2 visitor space proposed via a flat top bicycle rails located in the undercroft carpark adjacent to bin refuse.
- 2 staff spaces proposed via flat top bicycle rails located in the undercroft carpark adjacent to car space 12.

We are satisfied with the provision of bicycle parking on the site.

4.3. Carpark Layout and Vehicle Access Arrangements

Traffix Group has provided design advice to the project architect to achieve a satisfactory carpark layout. The proposed parking layout has been assessed under the following guidelines:

- Clause 52.06-9 of the Planning Scheme (Design Standards for car parking),
- AS2890.1-2004 – Part 1: Off-Street Car Parking (where relevant), and
- AS2890.6-2022 – Part 6: Off-Street Car Parking for People with Disabilities.

An assessment against the relevant design standards of the Planning Scheme and Australian Standards (where relevant) is provided in the table below.

Table 5: Carpark Layout and Access Assessment

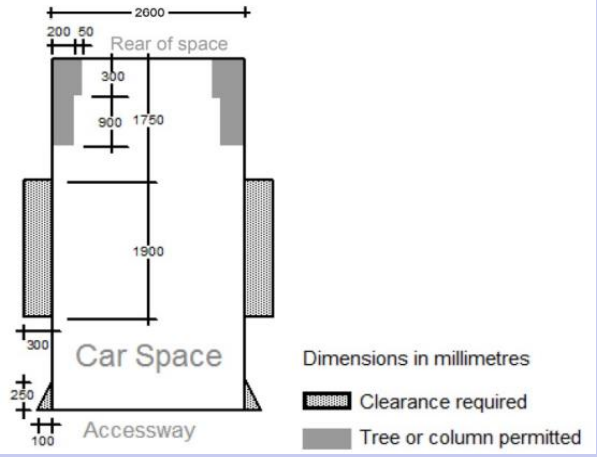
Requirement	Assessment	Design Response
Clause 52.06-9 Design Standard 1 – Accessways		
Must be at least 3m wide	✓	Complies.
Have an internal radius of at least 4m at changes of direction or intersection or be at least 4.2m wide.	✓	Complies. All accessways greater than 4.2m wide.
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forwards direction with one manoeuvre.	✓	Complies.
Provide at least 2.1m headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8m.	✓	Complies.
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.	✓	Complies. Swept paths demonstrating all vehicle entering and exiting the site in a forward direction are shown in Appendix C.
Provide a passing area at the entrance at least 6.1m 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.	✓	Suitable access arrangements are provided which separate entry and exit movements and provide for two-way movements to and from the site.
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.	✓	There is no pedestrian footpath located along the site's carpark frontage to Devon Street and therefore this is not strictly required, however in any event, a note has been added to the plans for a pedestrian sight triangle on the southern side of the access (i.e. low landscaping).

Requirement	Assessment	Design Response
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	Access is not to a Transport Zone.
If entry to the car space is from a road, the width of the accessway may include the road.	N/A	No car spaces accessed directly from road.
Clause 52.06-9 Design Standard 2 – Car Parking Spaces		
Car parking spaces and accessways must have the minimum dimensions as outlined in Table 2 under Clause 52.06-9.	✓	All car spaces are provided in accordance with Clause 52.06-9. Access to critical car spaces within the carpark has been checked for the B85 design vehicle, with swept path diagrams provided at Appendix C. We are satisfied that access to all car spaces can be achieved and is satisfactory.
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, other than: • 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 2.1 metres above the space.	✓	Complies.

Angle of car spaces to accessway	Accessway width	Car park width	Car park length
Parallel	3.6 m	2.3 m	6.7 m
45°	3.5 m	2.6 m	4.9 m
60°	4.9 m	2.6 m	4.9 m
90°	6.4 m	2.6 m	4.9 m
	5.8 m	2.8 m	4.9 m
	5.2 m	3.0 m	4.9 m
	4.8 m	3.2 m	4.9 m

Note to Table 2: Some dimensions in Table 2 vary from those shown in the Australian Standard AS2890.1-2004 (off street). The dimensions shown in Table 2 allocate more space to aisle widths and less to marked spaces to provide improved operation and access. The dimensions in Table 2 are to be used in preference to the Australian Standard AS2890.1-2004 (off street) except for disabled spaces which must achieve Australian Standard AS2890.6-2009 (disabled).

Diagram 1 Clearance to car parking spaces



Requirement	Assessment	Design Response
Car spaces in garages/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/carport.	N/A	No garages proposed
Where parking spaces are provided in tandem, an additional 0.5m in length must be provided between each space.	✓	Complies.
Where two or more car parking spaces are provided for a dwelling, at least one space must be under cover.	N/A	Not a dwelling.
Disabled car parking spaces must be designed in accordance with AS2890.6-2009 and the Building Code of Australia. Disabled car parking spaces may encroach into an accessway width specified in Table 2 by 0.5m. A minimum headroom of 2.5m is to be provided above the disabled car space in accordance with AS2890.6-2009.	✓	Complies. DDA space is provided in accordance with AS2890.6-2022
Clause 52.06-9 Design Standard 3 - Gradients		
Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.	✓	The grades over the first 5m into the site do not exceed 1:10 (10%). Complies.
Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 and be designed for vehicles travelling in a forward direction. **Type of car park** / **Length of ramp** / **Maximum grade** **Public car parks** — 20 metres or less — 1:5 (20%) longer than 20 metres — 1:6 (16.7%) **Private or residential car parks** — 20 metres or less — 1:4 (25%) longer than 20 metres — 1:5 (20%)	✓	Complies.
Where the difference in grade between two sections of ramp or floor is greater that 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.	✓	Complies.

Requirement	Assessment	Design Response
Plans must include an assessment of grade changes of greater than 1:5.6 (18 per cent) or less than 3 metres apart for clearances, to the satisfaction of the responsible authority	✓	Complies.
Clause 52.06-9 Design Standard 4 – Mechanical Parking		
At least 25 per cent of the mechanical car parking spaces can accommodate a vehicle height of at least 1.8 metres.	N/A	No mechanical car parking.
Car parking spaces that require the operation of the system are not allocated to visitors unless used in a valet parking situation.	N/A	
The design and operation is to the satisfaction of the responsible authority.	N/A	
Clause 52.06-9 Design Standard 5 – Urban Design		
Ground level car parking, garage doors and accessways must not visually dominate public space.	N/A	These matters are more related to urban design, rather than specifically traffic engineering.
Car parking within buildings (including visible portions of partly submerged basements) must be screened or obscured where possible, including through the use of occupied tenancies, landscaping, architectural treatments and artworks.		
Design of car parks must take into account their use as entry points to the site.		
Design of new internal streets in developments must maximise on street parking opportunities.	N/A	No internal streets proposed
Clause 52.06-9 Design Standard 6 – Safety		
Car parking must be well lit and clearly signed.	✓	Lighting of the carpark can be addressed as part of the detailed design stage. The signage within the carpark can be addressed within a Car Parking Management Plan, if required.
The design of car parks must maximise natural surveillance and pedestrian visibility from adjacent buildings.	✓	We are satisfied that the common accessway naturally provides good sightlines.
Pedestrian access to car parking areas from the street must be convenient.	✓	Pedestrian access is available to Miller Street via a separate pedestrian pathway located towards the midpoint of the site.

Requirement	Assessment	Design Response
Pedestrian routes through car parking areas and building entries and other destination points must be clearly marked and separated from traffic in high activity parking areas.	✓	The separated internal pedestrian pathway is clearly shown on the plans.
Clause 52.06-9 Design Standard 7 - Landscaping		
The layout of car parking areas must provide for water sensitive urban design treatment and landscaping.	N/A	These requirements are not specifically related to traffic engineering matters.
Landscaping and trees must be planted to provide shade and shelter, soften the appearance of ground level car parking and aid in the clear identification of pedestrian paths.		

4.4. Loading and Waste Collection Arrangements

Loading

Clause 65.01 of the Planning Scheme specifies the following in respect to loading considerations:

> *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.*

In practice, loading activities associated with the proposed childcare centre will be undertaken by smaller type vehicles, such as vans, which can be accommodated within the on-site carpark during off-peak times when parent demand is low, as required.

We are satisfied that a childcare centre does not warrant the inclusion of a dedicated on-site loading bay.

Based on the above, we are satisfied with the loading arrangements for the proposed childcare centre.

Waste Collection

A Waste Management Plan (Reference: G34540-02B) has been prepared by our office, detailing the waste collection arrangements for the proposed development.

Waste bins for the childcare centre will be stored in a bin refuse area, located in the under croft carpark at the northeastern corner of the site. Waste will be collected outside of operating peak operating periods (i.e. collection between 10am to 2pm) (or outside operating hours) as required when there are vacancies in the carpark (signage can be provided to ensure certain car spaces are empty at collection times if collection is during operating hours).

Swept path diagrams demonstrating the 6.4m long x 2.08m high waste collection vehicle undertaking entry and exit movements within the carpark are attached at Appendix C.

Based on the above, we are satisfied the loading and waste collection arrangements are acceptable from a traffic engineering perspective.

4.5. Traffic Impact Assessment

4.5.1. Traffic Generation Rates

Traffix Group has undertaken extensive studies of existing childcare centres to produce empirical data for peak traffic generation rates and to better understand how they operate. Childcare centres typically generate peak hour traffic in the order of 0.5 to 0.8 vehicle trip ends per child during the commuter peak hours.

Childcare centres operate differently compared to primary schools and kindergartens. Staff members arrive initially before the childcare centre opens, with staff numbers increasing slowly as child attendance increases throughout the day.

As childcare centres do not have set start or finish times (only operating hours), parents do not drop off or pick up children at the same time. Rather, the manner in which children are dropped off and picked up is spread throughout the morning and evening periods. Parents will often drop kids off or pick them up on the way to dropping/collecting other children from nearby schools, on the way to work (which can have varying start times) and on the way home from work (which can also have varying finish times). This is in sharp contrast to primary schools or kindergartens where set start and finish times result in a high level of traffic generated within a relatively short timeframe.

Conservatively adopting the higher rate of 0.8 vehicle trips per childcare place, the proposed 84 place childcare centre is expected to generate 67 vehicle trip ends during the commuter peak hours. This equates to approximately 33 vehicle entry and 33 exit manoeuvres in the peak hour (i.e. 1 entry or exit movement every 1-2 minutes).

The traffic impacts associated with the proposed childcare centre will be primarily limited to Devon Street and dispersed via Miller Street to the south and Oakover Road to the north of the site. We do not consider that the impact of any one traffic movement on the road network will be detrimental to peak hour operations of the surrounding road network once dispersed in various directions.

For the daily traffic generation rate, a highly conservative assessment would be to assume all parents drive their child singularly to the site and pick them up. Accordingly, each childcare place would generate four movements per day, or 336 movements for the 84 place childcare centre. The level of additional traffic can be accommodated via Devon Street, Miller Street and surrounding roads as required.

These assumptions are conservative as they do not allow for any ‘car sharing’ (i.e. more than one child per parent) or the use of alternative transport modes (i.e. walking from nearby properties or public transport modes).

Summary

For the purpose of the following traffic analysis, a total of 67 vehicle trip ends are expected in each of the commuter peak hours. For the school pick-up peak hour (3pm-4pm), we have adopted 50% of the peak hour traffic volumes, or 33 vehicle trip ends (this equates to 16 vehicle entry and 16 exit manoeuvres). A total daily traffic volume of approximately 336 vehicle trip ends is expected.

5. Response to Council's Internal Referrals

Internal referral comments were received from Council's City Designer via email dated 20th May 2024. A response to each of the traffic engineering related comments is provided below.

> *Not sure if the split driveway is the best approach to vehicular access. Opportunity to widen the existing laneway and provide a two lane access to the car park might be more appropriate and have less impact on the streetscape.*

Vehicle access to the site is proposed via two single width crossovers to Devon Street, located near the site's north-western corner, with a one-way separated arrangement (northern crossover entry only, southern crossover exit only). The vehicle access has been designed to retain a street tree within the verge along the Devon Street frontage.

The proposed access arrangement was chosen for the following reasons:

- The location of the crossover results in no conflicts with the adjacent ROW traffic and is easy for parents and staff to find.
- The one-way configuration is easy to navigate, manages vehicle movements and allows retention of street trees.
- The crossover is accessible directly from a local street and is easy to locate.

Relocating the access to the adjacent ROW will result in an ineffective car parking arrangement as it will have a significant impact on the carpark layout and loss of car spaces. The carpark will be more difficult for parents to navigate to and result in a direct interaction between childcare centre traffic and users of the laneway.

We are satisfied that the proposed access arrangement is an acceptable traffic engineering outcome.

> *There is no footpath on the east of Devon Street. Construction of a new footpath along the property boundary might be better as it will provide pedestrian access along the edge. This footpath can be extended to the north in future improving pedestrian connectivity around the block and facilitating good pedestrian access to the site.*

We understand that there are existing street trees located along the site's frontage to Devon Street. We further understand that an external footpath in that location may impact or come within close vicinity of some of these trees. As a result, a pedestrian path has been proposed within the site's boundary to avoid impacting any of these street trees. The proposed pedestrian path is appropriate and directs pedestrians who arrive to the site to the pedestrian entrance from the existing Miller Street pedestrian infrastructure.

We understand that traffic referral comments were also received (email dated 4th July 2024) and that the application was considered acceptable.

6. Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed childcare centre at 66 & 72 Miller Street, Preston, we are of the opinion that:

a) the proposed development has a statutory car parking requirement of 18 car spaces under Clause 52.06-5,

b) the provision of 18 car spaces accords with the statutory requirements of Clause 52.06 and a car parking reduction is not required,

c) bicycle parking is not required under Clause 52.34 for the proposed childcare; however 4 bicycle spaces are provided,

d) the layout of the on-site parking areas is acceptable and accords with the relevant requirements of Clause 52.06-9, AS2890.1-2004 (where relevant) and AS2890.6-2022 (where relevant),

e) traffic associated with the development will be moderate, spread across the peak periods, dispersed via Devon Street to intersections to the south (Miller Street) and north (Oakover Road) and wider road network (Gilbert Road, St Georges Road and Bell Street),

f) waste collection will occur on-site, outside of peak operating hours and does not pose any significant traffic engineering issues, and

g) there are no traffic engineering reasons why a planning permit for the proposed childcare development at 66 & 72 Miller Street, Preston, should be refused.

Appendix A

Development Plans

No.29 GILLINGHAM STREET

DEVON STREET

MILLER STREET

ROAD (LANE)

AREA ANALYSIS
CHILD CARE FACILITY

SITE AREA:	1117	m²
GROUND BUILDING AREA:	339	m²
FIRST BUILDING AREA:	375	m²
TOTAL BUILDING AREA:	714	m²
TOTAL CAR PARKING AREA:	457	m²
SITE COVERAGE:	30.34	%
SITE PERMEABILITY:	24.7	%
OUTDOOR PLAY AREA - REQUIRED:	588	m²
OUTDOOR PLAY AREA - PROVIDED:	593	m²
TOTAL CAR PARKING REQUIRED:	18	
TOTAL CAR PARKING PROVIDED:	18	

ROOM NAME	AREA	No. OF CHILDREN
CHILDREN'S ROOM 01	27 m²	8
CHILDREN'S ROOM 02	28 m²	8
CHILDREN'S ROOM 03	56 m²	16
CHILDREN'S ROOM 04	77 m²	22
CHILDREN'S ROOM 05	105 m²	30
TOTAL: 5	292 m²	84

WASTE NOTES:
PROVIDE THE FOLLOWING BINS WITHIN THE WASTE STORAGE AREA -
• 1 X 660L & 1 X 360L BIN FOR GARBAGE COLLECTED TWICE A WEEK
• 1 X 660L & 1 X 360L BIN FOR RECYCLING COLLECTED TWICE A WEEK
• 2 X 240L BINS FOR FOGO COLLECTED TWICE A WEEK
• 1 X 660L BIN FOR PAPER & CARDBOARD COLLECTED TWICE A WEEK.
WASTE AREA NEEDS TO BE DESIGNED AND ADDRESSED BY THE FOLLOWING POINTS:
• ENSURE THE BIN VOLUMES AND WASTE STREAMS ARE LABELLED ON THE PLANS.
• ACCESS DOOR TO THE WASTE AREA AND ACCESS PATH TO THE COLLECTION ZONE SHOULD BE AT LEAST 1.3M TO ALLOW ADEQUATE TRANSFER OF THE LARGEST BINS.
• ENSURE THE SIZE OF THE WASTE AREA FOR EACH LAND USE IS NOTED ON THE PLANS.
• THE WASTE AREA SHOULD BE ENCLOSED AND SECURE. ACCESSWAYS WITHIN THE WASTE AREA SHOULD ALLOW FOR CONVENIENT TRANSFER OF BINS WHERE REQUIRED.
• PROVIDE WASHING FACILITIES FOR THE BINS (PROVISION OF HOSE AND DRAIN) WITHIN THE WASTE AREA. DRAIN TO BE CONNECTED TO SEWAGE
•BINS SHOULD BE SPACED AT LEAST 50MM APART.
THE DIMENSIONS FOR THE PROPOSED BINS SUPPLIED BY SULO ARE:
• 240L - 1,060MM HIGH X 585MM WIDE X 730MM DEEP
• 660L - 1,200MM HIGH X 1,260MM WIDE X 780MM DEEP
• 360 L - 1,100MM HIGH X 680MM WIDE X 848MM DEEP

PROVIDE LIGHTING NO HIGHER THAN 1.2m ABOVE GROUND LEVEL TO AUTOMATICALLY ILLUMINATE PEDESTRIAN ACCESS AND PARKING AREA AS PER COUNCIL REQUIREMENTS

GROUND & FLOOR LEVELS ARE IN ACCORDANCE WITH AUSTRALIAN HEIGHT DATUM (AHD).

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ISSUE	DESCRIPTION	DATE
A	ISSUED FOR TOWN PLANNING.	27.03.24
B	ISSUED FOR TOWN PLANNING.	05.07.24

ISSUED FOR TOWN PLANNING PURPOSES ONLY

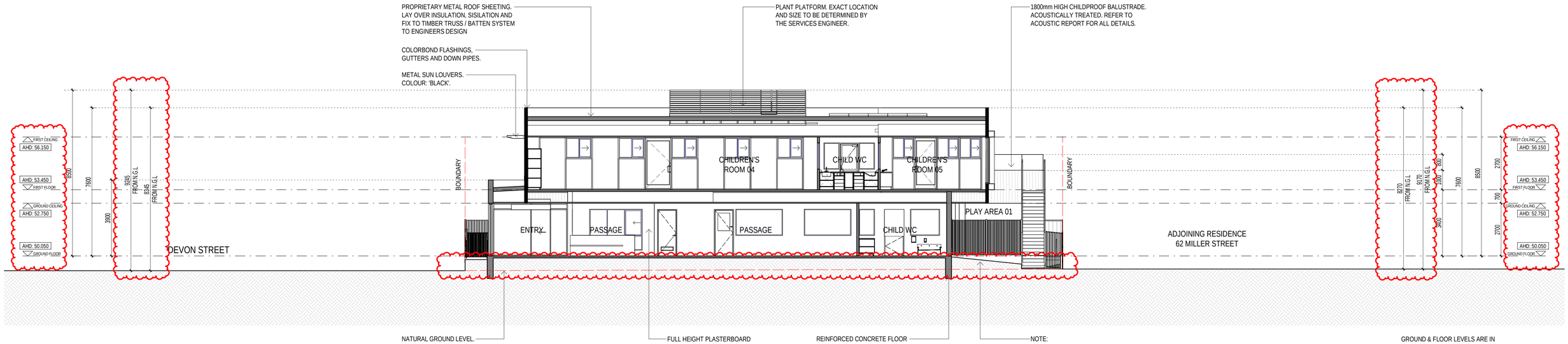
PROPOSED CHILDCARE DEVELOPMENT
66 & 72 MILLER STREET,
PRESTON, VIC. 3072.

PROPOSED GROUND FLOOR PLAN

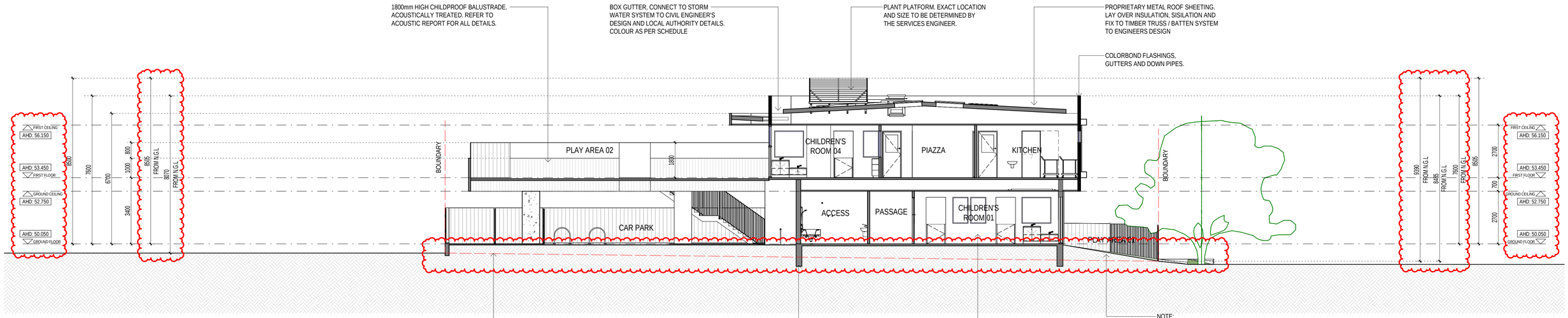
Date. 05.07.24 Drawn. LJ
Job No. 3253 Scale@A1 1 : 100

TP 101 B

C:\Users\Lee.ELLIS\OneDrive - The Ellis Group Architects\Documents\3253 Central TP_Lee@ellisgroup.com.au.rvt



2/100 SECTION 02
1 : 100



1/100 SECTION 01
1 : 100

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PROPOSED CHILDCARE DEVELOPMENT
66 & 72 MILLER STREET,
PRESTON, VIC. 3072.

SECTIONS

Date. 05.07.24 Drawn. LJ
Job No. 3253 Scale@A1 1 : 100

TP 200 B

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Appendix B

Parking Inventory and Map

66 and 72 Miller Street, Preston
REF: G34540
Parking Inventory

Traffix Group

Surveyed By: Sarah Stephenson

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Tuesday 30th January 2024 10am
ON-STREET CARPARKING				
Map Ref.	**MILLER STREET**			
	North Side			
A	Davis Street to EB#46	No Stopping	-	0
		Unrestricted	13	6
	EB#46 to EB#66	Unrestricted	11	3
	EB#66 to Devon Street (Subject Site)	**Unrestricted**	**5**	**3**
		No Stopping	**-**	**0**
B	Devon Street to Carthew Avenue	No Stopping	-	0
		Unrestricted	5	3
		No Stopping	-	0
C	Carthew Avenue to Mitchell Street	No Stopping	-	0
		Unrestricted	5	3
		1P 9am-6pm Mon-Fri	1	0
		No Stopping	-	0
	South Side			
D	WB#113 to WB#85	1P 8am-6pm Mon-Fri, 8am-1pm Sat	6	5
		Unrestricted	3	3
	WB#85b to Bracken Avenue	Unrestricted	8	4
		No Stopping	-	0
E	Bracken Avenue to Hobson Street	No Stopping	-	0
		Unrestricted	8	6
		No Stopping	-	0
F	Hobson to EB#27	No Stopping	-	0
		Unrestricted	13	0
MILLER STREET		**Capacity**	**78 - 78**	**78**
		Total Number of Cars Parked		**36**
		Total Number of Vacant Spaces		**42**
		Percentage Occupancy		**46%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

66 and 72 Miller Street, Preston
REF: G34540
Parking Inventory

Traffix Group

Surveyed By: Sarah Stephenson

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Tuesday 30th January 2024 10am
Map Ref.	**DEVON STREET**			
	East Side			
G	**Miller Street to ROW (Subject Site)**	**No Stopping**	**-**	**0**
		Unrestricted (indented 60deg Angle)	**4**	**3**
		No Stopping	**-**	**0**
	ROW to Gillingham Street	No Stopping	-	0
		Unrestricted (indented 60deg Angle)	9	3
		No Stopping	-	0
H	Gillingham Street to Stephen Street	No Stopping	-	0
		Unrestricted (indented 60deg Angle)	16	10
		No Stopping	-	0
I	Stephen Street to Oakover Road	No Stopping	-	0
		Unrestricted (indented 60deg Angle)	10	5
		No Stopping	-	0
	West Side			
J	Oakover Road to SB#10	No Stopping	-	0
		Unrestricted	10	2
	SB#10 to SB#3	Unrestricted	10	5
	SB#3 to Miller Street	Unrestricted	6	0
		No Stopping	-	0
DEVON STREET		**Capacity**	**65 - 65**	**65**
		Total Number of Cars Parked		**28**
		Total Number of Vacant Spaces		**37**
		Percentage Occupancy		**43%**
Map Ref.	**GILLINGHAM STREET**			
	North Side			
K	Devon Street to EB#18	No Stopping	-	0
		Unrestricted	12	5
	EB#18 to Davis Street	Unrestricted	12	8
		No Stopping	-	0
	South Side			
L	Devon Street to EB#21	No Stopping	-	0
		Unrestricted	10	5
	EB#21 to EB#5	Unrestricted	10	6
	EB#5 to Davis Street	Unrestricted	8	5
		No Stopping	-	0
GILLINGHAM STREET		**Capacity**	**52 - 52**	**52**
		Total Number of Cars Parked		**29**
		Total Number of Vacant Spaces		**23**
		Percentage Occupancy		**56%**

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

66 and 72 Miller Street, Preston
REF: G34540
Parking Inventory

Traffix Group

Surveyed By: Sarah Stephenson

Survey Dates & Times: See below

Location		Restriction	Capacity Min - Max	Tuesday 30th January 2024 10am
Map Ref.	**HOBSON STREET**			
	East Side			
M	Miller Street to Keon Street	No Stopping	-	0
		Unrestricted	8	4
		No Stopping	-	0
	West Side			
N	Miller Street to Keon Street	No Stopping	-	0
		Unrestricted	5	2
		No Stopping	-	0
HOBSON STREET		**Capacity**	**13 - 13**	**13**
		Total Number of Cars Parked		**6**
		Total Number of Vacant Spaces		**7**
		Percentage Occupancy		**46%**
Map Ref.	**CARTHEW GROVE**			
	East Side			
O	Miller Street to NB#4	No Stopping	-	0
		Unrestricted	7	2
	West Side			
P	Miller Street to NB#3	No Stopping	-	0
		Unrestricted	6	4
CARTHEW GROVE		**Capacity**	**13 - 13**	**13**
		Total Number of Cars Parked		**6**
		Total Number of Vacant Spaces		**7**
		Percentage Occupancy		**46%**
SUMMARY => ON-STREET CARPARKING				
Car Parking Supply			**221 - 221**	**221**
Total Number of Cars Parked				**105**
Total Number of Vacant Spaces				**116**
Percentage Occupancy				**48%**

Note: Public parking includes spaces that are available to the general public and excludes 'No Stopping' and 'No Parking' areas, etc., during the relevant enforcement periods

LEGEND:
- Public Parking
- Not available to the general public
- Not Available, illegally parked cars included in analysis
- No Stopping/ Other No Parking

Nb/Sb - Northern/Southern Property Boundary
Eb/Wb - Eastern/Western Property Boundary
Mid pt - Mid point
ROW - Right of Way

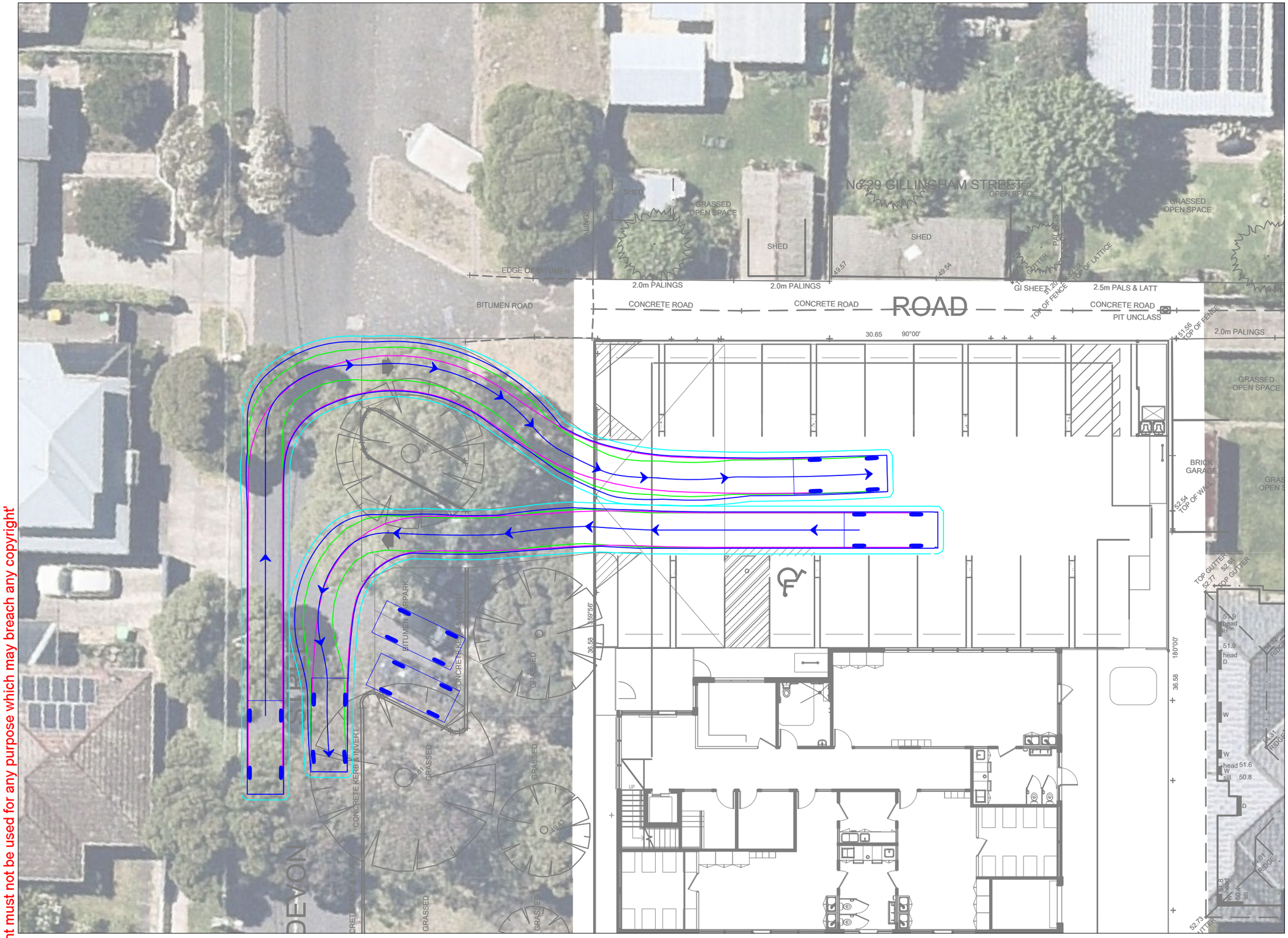
66 and 72 Miller Street, Preston
REF: G34540
Parking Inventory Area

Traffix Group

Appendix C

Swept Path Diagrams

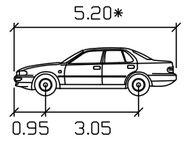
B99 CIRULATION SIMULTANEOUS PASSING AT SITE ENTRANCE



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



99th percentile
(AS/NZS 2890.1:2004)

Width	: 1.94
Track	: 1.84
Kerb to Kerb Radius	: 12.5m

- actual template based on 'relevant longitudinal dimensions (that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	18/03/2023	TOWN PLANNING	S. STEPHENSON	J. STONE
B	22/07/2024	RFI	S. STEPHENSON	J. STONE

66 & 72 MILLER STREET, PRESTON

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM; 3253 - GROUND FLOOR.dwg
DRAWINGS BY The ELLIS Group Architects
(Dated 5th July 2024)

FILE NAME: G34540-01B

SHEET NO.: 01

SCALE: 1:200 (A3)

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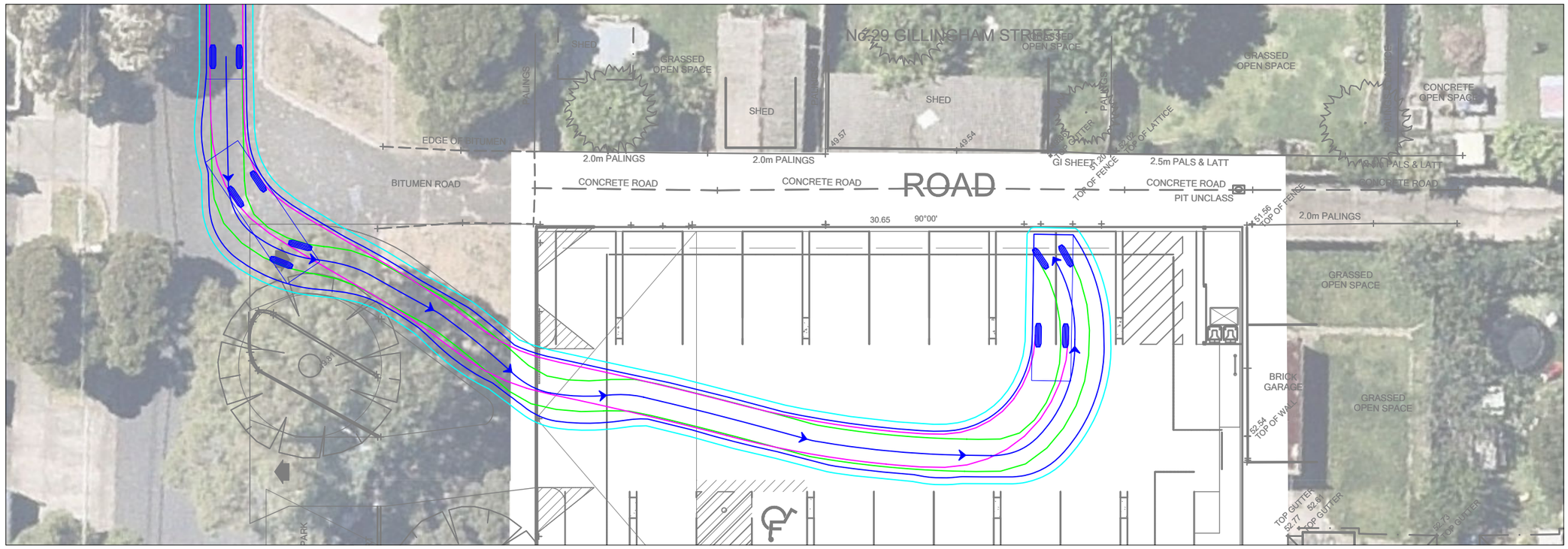
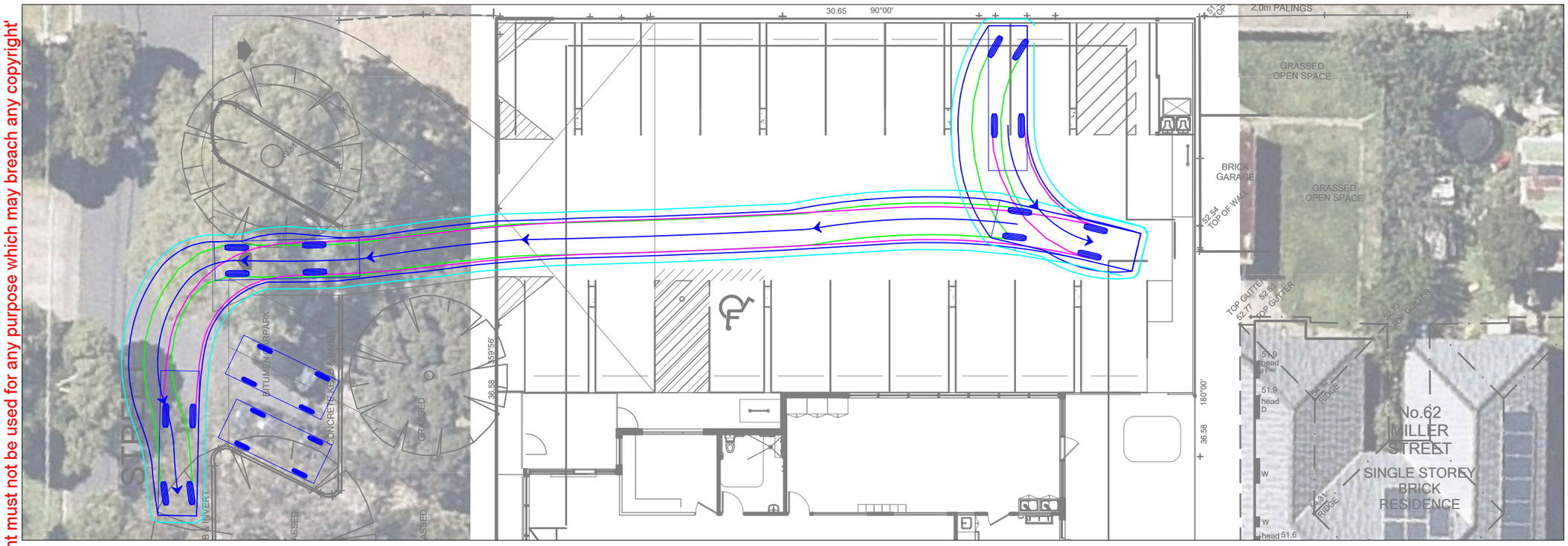
6.4m WASTE TRUCK - INGRESS



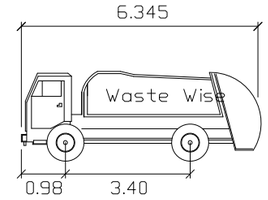
6.4m WASTE TRUCK - INGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



Waste Wise Mini (Hino 300)

Width	: 1.7m
Front Track	: 1.4m
Rear Track	: 1.44m
Kerb to Kerb Radius	12.4m

LEGEND

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	18/03/2023	TOWN PLANNING	S. STEPHENSON	J. STONE
B	22/07/2024	RFI	S. STEPHENSON	J. STONE

66 & 72 MILLER STREET, PRESTON

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM; 3253 - GROUND FLOOR.dwg
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FILE NAME: G34540-01B

SHEET NO.: 02

SCALE: 1:200 (A3)

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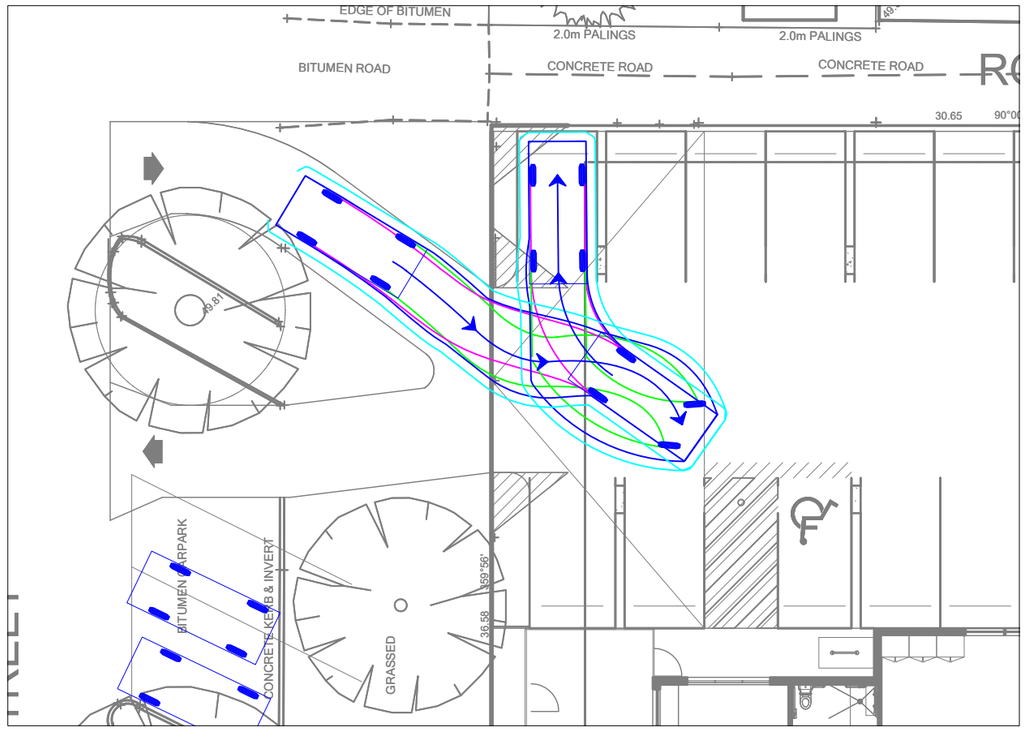
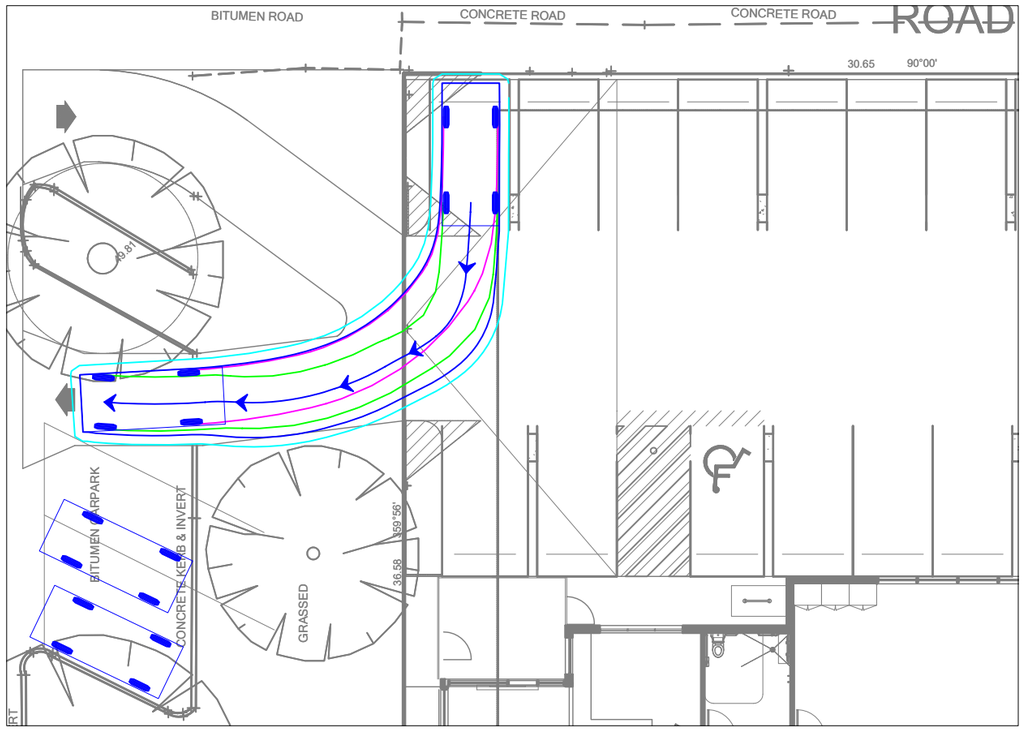
CAR SPACE 01 - INGRESS



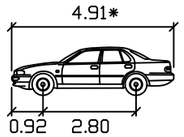
CAR SPACE 01 - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



85th percentile
(AS/NZS 2890.1:2004)

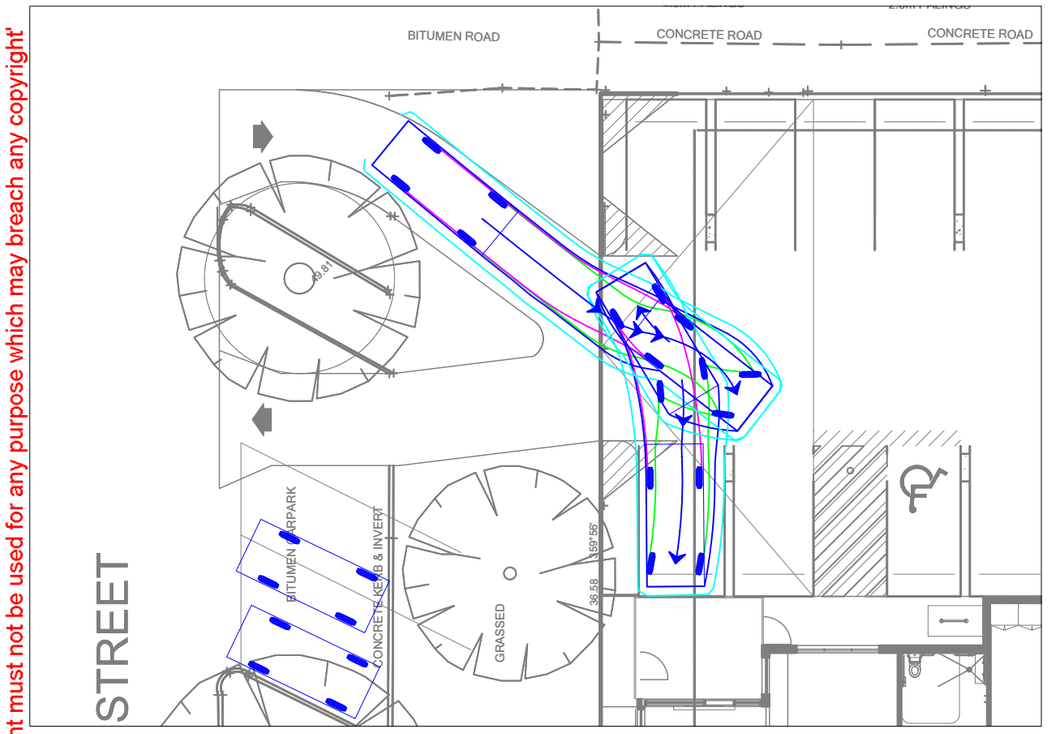
Width	: 1.87m
Track	: 1.77m
Kerb to Kerb Radius	: 11.5m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

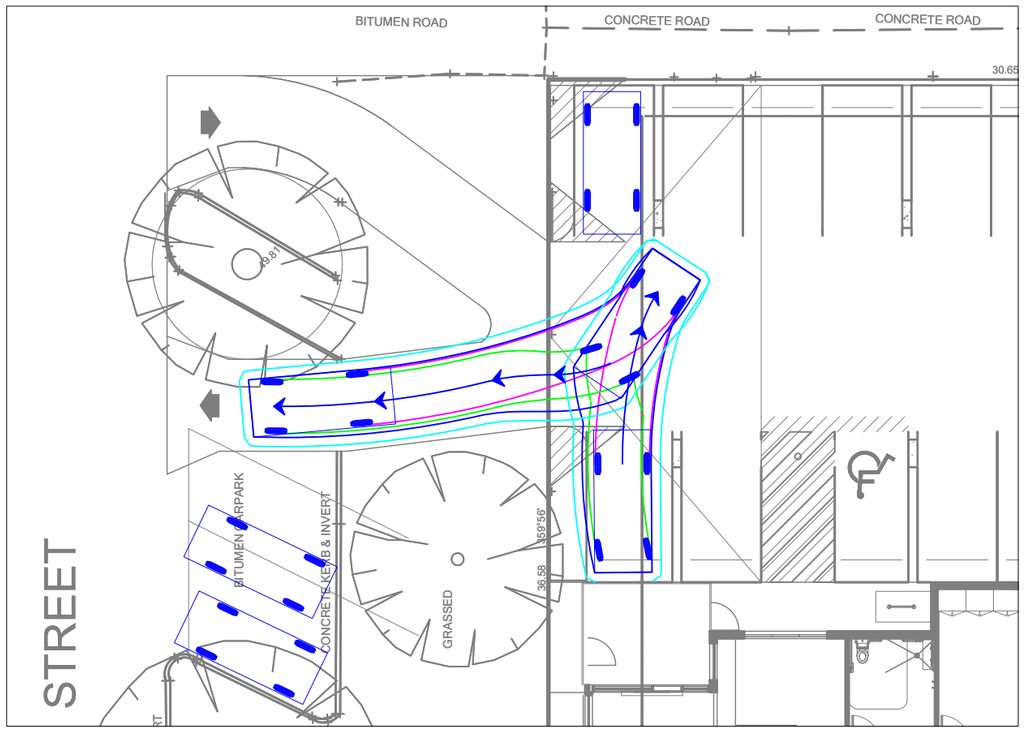
LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

CAR SPACE 10 - INGRESS



CAR SPACE 10 - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	18/03/2023	TOWN PLANNING	S. STEPHENSON	J. STONE
B	22/07/2024	RFI	S. STEPHENSON	J. STONE

66 & 72 MILLER STREET, PRESTON
PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM; 3253 - GROUND FLOOR.dwg
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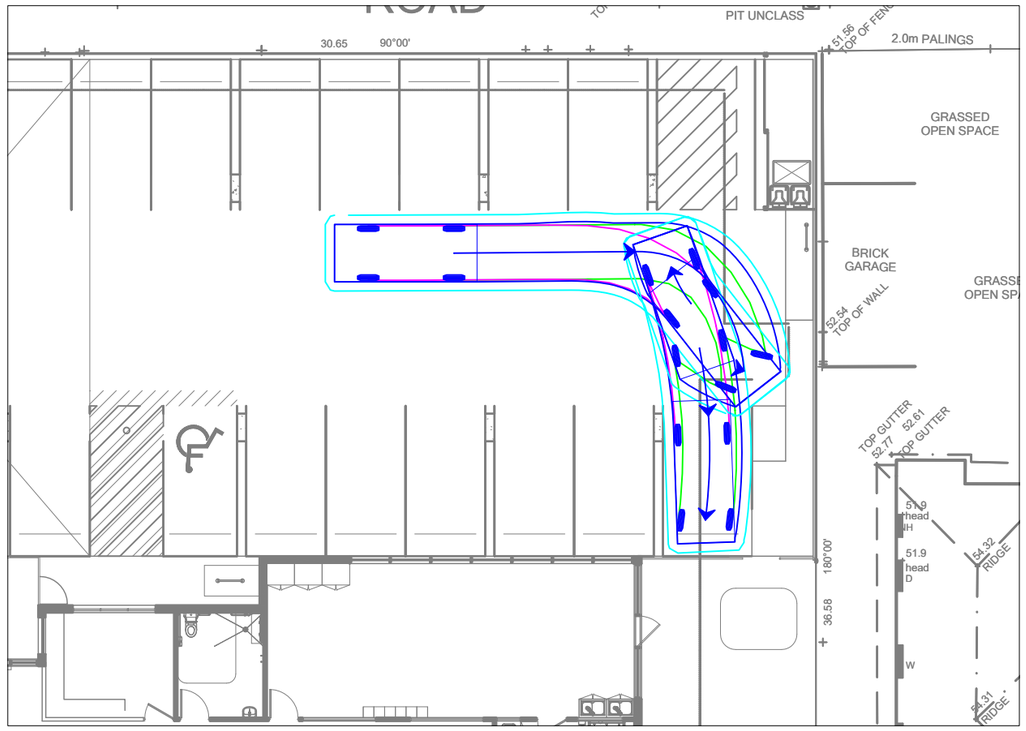
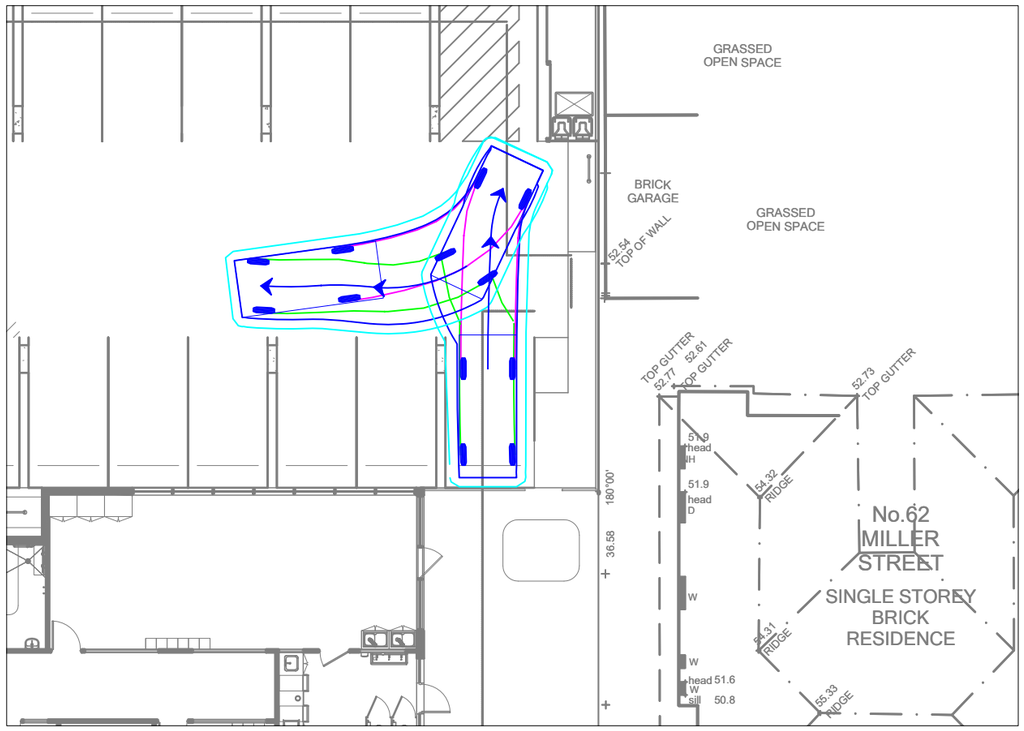
CAR SPACE 18 - INGRESS



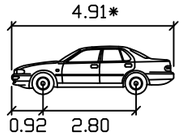
CAR SPACE 18 - EGRESS



VEHICLE PROFILE

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)



85th percentile
(AS/NZS 2890.1:2004)

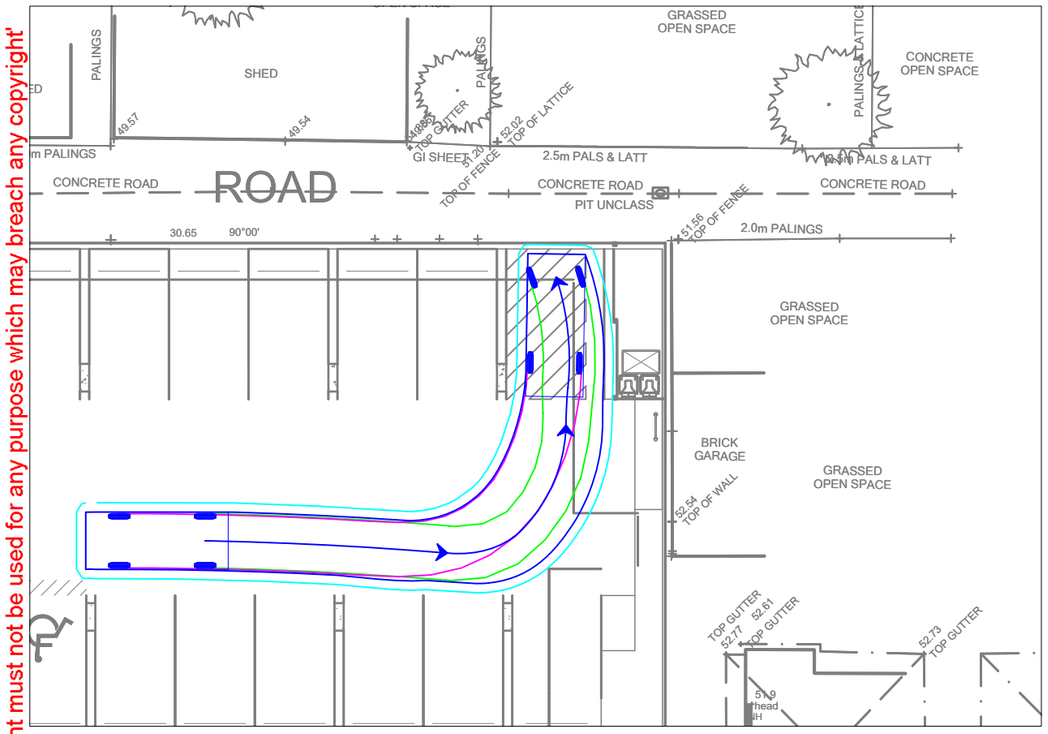
Width	: 1.87m
Track	: 1.77m
Kerb to Kerb Radius	: 11.5m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

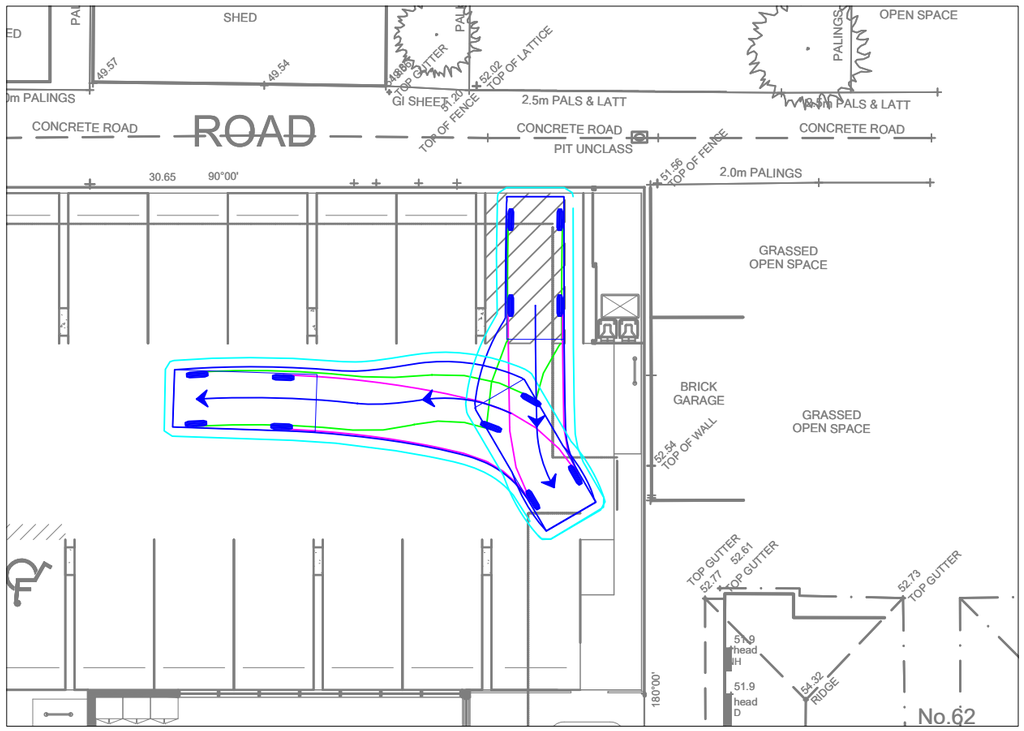
LEGEND

- REAR WHEELS
- FRONT WHEELS
- VEHICLE BODY
- BODY CLEARANCE

B85 TURNING BAY - INGRESS



B85 TURNING BAY - EGRESS



REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	18/03/2023	TOWN PLANNING	S. STEPHENSON	J. STONE
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66 & 72 MILLER STREET, PRESTON

PROPOSED CHILDCARE CENTRE DEVELOPMENT

GENERAL NOTES:

BASE INFORMATION FROM; 3253 - GROUND FLOOR.dwg
DRAWINGS BY The ELLIS Group Architects
(Dated 5th July 2024)

FILE NAME: G34540-01B
SHEET NO.: 04

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