

PROPOSED CHILD CARE CENTRE, GOSPEL HALL & SHOP

PART LOT 20 (7) HARDEY ROAD, GLEN FORREST (SHIRE OF MUNDARING)

TRANSPORT IMPACT STATEMENT

Final

Prepared by i3 consultants WA for  
State West Planning & Mundaring Gospel Trust

**Prepared by**

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**Description**

A Transport Impact Statement for a proposed Child Care Centre (46 children), Gospel Hall and Shop in the northwest corner of Lot 20 in the Shire of Mundaring locality of Glen Forrest prepared in accordance with the 2016 WAPC Transport Impact Assessment Guidelines.

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**Client**

State West Planning & Mundaring Gospel Trust

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**About the Author**

David Wilkins is an RTA NSW Certified Level 3 Lead Auditor (RSA-08-0178) and Main Roads Western Australia (MRWA) accredited Senior Road Safety Auditor (SRSA 0101). In addition to this, David is an MRWA accredited Crash Investigation Team Leader and Roadworks Traffic Manager (MRWA-RTM-10-RTM20). David has undertaken over 520 road safety audits in Australia since 2001 across the full range of stages from feasibility through to pre-opening, including roadworks, existing roads, schools, events & mine sites.

David specialises in undertaking and preparing traffic impact assessments in accordance with either the WAPC *Transport Impact Assessment Guidelines* or Austroads *Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments* (1). David has authored over 240 of these since 2001.

David is a member of Engineers Australia and committee member of Transport Australia society and is guided by its Charter and Code of Ethics which states that its members act in the interest of the community, ahead of sectional or personal interests towards a sustainable future. Engineers are members of the community and share the community's aspirations for Australia's future prosperity.

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## Summary

The key components of a *TIS* for a development proposal are to:

- assess the proposed development with respect to accessibility, circulation, and safety for all modes, that is, vehicles, public transport, pedestrians, and cyclists,
- assess the level of transport integration between the development proposal and the surrounding land uses, and
- determine the impacts of the traffic generated by the development proposal on the surrounding land uses.

This *TIS* has determined that the proposed development is forecast to generate less than 90 trips in its busiest hour.

Traffic surveys undertaken at the existing service area near Great Eastern Hwy indicate that the existing assignment of traffic is approximately 50% to and from the north and 50% to and from the south. This effectively reduces the forecast additional traffic through the Hardey Rd/ Great Eastern Hwy intersection to 45 vehicles and even less when taking into account by-pass traffic, i.e., traffic that visits the site as part of a trip already being undertaken along Hardey Rd.

Given that Hardey Rd, and its intersection with Great Eastern Hwy has plenty of spare capacity, the proposed development will not result in an unacceptable impact on the road network.

The development plan includes two access options. Option B is preferred from a safety point of view as it removes unnecessary conflict between child care traffic in the car park (loading and unloading of children) and traffic associated with the Shop and Hall.

The Shire of Mundaring has adopted (24/09/1996) a Hardey Road Precinct Plan aimed at managing traffic between the shopping centre and commercial uses on the east side via a roundabout and the provision of a blister island south of this, including 'safe' pedestrian crossing facilities, but has not appeared to progress this, despite an indicated time frame of 2002/ 2003.

The video surveys indicate that the proposed roundabout is unlikely to be an appropriate treatment and it may be better to install a wide pedestrian refuge island at this location instead. It is beyond the scope of this TIA to assess and recommend an appropriate local traffic management plan for the entire precinct, but it is clear that there is an existing demand and warrant for pedestrian crossing facilities between the two service areas on Hardey Rd just south of Great Eastern Hwy. that requires addressing, irrespective of this development proposal.



## Introduction

This Transport Impact Statement (TIS) report has been prepared in accordance with the WAPC publication *Transport Impact Assessment Guidelines* (2). These guidelines indicate that a Transport Impact Statement (TIS) “is required for those developments that would be likely to generate moderate volumes of traffic and therefore would have a moderate overall impact on the surrounding land uses and transport networks, (in accordance with Table 1.)”.

LAND USE	MODERATE IMPACT	HIGH IMPACT
	Transport Impact Statement required	Transport Impact Assessment required
	10 – 100 vehicle trips in the peak hour	> 100 vehicle trips in the peak hour
Residential	10–100 dwellings	>100 dwellings
Schools	10–100 students	>100 students
Entertainment venues, restaurants, etc.	100–1000 persons (seats) OR 200–2000 m <sup>2</sup> gross floor area	>1000 persons (seats) OR >2000 m <sup>2</sup> gross floor area
Fast food restaurants	50–500 m <sup>2</sup> gross floor area	>500 m <sup>2</sup> gross floor area
Food retail /Shopping centres with a significant food retail content	100–1000 m <sup>2</sup> gross floor area	>1000 m <sup>2</sup> gross floor area
Non-food retail	250–2500 m <sup>2</sup> gross floor area	>2500 m <sup>2</sup> gross floor area
Offices	500–5000 m <sup>2</sup> gross floor area	>5000 m <sup>2</sup> gross floor area
Service Station	1–7 refuelling positions	>7 refuelling positions
Industrial/Warehouse	1000–10,000 m <sup>2</sup> gross floor area	>10,000 m <sup>2</sup> gross floor area
Other Uses	Discuss with approving authority	Discuss with approving authority

Table 1 – Land use warrants for Transport Impact Statements and Assessments

A Child Care Centre and Gospel Hall are ‘Other Uses’ in Table 1 above. A preliminary assessment of likely peak hour trips of the Child Care Centre, Gospel Hall & Shop indicated that the combined trips from all three uses was likely to be up to 86 trips and hence a Transport Impact Statement has been prepared, as per Column 2, i.e., 10 – 100 vehicle trips in the peak hour: Moderate Impact.

Part Lot 20 is currently vacant. There are a number of land uses between Lot 20 and Great Eastern Hwy that generate traffic, e.g., Local Shopping Centre (Glen Forrest Shopping Centre, including an IGA anchor store), a Medical Centre (Glen Forrest Medical Centre), a Pharmacy (Glen Forrest Pharmacy), a Restaurant (Antonio’s), Service Station (Caltex), Optometrist (Eyecare Plus), Physiotherapist and Clinical Pilates Studio (Glen Forrest Physiotherapy), Bakery (Glen Forrest Bakery), and Pathology Collection Point (Western Diagnostic). In addition to this, there is a Coffee Kiosk (Robyn’s Nest) operating from within the car park on the west side of the shopping centre that is mostly accessed via Great Eastern Hwy but is occasionally also accessed off Hardey Rd via the car park aisles and access driveways.

In the absence of any traffic data for Hardey Rd and in recognition that this would not be able to take into account all trips to and from the above land uses, the author undertook two 10-hour video surveys of Hardy Rd between and including the Great Eastern Hwy intersection and Lot 20 between 6.30 AM and 4.30 PM on Wednesday 25<sup>th</sup> October 2023. The video survey was also used to gain an understanding of driver behaviours in the vicinity of the subject site. The videos can be viewed [here](#) (note they are recorded at 8x the speed).

The preparation of a TIS in accordance with the WAPC Guidelines is consistent with, and ensures compliance with, Clause 67(t) of the *Planning and Development (Local Planning Schemes) Regulations 2015* (3) which state “due regard should be given to the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety”.

The following sections have been prepared in a format that clearly identifies the items that are required to be assessed in a TIS and the responses and/ or assessments relative to these items.

## 1 Proposed development

### Existing land uses

Lot 20 is a 25,116 m<sup>2</sup> Lot on the northeast corner of Hardey Rd and Strette Rd that contains a single residential dwelling and outbuildings, as shown in Figure 1 below.



Figure 1 – Annotated aerial photograph showing Lot 20 and proposed Development Site



**Proposed land use**

It is proposed to subdivide Lot 20 to create a 5,900 m<sup>2</sup> Lot in the northwest quadrant of the exiting lot to allow for the development of a 46 place Child Care Centre, Gospel Meeting Hall and Shop in three separate buildings with separate car parks but joined car parks to allow for reciprocal and shared use of these.

The proponent is considering two access options. Option 1 has a single access to the Shop Car Park off Hardey Rd with connecting aisles to the Hall and Child Care Car Parks. Option 2 retains the single access to the Shop Car Park with a connecting aisle to the Hall Car Park with the addition of two IN and OUT access driveways to the Child Care Car Park south of this, as shown in Figure 2 below.



Figure 2 – Proposed development with Optio1 Access Arrangements and Option 2 Access Arrangements

### Context with surrounds

The site is located on the east side of Hardey Rd immediately south of the existing commercial development on Lot 201 that contains a Service Station, Bakery, Physiotherapist/ Clinical Pilates Studio and Pathology businesses and services.

Hardey Rd (1061153) is a Local Distributor Rd under the care and control of the Shire of Mundaring and is subject to a posted speed limit of 50 km/h.

An aerial photograph of the site and its immediate surrounds, as well as the road hierarchy within 2 kms of the site, are provided as Figure 3 below and Figure 4 on the following page respectively.



Figure 3 – Annotated aerial photograph dated Oct 2023 showing subject site, road layout and surrounds within 800 m

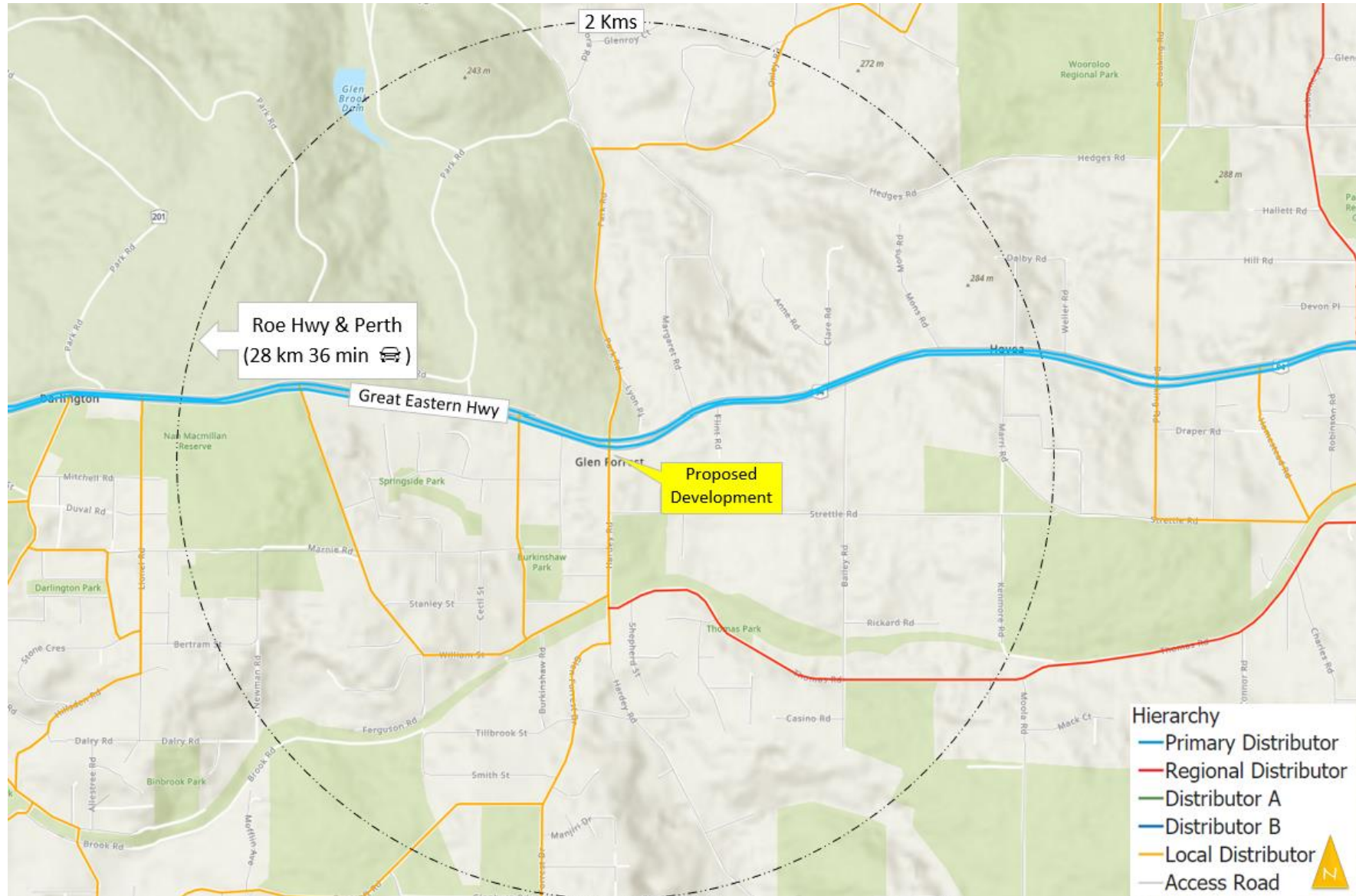


Figure 4 – Road Hierarchy and network within 2 kms of the subject site





## 2 Vehicular access and parking

### Access arrangements

As indicated in **Section 1** and Figure 2 on page 6, the proponent is considering two access options, both off Hardey Rd.

### Public, private, disabled parking, set-down/ pick-up

The design drawings show:

- ▶ nineteen (21) standard parking bays and 1 accessible bay with associated ‘shared space’ within the Shop Car Park,
- ▶ fourteen (14) standard parking bays and 1 accessible bay with associated ‘shared space’ within the Hall Car Park, and
- ▶ sixteen (16) standard parking bays and 1 accessible bay with associated ‘shared space’ within the Child Care Car Park

Table 2 of the Shire of Mundaring’s *Local Planning Scheme No4 (LPS4)* <sup>(4)</sup> has the following requirements for each of the indicated land uses:

- ▶ Shop (in Local Centre Zone): 1 space per 15 m<sup>2</sup> GLA.
- ▶ Place of Worship: 1 space per 4 persons capable of being accommodated.
- ▶ Child Care Premises: 1 space per every 8 children allowed under maximum occupancy, plus 1 space per employee or staff member.

An assessment of the above requirements indicates compliance even without considering shared and reciprocal parking practices between the three land uses, as shown in Table 2 below.

Shop	Required	Provided	
		Regular	♿
Gross Lettable Area (313)	21	21	1
<b>Total</b>		<b>22</b>	

Hall	Required	Provided	
		Regular	♿
Maximum Persons (GFA: 175 m <sup>2</sup> = 44)	11	14	1
<b>Total</b>		<b>15</b>	

Child Care Premises	Required	Provided	
		Regular	♿
Children (46)	6	16	1
Employees (10)	10		
<b>Total</b>	<b>16</b>	<b>17</b>	

All Land Uses	48	51	3
		54	

Table 2 – Assessed compliance with respect to parking provision

### 3 Service vehicles

#### Access arrangements

The largest vehicle to service the site is the 8.8 m MRV Design Vehicle. This vehicle will service the Shop Land Use using the Loading Bay provided at the rear that is accessed in an anticlockwise movement through the car park, as shown in Figure 5 below.

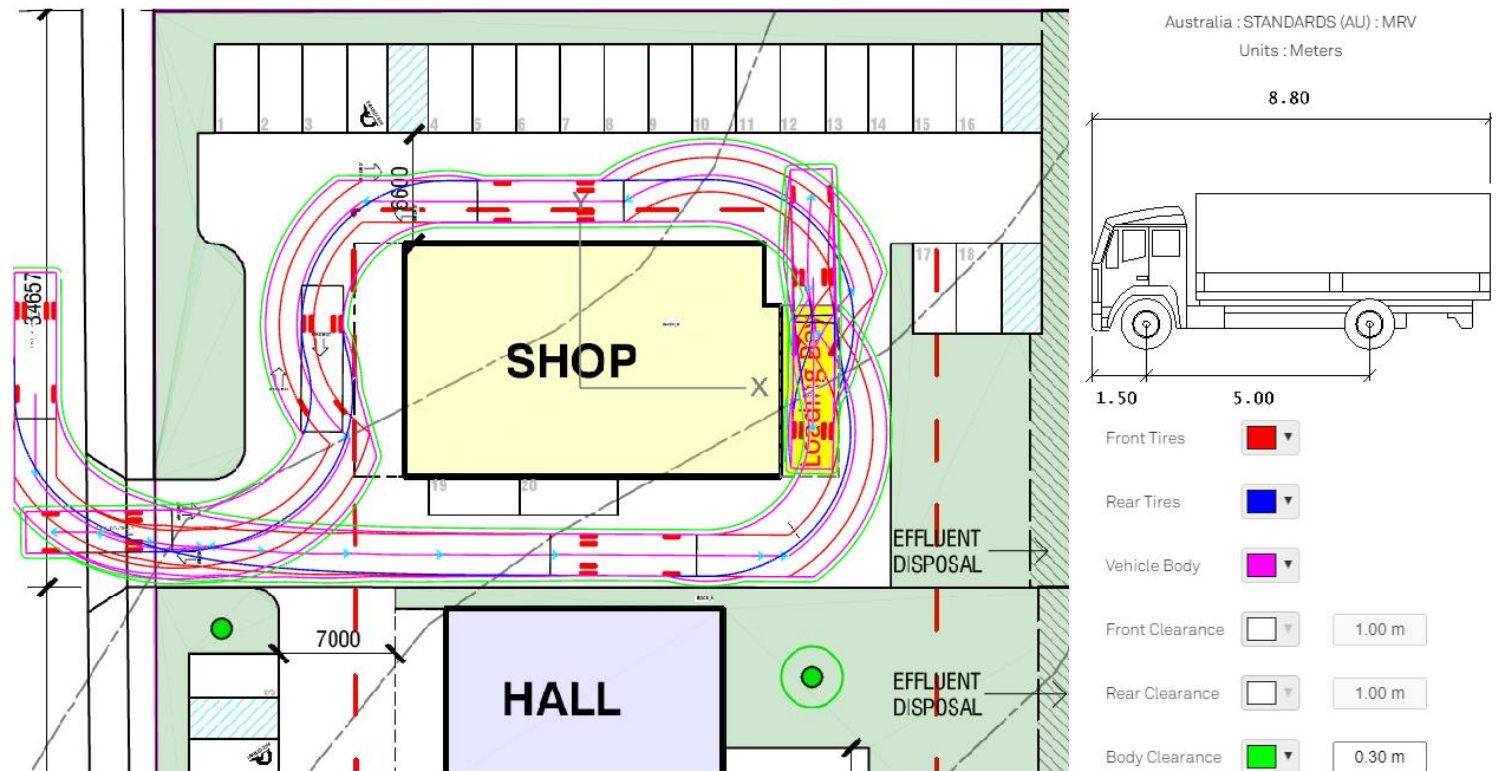


Figure 5 – Swept path assessment: MRV Design Vehicle servicing the shop

#### On/ off-site loading facilities

At rear of Shop Land Use, as shown above.



## 4 Hours of operation

### Operating hours

The proponent has advised the following:

Land Use	Days and Hours	Trips	Trips included in TIA Weekday Peak Hours*
Shop	Monday – Friday: 9.00 AM – 5.30 PM Weekends: 8.00 AM – 6.00 PM	3-4 cars 2-3 cars	7.30 – 8.30 AM: 26 3.15 – 4.15 PM: 52
Hall	Monday: 7.00 – 7.30 PM Church Meeting . Tuesday – Saturday: Not used. Sunday 6.00 – 7.00 AM Church Service. Sunday 5.00 – 6.00 PM Church Service.	6 - 10 cars. 0 cars. 6 - 10 cars. 10 - 15 cars.	7.30 – 8.30 AM: 4 3.15 – 4.15 PM: 4
Child Care	Monday – Friday: 6.30 AM – 6.00 PM		7.30 – 8.30 AM: 48 3.15 – 4.15 PM: 34

\*The proponent has indicated that *“the shop will be operated on a subscription member model where it is not open to the general public as such but members only (similar to the Costco model). There are currently approx. 30 households (vehicles) that would use the shop once a week or more.”* The trip generation for the Shop in this TIA is based on standard trip generation rates for a standard shop due to a lack of trip generation data or surveys for this type of members only shop. It is therefore ‘worst case’ in this regard. Refer **Section 5** for trip generation rates and data.

A ‘trip’ is an arrival or departure trip. Hence a single car that arrives and departs in the same peak hour is two trips.

## 5 Traffic volumes

### Daily or peak traffic volumes

There is no known traffic data for Hardey Rd. In the absence of any data, the author has collected and analysed peak hour traffic volumes using two high-level video survey cameras installed to cover all access driveways to existing commercial land uses at the northern end at Great Eastern Hwy as well as the section in front of the subject site. Screenshots from these videos are provided as Figure 6 below.



Figure 6 – Screenshots from video survey cameras

Analysis of the data for the assessed AM peak hour of 0730-0830 and PM peak hour of 1515-1615 has revealed relatively low volumes for a Distributor road, as shown in Figure 7 on the following page. The video recordings of the peak hours can be viewed at 8 times speed [here](#).

The survey data suggests that daily volumes on Hardey Rd at its intersection with Great Eastern Hwy are likely to be around 3,000 vehicles. The functional capacity of a Local Distributor Rd such as Hardey Rd, is 6,000 vehicles. This indicates that Hardey Rd is currently operating at around 50% of its functional capacity.

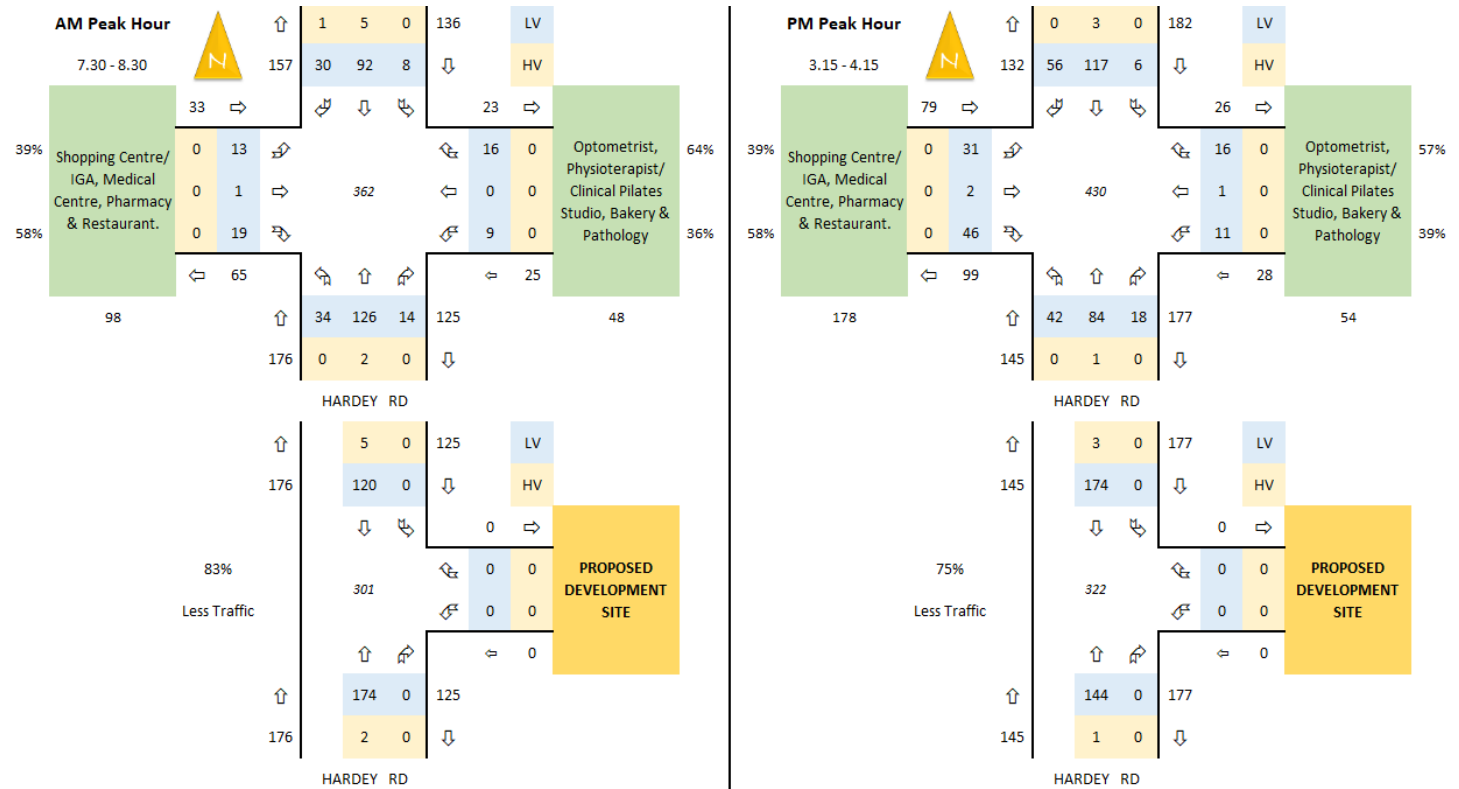


Figure 7 – Surveyed AM and PM Peak Hour Volumes on Hardey Rd south of Great Eastern Hwy (Wednesday 25 November 2023)

The proposed development is expected to generate up to 90 trips during the road network peak hours of 7.30 – 8.30 AM and 3.15 – 4.15 PM. Each land use generates its peak hour volumes at different times of the day. The Hall is not expected to generate any trips other than staff or service trips during the midweek road network peak hours and therefore an allowance of 4 trips has been included for this land use. Detailed data from the sign in and sign out records and video surveys of a 40 place Child Care Centre in Perth has been used to forecast these trips. Retail trips have been taken from the standard trip TfNSW Trip Generation Rates data base. This is likely to overestimate trips for what is effectively a shop for users of the Hall and Child Care Centre. To put this into perspective, the TfNSW rates indicate up to 52 trips during the afternoon peak hour when the total trips to and from the IGA/ Pharmacy/ Medical Centre is 178 trips. Forecasting hourly volumes throughout the day for each land use allows for an assessment of the cumulative impacts of each land use, as shown in Table 3 and Figure 8 on the following page.



Midweek Hourly Profile (Trips)																
	6-7	7-8	8-9	9-10	10-11	11-12	12-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10
Child Care	2	14	48	24	8	6	5	3	13	34	26	17	2	0	0	0
Hall	0	4	4	0	0	0	0	0	0	4	4	0	0	0	0	0
Retail	0	3	26	34	38	45	45	44	44	52	49	47	39	24	0	0
<b>Total</b>	<b>2</b>	<b>21</b>	<b>78</b>	<b>58</b>	<b>46</b>	<b>52</b>	<b>50</b>	<b>47</b>	<b>58</b>	<b>90</b>	<b>79</b>	<b>64</b>	<b>41</b>	<b>24</b>	<b>0</b>	<b>0</b>

Table 3 – Individual and cumulative forecast hourly trip generation on an average week day for each land use

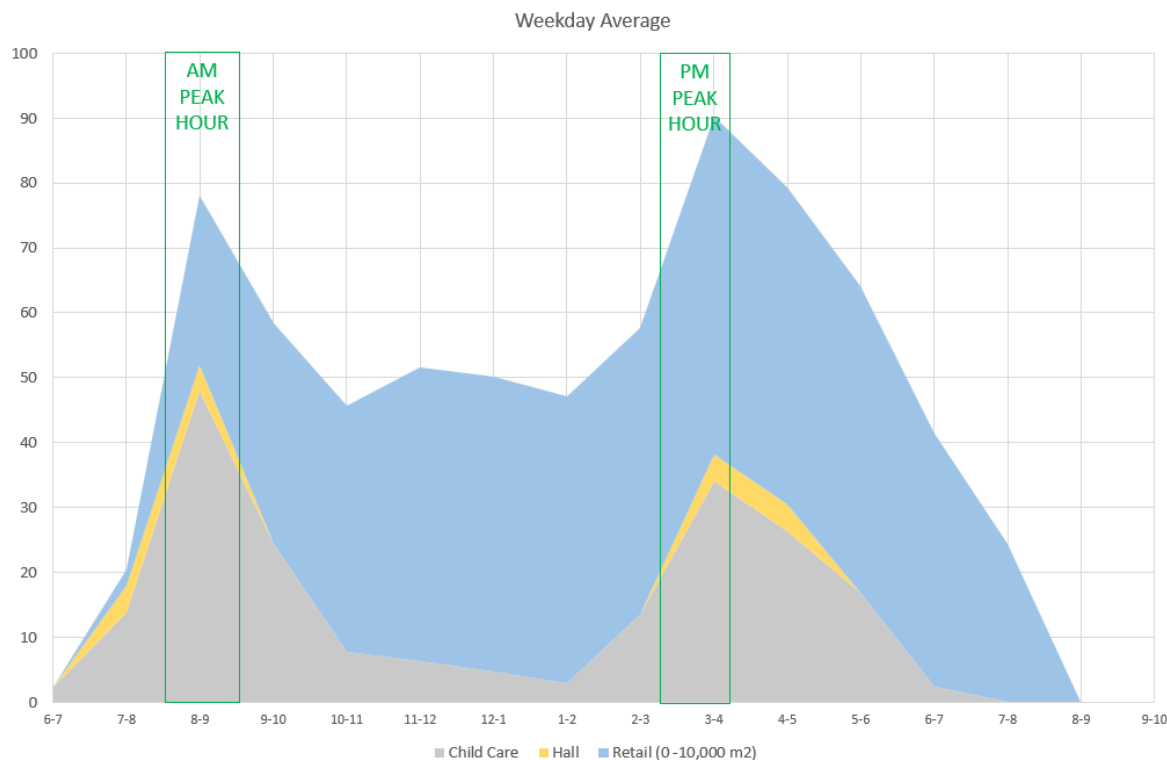


Figure 8 – Individual & cumulative forecast hourly trip generation on an average weekday showing road network peak hours



The *WAPC Guidelines* (2) indicate that a development that generates between 10 and 100 trips in an hour is deemed to be a moderate impact not requiring detailed assessment, i.e., traffic modelling.

To put this into perspective, 90 trips in an hour, is 1 trip every 40 seconds which equates to an extra 3 cars through a signalised intersection during a single 2 minute phase.

The traffic surveys undertaken at the existing service area near Great Eastern Hwy indicate that the existing assignment of traffic is approximately 50% to and from the north and 50% to and from the south. This effectively reduces the forecast additional traffic through the Hardey Rd/ Great Eastern Hwy intersection to 45 vehicles and even less when taking into account by-pass traffic, i.e., traffic that visits the site as part of a trip already being undertaken along Hardey Rd.

Given that Hardey Rd, and its intersection with Great Eastern Hwy has plenty of spare capacity, the proposed development will not result in an unacceptable impact on the road network.

### Type of vehicles

The proposed development site will be mostly patronised by light vehicles (includes large 2 wheel drives) with small to medium sized vehicles used for servicing.

## 6 Traffic management on frontage streets

### Hardey Road

As indicated in Section 1 and Figure 4 on page 8, Hardey Rd is classified as a Local Distributor road in the *Main Roads WA Perth Metropolitan Area Functional Road Hierarchy Plan* (5).

The layout of Hardey Rd in the vicinity of the proposed development site is best described through Photograph 1 below. It comprises of a single sealed 7.8 m wide carriageway with mountable kerbs on both sides, a 1.5 m wide red asphalt path on the west verge and 50 km/h speed limit signs. The physical capacity of this road is 900 vehicles per hour in each direction, Maximum hourly volumes in either direction is currently less than 200.



Photograph 1 – Looking south on Hardey Rd adjacent to the proposed development site (on the left)



## 7 Public transport access

### Nearest bus/ train routes

The nearest bus routes to the development site are 320 (Midland Stn – Great Eastern Hwy/ Old Sawyers Rd), 321, 322 (both Midland Stn to Craig St/ Nichol St) and 328 (Hawke Ave/ Boronia Ave – Midland Stn).

### Nearest bus stops/ train stations

The nearest bus stops are located on either side of Great eastern Hwy just west of Hardey Rd.

The nearest train station is Midland Station.

### Pedestrian/ cycle links to bus stops/ train station

There is a path on the west side of Hardey Rd that connects the development site to Great Eastern Hwy and the bus stops on either side of this via a dedicated crossing facility, as shown in Figure 9 below.

Midland Train Station is accessible via a 13 minute (10.4 km) drive along Great Eastern Hwy or a 33 minute cycle ride along a Heritage Trail and local roads south of the site.



Figure 9 – Path connection and pedestrian crossing of Great Eastern Hwy between development site and nearest bus stops

## 8 Pedestrian access/ facilities

### Existing pedestrian facilities within the development

Not applicable.

### Proposed pedestrian facilities within development

None shown at this stage. More detailed drawings required to assess this.

### Existing pedestrian facilities on surrounding roads

There is a 1.5 m wide red asphalt path on the west side of Hardey Rd that connects the development site to Great Eastern Hwy and the service area at this intersection. Ramps and TGSIs are provided for crossing Hardey Rd and Great Eastern Hwy in the vicinity of the intersection. The video surveys indicated the desired pedestrian crossing point is between the two service areas just south of Great Eastern Hwy, as shown in Photograph 2 below.



Photograph 2 – Example of pedestrian crossing desire line on Hardey Rd, i.e., between the two access driveways to the shopping centre

**Proposals to improve pedestrian access**

The Shire of Mundaring has adopted (24/09/1996) a Hardey Road Precinct Plan (6) aimed at managing traffic between the shopping centre and commercial uses on the east side via a roundabout and the provision of a blister island south of this, as shown in Figure 10 below.

Appendix 2 of the above Plan indicated “The Hardy Road Precinct Plan to be modified to incorporate safe pedestrian crossing places between lots 44 and 50 and Lot 201 Hardey Rd” by 2002/ 2003. Refer **Section 10** (Site Specific Issues) for further commentary regarding this.

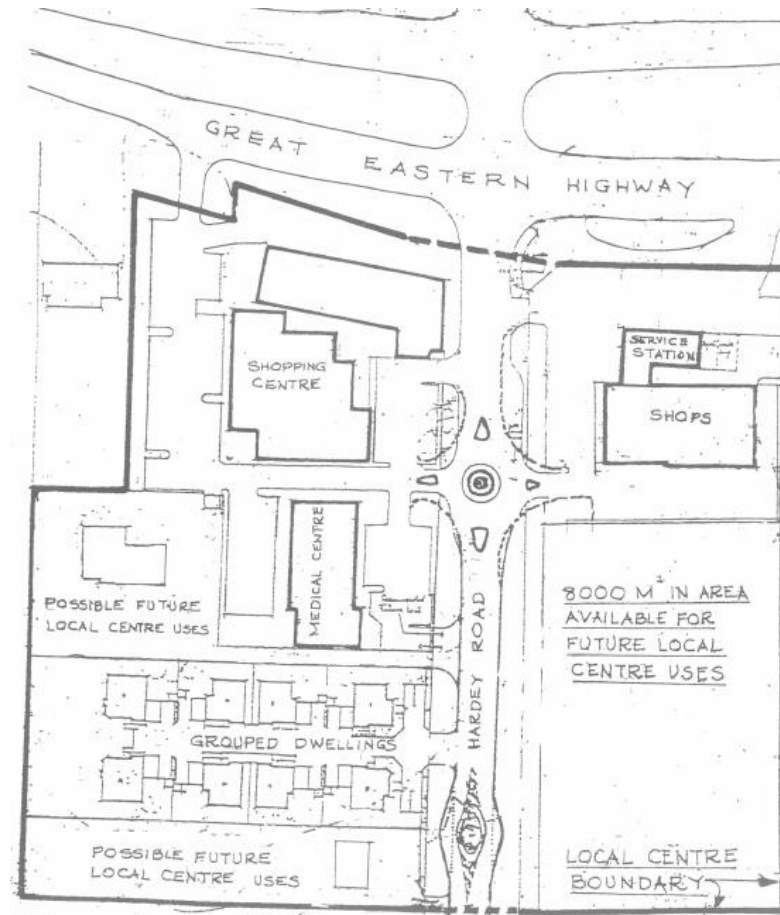


Figure 10 – Hardey Road Precinct Plan Traffic Management (Adopted by Council 24/09/1996)



## 9 Cycle and eRideable access/ facilities

**Existing cycle facilities within the development** None.

**Proposed cycle facilities within development** None.

**Existing cycle and eRideable devices facilities on surrounding roads** Cyclists can share the roads with traffic or share the path on the west side of Hardey Rd with other path users. eRiders cannot legally travel of Hardey other than on the path and must be over 16 and keep to speeds of 10 km/h or less.

**Proposals to improve cycle access** None proposed. Existing facilities deemed to be adequate to accommodate existing and forecast demand.



## 10 Site specific issues

### Hardey Road Precinct Plan <sup>(6)</sup>.

As indicated in **Section 8**, the Shire of Mundaring has adopted (24/09/1996) a Hardey Road Precinct Plan aimed at managing traffic between the shopping centre and commercial uses on the east side via a roundabout and the provision of a blister island south of this, including 'safe' pedestrian crossing facilities, but has not appeared to progress this, despite an indicated time frame of 2002/ 2003.

The video surveys indicate that the proposed roundabout is unlikely to be an appropriate treatment and it may be better to install a wide pedestrian refuge island at this location instead. It is beyond the scope of this TIA to assess and recommend an appropriate local traffic management plan for the entire precinct, but it is clear that there is an existing demand and warrant for pedestrian crossing facilities between the two service areas on Hardey Rd just south of Great Eastern Hwy that requires addressing, irrespective of this development proposal.

### Access Options.

The development plan includes two access options. Option B is preferred from a safety point of view as it removes unnecessary conflict between Child Care Centre traffic in the car park (loading and unloading of children) and traffic associated with the Shop and Hall.

## 11 Safety issues

### Identify issues

A review of reported crash record for the five-year period ending 31 Dec 2022 has revealed there have not been any reported crashes on Hardey Rd between Great Eastern Hwy and Strettle Rd, other than a single Property Damage Only crash at the southern access driveway to the shopping centre/ medical centre & pharmacy (sideswipe associated with lane merge).

### Remedial measures

**Recommended:** Refer **Section 10** comments. This has limited relevance to the proposed development as pedestrians are expected to cross Hardey Rd at the development site.

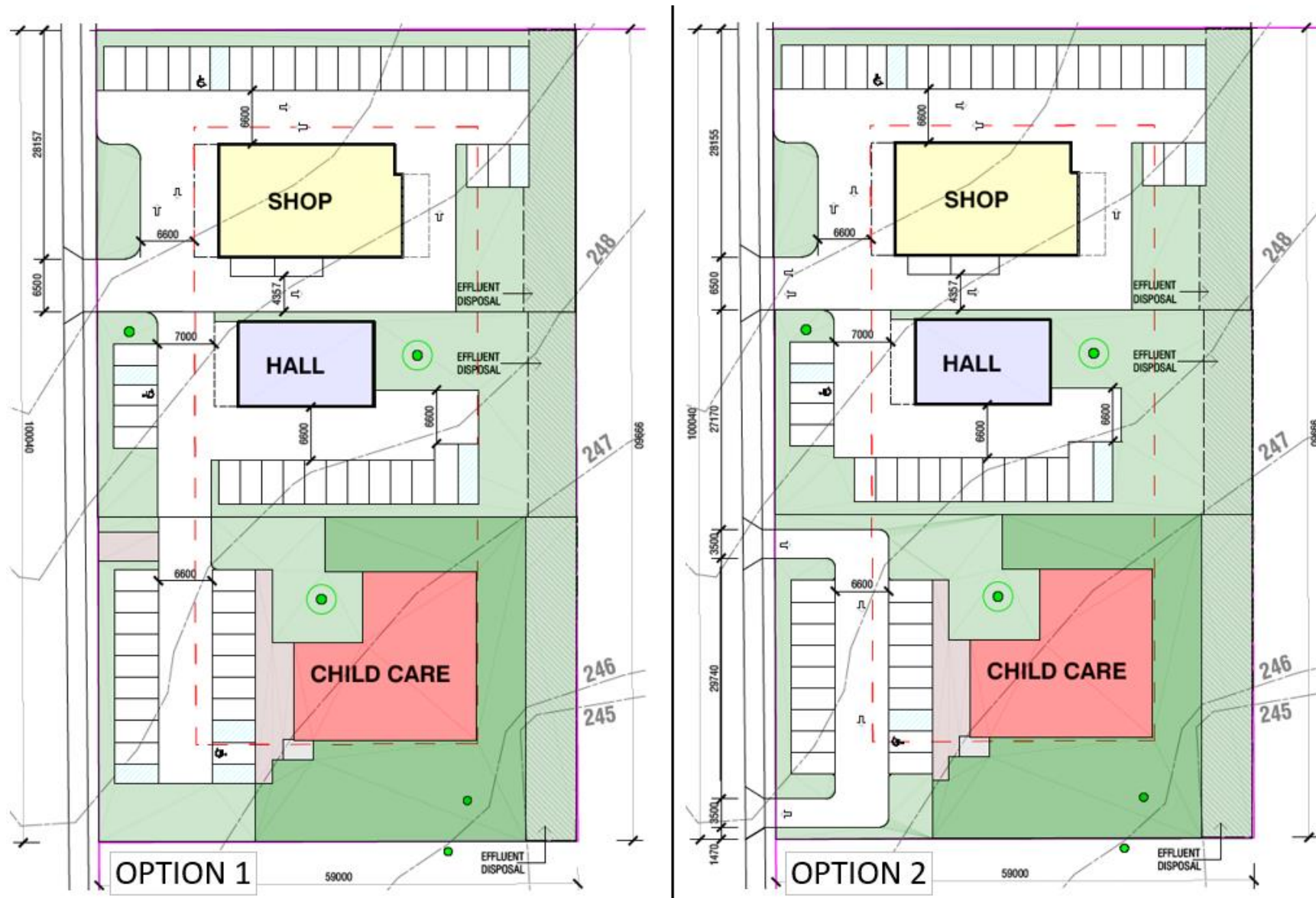


## References

1. **Austrroads.** *Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments.* Austrroads. Sydney, NSW : Austrroads Ltd, April 2020. p. 113, Guide to Traffic Management. ISBN 978-1-925854-86-2.
2. **Western Australian Planning Commission.** *Transport Impact Assessment Guidelines.* Department of Planning, Government of Western Australia. Perth, Western Australia : Western Australian Planning Commission, August 2016. p. 182, Revised August 2016. The current version of the TIA guidelines (August 2016) has been endorsed by the WAPC.
3. **Government of Western Australia.** *Planning and Development (Local Planning Schemes) Regulations 2015.* Perth : Government of Western Australia, As at 01 Jul 2016. p. 205. Version 00-d0-02.
4. **Shire of Mundaring.** *The Shire of Mundaring Local Planning Scheme No. 4 | Scheme Text.* Prepared by the Department of Planning, Lands and Heritage, Government of Western Australia. s.l. : Shire of Mundaring, 17 February 2014. p. 209.
5. **Main Roads Western Australia.** Perth Metropolitan Area Functional Road Hierarchy. [ed.] Asset & Network Information. Perth, WA, Australia : Main Roads Western Australia, August 1997.
6. **Shire of Mundaring.** *Town Planning Scheme Code | Glen Forrest Village Centre Precinct Plan.* s.l. : Shire of Mundaring, Aug 2001. p. 54.



**APPENDIX A Development Drawing**





**APPENDIX B Trip Generation Rates**

Land Use	Source	Adopted Trip Generation Rate*	Units	Max Peak Hour Trips*	AM Distribution				PM Distribution				Pass-By (ITE)
					IN	OUT	IN	OUT	IN	OUT	IN	OUT	
Child Care	i3c	0.80 per 1 child	60	48	55%	45%	26	22	50%	50%	24	24	0%
Hall	1st Principles		1	4	50%	50%	2	2	50%	50%	2	2	0%
Retail (0 -10,000 m <sup>2</sup> )	RTA	12.40 per 100 m <sup>2</sup> GFA	420	52	52%	48%	27	25	48%	52%	25	27	34%

\*Development Peak - Refer Hourly Profiles for Road Network Peaks





**APPENDIX C WAPC Transport Impact Statement Checklist**

Checklist for a transport impact statement for individual development

- Tick the provided column for items for which information is provided.
- Enter N/A in the provided column if the item is not appropriate and enter reason in comment column.
- Provide brief comments on any relevant issues.
- Provide brief description of any proposed transport improvements, for example, new bus routes or signalisation of an existing intersection.

ITEM	PROVIDED	COMMENTS/PROPOSALS
<b>Proposed development</b>	✓	<b>Section 1.</b>
existing land uses	✓	Page 5.
proposed land use	✓	Page 6.
context with surrounds	✓	Page 7.
<b>Vehicular access and parking</b>	✓	<b>Section 2.</b>
access arrangements	✓	Page 9.
public, private, disabled parking set down/pick up	✓	Page 9.
<b>Service vehicles (non-residential)</b>	✓	<b>Section 3.</b>
access arrangements	✓	Page 10.
on/off-site loading facilities	✓	Page 10.
<b>Service vehicles (residential)</b>	NA	
rubbish collection and emergency vehicle access		
<b>Hours of operation (non-residential only)</b>	✓	<b>Section 4.</b>
<b>Traffic volumes</b>	✓	<b>Section 5.</b>
daily or peak traffic volumes	✓	Page 12.
type of vehicles (for example, cars, trucks)	✓	Page 15.
<b>Traffic management on frontage streets</b>	✓	<b>Section 6.</b>
<b>Public transport access</b>	✓	<b>Section 7.</b>
nearest bus/train routes	✓	Page 17.
nearest bus stops/train stations	✓	Page 17.
pedestrian/cycle links to bus stops/ train station	✓	Page 17.



ITEM	PROVIDED	COMMENTS/PROPOSALS
<b>Pedestrian access/ facilities</b>	✓	<b>Section 8.</b>
existing pedestrian facilities within the development (if any)	NA	Page 18.
proposed pedestrian facilities within development	✓	Page 18.
existing pedestrian facilities on surrounding roads	✓	Page 18.
proposals to improve pedestrian access	✓	Page 19.
<b>Cycle access/ facilities</b>	✓	<b>Section 9.</b>
existing cycle facilities within the development (if any)	NA	Page 20.
proposed cycle facilities within development	✓	Page 20.
existing cycle facilities on surrounding roads	✓	Page 20.
proposals to improve cycle access	NA	Page 20.
<b>Site specific issues</b>	✓	<b>Section 10.</b>
<b>Safety issues</b>	✓	<b>Section 11.</b>
identify issues	✓	Page 21.
remedial measures	✓	Page 21.

**Proponent’s name**

**Company** *State West Planning & Mundaring Gospel Trust*

**Date** .....

**Transport assessor’s name** *David Wilkins* **Company** *i3 consultants WA* **Date** *15/11/2023*