



Transport Impact Statement

Project:	Proposed Mixed-Use Development Lot 12401 Main Street, Ellenbrook
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Date:	11 th March 2026
Shawmac Document #:	2601014-TIS-001

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Document Status: Client Review

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File Reference: Y:\Jobs Active 2026\T & T - Traffic & Parking\SCA_Lot 12041 Main St, Ellenbrook_TIS_2601014\3. Documents\3.20 TIS\SCA_Lot 12041 Main St, Ellenbrook_TIS_Rev A.docx



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1. Introduction

1.1. Proponent

Shawmac Pty Ltd has been engaged by Space Collective Architects to prepare a Transport Impact Statement (TIS) for a proposed mixed-use development in Ellenbrook.

This TIS has been prepared in accordance with the Western Australian Planning Commission (WAPC) *Transport Impact Assessment Guidelines Volume 4 – Individual Developments* (TIA Guidelines). The assessment considers the following key matters:

- Details of the proposed development.
- Vehicle access and parking including sight distance assessment in accordance with relevant guidelines.
- Provision for service vehicles.
- Hours of operation.
- Daily traffic volumes and vehicle types.
- Traffic management on frontage streets.
- Public transport access.
- Pedestrian access.
- Cycle access and end of trip facilities.
- Site specific and safety issues.

1.2. Site Location

The site address is Lot 12041 Main Street in Ellenbrook. The local authority is the City of Swan.

The general site location is shown in **Figure 1**. An aerial view of the existing site is shown in **Figure 2**.

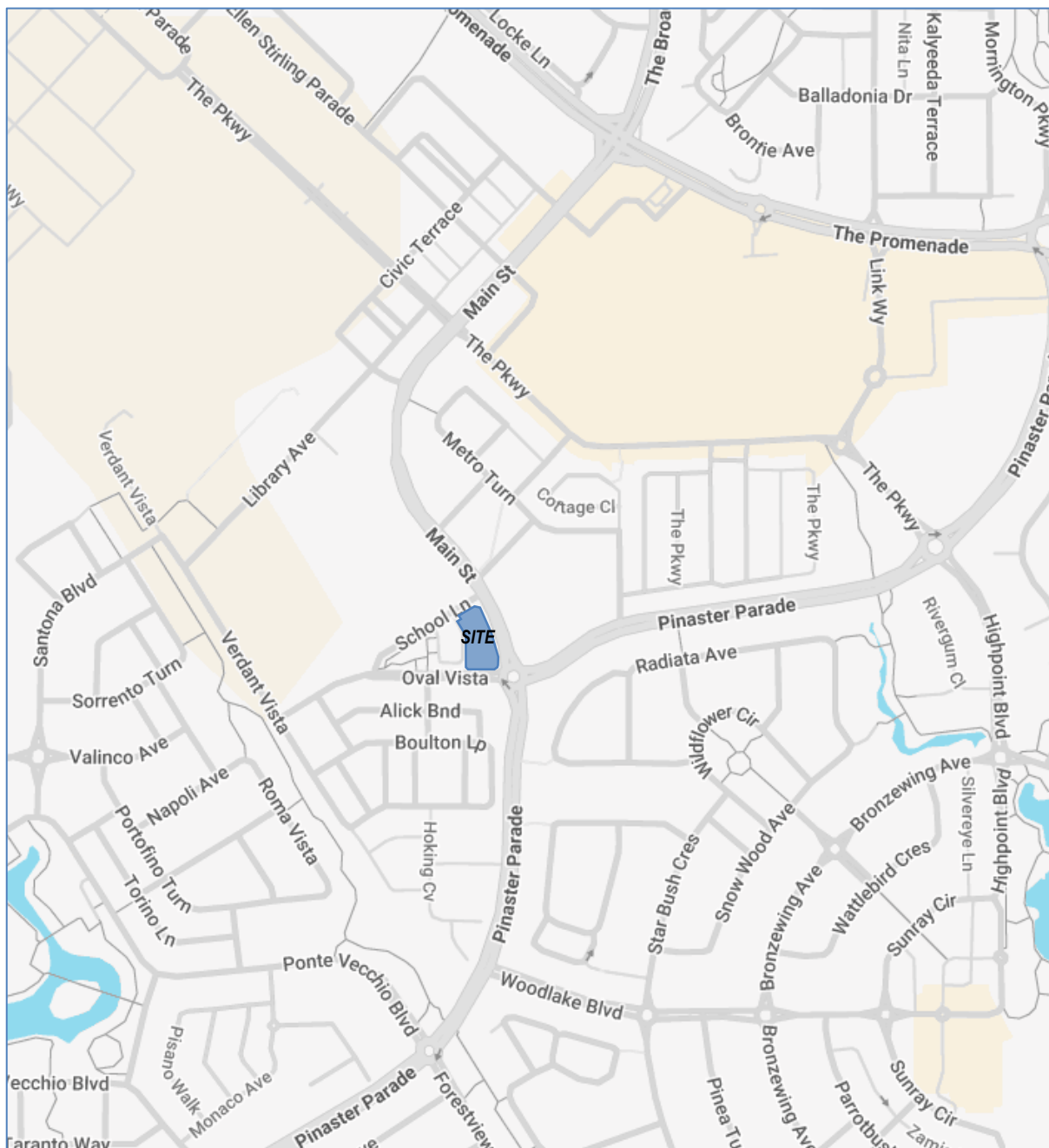


Figure 1: Site Location



Figure 2: Aerial View (November 2025)



2. Proposed Development

2.1. Land Use

The site is currently vacant and undeveloped.

The proposal is a mixed-use development comprising 2 small commercial tenancies and 40 apartments across two buildings.

The site plan is shown in **Figure 3**.

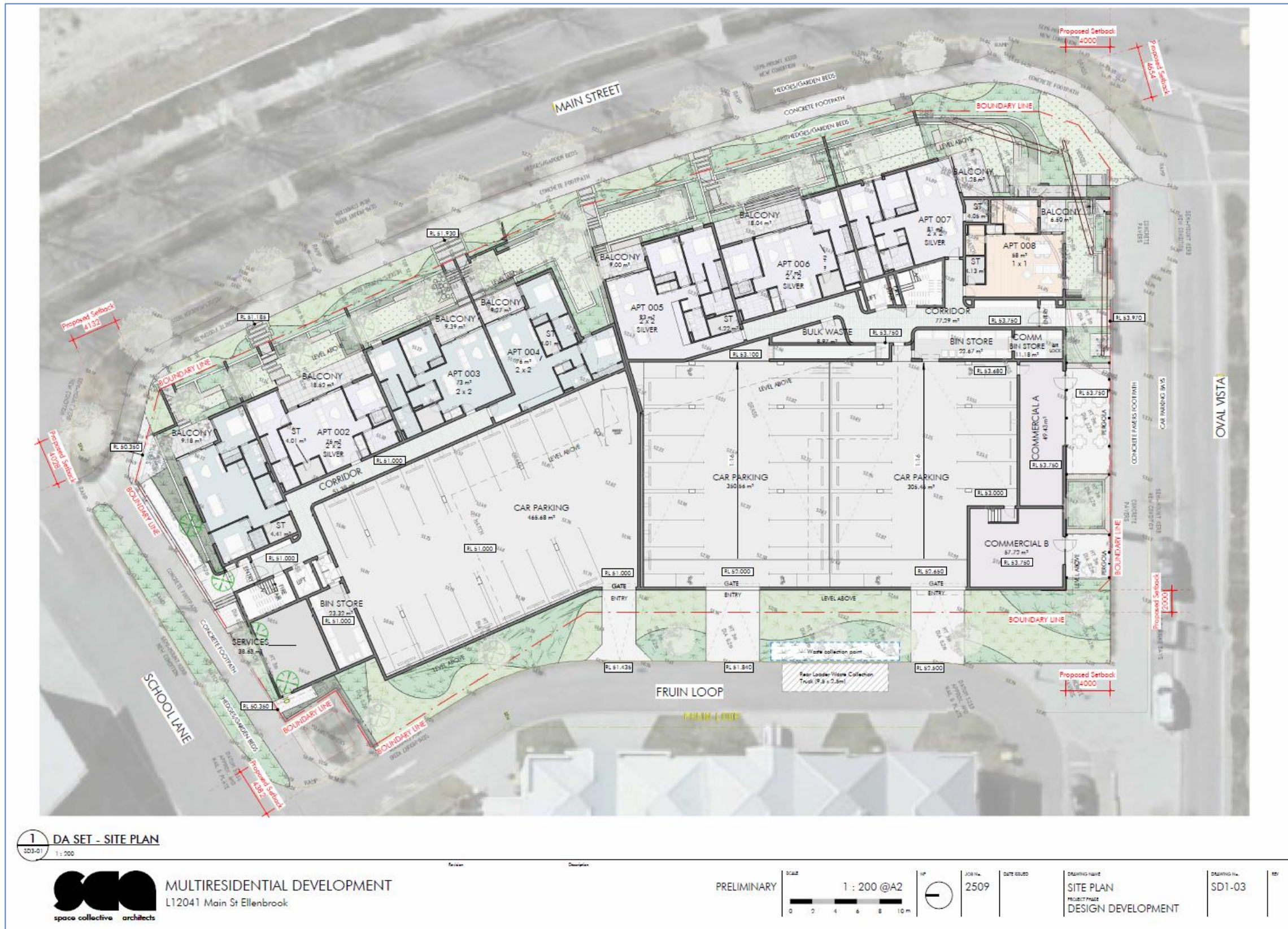


Figure 3: Site Plan

3. Traffic Management on Frontage Streets

3.1. Existing Road Layout and Hierarchy

The layout and hierarchy of the existing local road network according to the Main Roads WA *Road Information Mapping System* is shown in **Figure 4**.

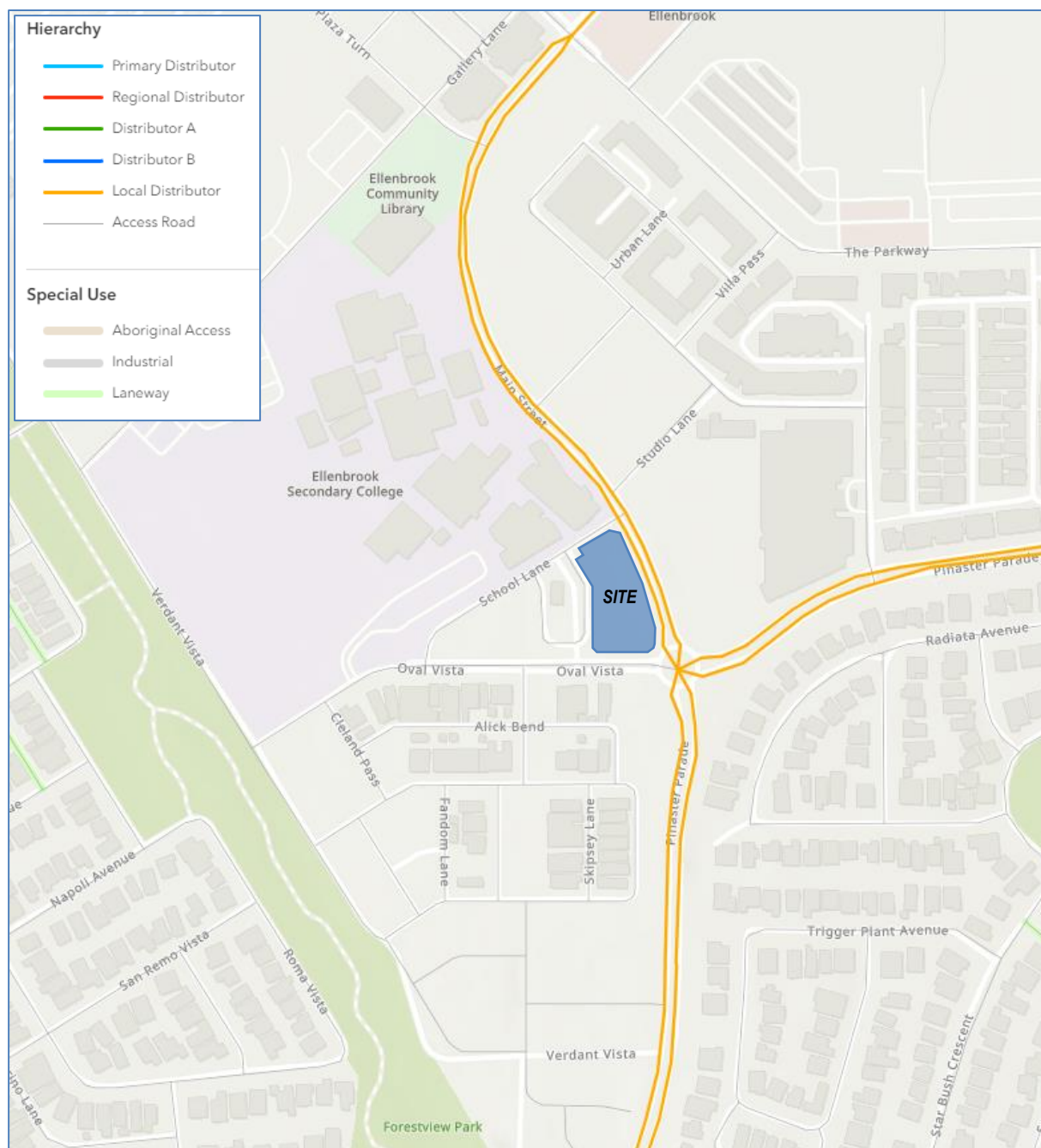


Figure 4: Existing Road Network Hierarchy

4. Vehicle Access and Parking

4.1. Vehicle Access

Vehicle access to the site is proposed via three crossovers on Fruin Loop as shown in **Figure 6**. As shown, Fruin Loop is a one-way road, flowing north to south along the site frontage.

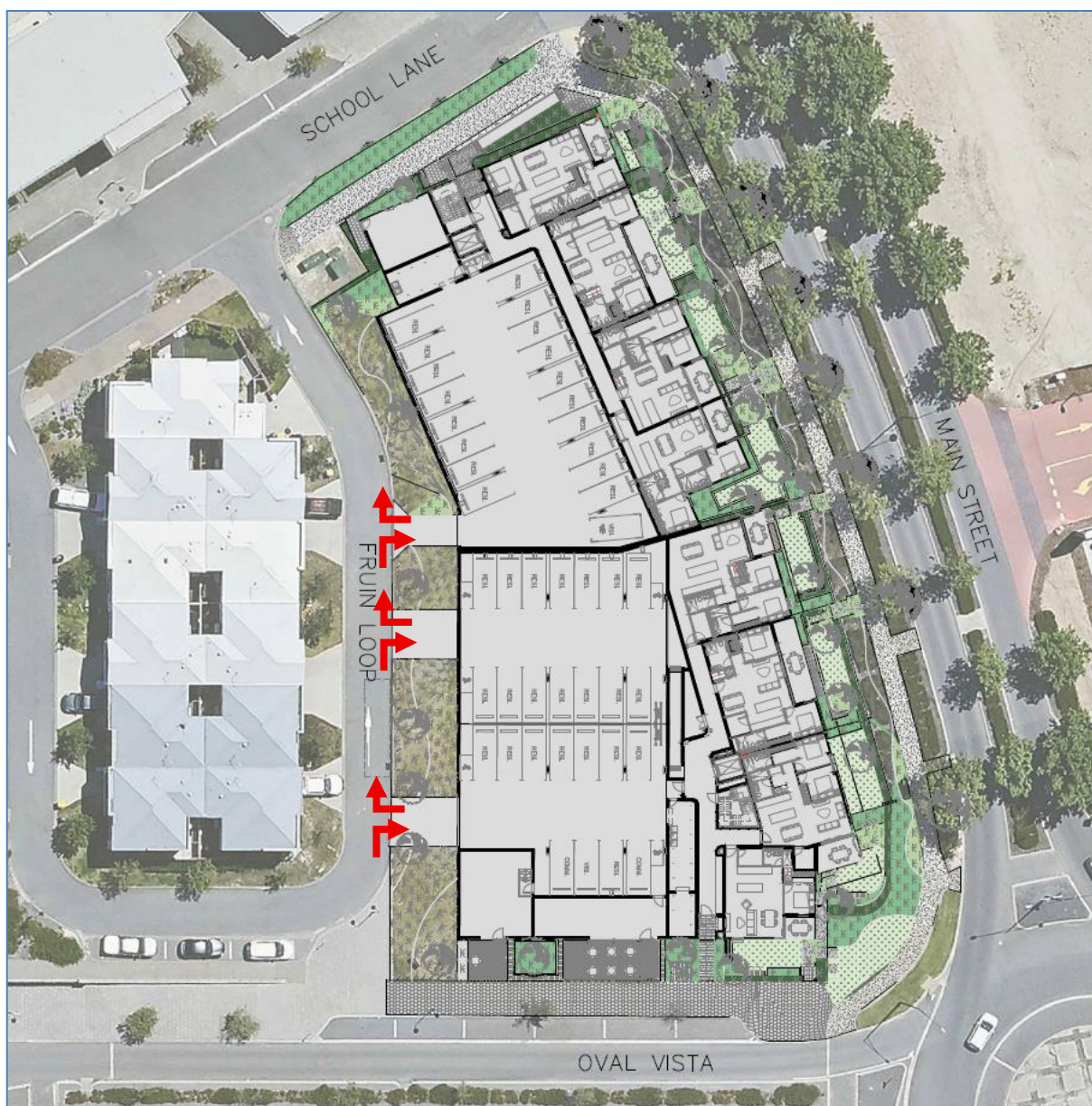


Figure 6: Vehicle Access Arrangement

The access locations are consistent with the approved Local Development Plan (LDP) for the site which specifies that no vehicle access is permitted to Main Street, School Lane and Oval Vista as shown in **Figure 7**.

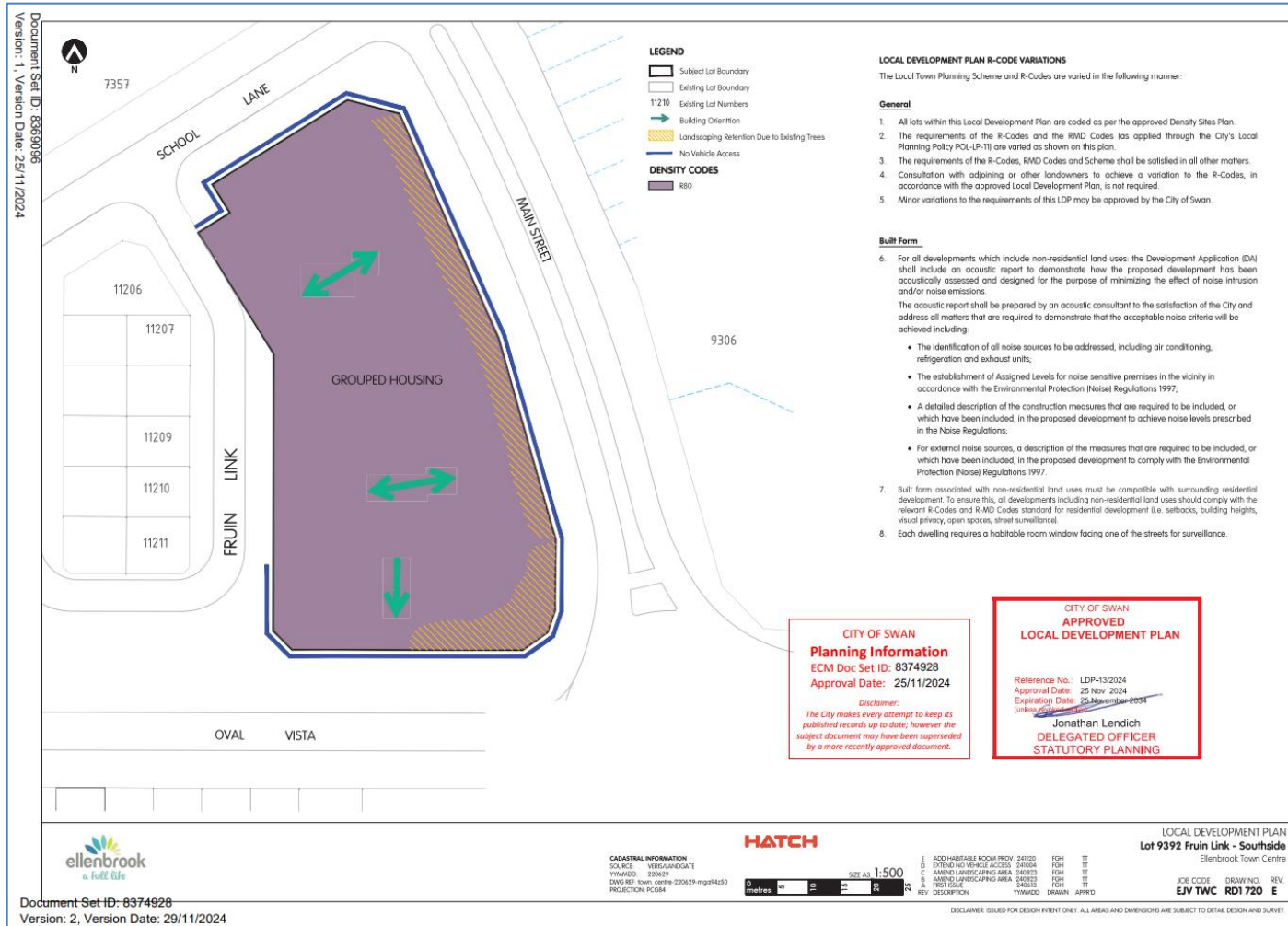


Figure 7: Approved Local Development Plan

4.2. Sight Distance

Although the legal speed limit on Fruin Loop is assumed to be 50km/h, it is a short, narrow laneway with several turns that would keep travel speeds well below 50km/h. On this basis, an operating speed of 15km/h has been assumed. The minimum required sight distance based on a 15km/h operating speed is less than 15m.

As shown in **Figure 8**, the minimum sight distance is achieved from all proposed crossovers.

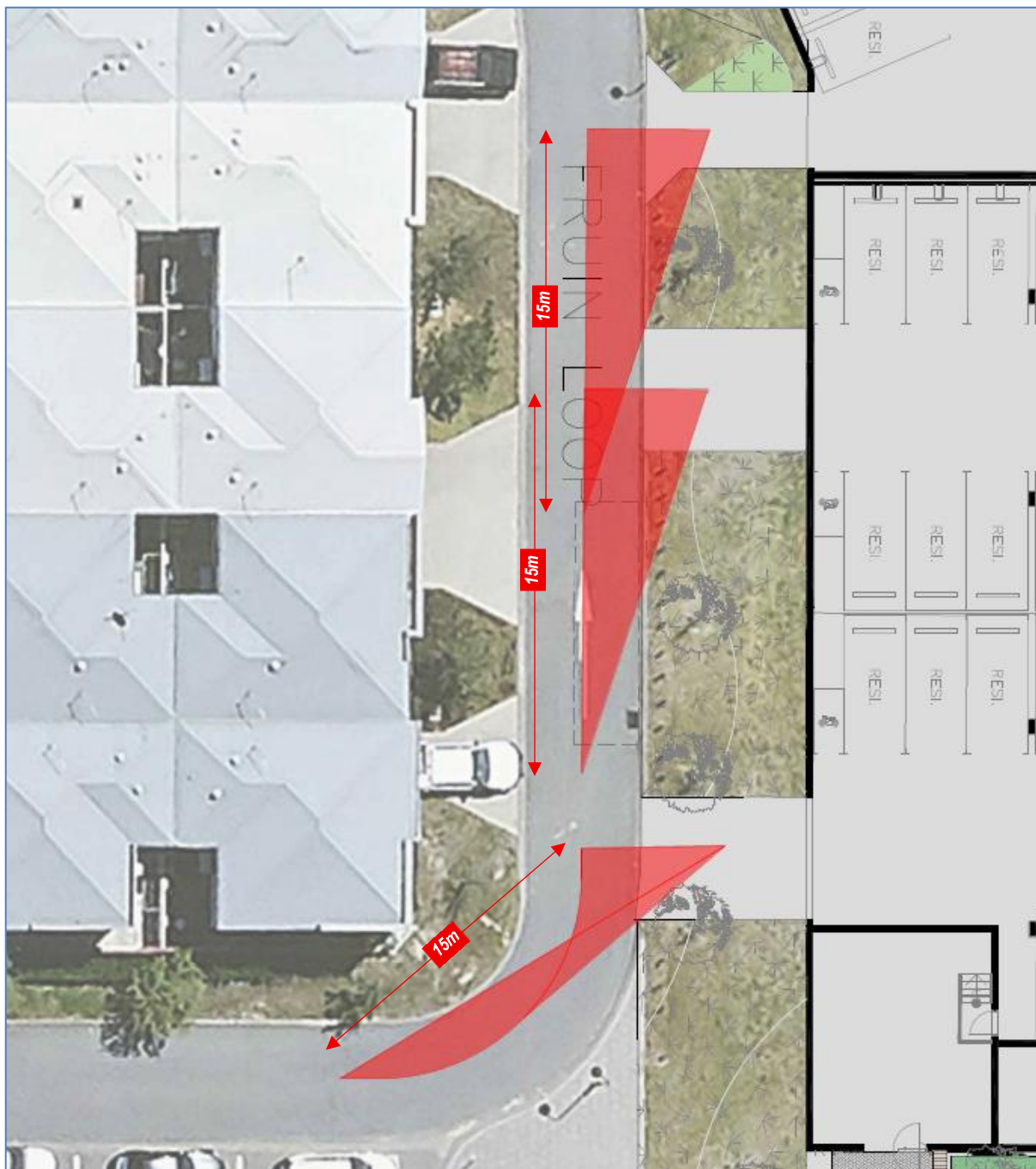


Figure 8: Sight Distance Check

4.3. Parking Requirements

4.3.1. Residential

Based on the R80 residential density for the site, the Residential Design Codes Volume 2 (RDC2) parking requirements are applicable to the residential component of the development. As the site is within 800m of a train station, the Location A requirements of the RDC2 have been applied.

The minimum residential parking requirements are summarised in **Table 1**.

Table 1: Residential Car Parking Calculation

Land Use	Unit	Requirement	Quantum	Required Bays
Residential – Multiple Dwellings	Resident Bays	Min. 0.75 bays per 1 bedroom dwelling	1	1
		Min. 1 bay per 2+ bedroom dwelling	39	39
	Residential Visitor Bays	1 bay per four dwellings up to 12 dwellings	39	7
		1 bay per eight dwellings for the 13 th dwelling and above		
	Motorcycle / Scooter	1 motorcycle / scooter bay for every 10 car bays for developments exceeding 20 dwellings	47	5

As shown, the residential component of the development requires a minimum of 40 resident bays, 7 residential visitor bays and 5 motorcycle / scooter bays. The proposed parking provision is 40 resident bays, 2 residential visitor bays and 5 motorcycle / scooter bays. The provision meets the minimum requirements other than a shortfall of 5 residential visitor bays.

With regards to residential visitor parking, Design Guidance 3.9.3 of RDC2 states that residential visitor parking may be reduced where there is adequate on-street parking or public parking in the near vicinity of the development. In this case, there is ample on-street parking in the vicinity of the site, including along Oval Vista, School Lane and Fruin Loop. Parking for residential visitors is mostly required on weeknights and on weekends outside of school hours and so most of the street parking surrounding the adjacent school is likely to be available.

As detailed later, a surplus amount of bicycle parking is also proposed in an effort to reduce the proportion of car traffic.

4.3.2. Non-Residential

As the site is within the Ellenbrook Town Centre, the minimum car parking requirements for the non-residential component of the development are outlined in the Ellenbrook Town Centre Parking Strategy (ETCPS) which was last updated in 2022. The two small commercial tenancies are likely to be a café or retail and so the following parking requirements from the ETCPS are applicable:

- Desirable Rate: 4.3 bays per 100m² of NLA
- Minimum Rate: 4.0 bays per 100m² of NLA
- Maximum Rate: 5.0 bays per 100m² of NLA

Based on the approximately 107.15m² of NLA, the minimum provision is 4.3 bays, the desirable provision is 4.6 bays and the maximum provision is 5.3 bays. It is proposed to provide 2 commercial car parking spaces on the site which is 2 bays short of the minimum provision. In this instance, the shortfall of 2 bays is considered minor and adequately compensated by the ample existing street parking in the vicinity of the site. The small tenancies are expected to cater to a relatively local catchment of customers and many are likely to be within walking distance of the development.

4.4. Parking Layout

The layout and dimensions of the car park have been assessed for compliance with AS2890.1 as detailed in **Table 2**. As the majority of car bays will be resident and employee use, the User Class 1A requirements have been applied.

Table 2: AS2890.1 Car Parking Compliance

Dimension	Requirement	Provided
<i>90 degree parking – Class 1 or 1A – Residential, domestic parking</i>		
Car Bay Width	2.4m	2.4m
Car Bay Length	5.4m	5.4m
Parking Aisle Width	5.8m	5.8m minimum
Blind Aisle Extension	1.0m	1.0m minimum

As shown, the key parking dimensions comply with the minimum AS2890.1 requirements.

4.5. Provision for Service Vehicles

Waste is proposed to be collected from the kerbside along Fruin Loop and so there is no requirement to accommodate waste trucks on the site.

5. Traffic Volumes

5.1. Traffic Generation

The volume of traffic generated by the proposed development has been estimated using trip generation rates from the Institute of Transportation Engineers (ITE) *Trip Generation* and the WAPC TIA Guidelines as detailed in **Table 3**. The peak hour trip rates are based on the peak hour of the adjacent road network typically occurring between 7 to 9am and between 4 to 6pm.

Table 3: Proposed Development Vehicle Trip Generation

Land Use	Units	Quantity	Generation Rate		Number of Trips	
			AM Peak	PM Peak	AM Peak	PM Peak
Low-Rise Multifamily Housing	Dwellings	40	0.40	0.51	16	20
Retail (Food)	100m ² GFA	107.15m ²	10.0	2.5	11	3
				Total	27	23

As shown, the proposed development is predicted to generate approximately 27 vehicle trips during the morning peak hour and 23 trips during the afternoon peak hour.

According to the WAPC TIA guidelines, an increase of between 10 to 100 peak hour vehicles is considered to have a low to moderate impact and is generally deemed acceptable without requiring detailed capacity analysis.

The estimated 23 to 27 vehicles per hour is around the lower end of this range and so the development traffic will have a low impact and can be accommodated within the existing capacity of the road network.

6. Pedestrian and Cyclist Access

6.1. Accessibility

The existing path network is reasonably well established. Most roads have at least one footpath except for laneways where pedestrian movements are unlikely and traffic volumes and speeds are low. There are crossing points with median breaks and pram ramps at key intersections. The external path network is well established and considered to be adequate for pedestrians and cyclists to safely travel between the site and surrounding areas. Existing gaps in the path network will eventually be filled in as the vacant sites are developed.

Pedestrian access into the site is via the existing paths around the site and from the car park as shown in **Figure 9**.

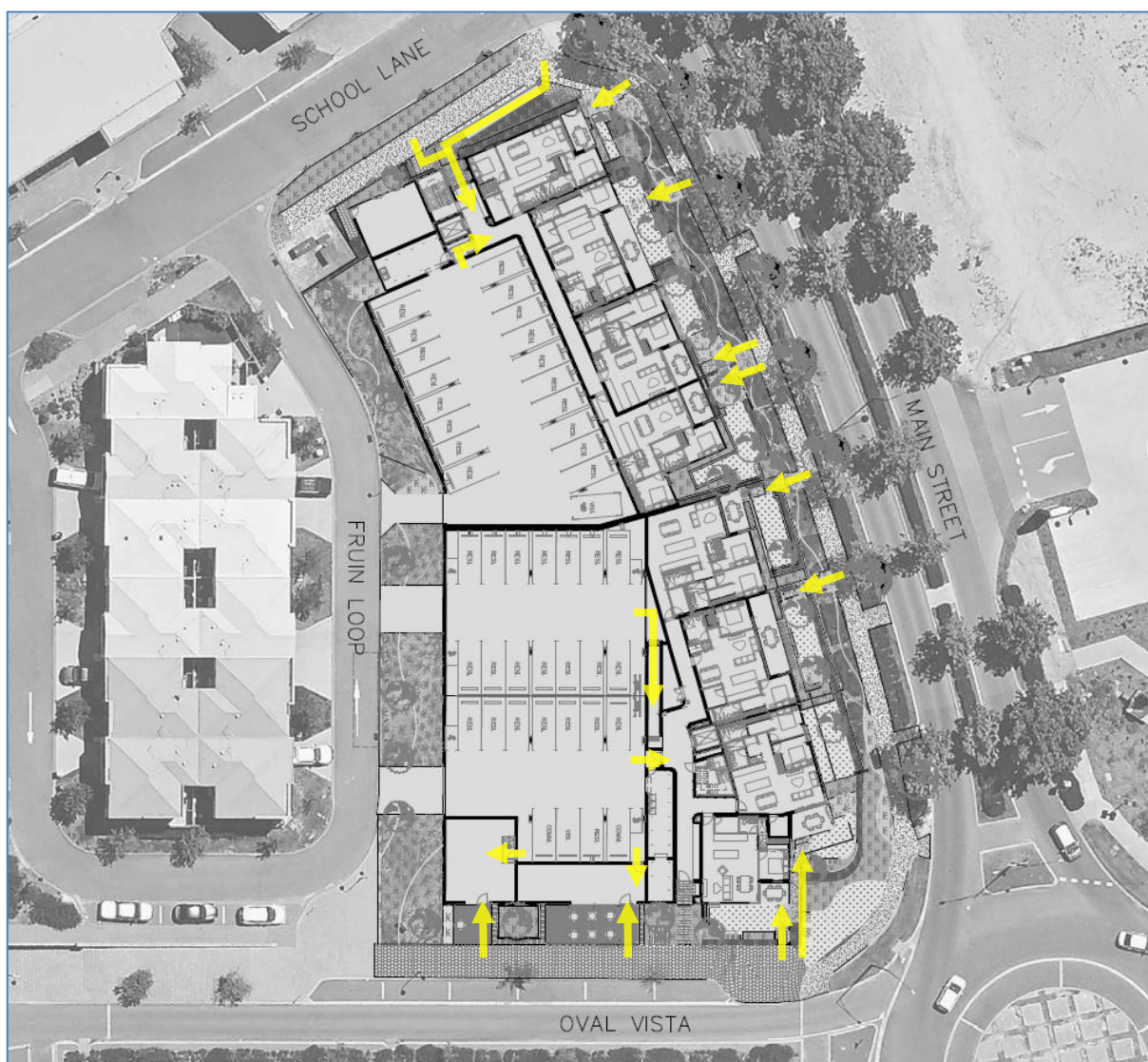


Figure 9: Pedestrian Access

6.2. Bicycle Parking

The bicycle parking requirements as outlined in the RDC2 (for residential) and ETCPS (for non-residential) are calculated in **Table 4**.

Table 4: Bicycle Parking Requirements

Land Use	Unit	Requirement	Quantum	Required Spaces
Residential	dwelling	0.5 spaces per dwelling	40	20 resident spaces
Residential Visitor	dwelling	1 spaces per 10 dwelling	40	4 visitor spaces
Shop	NLA	1 employee space per 1,000m ² NLA 1 visitor space per 100m ² NLA	107.15m ²	1 employee space 1 visitor spaces

As above, the development requires a total of 20 resident bicycle spaces, 4 residential visitor spaces and 2 commercial spaces.

It is proposed to provide 34 resident bicycle spaces (as wall mounted racks within the car park), 4 residential visitor spaces within the car park and 4 public spaces near the building entrance on the Oval Vista frontage.

The bicycle parking provision exceeds the calculated requirements and is considered to be adequate.

7. Public Transport Access

The site has excellent access to public transport as it is located approximately 700m walking distance from Ellenbrook Station for the Ellenbrook Train Line and from which numerous Transperth Bus Services operate.

There are also bus stops located on Main Street north of the site, within 200m walking distance with numerous bus services (Bus Routes 340, 341, 342, 343, 345, 346, 347, 348, 349 and 455).

The existing available public transport services are adequate to meet the demand for these services.

8. Site Specific Issues and Safety Issues

8.1. Crash History

The crash history of the adjacent road network was obtained from the MRWA Reporting Centre. A summary of the recorded incidents over the five-year period from January 2020 to December 2024 is shown in **Figure 10**.



Figure 10: Crash History January 2020 to December 2024

The crash history is relatively low and does not appear to indicate a major safety issue with the road network. The proposed development will generate low volume of additional traffic and there is no indication that the development itself will increase the risk of crashes unacceptably.

9. Conclusion

This Transport Impact Statement for the proposed mixed-use development at Lot 12401 Main Street in Ellenbrook concluded the following:

- Vehicle access to the site is proposed via three crossovers on Fruin Loop which is a one-way road, flowing north to south along the site frontage. The access locations are consistent with the approved Local Development Plan (LDP) for the site which specifies that no vehicle access is permitted to Main Street, School Lane and Oval Vista.
- The minimum required sight distance is achieved from the proposed crossovers.
- The residential component of the development requires a minimum of 40 resident bays, 7 residential visitor bays and 5 motorcycle / scooter bays. The proposed provision of 40 resident bays, 2 residential visitor bays and 5 motorcycle / scooter bays meets the minimum requirements other than a shortfall of 5 residential visitor bays.
- With regards to residential visitor parking, Design Guidance 3.9.3 of RDC2 states that residential visitor parking may be reduced where there is adequate on-street parking or public parking in the near vicinity of the development. In this case, there is ample on-street parking in the vicinity of the site, including along Oval Vista, School Lane and Fruin Loop. Parking for residential visitors is mostly required on weeknights and on weekends outside of school hours and so most of the street parking surrounding the adjacent school is likely to be available.
- The minimum non-residential car parking provision is 4.3 bays, the desirable provision is 4.6 bays and the maximum provision is 5.3 bays. It is proposed to provide 2 commercial car parking spaces on the site which is 2 bays short of the minimum provision. In this instance, the shortfall of 2 bays is considered minor and adequately compensated by the ample existing street parking in the vicinity of the site. The small tenancies are expected to cater to a relatively local catchment of customers and many are likely to be within walking distance of the development.
- The key parking dimensions comply with the minimum AS2890.1 requirements.
- Waste is proposed to be collected from the kerbside along Fruin Loop and so there is no requirement to accommodate waste trucks on the site.
- The proposed development is predicted to generate approximately 27 vehicle trips during the morning peak hour and 23 trips during the afternoon peak hour. The development traffic will have a low impact and can be accommodated within the existing capacity of the road network.
- The external path network is well established and considered to be adequate for pedestrians and cyclists to safely travel between the site and surrounding areas. Existing gaps in the path network will eventually be filled in as the vacant sites are developed.
- The development requires a total of 20 resident bicycle spaces, 4 residential visitor spaces and 2

commercial spaces. The bicycle parking provision exceeds the calculated requirements and is considered to be adequate.

- The site has excellent access to public transport and the existing available services are adequate to meet the expected demand.
- The crash history is relatively low and does not appear to indicate a major safety issue with the road network. The proposed development will generate low volume of additional traffic and there is no indication that the development itself will increase the risk of crashes unacceptably.