



Project: **Transport Impact and Car Parking
Assessment – V1**

11 Moores Road, Pinjarra
Proposed Veterinary Hospital

Owners: **Pinjarra Veterinary Hospital**

Author: Heidi Herget

Signature: 

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P.O. Box 1146 BOORAGOON WA 6954


PHONE

+61 0434 189 788

EMAIL

info@moveconsultants.com.au

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1. INTRODUCTION

Move Consultants has been commissioned to prepare a Transport Impact and Parking Assessment for a proposed veterinary hospital to be located at 11 Moores Road, Pinjarra in the Shire of Murray. This assessment has been prepared in accordance with the Shire of Murray's *Local Planning Scheme No.4, Local Planning Policy: General Development Provisions - Building Setbacks, Car Parking Standards* and the *WAPC Transport Impact Assessment Guidelines – Vol. 4: Individual Developments* as well as in the context of documented traffic generation and car parking demand surveys for similar developments and industry design standards and guidelines.

1.1 Location

The site is located within the south-west corner of Pinjarra Road and Moores Road on the south-east side of Moores Road approximately 1.6km due north-west of the Pinjarra Town Centre and shown in Figure 1.. It is also located approximately 6.5km due south-east of the Forrest Highway.

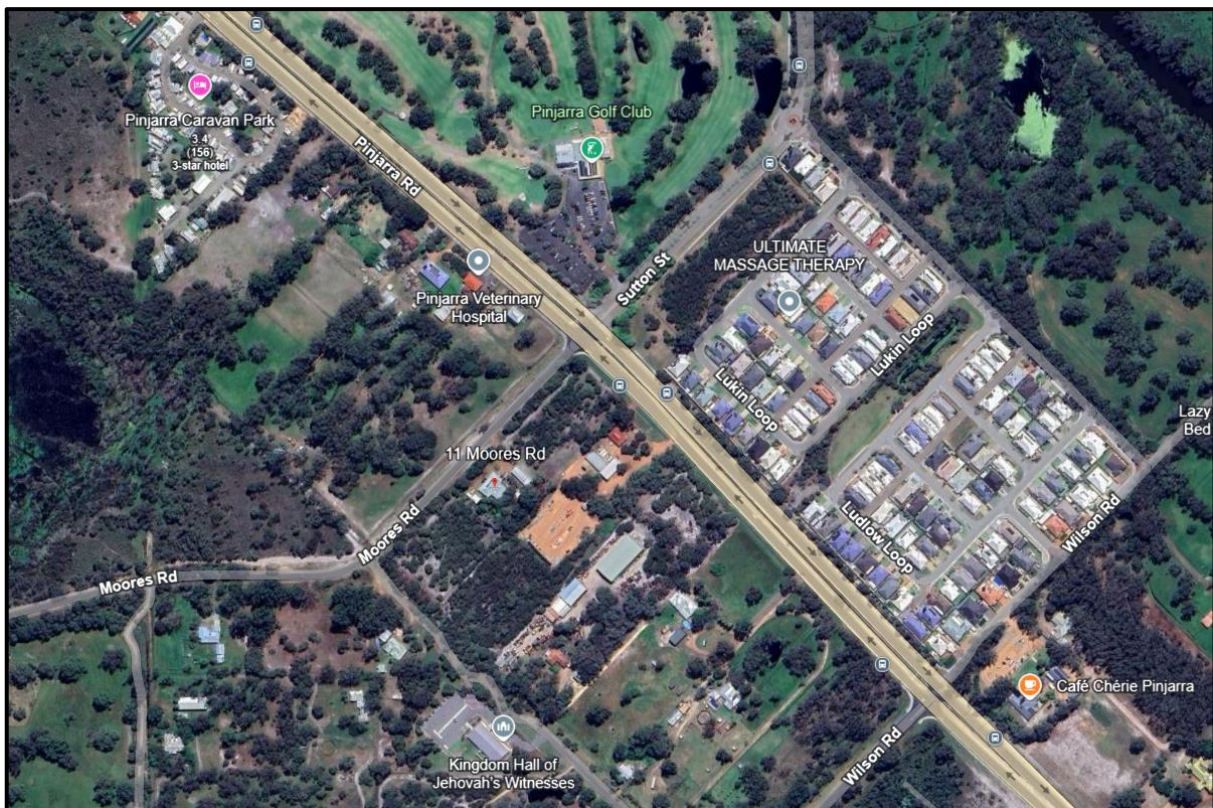


Figure 1 – Local Context

The location of the site in a regional context is shown in **Figure 2**.

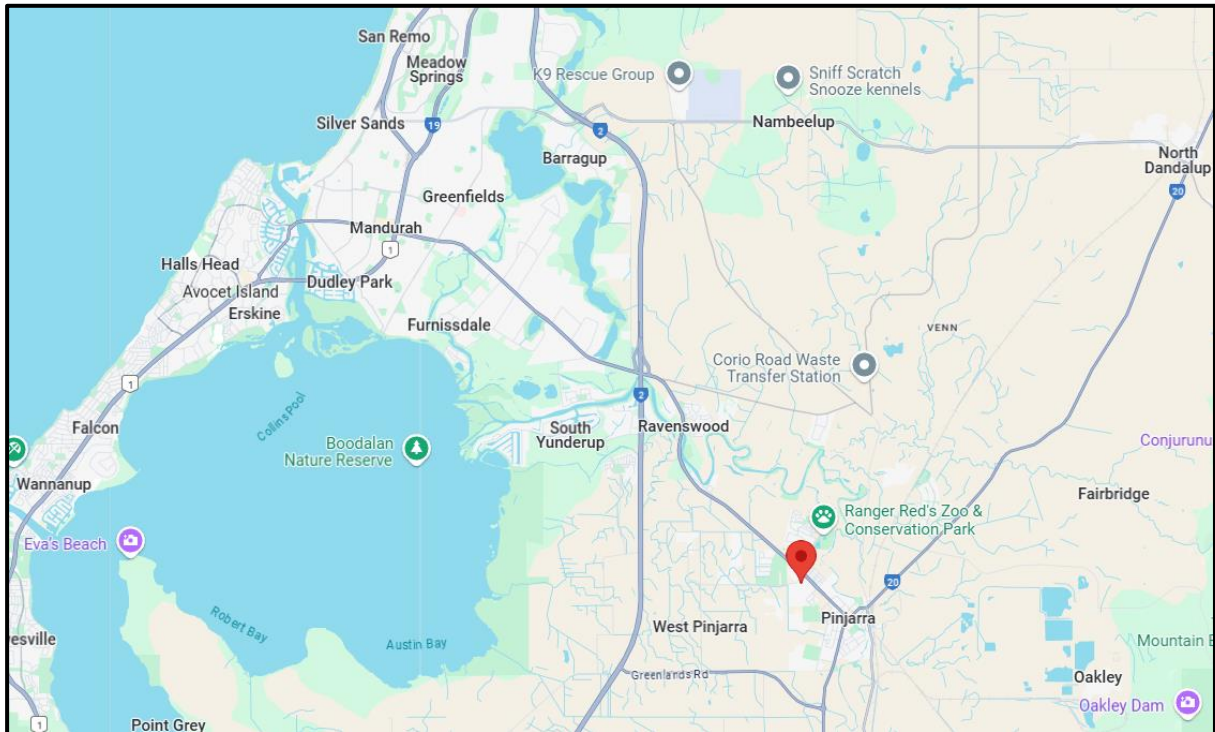


Figure 2: Metropolitan Context

The proposal consists of the proposed development of a veterinary clinic with a maximum of two (2) consultants and seven (7) support staff operating at the facility at any one time. A copy of the proposed site plan is attached in **Appendix A**.

A site visit was undertaken on Thursday 6th February 2025 to identify any potential traffic-related issues associated with the proposal and to undertake 'spot surveys' with regard to traffic on the boundary road network, and car parking demands at adjacent and proximate existing developments queuing, in the vicinity of the site

In addition to the data collection, a review of the existing road geometry, travel patterns and speed zoning in place was also undertaken.

1.2 Scope of Assessment

This report has been prepared in accordance with the Western Australian Planning Commission's *Transport Assessment Guidelines for Developments: Volume 4 – Individual Developments* (2006), the Shire of Murray's planning policies and relevant industry standards such as Australian Standards and Austroads guidelines

Specifically, this report aims to assess the impacts of the proposed development on the boundary road network in the vicinity of the site to identify any modifications, to site or road layout, which may be required to serve the proposed site. In addition, the assessment considers the proposed access, circulation, and egress arrangements to and from the site and car parking demands associated with the proposal.

For this purpose, the traffic operations on the adjacent and broader local road network have been assessed under both existing and future proposed traffic conditions with regard to the potential impacts from additional traffic generated by the proposed development of the site.

2. EXISTING MOVEMENT NETWORK

2.1 Road Infrastructure

Pinjarra Road to the north-east of the site has been designated as a *Primary Distributor* road under the Main Roads WA *Functional Road Hierarchy* and is defined as a road which “...provides for major regional and inter-regional traffic movement and carry large volumes of generally fast moving traffic. Some are strategic freight routes, and all are National or State roads and are managed by Main Roads.” It operates under a posted speed limit of 110kph to the north-west of the site transitioning to 60kph on approach to George Street/South-Western Highway. Pinjarra Road has been constructed as a dual divided carriageway to the north-east of the site and is owned, operated and maintained by Main Roads WA.

Moores Road, which is located along the north-western boundary of the site, is a local road providing direct access to the local industrial precinct to the west of the site as well as access to existing rural residential properties. It has been constructed as a standard width single undivided carriageway with a 6.2m seal. Moores Road has been classified as an *Access Road* under the Main Roads WA *Functional Road Hierarchy* which is defined as a road which “...provides access to abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function. These roads are bicycle and pedestrian friendly and are managed by Local Government.” It operates under a speed limit of 50kph in the vicinity of the site and is owned, operated and maintained by the Shire of Murray.

An extract from the MRWA’s *Functional Road Hierarchy* is shown in **Figure 3**.



Figure 3 – MRWA Functional Road Hierarchy

The intersection of Pinjarra Road/Moors Road to the north-east of the site, operates under 4-way Stop Control with Moors Road to the south-west of Pinjarra Road and Sutton Street to the north-east of Pinjarra Road functioning as the minor approaches, respectively.

Table 1 shows the indicative existing daily traffic volumes for the boundary road network in the vicinity of the site.

Table 1: Existing Traffic Volumes

Road Name	Existing Daily Volume (vpd)	Practical Capacity (vpd)
Pinjarra Road (West of Wilson Road)	12,700 vpd (MRWA, 2023/24)	40,000 to 50,000 vpd
Moores Road (South-West of Pinjarra Road)	Est.800vpd (Based upon 'spot surveys')	3,000 vpd

2.2 Pedestrian and Cycling Infrastructure

There is a wide footpath on both sides of Pinjarra Road to the north-west of the site with a new dual use path on the south side of Pinjarra Road, east of Moores Road. On road sealed shoulders are also in place on both side of Pinjarra Road. No dedicated pedestrian or cycling infrastructure is in place on Moores Road.

2.3 Public Transport Infrastructure

The closest bus stops are in place to the north-east of the site on Pinjarra Road, north-east of intersection with Moores Road/Sutton Street with the following routes providing line haul service:

- Route 600 – Mandurah Station to Pinjarra: Via Pinjarra Road and Ravenswood
- Route 605 – Mandurah Station to Pinjarra: Via Pinjarra Road, Ravenswood, Murray Bend and Murray River Country Estate

These services provide a combined frequency of 15-30 minutes during the weekday peak periods and hourly service outside these periods with no services on Sundays or public holidays.

Figure 4 shows the line haul bus services in the vicinity of the site.

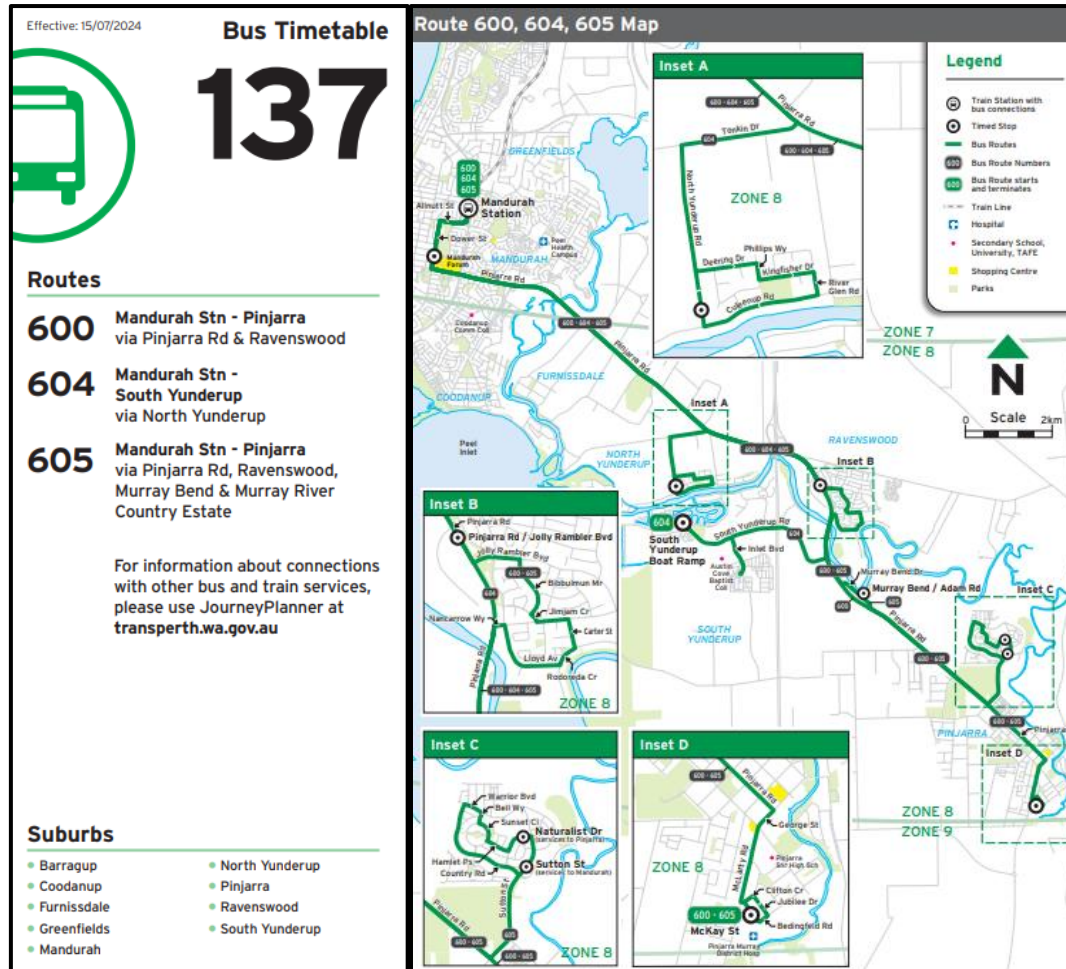


Figure 4: Line Haul Bus Services (Source: TransPerth)

3. DEVELOPMENT PROPOSAL

3.1 Development Details

The development application consists of a proposal for a veterinary clinic with development plans for the development are attached in **Appendix A**.

Details relating to the proposal are as follows:

- A maximum of 5 Veterinarians and 10 support staff, with 2 administrative staff at any given time.
- 21 on-site car parking bays inclusive of one (1) ACROD bay.
- Operating Hours:
 - Monday to Friday – 8:00 a.m. to 6:00 p.m.
 - Saturdays – 8:00 a.m. to 1:00 p.m.

Appointments will typically be booked on a 30-minute basis with only emergency walk-in service provided. The operating theatre will typically only be in use from 11:00 a.m. to 3:00 p.m.

3.2 Car Parking and Access

Vehicular access to the site is proposed to be maintained via a single full movements crossover to the south-east side of Moores Road, south-west of the intersection with Pinjarra Road/Sutton Street (2).

The proposed on-site car parking supply consists of 21 bays, inclusive of one (1) ACROD bay situated along the Moores Road frontage plus ancillary service/delivery/pick-up area at the rear of the building.

3.3 Bicycle Parking

End-of-trip facilities (including secure bicycle parking) can be provided for staff internal to the building and visitor bays can be provided external to the building along the eastern frontage in the form of a minimum of two (2) bays via secured U-rail installation. This is consistent with Council's TPS, long-term bicycle strategy and industry best-practice.

4. TRAFFIC ANALYSIS

A traffic generation and distribution exercise has been undertaken to assess the potential traffic impacts associated with the proposed development. The aim of this exercise was to establish the traffic volumes which would be generated from the proposed development and to quantify the effect that the additional traffic has on the surrounding road network, including on Pinjarra Road and Moores Road.

4.1. Trip Generation and Distribution

The traffic generated by the proposed development has been predicted by applying trip generation rates for the proposed uses were derived from a combination of a review of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* and the anticipated staff and patient/visitor demand profile on a typical day. The total anticipated traffic generated by the proposed development is estimated to be in the order of 76 vehicular trips (50% inbound/50% outbound) on a daily basis; 9 vehicular trips (7 inbound/2 outbound) during the a.m. peak hour; and 10 vehicular trips (3 inbound/7 outbound) during the p.m. peak hour.

Based upon the existing traffic patterns in the area and the spatial distribution of adjacent land uses, the following distribution for the proposed development generated traffic has been assumed broadly: to be as follows

- 45% to and from the north via Pinjarra Road and Moores Road.
- 45% to and from the south via Pinjarra Road and Moores Road.
- 10% to and from the south-west via Moores Road.

The number of trips entering / exiting the site via the proposed site crossover/connections has been assigned based upon the most logical route for vehicles to take given their origin / destination. The following outlines the anticipated impact on the local road network:

- Pinjarra Road (North):
 - Daily: +34 vpd
 - A.M. Peak Hour: +4 vph
 - P.M. Peak Hour: +5 vph
- Pinjarra Road (South):
 - Daily: +34 vpd
 - A.M. Peak Hour: +4 vph
 - P.M. Peak Hour: +4 vph
- Moores Road:
 - Daily: +76 vehicular trips
 - A.M. Peak Hour: +9 vph
 - P.M. Peak Hour: +10 vph

These increases in daily and weekday peak hour volumes will have a minimal impact on existing traffic operations in the area and can be comfortably accommodated within the practical capacities of the respective links on the boundary road network.

5. TRAFFIC ENGINEERING REVIEW AND CAR PARKING ASSESSMENT

5.1. Review of Site Layout and On-Site Circulation

A review of the proposed on-site layout indicates that it has been designed in compliance with Australian Standards *AS 2890.1: Off-Street Parking* with all vehicles entering and exiting the site in forward gear inclusive of the waste collection collections, where required.

5.2. Crash History, Sightlines and Pedestrian Safety

A review of the crash history on the boundary road network in the vicinity of the site crossover during the 5-year reporting period 2019-2023 indicates that while there have been five (5) crashes on Moores Road with all of these crashes occurring at the Pinjarra Road/Moores Road intersection with no driveway crashes along the frontage of the site.

A review of the sightlines at the site crossovers indicates that there are sufficient sightlines in place to accommodate minimum AGSD, SISD and MGSD requirements under a design speed of 60kph along Moores Road.

5.3. Rubbish Collection and Loading, Servicing and Delivery

Rubbish collection arrangements would be undertaken in consultation with the Shire of Murray. A separate Waste Management Plan can be prepared and submitted under separate cover. Loading, servicing, and delivery activities will be undertaken on-site within the dedicated loading/service and delivery area designated at the rear of the site.

5.4. Car Parking

The proposed car parking supply on the site is 21 bays inclusive of one (1) ACROD bay. This proposed on-site supply is compliant with the requirements outlined in the City's TPS and *Local Planning Policy: General Development Provisions – Building Setbacks, Car Parking Standards* to cater to the maximum demands during operating hours.

6. CONCLUSIONS

Move Consultants has been commissioned to prepare a Transport Impact and Parking Assessment for a proposed veterinary hospital to be located at 11 Moores Road, Pinjarra in the Shire of Murray. This assessment has been prepared in accordance with the Shire of Murray's *Local Planning Scheme No.4, Local Planning Policy: General Development Provisions - Building Setbacks, Car Parking Standards* and the *WAPC Transport Impact Assessment Guidelines – Vol. 4: Individual Developments* as well as in the context of documented traffic generation and car parking demand surveys for similar developments and industry design standards and guidelines.

These increases in daily and weekday, peak hour volumes will have a minimal impact on existing traffic operations in the area and can be comfortably accommodated within the practical capacities of the respective links on the boundary road network.

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In conclusion, based upon the results of this transport analysis, traffic engineering review and car parking assessment, there are not anticipated to be any safety, or operational concerns associated with the proposal and the proposed on-site car parking is appropriate and are therefore supported from a traffic perspective.



7. APPENDIX A – SITE PLAN

