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# Proposed Land Lease Community Stockland Halcyon Illyarrie Transport Impact Statement

PREPARED FOR:  
Stockland

April 2024

# Document history and status

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# 1 Introduction

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This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Stockland with regard to a proposed Land Lease Community (LCC) to be located within Lot 1665 (1040) Wanneroo Road, in the suburb of Sinagra, City of Wanneroo.

Stockland has recently prepared a subdivision for Lot 1665 (1040) Wanneroo Road to allow for development of over 50s lifestyle community (Land Lease Community) within the south east of Lot 1665. Lot 1665 is located on the eastern side of Wanneroo Road, north of Wanneroo Town Centre. **Figure 1** shows the location of the Lot 1665 and the subject site.

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) states: *“A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic<sup>1</sup> and therefore would have a moderate overall impact on the surrounding land uses and transport networks”*.

**Section 6.1** of Transcore’s report provides details of the estimated trip generation for the proposed LLC. Accordingly, as the total peak hour vehicular trips are estimated to be less than 100 trips, a Transport Impact Statement is deemed appropriate for this development.

Key issues that will be addressed in this report include the traffic generation and distribution of the proposed LLC, access and egress movement patterns and internal LLC road network.

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<sup>1</sup> Between 10 and 100 vehicular trips per hour





Figure 1: Location of the subject site

## 2 Proposed Development

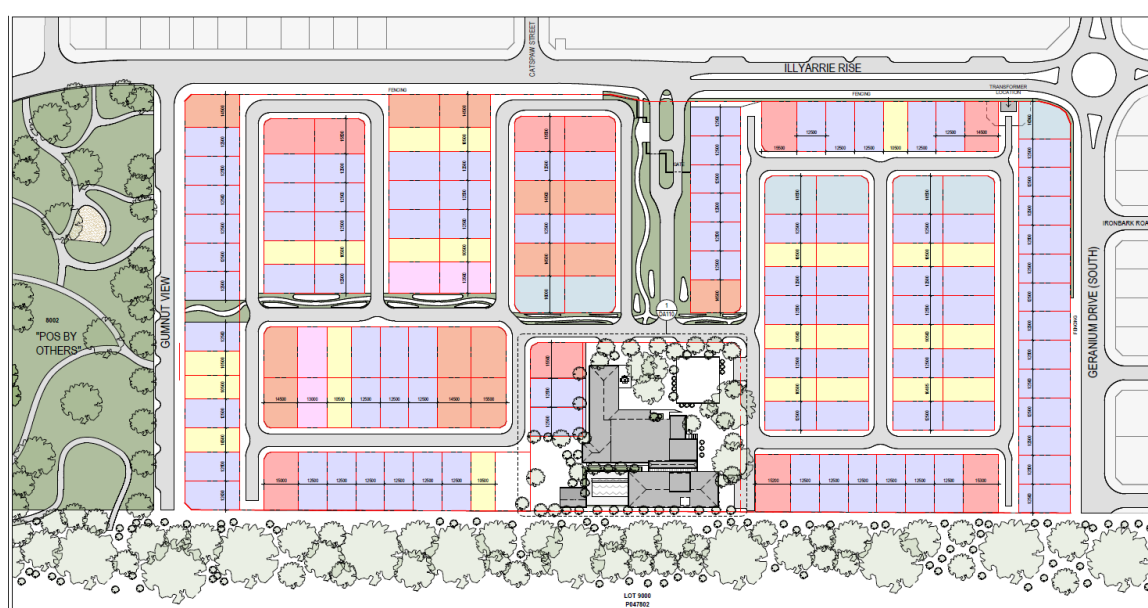
The proposed lifestyle community homes are designed for owner occupiers aged over 50. The proposed LLC will provide approximately 153 retirement units and a community green/ clubhouse, within the south of the site.

The proposed development site plan is provided in **Appendix A**. Appendix A also shows the housing types and clubhouse details.

**Figure 2** illustrates the proposed site plan and concept road network for the LLC. The primary access driveway will be situated on Ilyarrie Rise, featuring a wider road reserve and a wider carriageway width at the entrance to Ilyarrie Rise. This access point will be gated, and the entire LLC will be enclosed by fencing.

The internal roads within the LLC will have about 5.5 meters. These internal roads are designed as shared zones with low-speed limits.

The proposed clubhouse will be centrally located in the southern part of the LLC. It is planned to have 12 off-street parking bays, including two designated ACROD bays, to accommodate parking needs for clubhouse visitors.



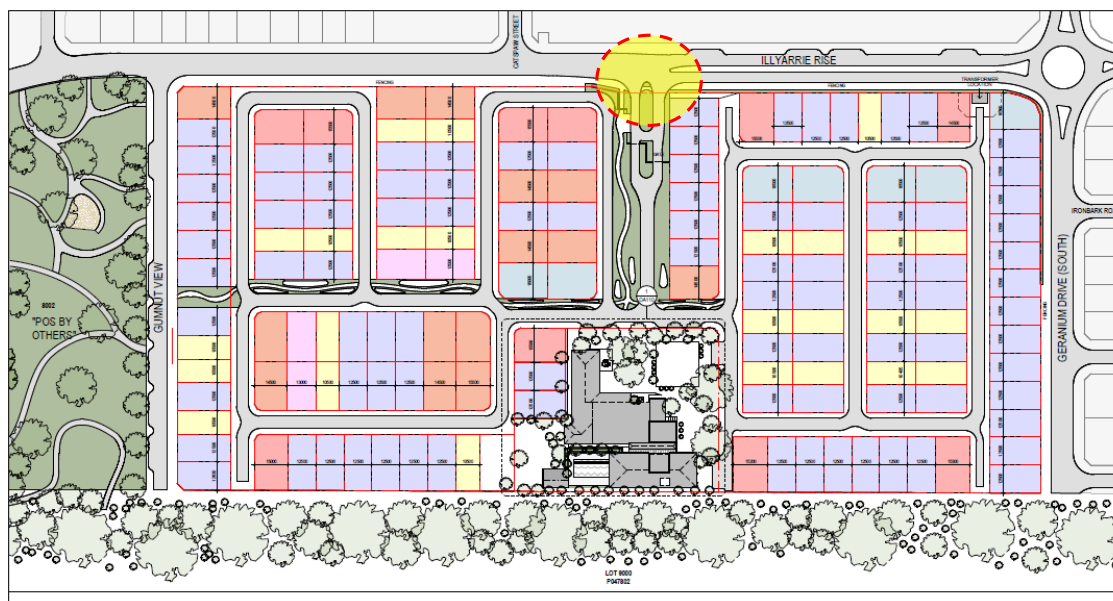
**Figure 2: Proposed site plan**



## 3 Vehicle Access and Parking

### 3.1 Access

Access and egress to the proposed LLC will be facilitated through a full movement crossover on Illyarrie Rise, as depicted in **Figure 3**. This crossover will be gated and will serve as the primary entrance and exit point for vehicles entering or leaving the LLC.



**Figure 3: Proposed development access/ egress**



## 3.2 Parking

The residential units within the LLC are designed to have their own dedicated car parking facilities, each equipped with either 1 or 2 garages (subject to floor plan layout). All homes have garage setbacks of min 5.5m offset to the edge of pavement, which allows for on-site visitor bays in addition to garage spaces.

In addition to the private parking facilities, the LLC also incorporates parking provisions to cater to the parking demand of visitors, guests, and additional vehicles associated with the proposed clubhouse. Accordingly, 12 off-street parking bays including two ACROD bays are planned for the proposed clubhouse.

## 4 Provision for Service Vehicles

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The waste collection for the proposed LLC will be the standard arrangement for residential developments throughout the City of Wanneroo. This consists of rubbish bins wheeled out by the residents for verge collection on the designated collection day.

To ensure that waste collection trucks can navigate the internal roads and intersections within the LLC, turn path analysis was undertaken for all the roads and bends, as presented in **Appendix B**. According to the analysis, all the internal roads and intersections within the LLC have been designed to accommodate the turning movements of the waste collection trucks. This includes providing adequate space for the trucks to manoeuvre and make the necessary turns without obstruction.

## 5 Hours of Operation

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The proposal for the LLC involves the development of retirement units specifically designed for individuals aged over 50. Hours of operation do not apply to the LLC.

## 6 Daily Traffic Volumes and Vehicle Types

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### 6.1 Proposed Development Trip Generation

The trip generation for retirement units within the LLC is typically expected to be lower than that of normal residential dwellings.

Stockland has organised traffic survey for five (5) existing LLC developments in Queensland. The outcome of the traffic survey indicates that in average the daily trip generation of an LLC is approximately 2.6vpd per unit. This is in line and slightly higher than the upper daily trip rate of 2vpd per dwelling for “Housing for aged and disabled persons” as per Guide to Traffic Generating Developments (2002) and 2.1vpd per dwelling for “Housing for seniors” as per TDT 2013/04a.

However, in order to provide a conservative approach a trip rate of 4 vehicle per day has been adopted for the proposed LLC units. The peak hour trip rates for the LLC units are expected to be in the range of 0.27vph per units.

On this basis, the proposed 153 retirement units is expected to generate about 612vpd and about 41vph. These trips include the trip generation of the proposed clubhouse. The trip generation of the proposed clubhouse is expected to be mainly internal. These facilities are primarily intended for use by the residents of the LLC.

### 6.2 Traffic Flow

**Figure 4** illustrates trip generation and traffic distribution of the proposed development. It is conservatively assumed that all 612vpd trips generated by the LLC would be external and would be distributed to Ilyarrie Rise to go towards Wanneroo Road or further east/ north towards Spiccia Way or Messina Drive.

It should also be noted that traffic generation of the proposed LLC has already been accounted for as part of the subdivision of Lot 1665 Wanneroo Road.

The proposed internal road network of the LLC will be able to accommodate the trip generation of the proposed LLC.

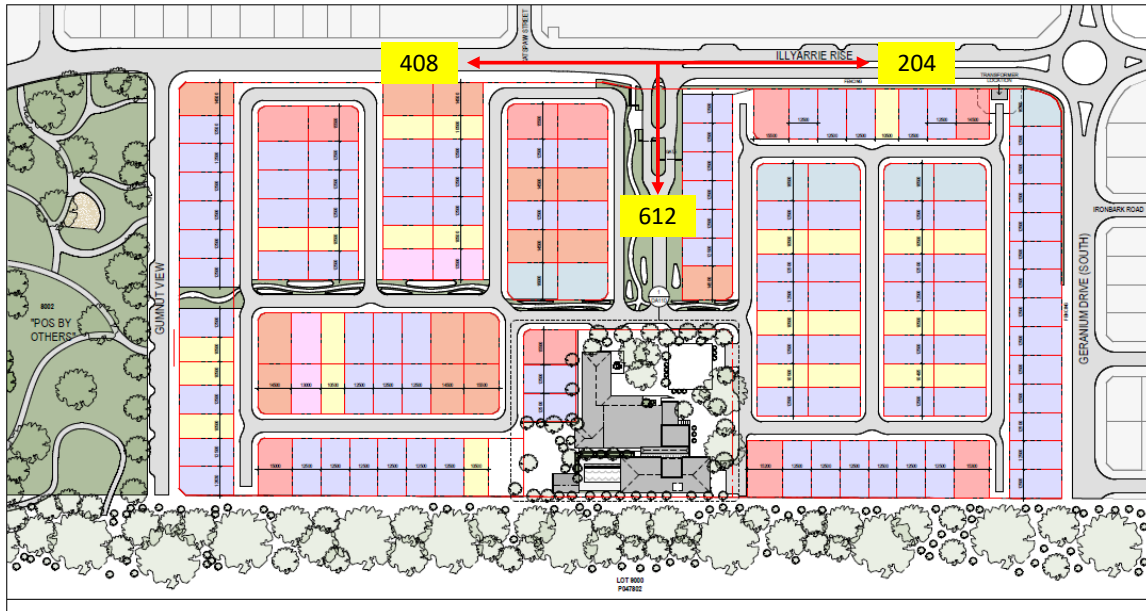


Figure 4: Estimated daily traffic volumes

## 6.3 Impact on Surrounding Roads

The WAPC Transport Impact Assessment Guidelines (2016) provides guidance on the assessment of traffic impacts:

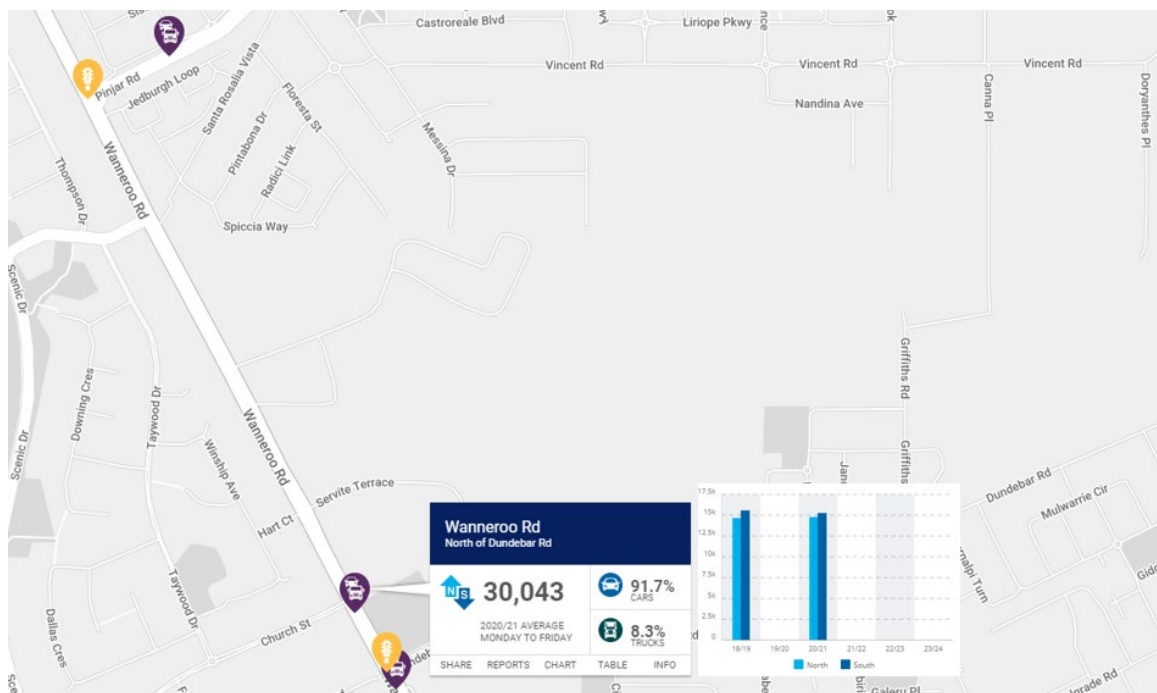
*“As a general guide, an increase in traffic of less than 10 per cent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 per cent may. All sections of road with an increase greater than 10 per cent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 per cent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis.”*

It is clear that the traffic increase from the proposed LLC would be significantly less than the critical threshold (100vph per lane). As detailed in **Section 6.1**, the proposed development will not increase traffic on any lanes on the surrounding road network by more than 100vph, therefore the impact of the development traffic on the surrounding road network will not be significant and does not require further assessment.

## 7 Traffic Management on the Frontage Streets

The proposed LLC will be situated within 1665 Wanneroo Road, which is currently in the development phase. As a result, the road network surrounding the LLC is also undergoing development. Once both the LLC and Lot 1665 are fully developed, it is anticipated that the majority of the LLC's traffic will be directed towards Wanneroo Road.

**Wanneroo Road** is located on the west boundary of the Site and comprises a divided carriageway road with two lanes in each direction. It is classified as a Primary Distributor according to the Main Roads WA (MRWA) Metropolitan Functional Road Hierarchy with a posted speed limit of 60 km/h on the section fronting the Site. The existing traffic counts sourced from Main Roads WA on Wanneroo Road in this vicinity is shown in **Figure 5**.

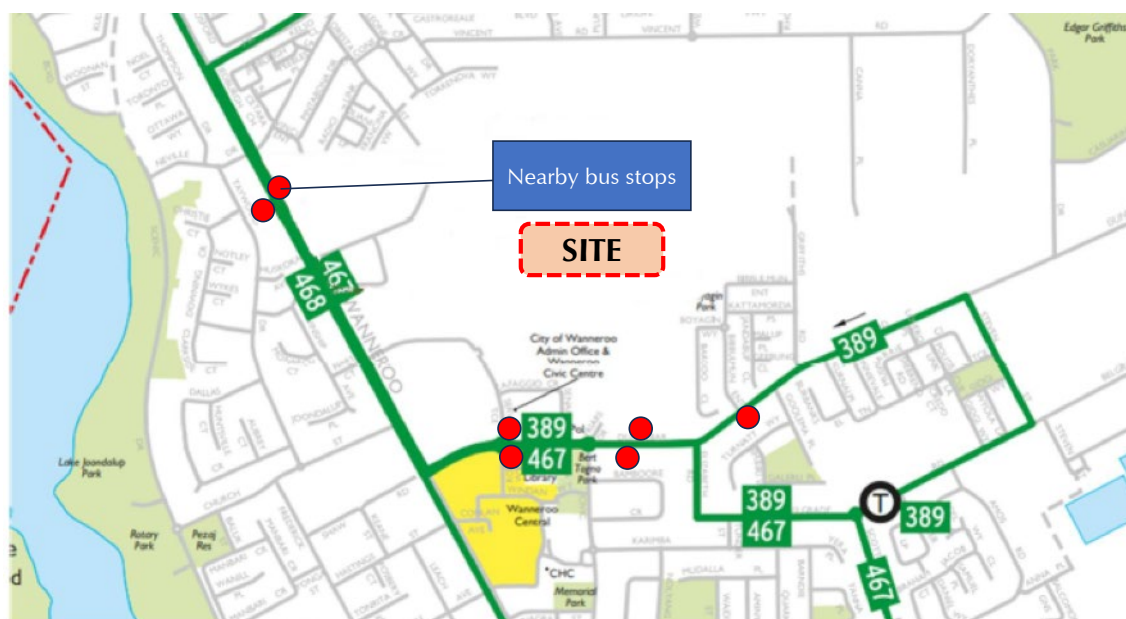


**Figure 5: Existing traffic counts on Wanneroo Road**



## 8 Public Transport Access

The existing public transport services within the vicinity of the subject site are illustrated in **Figure 6**. The subject site is served by bus routes 467 and 468 which operates on Dundebur Road and Wanneroo Road. Both bus routes provide convenient public transport services. Location of the nearby bus stops are shown in **Figure 6**.



**Figure 6: Public transport services (Transperth Maps)**

## 9 Pedestrian Access

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As part of the proposed LLC development, there will be a continuous footpath along the main entry road to the proposed LLC. This footpath will serve as a pedestrian pathway within the LLC and will provide connectivity to the proposed clubhouse. Additionally, it will be designed to seamlessly connect with the future footpaths within Lot 1665. This connection will be facilitated through the proposed footpath along Illyarrie Rise.

## 10 Site Specific Issues

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No particular site specific issues were identified as part of the assessments.

## 11 Safety Issues

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No particular safety issues have been identified for the proposed development.

## 12 Conclusions

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This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Stockland with regard to a proposed Land Lease Community (LCC) to be located within Lot 1665 (1040) Wanneroo Road, in the suburb of Sinagra, City of Wanneroo.

The proposed LLC homes are designed for owner occupiers aged over 50. The proposed LLC will provide approximately 153 retirement units within the proposed LLC which would be expected to generate about 612vpd and about 41vph.

The capacity of the proposed LLC surrounding roads is sufficient to handle the projected increase in traffic resulting from the LLC development. Therefore, no upgrades or modifications to these roads would be necessary due to the proposed LLC.

Access and egress to the proposed LLC will be facilitated through a full movement crossover on Illyarrie Rise.

It is concluded that the findings of this Transport Impact Statement are supportive of the proposed development.

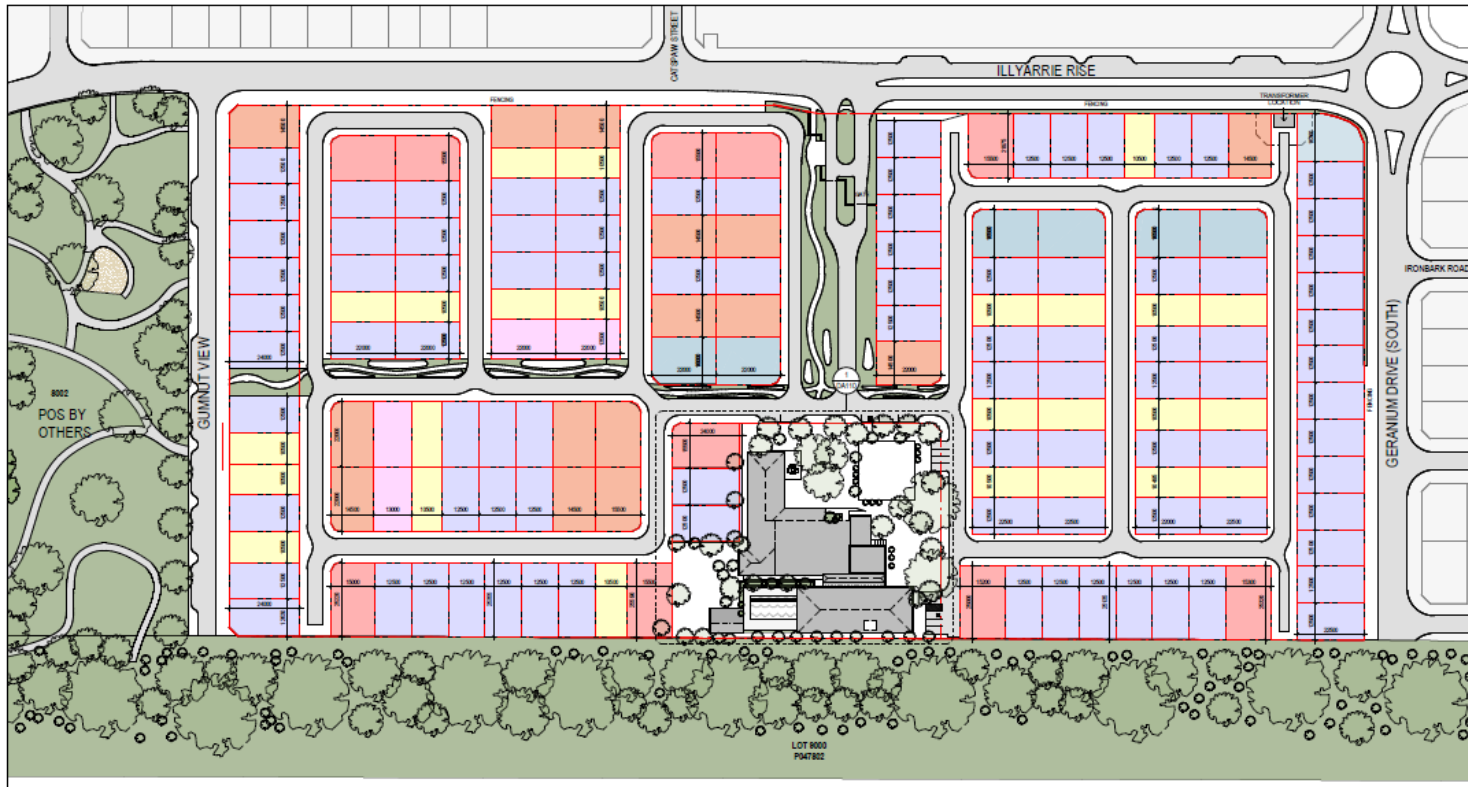
# Appendix A



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## PROPOSED DEVELOPMENT PLAN



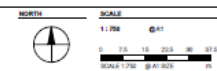


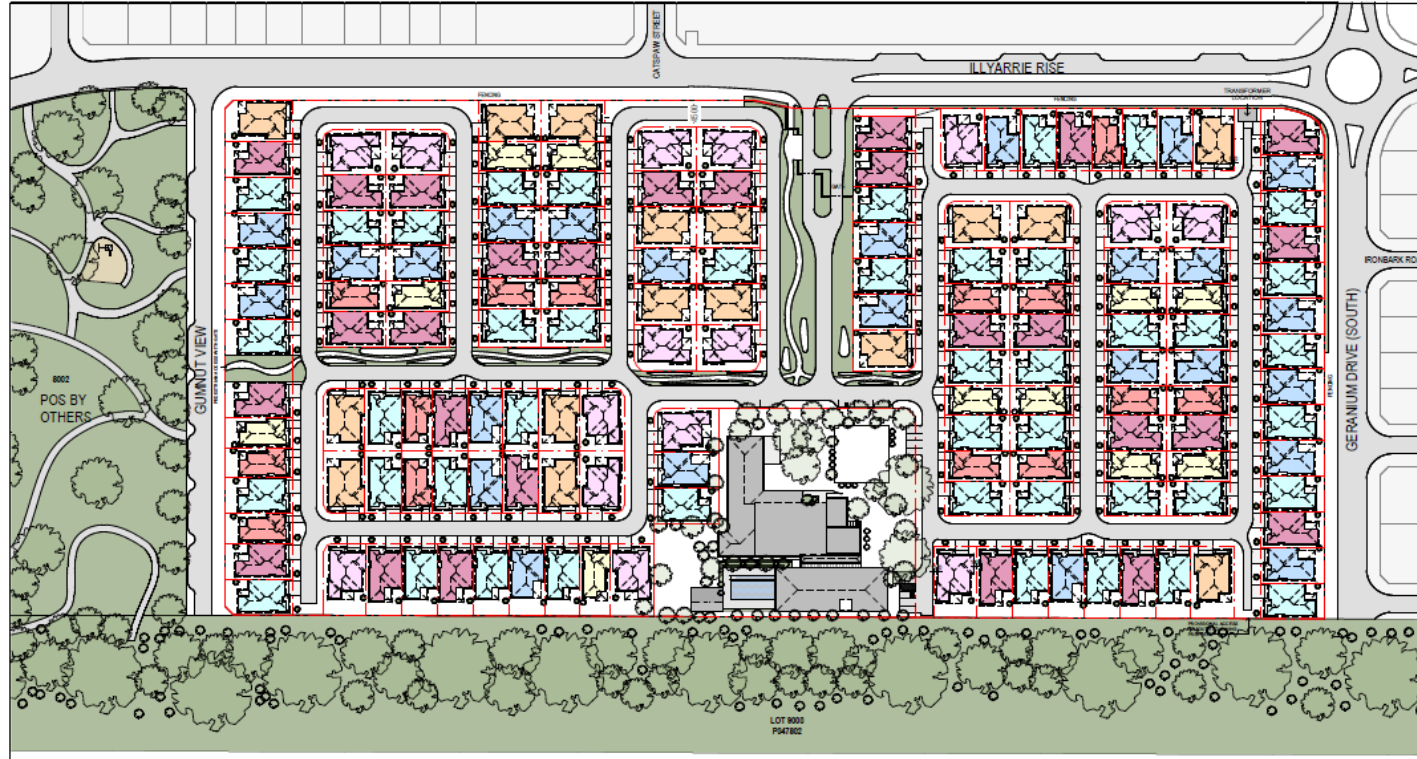
#### LOT SIZE LEGEND

- 10.5m Wide Lot
- 11.5m Wide Lot
- 12.5m-12.83m Wide Lot
- 13m-13.5m Wide Lot
- 14m-14.5m Wide Lot
- 15m-15.5m Wide Lot
- 16m-16.5m Wide Lot








NOTE:  
LANDSCAPE DRAWINGS ARE SHOWN INDICATIVELY ONLY. REFER TO LOTS FOR FURTHER INFORMATION.  
LOT 8000 IS SHOWN FOR CLARITY. LOT 8000 IS SHOWN FOR CLARITY.  
LOT 8000 IS SHOWN FOR CLARITY. LOT 8000 IS SHOWN FOR CLARITY.

PROJECT	JOB NUMBER	DATE	REVISION	DRAWING NO.	DRAWING
Stookland Halyon Ilyarrie Lot 1995 (1940) Warreroo Road, Smeaton	00550	02/04/24	A	DA100	SITE PLAN (LOTS)





#### HOUSE TYPE MIX LEGEND

						
WA-H01 2 BED 14 UNITS	WA-H02 2 BED 11 UNITS	WA-H03 3 BED 45 UNITS	WA-H04 2 BED 25 UNITS	WA-H05 3 BED 15 UNITS	WA-H06 3 BED 16 UNITS	WA-H07 3 BED 27 UNITS

PROJECT	JOB NUMBER	DATE	REVISION	DRAWING NO.	DRAWING
Stookland Hatyeon Ilyarrie Lot 1985 (1940) Wanneroo Road, Shagra	80556	02/04/24	A	DA101	SITE PLAN (HOUSING TYPES)

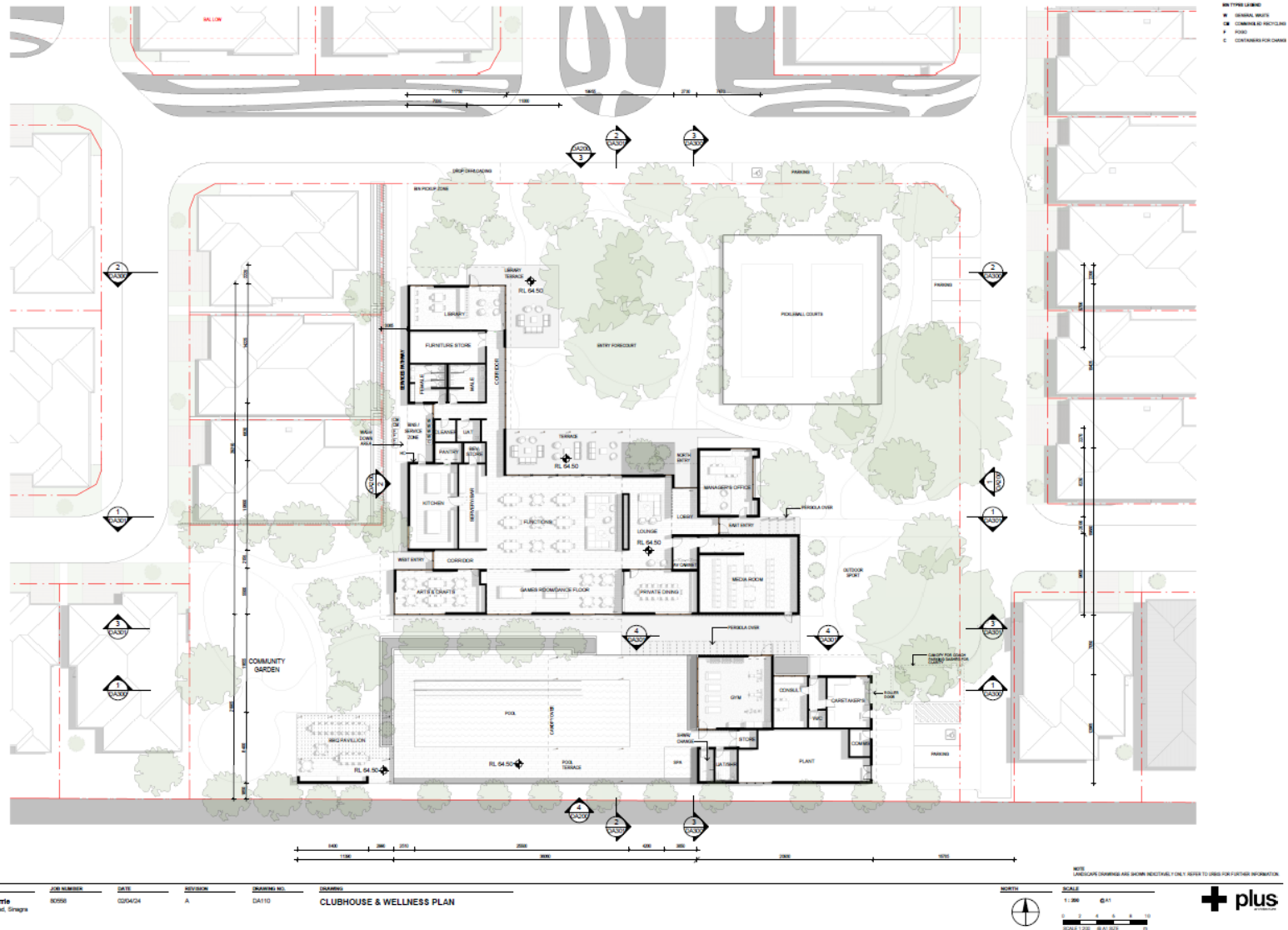
NOTE:  
LANDSCAPE DIMENSIONS ARE SHOWN INDICATIVELY ONLY. REFER TO LANDS FOR FURTHER INFORMATION.

NORTH

SCALE  
1:100

0 7.5 15 22.5 30 37.5  
METRES

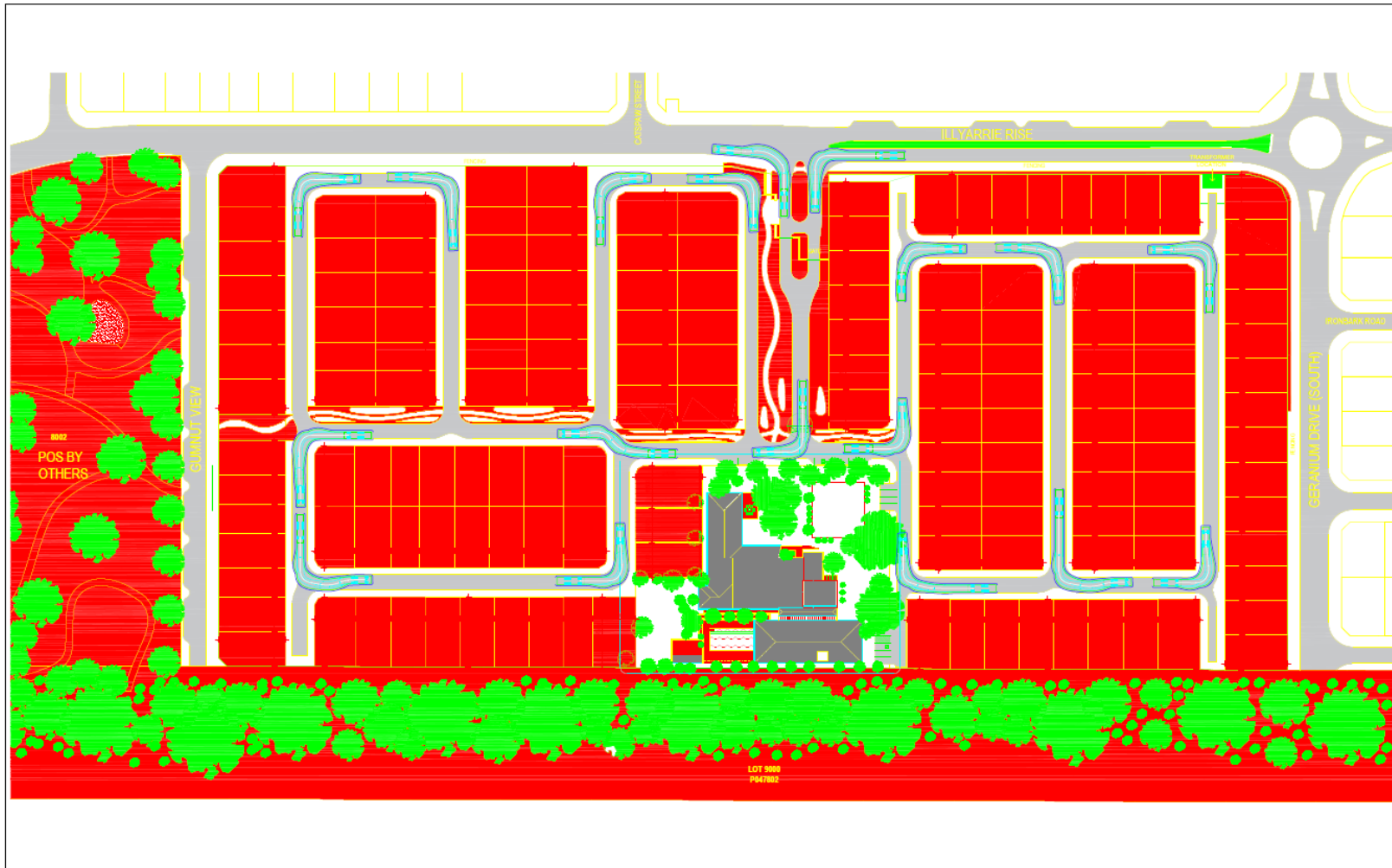
 **plus**



# Appendix B

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## TURN PATH ANALYSIS



**Sinagra LLC**  
 Austrroads 2013: 10m SRV  
 Service vehicle maneuvers

**LEGEND**  
 Vehicle Body  
 Wheel Path  
 500mm Clearance

t23.229.sk01a  
 04/04/2024

