

## Glenside Code Amendment

### Parking Impact Assessment

**Prepared for:**

Cedar Woods  
Zamia Property Pty Ltd  
  
220 Fullarton Road  
Glenside SA 5065

**Prepared by:**

GREENHILL  
  
Level 1  
178 Fullarton Road  
Dulwich SA 5065

8406 1300

**Contact Person:**

Riley Carmody  
08 8406 1300  
RCarmody@greenhillaustralia.com.au

24.3557

Revision B

**2 August 2024**

# Parking Impact Assessment

Reference No.: 28352

Prepared by: Jonathan Marwitz

Reviewed by: Dean Mathews

## Revision History

Revision:	Date:	Details:	Approved by:	Signed:
A	27 June, 2024	Client Review	J. Marwitz, Senior Civil Engineer	
B	2 August, 2024	Client Issue	R. Carmody, Civil Engineer	

© GREENHILL 2024

The information contained in this document produced by GREENHILL is solely for the use of the Client identified on the cover sheet for the purpose for which it has been prepared and GREENHILL undertakes no duty to or accepts any responsibility to any third party who may rely upon this document.

All rights reserved. No section or element of this document may be removed from this document, reproduced, electronically stored or transmitted in any form without the written permission of GREENHILL.

# Contents

1	Executive Summary .....	4
2	Introduction.....	4
3	On-Street Parking Requirements .....	6
4	Existing Parking Assessment.....	7
5	Proposed Parking Assessment .....	9
5.1	Visitor Parks Required .....	9
5.2	Proposed Parking Amendments .....	10
5.3	Parking Impact Assessment .....	11
6	Summary .....	12
	Appendix A – Parking Plan (Current Planning Code).....	13
	Appendix B – Parking Plan (Proposed Code Amendment).....	14

# 1 Executive Summary

This report provides an analysis of the Glenside Development for the proposed Code Amendment to provide required parking to residents and visitors.

On street parking requirements applicable to the proposed Code Amendment affected area include Australian Standards 2890 parts 1 and 5, Plan SA – Planning and Design Code and the Australian Model Code for Residential Development. All required resident parking will be accommodated for with off-street parking within the building sites.

The surrounding road network incorporates the minor collector roads of Harriet Lucy Drive and Mulberry Road and the local roads of Blue Gum Drive, Lomandra Avenue and Tea Tree Street. The affected area of the proposed Code Amendment regarding available parking is considered to be along the road network within a 50 m radius of the proposed sites.

The existing parking plan (refer to Appendix A) shows that there are currently sufficient on-street carparks available within the existing road network to meet the requirements for the existing planning code.

The proposed Code Amendment with an increase of 157 dwellings was found that an additional 39 visitor carparks were needed to be provided for within the local street network to meet the requirements.

To meet the required number of carparks for the proposed Code Amendment it is proposed to install 90-degree on-street parking along the western side of Blue Gum Drive. These 90-degree carparks will increase the available carpark to the Proposed Code Amendment Sites and meet the required number of on-street carparks (refer to Appendix B).

## 2 Introduction

GREENHILL has been engaged by Cedar Woods Pty Ltd to undertake a parking assessment for the proposed Code Amendment of allotments 704 and 719 within the Glenside residential development. The Affected Area is bordered by roads are under the care and control of the City of Burnside, being Blue Gum Drive, Harriet Lucy Drive, Mulberry Road and Lomandra Avenue, as shown in Figure 1 below.

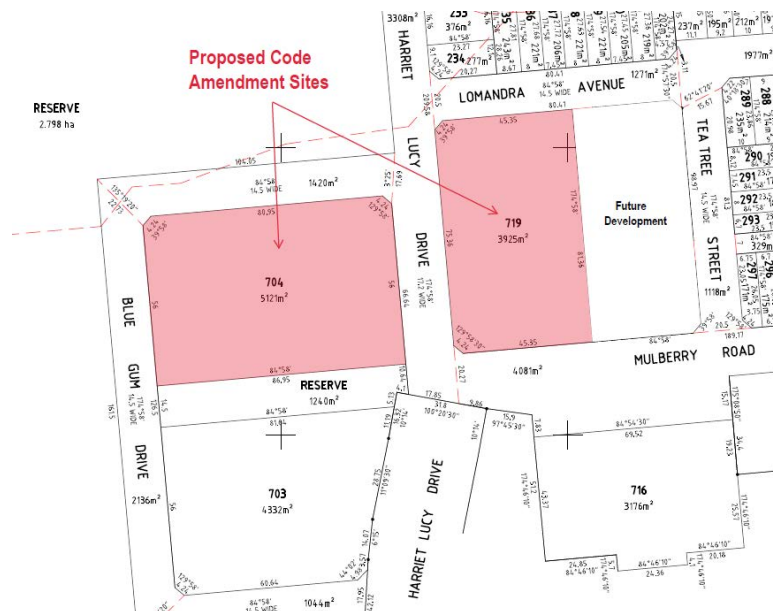


Figure 1: Proposed Affected Area

The original masterplan for Glenside was to create 1,000 new dwellings, of which there was a mix of 300 townhouses and 700 apartment dwellings proposed. The current forecast for the development under the

existing planning code has adapted over time due to market demands, and now has a proposed total yield of 1,043 dwellings with a mix of 825 apartments and 218 town-homes, reflective of a greater demand for apartment style living in this zone.

The proposed Code Amendment would increase the number of apartment dwellings on lots 704 and 719 from 309 to 466 apartment dwellings, representing an increase of 157 dwellings specifically for the Code Amendment Area.

Whilst the proposed code amendment seeks to allow construction of buildings up to 20 storeys, we understand that the Applicant is intending to develop a series of cascading building heights, with only one of the buildings achieving the maximum height.

The proposal under the Code Amendment results in a total dwelling count of 996 apartments and 204 townhouses in the development overall. This represents an increase of 20% to the original masterplan, but with a much higher proportion of apartment style-living outcomes. Apartment dwelling traditionally have a lower service and traffic impact than townhouses, which are noted to be decreased by nearly 100 dwellings under the revised plans.

This report presents;

- The existing parking requirements under the Planning and Design Code ('the Code')
- The current parking provisions available on site, within the existing road network
- The anticipated parking requirements as a result of the proposed Code Amendment
- A proposed parking plan and impact assessment

This report does not provide a traffic impact assessment for the proposed Code Amendment. Refer to the dedicated Wallbridge Gilbert Aztec (WGA) report for information relating to the traffic impacts associated with the proposed Code Amendment.

### 3 On-Street Parking Requirements

The following documents have been reviewed as part of the parking assessment for the affected area:

- AS/NZS 2890.1:2004 Part 1: Off-street car parking
- AS/NZS 2890.5:2020 Part 5: On-street parking
- Plan SA – Planning and Design Code – Version 2024.10, dated 6 June 2024
- Commonwealth of Australia AMCORD (Australian Model Code for Residential Development), 1995-1997

Off-street and visitor parking requirements for the Affected Area have been determined using Tables 1 and 2 of the Planning and Design Code ('the Code') (*Off-Street Car Parking Requirements*), and are as follows;

- Residential flat building, as per Table 2
  - Dwelling with no separate bedroom -0.25 spaces per dwelling
  - 1-bedroom dwelling - 0.75 spaces per dwelling
  - 2-bedroom dwelling - 1 space per dwelling
  - 3 or more-bedroom dwelling - 1.25 spaces per dwelling
  - 0.25 spaces per dwelling for visitor parking.
- Non-residential developments (excluding tourist accommodation), as per Table 2
  - A minimum of 3 spaces shall be provided per 100 m<sup>2</sup> of gross leasable floor area
  - 1.5 spaces per 100 square metres of gross leasable floor area above ground floor level other than for a shop
  - A maximum of 5 spaces shall be provided per 100 m<sup>2</sup> of gross leasable floor area.

While only residential flat and apartment buildings are proposed within the area impacted by the proposed Code Amendment, all detached dwellings within the vicinity of the Affected Area have a minimum of 2 spaces on-site, and all apartment buildings (existing and proposed) have resident parking requirements provided on-site, via basement and podium parking structures.

Accordingly, this parking assessment focuses only on the on-street visitor parking requirements anticipated as part of the development of the affected area.

It is recommended by Austroads that provision of excessive on-street parking is best typically avoided, as parking occupancy reflects the relationship between supply and demand. If parking supply is plentiful, well located, easily accessible, unrestricted and inexpensive or free, then demand for it will increase. Vehicle ownership and use tends to decrease as density, availability of transit service and non-motorised travel, such as walking and bicycling, increases. A reduction in vehicle ownership and use has the result of reducing parking demand particularly in activity centres. Glenside is a mixed density development and is located within the CBD fringe with good public transport and walking and cycling links to both the CBD and surrounding land use, and the parking rates outlined in 'the Code' reflect this.

For the purpose of providing a conservative parking impact assessment this report identifies the capability for the road network to achieve one on-street park per detached dwelling, which exceeds the requirements of the Code.

## 4 Existing Parking Assessment

The current road network surrounding the Affected Area is shown in Figure 2.

Harriet Lucy Drive and Mulberry Road are minor collector roads and have a 6.0m wide main carriageways for uninterrupted two-way traffic movements, as well as 2.1 m wide indented parallel parking bays interspersed along their lengths.

Blue Gum Drive, Lomandra Avenue and Tea Tree Street are local roads which border the Affected Areas. They provide 7.2m wide carriageways and permit parallel on-street parking on both sides (other than at driveways at intersections).



**Figure 2: Local Road Network surrounding Affected Area**

Visitor parks are required to have unrestricted access and are typically provided on-street, but there is currently no regulatory requirement for the maximum distance that an on-street visitor park can be from an individual dwelling. Generally, a maximum distance of 50 m is considered to be fair and reasonable for visitor parking to any one residential dwelling.

The parking impact assessment considers the dwellings and road network within a 50 m radius of the Affected Area, and aims to determine the parking availability and capacity of the existing network.



The future development site between Lot 719 and Tea Tree Street (refer Figure 2) does not currently have any lodged plans, and is not being considered as part of this Code Amendment. This site will be subject to its own design and development approval process, which will consider these matters and the suitability of any development separately.

The current dwelling yields and associated on-street visitor parks required as described in Section 2 is summarised in Table 1 below.

**Table 1: Parking requirements under existing masterplan**

	Dwellings	Required Visitor Carparks (0.25 per detached dwelling)	Desirable Visitor Carparks (incl. 1 on-street park per 2 detached dwelling)
Lot 704 (Buildings 6, 7, 8 & 9) Affected Area	309	78	78
Lot 703 (buildings 10 & 11)	119	30	30
Lot 702 (Building 12)	39	10	10
Detached Dwellings (within 50 m of Lot 702)	50	0	25
Total	514	118	143

A parking plan has been prepared to assess the availability and compliance of the current road network for parking under the current planning code for the Affected Area (Refer to Appendix A).

The existing parking plan shows that there are currently sufficient on-street carparks available within the existing road network to satisfy the existing planning code requirements total of 118 spaces. The desirable on-street parking provision, in which one car park per two detached dwelling is provided (a total of 143 visitor spaces), is also achieved within the existing road network. There are 52 additional carparks above the desired number provided within the road network.

Although the precinct and existing road network satisfies, and even exceeds, the requirements of the Planning and Design Code for this Zone, we understand that concerns have been raised by the general public regarding parking demand and availability in this area in the past, and as part of the Proposed Code Amendment.

The cause of this issue is understood to be utilisation of on-street parking within the precinct for all day parking by a high proportion of external visitors to the area to visit businesses along Fullarton Road and Greenhill Road. This issue appears to primarily exist as a result of the convenient locality of the local road network to surrounding businesses, current parking supply being unrestricted, and easily accessible with lack of competition from adjoining land use for parking. Nearby parking on Greenhill and Fullarton Roads is managed by the City of Burnside with 2 hr or 4 hr parking time restrictions, which prevents all day parking, dissuades commuters and encourages turnover.

There is also noted to be a high proportion of builder activity within Glenside as a result of the development works. This high volume of builder traffic is temporary and associated with construction works and is not expected to continue beyond the completion of the Development works.



It is also noted that this issue is not isolated to Glenside, and appears to be a common issue for road networks surrounding businesses along the City fringe. This parking demand is not caused by the Development, nor is it an issue that the simple provision of additional on-street parking is likely to resolve. The provision of additional car-parks to meet the demands of external businesses is undesirable, both for urban design and the local community perspective, noting Austroads states that increased supply of parking may simply lead to increased use.

The above noted issues are considered to be best managed by the local road authority (City of Burnside), through the implementation of parking controls in line with their Parking Management Policy. These appear to already be under consideration by the City of Burnside, which should seek to improve the existing parking issues currently being experienced within the precinct which are unrelated to parking demand generated by the development given that construction is not complete.

## 5 Proposed Parking Assessment

### 5.1 Visitor Parks Required

This assessment focuses only on the visitor parking requirements for the Affected Area and surrounding roads.

An assessment of the visitor parking numbers required as a result of the proposed Code Amendment within a 50 m zone of the Assessment Area has been undertaken and is presented in Table 2.

**Table 2: Visitor Parking requirements for the Proposed Code Amendment**

	Dwellings	Required Visitor Carparks (nil per detached dwelling)	Desirable Visitor Carparks (incl 1 on-street park per 2 detached dwelling)
Lot 704 (Buildings 6, 7, 8 & 9) Affected Area	466	117	117
Lot 703 (buildings 10 & 11)	119	30	30
Lot 702 (Building 12)	39	10	10
Detached Dwellings (within 50m of Lot 702)	50	0	25
Total	674	157	182

As a result of the proposed Code Amendment, the Applicant must demonstrate the provision of an additional 39 suitable visitor carpark for the proposed increased dwelling count.

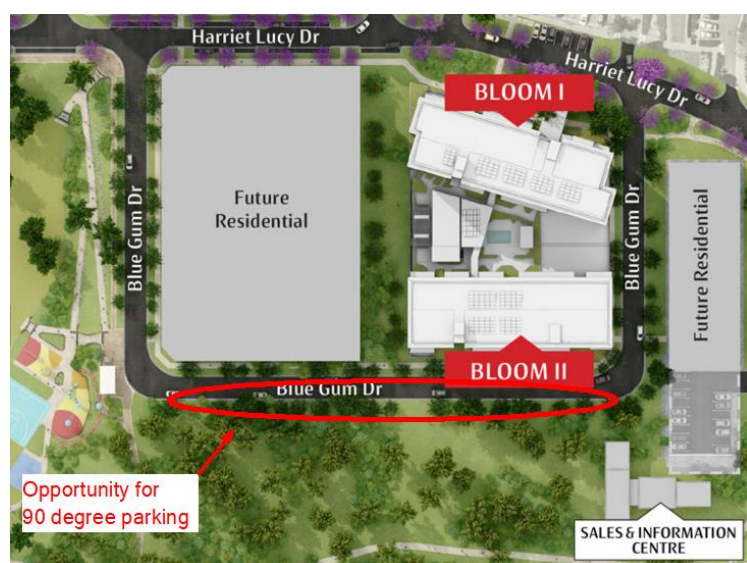
It is noted that the restaurant and café with a total ground floor area of 225 m<sup>2</sup> is also proposed within the ground level structure of the buildings proposed for Lot 704. Under the Table 2 of Planning and Design Code, the provision of between 7 and 11 visitor carpark should be provided to service these facilities.

However, given that large number of visitors parks required by the proposed apartment sites, and typically varying peak use times between the two, it is likely that the visitor parks provided by the proposed apartment sites would be shared, and be considered suitable for use by the restaurant and café facilities.

No additional on-street parks are considered to be required in addition to those calculated in Table 2. As requirements outlined in the Code are going to be exceeded for visitor parking, with any parking demand associated with the café/ restaurant being negligible.

## 5.2 Proposed Parking Amendments

To cater for the increased dwelling count and associated visitor requirements, the Applicant is proposing to modify the existing north-south carriageway of Blue Gum Drive to permit 90-degree on-street parking, as shown in Figure 3. The land required for this concept on the west of Blue Gum Drive is still owned by the Applicant, and appears that it could be transferred to the City of Burnside as road reserve with relative ease for this purpose. The location and proximity of the proposed additional parks relative to the Affected Area is considered to be appropriate and well placed for visitors.



**Figure 3: Proposed 90-degree parking opportunity on Blue Gum Drive**

The east-west portion of Blue Gum Drive adjacent lot 704 as shown in Figure 4 currently allows for on-street parking on both sides of the road along its full length. Given the road is only 7.2 m wide, this arrangement has been identified to pose a higher risk of congestion for the proposed land use and anticipated visitor requirements, and may unacceptably and regularly impede two-way vehicle movements. It is suggested that parking on the southern side of this road section be restricted in order to reduce congestion, but this would be subject to a formal traffic impact assessment by a suitably experienced traffic engineering practitioner, and endorsement from the City of Burnside. For the purpose of this report, we have completed our assessment assuming that on-street parking will be restricted along the southern side of Blue Gum Drive, for information's sake.



**Figure 4: Proposed location for parking control along Blue Gum Drive**

Other minor modifications to existing road network are proposed to accommodate the assumed access driveway locations. These modifications are minor in nature and will ultimately be required regardless of the Proposed Code Amendment. These modifications will need to be considered further as part of the detailed design and development approval processes for each apartment site as it progresses.

### 5.3 Parking Impact Assessment

A parking plan for the proposed parking infrastructure and subsequent road network has been prepared to assess the availability of visitor parking and the compliancy to the parking requirements identified for the Proposed Code Amendment in Table 2. Refer to Appendix B for the details of the proposed on-street visitor parking plan.

The parking plan demonstrates that sufficient on-street visitor parking is achieved for both scenarios as presented in Table 2, via the implementation of 90-degree parking along the north-south portion of Blue Gum Drive.

Parking requirements are able to be satisfied for both the current code requirements, and the proposed Code Amendment, if parking were to be restricted along the south side of Blue Gum Drive.

Should parking continue to be permitted, an additional 12 on-street visitor parks can be provided for use by the public. We consider this to be a matter for the City of Burnside to review with any further applications, but should not be prohibitive of development occurring under the existing or Proposed Code Amendment, and is presented for information's sake only.

## 6 Summary

The applicant is seeking to update policy in the Planning and Design Code to allow development up to 20 storeys on the Affected Area. This development is anticipated to add a further 157 dwellings (apartments), compared to what is currently envisaged.

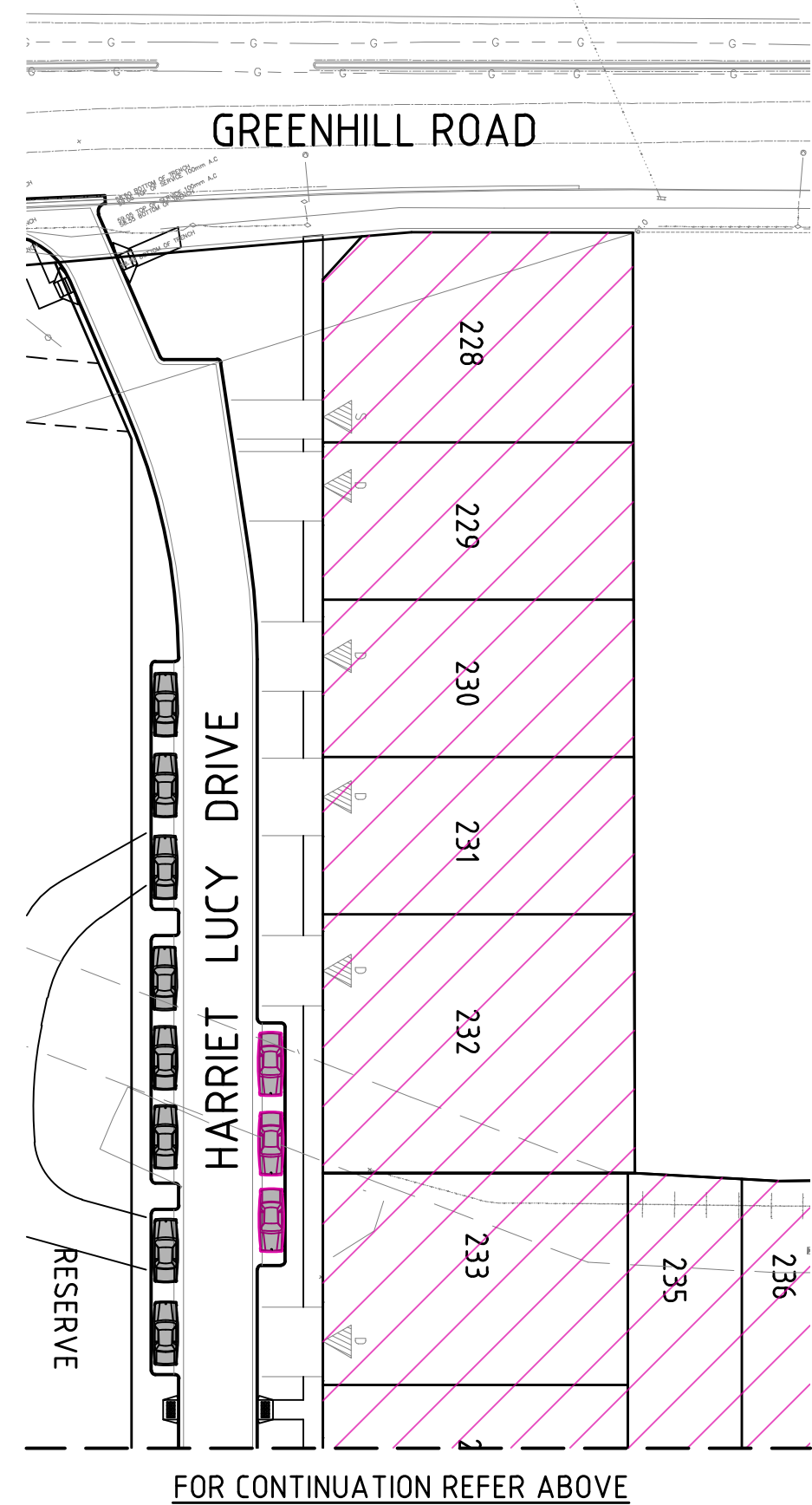
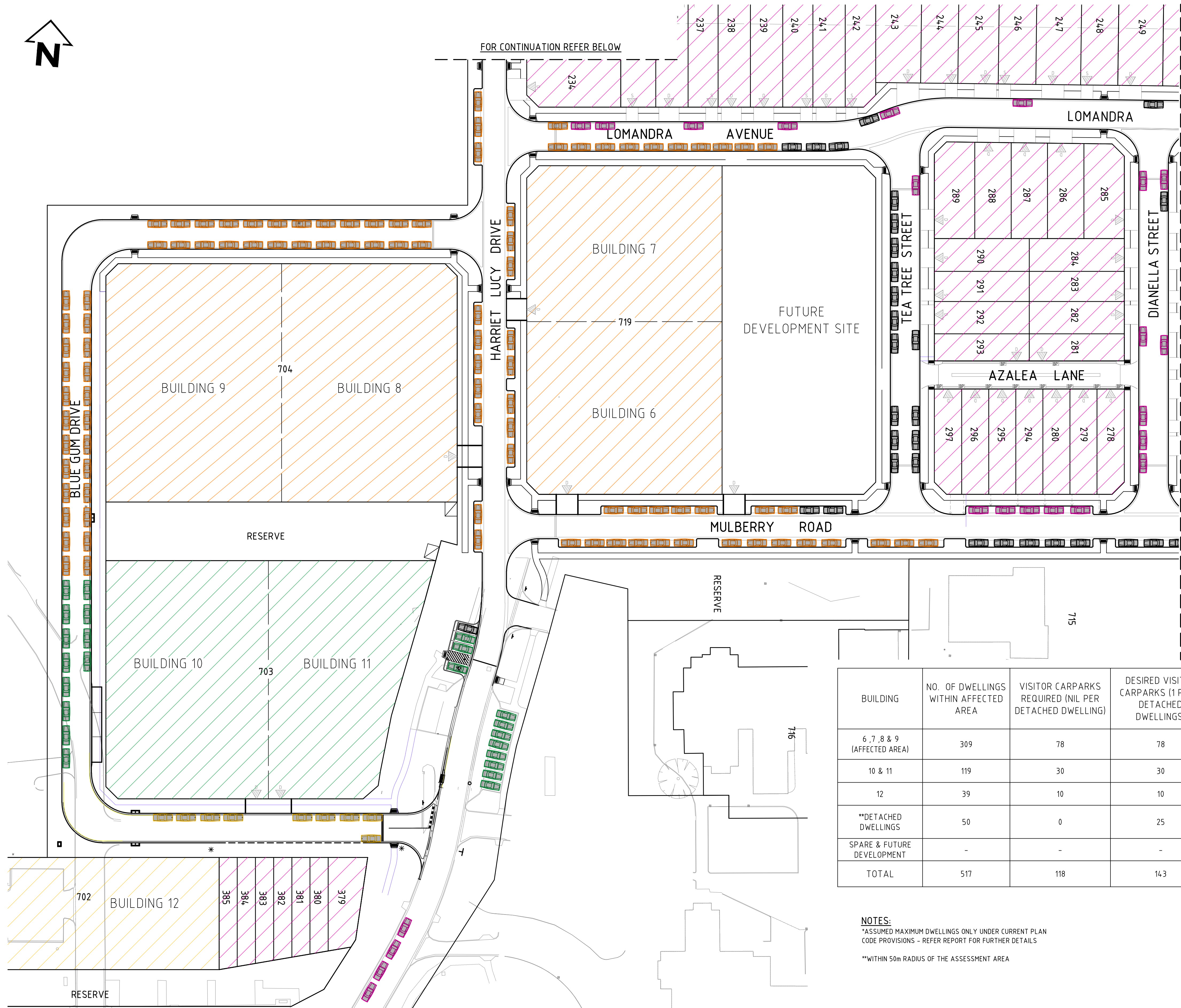
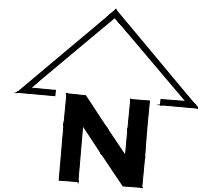
On-street visitor parking is to be provided at a rate of 0.25 parks per dwelling under the Planning & Design Code, necessitating a need for an additional 39 on-street visitor parks within the vicinity of the affected area.

The surrounding road network has been assessed to determine its capacity to accommodate these additional 39 on-street visitor parking spaces. The on-street visitor parking requirements for the proposed increase in dwellings, can be met by implementing additional 90-degree parking along Blue Gum Drive.

Off-street parking requirements for the proposed development will be satisfied on-site.

## Appendix A – Parking Plan (Current Planning Code)

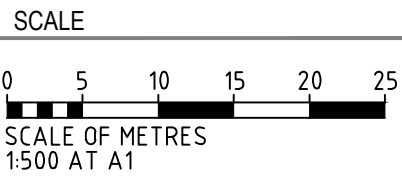




BUILDING	NO. OF DWELLINGS WITHIN AFFECTED AREA	VISITOR CARPARKS REQUIRED (NIL PER DETACHED DWELLING)	DESIRED VISITOR CARPARKS (1 PER 2 DETACHED DWELLINGS)	VISITOR CARPARKS PROVIDED ON STREET WITHIN 50m OF APARTMENT SITES	LEGEND
6, 7, 8 & 9 (AFFECTED AREA)	309	78	78	78	
10 & 11	119	30	30	30	
12	39	10	10	10	
**DETACHED DWELLINGS	50	0	25	25	
SPARE & FUTURE DEVELOPMENT	-	-	-	52	
TOTAL	517	118	143	195	

NOTES:  
\*ASSUMED MAXIMUM DWELLINGS ONLY UNDER CURRENT PLAN CODE PROVISIONS - REFER REPORT FOR FURTHER DETAILS  
\*\*WITHIN 50m RADIUS OF THE ASSESSMENT AREA

REV	DATE	DESCRIPTION	DES	DRN	APV
C	02.08.2024	ISSUED FOR INFORMATION	LH		COB
B	01.08.24	ISSUED FOR INFORMATION	LH		LH
A	16.07.24	ISSUED FOR INFORMATION	LH		LH
REVISION HISTORY					



COORDINATES / DATUM  
MGA 2020 ZONE 54 AHD

DESIGNED	CHECKED
LH	KC
DRAWN	CHECKED
LH	KC
APPROVED	DATE

THIS DRAWING SHOULD BE VIEWED AND PRINTED IN COLOUR AS FEATURES, LINEWORK, AND / OR SYMBOLS MAY BE DIFFERENTIATED BY COLOUR.

CLIENT  
ZAMIA PROPERTY PTY LTD

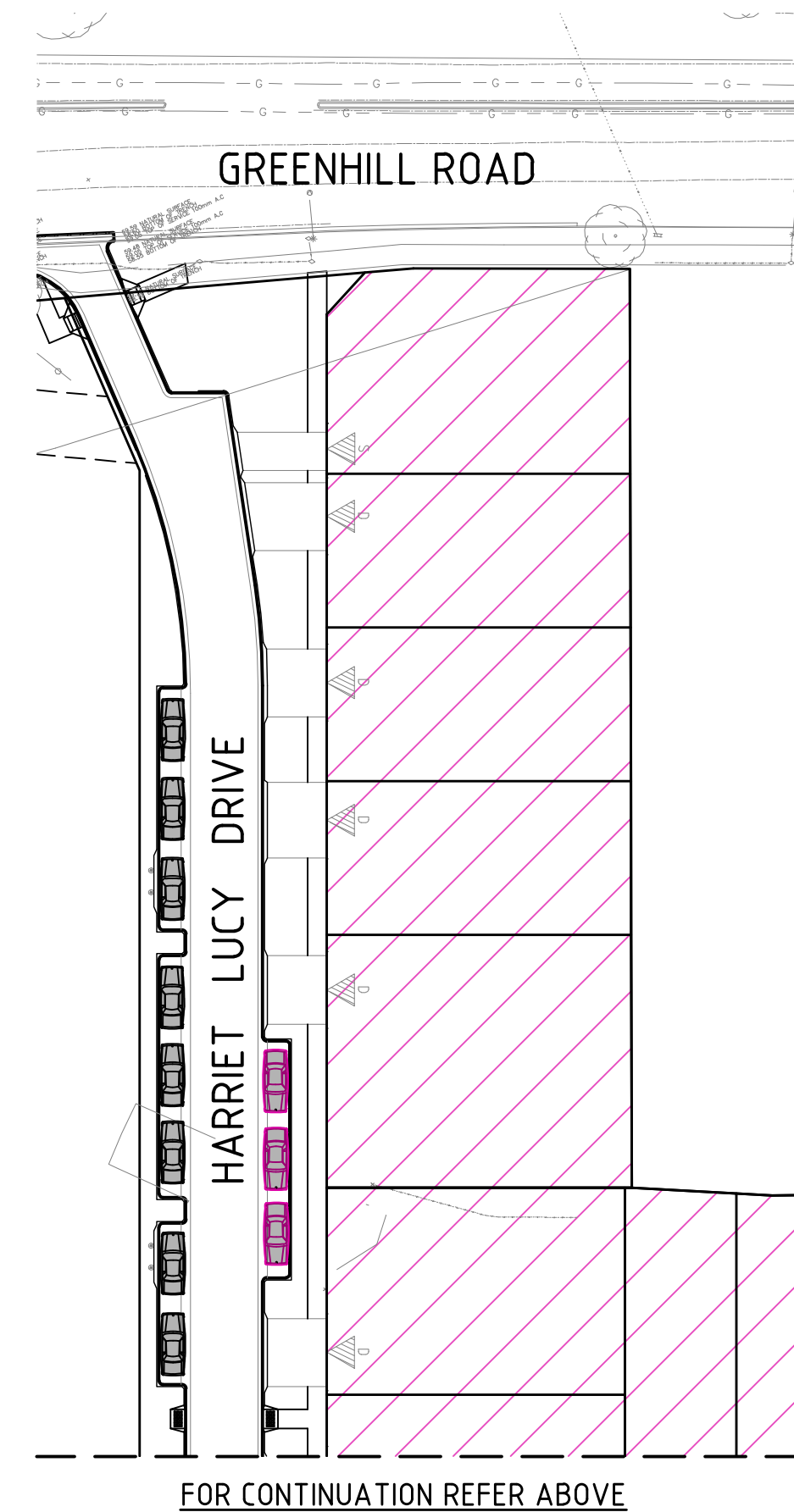
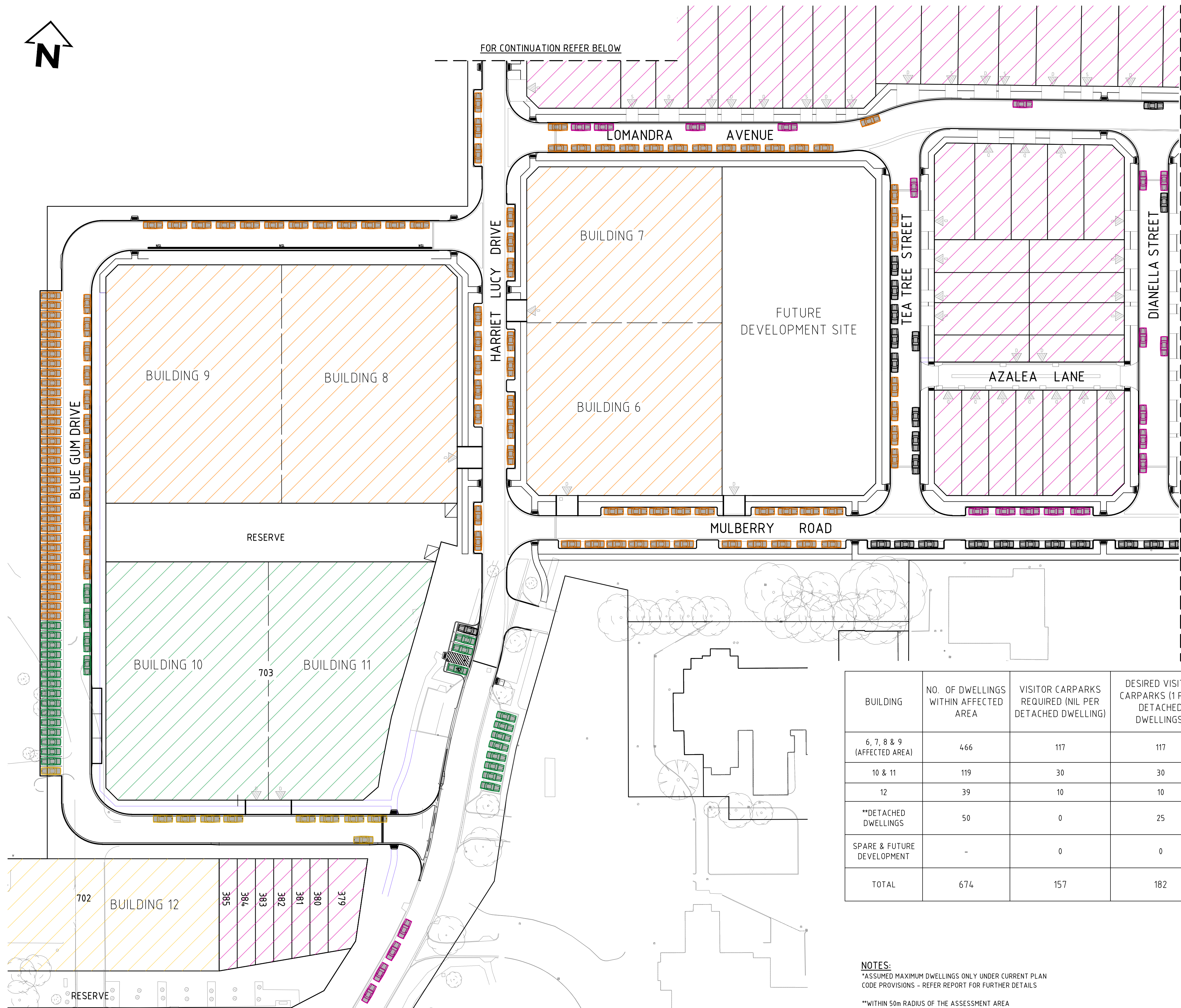
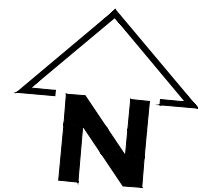
**GREENHILL**  
LEVEL 1, 178 FULLARTON ROAD  
DULWICH SA 5065  
08 8406 1300  
www.greenhillaustralia.com.au

THIS DRAWING REMAINS THE PROPERTY OF GREENHILL ENGINEERS PTY LTD AND MAY NOT BE COPIED IN ANY WAY WITHOUT PRIOR APPROVAL FROM THIS COMPANY.  
© GREENHILL ENGINEERS PTY LTD

STATUS:	CONCEPT
GLENSIDE CODE AMENDMENT SERVICES GLENSIDE	
APPENDIX A PARKING PLAN CURRENT PLANNING CODE	
DRAWING NUMBER	REVISION
24-3557-CP01	C

## Appendix B – Parking Plan (Proposed Code Amendment)

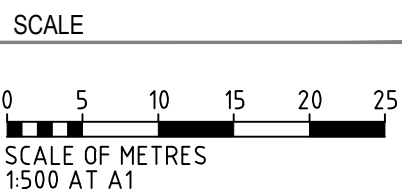




BUILDING	NO. OF DWELLINGS WITHIN AFFECTED AREA	VISITOR CARPARKS REQUIRED (NIL PER DETACHED DWELLING)	DESIRED VISITOR CARPARKS (1 PER 2 DETACHED DWELLINGS)	VISITOR CARPARKS PROVIDED ON STREET WITHIN 50m OF APARTMENT SITE	LEGEND
6, 7, 8 & 9 (AFFECTED AREA)	466	117	117	117	
10 & 11	119	30	30	30	
12	39	10	10	10	
**DETACHED DWELLINGS	50	0	25	25	
SPARE & FUTURE DEVELOPMENT	-	0	0	31	
TOTAL	674	157	182	213	

NOTES:  
\*ASSUMED MAXIMUM DWELLINGS ONLY UNDER CURRENT PLAN  
CODE PROVISIONS - REFER REPORT FOR FURTHER DETAILS  
\*\*WITHIN 50m RADIUS OF THE ASSESSMENT AREA

REV	DATE	DESCRIPTION	DES	DRN	APV
C	02.08.2024	ISSUED FOR INFORMATION	LH	COB	
B	01.08.24	ISSUED FOR INFORMATION	LH	LH	
A	16.07.24	ISSUED FOR INFORMATION	LH	LH	
REVISION HISTORY					



COORDINATES / DATUM  
MGA 2020 ZONE 54 AHD

DESIGNED	CHECKED
LH	KC
DRAWN	CHECKED
LH	KC
APPROVED	DATE

THIS DRAWING SHOULD BE VIEWED AND PRINTED IN COLOUR AS FEATURES,  
LINEWORK, AND / OR SYMBOLS MAY BE DIFFERENTIATED BY COLOUR.

CLIENT  
ZAMIA PROPERTY PTY LTD

**GREENHILL**  
LEVEL 1, 178 FULLARTON ROAD  
DULWICH SA 5065  
08 8406 1300  
www.greenhillaustralia.com.au

THIS DRAWING REMAINS THE PROPERTY OF GREENHILL ENGINEERS PTY LTD AND  
MAY NOT BE COPIED IN ANY WAY WITHOUT PRIOR APPROVAL FROM THIS COMPANY.  
© GREENHILL ENGINEERS PTY LTD

STATUS: <b>CONCEPT</b>	REVISION
GLENSIDE CODE AMENDMENT SERVICES GLENSIDE APPENDIX B PARKING PLAN PROPOSED CODE AMENDMENT	
DRAWING NUMBER <b>24-3557-CP02</b>	