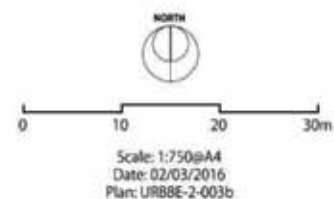


# COCK/2015/138 - PLAN 1 - STRUCTURE PLAN

Lot 95 Watson Road, BEELIAR



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# COCK/2015/3/1 LOT 95 WATSON ROAD STRUCTURE PLAN

Lot 95 Watson Road, Beeliar  
March 2016

Urban Capital Group





#### DOCUMENT STATUS

VERSION	COMMENT	PREPARED BY	REVIEWED BY	REVIEW DATE	APPROVED BY	ISSUE DATE
1	Lodgement	TV	SD	20.07.2015	FA	28.07.2015
2	Advertising	TV	SD	26.08.2015	FA	08.09.2015
3	Council	TV	JH	03.11.2015	JH	17.11.2015
4	WAPC	TV	FA	02.03.2016	FA	02.03.2016

# COCK/2015/3/1 LOT 95 WATSON ROAD STRUCTURE PLAN

MARCH 2016

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## ENDORSEMENT PAGE

This structure plan is prepared under the provisions of the City of Cockburn  
Town Planning Scheme No. 3.

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE  
WESTERN AUSTRALIAN PLANNING COMMISSION ON:

**15 MARCH 2016**

In accordance with Schedule 2, Part 4, Clause 28 (2) and refer to Part 1, 2. (b) of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

Date of Expiry:

**15 MARCH 2036**

**Table of Amendments**

AMENDMENT NO.	SUMMARY OF AMENDMENT	AMENDMENT TYPE	DATE APPROVED BY WAPC

**Table of Density Plans**

DENSITY PLAN NO.	AREA OF DENSITY PLAN APPLICATION	DATE ENDORSED BY WAPC



# EXECUTIVE SUMMARY

This Structure Plan has been prepared to guide the zoning, subdivision and development of Lot 95 Watson Road, Beeliar, within the City of Cockburn municipality.

The SP has been prepared on behalf of Urban Capital Group by the following specialist consultant team:

- Creative Design + Planning – urban design, town planning
- JDSi Consulting Engineers – engineering
- Emerge Associates – environment, hydrology
- Transcore - traffic

The Structure Plan has been submitted for approval by the Western Australian Planning Commission.

The design approach for this SP has focused on achieving appropriate integration with the surrounding land and to implement contemporary planning principles relating to urban density, public open space (POS) and drainage.

ITEM	DATA
Total area covered by the Structure Plan	4,047m <sup>2</sup>
Area of each zoned or reserved land use proposed: <ul style="list-style-type: none"><li>• Residential</li><li>• Roads</li><li>• Public Open Space</li></ul>	<div>2,739m<sup>2</sup></div> <div>913m<sup>2</sup></div> <div>395m<sup>2</sup></div>
Estimated lot yield	7 lots
Estimated number of dwellings	7 dwellings
Estimated residential site density	<div>~ 17 dwellings/gross urban zone <sup>1</sup></div> <div>~ 25 dwellings/site hectare <sup>2</sup></div>
Estimated population	18+ people @2.7 persons per dwelling
Estimated area and number: <ul style="list-style-type: none"><li>• Local Parks</li></ul>	1 park @ 395m <sup>2</sup>

## FOOTNOTES:

<sup>1</sup> 'Gross Urban Zone' refers to the definition under WAPC's Directions 2031 and supporting documents.

<sup>2</sup> 'Residential Site Hectare' refers to the definition under Element 1 of WAPC's Liveable Neighbourhoods.

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# ABBREVIATIONS

AHD	Australian Height Datum
ASS	Acid Sulfate Soils
ARI	Average Recurrence Interval
BGL	Below Ground Level
CoC	City of Cockburn
CBD	Central Business District
DA	Development Area
DCA	Development Contribution Area
DPaW	Department of Parks and Wildlife
DoW	Department of Water
Ha	Hectare
LWMS	Local Water Management Strategy
MRS	Metropolitan Region Scheme
OMSRS	Draft Outer Metropolitan Perth & Peel Sub Regional Structure Plan
POS	Public Open Space
TPS3	City of Cockburn Town Planning Scheme No.3
UWMP	Urban Water Management Plan
WAPC	Western Australian Planning Commission



# PART ONE

## Implementation

### LOT 95 WATSON ROAD STRUCTURE PLAN

1. Structure Plan Area
2. Operation
3. Staging
4. Subdivision and development requirements
5. Local Development Plans
6. Other requirements



## PART ONE – IMPLEMENTATION

### 1 Structure Plan Area

This Structure Plan shall apply to Lot 95 Watson Road, Beeliar being the land contained within the inner edge of the line denoting the Structure Plan boundary on the Structure Plan (**Plan 1**). The Structure Plan is identified as the *Lot 95 Watson Road Structure Plan*.

### 2 Operation

The date the Structure Plan comes into effect is the date the Structure Plan is approved by the WAPC.

### 3 Staging

The development of the Structure Plan area will be in one stage.

### 4 Subdivision and Development Requirements

The Structure Plan (**Plan 1**) and **Table A** below form part of the implementation provisions of this Structure Plan outlining the requirements for the proposed residential land use zone (R40) and reserve, public open space.

Table A: Subdivision and Development Requirements

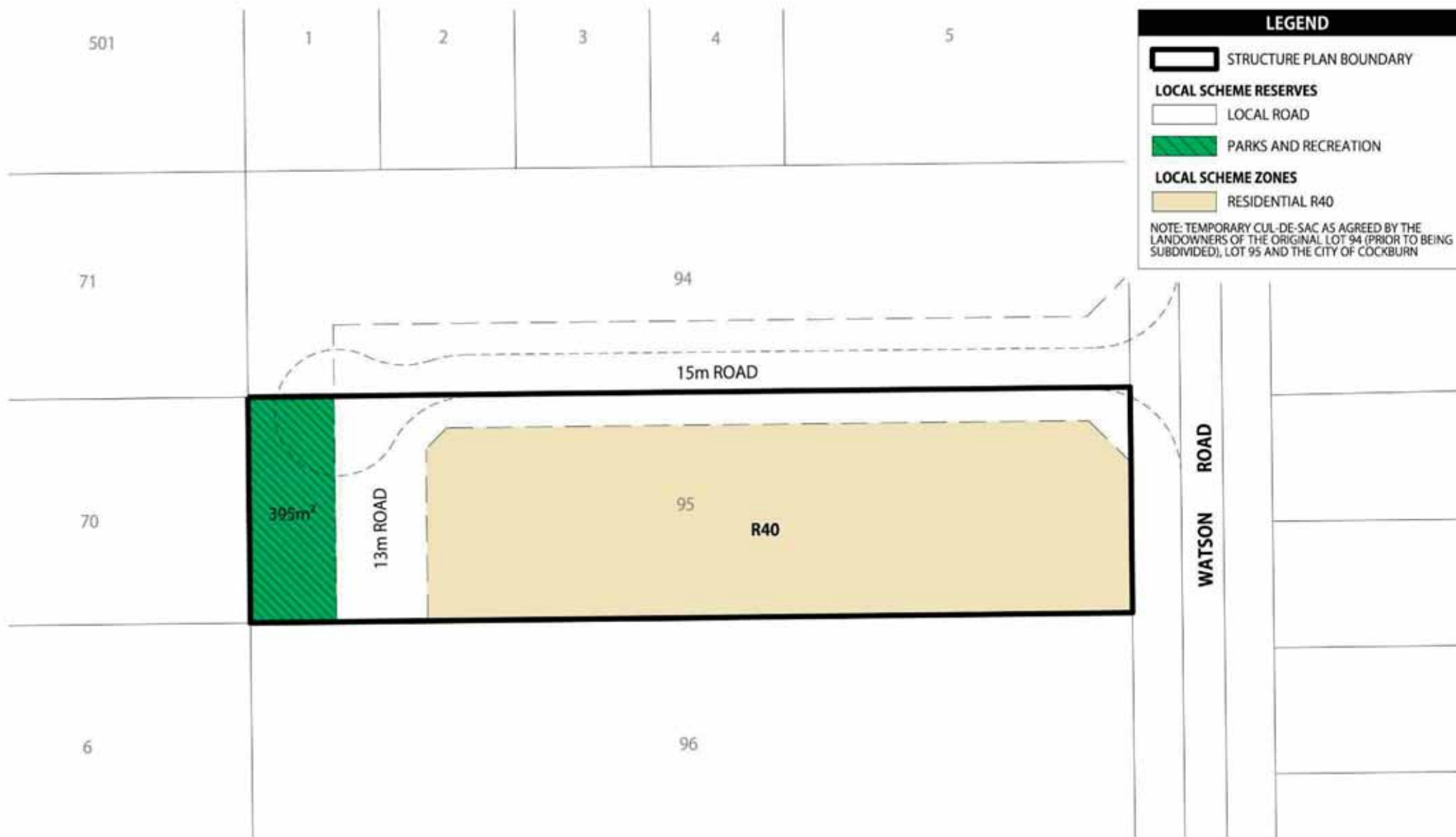
1. Land Use Zones and Reserves	<ul style="list-style-type: none"> <li>a) The proposed land use zone and reserves are shown on <b>Plan 1</b>.</li> <li>b) Land use permissibility within the Structure Plan area shall be in accordance with Clause 4.3.2 of the Scheme.</li> <li>c) Subdivision and development within the Structure Plan area shall correspond to the nominated R40 density coding on the Structure Plan (<b>Plan 1</b>) and a recommendation by the City of Cockburn on whether the Structure Plan should be approved by the Western Australian Planning Commission (WAPC).</li> </ul>
2. Public Open Space	<ul style="list-style-type: none"> <li>a) <b>Plan 1</b> nominates an area of 395m<sup>2</sup> as Public Open Space.</li> <li>b) The final design of the Public Open Space will be subject to detailed engineering, drainage and landscape design.</li> <li>c) Subject to the agreement of the WAPC and the City of Cockburn, the provision of any Public Open Space not provided by way of land shall be provided by a payment of cash-in-lieu of land in accordance with the relevant provision of the <i>Planning and Development Act 2005</i>.</li> </ul>
3. Residential Density	<ul style="list-style-type: none"> <li>a) As per <i>Directions 2031</i>, the estimated residential density for the Structure Plan is approximately 16 dwellings/gross urban zone <sup>1</sup>.</li> <li>b) As per <i>Liveable Neighbourhoods</i> the estimated residential density for the Structure Plan is approximately 28 dwellings/site hectare <sup>2</sup>.</li> </ul>

### 5 Local Development Plans

A Local Development Plan will be prepared for the Structure Plan area pursuant to the WAPC's *Local Development Plan Framework* and the Schedule 2, 'Deemed Provisions for Local Planning Schemes' of the *Planning and Development (Local Planning Schemes) Regulations 2015*. The Local Development Plan will encompass all lots within the Structure Plan area.

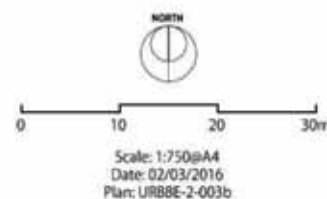
### 6 Other Requirements

The Structure Plan area is subject to a City of Cockburn Development Contribution Plan for community infrastructure (DCP13); this is to apply to all land within the Structure Plan area to be subdivided and/or developed for residential purposes.



# COCK/2015/138 - PLAN 1 - STRUCTURE PLAN

Lot 95 Watson Road, BEELIAR



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# PART TWO

## Explanatory Section

### LOT 95 WATSON ROAD STRUCTURE PLAN

1. Planning Background
2. Site Analysis
3. Context Analysis
4. Structure Plan
5. Infrastructure Co-ordination and Servicing
6. Implementation



## PART TWO – EXPLANATORY SECTION

### 1 Planning Background

#### 1.1 Purpose

The purpose of the Lot 95 Watson Road Structure Plan is to provide for the orderly and proper subdivision and development of the Structure Plan area for 'Urban' purposes.

The information contained in this section provides justification and support for the design response provided for the Structure Plan.

#### 1.2 Land Description

##### 1.2.1 Location

The Structure Plan area is located on the western side of Watson Road, 500m south of Beeliar Drive and 250m east of Stock Road, within the municipality of the City of Cockburn. It is situated approximately 6km west of the Cockburn Secondary Centre and 20km south of the Perth CBD (Figure 1 refers).

##### 1.2.2 Area & Land Use

The Structure Plan area comprises 0.4047 ha and has been used historically for residential purposes.

##### 1.2.3 Legal Description & Ownership

The Structure Plan area is identified as Lot 95 (No.95) Watson Road, Beeliar on Deposited Plan 3562, Volume 1734 and Folio 487. The registered owners are Juan Luis Da Luz and Diana Da Luz.

The Certificate of Title is enclosed as **Appendix 1**.

#### 1.3 Planning Framework

##### 1.3.1 Zoning & Reservations

###### 1.3.1.1 METROPOLITAN REGION SCHEME

Pursuant to the Metropolitan Region Scheme (MRS) the Structure Plan area is zoned 'Urban'.

###### 1.3.1.2 CITY OF COCKBURN TOWN PLANNING SCHEME NO.3

Under the provisions of the Scheme, the Structure Plan area is zoned 'Development' and lies within 'DA 4', 'DCA 4' and 'DCA 13' (Figure 2 refers).

All land within the 'Development' zone requires a structure plan to guide future subdivision and development.

Subdividers within 'DCA 4' are required to make a contribution towards the construction of Beeliar Drive.

Subdividers within 'DCA 13' are required to make a contribution towards planned community infrastructure relevant to that area.

##### 1.3.1.3 STRUCTURE PLAN

Lot 94 Watson Road, Beeliar adjoins the Structure Plan area to the north and has an approved Structure Plan (July 2014) prescribing Residential R40 and public open space (POS) development.

This approved Structure Plan nominates a 15m road reserve adjacent to the northern boundary of the subject land (Figure 3 refers).

#### 1.3.2 Regional & Sub Regional Structure Plans and Strategies

##### 1.3.2.1 DIRECTIONS 2031

*Directions 2031*, the WAPC's strategic planning framework document for Metropolitan Perth and Peel, is a high level strategic plan that establishes a vision for future growth of the Perth and Peel region. It provides a framework to guide the detailed planning and delivery of housing, infrastructure and services necessary to accommodate that growth.

Broadly defined, the Structure Plan area is located within the 'South-West Sub-Region' of *Directions 2031*, which encompasses the Cockburn, Rockingham and Kwinana municipalities. By 2031, the population of this sub-region is expected to grow by approximately 70,000 to a total population of 278,000 people. This will result in approximately 41,000 additional dwellings being required.

##### 1.3.2.2 DRAFT OUTER METROPOLITAN PERTH & PEEL SUB-REGIONAL STRATEGY

The Draft Outer Metropolitan Perth & Peel Sub-Regional Strategy (OMSRS) provides a framework for delivering the objectives of *Directions 2031*. The document provides a more detailed analysis in terms of strategic plans of action, stakeholder responsibilities and timeframes for delivery of development within the metropolitan corridors.

Situated within the South-West sub-region, the Structure Plan area is identified as 'Urban Zoned Undeveloped'.

##### 1.3.2.3 DRAFT PERTH@3.5 MILLION

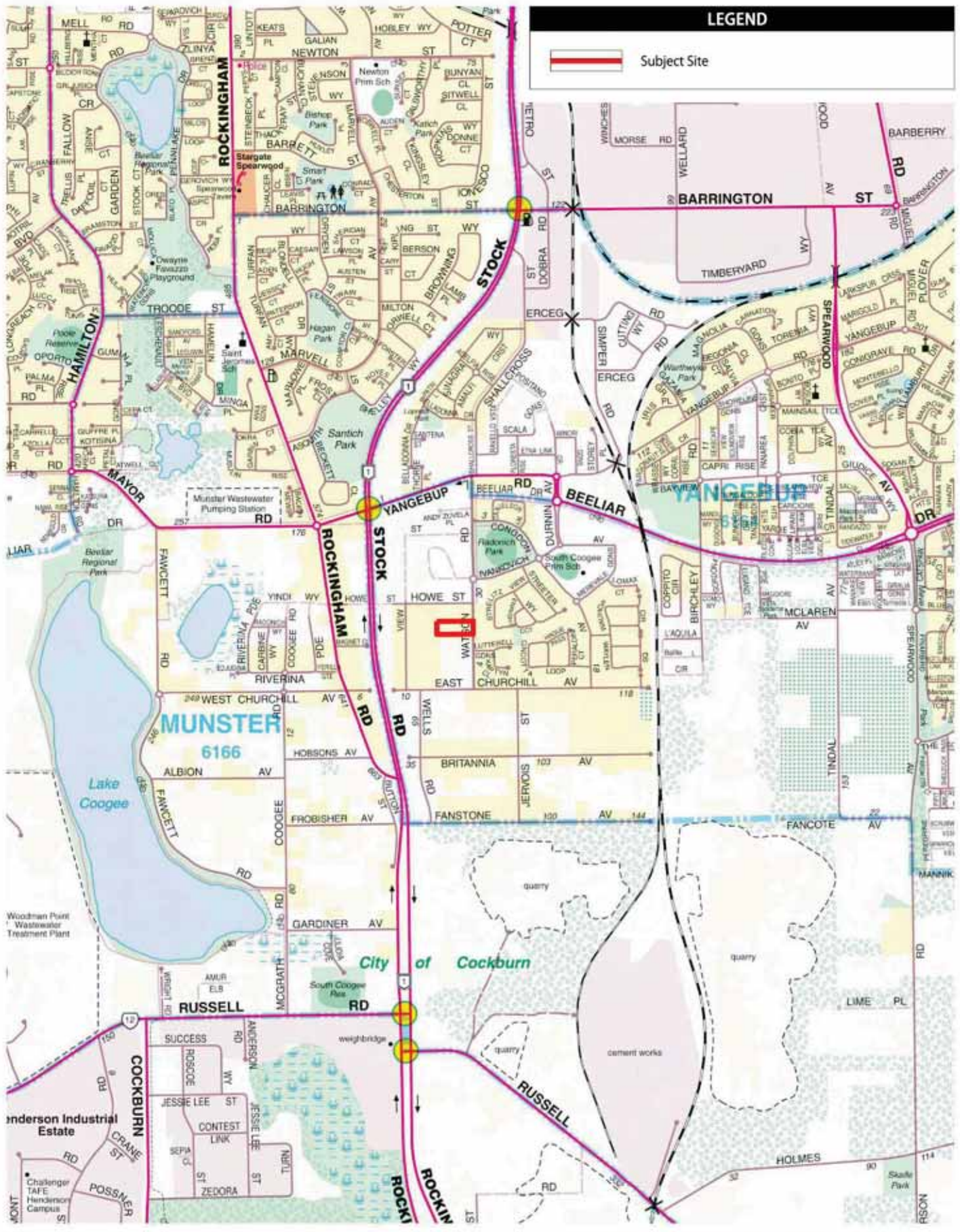
The draft *Perth and Peel@3.5 million* report sets the context for the four draft sub-regional planning frameworks. The frameworks build upon the principles of *Directions 2031* and once finalised the frameworks will become sub-regional structure plans to provide guidance for future urban development and supporting infrastructure.

The Structure Plan area is identified as 'Urban' within the *South Metropolitan Peel Sub-regional Planning Framework*.

#### 1.3.3 Policies

The Structure Plan has been informed by, and is consistent with, relevant State Planning Policies, *Liveable Neighbourhoods*, WAPC Development Control Policies and Council Local Planning Policies. These policies will also be considered as part of future subdivision and development.

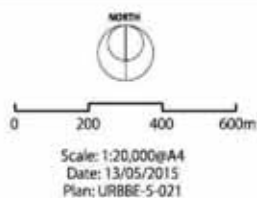




# LOCATION PLAN

Lot 95 Watson Road, BEELIAR

for: Urban Capital Group

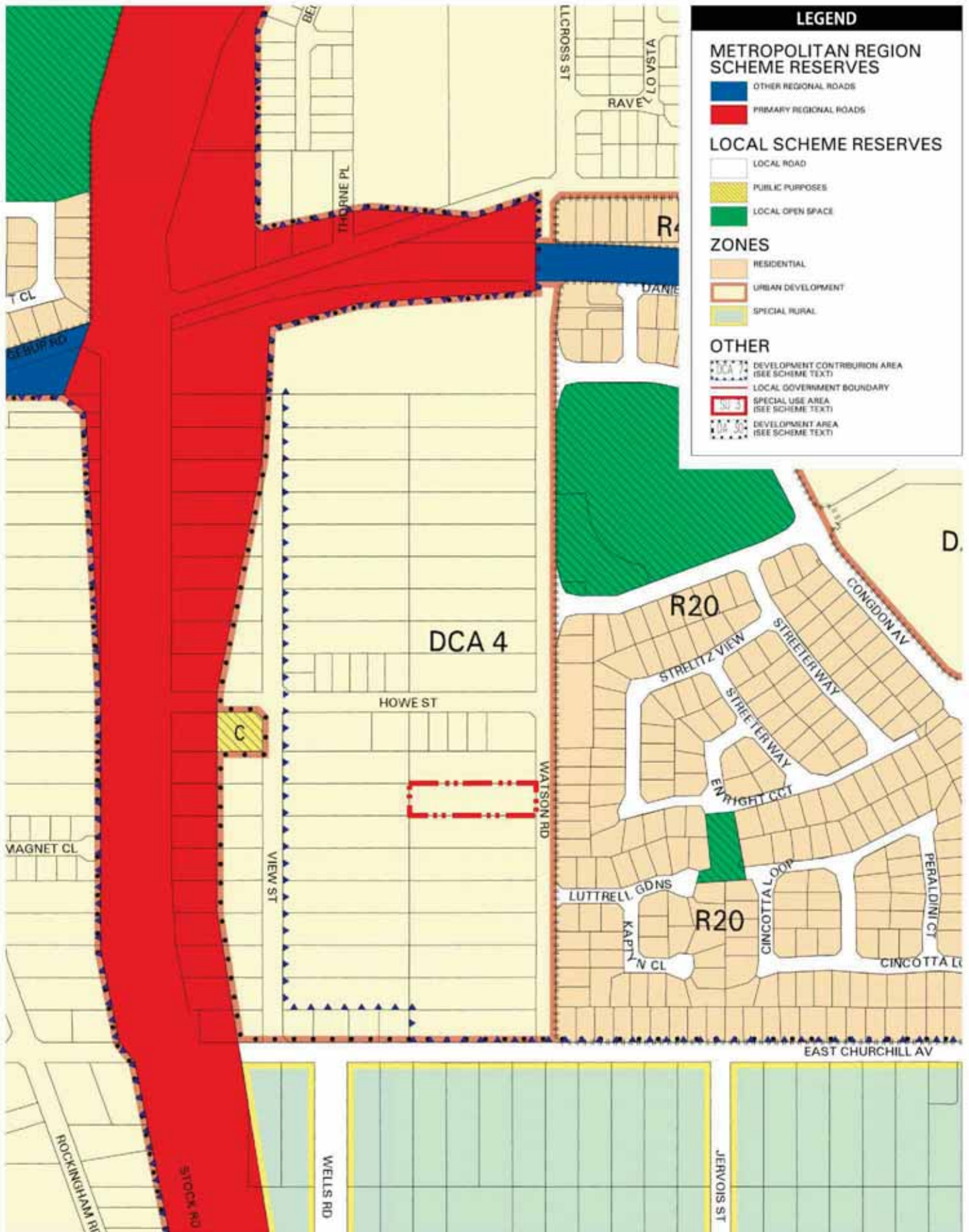


**Figure 1**



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## TPS No. 3

Lot 95 Watson Road,  
BEELIAR

for: Urban Capital Group

**Figure 2**

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## 2 Site Analysis

An Environmental Assessment Report (EAR) has been prepared by Emerge Associates which identifies that there are no significant environmental values or attributes within the Structure Plan area that require consideration. The EAR is enclosed as **Appendix 2** and a summary is provided below.

### 2.1 Landforms and Soils

#### 2.1.1 Topography

The Structure Plan area is generally flat, with elevation ranging from 15.5m AHD in the north east to 22m AHD in the south west.

#### 2.1.2 Regional Geomorphology

The Structure Plan area is situated within the Spearwood Dune system, which largely consists of yellow-brown siliceous sand over limestone and ranges from hilly to gently undulating.

#### 2.1.3 Landforms and Soils

The Structure Plan area is comprised of Limestone, which consists of Tamala Limestone and Safety Bay Sands.

#### 2.1.4 Acid Sulfate Soils

According to the Perth Groundwater Atlas the Structure Plan area has no known risk of encountering Acid Sulphate Soils within 3m of natural surface.

### 2.2 Groundwater and Surface Water

#### 2.2.1 Groundwater

The Structure Plan area is located between the 1.0m Australian height datum (AHD) and 2.0m AHD maximum groundwater contour (DoW 2015). Groundwater is therefore assumed to be more than 13.5m below ground level (BGL) across the Structure Plan area.

### 2.3 Environmental Assets and Constraints

#### 2.3.1 Flora

A Level 1 Flora and Vegetation Survey was undertaken across the Structure Plan area and adjoining Lot 94. The survey found the Structure Plan area to be largely cleared with remnant vegetation identified as 'Degraded' condition (refer **Figure 4**). Two vegetation communities were mapped within the Structure Plan area, including:

- W1: *Eucalyptus gomphocephala* open woodland over *Grevillea vestita* subsp. *vestita*, *Xanthorrhoea preissii*, *Macrozamia iedlei* and *Hakea prostrata* over *Hibbertia hypericoides* and *Hardenbergia comptoniana* over dense mixed annual weeds.
- R1: Remnant/isolated tree species.

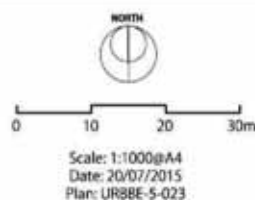
No Threatened/Priority Flora species or Threatened/Priority Ecological Communities were found within the Structure Plan area.

Overall, the biodiversity values of the Structure Plan area are limited due to the degraded nature of the land, and do not inhibit development of the Structure Plan area.





**ORTHOPHOTO**  
 Lot 95 Watson Road,  
 BEELIAR  
 for: Urban Capital Group



**Figure 4**



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## 3 Context Analysis

### 3.1 Local Context

The Structure Plan area is immediately surrounded by the following land uses:

- Existing residential development of South Coogee to the east;
- Semi-rural residential land uses to the south and west;
- Residential development of Lot 94 to the north.

**Figure 5** shows the location and context of the Structure Plan area.

### 3.2 Movement Network

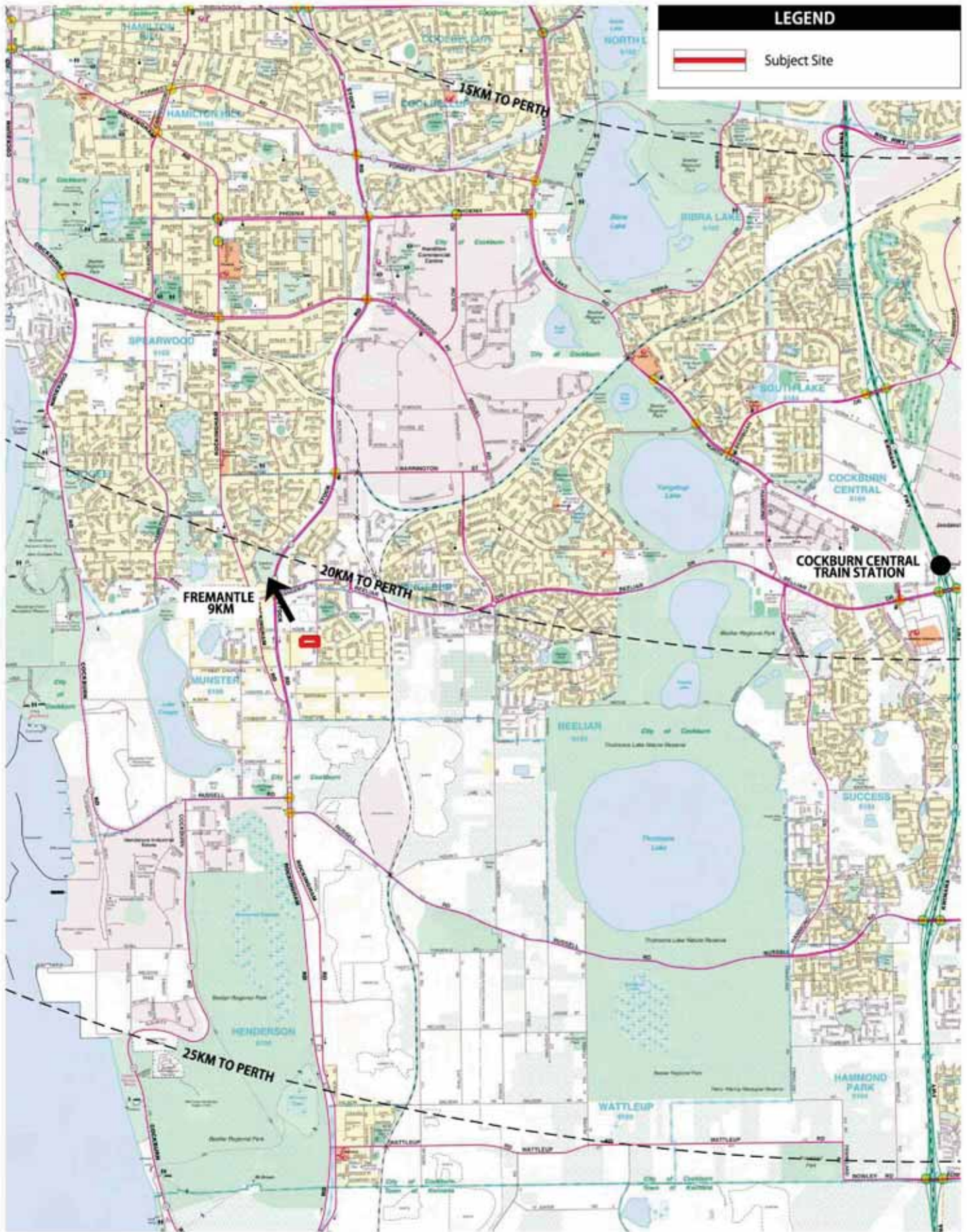
A Traffic Report has been prepared by Transcore Consultants, **Appendix 3** refers. The key findings of the existing movement network include as follows:

#### 3.2.1 Existing Road Network

Corella Close borders the Structure Plan area to the north and was approved under the Lot 94 Watson Road Structure Plan. It comprises a 6.0m wide carriageway with a pedestrian path along its northern side. This road is contained within a reduced reserve of 13m, with the remaining verge (south) to be provided as part of this Structure Plan.

Watson Road is a single-carriageway, two-way road with a 7.2m wide carriageway. It entails a pedestrian path along its eastern verge and operates under a default built-up area speed limit of 50km/h.

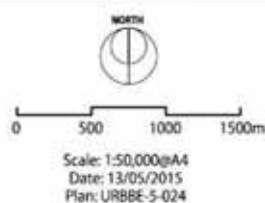
Howe Street, View Street and East Churchill Avenue are all typical single carriageway, two-way residential roads approximately 6-7m wide with pedestrian paths.



## CONTEXT PLAN

Lot 95 Watson Road, BEELIAR

for: Urban Capital Group



**Figure 5**



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## 4 Structure Plan

### 4.1 Design Philosophy

This Structure Plan has been designed to provide an appropriate interface with the approved Structure Plan for Lot 94 to the north, and to integrate with the future development area to the south and west.

The design provides an appropriate residential density and a legible movement network within the Structure Plan area.

**Figure 6** shows the indicative development layout for the surrounding land, which is a revision to that proposed in the approved Lot 94 Watson Road Structure Plan.

### 4.2 Land Composition

The Structure Plan area will predominantly be developed for 'Residential' purposes, with a portion of the site being Public Open Space (POS).

The land use composition, including POS provision is outlined in **Table 2** below:

**Table 1: Land Composition**

Land Uses	Area M <sup>2</sup>	Percentage
Residential	2,739	67.68%
Public Open Space	395	9.76%
Road Reserve	913	22.56%
<b>Total</b>	<b>4,047</b>	<b>100%</b>

### 4.3 Dwelling Yield

Based on the R40 density the Structure Plan area could yield a maximum of 12 dwellings (including grouped and multiple options), thus exceeding the 15 dwellings per *gross urban zone* targets of *Directions 2031*, and may potentially accommodate 32+ people, at a rate of 2.7 persons per household.

Based on the *Liveable Neighbourhoods* 'Site Hectare' definition, the 'developable area' for the Structure Plan equates to 2,739m<sup>2</sup>. As the Structure Plan area could yield a maximum of 12 dwellings which equates to 43 dwellings per *site hectare* thus meeting the requirements of LN.

### 4.4 Variation to Residential Design Codes

This Structure Plan adopts the standards for RMD40 of the Residential Medium Density Design Codes outlined in the WAPC's Planning Bulletin 112/2015.

**Table 3** outlines the development standards within areas coded R40. These standards act as a replacement to existing R-Codes standards for building and garage setbacks (Clauses 5.1.2, 5.1.3 and 5.2.1), open space (Clause 5.1.4), parking (Clause 5.3.3), visual privacy (Clause 5.4.1) and solar access (Clause 5.4.2).

All other R-Codes standards for R40 apply, where relevant to the proposal, including site area (Clause 5.1.1); building height (Clause 5.1.6); street surveillance, walls, fences and sightlines (Clauses 5.2.3 to 5.2.5); parking space design and vehicular access (Clauses 5.3.4 and 5.3.5); site works, retaining walls and stormwater management (Clauses 5.3.7 to 5.3.9); and outbuildings, external fixtures and utilities and facilities (Clauses 5.4.3 to 5.4.5).

Refer to **Table 2** for all the development standards.

### 4.5 Movement Networks

A Traffic Report has been prepared by Transcore Consultants, refer **Appendix 3**. A summary of this report is provided below:

#### 4.5.1 Proposed Internal Transport Network

The Structure Plan area will be accessed via the existing east-west *Access Street D* (Corella Close) approved under the Lot 94 Watson Road Structure Plan. This access street integrates with the comprehensive internal road system for the area as shown in the Indicative Development Plan (**Figure 6**).

It is currently constructed as a cul-de-sac, however is proposed to link to the internal road network in the Structure Plan area.

The Corella Close road reserve is currently 13m in width. It is proposed to provide an additional 2m within this Structure Plan area, resulting in a total road reserve width of 15m.

The proposed road reserve is 15m, comprising of a 6m carriageway and 4.5m verges. Where abutting POS the verge width may be reduced by 2.0m.

#### 4.5.1 Public Transport

The Structure Plan area can be serviced by the existing public transport services available in the immediate vicinity or within comfortable walking distance of the subject site, no modifications are required as a result of this Structure Plan.

#### 4.5.2 Pedestrian and Cycle Infrastructure

The pedestrian path along the new east-west road provides direct access to the existing pedestrian and cyclist path network within the Structure Plan area.



## 4.6 Public Open Space

This Structure Plan proposes one (1) area of POS comprising approximately 395m<sup>2</sup>.

**Table 2: POS**

Land Budget Summary	
Subject Area:	4,047m <sup>2</sup>
Deductions:	0m <sup>2</sup>
Gross Subdivisible Area:	4,047m <sup>2</sup>
POS Requirement 10%:	404.7m <sup>2</sup>
<b>POS Contribution:</b>	
Restricted Open Space:	0m <sup>2</sup>
Unrestricted Open Space:	395m <sup>2</sup>

The proposed area of POS corresponds with the Scheme 'Parks and Recreation' zone and forms part of a broader area of POS as shown on the Indicative Development Plan (**Figure 6**).

No drainage is proposed to be contained within the proposed POS.

The Structure Plan area falls marginally short of the required 10% POS contribution, however it is noted this land forms part of the broader 'DA 4' area which, once developed will accommodate an appropriate area of POS. Under *Liveable Neighbourhoods* Element 4 – Public Parkland the preference is to create linear areas of POS, so in this regard rather than modifying the shape of the proposed POS to meet the minimum 10% requirement, the POS has been designed to be consistent with the land already subdivided to the north.

The shortfall in POS equates to 9.7m<sup>2</sup>, subject to the agreement of the WAPC and the City of Cockburn, the provision of POS not provided by way of land shall be provided by a payment of cash-in-lieu of land in accordance with the relevant provision of the *Planning and Development Act 2005*.

## 4.7 Urban Water Management

A Local Water Management Strategy (LWMS) has been prepared for the Structure Plan area (refer **Appendix 4**).

The development drainage system for the Structure Plan area has been designed to retain up to the 100 year ARI event runoff as close to source as practicable in order to maintain pre-development hydrology.

The stormwater management strategy for the Structure Plan area includes the following components:

- **Lot Drainage** – the majority of the 100 year ARI event will be retained on each lot. In large rainfall events excess runoff will be allowed to infiltrate in back gardens with runoff from front driveways retained and infiltrated within permeable areas on site. The ultimate configuration of lot retention designs will be confirmed within the future Urban Water Management Strategy.
- **Development Drainage** – the run off from driveway crossovers located within the road reserve will be captured and infiltrated within the road reserve. Subsurface storage areas will be provided within Corella Close road reserve within the subject land and will be sized to retain up to the 100 year ARI event runoff from the road network. Runoff will be treated via adsorption and filtration by sand particles as water passes through the underlying soil column to ground water. The ultimate design of retention/treatment infrastructure will be detailed at subdivision stage.

Further detail on how water management objectives for the Structure Plan area will be achieved will be provided in the UWMP to support future subdivision.

The Structure Plan area is located within the Cockburn groundwater management area for Kogalup groundwater subarea to which allocation is available from the superficial aquifer. The future UWMP will demonstrate that adequate allocation of water has been obtained to irrigate POS and road reserves within the subdivision area, or that an appropriate contingency plan has been established in the event that reduced water allocation is obtained.

**Table 3: Residential Medium Density Design Codes**

<b>1. Street Setback and Front Fences</b>	<ul style="list-style-type: none"> <li>a) 2m minimum, no average.</li> <li>b) 1.5m to porch/veranda, no maximum length.</li> <li>c) 1m minimum to secondary street.</li> <li>d) Front fences within the primary street setback area being a maximum height of 900mm above natural ground level, measured from the primary street side of the front fence.</li> </ul>
<b>2. Lot Boundary Setbacks</b>	<ul style="list-style-type: none"> <li>a) 1.2m for wall height 3.5m or less with major openings.</li> <li>b) 1m for wall height 3.5 or less without major openings.</li> </ul>
<b>3. Boundary Walls</b>	<ul style="list-style-type: none"> <li>a) Permitted to both side boundaries subject to: <ul style="list-style-type: none"> <li>i. No maximum length to one side boundary; and</li> <li>ii. 2/3 max length to second side boundary, for wall heights 3.5m or less.</li> </ul> </li> </ul>
<b>4. Open Space</b>	<ul style="list-style-type: none"> <li>a) An outdoor living area (OLA) with an area of 10% of the lot size or 20m<sup>2</sup>, whichever is greater, directly accessible from a habitable room of the dwelling and located behind the street setback area.</li> <li>b) At least 70% of the OLA must be uncovered and includes areas under eaves which adjoin uncovered areas.</li> <li>c) The OLA has a minimum 3m length or width dimension.</li> <li>d) No other R-Codes site cover standards apply.</li> </ul>
<b>5. Garage Setbacks and Width and Vehicular Access</b>	<ul style="list-style-type: none"> <li>a) 4.5m garage setback from the primary street and 1.5m from a secondary street.</li> <li>b) The garage setback from the primary street may be reduced to 4m where an existing or planned footpath or shared path is located more than 0.5m from the street boundary.</li> <li>c) For front loaded lots with street frontages between 10.5m and 12m, a double garage is permitted to a maximum width of 6m as viewed from the street, subject to: <ul style="list-style-type: none"> <li>i. garage setback a minimum of 0.5m behind the building alignment;</li> <li>ii. a major opening to a habitable room directly facing the primary street;</li> <li>iii. an entry feature consisting of a porch or veranda with a minimum depth of 1.2m; and,</li> <li>iv. no vehicular crossover wider than 4.5m where it meets the street.</li> </ul> </li> <li>d) Lots with a frontage less than 10.5m or not compliant with the above require single or tandem garaging.</li> </ul>
<b>6. Overshadowing</b>	<ul style="list-style-type: none"> <li>a) No maximum overshadowing for wall height 3.5m or less.</li> <li>b) No maximum overshadowing for wall height greater than 3.5m where overshadowing is confined to the front half of the lot. If overshadowing intrudes into rear half of the lot, shadow cast does not exceed 35%.</li> </ul>
<b>7. Privacy</b>	<p>R-Codes Clause 5.4.1 C1.1 applies to RMD40, however:</p> <ul style="list-style-type: none"> <li>a) The setback distance is 3m to bedrooms and studies, 4.5m to major openings to habitable rooms other than bedrooms and studies and 6m to unenclosed outdoor active habitable spaces.</li> </ul>





## 5 Infrastructure Co-ordination and Servicing

An Engineering Servicing Assessment has been prepared by engineering consultants, JDSi, **Appendix 5** refers. A summary of the assessment is provided below.

### 5.1 Roads

Lot 94 Watson Road to the north of the Structure Plan area has already commenced subdivisional land construction in which road and servicing has been installed. The existing cul-de-sac is temporary the purposes of a temporary turnaround for access from Corella Close. Following development of Lot 96 the temporary cul-de-sac and restrictive covenant will be developed for two residential lots.

### 5.2 Sewerage and Water Reticulation

Water and sewer assets are located on the northern side of the existing internal road and thus any connections to the Structure Plan area will require individual works orders requests from Water Corporation.

### 5.3 Groundwater

Groundwater is at approximately RL2.0m and thus the Structure Plan area has sufficient depth to groundwater for on-site infiltration for housing.

### 5.4 Power

The Structure Plan area can be serviced by existing Western Power infrastructure.

## 6 Implementation

### 6.1 Site Works

The site grades from RL 23.0m in the south west corner to RL16.0m in the north east corner.

Due to the slope of the site it is envisaged that a retaining wall will be required between Lot 95 and 96 (Lot 95 being higher). It is also envisaged that retaining walls will be located alongside boundaries in the same manner as Lot 94.