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Government of Western Australia
Department of Housing

SEPTEMBER 2010

ALBION DISTRICT STRUCTURE PLAN

As adopted by the City of Swan on 4 February 2009 &
the Western Australian Planning Commission on 15 December 2009

LSP2



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Government of **Western Australia**
Department of **Housing**

Prepared by:



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Project No. 2142 Rep38G ET-09

September 2010

IT IS CERTIFIED THAT THE AMENDMENT TO ALBION (BRABHAM) DISTRICT STRUCTURE PLAN 1C WAS APPROVED
BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

27 February 2018

Signed for and on behalf of the Western Australian Planning Commission:



an officer of the Commission duly authorised by the Commission pursuant to section 16 of the
Planning and Development Act 2005 for that purpose.

Table of amendments

Amendment no.	Summary of amendment	Amendment type	Date approved by WAPC
1	Modify designation of the Brabham Neighbourhood Centre to a District Centre	Major	27 February 2018



ALBION DISTRICT STRUCTURE PLAN PROJECT TEAM

Proponents	Brookfield Multiple Department of Housing
Urban Design & Planning	Chappell Lambert Everett
Civil Engineers	Sinclair Knight Merz
Environmental Consultant	Coffey Environments
Hydrologists	Jim Davies & Associates
Traffic Engineer	Sinclair Knight Merz
Landscape Architects	EPCAD
Retail	Shrapnel Urban Planning
Acoustic Consultants	Herring Storer
Acid Sulfate Soils	Douglas Partners & Coffey Environments
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EXECUTIVE SUMMARY

The Albion District Structure Plan has been commissioned by Brookfield Multiplex and the Department of Housing for approval pursuant to the provisions of Clause 5A and Schedule 4 'Special Use - Albion' zone of the City of Swan Local Planning Scheme No.17. The Albion District Structure Plan area covers approximately 504ha in Henley Brook adjoining Whiteman Park, zoned 'Special Use - Albion'. Albion will ultimately incorporate:

- Approximately 5,500 residential lots;
- A Town Centre (large neighbourhood centre) of approximately 10,000m² Net Leaseable Area (NLA);
- Three local centres;
- Three primary schools;
- High School;
- Educational support facility;
- Integrated public open space network;
- Retention of significant wetland and Bush Forever vegetation; an
- A regionally connected transport system.

Albion District Structure Plan has been lodged as a complete package with all required details pursuant to the requirements of Local Planning Scheme 17 and the City of Swan Urban Growth Policies, including:

1. Local Water Management Strategy (incorporating the Acid Sulfate Soil Management Plan);
2. Bushland Management Plans;
3. Noise Management Plan;
4. Transport and Access Report;
5. Commercial Centres Strategy; and
6. Community and Economic Development Plan.

Local Structure Plans within the District Structure Plan area will be prepared and approved prior to subdivision, setting out more detailed land use information in accordance with the District Structure Plan. The purpose of the District Structure Plan is to provide land use framework objectives, and address key issues, with final design detail to be resolved at Local Structure Plan stage.



1.0 INTRODUCTION

1.1 Background

The Albion District Structure Plan has been commissioned by the Department of Housing and Brookfield Multiplex for approval pursuant to the provisions of Clause 5A and Schedule 4 'Special Use – Albion' zone of the City of Swan Local Planning Scheme No 17, where an approved District Structure Plan and Local Structure Plan are required.

The Albion District Structure Plan area covers approximately 504ha in Henley Brook adjoining Whiteman Park to the west and the Swan Valley to the east (refer Fig.1 and 2).

The purpose of the Structure Plan is to guide land use and development within the subject area, providing a framework for future Local Structure Planning and subdivision applications. This report provides a detailed description of the Albion District Structure Plan, including the statutory context, land use framework, environmental management requirements and ongoing reporting framework.

The following documents are lodged as a detail of the Albion District Structure Plan pursuant to the requirements of Local Planning Scheme No.17 and the City of Swan Urban Growth Policies:

1. Local Water Management Strategy (incorporating the Acid Sulfate Soil Management Plan);
2. Bushland Management Plans;
3. Noise Management Plan;
4. Transport and Access Report;
5. Commercial Centres Strategy; and
6. Community and Economic Development Plan

The financial assessment report will be prepared and lodged as part of the Local Structure Plans when the necessary detail is available, in particular with regard to local open space provision and local infrastructure requirements.

1.2 Statutory Planning Context

1.2.1 Metropolitan Region Scheme

The Albion District Structure Plan area is generally zoned 'Urban' under the Metropolitan Region Scheme (MRS) (refer Fig 3). Pursuant to the North East Corridor Structure Plan (1994) the Western Australian Planning Commission lifted the deferment of the 'Urban' zone over the Structure Plan area in 1998. Youle Dean Road and Henley Brook Avenue, and associated road

widenings, are Reserved as an 'Other Regional Road' under the MRS (refer Fig.3). The future Perth Darwin Highway alignment, adjoining the western boundary of the Structure Plan area, is Reserved as 'Primary Regional' Road. There is a strip of 'Public Purposes' Reserve adjoining the Primary Regional Road Reservation that is outside the Structure Plan area owned by the Western Australian Planning Commission (WAPC). It is understood that this Reservation is to allow for future light rail.

Approximately 60 ha adjoining the southern boundary is Reserved for 'Parks and Recreation', which generally corresponds to the location of Bush Forever Site 200 (refer Fig.4).

1.2.2 City of Swan Town Planning Scheme

1.2.2.1 Local Planning Scheme No.17

The Albion District Structure Plan area is zoned 'Special Use - Albion' under Planning Scheme No.17 (refer Fig.5).

Schedule 4 'Special Use – Albion' requires the approval of a District Structure Plan over the zoned area. This Report comprises the District Structure Plan for the purposes of Schedule 4. Subsequent to the approval of a District Structure Plan, Local Structure Plans are to be approved over precincts within the Structure Plan area.

Schedule 4 of Local Planning Scheme No.17 sets out an environmental reporting hierarchy to be incorporated as a detail of the District and Local Structure Planning, refer Appendix Two. Section 1.2.2.2 below explains the background to these provisions.

Schedule 4 'Special Use - Albion' sets out the following objectives for the site to be considered when preparing a proposed District or Local Structure Plan:

- a) To consider and demonstrate integration with the broader district context;*
- b) To develop the Estate in a manner that protects, conserves and enhances the natural environment and cultural assets and to investigate and manage impacts;*
- c) To provide for the development of a functional and cohesive community consistent with orderly and proper planning and in the interest of the amenity of the Estate;*
- d) To encourage variety in the range of lot sizes and dwelling types within the Estate, consistent with a cohesive and attractive built environment;*
- e) To enhance the Estate with the provision of open space and recreation networks and facilities with particular attention being given to the timely provision of appropriate community services;*
- f) To make provision for school sites and other appropriate educational facilities within the Estate designed to encourage their management and use as a resource for local communities;*



- g) *To provide appropriate retail and commercial facilities to service the needs of residents of the Estate and with a view to the integration of retail areas with other commercial and business areas and with social services so as to maximise convenience;*
- h) *To provide retail and commercial centres, business parks and service areas to satisfy the need for such services within the Estate and to provide local employment opportunities, and;*
- i) *To employ strategies and designs aimed at optimising accessibility to local centres by the use of comprehensive movement networks and by other means which will facilitate connection with public transport and arterial road links to Midland, Perth and other parts of the Metropolitan Region."*

Pursuant to Clause 5A.1.6 of Local Planning Scheme No.17 a District Structure Plan is required to include a number of details. Table Two identifies each requirement and where it is addressed in the Albion District Structure Plan report.

TABLE 1: Local Planning Scheme 17 Clause 5A.1.6.1 - Details required to be contained within a District Structure Plan

Requirement	Addressed within this report
(a) a map showing the area to which the proposed structure plan is to apply;	Figures 11 and 8 and Table 1
(b) a site analysis map showing the characteristics of the site including - <ul style="list-style-type: none"> (i) landform, topography and land capability; (ii) conservation and environmental values including bushland, wetlands, damp lands, streams and water courses, foreshore reserves and any environmental policy areas; (iii) hydro geological conditions, including approximate depth to water table; (iv) sites and features of Aboriginal and European heritage value; 	Appendix 3 - Local Water Management Strategy. Appendix 4 & 5 - Bushland Management Plans. Section 4.6 - Summary of Aboriginal Heritage Investigations
(c) a context analysis map of the immediate surrounds to the site including - <ul style="list-style-type: none"> (i) the pattern of neighbourhoods, and existing and planned neighbourhood, town and regional centres; (ii) transport routes, including freeways, arterial routes and neighbourhood connector alignments, public transport routes, strategic cycle routes, bus stops and rail stations; (iii) existing and future land use; 	Sections 1.3, Figure 6 and Appendix 7

Requirement	Addressed within this report
(d) for district structure plans, a map showing proposals for - (i) the pattern of neighbourhoods around town and neighbourhood centres;	Figure 8 and Section 9.0
(ii) arterial routes and neighbourhood connector streets;	Figure 8 and Appendix 7
(iii) the protection of natural features such as water courses and vegetation;	Appendix 3, 4 and 5
(iv) major open spaces and parklands;	Figure 12 and Section 7.0
(v) major public transport routes and facilities;	Section 6.1.3 and Appendix 7
(vi) the pattern and disposition of land uses; and	Figure 8
(vii) schools and community facilities	Figure 8 and Section 8.0
(f) a written report to explain the mapping and to address the following -	
(i) the planning framework for the structure plan including any applicable regional or district structure plans, and any policies, strategies and scheme provisions which apply to the land, and any environmental conditions which apply under the Scheme;	Section 1.0
(ii) the site analysis including reference to the matters listed in clause 5A.1.6.1 (b) above, and, in particular, the significance of the conservation, environmental and heritage values of the site;	Section 2.0
(iii) the context analysis including reference to the matters listed in clause 5A.1.6.1 (c) above;	Section 1.3
(iv) how planning for the structure plan area is to be integrated with the surrounding land;	Section 1.3 and Figure 6
(v) the design rationale for the proposed pattern of subdivision, land use and development;	Part Two
(vi) traffic management and safety	Appendix 7
(vii) parkland provision and management;	Figure 12 and Section 7.0
(viii) urban water management	Appendix 3
(ix) proposals for public utilities including sewerage, water supply, drainage, gas, electricity and communication services;	Section 12.0
(x) the proposed method of implementation including any cost sharing arrangements and details of any staging of subdivision and development; and	Sections 5.7 and 1.2.2.3
(xi) fire risk management	To be completed at LSP pursuant to Schedule 4 of LPS 17

In addition to the details listed in Clause 5A.1.6 there are a number of additional environmental management plans required as part of a District Structure Plan, pursuant to Schedule 4 'Special Use - Albion'. Table Two identifies each required detail of Schedule 4 and where it is included in this report.

TABLE 2: Additional Details required under Schedule 4 - "Special Use - Albion" zone, pursuant to Clause 5A of Local Planning Scheme 17.

Requirement	Addressed within this report
4.1.1 Strategic Acid Sulphate Soils Management Plan	Appendix 3 (contained within the LWMS) - Local Water Management Strategy
4.1.2 Local Water Management Strategy	Appendix 3 - Local Water Management Strategy
4.1.3 Noise Management Plan	Appendix 6 - Acoustic Assessment
4.1.4 Quantitative Risk Assessment	Refer Section 5.5
4.1.5 Bushland Management Plans	Appendix 4 - Bushland Management Plan, Possible Threatened Ecological Community & Appendix 5 - Bushland Management Plan, Bush Forever Site 200

1.2.2.2 Town Planning Scheme No.9 - Background

The Albion District Structure Plan area was zoned 'Rural' under the City of Swan Town Planning Scheme No.9. Council initiated Amendment 364 to Town Planning Scheme No 9 to rezone the site from 'Rural' to 'Special Use - Albion' in 1999. The City forwarded the Amendment to the Environmental Protection Authority (EPA), who issued final instructions for the preparation of an Environmental Review in October 1999. An Environmental Review was prepared by the proponent (Department for Housing & Works) in conjunction with the Department for Environment and Conservation (DEC) and the City of Swan, which was to be advertised concurrently with Amendment 364 to Town Planning Scheme No.9.

Importantly this document was completed in May 2006 to the satisfaction of the City of Swan and DEC, addressing the environmental issues as identified by the EPA and establishing a comprehensive environmental management plan framework to be set out in the 'Special Use Zone - Albion' provisions under Town Planning Scheme No.9.

During the preparation of the Environmental Review documents the City of Swan progressed Local Planning Scheme No.17 to final approval, superseding Town Planning Scheme No.9. Amendment 364 and the associated Environmental Review document, while in a form satisfactory to the City of Swan and DEC, was not advertised for public comment due to the progress and adoption of Local Planning Scheme 17 into which the Amendment No.364 provisions were included. Appendix One confirms that the Environmental Protection Authority considers the Schedule 4 provisions of Local Planning Scheme No.17 adequately address the environmental issues.

1.2.2.3 Development Contribution Plan Area

The Albion District Structure Plan area is shown as Development Contribution Area 1 under Schedule 13 of Local Planning Scheme No.17, to ensure equitable distribution of development costs amongst stakeholders. West Swan and Caversham are shown as separate Development Contribution Areas.

In accordance with Clause 5A.2.6 and Schedule 13 the Development Contribution Plan provisions will be incorporated as an amendment to the Town Planning Scheme or Albion District Structure Plan. In accordance with Clause 5A.2.7.3 subdivision or development may be supported prior to the Development Contribution Plan Provisions being finalised where alternative arrangements for contributions are in place.

1.2.2.4 Local Structure Planning

City of Swan Local Planning Scheme No. 17 identifies that a key objective of local structure planning is to coordinate subdivision and development to provide comprehensive planning. Figure 7 sets out proposed boundaries for three local structure plan areas, which are used as the basis for land use schedule calculations in this report.

It is acknowledged that, to a large extent, local structure plan boundaries may be impacted by landownership, development intentions and staging. Clause 5A.1.5.2 of the City of Swan Local Planning Scheme No. 17 provides that a structure plan may be prepared over all or part of a structure planning area. However, in determining the acceptability of any variations to the Local Structure Plan Areas depicted at Figure 7, the following shall also be considered:

1. Demonstrate that the local structure plan can address drainage and water management consistent with the approved District Structure Plan (Section 4.2 & Local Water Management Strategy), State Planning Policy 2.9 and Better Urban Water Management to the specifications of the Department of Water;
2. Demonstrate that the local structure plan allows for integrated and staged development with surrounding landowners (including consideration of future road connections and intersections and the coordinated provision of essential services and drainage);
3. Management plans and landscape strategies included in the Local Structure Plan are to include the total area of any discrete wetlands, conservation areas and the like and not dissect these environmental features (to ensure protection and management is considered holistically);
4. The local structure plan boundaries should generally correspond with features shown on the DSP (such as higher order roads) to coordinate logical integration and should not dissect major non-residential land uses (such as commercial centres and school sites). Local structure plans shall demonstrate the interface with any different land uses contemplated by the DSP which adjoin the proposed local structure plan boundary;

5. Will result in a POS distribution which is generally consistent with the DSP with POS credits calculated in accordance with Liveable Neighbourhoods; and
6. The local structure plan boundary will not prejudice the preparation of a local structure plan over adjoining land to achieve the above.

1.3 Sub Regional Planning: A Framework

The Swan Urban Growth Corridor is a critical development front to accommodate the growth of the Perth Metropolitan Region. The Corridor, encompassing Albion, West Swan and Caversham, is expected to ultimately accommodate 12 500 dwellings and approximately 33 000 residents.

The City of Swan, Department for Planning & Infrastructure, landowners and relevant government agencies have jointly prepared a Sub Regional Plan for the City of Swan Urban Growth Corridor (refer Fig.6).

The Swan Urban Growth Corridor Sub-Regional Structure Plan (February 2009) and associated report has been adopted by the City of Swan and the WAPC and forms a non-statutory framework for planning for Albion, West Swan and Caversham. The Albion District Structure Plan is consistent with the Sub Regional Planning outcomes.

The key outcomes reached as a result of the Sub Regional Planning process, relevant to Albion, are:

- A Sub Regional Transport Infrastructure Staging Report was prepared through a workshop process and work undertaken by Sinclair Knight Merz. This work identified key regional and district road requirements and staging. Subsequent more detailed work has been undertaken as part of the preparation of the District Structure Plan. Refer Section 6 of this Report for further detail.
- Centre locations and sizes were agreed as part of the Sub Regional Planning process. Within Albion there is a Town Centre (Large Neighbourhood Centre) and three Local Centres. The Town Centre will include: retail; office ; mixed business; community and residential uses. The District Structure Plan is consistent with these outcomes. Refer Section 9.0 of this Report for further detail.
- The location of the Activity Corridor was agreed, connecting Albion, West Swan and Caversham (refer Fig.6). Within Albion the Activity Corridor generally corresponds with the Partridge Street alignment. This corridor will allow for bus services, mixed use and medium to high density residential development. Refer Section 6.2 of this Report.
- Employment generation in the study area is to be considered in the context of its location as part of the catchment to an employment rich corridor, which includes, Midland, Perth

Airport, Swan Valley, Ellenbrook, Malaga and Hazelmere. Employment self sufficiency within Albion is approximately 21%, provided through homebased business, mixed business, office, retail and community uses. Refer Section 9.2 of this Report for further detail.

- In accordance with the City's Urban Growth Policies and Liveable Neighbourhoods (October 2007) densities over the sub regional planning area are required to be 22 dwelling units per site hectare. Medium to high densities are to be focussed around services and amenities. The Albion District Structure Plan is consistent with this. Refer Section 5.0 of this Report for further detail.
- School site sizes and catchments were agreed as part of the sub regional planning process. Refer Section 8.0 of this Report for further detail.

The outcomes of the Sub Regional planning process provide a framework for district planning outcomes.

2.0 SITE CONTEXT AND ANALYSIS

2.1 Land Ownership

Brookfield Multiplex and the Department for Housing & Works are working co-operatively in progression of the District and Local Structure Planning. The proponents have met with all landowners in the District Structure Plan area and each landowner has been provided with a copy of this District Structure Plan. Pursuant to Clause 5A.1.8.1 (b) (i) of Local Planning Scheme 17 further consultation will be undertaken with landowners as part of the advertising process. Table 3 summarises lot and land ownership in the District Structure Plan Area:



TABLE 3 – LOTS AND LAND OWNERSHIP WITHIN THE DISTRICT STRUCTURE PLAN AREA

Lot	Plan/ Diagram	CT (Vol/Folio)	Address	Owner	Total Area (ha)**	Area Within Structure Plan
308	P4560-308	1368/417	Lot 308 Park Street, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	20.2798	18.2937
309	P4560-309	1596/810	311 Park St, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	20.3607	18.3639
310	P4560-310	1834/185	264 Woolcott Avenue, Whiteman	Housing Authority	20.5479	20.5479
311	P4560-311	1644/954	No Street Address Available	Multiplex Henley Brook Landowner Pty Ltd	20.2798	20.2798
345	P4560-354	1401/812	178 Woolcott Avenue, Henley Brook	Vincent Nominees Pty Ltd **	20.2090	20.2090
346	P4560-346	1404/359	226 Woolcott Avenue, Henley Brook	City of Bayswater **	20.2722	20.2722
347	P4560-347	1415/683 1389/783	254 Woolcott Avenue, Henley Brook	City of Bayswater City of Bayswater	20.2672	20.2672
348	P4560-348	1368/414	285 Park Street, Henley Brook	Emgekay Investments Pty Ltd Minx Pty Ltd	20.2621	18.2584
349	P4560-349	1368/413	255 Park Street, Henley Brook	ANZ Nominees Ltd ** (WRF)	20.2874	18.2393
350	P4560-350	1368/412	225 Park Street, Henley Brook	ANZ Nominees Ltd ** (WRF)	20.2773	18.2534
351	P4560-351	2055/270	Lot 351 Park Street, Henley Brook	Batson & McGill Pty Ltd	15.8757	8.3286
352	P4560-352	2189/144	Lot 352 Murray Road, Henley Brook	Housing Authority	19.6880	17.2560
353	P4560-353	2189/145	Lot 353 Murray Road, Henley Brook	Housing Authority	19.5362	19.4524
354	P4560-354	2189/146	Lot 354 Murray Road, Henley Brook	Housing Authority	19.5969	19.5969
355	P4560-355	292/41A	Lot 355 Murray Road, Henley Brook	Housing Authority	19.6804	19.5041
800	P53666-800	2654-348	No Street Address Available	Housing Authority	109.8019	109.8019
801	P53666-801	2654-349	No Street Address Available	Western Australian Planning Commission	62.1898	0.0000
802	P53666-802	2654-350	No Street Address Available	Western Australian Planning Commission	67.7336	0.0000
803	P53666-803	2654-351	No Street Address Available	Western Australian Planning Commission	0.0110	0.0110
804	P53666-804	2654-352	No Street Address Available	Western Australian Planning Commission	10.5936	3.5782
10	D33233-10	1410/95	111 Woolcott Avenue, Henley Brook	Housing Authority **	33.0502	30.2414
15*	D74426-15	1731/385	No Street Address Available	Belswan (Henley Brook) Pty Ltd	17.4578	15.1155
16	D59865-16	2045/259	47 Partridge St, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	22.1976	22.1976
17	D59866-17	1869/176	243 Woolcott Avenue, Henley Brook	Multiplex Henley Brook Landowner Pty Ltd	12.2045	12.2045
19	D83113-19	2103/662	Lot 19 Woolcott Avenue, Henley Brook	P & N Landreach Pty Ltd	3.5864	3.5864
20	D91765-20	2103/661	Lot 20 Woolcott Avenue, Henley Brook	Giuseppe Bellini ** Sandra Bellini **	10.7625	10.7625
101	D65712-101	1687/368	104 Harrow Street, West Swan	Epic Energy (WA) Nominees Pty Ltd of care of Allens Arthur Robinson	0.6885	0.0000
94	P22611-94	2134/985	No Street Address Available	Western Australian Planning Commission	10.0578	0.0000
95	P22611-95	2134/986	No Street Address Available	Western Australian Planning Commission	3.4457	3.4457
33	P4560	1680/54	No Street Address Available	Shire of Swan	3.0883	0.4944
Partridge	N/A	N/A	Partridge Street	Mainroads	N/A	4.1119
Woolcott	N/A	N/A	Woolcott Street	Mainroads	N/A	6.0523
Youle Dear	N/A	N/A	Youle Dean Road	Mainroads	N/A	3.1889
Lord	N/A	N/A	Lord Street	Mainroads	N/A	2.2218
TOTAL					664.2898	504.1368

** Affected by Gas Pipeline Easement ** Areas as per Certificate of title

* Lord Street extension land area and applicable road widenings deducted.

2.2 District and Local Context

The Albion District Structure Plan area comprises 504ha, approximately 15km north east of the centre of Perth, 5.5km south of the Ellenbrook Regional Centre and 5.5km north of the Midland Strategic Regional Centre (refer Fig.1).

The existing Lord Street (future Perth Darwin Highway Alignment) adjoins the western boundary of the site and Park Street adjoins the northern boundary (refer Fig.1). Whiteman Park, Reserved for 'Parks and Recreation' under the MRS, adjoins the western side of Lord Street. The existing entrance to Whiteman Park is located at the intersection of Lord Street and Youle Dean Road.

The future Henley Brook Avenue forms the eastern boundary of the Structure Plan area and is Reserved as an 'Other Regional Road' under the MRS. The eastern edge of the Henley Brook Avenue alignment is the boundary of the Swan Valley Planning Act Area, the Structure Plan area is wholly outside of the Swan Valley Planning Act Area. To the east of Henley Brook Avenue is the established Henley Brook rural residential community, with the land zoned 'Rural' under the MRS. The land north of the Structure Plan area adjoining Park Street is also zoned 'Rural' under the MRS.

As discussed in Section 1.3, Albion forms part of the Swan Urban Growth Corridor (refer Fig.6).

2.3 Site Analysis

2.3.1 Previous and Existing Uses

The District Structure Plan area north of Youle Dean Road is mostly parkland cleared and has been used predominately for agricultural land uses, including grazing of cattle and horses.

The former poultry farm located on Lot 350 has now ceased operation. The landowner of Lot 350 will remediate the site in accordance with the outcomes of a Detailed Site Investigation. Reporting is required pursuant to Schedule 4 at Local Structure Plan stage, refer Appendix Two.

The area south of Youle Dean Road is known as the former Caversham Airbase, previously used by the Federal Department of Defence. The site contains three disused gravel runways and has recently been used for grazing. The Airbase and 'D' track within the Bush Forever site (owned by WAPC) is used by the Vintage Sports Car Club. Department for Housing & Works is continuing to liaise with this stakeholder group as part of the refinement of planning detail

The Parmelia and Dampier Gas Pipelines run through the Structure Plan Area and are shown as easements on the affected titles (refer Fig 2). The Gas Pipelines are currently within private land holdings and are signposted accordingly.



The Structure Plan Area does not include any sites included in the City of Swan Municipal Inventory.

2.3.2 Environmental Background

The main soil type within the Structure Plan Area is Bassendean Sands which primarily consists of pale grey quartz sand, from the surface to a depth of 0.8m to 7.5m. The Guildford Clay formation occurs east of the site, with these areas containing sandy clay. Friable, iron-oxide cemented silty sand (colloquially known as coffee rock) occurs in the north east corner of the site at depths between 0.8m and 4.8m, peaty sands occur in wetland areas.

The site topography in the north and north east corner generally consists of sand dunes on elongated east west alignments up to 500m wide. The remainder of the site is typically flat palusplain and sumplands.

Generally the 'Urban' zoned portion of the site is substantially cleared and degraded following many years of agricultural use and is not worthy of conservation, aside from identified wetland and creek line areas. The 'Parks and Recreation' Reserve over Lot 801 is identified as Bush Forever Site 200.

There are no Conservation Category Wetlands on the site requiring protection. There is a Resource Enhancement Dampland (Wetland 104) located over Lots 351 and 352 and a portion of Resource Enhancement Sumpland (Wetland 127) within Lot 346 which are proposed to be retained and rehabilitated (refer Fig. 11 and Section 4.2). These wetlands are significantly degraded due to grazing over many years.

The existing drains that traverse the site are a combination of natural drainage lines and excavated drains typically constructed in the middle part of the last century. Generally existing artificial drainage lines are being retained for hydrological purposes.

St Leonards Creek is a seasonally flowing water course augmented by artificial drainage flows. The vegetation adjoining the Creek is of varying width, with the majority only 4m wide and substantially degraded. St Leonards Creek is to be retained with a 30 metre buffer from the winter high water level, refer Local Water Management Strategy - Appendix Three. The core of St Leonards Creek is generally contained within Lot 33 (except for the north eastern leg), and is owned by the City of Swan in fee simple.

A possible Threatened Ecological Community (TEC) has been identified over a portion of Lots 350, 353 and 345 with a total area of approximately 3.04 hectares. Analysis of vegetation in this area of *Eucalyptus-Banksia* woodlands showed some similarities to FCT20a, *Banksia attenuate* woodland over species of rich dense shrublands, which is listed as being Endangered at a State level but is not scheduled under the *Environmental Protection and Biodiversity Conservation*

Act 1999. Subsequent studies have indicated that it is unlikely that this area is a TEC. The City of Swan and Department of Environment and Conservation have advised that the possible TEC is to be retained as Public Open Space.

3.0 ALBION DISTRICT STRUCTURE PLAN DESCRIPTION

3.1 Development Principles

The key development principles of the Albion District Structure Plan are to:

1. Provide a framework for urban land uses within the District Structure Plan area that integrates with the Sub Regional context;
2. Respond to the social and economic needs of the community in a timely way;
3. Provide a framework for future Local Structure Planning and subdivision, allowing for refinement of detail and recognition of previous uses;
4. Provide for a variety of housing choice through a range of densities, predominately at an R30 density with higher codings (up to R60) within and around the neighbourhood centre and other nodes;
5. Define a robust road network reflecting and accommodating public and private transport priorities, responding to the Sub Regional transport network;
6. A main street based Town Centre, supported by local centres;
7. Provide integrated Primary and High School sites that meet the needs of the catchment;
8. An integrated open space, conservation and drainage network, balancing environmental, recreational and drainage objectives;
9. Provide for sustainable land use and lot design that responds to solar orientation principles as well as Crime Prevention through Environmental Design;
10. Encourage local employment within the neighbourhood and local centres, as well as through home based businesses; and
11. Reflect and integrate the development area with surrounding land uses.



3.2 Land Use Schedule

Table 4: Land Use Schedule describes the District Structure Plan (refer Fig. 8). The Land Use Schedule is broken down over Local Structure Plan (LSP) areas (to be refined at detailed planning), identifying open space requirements for each LSP, refer Section 8.0.

TABLE 4: LAND USE SCHEDULE (Refer Fig. 8)

LAND USE SCHEDULE (Plan: 2142-26i)	LSP1	LSP2	LSP3	TOTAL
GROSS AREA (ha)	211.28	116.01	176.79	504.14
NON RESIDENTIAL LAND USES (NRLU) (ha)				
Primary School	4.50	3.50	3.50	11.50
High School	0.00	12.00	0.00	12.00
Ed. Support	0.00	1.50	0.00	1.50
Large Neighbourhood Centre	6.74	1.58	0.00	8.32
Local Centre	0.19	0.20	0.23	0.62
Gas Pipeline Easement & Conditional Area (Residential Buffer)	6.46	8.32	23.47	38.26
Henley Brook Avenue	0.00	0.00	11.70	11.70
Youle Dean Road Widening	2.87	0.00	1.36	4.23
Bush Forever/ Parks and Recreation	0.00	0.00	0.00	0.00
Wetland Core	2.49	0.00	2.69	5.18
Existing Road Reserves	9.42	2.22	3.83	15.47
Total NRLU	32.67	29.32	46.79	108.77
GROSS RESIDENTIAL AREA (GRA) (ha)	178.61	86.69	130.00	395.30
PUBLIC OPEN SPACE (POS) REQUIREMENT (@ 10% of GRA) (ha)	17.86	8.67	13.00	39.53
GROSS POS ON STRUCTURE PLAN (ha)	20.53	9.66	30.32	60.51

4.0 ENVIRONMENTAL MANAGEMENT

4.1 Background

A comprehensive environmental reporting framework for the Albion District Structure Plan area is set out under the Schedule 4 'Special Use – Albion' provisions of Local Planning Scheme No 17, Appendix Two provides a summary of this reporting framework.

In accordance with the provisions of Schedule 4 the following environmental reporting has been prepared and lodged with the Albion District Structure Plan:

1. Local Water Management Strategy (refer Appendix Three);
2. Acid Sulfate Soils Management Plan (incorporated in the Local Water Management Strategy, refer Appendix Three);
3. Bushland Management Plan – Possible Threatened Ecological Community (refer Appendix Four);
4. Bushland Management Plan – Bush Forever (refer Appendix Five); and
5. Noise Management Plan (refer Appendix Six).

The Albion District Structure Plan reflects the outcomes and requirements of these environmental management plans. The following provides a summary of the key recommendations and implications of these environmental management plans.

4.2 Local Water Management Strategy

A Local Water Management Strategy (LWMS) has been prepared for the District Structure Plan area, in accordance with the Special Use — Albion' zone provisions, refer Appendix Three. The following provides a summary of this Report.

4.2.1 District Water Planning – Background

Water management is a key consideration to development of Albion. The North East Corridor Drainage Strategy (GB Hill, 1995) prepared for Water Authority of WA as part of the North East Corridor Structure Plan, provides a regional framework for water management associated with urban development. A review of that Strategy was recently completed and published as the North East Corridor Urban Water Management Strategy (GHD, 2007). GHD (2007) recommends that District and Local Water Management Strategies be prepared consistent with it. Further it states that the highest priority is the Swan Urban Growth Corridor (Albion-Caversham-West Swan-Whiteman Park) Drainage and Water Management Plan (GHD, 2009).

The Department of Water advised on 30 April 2007 that drainage and water management should be consistent with the North East Corridor (Regional) Urban Water Management Strategy 2007.

It is also important to note that Local Planning Scheme No.17, Schedule 4 Special Use - Albion' zone provisions state that:

- a) *in the absence of a District Water Management Strategy (DWMS), the LWMS must include information addressing the following, which would normally be contained in a DWMS -*
 - i) *Commit to best practice planning, design and construction;*
 - ii) *Refine land use scenario and identify major constraints*
 - iii) *Identify water sources for drinking and other uses, consistent with fit-for-purpose water use strategy use;*
 - iv) *Refine conceptual stormwater management plan; an*
 - v) *Identify issues to be addressed at later stages.*

These statutory provisions, as prepared in conjunction with the Environmental Protection Authority (refer Appendix 1), as well as the North East Corridor (Regional) Urban Water Management Strategy 2007, allow for the progression of a LWMS in the absence of a District Water Management Strategy Plan. Accordingly the Albion LWMS presents both district and local level drainage information consistent with these documents.

The LWMS sets out drainage principles in accordance with Schedule 4. The open space and drainage areas shown on the DSP are indicative only. Consistent with Schedule 4 detailed modelling to determine exact drainage and open space areas will be completed at Local Structure Plan stage as part of a Local Water Management Strategy, refer Fig. 8, note 5.

4.2.2 Hierarchy of Water Management Reporting

The City of Swan adopted Local Planning Scheme No 17 on 18 February 2008 to control and guide land use and development within the local government district of the City of Swan. Schedule 4 Special Uses" sets out a statutory hierarchy of water management reporting for Albion area of the City. The LPS1 7 hierarchy is shown in Table 5 overleaf.

The LPS1 7 hierarchy is inconsistent with the hierarchy of water strategy documents outlined in Better Urban Water Management (WAPC, 2008) which has been adopted after extensive stakeholder consultation as the Water Management framework for Western Australia. BUWM was developed to provide guidance on the implementation of the requirements of State Planning Policy 2.9 - 'Water Resources' which requires land use planning to take into account the total water cycle and water sensitive urban design principles. The water management strategies and plans required for each phase of the planning process are outlined in Table 5 overleaf.

TABLE 5: Planning Stages and Required Water Management Strategies

Planning Phase	BUWM - Water Management Strategy/Plan	LPS 17 - Water management strategy/plan	Proposed Water Framework for the Albion DSP
Land use change/ District structure planning (Master Plan preparation)	Drainage and Water Management Plan/District Water Management Strategy	Local Water Management Strategy	DSP - Local Water Management Strategy
Local structure planning	Local Water Management Strategy Urban Water	Urban Water Management Plan	LSP - Local Water Management Strategy
Subdivision	Urban Water Management Plan	No Report Required	Urban Water Management Plan

In order to ensure consistency with the Western Australian Planning Commission's state planning policy it has been agreed with the City of Swan and the Department of Water (DoW) that the hierarchy of water planning documents proposed by Better Urban Water Management (DOW, 2008) will be adopted for the development of Local Structure Plans within the Albion District Structure Plan.

4.2.3 Water Management

The LWMS is based on hydrological data collected since 2001.

The Albion study area extends over three existing surface water catchments namely Horse Swamp, St Leonards Creek and Wandoo Creek catchments. St Leonards Creek and Wandoo Creek drain to the east and discharge into the Swan River. Horse Swamp catchment drains to the west and provides runoff to Whiteman Park and Bennett Brook. These existing surface water flows will be maintained at the same peak event volumes post development

The LWMS describes the existing surface water and shallow water regime and presents a concept design of water management post-development to maintain that regime consistent with Water Sensitive Urban Design.

This includes infiltration of storm water where possible and the incorporation of surface water flow paths in swales within multiple use corridors together with flood attenuation storage. Designated open space areas on the Structure Plan are sufficient to accommodate drainage requirements.

For nutrient management, a programme of source control measures is described consistent with the latest Department of Water approach to urban water management.

The LWMS includes a strategic Acid Sulphate Soil investigation which concludes that the issue can be managed at a level consistent with typical developments on the Swan Coastal Plain in similar geographical settings.

A programme of ongoing hydrological monitoring is described to be carried out to assist with drainage infrastructure layout and refinement

4.2.4 Wetlands

There are no Conservation Category Wetlands within the Structure Plan area. Several Multiple Use and Resource Enhancement Category Wetlands, generally in poor condition as a result of many years of grazing, have been identified on site (refer Appendix Three)

Implementation of the Structure Plan will result in the following changes in terms of wetlands:

- The retention of Resource Enhancement Dampland (104) (Lots 352 and 351) and Resource Enhancement Sumpland (127) (Lot 346) and their associated buffers, serving conservation, recreation and drainage functions;
- The retention of St Leonards Creek;
- The construction of an ephemeral watercourse system primarily for drainage and nutrient management within multiple use corridors, and;
- The modification or filling/draining of significantly degraded Multiple Use and Resource Enhancement wetlands.

The areas surrounding Wetlands 104 and 127 are significantly degraded as a result of many years of grazing. The width of the buffers to these wetlands and their treatment will be refined during the preparation of Wetland Management Plans at Local Structure Plan stage, with consideration for reduced buffer widths and a commitment to rehabilitate degraded buffer areas. An indicative 50 metre vegetated wetland buffer has been identified on the Structure Plan for Wetlands 104 and 127.

A 30m vegetation buffer zone (measured from the winter high water level) will be rehabilitated on either side of St Leonards Creek. This buffer is also consistent with the Environmental Protection Authority's (1997) recommended buffer width of 30m for seasonally flowing watercourses

Passive recreational pursuits, such as walking, bird watching, picnicking and nature studies are considered acceptable in most wetland areas and their buffers. Controlled public access is recommended to prevent deterioration of conservation values and to assist with establishment of regenerative processes.

Wetland Management Plans will be prepared as part of the relevant Local Structure Plans in accordance with Schedule 4 of Local Planning Scheme No.17.

4.2.5 Local Structure Plans

Section 4.2.3 established the requirement for a Local Water Management Strategy to be prepared in support of a Local Structure Plan. The fragmented land ownership within the Albion DSP area must be acknowledged in the preparation of a LWMS for a structure plan to prevent up- or downstream landowner being adversely affected by drainage planning within a particular landholding. The Department of Water undertook district wide arterial drainage planning in the Swan Urban Growth Corridor (Albion-Caversham-West Swan-Whiteman Park) Drainage and Water Management Plan (GHD, 2009), which provide guidance to landowners on the district scale drainage planning for the area surrounding their properties. Post development drainage catchments for the district structure plan are also identified in Figure 16 of the LWMS

Although a LSP may be prepared over a single landholding, the arterial drainage planning in a LWMS that supports LSP cannot be limited to the extent of the LSP and must be extended to include the full upstream and downstream extent of the drainage sub-catchment to demonstrate how the LWMS integrates the regional planning undertaken in the Swan Urban Growth Corridor DWMP.

4.3 Bushland Management Plans

The Structure Plan area has generally been cleared/parkland cleared, with vegetation degraded as a result of many years of grazing. The remaining vegetation areas to be retained, in addition to Wetlands 104 and 127 outlined above, are the Bush Forever Site 200 and the possible Threatened Ecological Community (TEC).

Bushland Management Plans have been prepared for the Bush Forever Site 200 (the portion within the Structure Plan area) and the possible TEC, refer Appendices 4 and 5. The following provides a summary of these reports.

Bush Forever Site 200, adjoins the southern boundary and has been transferred to WAPC (refer Fig. 2). The portion of Bush Forever Site 200 east of Henley Brook Avenue is not directly adjoining the Structure Plan area and is not included in the Bushland Management Plan. The vegetation condition of the Bush Forever Site has been mapped as being in 'Good' to 'Degraded' using the Bush Forever Rating Scale.

Possible TEC (FCT20a), comprising approximately 3ha, has been identified over a portion of Lots 350, 353 and 345. Given its degraded state several studies have indicated that it is unlikely to be TEC on the Structure Plan. The City of Swan and Department of Environment and Conservation have advised that the possible TEC is to be retained in public open space.

The Bushland Management Plans outline the proposed treatment of these two conservation areas as well as implementation of the plans, management and future monitoring requirements.

Public access to conservation areas will be limited to passive recreation in a manner that will protect their environmental attributes and functions.

The primary issues that are addressed in the Management Plans are:

- Protecting native vegetation during construction with temporary fencing and subsequent long term protection with permanent fencing;
- Rubbish removal on a regular basis;
- Rehabilitation and enhancement using locally native species;
- Weed management using a combination of mechanical, physical and chemical methods;
- Maintenance of potential fauna linkages;
- Stormwater and nutrient management using structural and non-structural methods;
- Unauthorised pedestrian and vehicle access using physical barriers and delineated pathways where necessary, and;
- Dieback control using appropriate hygiene practices.

These issues are addressed through a range of structural (eg fencing, drainage etc) and non-structural (eg education) best management practices.

4.4 Noise Management

4.4.1 Perth Darwin Highway Reservation and Public Purpose Reserve

The Perth Darwin Highway Reservation adjoins the western boundary of the District Structure Plan area and is separated by a 43.5m wide MRS Public Purpose Reserve. The timing of the Perth Darwin Highway construction is unknown and is not on the Main Roads Western Australia ten year plan. It is therefore very likely that Albion could be fully developed prior to commencement of construction works for the Perth Darwin Highway. Given the lack of certainty regarding the timeframe for construction the District Structure Plan acknowledges future impacts and accommodates noise amelioration options.

Infrastructure agencies are currently reviewing the potential construction of a rail service within the MRS Public Purpose Reserve. Additional information in relation to this infrastructure, available at the time of planning, will be considered as part of Local Structure Plans.



Given the lack of certainty as to provision, design and location any impacts from the possible future rail service are to be addressed by the relevant infrastructure agency at the time of construction (possibly 2030) through a noise mitigation strategy, in accordance with the Draft State Planning Policy. At the time of construction the infrastructure agency will be required to implement appropriate measures and treatments to ensure impacts on the existing residential development are minimised in accordance with the Draft State Planning Policy: Road and Rail Transport Noise.

Herring Storer Acoustics have completed a Noise Management Plan addressing the impacts of the future Perth Darwin Highway and possible future rail, refer Appendix Six pursuant to the requirements of Local Planning Scheme No.17. The following provides a summary of this Report.

The objectives of the study were:

- To determine noise that would be received at residences within the Structure Plan area from vehicles travelling on the proposed Perth Darwin Highway and from the possible future rail;
- Assess the predicted noise levels for compliance with the appropriate criteria, and;
- If exceedances are predicted, investigate possible noise amelioration options for compliance with the Western Australian Planning Commission conditions.

Based on Western Australian Planning Commission criteria, noise received by residences within the subdivision from vehicles travelling along the Perth Darwin Highway will need to comply with the following external criteria:

Time Period	External Noise Exposure Level ¹ Criteria (dB)		
	Exposure Level 1 (Target)	Exposure Level 2	Exposure Level 3
Day 6.00am - 10.00pm	Less than L_{Aeq} 55	L_{Aeq} 55-60	Above L_{Aeq} 60
Night 10.00pm - 6.00am	Less than L_{Aeq} 50	L_{Aeq} 50-55	Above L_{Aeq} 55
Additional criteria for railways	Less than L_{Amax} 75	L_{Amax} 75-80	Above L_{Amax} 80

Note ¹: Noise levels is to be determined at a point 1 metre from the edge of the site or building facade that is the most exposed to traffic noise, and at a height of 1.5 metre from the ground level at that point. Noise assessments should generally reflect the impact of any future growth in road and rail traffic, based on a 20 year forecast period.

Noise received at residences located adjacent to the Perth-Darwin Highway, and the MRS Public Purpose Reserve in the year 2036 (a reasonable estimate of full development of the corridor) may exceed the Main Roads Western Australia Noise Level Objectives by 4dB(A).



To comply with the required criteria there are several noise amelioration options which include:

- Construct a 1.8 metre high barrier along the boundary of the public purpose reserve, and locate and/or protect the outdoor living area such that they achieve compliance with the LAeq(Day) noise level of 55 db(A). Quiet House Design is required for the first row of houses and general guidelines for Quiet House Design are included in Appendix D of the Acoustic Assessment Report contained in Appendix 6.
- Construct a 3.4 metre high barrier along the boundary of the public purpose reserve. In this case there would be no restrictions to the location of the outdoor living area and no requirement for application of Quiet House Design.

Noise received from possible future passenger trains requires compliance with LA(Max) noise level of 75 db(A) criteria. Residences backing on to the public purpose reserve can achieve compliance with the construction of a 2.4 metre high barrier. In accordance with the Draft SPP: Road and Rail Transport, the noise mitigation strategy, associated with any future rail, shall be prepared and implemented by the relevant infrastructure agency.

All landowners adjoining the MRS Public Purpose Reserve have confirmed their preference for a 1.8m high barrier along this boundary and the application of Quiet House Design as required by the noise modelling for the first row of houses. Further interface detail and noise amelioration mechanisms shall be confirmed as part of Local Structure Planning. Early design work has indicated that lots will generally back onto the MRS Public Purpose Reserve, to be confirmed at Local Structure Plan stage

4.4.2 Henley Brook Avenue

Noise generated by traffic on Henley Brook Avenue affecting the DSP area will be considered at Local Structure Plan stage, in accordance with Western Australian Planning Commission Policy. Noise impacts on existing rural land to the east of Henley Brook Avenue, in accordance with the WAPC Policy, is to be considered by the City of Swan/Department for Planning and Infrastructure in the design and construction of the road.

4.5 Parmelia & Dampier Gas Pipelines

The Parmelia and Dampier Gas Pipelines run through the Albion District Structure Plan area in a north – south direction. The gas pipelines are within private land holdings and are shown as easements on the affected titles (refer Fig.2).



4.5.1 Quantitative Risk Assessment

Schedule 4 'Special Use – Albion' provisions require the preparation of a Quantitative Risk Assessment (QRA) for the Gas Pipelines within the Structure Plan area. The WAPC Planning Bulletin No.87 (October 2007) for 'High Pressure Gas Transmission Pipelines in the Perth Metropolitan Region' constitutes a QRA in accordance with Clause 4.1.4 of Schedule 4, 'Special Use - Albion' zone.

If at Local Structure Plan stage a proponent seeks to vary the land uses/setbacks to the gas pipelines from those specified in the Planning Bulletin, a separate QRA is required for the subject area to support the modifications

The Planning Bulletin details appropriate land uses above and adjoining gas pipelines as well as the Conditional Area (measured perpendicular to the edge of the pipeline easement). Setbacks for residential and sensitive uses (Conditional Area) contained within the Planning Bulletin, and shown on the Albion District Structure Plan, are contained in Table 6. Sensitive land uses are activities that result in the gathering of a large number of people on a regular basis, and include uses such as schools, aged care, retail and district open space.

TABLE 6 - Width of the High Pressure Gas Pipeline setback distances at 90° to the edge of the pipeline corridor/easements (extract from Planning Bulletin 87)

Pipeline	Nature of Development		
	Sensitive	Residential	Industrial/ Commercial
DBNGP2 between Muchea (MLV116) and Kwinana (KJN)	90m	0m	0m
Parmelia Gas Pipeline north of Caversham	80m	70m	60m
DBNGP corridor and Parmelia Gas Pipeline easement when adjoining between Muchea and Baldivis.	110m	75m	60m

4.5.2 Land Use

Presently the gas pipeline easement and Conditional Area is wholly contained on privately owned land, is appropriately sign posted and the relevant authorities have access to the land.

There are three key land uses specifically proposed for portions of the Conditional Area on the Structure Plan, in accordance with the QRA:

1. Road crossings perpendicular to the easement;
2. Drainage, wetland and ephemeral water course system north of Woolcott Avenue, which is part of the overall drainage network, and;
3. Bush Forever Site 200 south of Youle Dean Road, Reserved for 'Parks and Recreation' under the MRS and already transferred to WAPC.

Alternate land use options have been identified for the balance of the Conditional Area under the Structure Plan, in accordance with the QRA. The City of Swan has indicated that it is not prepared to accept vesting of public open space as issues remain outstanding with the pipeline custodians regarding the management and maintenance. The City's position is that the prohibitions to its use and maintenance would be to the detriment of future communities.

1. Large residential lots – Lots extending over the buffer and easement area with a building envelope outside of the required buffers. Lot sizes could be between 2000m² – 5000m² with the buffer/easement area part of the private open space and appropriately sign posted and accessible.
2. Large rural-residential lots – Lots extending over the buffer and easement area with a building envelope outside of the required buffers. Lot sizes could be over 5 hectares, with the buffer/easement area part of the private open space and appropriately signposted and accessible. Land use permissibility within these lots (if proposed) is to be determined as part of the zonings under the Local Structure Plan.
3. Communal open space for a strata scheme – A grouped dwelling development could be located outside of the required buffers, with the buffer and easement area forming communal open space.

Land uses and developments within the gas pipeline easement and buffer area will be determined by land owners / proponents at Local Structure Plan stage, in accordance with the QRA, or other approved QRA, and in consultation with relevant authorities.

The principles for land use in the gas pipeline easement and conditional area outlined above are as follows:

- City of Swan is not prepared to accept vesting of Public Open Space;
- The gas pipeline easement and buffer to be retained in private ownership;
- There are a number of land use options for land being retained in private ownership as outlined in Section 4.5.2; and
- Detailed land use proposals will be provided at Local Structure Plan stage.

For the purposes of the District Structure Plan the gas pipeline easement and residential land use buffer have been treated as a deduction from the Gross Subdivisional Area and does not constitute part of the public open space calculation.



4.6 Summary of Aboriginal Heritage Investigations

Aboriginal cultural heritage surveys (1994 and 1997) have been completed in the Albion District Structure Plan area. These surveys consisted of an archaeological survey and consultation with indigenous representatives.

Pursuant to the 1994 Cultural Heritage Survey A Request for Consent under Section 18 of the Aboriginal Heritage Act 1972 was lodged in 1994 for the development of Lots 352, 353, 354, 355, 359 and 10 on Murray Road and Lot 310 on Woolcott Avenue, Henley Brook following consultation with indigenous representatives. This outlined four requests that asked for:

- Consent to use the land along a tributary of St Leonard's Creek for urban development;
- Assistance or guidance for the use of Aboriginal names for streets;
- Assistance or guidance for the wording of a plaque to be placed in the proposed development and;
- Guidance with respect to involving Aboriginal people in the planting of trees and shrubs along St Leonard's Creek (W.G. Martinick and Associates, 1994).

This was approved by the Minister for Aboriginal Affairs; Housing with the condition that the clearing works be monitored by an archaeologist and if any sites were found, a Section 18 application must be lodged due to limitations in the original archaeological survey (Prince, 1994).

The second Aboriginal and Cultural Heritage survey was conducted in the Albion District Structure Plan area with an extensive site search for artefacts in 1997 (Ecoscape, 2006). During this archaeological study, one archaeological site of low significance was discovered within the District Structure Plan area on Lot 351, near Park Street. An application will be made under the Aboriginal Heritage Act 1972 at Local Structure Plan stage if disturbance to the site is proposed.

Schedule 4, Clause 5.2.4 of Local Planning Scheme No. 17 requires the preparation of a Cultural Heritage Management Plan at Local Structure Plan stage.

5.0 HOUSING STRATEGY

5.1 Demographic Profil and Housing Needs

The Western Australian Housing & Urban Research Institute (HURIWA) has completed 'An Assessment of Housing, Socio-economic and Sustainability Demands with reference to the future settlement of Albion' in March 2006. The key findings and recommendations of this study form the basis of the Albion Housing Strategy.

HURIWA identified the following key population and housing trends within the City of Swan:

1. Household size has declined from 2.85 to 2.68 persons per household, representing a decline in the traditional family.
2. The post-family household aged 40-64 (without children) is forming at a faster rate than households with children.
3. 90% of housing in the City is detached dwellings, 6% semi detached, 2% flats, units, and apartments.

The following key findings relating to housing needs / demand within the City of Swan were identified by HURIWA

1. Despite changing household structure there is still demand for detached housing due to privacy, mobility and choice with a preference for lots between 500-800m².
2. 40% of the population are willing to reside in medium density housing, particularly the 18-19 and 65+ age cohorts.
3. Financial and affordability imperatives will continue to increase demand for small lots.
4. Providing a range of housing at differing densities will have market appeal and contributes to a range of age groups and family types in new residential development.
5. Grouped dwelling and multiple dwelling sites are important for dwelling diversity.
6. Housing diversity is important to avoid Albion being a "transition suburb".

HURIWA identified a shortage in the availability of aged care within the City of Swan, with all existing aged persons accommodation full and demand expected to double in the coming decade. To "age in place" a range of property sizes and mix of housing types is required.



5.2 Housing Principles

The population of Albion is estimated at 14,700 based on a household occupancy of 2.68 persons per household (based on HURIWA 2005 analysis) and on expected yield of approximately 5,500 lots.

Albion will ultimately comprise a range of residential densities, housing types and tenures in accordance with the City of Swan Neighbourhood Planning Policy. The detail, including R-Codings, will be clarified through both the Local Structure Plan and subdivision process.

The housing principles for Albion, based on the findings of the HURIWA Research Report, to guide future Local Structure Planning and subdivision are:

- Provide diversity in housing choice, lot sizes and tenure;
- Higher density within 400 metres of the Town Centre, Activity Corridor and select open space sites;
- Opportunities for aged persons/independent living accommodation within 400 metres of the Town Centre, Activity Corridor and select open space sites;
- Promoting mixed use development around and within the Town Centre, including home based business;
- Housing layout and urban form to respond to public transport routes, incorporating Transit Oriented Development Principles;
- Environmentally sustainable design approaches in terms of solar orientation of lots, and;
- Provide larger lots and appropriate land use controls adjoining Park Street allowing for a transition of residential densities.

5.3 Activity Corridor - Transit Oriented Development

The Sub Regional planning process identified a north-south Activity Corridor generally corresponding with the Partridge Street alignment in the Albion District Structure Plan area, refer Sections 1.3 and 6.2. The Public Transport Authority (PTA) supported the provision of a high frequency bus route along this alignment, particularly given that the provision of a rail service is uncertain. While PTA has supported a bus route along the Activity Corridor the timing of these services is uncertain.

Infrastructure agencies are reviewing the potential construction of a rail service within the MRS Public Purpose Reserve. Additional information in relation to this infrastructure, available at the time of planning, will be considered as part of Local Structure Plans.



It is important that the urban design adjoining the Corridor is robust, allowing for intensification and changing urban uses over time. Implementing TOD principles for bus routes is difficult as the permanence of the service is compromised, although some TOD principles can still be implemented, as acknowledged in WAPC DC Policy 1.6 (Clause 6.2).

Consistent with WAPC DC Policy 1.6 and Liveable Neighbourhoods (October 2007) the following design objectives will be applied along the Activity Corridor and in the Town Centre Precinct:

- The street pattern designed to encourage walkability and facilitate pedestrian and cyclist access to transit facilities;
- A diversity of lot sizes matched with a robust street layout allowing for changing uses and intensification
- Maximising residential densities within the precinct, given the current context as well as allowing for further increases in density over time;
- Other non-residential uses are likely to be significant generators of transport trips accessible to transit facilities and should be facilitated in the Town Centre precinct; and
- Streetscapes, landscaping and the public domain designed to encourage public transport use, including the provision of footpaths and shade.

More detailed design and implementation of these principles will be carried out as part of the Local Structure Plan and preparation of Detailed Area Plans where relevant.

5.4 Residential Densities and Housing Types

The location and layout of R-Code boundaries will be determined at Local Structure Plan stage following detailed subdivision design. Figure 9 sets out indicative residential density codings, consistent with the principles outlined above.

The following provides a summary of location criteria and development control for residential land uses within the District Structure Plan area, providing a framework for the designation of R-Codings at Local Structure Plan stage. This section and Figure 9 provides a guide for Local Structure Planning but does not preclude other density responses within the Structure Plan area.

5.4.1 Low Density - Residential R17.5

The following is a summary of the provisions and location criteria for residential development coded R17.5.

Residential Density Coding: Residential R17.5

Dwelling Types: Single

Development Controls: Residential Design Codes
Local Planning Scheme and Council Policies

Location Criteria:

- Located adjoining Henley Brook Avenue to provide transition to larger Special Rural lots east of Henley Brook Avenue.
- Lot sizes of 500m² or greater (as per R Codes)

5.4.2 Medium Density - Residential R30

The following is a summary of the provisions and location criteria for residential development coded R30.

Residential Density Coding: Residential R30

Dwelling Types: Single and grouped dwellings

Development Controls: Detailed Area Plans (dependant on lot size and design, prior to final subdivision approval)
Residential Design Codes
Local Planning Scheme and Council Policies

Location Criteria:

- Residential R30 will be the base coding over the Structure Plan area allowing for the provision of traditional lots (ranging from 450m² to 600m²) and cottage lots (ranging from 280m² to 360m²); and
- Located to enhance passive surveillance of public spaces.



5.4.3 Medium Density Residential R40

The following is a summary of the provisions and location criteria for residential development coded R40.

Residential Density Coding:	Residential R40
Dwelling Types:	Single, grouped and multiple dwellings
Development Controls:	Detailed Area Plans (dependant on lot size and design, following subdivision approval) Residential Design Codes Local Planning Scheme and Council Policies

Location Criteria:

- Generally surrounding areas of high amenity, such as open space;
- Located so as to maximise access to and use of services and facilities such as schools, commercial centres and public transport routes (TOD precinct), and;
- Located to enhance passive surveillance of public spaces.
- Typically lots varying in size from 200m² to 440m².

5.4.4 Medium Density Residential R60

The following is a summary of the provisions and location criteria for residential development coded R60.

Residential Density Coding:	Residential R60
Dwelling Types:	Single, grouped and multiple dwellings, aged persons accommodation / independent living
Development Controls:	Detailed Area Plans (following subdivision approval) Residential Design Codes Local Planning Scheme and Council Policies

Location Criteria:

- Located surrounding and within the Neighbourhood and Local Centres and in close proximity to the future rail station, incorporating TOD principles;
- Generally R60 development will be located within 400m of the Town Centre;
- Generally adjoining areas of high amenity, such as open space; and
- Located to enhance passive surveillance of public spaces.
- Single lots varying in size from 160m² to 360m² or larger sites for grouped/multiple dwellings.



5.5 General Rural Zoned Land South of Park Street

The general rural zoned land south of Park Street and outside the District Structure Plan area, allows for a transition of lot sizes and land uses between the 'Special Rural' land north of Park Street and the District Structure Plan area. Landowners of these lots will need to resolve lot size and land use issues separately, via amendments to LPS17 and potentially the MRS.

5.6 Lot Yield Estimates

The City of Swan adopted a Neighbourhood Planning Policy, in May 2006. This Policy, consistent with Liveable Neighbourhoods (October 2007), sets out a residential density target of 22 dwellings/nett hectare averaged over an entire Structure Plan area and 30 dwelling units/nett hectare within 400m of an existing or planned Regional or District Centre or key public transport node (note: nett hectare, also referred to as 'site hectare' under Liveable Neighbourhoods (October 2007), excludes roads, lanes, open space and other non residential land uses and is the pure residential area). Liveable Neighbourhoods (October 2007) states that as a guide a minimum residential density target of 30 to 40 dwellings per site hectare is suggested.

Based on the Yield Precinct Plan (refer Fig.10) and the Indicative Residential Densities (refer Fig.9) lot yield estimates have been calculated for the Albion District Structure Plan area, refer Table 7.

Table 7 estimates a total dwelling unit yield of 24 dwelling units per site hectare over the entire Structure Plan area and 32 dwelling units per site hectare directly adjoining the Centre, exceeding the density targets set out under the Neighbourhood Planning Policy and Liveable Neighbourhoods (October 2007). These densities and yields are indicative only and will be refined and developed as part of Local Structure Planning and subdivision design.



TABLE 7: LOT YIELD ESTIMATES (refer Fig.10)

Cell	Estimated Site Area (ha) *	Dwelling Unit Yield Estimate	Dwelling Unit Yield Per Site Hectare
LSP1			
A	16.14	290	17.97
B	13.67	270	19.75
C	44.97	1045	23.24
D	12.83	295	22.99
E	16.74	546	32.62
F	16.82	405	24.08
SUB TOTAL	121.17	2851	23.53
LSP2			
G	15.45	506	32.75
H	8.2	270	32.93
I	21.39	493	23.05
J	8.03	170	21.17
SUB TOTAL	53.07	1439	27.12
LSP3			
K	9.37	217	23.16
L	19.05	422	22.15
M	16.95	397	23.42
N	11.42	229	20.05
SUB TOTAL	56.79	1265	22.28
TOTAL	231.03	5555	24.04

Table 7 Assumptions / Notes:

- Lot yield estimates are based on the indicative Residential Densities Plan and will be subject to change following detailed subdivision design.
- Nett Residential Area excludes non-residential land uses and open space, and comprises lots and roads.
- Site Area is pure residential area, excluding roads and lanes.
- Residential R30 is the base coding. 70% of the R30 area is assumed to be traditional lots, 450m² - 600m² average lot size, with 32.5% of the Nett Residential Area being road area. The remaining 30% of the R30 area is assumed to be cottage lots, 360 m² average lot size, with 35% of the Nett Residential Area being road area.
- Residential R40 areas have an average lot size of 300m² with 35% of the Nett Residential Area being road area.
- Residential R60 areas have an average lot size of 280m² with 35% of the Nett Residential Area being road area.

5.7 Aged Persons Accommodation/Independent Living

In accordance with the outcomes of the HURIWA Study aged persons accommodation (over 55) could be provided in the Structure Plan area. To ensure the design of the aged person's accommodation integrates with the surrounding urban fabric the following principles apply in the preparation of Detailed Area Plans:

- Located so as to maximise access to and use of services and facilities such as commercial centres and public transport routes;
- Development to address and survey surrounding public streets, with visually permeable fencing and major openings addressing the street;
- Development integrated with surrounding land uses, including pedestrian access and permeability; and
- Any community/shared facilities to address the primary street.

Detailed Area Plans will be required to be prepared for aged persons/ independent living sites in accordance with these principles at subdivision stage.

5.8 Anticipated Lot Release

There is potential for lot releases in the vicinity of 400 - 500 per annum based on two active development fronts within the District Structure Plan area. Land release is programmed to commence January 2009. This is based on, at initial stages, Brookfield Multiplex and Department of Housing releasing on average between 250 and 300 lots combined per annum on an ongoing basis. Other landowners' development fronts are likely to meet the balance of this estimated lot release.



6.0 TRANSPORT AND ACCESS

6.1 Transport and Access Report

Sinclair Knight Merz have prepared a traffic analysis for the Albion District Structure Plan, refer Transport and Access Report, Appendix Seven. The following is a summary of the key findings and recommendations of this Report, which are consistent with the outcomes of the Sub Regional planning process.

The Transport and Access Report addresses the strategic transport aspects of land use and transport integration for Albion, in line with the following key objectives:

- To integrate with the district context;
- To assess the proposed internal transport networks with respect to accessibility and safety for all modes: vehicles, public transport, pedestrians and cyclists;
- To assess the level of transport integration between the Structure Plan area and the surrounding land uses, and;
- To determine the impacts of the traffic generated by the Structure Plan area on the surrounding land uses and transport networks.

The Albion District Structure Plan road network has been considered at both interim and ultimate time frames.

6.1.1 Ultimate Road Network

The proposed ultimate road network for Albion is compatible with Sub Regional planning outcomes. The key features of the ultimate road network are described below:

- The current Lord Street alignment will generally become the alignment for the Perth Darwin Highway adjoining the Structure Plan area, which is reserved as a 'Primary Regional Road' under the MRS. Access to the Perth-Darwin Highway from the Structure Plan area will be provided at Youle-Dean Road via a grade-separated access, in accordance with the MRS reservation.

- The future Henley Brook Avenue alignment forms the eastern boundary of the Structure Plan area and is reserved as an 'Other Regional Road' under the MRS. It will be a four lane dual carriageway with an operating speed of 60kph connecting through to Gnangara Road (in the north) and Reid Highway (in the south). The ultimate design of Henley Brook Avenue shall be undertaken by the Department of Planning in consultation with the City of Swan. The design will be informed by the connections shown on the Albion District Structure Plan. The final number, function and location of these intersections is subject to change following detailed design of the road to ensure existing and future access and intersections from the east are addressed. Intersections to Henley Brook Avenue will be finalised during this design and will reflect the function of this road as an 'Other Regional Road' recognising the need to provide legible and permeable access into the Albion District Structure Plan area and the Swan Valley Planning Act Area. This design process will inform Local Structure Planning.
- Partridge Street (future Lord Street deviation) will become the alignment for a north south Integrator Arterial B, providing for district movements externally to Ellenbrook and Caversham. Partridge Street will be an Activity Corridor, serving as a public transport route with adjoining mixed uses and a range of residential densities, refer Section 6.2.
- Youle Dean Road is an 'Other Regional Road' under the MRS connecting Perth Darwin Highway and Henley Brook Avenue. The ultimate function, cross-section and access points / intersection spacings for Youle Dean Road (including any proposed to the Large Neighbourhood Centre in proximity to the Perth Darwin Highway/Youle Dean Road interchange) is to be reviewed in consultation with the Department of Planning's Urban Transport System's branch and should be completed prior to the finalisation of any structure plans which abut or propose ultimate access to this road.
- Park Street and Woollcott Avenue would be upgraded to standards specified by City of Swan, with an operating speed of 50 kph.

6.1.2 Interim Road Network

The timing of construction of the Perth Darwin Highway is unknown and is not on the Main Roads Western Australia ten year program. It is therefore likely that Albion could be fully developed prior to the commencement of the Perth Darwin Highway.

An interim road network is proposed until the construction of the Perth Darwin Highway, which could potentially be 10 to 20 years.

The main differences between the interim and ultimate road network are:

- Lord Street will either (a) be retained on its existing alignment and widened to four traffic lanes (with an operating speed of 70 kph), or (b) be constructed as a four lane dual carriageway on the ultimate alignment of the Perth Darwin Highway.

- Partridge Street (Lord Street deviation) will become a north-south Integrator Arterial B through Albion from Lord Street (south of Park Street). Partridge Street will be built as a two-lane lane distributor with an operating speed of 50-60kph.
- The current road connections to Lord Street will be retained with an additional connection at Woollcott Street and south of Park Street, improving permeability.
- Following the construction of the Perth Darwin National Highway, the Lord Street road reserve south of Youle Dean Road should be closed and amalgamated into the adjoining land to facilitate an optimum urban design outcome.

6.1.3 Public Transport, Pedestrians & Cyclists

Public transport within Albion will include:

- A bus transit system to serve Albion focussed on the Activity Corridor; and
- Possible future connection to a rail system within the Perth Darwin Highway reserve, in the longer term.

The Albion District Structure Plan maximises pedestrian and cyclist connections to the local and regional pedestrian/ cycle network. The pedestrian/ cycle network will provide for efficient access to activity nodes such as the Town Centre, schools, as well as public open space and public transport stops. The plan proposes to accommodate on-street cycle lanes and off-street shared paths on all Neighbourhood Connectors and Integrator Arterials.

6.2 Activity Corridor

Partridge Street / Lord Street deviation will form part of an Activity Corridor as identified in Network City, and consistent with the Sub Regional planning outcomes.

Network City identifies an Activity Corridor through Albion, with the Ellenbrook and Midland Centres acting as an anchor at each end. Activity Corridors are *'connections between activity centres that provide excellent, high frequency public transport to support the land uses that will occur along the activity corridors and activity centres. Activity corridors are not designed to be high-speed through traffic routes* (Network City 2004:14).

The key principles of the Activity Corridor are:

- Ellenbrook and Midland centres acting as anchors at each end;
- A high frequency public transport route, which is the basis for the corridor;

- Focus on higher density housing, retail, entertainment and other high activity, people oriented uses adjoining the Corridor, with particular focus on a walkable catchment surrounding the Town Centre and public transport;
- Development to front onto, address and survey the Corridor;
- Road design to encourage multi-modal transport, public transport, pedestrians and cyclists (refer indicative road cross section within the Transport & Access Report);
- Town Centre developed in accordance with main street principles, and;
- Medium to high density residential/mixed use development clustered within 400m of a transit stop or public transport route and layout based on accessibility principles (refer Section 6.3).

Further refinement and implementation of the Activity Corridor concept will occur at Local Structure Plan, subdivision and Detailed Area Plan stage.

7.0 PUBLIC OPEN SPACE STRATEGY

7.1 Objectives

It is the intent of the Structure Plan to ensure the provision of a wide range of well located open space types, diverse recreational opportunities, vegetation preservation and the sharing of facilities and spaces. Key public open space objectives are;

- Provide for a diversity of active, passive and natural open space areas;
- Locate open space to enhance walkability and create diverse circuit walks ;
- Protect vegetation within Public Open Space and other spaces wherever desirable and practical;
- Establish a strong vegetation framework that will mature to create shade and visual amenity within the urban area;
- Integration of an active recreation facility with the High School, Primary School and Educational Support Facility;
- Integrate junior playing fields with the Primary Schools
- Help facilitate the practical sharing of open spaces;
- Provide a range of passive open neighbourhood parks which provide an appropriate level of amenity;
- Accommodate the requirements of Bush Forever;
- Provide good connectivity and linkage too and thru open spaces;
- Ensure no resident is more than 450 metres from an open space; and
- Fully integrate drainage into the open space to promote best practice water sensitive urban design nutrient management and passive irrigation.

7.2 Public Open Space Principles and Distribution

The following outlines the principles of public open space provision and distribution within the Structure Plan area:

- Public open space will be provided at a rate of 10% of the Gross Subdivisional Area across the Structure Plan area;



- All lots will be within 450 metres of public open space;
- Public open space (particularly neighbourhood parks) will be distributed as evenly as possible across different land owners within Local Structure Plan areas (subject to conservation, recreation and drainage requirements); and
- Equitable provision of open space for district purposes will be managed through the provisions of the DCP.

The public open space distribution and identification of landowners under/over providing public open space will be determined at Local Structure Plan stage as this requires a detailed subdivision layout to determine the exact area and location of Neighbourhood Parks and other open space types.

7.3 Structure Plan Public Open Space Strategy & Utility

At District Structure Plan level the Public Open Space Strategy sets out the indicative location of the following core types of public open space; active, passive and natural areas, which are required to be provided for conservation, drainage or recreation purposes (refer Fig.11):

- Open Space required for bushland and wetland retention as identified in the Bushland Management Plans and Local Water Management Strategy. The following public open space categories as shown on Figure 11 are relevant:
 - (Possible) Conservation;
 - St Leonards Creek Multiple Use;
 - Wetland Core, and;
 - Wetland Buffers.
- Open Space required for drainage as identified in the Local Water Management Strategy. The following public open space categories as shown on Figure 11 are relevant:
 - Multiple Use, and;
 - Local Open Space – Drainage.
- Local Open Space co-located with Schools as agreed with the Department for Education and Training. The following categories of open space as shown on Figure 11 are relevant:
 - Local Active Open Space.

These open space categories make up the core provision of open space in the Structure Plan area. Within LSP areas 1 and 2 these open space types do not constitute 10% of the LSP Gross Subdivisional Area. The balance of the 10% open space requirement will be provided via Neighbourhood Parks, show indicatively on the Open Space Strategy. The location, size and configuration of Neighbourhood Parks will be determined at Local Structure Plan stage and will comprise the balance of the required 10% public open space. The exact location and configuration of Neighbourhood Parks is dependent on the subdivision design

Schedule 4 of Local Planning Scheme No.17 sets out a hierarchy of water management reporting, which is consistent with Better Urban Water Management, refer Table 5. The LWMS sets out drainage principles in accordance with Schedule 4. The open space and drainage areas shown on the DSP are indicative only. Consistent with the Schedule detailed modelling to determine exact drainage areas will be completed at Local Structure Plan stage as part of an Urban Water Management Plan, refer Figure 8, note 5.

It is important to note that the detail of the open space function, landscape treatment and drainage design will be provided at Local Structure Plan stage. Public open space credits will be confirmed at Local Structure Plan stage in accordance with this detail and the policy requirements. Levels of embellishment will be commensurate with the open space area's importance and function in the hierarchy.

7.3.1 Multiple Use (MU)

Multiple use corridors will serve a drainage and recreation function, providing opportunities for passive recreation via walk trails, informal play and seating areas. Planting of structural vegetation will be predominately mixes of native species. Existing vegetation will be retained where possible. Multiple use corridors provide for drainage through landscaped drainage swales / basins, forming drainage channels (refer Local Water Management Strategy).

7.3.2 Local Active and Passive Open Space (LA/LP)

Local active open space areas are located adjoining school sites and will serve an active recreation function for schools and the community with a particular emphasis on junior sports and training facilities. The location, area and distribution of these has been discussed with Department for Education and Training. The local open space areas co-located with the primary schools will be approximately 3 hectares, flat and free of encumbrances. The open space co-located with the High School, Primary School and Educational Support will be approximately 5 hectares, flat and free of encumbrances. All other active open space will be a minimum of 2.6ha and rectangular in shape.

Detailed landscape plans are required at Local Structure Plan stage to demonstrate useability of active open space areas.

7.3.3 Local Open Space – Drainage (D)

Local open space – drainage areas predominately serve a drainage function (refer Local Water Management Strategy). These areas will include landscaped drainage swales or basins, designed as an integral component of the landscape, serving an aesthetic and passive recreation function. The local open spaces will include incidental seating and associated park elements.

7.3.4 Wetlands (W/WB)

Wetland 104 (Resource Enhancement Dampland) and the northern intact portion of Wetland 127 (Resource Enhancement Sumpland) will be retained (refer Local Water Management Strategy). There are no Conservation Category Wetlands within the Structure Plan area which require retention. The wetland core has been treated as a deduction from the Gross Area and does not form part of the credited public open space contribution.

An interim 50 metre buffer has been shown to Wetlands 104 and 127 for Structure Planning purposes. The wetland buffers will be determined at Local Structure Plan stage in accordance with the Draft Guidance Statement 33 Environmental Guidance for Planning and Development (EPA, 2005) and the Draft Guideline for Determination of Wetland Buffer Requirements (WAPC, 2005) (refer Local Water Management Strategy). The existing buffers to these wetlands are significantly degraded and have been used for grazing purposes for many years. Wetland buffers (width to be determined) will be rehabilitated and serve a passive recreation function with paths and seating areas (refer Appendix Three), as well as perform a drainage function.

7.3.5 Conservation (C)

Vegetation survey work has identified the potential for a Threatened Ecological Community (TEC) of floristic community type (FCT) 20a (Banksia attenuata woodland over species of rich dense shrublands) partially on Lots 350, 345 and 353 with a total area of approximately 3.04 hectares, refer Appendix Four. Given its degraded state several studies have indicated that it is unlikely to be TEC on the Structure Plan. The City of Swan and Department of Environment have advised that the possible TEC shall be retained in public open space.

The (possible) conservation area could serve a passive recreation function, with pathways, seating and interpretive signage. The (possible) conservation area will form part of the integrated open space system with St Leonards Creek and Local Open Space.

7.3.6 St Leonards Multiple Use (StL)

St Leonards Creek is an existing drainage line that will be retained and rehabilitated to serve a recreation and drainage function (refer Local Water Management Strategy). St Leonards creek will be retained with a 30 metre buffer (measured from the winter high water level). A managed interface to St Leonards Creek is encouraged, including roads and paths as well as integrated and controlled built form.

St Leonards Creek will be integrated with the (possible) conservation area and local active open space adjoining the Primary School to form an integrated open space network with a connected path system. Public Open Space design will incorporate devices such as cut off swales and drains, dwarf retaining structures and plant species selection to ensure effective nutrient management from the local active open space protecting the integrity of St Leonards Creek, refer Section 9.5.4 of the LWMS (Appendix 3).

7.3.7 Bush Forever and Parks and Recreation (BF/P&R)

Bush Forever Site 200 adjoins the southern boundary of the District Structure Plan area, outside of the DSP area. The Bush Forever site has been transferred to the WAPC. Despite this, the Bush Forever Site will serve important passive recreation and conservation functions where managed access and interpretation can provide a valuable public amenity, refer Bushland Management Plan.

There is a 10.17ha portion of land reserved for Parks and Recreation under the MRS, not included as part of Bush Forever Site 200, between the existing Lord Street alignment and the Perth Darwin Highway Reservation owned by the Western Australian Planning Commission (Lot 94). This land is outside the District Structure Plan area and does not form part of the credited public open space.

7.3.8 Neighbourhood Parks

Neighbourhood Parks will comprise the balance of the 10% public open space provision. The size, location and orientation of Neighbourhood Parks will be confirmed following detailed design as they are dependant on the subdivision layout.

The key design and utility objectives of Neighbourhood Parks are:

- To provide local open space for surrounding residents;
- Serve an informal kick-about and playground function;
- Perform a passive recreation function;
- Serve an integrated drainage function where required via open, shallow, landscaped swales (water sensitive urban design), and;
- Generally low maintenance in design with native plant species selection.

7.4 Public Open Space Schedule

Consistent with the public open space strategy outlined above and Figure 11, Table 8 sets out the Albion Structure Plan Public Open Space Schedule. The Schedule reflects the spatial distribution and approximate land area for public open space within the DSP under the abovementioned open space categories.



TABLE 8: PUBLIC OPEN SPACE SCHEDULE (refer Fig.11)

Category	Local Structure Plan Area	Location	Gross Area (ha)
Local Active/Passive Open Space (LA/LP)	LSP1	LA1a	3.10
		LP1b	2.48
		LP1c	2.71
	Total LSP1		8.29
	LSP2	LA2	5.87
		Total LSP2	5.87
	LSP3	LA3	3.16
		Total LSP3	3.16
	SUB TOTAL		17.32
	Multiple Use (MU)	LSP1	MU1
MU2			4.04
MU3			1.50
MU4			0.89
Total LSP1		7.65	
LSP3		MU5	1.90
		MU6	2.90
Total LSP3		4.80	
SUB TOTAL		12.45	
St Leonards Multiple Use	LSP3		11.30
	SUB TOTAL		11.30
Conservation (C)	LSP3	C1	3.00
	SUB TOTAL		3.00
Wetland Buffer (WB)	LSP1	WB1a	1.58
		Total LSP1	1.58
	LSP 3	WB2	3.12
		Total LSP3	3.12
SUB TOTAL		4.70	
Wetland Core (W)	LSP1	W1a	1.59
		Total LSP1	1.59
	LSP3	W1b	0.91
		W2	2.69
	Total LSP3	3.60	
SUB TOTAL		5.19	
Local Open Space/ Drainage (D)	LSP1	D1	1.20
		Total LSP1	1.20
	LSP2	D2	1.30
		D3	0.97
		D4	1.52
		Total LSP2	3.79
	SUB TOTAL		4.99
TOTAL POS LSP1		20.31	
POS LSP1 (% of GSA refer Table 4)		11.37%	
ADDITIONAL POS PROVIDED AT LSP to 10% (Neighbourhood Parks)			
TOTAL POS LSP2		9.66	
POS LSP2 (% of GSA refer Table 4)		11.14%	
ADDITIONAL POS PROVIDED AT LSP to 10% (Neighbourhood Parks)			
TOTAL POS LSP3		28.98	
POS LSP3 (% of GSA refer Table 4)		22.29%	
ADDITIONAL POS PROVIDED AT LSP to 10% (Neighbourhood Parks)			
TOTAL AREA		58.95	
POS % of GSA		14.74%	

Notes:

1. Accreditation to a particular space is subject to detailed design and landscape concept plans at Local Structure Plan stage, demonstrating its function and usability for recreational purposes to the satisfaction of the City and WAPC. 2. 100% credit will be accepted for Multiple Use open spaces where inundation was not experienced more regularly than 1 in 5 years (as per R26 of Liveable Neighbourhoods), serves a connection function and is fully usable for a recreation function to the satisfaction of the City and WAPC. Otherwise up to 50% credit will be accepted where inundation was experienced more regularly than 1 in 5 years.
2. The areas shown in this table are indicative and are to be used as a guide to inform local structure planning.

7.5 Ongoing Public Open Space Planning

The following additional Public Open Space information will be provided at Local Structure Plan stage, to be approved by the City of Swan:

- Location and distribution of neighbourhood parks, in accordance with the principles outlined in Section 7.2;
- Preliminary landscape design concepts, setting out key design features and principles (where development is proposed);
- Landscape management regime and asset schedule (to be refined following detailed design at development application stage, where development is proposed), and;
- Whole of life maintenance costings for all open space areas within the Local Structure Plan area (where development is proposed).



8.0 EDUCATION

8.1 Overview

A number of discussions have been held with the Department for Education (DoE) regarding the provision and distribution of school sites within the Albion District Structure Plan area and their relationship to the Sub Regional area (refer Appendix 9). A Schools Position Paper was prepared by City of Swan in conjunction with DoE as part of the Sub Regional planning process. The number, location and catchments for the schools has been defined as part of this process and these discussions and position paper form the basis for this section.

8.2 School Sites

In accordance with WAPC Policy DC 2.4 School Sites the estimated single residential lot yield of approximately 5 500 lots within the Structure Plan area requires the provision of three Primary Schools. Each Primary School has been located centrally to the Local Structure Plan area which form logical catchments.

Primary School sites have been co-located with Public Open Space, allowing for junior ovals to be shared school and community active open space facilities. Detailed landscape designs shall be prepared at Local Structure Plan stage for co-located public open space pursuant to Section 7.5. In addition to this Primary Schools are adjoining and/or in close proximity to the Centres, allowing for the creation of integrated, walkable catchments.

As required by DoE, at least three road frontages will be provided to all primary school sites. All school sites and open space are located outside the gas pipeline sensitive land use buffer.

The following provides a more detailed discussion with regard to the background to the School sites.

8.2.1 North East Primary School (LSP3)

A 3.5ha primary school site is provided in the north east area of the District Structure Plan adjoining 3.0ha of share public open space. The primary school is central to its catchment and Figure 8 currently shows the Primary School adjoining St Leonards Creek.

Since allocation of the Primary School site in this location, the Department of Education (DoE) has reviewed the site from a geotechnical perspective. It has been established that the north east primary school site is to be relocated within the subject landowners land holdings to an area which achieves the DoE geotechnical and population catchment requirements and such relocation should facilitate maximum road frontage to co-located public open space (ie. the public open space should not be located adjacent to St Leonards Creek). The final location of the north east primary school is to be determined in consultation with the DoE prior to finalisation of a local structure plan for this locality.

There are significant advantages in locating the primary school in this general location/configuration, including that it is

- Located central to the LSP3 catchment, both north and south of St Leonards Creek;
- Accessible via a connection across St Leonards Creek;
- Outside the gas pipeline sensitive land use buffer area;
- Over one land ownership;
- The configuration and site size requirements can be easily accommodated around drainage and road reservation constraints;
- There are efficiencies in land use by co-locating the open space and primary school; and
- It is co-located with the local centre, allowing for the creation of an integrated, walkable catchment.

8.2.2 North West Primary School (LSP1)

The north west primary school is located central to the LSP1 catchment. The DoE have supported the location of this primary school as shown on the District Structure Plan. DoE have required that this school site not be located directly adjoining the Activity Corridor given anticipated traffic volumes. DoE and City of Swan required that this primary school be 4.5ha with 3ha co-located open space given it is serving a larger catchment to the other primary schools.

8.2.3 K-12 Educational Precinct (LSP2)

One High School site is required to be provided in the District Structure Plan area. DoE have indicated that this will serve the Albion and West Swan catchments north of Reid Highway. Consequently the High School has been located south of and adjoining Youle Dean Road, within easy access of Henley Brook Avenue and Lord Street to serve the southern portion of the catchment.

The High School site will be part of an integrated K – 12 complex with a total area of 22 hectares, including a Primary School (3.5 hectares), an Educational Support facility (1.5 hectares) and High School (12 hectares), the only one of its kind in the North-East Corridor. This integrated facility includes 5 hectares of shared use public open space for junior and senior ovals, for use by the High School, Educational Support, Primary School and community.

The detailed layout of this precinct will be refined with DoE and City of Swan at Local Structure Plan stage.



Importantly the DoE have advised that the areas for the school sites shown on the Structure Plan and outlined above are based on the following assumptions:

- The Public Open Space being a regular shape;
- The Public Open Space being located to directly adjoin the High School and Primary School; and
- The Primary School having road frontage on three sides.



9.0 COMMERCIAL

9.1 Albion Centres Strategy

Shrapnel Urban Planning have prepared a Centres Strategy for the Albion District Structure Plan, refer Appendix Eight. The following summarises the key findings of the Centres Strategy and the implications for the Structure Plan.

The City of Swan's Commercial Strategy identifies one Large Neighbourhood Centre (retail floorspace 6000m² - 14500m² NLA) and two Local Centres (of up to 300m² NLA retail floorspace) in the Albion District Structure Plan area. The City's Strategy notes that the siting of centres is indicative only and will need to be determined as part of detailed Structure Planning for the locality.

Based on the estimated single lot yield of approximately 5 500 lots with an expected population of approximately 15 000 people within the District Structure Plan area, retail modelling has demonstrated demand and sufficient catchment for one Large Neighbourhood Centre of 10 000m² Net Leaseable Area (NLA) and three Local Centres.

At Local Structure Plan stage, Special Use zone provisions may be included, detailing permissible uses within the Albion Large Neighbourhood Centre and Local Centres to enable mixed-use and reflect permissible uses as per Appendix 1 of WAPC SPP 2.2 Gnangara Groundwater Protection.

9.1.1 Large Neighbourhood Centre (Town Centre)

The Albion District Structure Plan has one centrally located Large Neighbourhood Centre of 10 000m² NLA, referred to as the Albion Town Centre, at the intersection of Youle Dean Road and Partridge Street, with the bulk on the northern side of Youle Dean Road, corresponding to the location of the bulk of the catchment.

The Town Centre has been located to integrate with surrounding high density residential development (Residential R60 to R80), aged persons accommodation and open space. The Town Centre frames Partridge Street as an Activity Corridor, potentially accommodating future high frequency bus routes, as well as capitalising on exposure from Youle Dean Road.

The following is an indication of the composition of the Albion Town Centre (preliminary only):

- Two supermarkets of 6 000 m² NLA;
- Various Specialty Shops 3 000 m² NLA;
- Fast Food, Restaurants etc 1 000 m² NLA;
- As well as other non-retail uses such as small showrooms (pool supplies, lighting etc), local offices, medical, dental, child care, health club, small pub/tavern, residential and live/work accommodation.

The total retail floorspace of 10 000m² NLA is complemented and supported by an estimated 17 000m² NLA of showrooms, office and other Town Centre uses, refer Appendix 8b

Opportunities exist for the creation of a lively main street retail core focussed on Partridge Street, with provision for some car-orientated mixed business development fronting Youle Dean Road. The planning for the centre will also enable a relatively smooth transition from a predominately commercial to residential environment.

The planning objectives for the Large Neighbourhood Centre are:

- Main street based centre with uses addressing public spaces;
- Mixed use centre potentially accommodating retail, office, community, residential, aged persons/independent living and home based business opportunities;
- Reflect transit oriented development principles, refer Section 5.3
- To integrate higher density housing within the centre;
- Integrate the centre with the surrounding urban fabric through the location of compatible uses as well as pedestrian and cyclist permeability;
- To create quality built form, landscape and streetscapes within the centre;
- Treatment of the Activity Corridor to provide an integrated, pedestrian friendly environment;
- Permeable internal road layout;
- To integrate community facilities and privately provided social and community services (ie child care, leisure facilities); and
- Car parking distributed so as to not detract from the amenity of the centre and on street parking where possible.

The WAPC may require an Activity Centre Plan for the Albion Neighbourhood Centre, to be incorporated into a Local Structure Plan which seeks to zone the locality as contemplated in the draft 'Activity Centres Policy'. In addition to the planning objectives outlined in the DSP, the Local Structure Plan (or Activity Centres Plan, if required) which includes the Albion Neighbourhood Centre, shall address, inter alia, the permissible uses within the commercial zoning; the distribution of floor space allocations; required that showroom uses be located at the periphery of the town centre in a location which does not adversely impact on main street design objectives and the integration with the activity corridor; and address key access requirements from Youle Dean Road and the Partridge Street activity corridor.

9.1.2 Local Centres

Three indicative local centres are proposed within the Albion District Structure Plan and the Centres are classified as Small to Medium Local Centres under the City's Local Commercial Strategy, with a maximum retail floorspace of between 300m² - 520m² NLA each. In accordance with the Commercial Centre's Strategy, the provision of these centres is dependent on future market conditions.

9.1.3 Implementation

Planning for the centres will be refined, in consultation with the City of Swan, at Local Structure Plan and subdivision stage.

Design Guidelines and Detailed Area Plans will be prepared for the centres in conjunction with the City prior to creation of the lots (as a condition of subdivision approval) and will include details of:

- Land use precincts and commercial mix;
- Built form guidelines;
- Ancillary features and landscaping eg. Seating, lighting, bike parking;
- Integration with community facilities (either public or private);
- Car parking and traffic management, and
- Integration of mixed use residential.

Based on growth estimates for the Albion District Structure Plan area it is expected that approximately 5 000m² NLA of the Town Centre will be developed by 2016 and the balance complete by 2021. Approximately 450m² NLA of the Local Centres is expected to be developed by 2016 with the balance complete by 2021.

9.2 Local Employment

Providing a Large Neighbourhood Centre as well as three local centres the Albion District Structure Plan presents an opportunity to contribute to the objectives of sustainable development through the facilitation of local employment. The role and function of the Albion District Structure Plan area is as a catchment area support for the major centres in the Corridor, including Midland, Morley, Ellenbrook, Swan Valley, Perth Airport, Malaga, Bassendean, Midland and Hazelmere, Ashfield and Muchea

Based on modelling by Shrapnel Urban Planning, refer Appendix Eight, it is estimated that the Albion District Structure Plan will directly create approximately 1936 jobs, excluding construction jobs at establishment phase. Based on an anticipated population of approximately 15 000 people the employment self sufficiency ratio is 21%. In addition to this the expected population of 15 000 people will also boost local expenditure, creating growth and additional employment opportunities.



The HURIWA Research Report identifies employment opportunities in wholesale and retail trade, aged cared facilities, health facilities and home based business using hard and soft infrastructure near neighbourhood and local centres. It is also important to strengthen public transport links to existing employment areas and identify niche markets that could be exploited for new employment generation.

The HURIWA Research Report recommends that Albion be “broadband ready” to encourage the establishment of home based business.

10.0 COMMUNITY AND ECONOMIC DEVELOPMENT

The City of Swan Community & Economic Planning Policy requires the preparation of a Community & Economic Development Plan (CEDP). Clause 3.6 of the Policy sets out the requirements for the CEDP. The Albion CEDP is contained in Appendix 10.

The CEDP is based on the City of Swan Urban Growth Corridor - Sub Regional Planning and Community Facilities Analysis (December 2007). The key outcomes of this analysis was the requirement for the following community infrastructure in the Albion District Structure Plan area:

- 5000m² multi-purpose facility site in the Town Centre;
- 3000 - 4000m² multi-purpose facility site in the north east local centre (LSP3); and
- The City of Swan standards require a Pavillion within the K-12 Education Precinct, local active open space adjoining the north west and local active open space adjoining north east primary schools.

The City of Swan have proposed to fund this infrastructure through the Development Contribution Plan, which will be advertised to all landowners for comment.

The District Community and Economic Development provides a framework for refinement of detail at local Structure Plan stage. A Local Community Economic Development Plan will be prepared by each land owner at Local Structure Plan stage when more detail and input from landowners is available.



11.0 SERVICING AND INFRASTRUCTURE

11.1 Sewerage

The Water Corporation sewerage catchment strategy allows for the construction of four Waste Water Pump Stations (WWPS) and associated rising mains within the Structure Plan boundaries: one located generally in the centre of the north west quadrant; one to the south east of the north east quadrant; one generally to the central eastern side of the southern quadrant; and one adjacent to, and to the south east of, the intersection of Youle-Dean Road and Lord Street, see Figure 12.

A pump station is proposed by the developer on Lot 309. This is currently being finalised in liaison with the Water Corporation. The pump station was previously located on Lot 347 in accordance with the endorsed Water Corporation Servicing Strategy. For the purposes of Local Structure Planning and Subdivision, the final location of all pump stations will be endorsed by the Water Corporation. A site area of 20 m x 20 m with a 50 metre buffer is required from the proposed WWPS.

The sewerage WWPS and associated pressure mains (PM) are a capital works item for the Water Corporation provided they are constructed in the final position as agreed by the Water Corporation, and as such the costs are funded by the Developer and reimbursed by the Water Corporation as the project develops.

It is likely that a tankering agreement will also need to be set in place with the Water Corporation as a preliminary measure to achieve clearance for a Stage 1, due to the time frame required to gain design approvals and undertake civil construction of the WWPS and PM infrastructure.

11.2 Water Supply

The Water Corporation has confirmed that the development can be supplied via the construction of a 250mm water main from Gngangara Road southwards along the existing Lord Street reserve, eastwards along Park Road, and then southwards into the development, as shown on Figure 12. This temporary water main would be at the cost of the developer.

Further discussions will be held with the Water Corporation to discuss the possibility of constructing the ultimate 400/500mm ND water main south along the existing Lord Street, east along Park Road, and then south into the development landholding that will service the ultimate development. Should this be agreed by the Water Corporation, it would be prefunded by the developer and reimbursed over the agreed period of the Customer Constructed Works Agreement (normally expected to be 5 years).

The Water Corporation will want to ensure that capital works funding is prioritised in areas that are frontal, or will be utilising the capacity of the infrastructure in an economic timeframe. Further discussions will be held with the Water Corporation regarding funding of the infrastructure at subdivisional stage.

11.3 Gas

Gas is not an essential service, and as such will not be required as part of the Western Australian Planning Commission conditions of subdivision. It is recommended however, that gas be provided so that the development is “fully serviced”.

Alinta Gas has advised that the developers would need to pay for the construction of the 2.6 km of infrastructure to bring the service from Gnangara Road to the boundary of the development at a cost in the order of \$2 million to ensure the supply of gas to the development. The route is likely to follow the eastern side of the Lord Street reserve, along Park Road and then southwards into the development as shown on Figure 12. The cost of the internal reticulation to the lots is presently funded by Alinta (primarily since it is not an essential service), and is installed by the civil contractor, under an agreement with Alinta, at the same time as the other services during the staged construction.

Gas is currently being considered as an item in the Infrastructure Strategy for Development Contributions.

West Net Energy Management Team modelling has identified the necessary connection for a high pressure steel main from a point close to the junction of Pinaster Parade and Woodlake Boulevard in Ellenbrook to a point close to the northern edge of the development site.

11.4 Electricity

Western Power has confirmed that there is a servicing strategy to provide power to the Henley Brook Structure Plan as per the Sub Regional Structure Plan (February 2009). Over head 132kV power lines exist along Marshall Road, Lord Street, and along Woollcott Avenue.

The proposal to upgrade the Western Power infrastructure will include the construction of a 132 kV transmission line and a 1.4 ha electrical substation. The location of all required electrical infrastructure is subject to confirmation by Western Power

Recent correspondence from Western Power has confirmed that the substation can be located within Lot 10. The location of the substation within Lot 10, is outside the 800 metre buffer of the Local Neighbourhood Centre and therefore would not compromise the function of the Centre. The exact siting of the substation within Lot 10 will be reviewed by Western Power at a later date closer to the design and construction period.

The establishment of the Albion substation would necessitate the construction of a 132 kV transmission line connection to the existing Henley Brook substation and future Caversham substation (located on the corner of Marshall Road and Lord Street). Due to the presence of the existing Northern Terminal – Northam 132 kV transmission line along the Woollcott Avenue it would be likely that three circuits (one single circuit and a double circuit transmission line) would need to be positioned along Woollcott Avenue. Assuming that Lot 10 is identified as the substation site, Western Power has identified the following line routes



- Henley Brook Substation – Albion Substation 132 kV Transmission Line

The transmission line route would follow from Henley Brook substation along Lord Street, Park Street, Henley Brook Avenue to the Albion substation. Where applicable, the single circuit 132 kV transmission line would be constructed within or adjacent to the development area.

- Albion Substation – Caversham Substation 132 kV Transmission Line

The preferred line route would follow from Albion substation along Woollcott Avenue and Lord Street to Caversham substation. Where applicable the single circuit 132 kV transmission line would be constructed within or adjacent to the development areas.

The exact alignment of the 132 kV transmission lines will be assessed closer to the time of construction to determine the exact design and alignment.

The 132kV overhead power line needs to be located within an 18 metre wide corridor to provide a 9 metre buffer to adjoining development. There is an existing 132 kV overhead power line on the 2.7m alignment along the southern side of Woollcott Avenue that heads eastwards to the existing Northam terminal. This line will need to be upgraded to new concrete poles as part of the ultimate Western Power infrastructure planning. It is proposed that this line be constructed using running post design such that the power cables over hang the road pavement. The running post design is a standard design by Western Power, and is commonly used for the purpose of reducing buffer requirements for such infrastructure.

It is expected that at its existing 2.7 m alignment the power line insulator (to which the setback is measured), using the running post design, will be a distance of approximately 4.2 metres to the front boundary of an adjoining lot to the south. Therefore, with a 9 metre required buffer requirement, a minimum setback requirement of 4.8 metres will be prescribed for any development on lots adjoining Woollcott Road to the south. This buffer distance is demonstrated on the Figure 12. To ensure that all development on lots adjoining Woollcott Avenue meet the required buffer distance, Detailed Area Plans will be prepared over all lots affected by the 132 kV power transmission line buffer.

Provided that the development is considered "frontal", Western Power has a headworks reimbursement policy that reimburses the cost of HV infrastructure to the developer, at the Western Power internal rates. The reimbursement is calculated and is included as part of the Power Agreement quotation that is provided by Western Power at the time of the Conformance (approval) of the detailed design drawings.

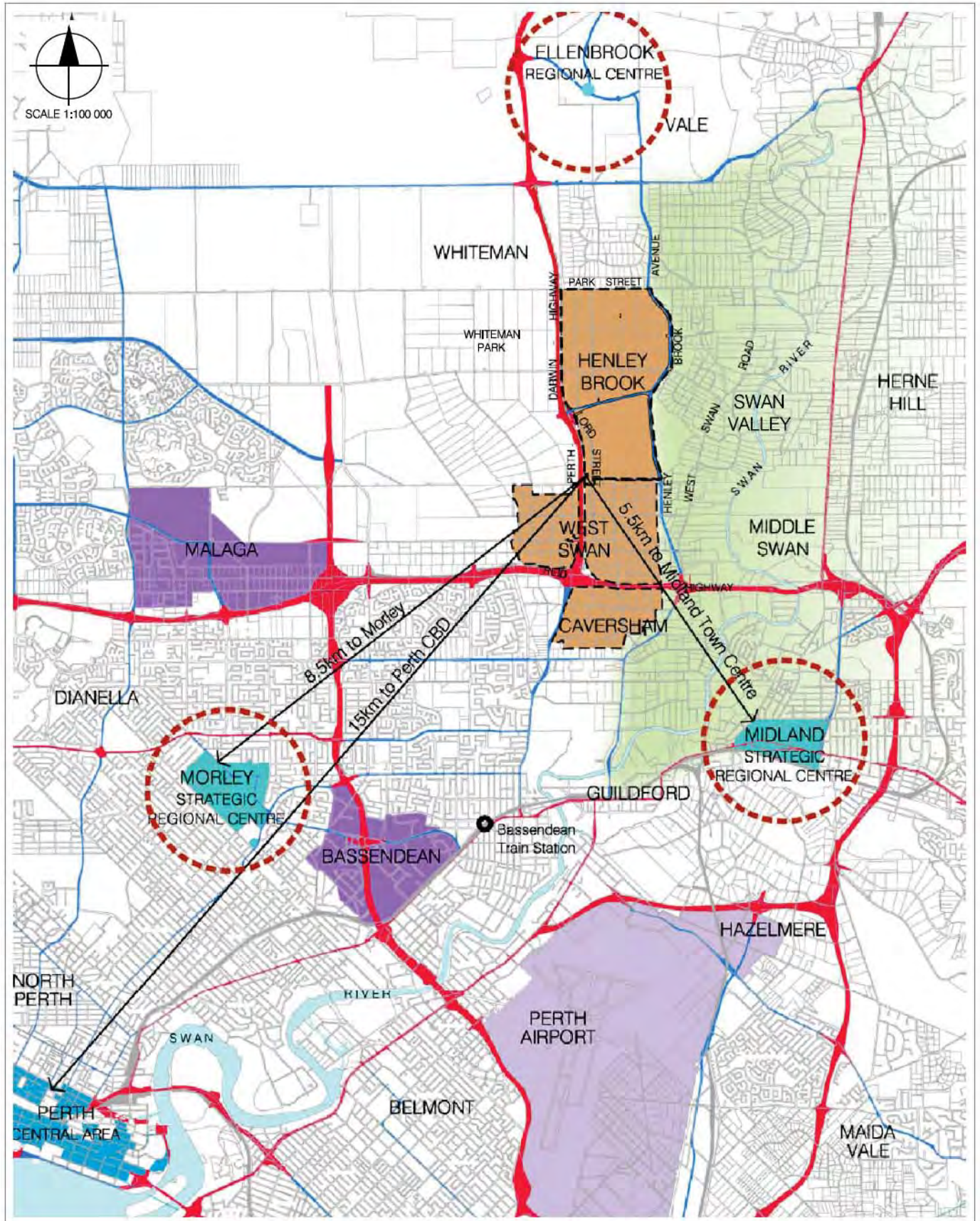
11.5 Telecommunications

It is understood that the exchange on Gngara Road and the continued expansion of the Ellenbrook exchange will mean that telecommunication services will be available in a timely manner. The telecommunication services are proposed to be brought southwards from Gngara Road along the eastern side of Lord Street reserve as shown on Figure 12.

Provision of MATV facilities will be determined by individual owners at Local Structure Plan and Subdivision stages and shall be provided in accordance with Clause 3.18 of the City of Swan Community and Economic Planning Policy (Policy No.1 Pol-C-105). Brookfield Multiplex has entered a servicing agreement with Telstra to provide high speed telecommunications to its developments on a national basis.

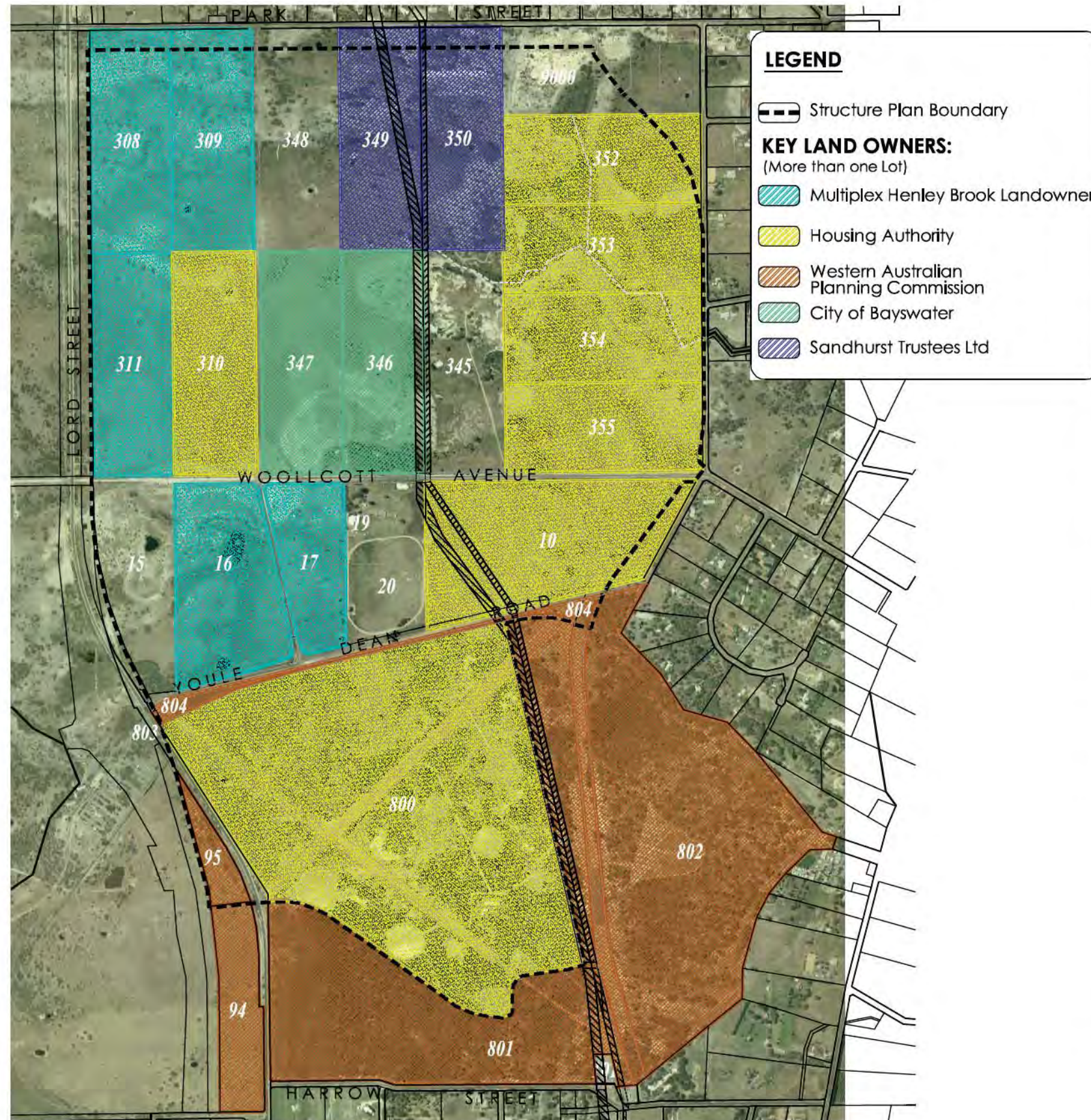


FIGURES



LOCATION PLAN

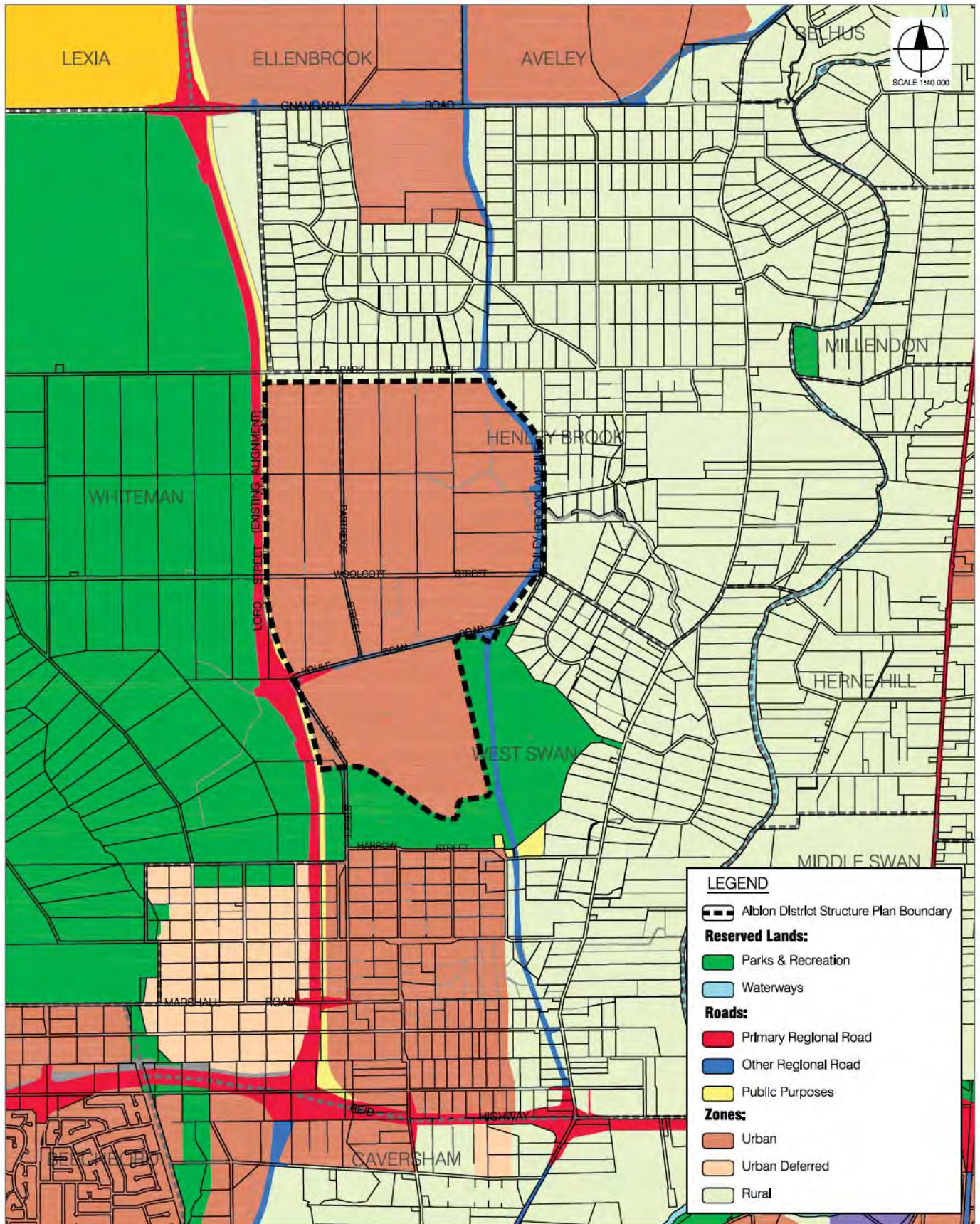
FIGURE 1



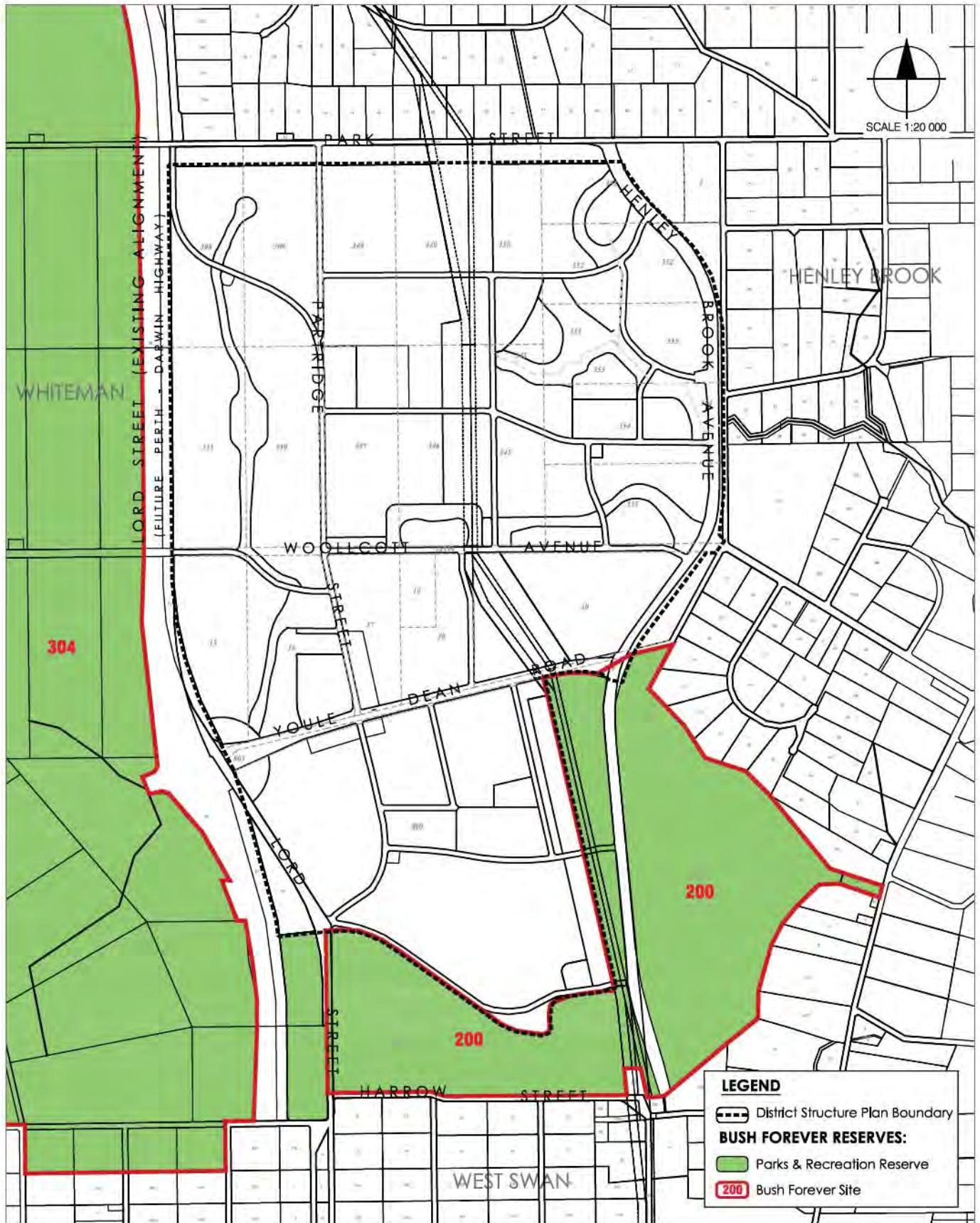
Lot	Plan/ Diagram	CT (Vol/Folio)	Address	Owner	Total Area (ha)**	Area Within Structure Plan
308	P4560-308	1368/417	Lot 308 Park Street, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	20.2798	18.2937
309	P4560-309	1596/810	311 Park St, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	20.3607	18.3639
310	P4560-310	1834/185	264 Woolcott Avenue, Whiteman	Housing Authority	20.5479	20.5479
311	P4560-311	1644/954	No Street Address Available	Multiplex Henley Brook Landowner Pty Ltd	20.2798	20.2798
345	P4560-354	1401/812	178 Woolcott Avenue, Henley Brook	Vincent Nominees Pty Ltd **	20.2090	20.2090
346	P4560-346	1404/359	226 Woolcott Avenue, Henley Brook	City of Bayswater **	20.2722	20.2722
347	P4560-347	1415/683 1389/783	254 Woolcott Avenue, Henley Brook	City of Bayswater City of Bayswater	20.2672	20.2672
348	P4560-348	1368/414	285 Park Street, Henley Brook	Emgekay Investments Pty Ltd Mnx Pty Ltd	20.2621	18.2584
349	P4560-349	1368/413	255 Park Street, Henley Brook	Sandhurst Trustees Ltd **	20.2874	18.2393
350	P4560-350	1368/412	225 Park Street, Henley Brook	Sandhurst Trustees Ltd **	20.2773	18.2534
9000	P55665-9000	2675/917	Lot 9000 Park Street, Henley Brook	Batson & McGill Pty Ltd	10.5508	8.3286
352	P4560-352	2189/144	Lot 352 Murray Road, Henley Brook	Housing Authority	19.6880	17.2560
353	P4560-353	2189/145	Lot 353 Murray Road, Henley Brook	Housing Authority	19.5362	19.4524
354	P4560-354	2189/146	Lot 354 Murray Road, Henley Brook	Housing Authority	19.5969	19.5969
355	P4560-355	292/41A	Lot 355 Murray Road, Henley Brook	Housing Authority	19.6804	19.5041
800	P53666-800	2654-348	No Street Address Available	Housing Authority	109.8019	109.8019
801	P53666-801	2654-349	No Street Address Available	Western Australian Planning Commission	62.1898	0.0000
802	P53666-802	2654-350	No Street Address Available	Western Australian Planning Commission	67.7336	0.0000
803	P53666-803	2654-351	No Street Address Available	Western Australian Planning Commission	0.0110	0.0110
804	P53666-804	2654-352	No Street Address Available	Western Australian Planning Commission	10.5936	3.5782
10	D33233-10	1410/95	111 Woolcott Avenue, Henley Brook	Housing Authority**	33.0502	30.2414
15*	D74426-15	1731/385	No Street Address Available	Belswan (Henley Brook) Pty Ltd	17.4578	15.1155
16	D59865-16	2045/259	47 Partridge St, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	22.1976	22.1976
17	D59866-17	1869/176	243 Woolcott Avenue, Henley Brook	Multiplex Henley Brook Landowner Pty Ltd	12.2045	12.2045
19	D83113-19	2103/662	Lot 19 Woolcott Avenue, Henley Brook	P & N Landreach Pty Ltd	3.5864	3.5864
20	D91765-20	2103/661	Lot 20 Woolcott Avenue, Henley Brook	Giuseppe Bellini ** Sandra Bellini **	10.7625	10.7625
101	D65712-101	1687/368	104 Harrow Street, West Swan	Epic Energy (WA) Nominees Pty Ltd of care of Alens Arthur Robinson	0.6885	0.0000
94	P22611-94	2134/985	No Street Address Available	Western Australian Planning Commission	10.0578	0.0000
95	P22611-95	2134/986	No Street Address Available	Western Australian Planning Commission	3.4457	3.4457
33	P4560	1680/54	No Street Address Available	Shire of Swan	3.0883	0.4944
Partridge	N/A	N/A	Partridge Street	Mainroads	N/A	4.1119
Woolcott	N/A	N/A	Woolcott Street	Mainroads	N/A	6.0523
Youle Dean	N/A	N/A	Youle Dean Road	Mainroads	N/A	3.1889
Lord	N/A	N/A	Lord Street	Mainroads	N/A	2.2218
TOTAL					658.9649	504.1368

** Affected by Gas Pipeline Easement ** Areas as per Certificate of title * Lord Street extension land area and applicable road widenings deducted.

ALBION LAND OWNERSHIP PLAN

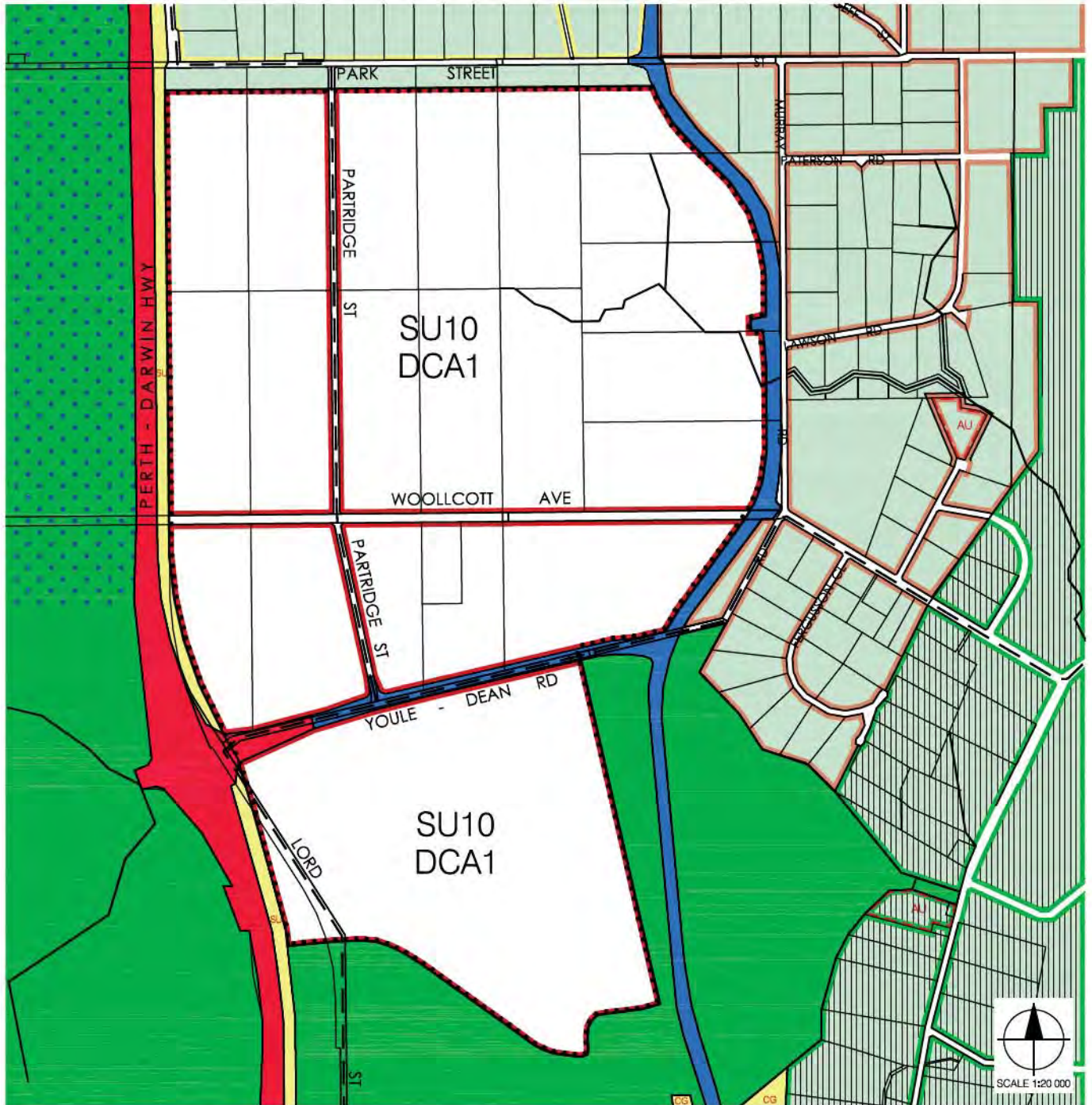


METROPOLITAN REGION SCHEME ZONING



BUSH FOREVER SITE





FIGURE 4







METROPOLITAN REGION SCHEME RESERVES

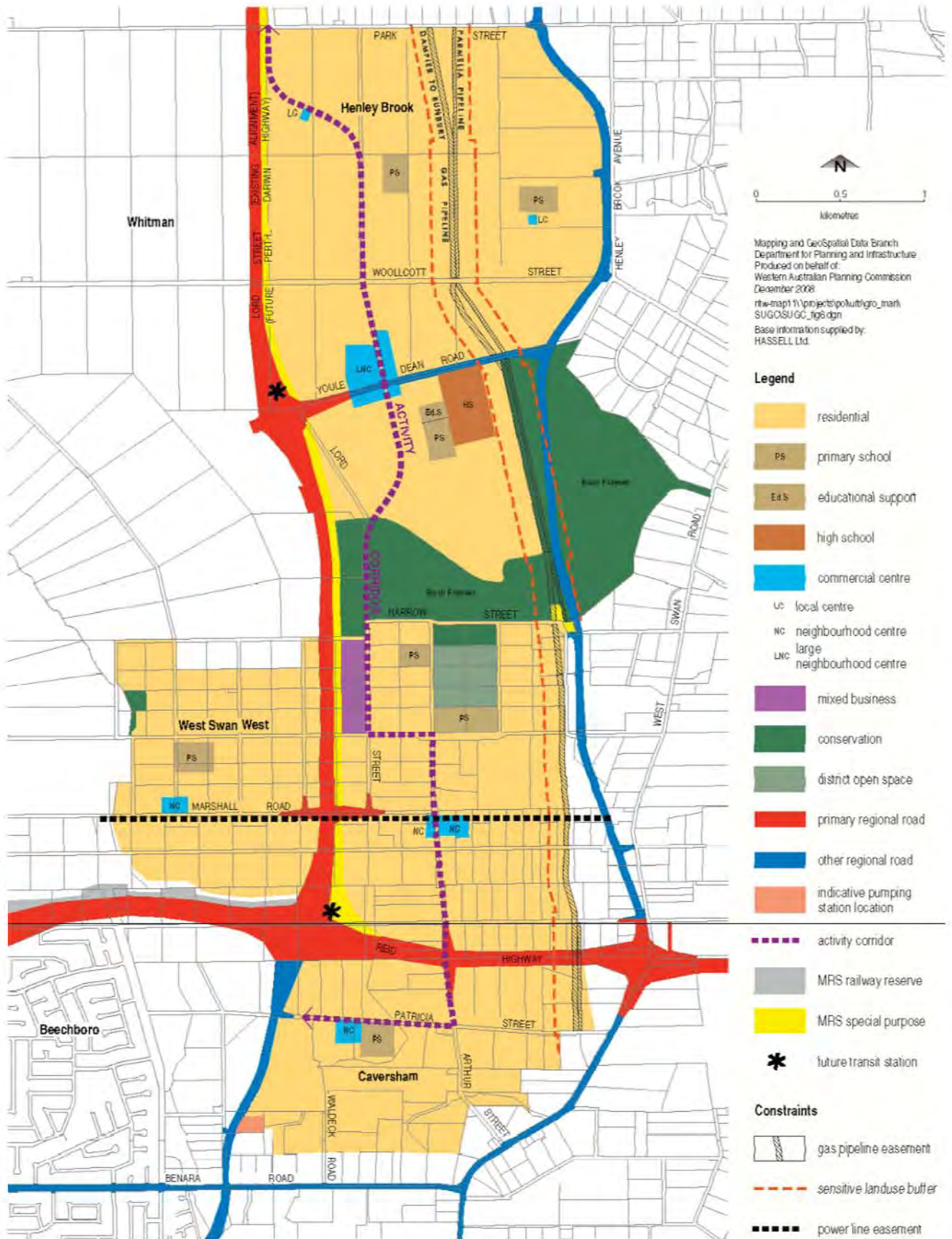
-  PARKS AND RECREATION
 -  PRIMARY REGIONAL ROAD
 -  OTHER REGIONAL ROAD
 -  WATER CATCHMENTS
 -  PUBLIC PURPOSE
- DENOTED AS FOLLOWS:
-  COMMONWEALTH GOVERNMENT
 -  SPECIAL USES

RURAL ZONES

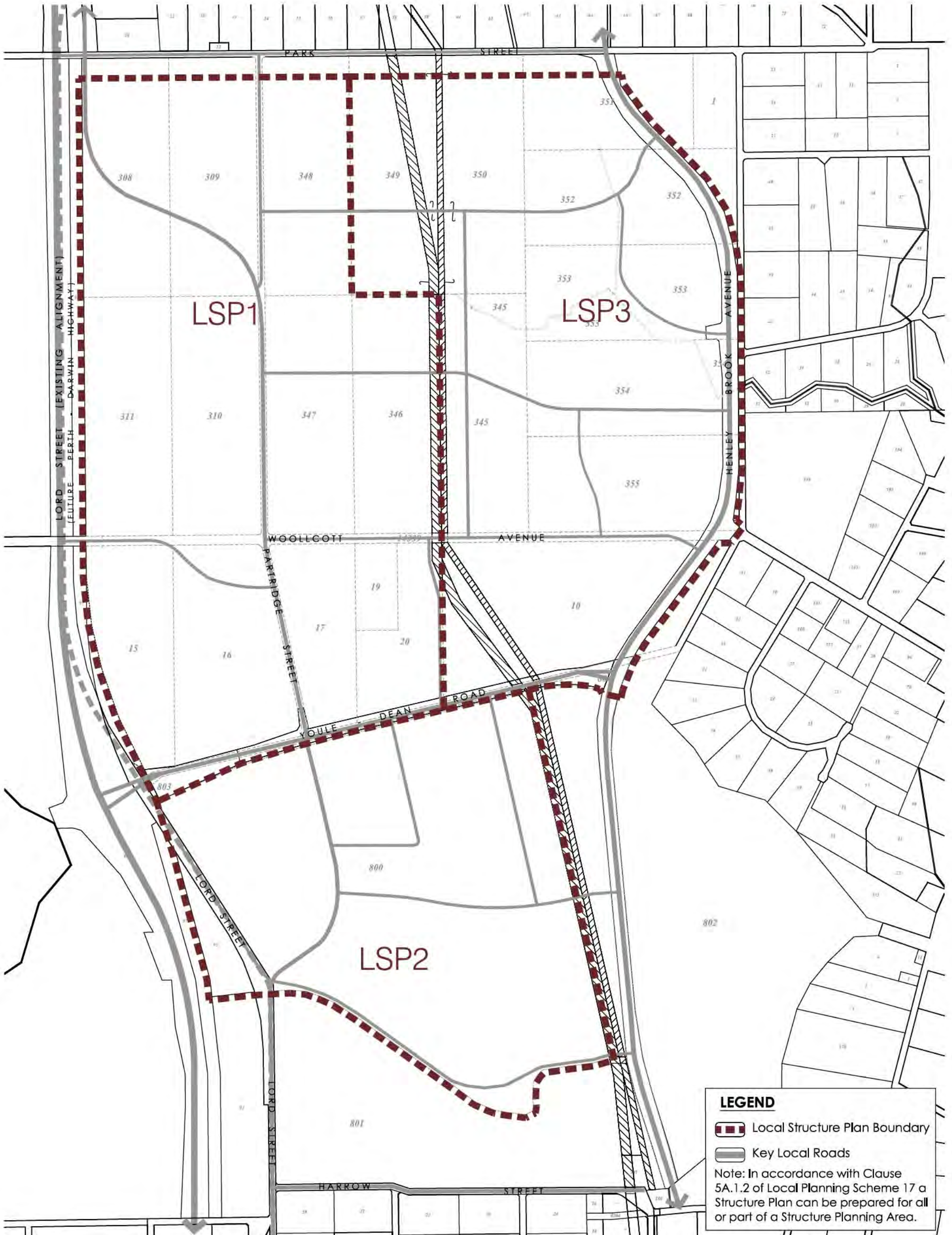
-  GENERAL RURAL
-  SPECIAL RURAL
-  SWAN VALLEY RURAL
-  RURAL RESIDENTIAL

OTHER

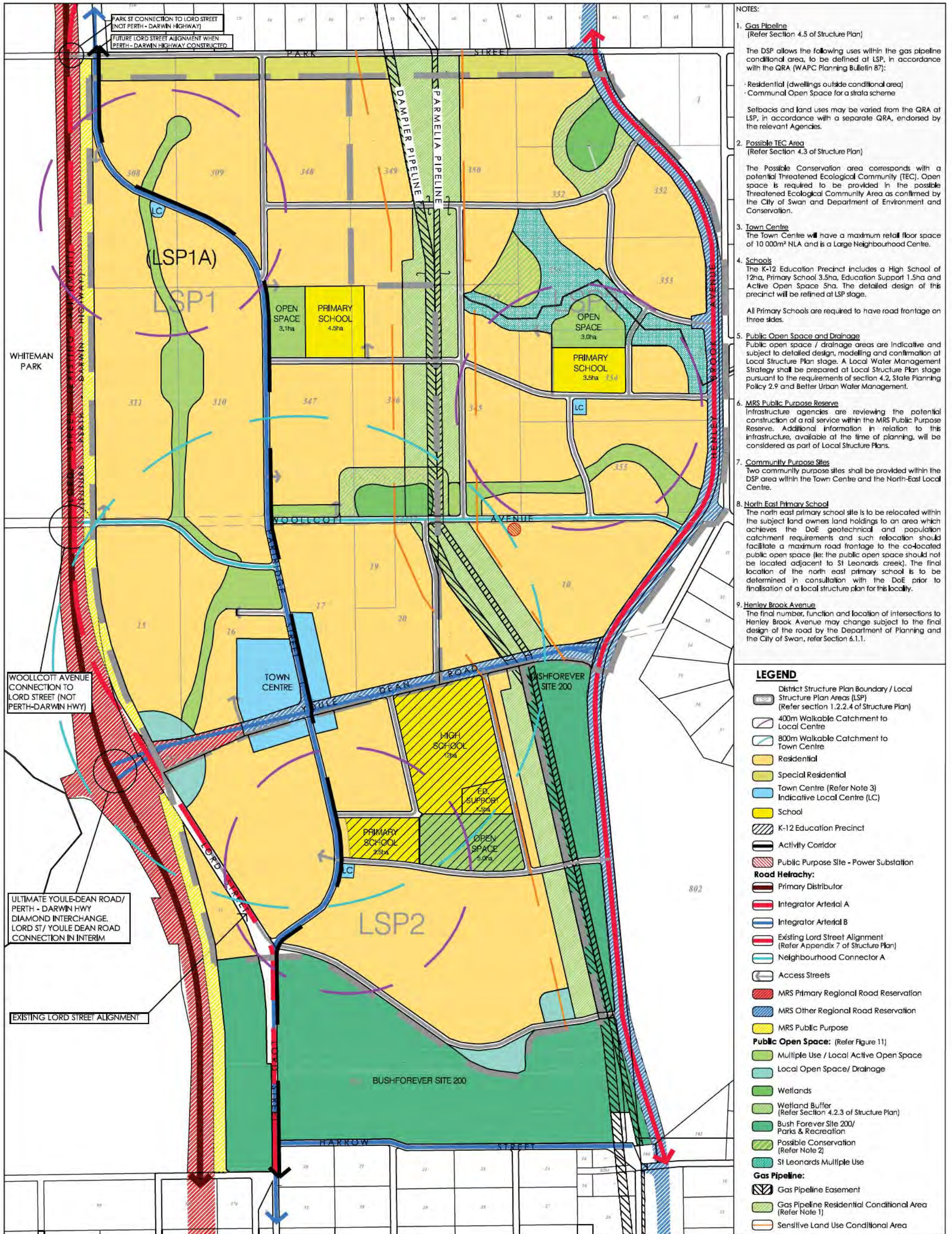
-  ADDITIONAL USE
-  SPECIAL USE AREA (SEE SCHEME TEXT)
-  DEVELOPMENT CONTRIBUTION AREA BOUNDARY (SEE SCHEME TEXT)
-  MUNICIPAL BOUNDARY



SUB REGIONAL STRUCTURE PLAN (Feb 2009)



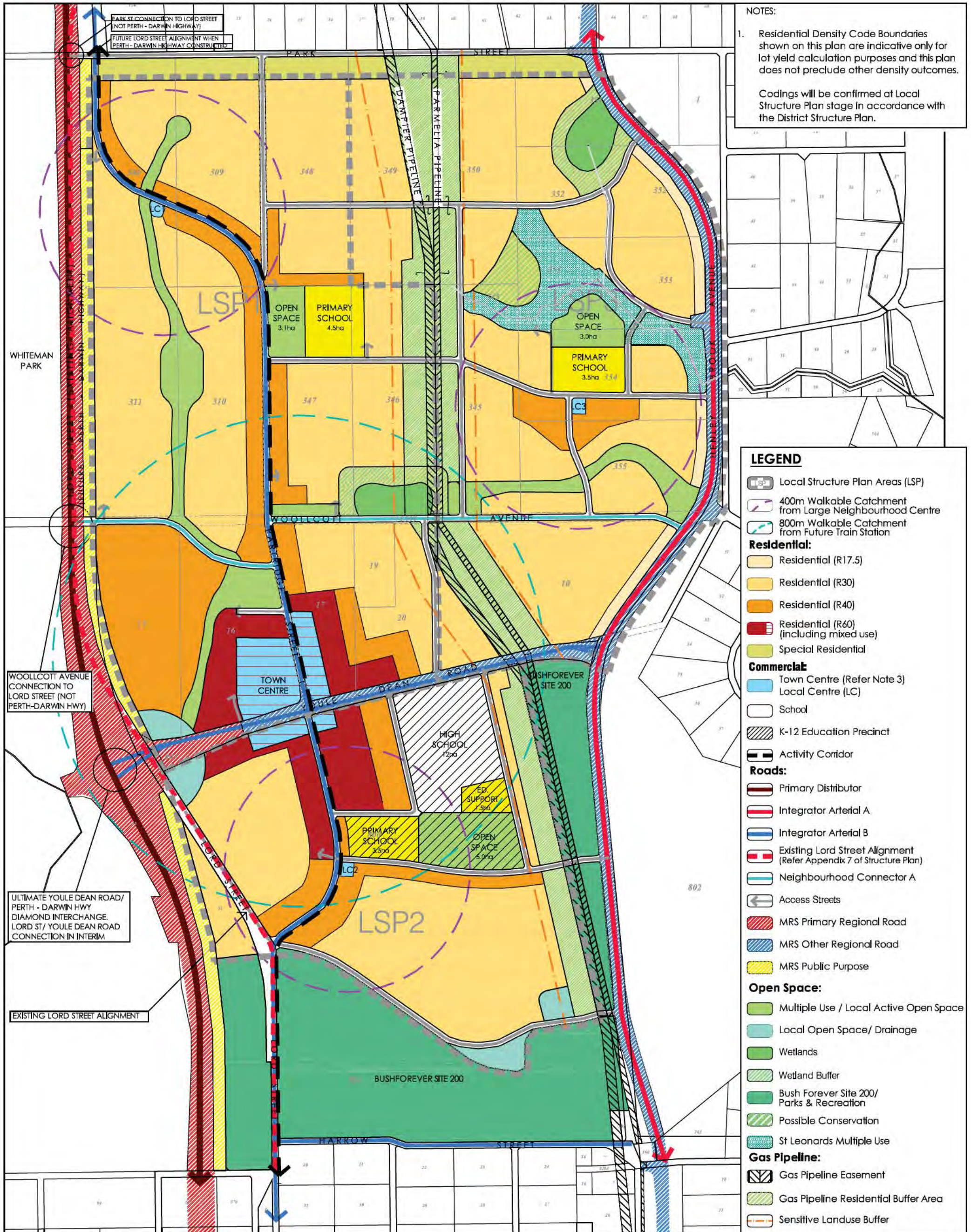
ALBION LOCAL STRUCTURE PLAN AREAS



- NOTES:**
- Gas Pipeline**
(Refer Section 4.5 of Structure Plan)
The DSP allows the following uses within the gas pipeline conditional area, to be defined as LSP, in accordance with the QRA (WAPC Planning Bulletin 87):
- Residential (dwellings outside conditional area)
- Communal Open Space for a strata scheme
Setbacks and land uses may be varied from the QRA at LSP, in accordance with a separate QRA, endorsed by the relevant Agencies.
 - Possible TEC Area**
(Refer Section 4.3 of Structure Plan)
The Possible Conservation area corresponds with a potential Threatened Ecological Community (TEC). Open space is required to be provided in the possible Threatened Ecological Community Area as confirmed by the City of Swan and Department of Environment and Conservation.
 - Town Centre**
The Town Centre will have a maximum retail floor space of 10 000m² NLA and is a Large Neighbourhood Centre.
 - Schools**
The K-12 Education Precinct includes a High School of 12ha, Primary School 3.5ha, Education Support 1.5ha and Active Open Space 5ha. The detailed design of this precinct will be refined at LSP stage.
All Primary Schools are required to have road frontage on three sides.
 - Public Open Space and Drainage**
Public open space / drainage areas are indicative and subject to detailed design, modelling and confirmation at Local Structure Plan stage. A Local Water Management Strategy shall be prepared at Local Structure Plan stage pursuant to the requirements of section 4.2, State Planning Policy 2.9 and Better Urban Water Management.
 - MRS Public Purpose Reserve**
Infrastructure agencies are reviewing the potential construction of a rail service within the MRS Public Purpose Reserve. Additional information in relation to this infrastructure, available at the time of planning, will be considered as part of Local Structure Plans.
 - Community Purpose Sites**
Two community purpose sites shall be provided within the DSP area within the Town Centre and the North-East Local Centre.
 - North East Primary School**
The north east primary school site is to be relocated within the subject land owners land holdings to an area which achieves the DoE geotechnical and population catchment requirements and such relocation should facilitate a maximum road frontage to the co-located public open space (ie: the public open space should not be located adjacent to St Leonards creek). The final location of the north east primary school is to be determined in consultation with the DoE prior to finalisation of a local structure plan for this locality.
 - Henley Brook Avenue**
The final number, function and location of intersections to Henley Brook Avenue may change subject to the final design of the road by the Department of Planning and the City of Swan, refer Section 6.1.1.

LEGEND

- District Structure Plan Boundary / Local Structure Plan Areas (LSP) (Refer section 1.2.2.4 of Structure Plan)
- 400m Walkable Catchment to Local Centre
- 800m Walkable Catchment to Town Centre
- Residential
- Special Residential
- Town Centre (Refer Note 3)
- Indicative Local Centre (LC)
- School
- K-12 Education Precinct
- Activity Corridor
- Public Purpose Site - Power Substation
- Road Hierarchy:**
 - Primary Distributor
 - Integrator Arterial A
 - Integrator Arterial B
 - Existing Lord Street Alignment (Refer Appendix 7 of Structure Plan)
 - Neighbourhood Connector A
 - Access Streets
 - MRS Primary Regional Road Reservation
 - MRS Other Regional Road Reservation
 - MRS Public Purpose
- Public Open Space:** (Refer Figure 11)
 - Multiple Use / Local Active Open Space
 - Local Open Space/ Drainage
 - Wetlands
 - Wetland Buffer (Refer Section 4.2.3 of Structure Plan)
 - Bush Forever Site 200/ Parks & Recreation
 - Possible Conservation (Refer Note 2)
 - St Leonards Multiple Use
- Gas Pipeline:**
 - Gas Pipeline Easement
 - Gas Pipeline Residential Conditional Area (Refer Note 1)
 - Sensitive Land Use Conditional Area



INDICATIVE RESIDENTIAL DENSITY CODINGS



NOTES:

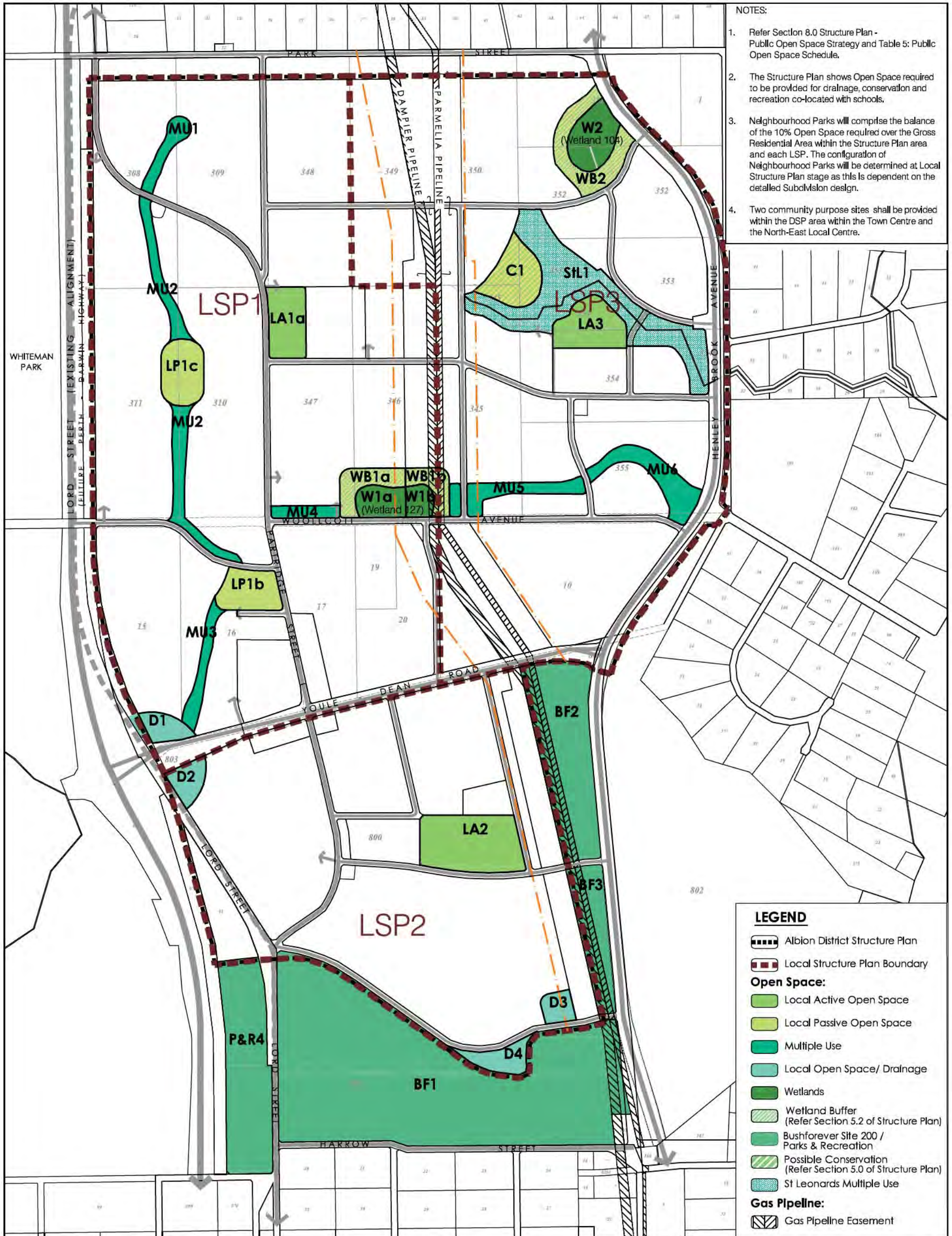
1. Lot yield estimates are indicative only and are based on a mathematical calculation. Lot yields will be subject to change at subdivision detailed design stage.
2. Refer Section 5.5 of Structure Plan for assumptions.

LEGEND

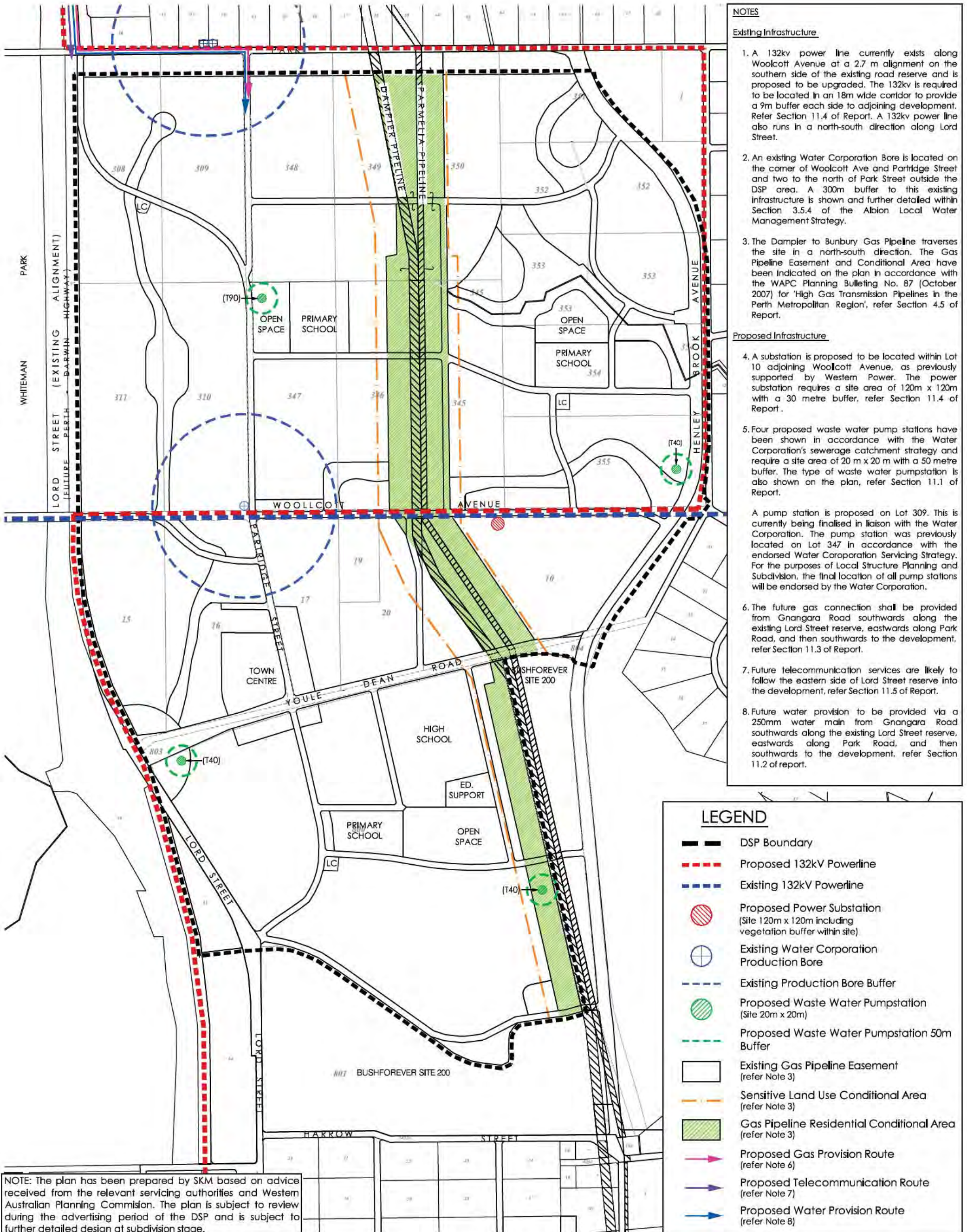
Open Space:

- Lot Yield Precinct (Refer Table 6)
- District Structure Plan Boundary

YIELD PRECINCT PLAN
FIGURE 10



ALBION PUBLIC OPEN SPACE STRATEGY



NOTES

Existing Infrastructure

1. A 132kV power line currently exists along Woolcott Avenue at a 2.7 m alignment on the southern side of the existing road reserve and is proposed to be upgraded. The 132kV is required to be located in an 18m wide corridor to provide a 9m buffer each side to adjoining development. Refer Section 11.4 of Report. A 132kV power line also runs in a north-south direction along Lord Street.
2. An existing Water Corporation Bore is located on the corner of Woolcott Ave and Partridge Street and two to the north of Park Street outside the DSP area. A 300m buffer to this existing infrastructure is shown and further detailed within Section 3.5.4 of the Albion Local Water Management Strategy.
3. The Dampier to Bunbury Gas Pipeline traverses the site in a north-south direction. The Gas Pipeline Easement and Conditional Area have been Indicated on the plan in accordance with the WAPC Planning Bulletin No. 87 (October 2007) for 'High Gas Transmission Pipelines in the Perth Metropolitan Region', refer Section 4.5 of Report.

Proposed Infrastructure

4. A substation is proposed to be located within Lot 10 adjoining Woolcott Avenue, as previously supported by Western Power. The power substation requires a site area of 120m x 120m with a 30 metre buffer, refer Section 11.4 of Report.
5. Four proposed waste water pump stations have been shown in accordance with the Water Corporation's sewerage catchment strategy and require a site area of 20 m x 20 m with a 50 metre buffer. The type of waste water pumpstation is also shown on the plan, refer Section 11.1 of Report.

A pump station is proposed on Lot 309. This is currently being finalised in liaison with the Water Corporation. The pump station was previously located on Lot 347 in accordance with the endorsed Water Corporation Servicing Strategy. For the purposes of Local Structure Planning and Subdivision, the final location of all pump stations will be endorsed by the Water Corporation.
6. The future gas connection shall be provided from Gnangara Road southwards along the existing Lord Street reserve, eastwards along Park Road, and then southwards to the development, refer Section 11.3 of Report.
7. Future telecommunication services are likely to follow the eastern side of Lord Street reserve into the development, refer Section 11.5 of Report.
8. Future water provision to be provided via a 250mm water main from Gnangara Road southwards along the existing Lord Street reserve, eastwards along Park Road, and then southwards to the development, refer Section 11.2 of report.

LEGEND

- DSP Boundary
- Proposed 132kV Powerline
- Existing 132kV Powerline
- ⊗ Proposed Power Substation (Site 120m x 120m including vegetation buffer within site)
- ⊕ Existing Water Corporation Production Bore
- Existing Production Bore Buffer
- ⊗ Proposed Waste Water Pumpstation (Site 20m x 20m)
- Proposed Waste Water Pumpstation 50m Buffer
- Existing Gas Pipeline Easement (refer Note 3)
- Sensitive Land Use Conditional Area (refer Note 3)
- Gas Pipeline Residential Conditional Area (refer Note 3)
- Proposed Gas Provision Route (refer Note 6)
- Proposed Telecommunication Route (refer Note 7)
- Proposed Water Provision Route (refer Note 8)

NOTE: The plan has been prepared by SKM based on advice received from the relevant servicing authorities and Western Australian Planning Commission. The plan is subject to review during the advertising period of the DSP and is subject to further detailed design at subdivision stage.

ALBION (BRABHAM) DISTRICT STRUCTURE PLAN

AMENDMENT ONE



ALBION (BRABHAM) DISTRICT STRUCTURE PLAN

ADDENDUM REPORT

ALBION (BRABHAM) DISTRICT STRUCTURE PLAN - AMENDMENT 1
ADDENDUM REPORT

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2142Rep750
February 2017



Stockland
it's your place



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EXECUTIVE SUMMARY
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Located within Perth's developing north-east corridor, the suburb of Brabham is planned to accommodate substantial population growth over the next decade as Perth grows to a city of 3.5 million people by the year 2050. The current and future development of Brabham is coordinated by the overarching Albion (Brabham) District Structure Plan, which spatially identifies land for residential development, major infrastructure items and the location of key public amenities such as shops and schools. A key feature of the current District Structure Plan is a Neighbourhood Centre within a central catchment, located on the intersection of two major roads. Activity centres by nature are community focal points that include a range of activities including retail, commercial, higher density housing as well as entertainment and community facilities. The planned activity centre for Brabham will therefore be a critical economic and social hub for the community providing shopping, recreational and employment opportunities, fostering a sense of community and local identity.

Given the important role of the activity centre, it is critical to ensure that the size of the centre is sufficient to meet the current and future needs of the surrounding community. Development of Brabham is substantially commenced however, the majority of the District Structure Plan area is still to be developed. Based on the fact that the current and projected number of dwellings within Brabham has substantially exceeded the yield that was originally anticipated, there is a strong case for a larger activity centre than what was envisaged in the original District Structure Plan 8 years ago. This case is recognised and supported in the current State and local strategic planning framework for the Brabham area. Stockland, as the developer of the activity centre, has also identified the need for a broader retail offering and improved local employment opportunities in the Brabham area, and is keen to deliver a district level centre in keeping with the strategic planning framework. The first step in delivering this District Centre is to amend the District Structure Plan in order to align the statutory planning framework with the higher level strategic planning for the area.

The purpose of this report is to support an amendment to the District Structure Plan to increase the size of the activity centre from a 'Large Neighbourhood' to a 'District' level centre to provide a level of services and facilities capable of accommodating the projected population for Brabham. The proposed amendment is underpinned by a robust assessment of the potential impacts that a larger activity centre will have on the existing and planned retail facilities in the locality, as well as an assessment of the potential traffic implications on the existing and planned road network. As demonstrated by the Retail Sustainability Assessment and Traffic Impact Assessment appended to this report (Appendices 2 & 3 respectively), the proposed increased centre size does not unreasonably impact upon the commercial viability of other centres in the locality and does not generate sufficient additional traffic volumes to warrant any significant changes to existing and planned roads or intersections. Further, this report demonstrates that the proposed increased centre size is consistent with the strategic planning framework for activity centres within the north-east corridor.

At ultimate development, the larger District Centre will provide a greater range of retail and commercial amenities that will fulfil both a practical and recreational function for the local community. The ability for the District Centre to provide additional areas of high density housing whilst accommodating a district level community facility will further assist to foster a sense of place and identity for the community. Combined with the retail land uses, other commercial uses will provide an important source of local employment opportunities assisting to reduce travel times and the need to commute to places of employment. The social, economic and environmental benefits of the proposed increased activity centre are numerous and discussed in further detail within this report.

This report does not replace, but rather forms an addendum to the DSP report (CLE reference 2142Rep38G) that was endorsed by the Western Australian Planning Commission (WAPC) in January 2011.

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1.0 PURPOSE AND SCOPE OF AMENDMENT

The purpose of this report is to seek an amendment to the Albion (Brabham) District Structure Plan ("the DSP") on behalf of Stockland Developments in order to modify the designation of the retail centre from a Large Neighbourhood Centre, to a District Centre consistent with *State Planning Policy 4.2 - Activity Centres for Perth and Peel*.

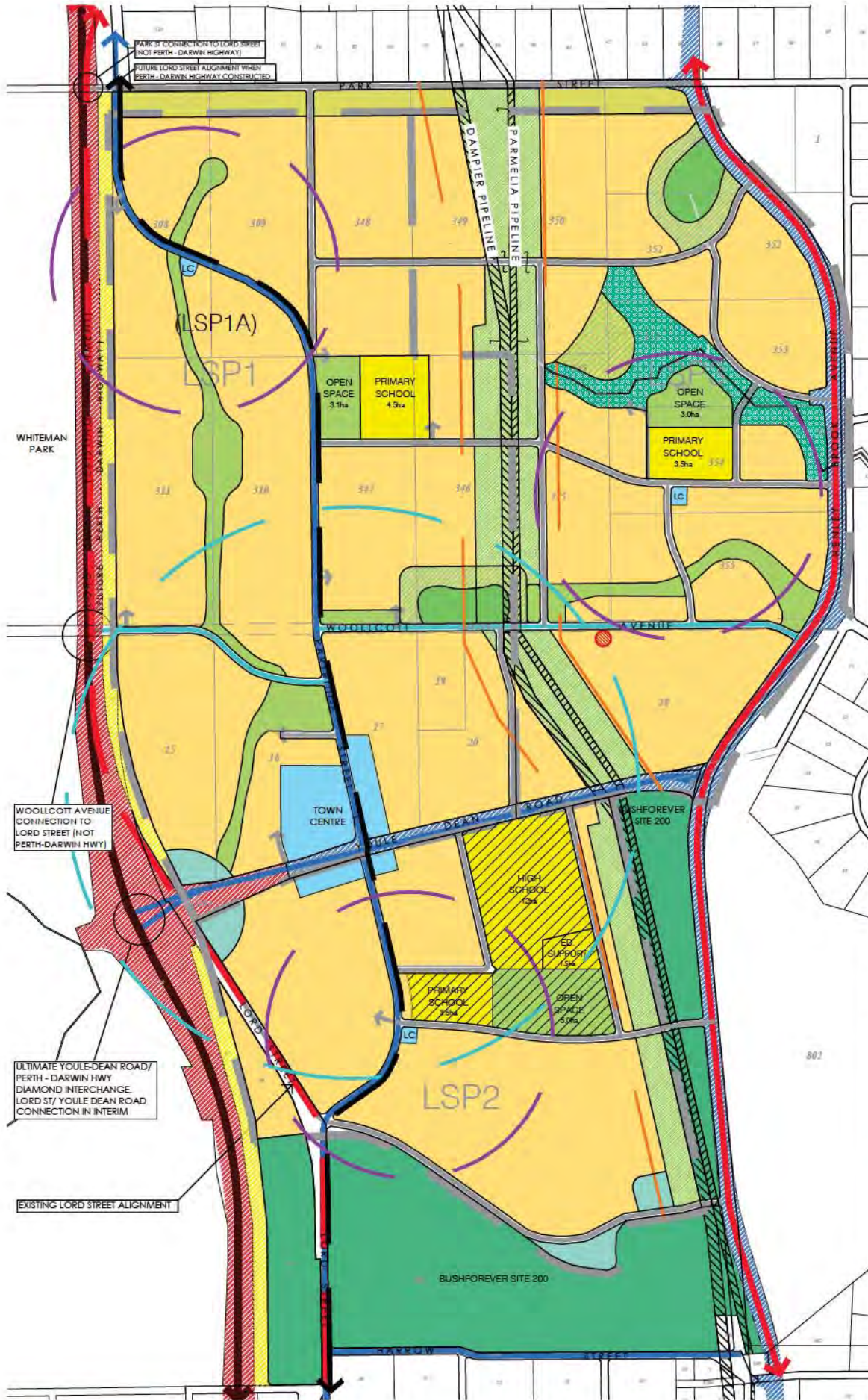
This report does not replace, but rather forms an addendum to the DSP report (CLE reference 2142Rep38G) that was endorsed by the Western Australian Planning Commission (WAPC) in January 2011.

The scope of this amendment is limited to the modifications to the activity centre, and is not seeking any other substantial changes to the DSP, other than to recognise some minor changes arising as a result of the WAPC's endorsement of various local structure plans within the DSP area. These changes are detailed in Section 3 of this report.

The following specialist studies have been prepared in support of this amendment, and are included as appendices to this addendum report.

- Retail Sustainability Assessment (Location IQ)
- Strategic Traffic and Transport Analysis (Transcore)

ALBION (BRABHAM) DISTRICT STRUCTURE PLAN - AMENDMENT 1 ADDENDUM REPORT



- NOTES:**
- Gas Pipeline**
(Refer Section 4.5 of Structure Plan)
The DSP allows the following uses within the gas pipeline conditional area, to be defined as LSP, in accordance with the QRA (WAPC Planning Bulletin 87):
Residential (dwellings outside conditional area)
Communal Open Space for a strata scheme
Setbacks and land uses may be varied from the QRA at LSP, in accordance with a separate QRA, endorsed by the relevant Agencies.
 - Possible TEC Area**
(Refer Section 4.3 of Structure Plan)
The Possible Conservation area corresponds with a potential Threatened Ecological Community (TEC). Open space is required to be provided in the possible Threatened Ecological Community Area as confirmed by the City of Swan and Department of Environment and Conservation.
 - Town Centre**
The Town Centre will have a maximum retail floor space of 10 000m² NLA and is a Large Neighbourhood Centre.
 - Schools**
The K-12 Education Precinct includes a High School of 12ha, Primary School 3.5ha, Education Support 1.5ha and Active Open Space 5ha. The detailed design of this precinct will be refined at LSP stage.
All Primary Schools are required to have road frontage on three sides.
 - Public Open Space and Drainage**
Public open space / drainage areas are indicative and subject to detailed design, modelling and confirmation at Local Structure Plan stage. A Local Water Management Strategy shall be prepared at Local Structure Plan stage pursuant to the requirements of section 4.2, State Planning Policy 2.9 and Better Urban Water Management.
 - MRS Public Purpose Reserve**
Infrastructure agencies are reviewing the potential construction of a rail service within the MRS Public Purpose Reserve. Additional information in relation to this infrastructure, available at the time of planning, will be considered as part of Local Structure Plans.
 - Community Purpose Sites**
Two community purpose sites shall be provided within the DSP area within the Town Centre and the North-East Local Centre.
 - North East Primary School**
The north east primary school site is to be relocated within the subject land owners land holdings to an area which achieves the DOE geotechnical and population catchment requirements and such relocation should facilitate a maximum road frontage to the co-located public open space (ie: the public open space should not be located adjacent to St Leonards creek). The final location of the north east primary school is to be determined in consultation with the DOE prior to finalisation of a local structure plan for this locality.
 - Herley Brook Avenue**
The final number, function and location of intersections to Herley Brook Avenue may change subject to the final design of the road by the Department of Planning and the City of Swan, refer Section 6.1.1.

LEGEND

- District Structure Plan Boundary / Local Structure Plan Area (LSP)
(Refer section 1.2.2.4 of Structure Plan)
- 400m Walkable Catchment to Local Centre
- 800m Walkable Catchment to Town Centre
- Residential
- Special Residential
- Town Centre (Refer Note 3)
- Indicative Local Centre (LC)
- School
- K-12 Education Precinct
- Activity Corridor
- Public Purpose Site - Power Substation
- Road Hierarchy:**
- Primary Distributor
- Integrator Arterial A
- Integrator Arterial B
- Existing Lord Street Alignment
(Refer Appendix 7 of Structure Plan)
- Neighbourhood Connector A
- Access Streets
- MRS Primary Regional Road Reservation
- MRS Other Regional Road Reservation
- MRS Public Purpose
- Public Open Space:** (Refer Figure 11)
- Multiple Use / Local Active Open Space
- Local Open Space/ Drainage
- Wetlands
- Wetland Buffer
(Refer Section 4.2.3 of Structure Plan)
- Bush Forever Site 200/
Parks & Recreation
- Possible Conservation
(Refer Note 2)
- St Leonards Multiple Use
- Gas Pipeline:**
- Gas Pipeline Easement
- Gas Pipeline Residential Conditional Area
(Refer Note 1)
- Sensitive Land Use Conditional Area



2.0 PLANNING BACKGROUND

2.1 Zoning

The DSP area is predominantly zoned 'Urban' under the Metropolitan Region Scheme (MRS), and 'Special Use – Albion' under the City of Swan's Local Planning Scheme No.17 (LPS17). The MRS and LPS17 zones and reserves have not changed since the endorsement of the DSP in 2011.

2.2 Albion District Structure Plan

The DSP was endorsed by the Western Australian Planning Commission in January 2011. The DSP established key land uses such as schools, activity centres, POS / drainage corridors and the higher order road network. The DSP was intended to guide more detailed land use planning at local structure planning stage. A copy of the current endorsed DSP Map is Figure 1.

The following subsections outline those aspects of the DSP that are relevant to this amendment.

DSP Centres Strategy

The endorsed DSP includes a Centres Strategy, prepared by Shrapnel Urban Planning in July 2008. The Shrapnel report was largely based on the City of Swan's 2004 Commercial Centres Strategy, as well as projected yield and population forecasting that was available at the time.

Based on an assumed ultimate population within the main trade area of 27,309 people, as well as the known growth of other centres in the broader locality, the Shrapnel report concluded that the DSP area could support a 'Large Neighbourhood Centre' in the order of 10,000m² retail floor space, with a comparable non-retail commercial floor space offering at ultimate development.

Shrapnel estimated that a centre of this size could support approximately 540 jobs within the retail precinct alone, and a further 180 non-retail jobs in the mixed business / use area on the south side of Youle Dean Road.

The Shrapnel report has not been reviewed or modified since its completion in 2008; some 9 years ago.

DSP Road Network

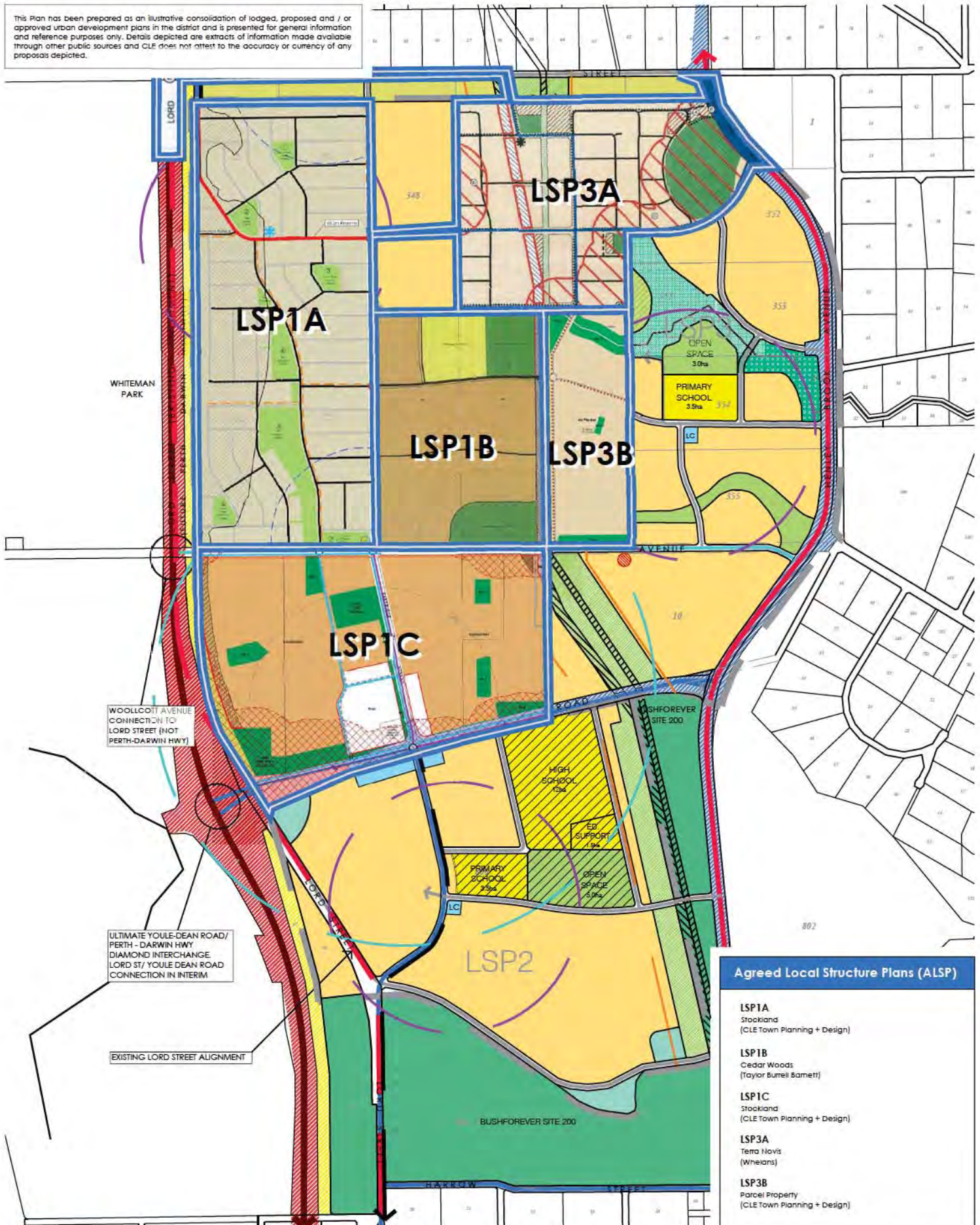
The DSP identifies a high level, strategic road network comprising Integrator Arterials (A & B), Neighbourhood Connectors and Key Access Streets.

Since the completion of the DSP, there have been some changes to the overall road planning as a result of subsequent local structure planning, as well as high level decisions by State and Local Government within and external to the DSP area. These include:

- The realignment of the Perth-Darwin National Highway (Swan Valley Bypass) further to the west on the other side of Whiteman Park and away from the DSP area;
- The Replacement of the planned Perth-Darwin National Highway with 'New Lord Street' and subsequent realignment south of Youle Dean Road;

ALBION (BRABHAM) DISTRICT STRUCTURE PLAN - AMENDMENT 1 ADDENDUM REPORT

This Plan has been prepared as an illustrative consolidation of lodged, proposed and / or approved urban development plans in the district and is presented for general information and reference purposes only. Details depicted are extracts of information made available through other public sources and CLE does not attest to the accuracy or currency of any proposals depicted.



Agreed Local Structure Plans (ALSP)	
LSP1A	Stockland (CLE Town Planning + Design)
LSP1B	Cedar Woods (Taylor Burrell Barnett)
LSP1C	Stockland (CLE Town Planning + Design)
LSP3A	Terra Novis (Whehans)
LSP3B	Parcel Property (CLE Town Planning + Design)



- The removal of the grade separated interchange at the Perth-Darwin National Highway / Youle Dean Road intersection;
- Closure of the 'temporary' access at Woolcott Avenue and Lord Street and subsequent downgrading of Woolcott Avenue designation west of Partridge Street (now known as Everglades Avenue);
- Realignment of Woolcott Avenue to form a 4-way intersection with Everglades Avenue; and
- Introduction of a 'possible Ellenbrook rail line' (under investigation) that operates along the western edge of the DSP area and subsequent implications for traffic volumes and intersection treatments.

This amendment considers these changes as well as the implications of the proposed larger activity centre for the DSP road network.

2.3 Approved Local Structure Plans

Since the endorsement of the DSP, several local structure plans (LSPs) have been endorsed by the City and WAPC, including:

- LSP1A – Whiteman Edge (Stockland)
- LSP1B – Ariella (Cedar Woods Properties)
- LSP1C – Whiteman Edge (Stockland)
- LSP3A – Avonlee Estate (Terranovis)
- LSP3B – Lot 345 Woolcott Avenue (ABN / Parcel Property)

A DSP Context Plan depicting the location of each LSP area is Figure 2.

All of these projects have since obtained subdivision approval and are in various stages of development.

Of most relevance to this proposed DSP amendment is LSP1C, which currently provides for the planned Large Neighbourhood Centre as envisaged by the DSP, albeit with 15,000m² of retail floor space in lieu of the 10,000m² envisaged by the DSP. LSP1C goes on to note that *"the proposed 'Special Use - Neighbourhood Centre' is of a size that could potentially accommodate up to 20,000m² of retail floor space should long term demand within the Brabham and wider catchment warrant. An activity centre structure plan may be required if the centre evolves into a District Centre over time, as required under State Planning Policy 4.2 Activity Centres for Perth and Peel."*

LSP1C also establishes the finer grained road network in and around the centre and indicates key intersection treatments.

It will be necessary to amend LSP1C to recognize the larger centre. This is a separate process that will be progressed concurrently with the proposed DSP amendment.

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3.0 POLICY FRAMEWORK

The proposed District Centre is comprehensively supported by the State and local policy framework, as outlined in further detail below.

3.1 State Planning Policy 4.2 – Activity Centres for Perth and Peel

State Planning Policy 4.2 – Activity Centres for Perth and Peel (SPP4.2) was prepared by the WAPC in 2010. The policy establishes a clear hierarchy of existing and planned activity centres throughout the Perth and Peel regions based on their common characteristics and provides guidance for the sustainable growth and regeneration of these centres.

SPP4.2 identifies the Albion Centre as an 'emerging District Centre' in recognition of its future growth potential.

SPP4.2 requires the preparation of an Activity Centre Plan (ACP) as a precursor to development. Stockland is currently in the process of preparing an ACP, and it is envisaged that it will be submitted and processed in parallel with this DSP and the LSP amendment.

3.2 Draft Perth and Peel @ 3.5 Million and Draft North East Sub-regional Planning Framework

The Draft Perth and Peel @ 3.5 Million and draft North East Sub-regional Planning Framework represents the State's current position on the future growth of the north eastern corridor. Consistent with SPP4.2, the draft Sub-regional Planning Framework identifies the Albion / Brabham centre as a District Centre and notes that emerging centres "*are expected to continue to expand in response to local population growth and provide additional employment opportunities.*"

3.3 City of Swan Local Commercial Activity Centres Strategy (Draft 2016) and Retail Needs Assessment (2011)

The City of Swan has recently advertised a draft Local Commercial Activity Centres Strategy (draft LCACS). The draft LCACS is underpinned by a 2011 Retail Needs Assessment (RNA) and retains the majority of the findings / recommendations of the RNA.

The draft LCACS analyses the current status and capacity of each centre within the municipal area and puts in place a strategy for fostering sustainable growth and development of the various activity centres.

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As part of this strategy, the draft LCACS establishes a hierarchy of the various centres, consistent with the framework established in SPP4.2, and identifies 'gaps' where there are opportunities for further retail expansion. One such gap is within the Urban Growth Corridor, where the Albion / Brabham centre is the highest order centre. The draft LCACS identifies the Albion / Brabham centre as a District Centre, with an indicative retail floor space of approximately 15,000m². Importantly, the draft LCACS goes on to state:

"While floorspace can be used as an indication of the role of a particular centre, it is the type and range of facilities and services offered that provide a better indication of a centre's role. In this context, when using the activity centre hierarchy as a planning tool for assessing development/planning applications, consideration should be weighted towards whether the application changes the functional 'role' of the centre, as opposed to simply the extent of floorspace proposed."

Table 1 outlines the characteristics of a typical District Centre, as identified in the draft LCACS and in SPP4.2..

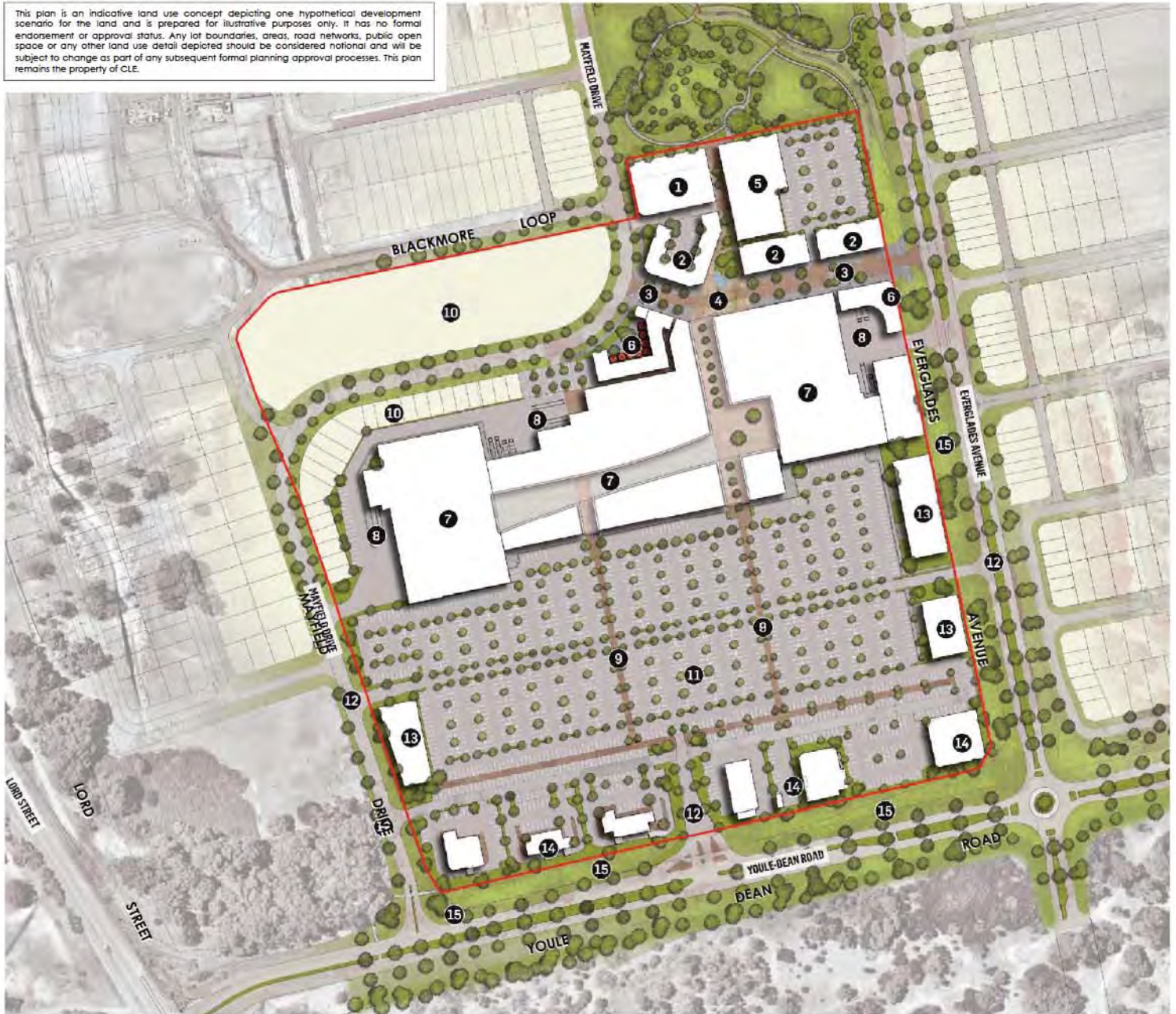
Table 1 – District Centre Characteristics

Centre Type	Main role/ function	Retail types	Office uses	Service population area
Typical District Centre	Greater focus on daily and weekly needs and serve smaller catchments in which the local community role is strong.	Discount department stores, supermarkets, convenience goods, small scale comparison shopping, personal services, some specialty shops.	District level offices and local professional services	20,000 – 50,000 persons
Proposed Whiteman Edge District Centre	Will provide a greater localized shopping range and choice for residents within the primary trade area.	Discount department store, two supermarkets, specialty retailers, two mini-majors, personal services.	Opportunities for district and local level professional services / offices outside of retail core sector.	Current trade population circa 48,990 persons, with forecast 3% average annual growth.

As demonstrated in Table 1, the centre proposed as part of this DSP amendment is entirely consistent with these characteristics, and clearly sits within the functional role of a District Centre.

ALBION (BRABHAM) DISTRICT STRUCTURE PLAN - AMENDMENT 1 ADDENDUM REPORT

This plan is an indicative land use concept depicting one hypothetical development scenario for the land and is prepared for illustrative purposes only. It has no formal endorsement or approval status. Any lot boundaries, areas, road networks, public open space or any other land use detail depicted should be considered notional and will be subject to change as part of any subsequent formal planning approval processes. This plan remains the property of CLE.



LEGEND:

— ACTIVITY CENTRE BOUNDARY

- 1 MEDIUM TO HIGH DENSITY RESIDENTIAL PRODUCT WITH PERSPECTIVE OVER JUNGLE PARK.
- 2 MIXED-USE/RETAIL/COMMERCIAL BUILDINGS WITH POTENTIAL LONG TERM RESIDENTIAL DEVELOPMENT.
- 3 NARROW PEDESTRIAN SCALE MAIN STREET WITH ACTIVE EDGES AND TAILORED PAVEMENT TREATMENT. POTENTIAL TO CLOSE MAIN STREET FOR EVENTS IF RETAINED IN PRIVATE OWNERSHIP.
- 4 POTENTIAL COMMUNITY MEETING POINT AND EVENT SPACE.
- 5 POTENTIAL DISTRICT COMMUNITY CENTRE SITE.
- 6 LAND USES FRONTING MAIN STREET TO BE DIVERSE I.E. MIX OF RETAIL/COMMERCIAL ETC.
- 7 SHOPPING CENTRE - POTENTIAL FOR OPEN AIR ELEMENTS WITH CAPACITY TO ACCOMMODATE SUPERMARKETS AND DISCOUNT DEPARTMENT STORE.

- 8 LOADING AND SERVICE AREAS TO BE SCREENED AND NOT VISUALLY PROMINENT WITH APPROPRIATE ACOUSTIC TREATMENTS.
- 9 KEY SHELTERED AND/OR LANDSCAPED PEDESTRIAN SPINES TO LINK ALL PRECINCTS.
- 10 SMALL LOT RESIDENTIAL PRODUCT INTEGRATING THE CENTRE WITH SURROUNDING CONTEXT.
- 11 ACTIVITY CENTRE CAR PARKING TO BE CONCENTRATED AWAY FROM MAIN STREET BUT STILL ACCESSIBLE TO/FROM MAIN STREET FOR PEDESTRIANS.
- 12 PRIMARY VEHICLE ACCESS SUBJECT TO TRANSPORT IMPACT ASSESSMENT AT DEVELOPMENT STAGE TO DEMONSTRATE FULL MOVEMENT.
- 13 MEDIUM TO LONG TERM MIXED COMMERCIAL/RETAIL OR POSSIBLE RESIDENTIAL SITES.
- 14 CAR BASED COMMERCIAL/RETAIL SITES WITH ORIENTATION AND ATTRACTIVE DESIGN TO YOULE-DEAN ROAD.
- 15 OPPORTUNITIES FOR PYLON AND MONOLITH SIGNAGE FOR THE CENTRE, TO BE ATTRACTIVE AND COORDINATED THROUGH A SIGNAGE STRATEGY.



4.0 AMENDMENT PROPOSAL

Following the endorsement of LSP1C in October 2015, Stockland has undertaken some detailed market analysis into the need for, and viability of a larger activity centre in the current Neighbourhood Centre location on the north side of Youle Dean Road and west side of Everglades Avenue (formerly Partridge Street).

Stockland's analysis confirms that the projected trade area population is sufficient to support a two stage development of the centre, with the first stage providing a full-line supermarket, a mini-major retailer and a select range of specialty shops. The second stage would most likely include a discount department store, a second supermarket, a broader range of specialty shops, as well as a greater range of food and beverage offerings and non-retail uses.

An indicative concept plan depicting the preliminary and ultimate development of the activity centre, as proposed by this Amendment is Figure 3.

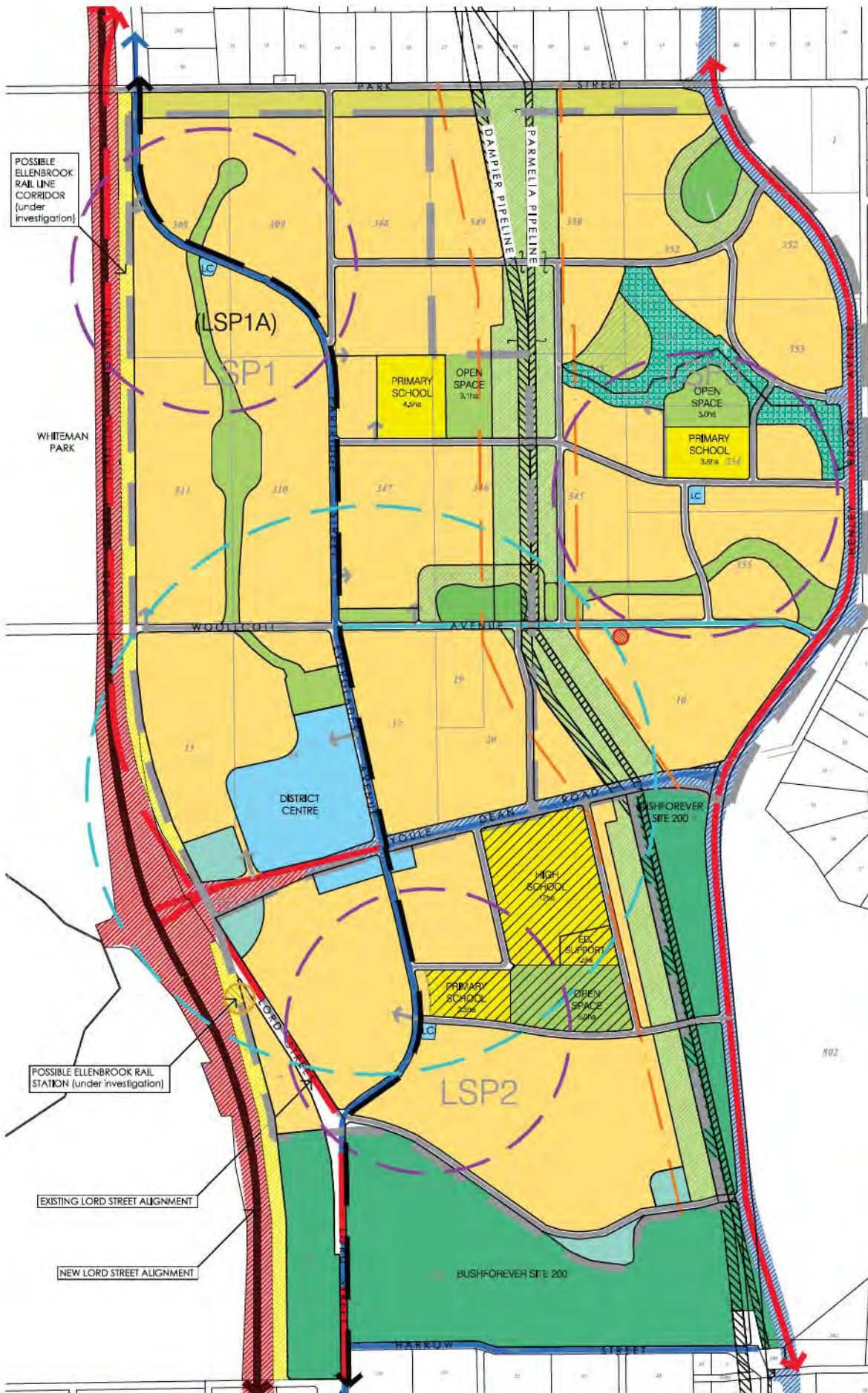
Further discussion on Stockland's market analysis, including the retail needs assessment and retail sustainability assessment is included in the sections below.

In order to deliver a centre of this magnitude, it is necessary to amend the DSP to increase the footprint and retail floor space of the planned centre, which requires the centre to be re-classified from a 'Large Neighbourhood Centre' to a 'District Centre'.

The scope of the amendment proposes to:

- Increase the size of the centre site on the north western side of Youle Dean Road / Everglades Avenue intersection from 3.5ha to 11ha (approx) by expanding the current site to the north and west;
- Designate the centre as a 'District Centre' in lieu of its current 'Large Neighbourhood Centre' designation;
- Relocate the main street to an east-west alignment consistent with that endorsed via LSP1C;
- Remove the portion of the centre on the north eastern side of the intersection (east of Everglades Ave) and revert to residential in order to consolidate the centre;
- Retain the mixed use portion of the activity centre on the south side of the intersection as per the current DSP.

ALBION (BRABHAM) DISTRICT STRUCTURE PLAN - AMENDMENT 1 ADDENDUM REPORT



- NOTES:**
- Gas Pipeline**
(Refer Section 4.5 of Structure Plan)
The DSP allows the following uses within the gas pipeline conditional area, to be defined as LSP, in accordance with the QRA (WAPC Planning Subplan #17):
 - Residential (dwellings outside conditional area)
 - Communal Open Space for a strata scheme
 Setbacks and land uses may be varied from the QRA of LSP, in accordance with a separate QRA, endorsed by the relevant Agencies.
 - Possible TEC Area**
(Refer Section 4.3 of Structure Plan)
The Possible Conservation area corresponds with a potential Threatened Ecological Community (TEC). Open space is required to be provided in the possible Threatened Ecological Community Area as confirmed by the City of Swan and Department of Environment and Conservation.
 - District Centre**
The Centre will have a maximum retail floor space of 20,000m² NLA and is a District Centre.
 - Schools**
The K-12 Education Precinct includes a High School of 17ha, Primary School 3.5ha, Education Support 1.5ha and Active Open Space 5ha. The detailed design of this precinct will be refined at LSP stage.
All Primary Schools are required to have road frontage on three sides.
 - Public Open Space and Drainage**
Public open space / drainage areas are indicative and subject to detailed design, modelling and confirmation at Local Structure Plan stage. A Local Water Management Strategy shall be prepared at Local Structure Plan stage pursuant to the requirements of section 4.2, State Planning Policy 2.9 and Better Urban Water Management.
 - MRS Public Purpose Reserve**
Infrastructure agencies are reviewing the potential construction of a road transit service within the MRS Public Purpose Reserve. Additional information in relation to this infrastructure, available at the time of planning, will be considered as part of Local Structure Plans.
 - Community Purpose Sites**
Two community purpose sites shall be provided within the local area within the Town Centre and the North-East Local Centres.
 - North East Primary School**
The north east primary school site is to be relocated within the subject land owners land holdings to an area which achieves the DOE geotechnical and population catchment requirements and such relocation should facilitate a maximum road frontage to the co-located public open space (ie: the public open space should not be located adjacent to St Leonards cases). The final location of the north east primary school is to be determined in consultation with the DOE prior to finalisation of a local structure plan for this locality.
 - Henley Brook Avenue**
The final number, function and location of intersections to Henley Brook Avenue may change subject to the final design of the road by the Department of Planning and the City of Swan, refer Section 5.1.1.

LEGEND

	District Structure Plan Boundary / Local Structure Plan Areas (LSP) (Refer section 1.2.2.4 of Structure Plan)
	400m Walkable Catchment to Local Centre
	800m Walkable Catchment to District Centre
	Residential
	Special Residential
	Town Centre (Refer Note 3) Indicative Local Centre (LC)
	School
	K-12 Education Precinct
	Activity Corridor
	Public Purpose Site - Power Substation
Road Hierarchy:	
	Primary Distributor
	Integrator Arterial A
	Integrator Arterial B
	Existing Lord Street Alignment (Refer Appendix 7 of Structure Plan)
	Neighbourhood Connector A
	Neighbourhood Connector B
	Access Streets
	MRS Primary Regional Road Reservation
	MRS Other Regional Road Reservation
	MRS Public Purpose
Public Open Space: (Refer Figure 11)	
	Multiple Use / Local Active Open Space
	Local Open Space/ Drainage
	Wetlands
	Wetland Buffer (Refer Section 4.2.3 of Structure Plan)
	Bush Forever Site 200/Parks & Recreation
	Possible Conservation (Refer Note 2)
	St Leonards Multiple Use
Gas Pipeline:	
	Gas Pipeline Easement
	Gas Pipeline Residential Conditional Area (Refer Note 1)
	Sensitive Land Use Conditional Area



In addition to the above modifications, this amendment includes some minor changes to bring the balance of the DSP into line with recent planning approvals and Government decisions pertaining to the regional road network and public transport. The minor modifications include:

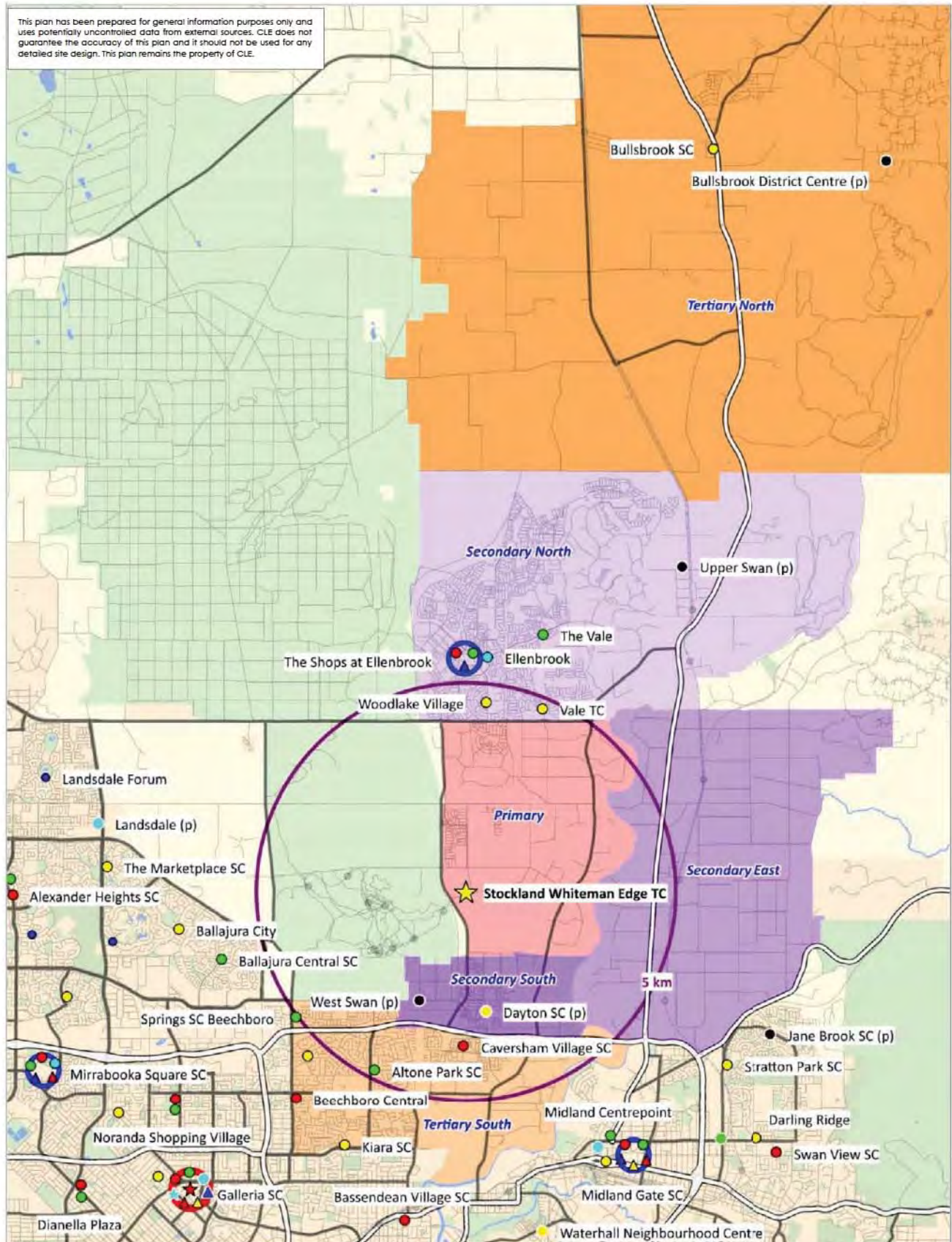
- The straightening of the western leg of Woolcott Avenue consistent with its current reserve alignment, as approved in LSP1C;
- Removal of the Woolcott Avenue connection to Lord Street, as per LSP1C;
- The relocation of the neighbourhood park in LSP1B to the eastern side of the primary school and abutting the pipeline corridor as approved in LSP1B;
- Adjustments to the multiple use corridor (living stream) through LSP1C to reflect current approvals; and
- Removal of reference to Perth-Darwin National Highway and the grade separated interchange at Youle Dean Road consistent with the State Government's decision to relocate the PDNH further west.

These minor modifications were discussed and agreed with the City and Department of Planning prior to lodgement.

The DSP amendment does not propose any modifications to those areas that are yet to be subject to an endorsed local structure plan.

The amended DSP Map is Figure 4 and is also included as Appendix 1 to this report.

This plan has been prepared for general information purposes only and uses potentially uncontrolled data from external sources. CLE does not guarantee the accuracy of this plan and it should not be used for any detailed site design. This plan remains the property of CLE.



- Regional SC
 - Sub-regional SC
 - ★ Myer
 - ★ David Jones
 - ▲ Target
 - ▲ Big W
 - Woolworths
 - Coles
 - Aldi
 - IGA
 - Independent
 - Unknown Supermarket
 - ▲ Kmart
- * Halo object represents proposed store



5.0 RETAIL AND EMPLOYMENT ANALYSIS

In order to further demonstrate the case for a District Centre at Whiteman Edge, Stockland has engaged Location IQ to undertake a Retail Sustainability Assessment (RSA) for the Centre. The RSA considers and elaborates upon the City's draft LCACS as well as other previous analysis done in the locality. The RSA includes a Retail Needs Assessment which assists to identify growth potential and staging for the Centre. A full copy of the RSA is included as Appendix 2.

The purpose of the RSA is twofold:

1. It identifies the demand (need) for a district level centre in this location based on projected population growth, spending patterns, market conditions and comparison with other centres; and
2. It examines any potential impact (positive and negative) on the viability of other centres in the locality, and ensures that the proposed district centre will not adversely impact the ongoing sustainable operation of these other centres.

Further discussion on these two key aspects is set out in the sections below.

Consistent with the draft LCACS, Location IQ's analysis concludes that the proposed development of the district centre at the size proposed will be easily supportable, reflecting the rapid and ongoing increase in demand for retail offerings in this location. The RSA also demonstrates that the proposal will not result in any significant trading impacts on any existing or planned centres that would have an adverse affect on the ongoing viability of those centres.

5.1 Retail Needs Assessment

The Retail Needs Assessment portion of the RSA examines the current and forecast population within the 'trade area' of the proposed district centre and uses the trade area to determine retail demand. The trade area is depicted on the map at Figure 5 and is broken into primary, secondary and tertiary trade sectors. The combination of the primary sector and the three secondary sectors is referred to as the 'main trade area' with the population within this area estimated at 48,990 persons at present, and forecast to reach 83,470 people by 2031. These population figures have changed substantially since the original Shrapnel report was prepared in 2008. Consistent with SPP4.2 and the draft LCACS, a population of this magnitude is sufficient to support a district level centre.

Consistent with the findings of the City's draft LCACS, the RSA concludes that there is a current undersupply of retail offerings in the locality, and based on projected population growth within the identified trade area, a district level centre of the scale proposed (circa 22,000m² of retail floor space, with a DDS in the order of 6000m²) can ultimately be supported. The analysis notes that a staged development of the centre is likely, and that based on existing population and retail demand, a centre with a full-line supermarket and possibly an Aldi or similar can be supported immediately. A second stage, introducing a discount department store, second supermarket, specialty retail, mini-majors, offices and professional services could be commercially viable as early as 2025/2026, with the main trade area population at 75,000.

5.2 Impacts on Other Centres

As part of the RSA, Location IQ has identified competing centres within the trade area, and has examined the potential economic impacts on each centre, as well as major centres outside of the total trade area such as Midland Gate and Morley Galleria. It is important to note that the role of the proposed District Centre is entirely consistent with the current strategic planning framework. This framework considers impacts on other centres, and concludes that the Albion District Centre will not have a significant adverse impact on other centres in the locality. Key findings of the RSA can be summarised as:

- Although retail developments will usually result in some trading impact on other retail facilities as part of normal commercial competition, the proposed district centre at Whiteman Edge will not have any significant trading impacts on existing or planned centres in the total trade area with no single centre being impacted by more than 10%.
- The major competitor to the Whiteman Edge centre is 'The Shops at Ellenbrook', located some 6km to the north. Ellenbrook has a secondary centre designation and provides a greater retail offering than what is proposed at Whiteman Edge. As such, it is likely that it will be The Shops that limits trade potential of Whiteman Edge, as opposed to the other way around. Location IQ shows that there will be some impact on projected sales as a result of the Whiteman Edge centre, however impacts are well within acceptable limits, and are consistent with a typical competitive market economy.
- Impacts on smaller planned supermarket centres within the locality will also be within an acceptable range (less than 10% loss of sales revenue). The smaller centres will generally continue to provide local convenience offerings within their primary catchments and will remain viable for this reason.
- Future population growth will largely offset competitive impacts to other centres.
- The main higher order centres outside of the trade area such as Midland Gate and Morley Galleria will be impacted minimally, with a forecast of less than 3% impact on sales revenue.

It is important to note that the economic modelling and impacts on other centres is a static model. It represents a worst case scenario, and does not take into consideration the likelihood of competitors improving their retail offerings to remain competitive. As such, whilst the model does show some impact on adjoining centres, it is important to assume that these centres will consider other means of mitigating any economic impacts.

It is also important and highly appropriate in this instance to balance any potential impact against the positive benefits of the development proposal. In this instance, the positive benefits of a district level centre at Whiteman Edge include:

- The provision of greater localised shopping range and choice, providing both convenience and amenity to the trade area. In particular, the delivery of a discount department store in this location will be a substantial asset to the community and will reduce vehicle trips to outlying retail centres.

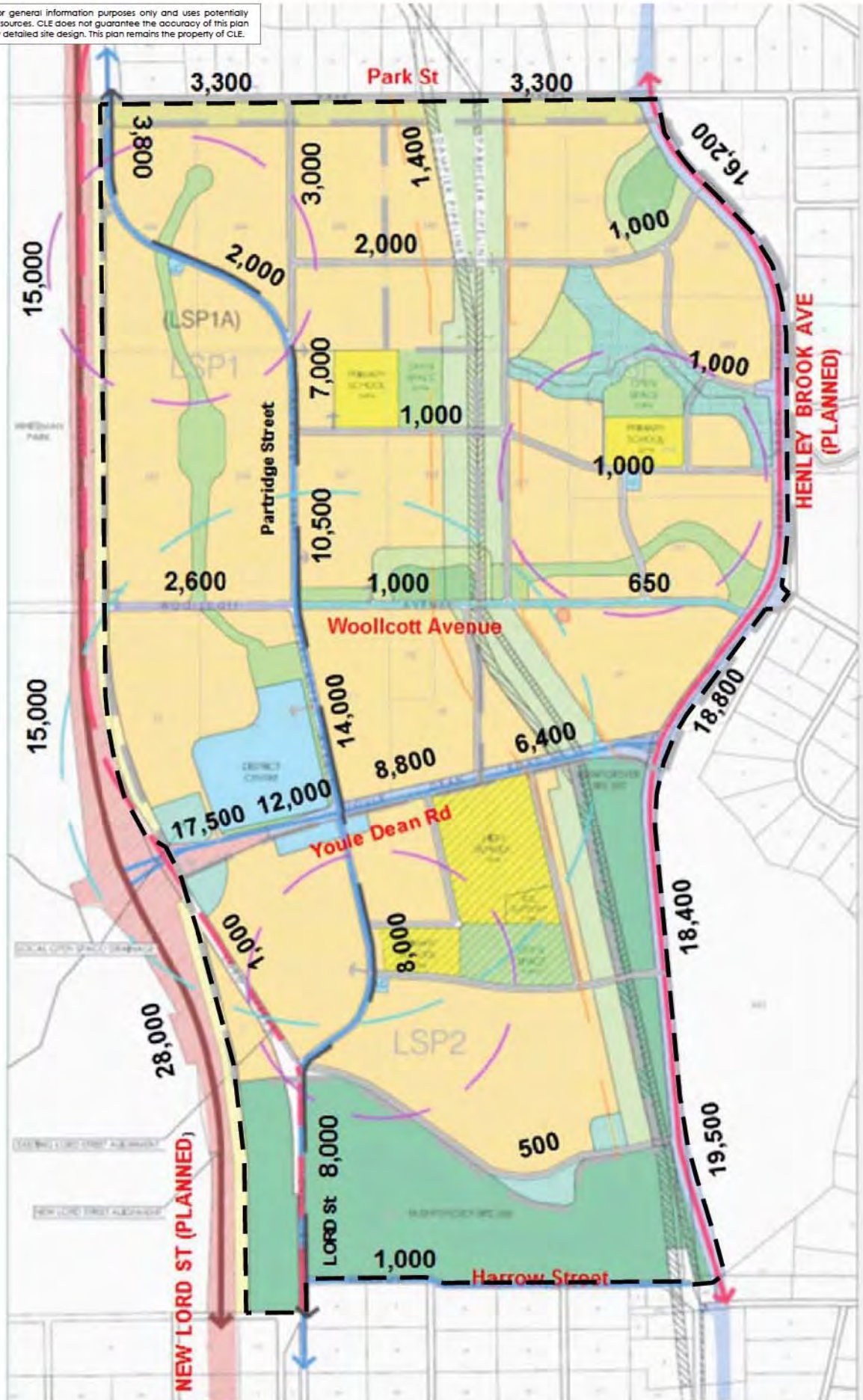
- The future provision of a range of mini-majors and a broad range of retail specialty floorspace, including food and beverage options will also enhance the overall retail mix, cater for the daily / weekly needs of residents, and will deliver a true district centre as envisaged by State and local planning policy.
- The district centre will offer a modern shopping facility, providing quality amenities with convenient access and high quality urban design.
- The centre will incorporate and compliment the proposed district community facility immediately to the north, creating a community focal point and a sense of place for the community.
- The larger centre will boost employment self sufficiency in the region through the creation of a number of additional jobs, both through the construction and operation phases of the centre.
- Travel times within the primary and secondary trade areas will reduce significantly, having a range of economic, social and environmental benefits for residents.

Based on these considerable benefits, and the acceptable level of impact forecast on surrounding centres, it is clear that the Whiteman Edge district centre presents a sustainable and viable proposal.

5.3 Employment

As noted above, the proposed District Centre will have a positive impact on employment self sufficiency within the trade area. Location IQ forecasts that at ultimate development, the centre will likely deliver an estimated 901 jobs in the retail sector alone. This is compared to the forecast 540 jobs for the Large Neighbourhood Centre as envisaged by the DSP. It is likely that a high proportion of these forecast additional 361 jobs will be taken up by residents within the sub-region, providing a considerable boost for employment self sufficiency.

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6.0 STRATEGIC TRAFFIC ANALYSIS

The DSP is supported by a high level, regional traffic strategy prepared by SKM in 2008. Since the preparation of this traffic strategy, there have been a number of circumstantial changes that, when combined with the increase in centre size, warrant a revised assessment. The circumstantial changes include:

- The realignment of the Perth-Darwin National Highway (Swan Valley Bypass) to the west of Whiteman Park and away from the DSP area;
- The removal of the grade separated interchange at the intersection of Youle Dean Road and Lord Street;
- The upgrading and minor realignment of Lord Street to the south of Youle Dean Road;
- The closure of the Lord Street / Woolcott Avenue intersection;
- A higher dwelling yield than what was initially forecast for the DSP area.

In response to these changes, Stockland has engaged Transcore to re-examine the overall transport strategy for the DSP area, with a particular focus on the higher order road network, major intersections, and the increased traffic arising from the increased centre and higher dwelling yield. A copy of Transcore's strategic traffic analysis is Appendix 3, and a summary of the key findings is set out below.

6.1 Traffic Volumes and Road Hierarchy

In order to examine the traffic volumes using the higher order road network throughout the DSP area, Transcore has established an EMME transport model, which is informed by the latest land use and yield data available. The EMME model forecasts ultimate traffic volumes (assuming full development).

The EMME model demonstrates that the current traffic forecasts remain within the capacity of the planned road network as identified in the original DSP, with no major changes being warranted as part of this amendment. A copy of the forecast traffic volumes is Figure 6, and a brief summary of the key findings is set out below.

Lord Street

The State Government has recently determined that the Perth – Darwin National Highway will no longer sit on the current Lord Street alignment, adjacent to the DSP area. Lord Street will however, remain as an important regional route and planning is in place to upgrade Lord Street adjacent to the DSP area.

The EMME model assumes that Lord Street will be upgraded north of Youle Dean Road and realigned south of Youle Dean Road consistent with current planning provided by the City of Swan. Whilst some minor changes to the DSP will be necessary in order to recognise the current planning for Lord Street, this has not resulted in any substantial impacts for the DSP road network.

Henley Brook Avenue

Transcore identifies Henley Brook Avenue as an Integrator Arterial A Road consistent with its current designation in the DSP. Forecast volumes are slightly higher than those originally forecast by SKM, however this can most likely be attributed to the overall increase in dwelling yields within and external to the DSP area from what was anticipated 9 years ago when the DSP was prepared. The minor increase in traffic volumes will not have any material impact on the classification or design of Henley Brook Avenue.

Youle Dean Road

Youle Dean Road is forecast to carry between 12,000 and 17,500 vehicles per day (vpd) west of Everglades Avenue and east of Lord Street. Transcore recommends that Youle Dean Road (west of Everglades Avenue) is classified as an Integrator Arterial A road when applying the Liveable Neighbourhoods hierarchy. The current DSP shows this portion as an Integrator B Road however, LSP1C identifies it as Integrator Arterial A. The approved civil design for this portion of Youle Dean Road is for a dual lane (four carriageway) road with a 6m median, as per the Integrator A designation under Liveable Neighbourhoods. There is sufficient land within the existing road reserve and identified widening to the south to comfortably accommodate a road of this scale.

East of Everglades Avenue, Youle Dean Road is forecast to carry 8,800 vpd, reducing to 6,400 vpd towards Henley Brook Avenue. Consistent with the current DSP and LSP1C, this portion of Youle Dean Road is classified as an Integrator Arterial B road. Vehicle access restrictions are likely to apply to this portion of the road however, this will be determined at subsequent planning stages.

Partridge Street / Everglades Avenue

Partridge Street north of Woolcott Avenue is forecast to carry between 7,000 vpd and 10,500 vpd and consistent with the DSP, is identified and constructed as an Integrator Arterial B. No further modifications to the DSP, or to the physical construction of this portion of Partridge Street or intersections are warranted as a result of this amendment.

South of Woolcott Avenue and North of Youle Dean Road, Everglades Avenue (formerly Partridge Street) is forecast to carry in the order of 14,000 vpd. Whilst this is an increase from the 10,000 vpd forecast by the DSP, the volumes remain within the forecast capacity of an Integrator Arterial B Road, and as such, there is no need to alter its designation or its physical construction as a result of the forecast volumes.

South of Youle Dean Road, the forecast volumes on the future extension of Everglades Avenue through lot 800 are forecast to be in the order of 8,000 vpd. This is a slight reduction from the original DSP forecast, and can be attributed to the increased attractiveness of the 'New Lord Street' route as an alternative to using this southern portion of Everglades Avenue.

Woollcott Avenue

The forecast volumes for Woollcott Avenue are consistent with those shown in LSP1C (west of Everglades Avenue) and LSP1B (east of Everglades Avenue). Consistent with the various approved local structure plans, the amended DSP shows Woollcott Avenue as a Neighbourhood Connector A Road east of Everglades Avenue.

6.2 Key Intersections

As part of the review of the overall DSP road network, Transcore has examined key intersections and recommended specific treatments where warranted as a result of the forecast volumes and road hierarchy. Transcore's analysis aligns with the latest planning and design for Henley Brook Avenue, New Lord Street, the 'possible Ellenbrook rail line' (under investigation), and current Lord Street south of Youle Dean Road, with no substantial changes to the DSP warranted as a result of this analysis.

Further, more detailed intersection analysis in and around the District Centre will be undertaken as part of the LSP1C amendment process.

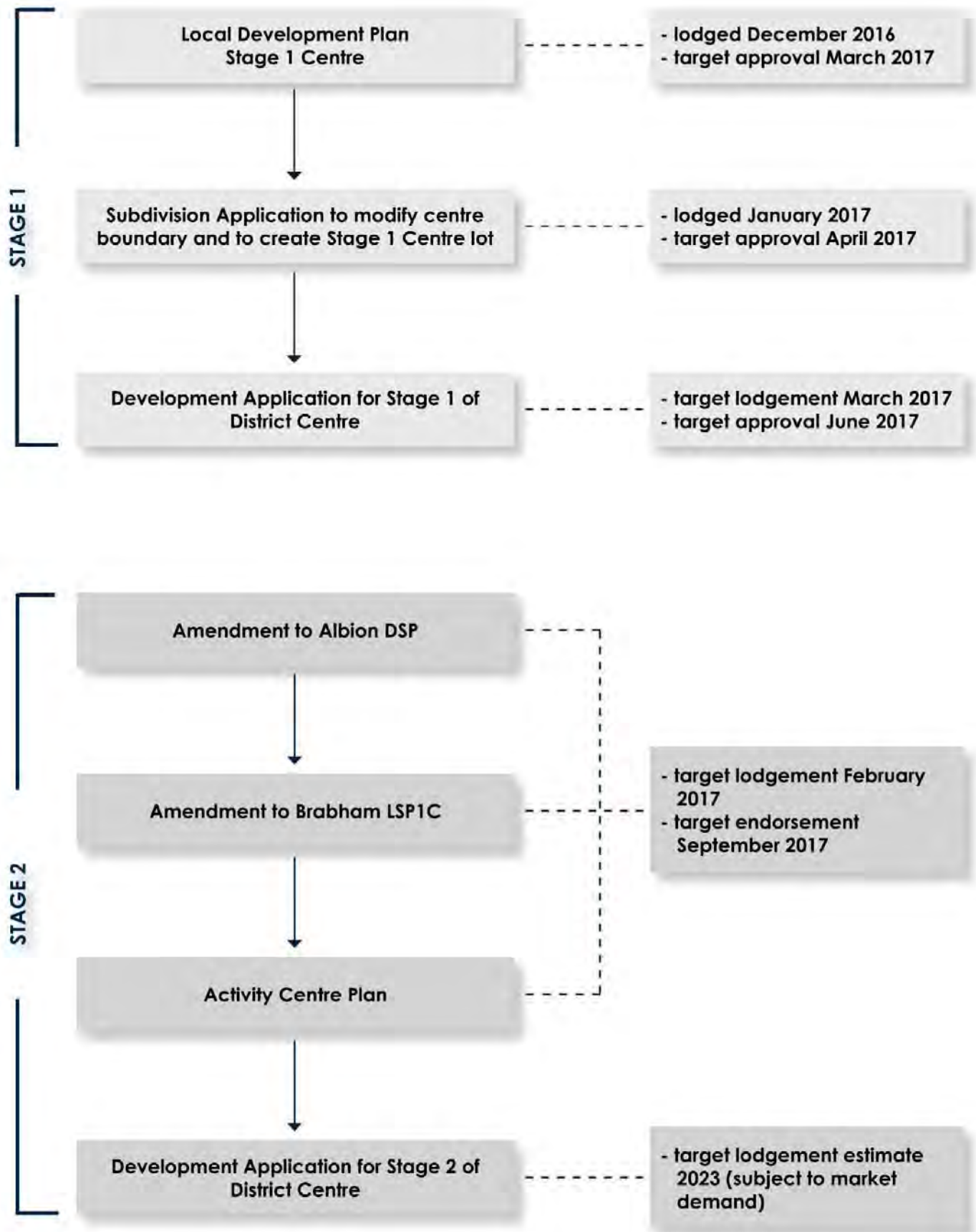
6.3 Public Transport

The State Government has recently announced the planned 'possible Ellenbrook rail line' (under investigation), which involves the construction of a dedicated bus corridor between Lord Street and the DSP area, with a station planned to the south of Youle Dean Road. The 'possible Ellenbrook rail line' (under investigation) has been recognized and considered as part of the overall traffic modeling and has resulted in some minor changes to the terminology used on the DSP Map, as well as the identification of a notional station location on the south side of Youle Dean Road within the WAPC owned Lot 95 Lord Street. Feeder bus routes are likely to operate within the DSP area and connect to the 'possible Ellenbrook rail line' (under investigation), however the precise routes are to be confirmed.

6.4 Changes from Current DSP

As outlined above, Transcore's analysis demonstrates that the proposed District Centre will not have any significant bearing on the overall road hierarchy or network capacity. Some minor changes to the transport network however, are proposed as part of this amendment, recognising the substantial changes to transport planning in the area since the DSP was first prepared. These include:

- Removal of references to PDNH and updating intersection planning to Lord Street to reflect current planning;
- Identifying Youle Dean Road west of Everglades Avenue as an Integrator Arterial A Road;
- Removing reference to a temporary intersection at Woollcott Avenue and Lord Street; and
- Including reference to the planned 'possible Ellenbrook rail line' (under investigation) and identifying a notional bus station site to the south of Youle Dean Road and west of current Lord Street within WAPC owned land.



7.0 NEXT STEPS

It is intended that an amendment to LSP1C will be progressed concurrently with this DSP amendment to modify the centre from a Neighbourhood Centre to a District Centre, consistent with the City's draft LCACS and SPP 4.2. This LSP amendment will provide a finer grain analysis of key land use considerations such as impacts on the local / district road network, as well as implications for drainage, public open space and bushfire mitigation.

The amendment to LSP1C will introduce a requirement for an ACP, to inform key land use aspects of the District Centre. It is intended that the ACP will also be progressed in parallel with this DSP amendment and the amendment to LSP1C.

A Local Development Plan for the first stage of the centre has been approved by the City of Swan, and a development application for stage one has been approved by the Metro East JDAP. The Local Development Plan was not dependent on amendments to the DSP or LSP1C, as stage one of the centre is a stand-alone centre that is entirely consistent with the current LSP1C.

It is intended that a second development application will be submitted for second stage of the centre in due course.

A diagram depicting the various planning processes and their intended timing is shown at Figure 7.

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8.0 CONCLUSION

This amendment to the DSP is necessary to align this important planning document with the various changes to the higher and lower level planning that has occurred since the DSP's completion in 2011. The amendment is consistent with a range of studies, endorsed policies, and high level planning strategies such as SPP4.2 and the City's Local Commercial Activity Centres Strategy that was advertised in December 2016. The retail and economic analysis undertaken by Stockland further confirms the support for a district centre in this location and demonstrates that the centre will have a negligible impact on other centres within the total trade area.

As demonstrated in the previous sections and appended technical report, the proposed District Centre will not have any significant implications for the planned or existing road network, including key intersections and public transport.

Stockland is a highly regarded developer of commercial activity centres across Australia, and intends to bring all of the experience and knowledge from previous projects into the delivery of the District Centre at Whiteman Edge. The end result will be an integrated, diverse, and vibrant activity centre that will be a tremendous asset for Whiteman Edge and the DSP area in general.