



Government of Western Australia
Department of Housing



Albion

Local Structure Plan 1A

VOLUME 1 - LOCAL STRUCTURE PLAN

SEPTEMBER 2014





ALBION LOCAL STRUCTURE PLAN 1A

This Local Structure Plan is prepared under the provisions of Special Use – Albion zone of the City of Swan Local Planning Scheme No. 17



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

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ENDORSEMENT PAGE

This structure plan is prepared under the provisions of the City of Swan
Local Planning Scheme No.17

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

26 NOVEMBER 2014

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

Date of Expiry:

19 October 2030







ALBION LOCAL STRUCTURE PLAN PROJECT TEAM

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Traffic Engineers	Bruce Aulabaugh
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TABLE OF CONTENTS

VOLUME ONE: LOCAL STRUCTURE PLAN 1A

PART ONE: BACKGROUND

1.0	INTRODUCTION.....	P.21
1.1	Background.....	P.21
1.2	Statutory Planning Framework.....	P.21
1.2.1	Metropolitan Region Scheme.....	P.21
1.2.2	City of Swan Local Planning Scheme No 17.....	P.23
1.2.3	Development Contribution Area.....	P.33
1.2.4	Albion District Structure Plan.....	P.35
1.2.5	Early Lot Release.....	P.37
2.0	SITE DESCRIPTION AND LOCAL CONTEXT.....	P.39
2.1	Land Ownership.....	P.39
2.2	District and Local Context.....	P.39
2.3	Site Description.....	P.41

PART TWO: ENVIRONMENTAL MANAGEMENT

3.0	ENVIRONMENTAL MANAGEMENT.....	P.43
3.1	Background.....	P.43
3.2	Water Management.....	P.45
3.2.1	Background and Reporting Framework.....	P.45
3.2.2	Water Conservation.....	P.49
3.2.3	Surface Water Management.....	P.49
3.2.4	Groundwater Level Management.....	P.55
3.2.5	Water Quality Management.....	P.55
3.2.6	Implementation and Monitoring.....	P.55
3.2.7	Groundwater Abstraction Licences.....	P.57
3.3	Acid Sulphate Soils.....	P.57
3.4	Wetland Management Plan.....	P.59





TABLE OF CONTENTS

3.5	Cultural Heritage Management Plan.....	P.59
3.6	Fire Management Plan.....	P.61
PART THREE: ALBION LOCAL STRUCTURE PLAN 1A		
4.0	LOCAL STRUCTURE PLAN DESCRIPTION AND OVERVIEW.....	P.63
4.1	Development Principles.....	P.63
4.2	Land Use Schedule.....	P.67
5.0	HOUSING STRATEGY.....	P.69
5.1	Housing Density Principles: DSP Objectives.....	P.69
5.2	Residential Densities & Housing Types.....	P.69
5.3	Lot & Dwelling Yield Estimates.....	P.73
5.4	Solar Orientation and Response to Site.....	P.75
5.5	Residential Development Standards.....	P.77
5.5.1	<i>Background & Application.....</i>	<i>P.77</i>
5.5.2	<i>LSP1A Development Standards.....</i>	<i>P.79</i>
5.5.3	<i>DSP Noise Management Plan & Quiet House Design Provisions.....</i>	<i>P.85</i>
6.0	PUBLIC OPEN SPACE STRATEGY.....	P.91
6.1	District Structure Plan Background.....	P.91
6.2	LSP1A Public Open Space Provision.....	P.93
6.3	Open Space Concept Plan.....	P.99
6.4	Public Open Space Maintenance.....	P.103
7.0	TRANSPORT & ACCESS.....	P.105
7.1	District Road Network.....	P.105
7.2	Local Road Network	P.105
7.3	Street Cross Sections.....	P.107
7.4	Traffic Forecasts.....	P.109
7.5	Intersection Treatments.....	P.109
7.6	Pedestrian Cyclist Facilities.....	P.111





TABLE OF CONTENTS

7.7 Traffic Management at Schools.....P.113

7.8 Public Transport Planning.....P.113

8.0 LOCAL CENTRE.....P.115

8.1 Background.....P.115

8.2 Land use & Evolution of the Centre.....P.115

8.3 Design Principles.....P.117

9.0 SCHOOLS.....P.119

10.0 COMMUNITY AND ECONOMIC DEVELOPMENT.....P.121

11.0 SERVICING AND INFRASTRUCTURE STRATEGY.....P.125

11.1 Sewer.....P.125

11.2 Water.....P.125

11.3 Power.....P.127

11.4 Gas.....P.129

11.5 Telecommunications.....P.129

12.0 DEVELOPER CONTRIBUTION ARRANGEMENTS & IMPLEMENTATION.....P.131

12.1 Developer Contributions and Deeds of Infrastructure.....P.131

12.2 Financial Assessment Report.....P.133

PART FOUR: STATUTORY SECTION

13.0 STATUTORY SECTION.....P.135

13.1 Statutory Area and Plans.....P.135

13.2 Density.....P.135

13.3 Public Open Space.....P.135

13.4 Conditions of Subdivision Approval.....P.137

13.5 Special Use – Local Centre.....P.139

13.6 Residential Zone.....P.139

13.7 R Code Variations.....P.141

13.8 Quiet House Design.....P.141





FIGURES

Figure 1	Albion District Structure Plan.....	P.20
Figure 2	District Context Plan.....	P.22
Figure 3	Metropolitan Region Scheme Zoning.....	P.24
Figure 4	City of Swan Local Planning Scheme No. 17.....	P.26
Figure 5	Swan Urban Growth Corridor Sub Regional Structure Plan	P.34
Figure 6	Early Lot Release Subdivision Plan	P.36
Figure 7	Albion Land Ownership Plan	P.38
Figure 8	Local Context Plan.....	P.40
Figure 9	Albion DSP Indicative Residential Density Codings.....	P.68
Figure 10	Indicative Housing Density	P.70
Figure 11	Indicative Innovative Housing Precinct Lot Density.....	P.72
Figure 12	Noise Management - Height of Noise Barrier.....	P.88
Figure 13	Noise Management - Noise Level Contours.....	P.89
Figure 14	Landscape Concept Plan.....	P.90
Figure 15	LSP1A Public Open Space Provision.....	P.92
Figure 16	Street Types Plan.....	P.106
Figure 17	Local Centre Indicative Concept Plan.....	P.116
Figure 18	Indicative Staging Plan as per Deed of Agreement.....	P.132

STATUTORY FIGURES

Figure S1	Local Structure Plan 1A.....	P.62 & 134
Figure S2	Local Structure Plan 1A Zones, Reserves and R Code Plan.....	P.138
Figure S3	Quiet House Design.....	P.140



TABLES

Table 1	Albion Special Use Zone Objectives
Table 2	Local Planning Scheme 17 Clause 5A. 1.6 – Details required to be contained within a Structure Plan
Table 3	Details Submitted as part of a Local Structure Plan pursuant to LSP17 Schedule 4 Special Use Albion Zone
Table 4	Local Structure Plan 1A Landownership
Table 5	Planning Stages and Required Water Management Strategies
Table 6	LPS 17 Schedule 4 CI 5.2.2 Compliance Audit
Table 7	LSP1A Land Use Summary
Table 8	Density Code Allocation
Table 9	Residential Lot Yield Estimate
Table 10	LSP1A Liveable Neighbourhoods Public Open Space Schedule
Table 11	LSP1A Open Space Drainage Area Specification
Table 12	Infrastructure Provision Funding and Maintenance Summary

STATUTORY TABLES

Table S1	Special Use or Local Centre Land Use Permissibility
Table S2	LSP1A R Code Variations - Cottage Lots (Rear Loaded) R40/R60
Table S3	LSP1A R Code Variations - Traditional Lots (Front Loaded) R30 & R40 (Precinct 2)
Table S4	Quiet House Design Provisions



VOLUME TWO: LOCAL STRUCTURE PLAN 1A APPENDICES

- Appendix 1 Local Water Management Strategy (Urban Water Management Plan – City of Swan LPS17), Emerson Stewart, May 2010
- Appendix 2 Acid Sulphate Soil Assessment & Management Plan, Coffey Environments, October 2009
- Appendix 3 Cultural Heritage Management Plan, Coffey Environments, February 2010
- Appendix 4 Fire Management Plan, FirePlan WA, October 2009
- Appendix 5 Landscape Concept Plan (Open Space Strategy), EPCAD, April 2011
- Appendix 6 Financial Assessment & Infrastructure Contributions Report, **Brookfield Multiplex (previous landowners), February 2010**
- Appendix 7 Transport and Movement Network, Bruce Aulabaugh, January 2010 (Revised February 2011)
- Appendix 8 Local Community and Economic Development Plan
Capire Consulting Group, October 2009
- Appendix 9 Infrastructure Report, Cossill & Webley 2011
- Appendix 10 Statutory Plans, CLE Town Planning + Design 2011

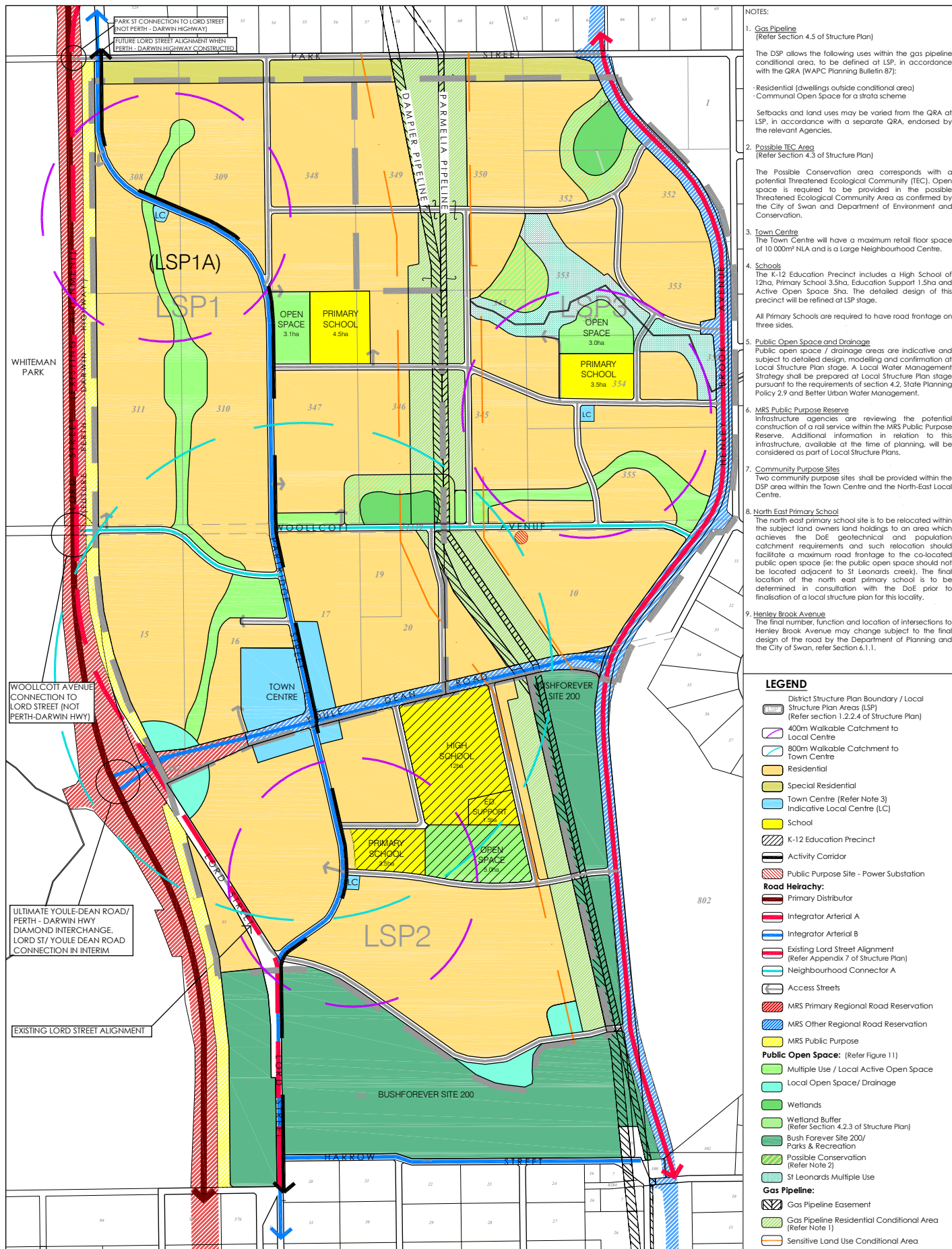


FIGURE 1

1.0 INTRODUCTION

1.1 Background

The Albion Local Structure Plan 1A (LSP1A) is lodged on behalf of the landowners Stockland Development Pty Ltd (Stockland) and Department of Housing, pursuant to City of Swan Local Planning Scheme No 17 (LPS17). The LSP area is part of a proposed Joint Venture between the land owners to deliver a diverse range of housing options, and is a priority land release area for the Department of Housing to deliver affordable land supply.

LSP1A covers Lots 308, 309, 310 and 311, located in the north western portion of the Albion District Structure Plan (DSP) area, totalling approximately 81.7 ha, bounded by Lord Street (further Perth Darwin Highway), Park Street, Partridge Street and Woollcott Avenue, refer Fig 1.

The Albion DSP covers approximately 570 ha, approximately 17km north east of Perth CBD, 5.5km south of the Ellenbrook Regional Centre and 7.5km north of the Midland Strategic Regional Centre, refer Fig 2.

LSP1A is consistent with the approved Albion DSP and demonstrates co-ordinated and comprehensive planning of the north west portion of the DSP area.

In recognition of the importance of the Swan Urban Growth Corridor in addressing urban land shortage and developer co-operation in the preparation of the Swan Urban Growth Corridor SRSP, the WAPC and City of Swan have established an early land release framework. The purpose of the early land release is to allow subdivision prior to district and local structure planning where specified criteria are satisfied. The subject land qualifies for consideration as an early land release application area.

An application for 651 lots was lodged by Brookfield Multiplex (previous landowners) and Department of Housing on 10 November 2009 (WAPC Ref 140999), consistent with the DSP and early land release criteria outlined in the WAPC's letter dated 24 December 2007, refer Fig 6. A Local Context Plan report was submitted concurrently to the City addressing the early land release criteria.

The subdivision of 537 lots was subsequently approved by the WAPC on 9 February 2011, and the proponent is currently working towards the commencement of civil works for the first stages.

1.2 Statutory Planning Framework

1.2.1 Metropolitan Region Scheme

LSP1A is consistent with the zonings under the Metropolitan Region Scheme (MRS).

The LSP1A area is zoned Urban under the MRS, refer Fig 3.

The future Perth Darwin Highway alignment, adjoining the western boundary of the LSP area, is Reserved for Primary Regional Road.

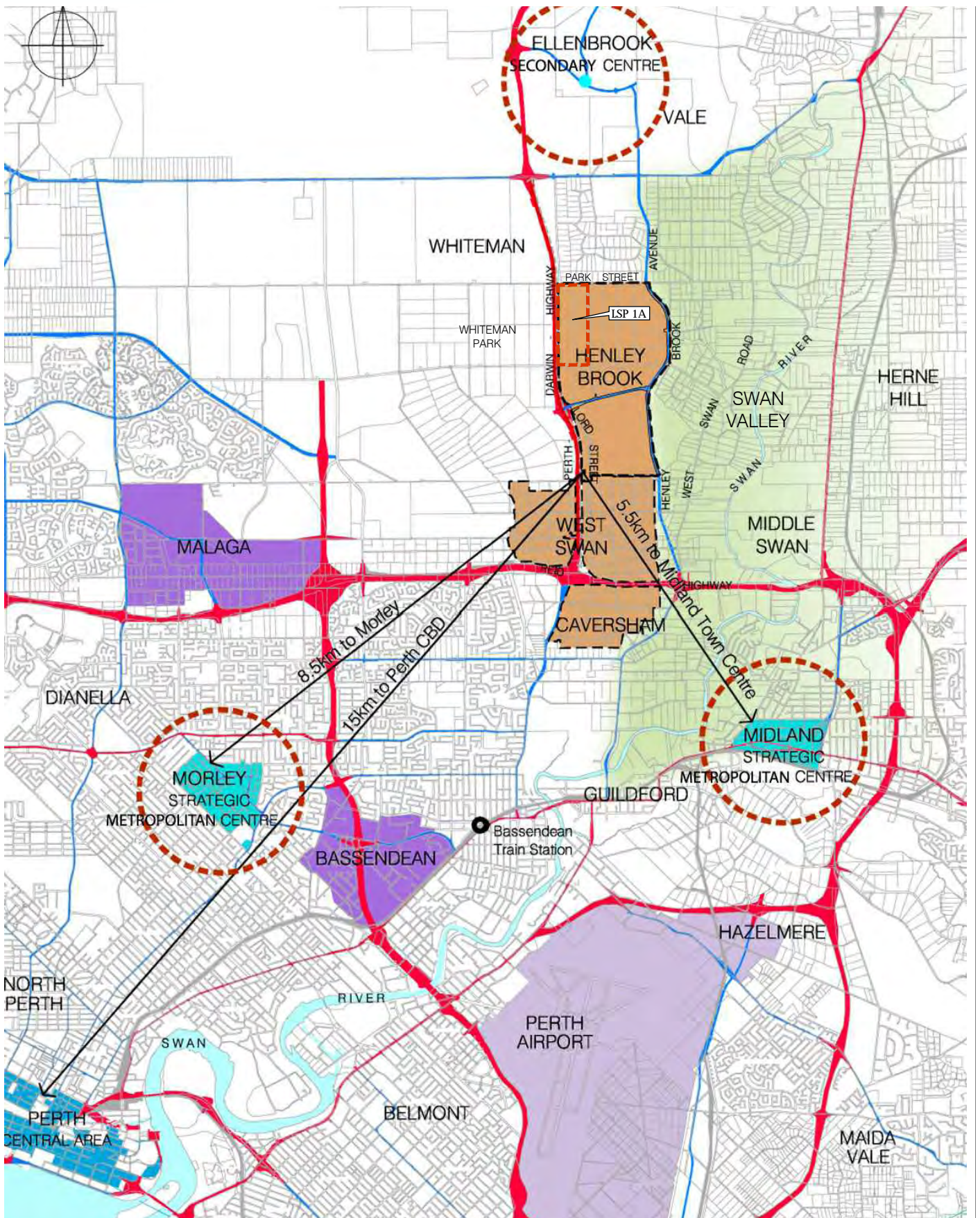


FIGURE 2

DISTRICT CONTEXT PLAN

There is a strip of Public Purposes Reserve between the Primary Regional Road Reservation and DSP area, owned by the Western Australian Planning Commission (WAPC). It is understood that this Reservation is to allow for a future public transport corridor.

1.2.2 City of Swan Local Planning Scheme No 17

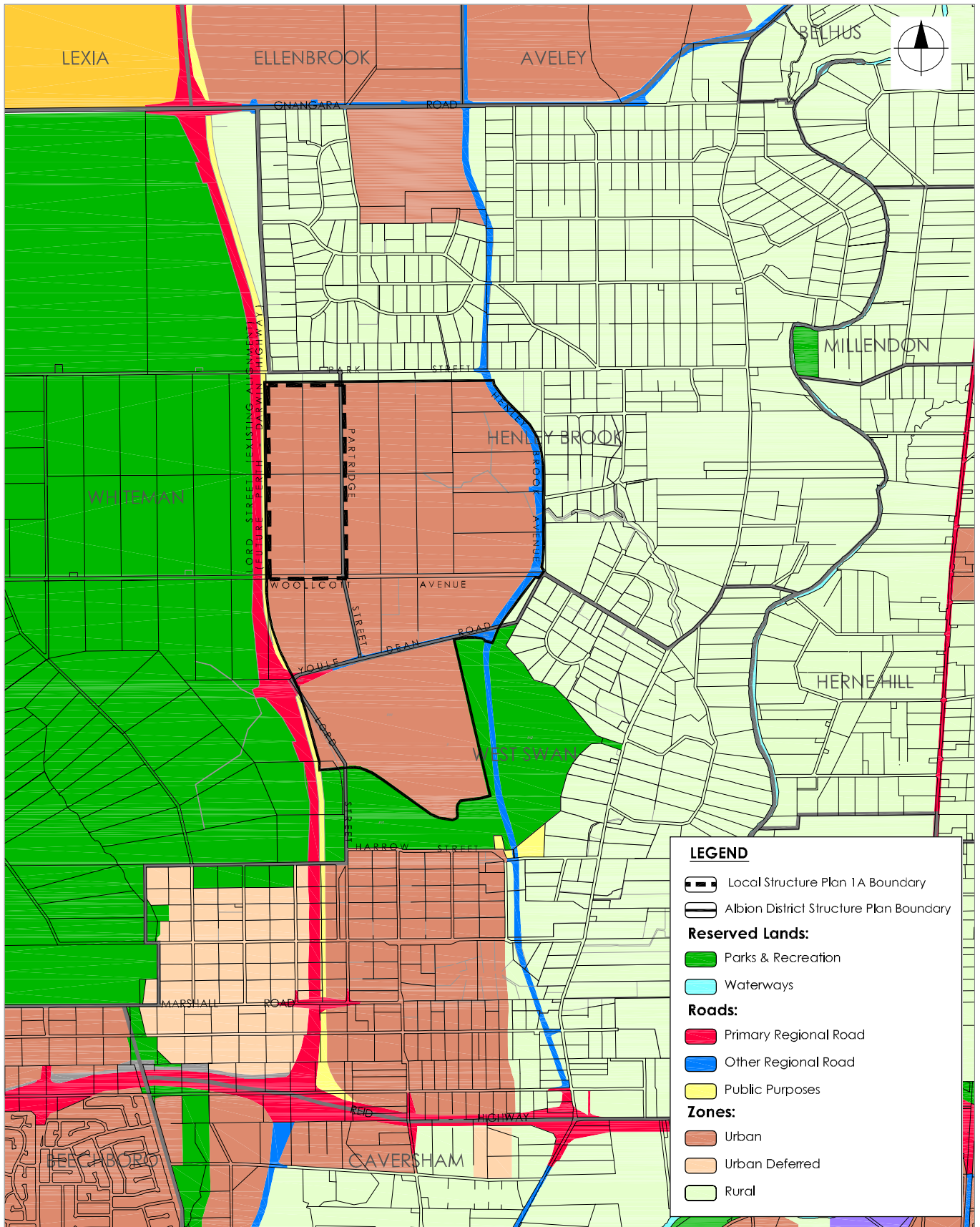
Zoning

The LSP1A is consistent with the zonings under LPS 17. The LPS1A area is zoned Special Use – Albion pursuant to the City of Swan LPS 17, refer Fig 4.

LSP 17 Schedule 4 Special Use - Albion sets out objectives for the site to be considered when preparing a district or local structure plan. Table 1 outlines each objective of schedule 4 and where the objective is addressed in this report. It is important to note that the context for all of this information is provided in the Albion DSP.

TABLE 1: Albion Special Use Zone Objectives

Objective	Relevant Report Section
a) To consider and demonstrate integration with the broader district context	Section 2.0
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	Section 3.0
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	Part 3
d) To encourage variety in the range of lot sizes and dwelling types within the Estate, consistent with a cohesive and attractive built environment	Section 5.0
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	Section 6.0
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	Section 9.0
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	Section 8.0
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	Section 8.0
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	Section 7.0



Local Structure Plan Area

A key objective of the local structure plan process under LPS 17 is to co-ordinate subdivision and development to provide comprehensive planning. Pursuant to Clause 5A.1.5.2 of LPS17 a local structure plan can be prepared over all or part of a structure planning area.

The DSP sets out indicative local structure planning boundaries for the basis of land use calculations.

The DSP acknowledges that, to a large extent, local structure planning boundaries are impacted by land ownership, development intentions and staging. The DSP establishes criteria for the determination of local structure plan boundaries, in accordance with LPS 17 Clause 5A.1.2.5.

The LSP1A boundary has been logically determined based on these criteria as well as servicing, land ownership and drainage considerations.

The following demonstrates how the LSP1A boundary meets the criteria established under the DSP.

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 specification of the Department of Water.*

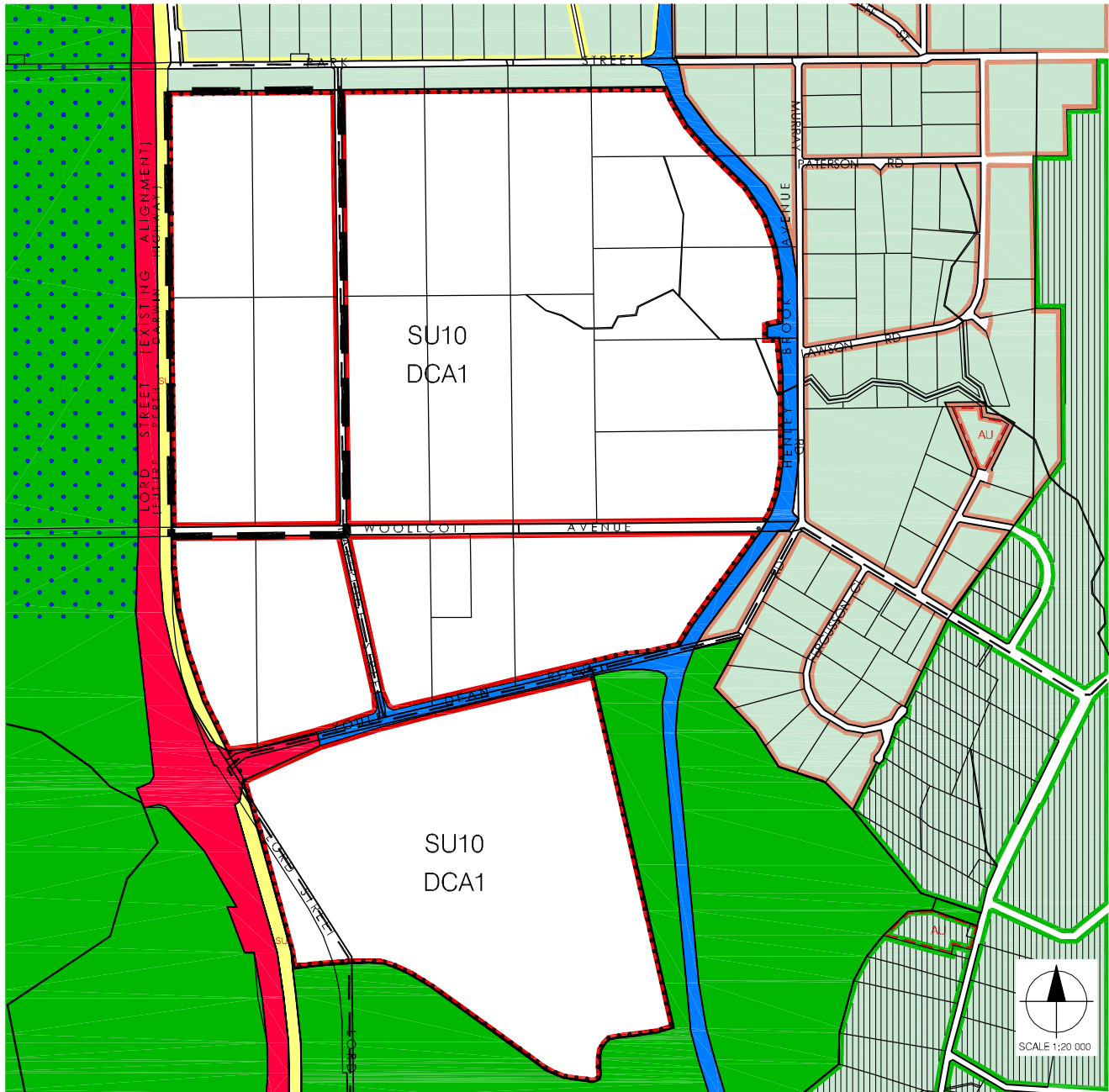
The LSP1A Local Water Management Strategy (LWMS) demonstrates that drainage can be managed in accordance with the DSP, State Planning Policy 2.9 and Better Urban Water Management. The LWMS has been approved by the City and Department of Water as part of the Early Lot Release subdivision approval.

The LSP area forms part of the Horse Swamp drainage catchment, with the land east of Partridge Street forming part of the separate St Leonards Creek drainage catchment. Therefore, Partridge Street forms a logical eastern boundary to the LSP.

The LWMS includes arterial drainage modelling to demonstrate how drainage will be managed across the Horse Swamp catchment and levels at culvert outfalls under Lord Street. The LSP1A landowners are also the major landowners in the balance of the Horse Swamp catchment.

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).*

The LSP is bounded by Partridge Street to the east and Woolcott Avenue to the south.



LOCAL STRUCTURE PLAN 1A BOUNDARY

**METROPOLITAN REGION
SCHEME RESERVES**

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

RURAL ZONES

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

OTHER

- AU** ADDITIONAL USE
- SU** SPECIAL USE AREA (SEE SCHEME TEXT)
- DCA** DEVELOPMENT CONTRIBUTION AREA BOUNDARY (SEE SCHEME TEXT)
- MUNICIPAL BOUNDARY

FIGURE 4



LSP1A intersection design and spacing allows for future development to the east and connections generally in accordance with the DSP, refer section 7.0.

Services are generally being delivered from the north west corner of the DSP area on Lord Street. The LSP1A area is frontal in terms of provision of services to the site, bringing services to the site for surrounding land owners. For further servicing detail refer to Section 11.0.

The LWMS demonstrates how drainage can be managed to the south in accordance with the DSP. As mentioned above, Stockland and Department of Housing also own the majority of the balance of the land in the Horse Swamp catchment.

3. *Management plans and landscape strategies included in the Local Structure Plan are to cover the total area of identified wetlands and conservation areas and not dissect these environmental features (to ensure protection and management is considered holistically).*

There are no wetlands or significant environmental features in LSP1A.

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.*

Partridge Street and Woolcott Avenue form a hard edge to the LSP area, providing a managed interface to future adjoining land uses. The interface to the proposed primary school to the east, in terms of intersection design and land use has been considered, refer section 5.0 & 7.7. The LSP boundary does not dissect any non-residential land uses.

LSP1A corresponds with the DSP, including higher order roads, refer section 7.0.

5. *Will result in a POS distribution which is generally consistent with the DSP and with POS credits calculated in accordance with Liveable Neighbourhoods.*

The public open space distribution is consistent with the framework provided by the DSP. LSP1A provides sufficient public open space given the additional active open space that will be provided as a component of the Development Contributions Arrangements.

6. *The local structure plan boundary will not prejudice the preparation of a local structure plan over adjoining land to achieve the above.*

The local structure plan boundary will not prejudice the preparation of local structure plans of adjoining land as LSP1A:





- Has key Integrator Arterial Roads and Access Streets bounding the perimeter of the LSP area, allowing for the required road widening of Partridge Street and for staged connections to the regional movement corridor;
- Creates a connected street network that integrates with future development to east and south, providing easy movement, legibility and public transport access;
- Creates a spine of open space connecting a series of local and district level open spaces, that continue to the south through to the Large Neighbourhood Centre;
- Provides a drainage solution connecting drainage to Whiteman Park and Horse Swamp, re-establishing a previous drainage corridor.

Local Structure Plan Information Requirements

Pursuant to Clause 5A.1.6 and Schedule 4 of LPS17 a local structure plan is required to include a number of details. Table 2 identifies the requirements of Clause 5A.1.6 and where the detail is provided in this report.



TABLE 2: Local Planning Scheme 17 Clause 5A. 1.6 - Details Required to be Contained within a Structure Plan

Detail to be Contained in a Structure Plan	Addressed within this Report
(a) a map showing the area to which the proposed structure plan is to apply;	Statutory Figure S1
(b) a site analysis map showing the characteristics of the site including - (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;	Section 3.0 Figure 8
(c) a context analysis map of the immediate surrounds to the site including - (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;	Figures 1, 2 & 8
(d) for local structure plans, a map showing proposals for - (i) neighbourhoods around proposed neighbourhoods and town centres;	Statutory Figure S1
(ii) existing and proposed commercial centres;	Statutory Figure S1
(iii) natural features to be retained;	Section 3.0
(iv) street block layouts;	Statutory Figure S1
(v) the street network including street types;	Stat Figure S1, Section 7.0 & Appendix 7
(vi) transportation corridors, public transport network, and cycle and pedestrian networks; and	Section 7.0 & Appendix 7
(vii) land uses including residential densities and estimates of population	Section 5.0
(viii) schools and community facilities	Section 9.0 & 10.0
(ix) public parklands; and	Section 6.0 & Stat Figure S1
(x) urban water management areas.	Section 3.0 & Appendix 1
(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 3.0 & Figure 8
(iii) the context analysis including reference to the matters listed in clause 5A.1.6.1 (c) above;	Parts 1 & 2
(iv) how planning for the structure plan area is to be integrated with the surrounding land;	Parts 1 & 2
(v) the design rationale for the proposed pattern of subdivision, land use and development;	Part 2 & Section 4.0
(vi) traffic management and safety;	Section 7.0 & Appendix 7
(vii) parkland provision and management;	Section 6.0
(viii) urban water management	Appendix 1 & Section 3.2
(ix) proposals for public utilities including sewerage, water supply, drainage, gas, electricity and communication services;	Section 11.0
(x) the proposed method of implementation including any cost sharing arrangements and details of any staging of subdivision and development; and	Sections 11.0 & 12.0
(xi) fire risk management	Section 3.6



In addition to Clause 5A.1.6 Schedule 4 of LPS17 sets out an environmental reporting hierarchy to be incorporated as a detail of the local structure plan. Table 3 sets out the requirements of Schedule 4 and where they are addressed in this report.

TABLE 3: Details Submitted as part of a Local Structure Plan pursuant to LSP17 Schedule 4 Special Use Albion Zone

Requirement	Addressed within this Report
Acid Sulphate Soils (ASS) Site Assessment Management Plan	Appendix 2
Urban Water Management Plan <i>Note: Local Water Management Strategy required pursuant to DSP, SPP2.9 and Better Urban Water Management</i>	Appendix 1
Wetland Management Plan	Refer Section 3.4
Cultural Heritage Management Plan	Refer section 3.5 and Appendix 3
Fire Management Plan	Section 3.6 and Appendix 4

1.2.3 Development Contribution Area

The Albion DSP area, which includes the LSP1A area, is identified as Development Contribution Area 1 (DCA1) under Schedule 13 of LSP17 (refer Figure 4), and thus gives effect to the Brabham (Albion) Development Contribution Plan.

Pursuant to LPS17 the objective of a Development Contribution Area is to ensure the equitable sharing of costs reasonably associated with subdivision and development between stakeholders and that infrastructure is delivered in a timely manner. The Development Contribution Plan (DCP) for DCA1 is the mechanism that delivers the key outcomes of the Swan Urban Growth Corridor Sub Regional Structure Plans, the Urban Growth Corridor Sub Regional Planning Community Facilities Analysis and Albion District Structure Plan (DSP).

The DCP applicable to DCA1 identifies infrastructure items that immediately adjoin the LSP1A area, as well as throughout the wider District, which are required to be ceded, resumed or constructed as part of the process of converting Albion from a predominately rural use to an urban use consistent with the structure planning outcomes. The 'Infrastructure Demand' is apportioned across the development in order to derive Infrastructure Contribution Rates for each network of Infrastructure.

Each developer will be required to make Cost Contribution payment based on the area that they develop and the applicable Contribution Rate for DCA1.

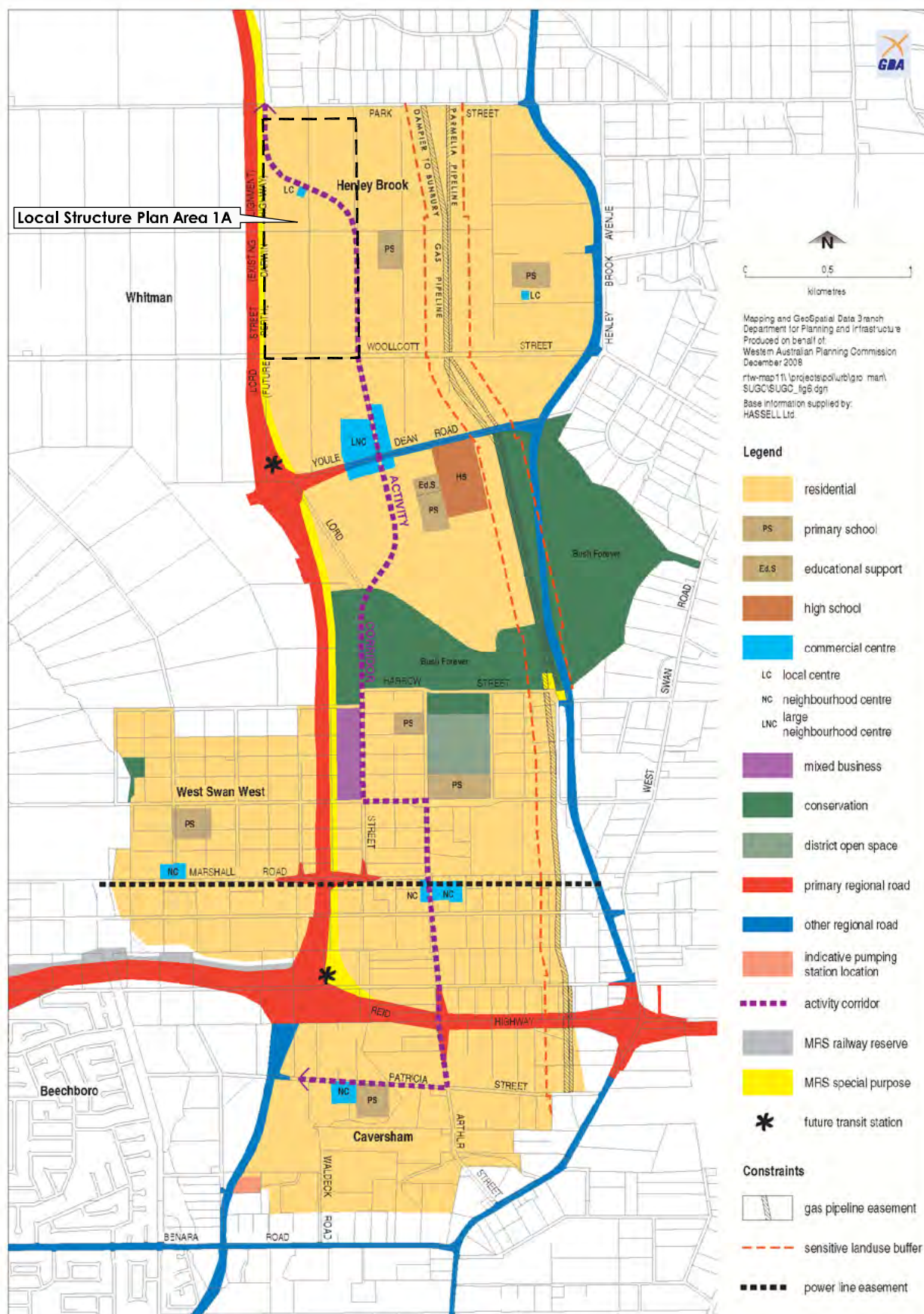


FIGURE 5

1.2.4 Albion District Structure Plan

The Albion DSP was endorsed by the WAPC on 15 December 2010 and provides a land use and reporting framework for future local structure planning and subdivision applications, refer Fig 1. The DSP is in accordance with the WAPC Swan Urban Growth Corridor Sub Regional Structure Plan 2009 (SRSP), refer Fig 5.

Pursuant to LPS 17 the DSP includes, as a detail, a number of endorsed environmental management plans:

- Strategic Acid Sulphate Soils Management Plan
- Local Water Management Strategy
- Noise Management Plan
- Quantitative Risk Assessment Plan (Planning Bulletin 64)
- Bushland Management Plans.

Key land use components identified in the DSP applicable to Lots 308-311 are:

- North south Integrator Arterial B, referred to as an Activity Corridor under the DSP & SRSP, providing for district car and bus movements north to Ellenbrook and south to Midland. This is addressed in Section 7.0 of this report.
- Predominantly residential land use with a base R Coding of R30 and R40 adjoining the north south connector. This is addressed in Section 5.0 of this report.
- Open space network serving a conservation, drainage and recreation function. Open space is located in a central spine through the LSP1A area, with a central passive local open space / kick about area of approximately 2.5ha. The DSP requires the preparation of a public open space schedule in accordance with Liveable Neighbourhoods. This is addressed in Section 6.0 of this report.
- Local centre retail with an indicative retail floorspace of 300 – 400m² and located in the north western quadrant. In accordance with the DSP Commercial Centres Strategy provision of the local centre is subject to economic viability. This is addressed in Section 8.0 of this report.
- The future Large Neighbourhood Centre is located to the south of the site. The residential density response is addressed in Section 5.3 of this report.
- Primary School and co-located open space adjoining the eastern boundary of Lot 310, on Lot 347. This is addressed in Sections 7.0 & 9.0 of this report.



FIGURE 6

- The current Lord Street (future Perth Darwin Highway) alignment adjoins the site's western boundary. The DSP Acoustic Assessment requires a 1.8m barrier along the boundary and quiet house design for the first row of houses. This is addressed in Section 5.3 of this report.

1.2.5 Early Lot Release

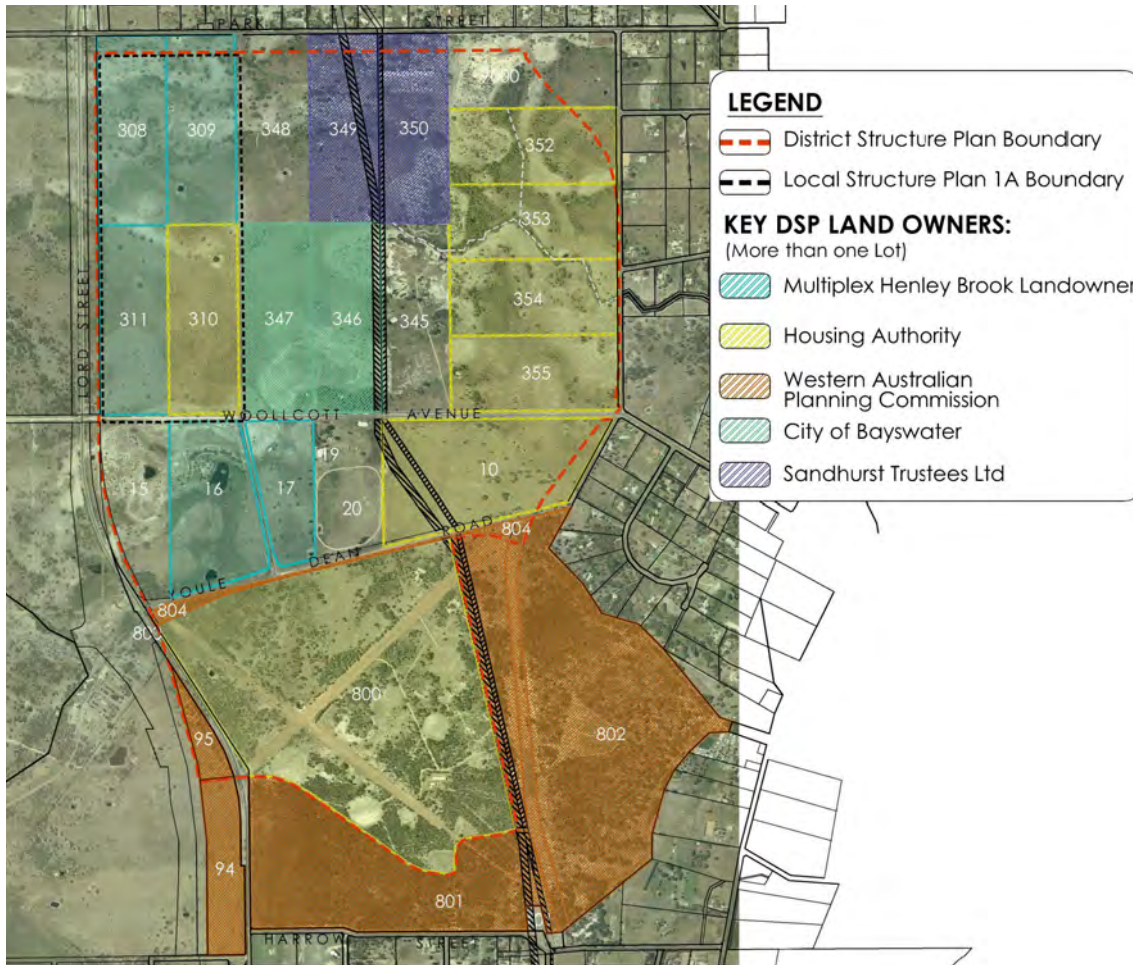
In recognition of the importance of the Swan Urban Growth Corridor in addressing urban land shortage and developer co-operation in the preparation of the Swan Urban Growth Corridor SRSP, the WAPC and City of Swan have established an early land release framework. The purpose of the early land release is to allow subdivision prior to district and local structure planning where specified criteria are satisfied.

An application for 651 lots was lodged by Brookfield Multiplex (previous landowners) and Department of Housing on 10 November 2009 (WAPC Ref 140999), consistent with the DSP and early land release criteria outlined in the WAPC's letter dated 24 December 2007, refer Fig 6. A Local Context Plan report was submitted concurrently to the City addressing the early land release criteria.

The subdivision of 537 lots was subsequently approved by the WAPC on 9 February 2011, and the proponent is currently working towards the commencement of civil works for the first stages.

The early land release framework has now been rescinded by the WAPC and is no longer applicable as:

- The early land release criteria has provided for first stage subdivision approval within the localities of Albion, West Swan East and Caversham;
- The intention of the criteria was to provide for limited (up to 10%) subdivision within each individual structure plan area and that this has been met; and
- Future applications will be considered by the WAPC within the context of the City of Swan local structure planning requirements.



Lot	Plan/Diagram	CT (Vol/Folio)	Address	Owner	Total Area (ha)**	Area Within SP
308	P4560-308	1368/417	Lot 308 Park Street, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	20.2798	18.2034
309	P4560-309	1596/810	311 Park St, Whiteman	Multiplex Henley Brook Landowner Pty Ltd	20.3607	18.2899
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	20.2978	20.2978
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	254 Woolcott Avenue, Henley Brook	City of Bayswater	20.2672	20.2672
		1389/783		City of Bayswater		
348	P4560-348	1368/414	285 Park Street, Henley Brook	Emgekey Investments Pty Ltd	20.2621	18.2584
				Minx Pty Ltd		
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	Housing Authority	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	2103/682	Lot 19 Woolcott Avenue, Henley Brook	P & N Landreach Pty Ltd	3.5864	3.5864
20	D91765-20	2103/681	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 Aliens 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					658.9829	503.9906

** Affected by Gas Pipeline Easement

** Areas as per Certificate of title

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

FIGURE 7

2.0 SITE DESCRIPTION AND LOCAL CONTEXT

2.1 Land Ownership

LSP1A proponents Stockland and the Department for Housing are working co-operatively in a Joint Venture agreement to progress the development of Lots 308-311. Stockland and Department of Housing represent the majority of landowners in the DSP area, with approximately 73% of the total DSP area.

Table 4 and Figure 7 demonstrate the landownership breakdown within LSP1A.

TABLE 4: Local Structure Plan 1A Landownership

Lot	Plan / Diagram	CT (Vol / Folio)	Owner	Total Area	Area within LSP1A
308	P4560-308	1368/417	Stockland Landowner	20.2798	18.2034
309	P4560-309	1596/810		20.3607	18.2899
311	P4560-311	1644/954		20.2978	20.2978
310	P4560-310	1834/185	Housing Authority	20.5479	20.5479
Total				81.4862	77.339

2.2 District & Local Context

The Albion DSP covers approximately 570 ha, approximately 17km north east of the centre of Perth, 5.5km south of the Ellenbrook Regional Centre and 7.5km north of the Midland Strategic Regional Centre, refer Fig 2.

The existing Lord Street (future Perth Darwin Highway) adjoins the LSP's western boundary, Woolcott Avenue adjoins the southern boundary and Park Street is located to the north, refer Fig 8.

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.



FIGURE 8

LOCAL CONTEXT PLAN

2.3 Site Description

LSP1A comprises the urban zoned portion of Lots 308-311 and the adjoining Partridge Street and Woolcott Avenue road reserves, located in the north western corner of the DSP area totalling 81.9ha.

LSP1A is mostly cleared and has been used predominantly for agricultural land uses, including grazing of cattle and horses. The site is generally flat, with elevations ranging from 32m to 38m AHD in the northern portion of the site to 28.5m to 30m in the southern portion. The majority of the site is grassland with generally sparse trees. Trees become more predominant in the northern portion of the site where ground elevations are higher.

Numerous drains traverse the southern half of the site to drain surface water away from Lord Street and towards adjacent landholdings to the east.

The LSP1A area does not contain any Conservation Category or Resource Enhancement Wetlands. The DSP does not require the retention of any conservation areas within LSP1A.

Geotechnical investigations and a groundwater monitoring programme commenced on the site during May 2009 to build on data captured during previous monitoring programmes, refer Appendix 1.

Medium grained, free draining sands with relatively low non-plastic fines are located across the site. This sand is highly suitable for residential development. Some coffee rock was encountered locally and will be removed from the sands.

Ground water levels vary 1.2m on average between May and October, typical for the Swan Coastal Plain. Minimum and maximum ground water levels varied between 1.1m to 4.1m below ground level in May, while in October the levels ranged from 0.1m to 3.4m below ground level. Groundwater levels on the site appear to be influenced by rainfall and not by external inflows.

A Water Corporation production bore is located in the south east corner of Lot 310. The Water Corporation require the production bore to be retained within public open space with an easement of approximately 1000m² and direct road access.



3.0 ENVIRONMENTAL MANAGEMENT

3.1 Background

The following sections provide an outline of the environmental management reports accompanying the LSP and their implications for LSP1A. The full reports are contained in Volume 2.

Pursuant to Schedule 4 of LPS 17, the following environmental reports were endorsed as a detail of the Albion DSP:

- Strategic Acid Sulphate Soils Management Plan
- Local Water Management Strategy
- Noise Management Plan
- Quantitative Risk Assessment Plan
- Bushland Management Plan.

These reports provide a framework for environmental management at LSP and subdivision stage.

LPS 17 requires a number of environmental management plans as a detail of an LSP:

- Urban Water Management Plan
- Acid Sulphate Soils Site Assessment Management Plan
- Wetland Management Plan
- Cultural Heritage Management Plan
- Fire Management Plan

A Construction Management Plan, Unexploded Ordnance Remediation Plan and a Contaminated Sites Assessment are not required to be undertaken at the time of subdivision, as they are not relevant to the LSP1A area.

The following summarises the environmental management framework for LSP1A.



3.2 Water Management

3.2.1 Background and Reporting Framework

LPS 17 sets out a framework for water management reporting for Albion at DSP, LSP and subdivision stages. A Local Water Management Strategy (LWMS) was prepared and adopted as a detail of the Albion DSP, pursuant to LPS 17. The Albion DSP LWMS was prepared in the context of regional and district ground water studies: Drainage Management Strategy for the North East Corridor (GB Hill 1995) and the Swan Urban Growth Corridor Drainage Water Management Plan (DWMP) (GHD 2009).

LPS 17 Schedule 4 requires the preparation of an Urban Water Management Plan (UWMP) to support a LSP. This is inconsistent with the hierarchy of water strategy documents outlined in the WAPC Better Urban Water Management 2008, which requires a LWMS to be prepared at the local planning level. The water management strategies and plans required pursuant to BUWM and LPS 17 are compared in Table 5.

Consistent with state planning policy the endorsed Albion DSP sets out an agreed water management reporting framework at LSP and subdivision stages, refer Table 5. It has been agreed with the City of Swan and the Department of Water (DoW) that the appropriate level and content of investigation and reporting for a LSP is a Local Water Management Strategy, as required by BUWM. Urban Water Management Plans (UWMP) will be prepared for all subsequent subdivision application areas.

TABLE 5: Planning Stages and Required Water Management Strategies

Planning Phase	BUWM - Water Management Strategy/Plan	LPS 17 - Water Management Strategy/Plan	Agreed Albion Water Management Framework
District Structure Plan	Drainage and Water Management Plan / District Water Management Strategy	Local Water Management Strategy	Local Water Management Strategy
Local Structure Plan	Local Water Management Strategy	Urban Water Management Plan	Local Water Management Strategy
Subdivision	Urban Water Management Plan	No Report Required	Urban Water Management Plan

Albion LSP1A LWMS provides a localised urban water management strategy for the site consistent with the requirements of the Albion DSP LWMS, the framework and requirements outlined in BUWM and LPS 17. This LWMS has been approved by both the City and Department of Water as part of the Early Lot Release subdivision approval process.



While referred to as the LSP1A LWMS, the document addresses the reporting requirements under LPS 17 at LSP stage (which refers to a UWMP), refer Table 6. To address the nomenclature inconsistencies between LPS 17 and BUWM the LSP1A LWMS includes the following sub-heading 'Urban Water Management Plan – City of Swan LPS 17'. A UWMP has been prepared in support of the approved Early Lot Release subdivision.

TABLE 6: LPS 17 Schedule 4 CI 5.2.2 Compliance Audit

	Requirement of LPS Schedule 4 CI 5.2.2	Addressed in LPS1A LWMS Report Section
a)	Demonstrate compliance with Design Objectives	1.2.3
b)	Site conditions – management of water dependent ecosystems & contamination/nutrient hot spots;	2
c)	Specific BMP's and design of water management systems;	7; 10.3.1 & 11.3
d)	The results of detailed environmental and hydrological studies;	2
e)	Precise predictions and post-development modelling	5 & 6
f)	Details of location and design of drainage infrastructure;	5 & 6
g)	Details of monitoring program to evaluate ground and surface water quality, flows and levels, including the location and design of any current and proposed monitoring stations;	2.4; 2.5 & 11.3
h)	Descriptions and cost-benefit analysis (including whole of life costing) for any structural or non-structural controls;	11.3
i)	Precise and measurable targets and limits for ground and surface water quality, flows and levels that are to be maintained for the development area. This will be accompanied by a clear description of the roles and responsibilities agreed upon by each agency and the agencies commitment for action to be taken	5.4.3; 7.2.3; 11.2 & 11.3
j)	Details of rehabilitation work to be undertaken in existing wetlands where relevant	2.6 & 11.3



The following summarises the key outcomes and implications of the LSP1A LWMS.

3.2.2 Water Conservation

The Department of Water published the State Water Plan (2007) as a strategic policy and planning framework for meeting the State's water demands to the year 2030. It also integrates a wide range of water policy reforms at state and national level. One of the key objectives is to reduce water consumption to less than 155kL per person per year by 2012 and to reduce potable water consumption to a design objective of 40kL – 60kL per person per year.

The LWMS sets out several Demand Management Initiatives to achieve these objectives, including:

1. Demand management initiatives

- Implement and/or promote 'lot level' water conservation initiatives to reduce potable and non-potable water use. This includes appliance choice and garden design.
- Implement the initiatives in the Water Corporation's five-step WaterWise Land Development Guidelines to minimise water use in Public Open Space areas.

Further detail as to water conservation strategies has been provided as part of the UWMP.

3.2.3 Surface Water Management

The Drainage Management Strategy for the North East Corridor (GB Hill, 1995) identified three surface water catchments for the greater Albion area: Horse Swamp, St Leonards Creek and Wandoo Creek. The proposed LSP1A site is located within the Horse Swamp catchment. Subsequent to the 1995 Strategy Lord Street was constructed on embankment fill and effectively created a drainage barrier that prevented flow east of Lord Street from reaching the Horse Swamp drain. The Swan Urban Growth Corridor DWMP proposed that the original Horse Swamp catchment be restored through the construction of two new 900mm diameter culverts under Lord Street at the intersection of Youle Dean Road. Reinstatement of this drainage flow west will be implemented as part of ongoing development of the area.



The LSP1A comprises the northern portion of the Horse Swamp catchment, with the land to the east of Partridge Street forming part of the St Leonards Creek catchment, refer Appendix 1 Figure 5.1. The balance of the Horse Swamp catchment to the south is largely owned by Stockland and Department of Housing.

The Albion DSP, section 4.2.5, states that the fragmented landownership within the DSP area must be acknowledged in the preparation of the LWMS to prevent an up or down stream landowner being adversely affected by drainage planning on another landholding. Therefore, while an LSP may be prepared over a single landholding, the LSP LWMS arterial drainage planning can not be limited to the extent of the LSP and must be extended to the full drainage sub-catchment to demonstrate how the LWMS integrates with regional planning.

The LSP1A LWMS includes arterial drainage modelling for the Horse Swamp catchment demonstrating invert levels, peak flows and maximum depths at lot boundaries and outfall locations. The flow rates are in accordance with the Swan Urban Growth Corridor DWMP.

The following summarises the key surface water management strategies:

1. Flood management

Flood conveyance

- Construct a landscaped swale through the north-south open space corridor to provide flood conveyance for the 100 year ARI flows.
- Upgrade existing culverts under Lord Street (at Youle-Dean Road) to 2 x 900mm diameter pipe culverts to re-establish the original Horse Swamp catchment boundary.
- Provide an overland flow path from Woolcott Avenue to the new pipe culverts under Lord Street.
- Upgrade road crossings over the Horse Swamp drain west of Lord Street to provide adequate flood protection for the increased flows after re-establishment of the Horse Swamp catchment boundary.

Floodplain management strategy and minimum pad levels

- For areas adjacent to the main drainage system, provide a minimum habitable floor level of 0.50m above the adjacent 100 year ARI flood level to ensure adequate flood protection.
- For all other areas that are located outside of the main drainage system, provide a minimum habitable floor level of 0.30m above the 100 year ARI flood level.



2. Local stormwater management

Post-development flows and storage

- Post-development flow rates are to be similar to the pre-development flow rates.
- Implement water sensitive urban design and structural best management practise (BMP) treatment trains for pre-treatment of stormwater prior to discharge in the main drainage system.
- Provide off-line storage on a sub-catchment level to attenuate post-development flows to pre-development levels through use of swales within POS areas.

These flood and stormwater strategies will be achieved by implementing the following lot level /streetscape design initiatives:

Lot runoff

- Provide connections from roofs via retention/overflow soakwells systems located at the lot boundary through to the road drainage where infiltration is unfeasible due to the geotechnical conditions. The overflow system will be designed to maximise infiltration through to subsoil drains located in the road reserve, and will be connected to the stormwater drainage network to allow overflow when the inflows exceed the infiltration capacity.
- Roof runoff will be directed into internal soakwells to promote infiltration where soil conditions permit.

Road runoff

- A conventional piped network with 'leaky' side entry/gully pits located to suit appropriate spread rates and pit spacings will be designed for the road drainage. The level of service for the side entry/gully pits and the pipe network will be dependent on the road classification.

District distributor (Woollcott Avenue and Partridge Street) and Access Roads

- Serviceability/minor: Side entry/gully pits spacing and pipes sized to convey the 5 year ARI event.
- Major Conveyance: Events exceeding the 5 year ARI event will be conveyed via pipe flow and overland flow.



3.2.4 Ground Water Level Management

A subsoil drainage system is proposed to limit the seasonal variation of water levels as a result of rainfall. The drainage system will be installed above the average annual minimum groundwater level to prevent a lowering of the regional groundwater table and any potential Acid Sulphate Soils risks. Subsoil drainage will be installed in road reserves and not within privately owned lots.

Final earthworks levels to be designed to provide an adequate clearance to the ground water level. As a minimum, the finished lot levels should be 0.8m above the phreatic line of the CGL (GHD, 2009).

Flows from subsoil drains to be directed into a water quality treatment BMP prior to discharging into the open space areas and ultimately into the Horse Swamp drain.

3.2.5 Water Quality Management

To achieve the design objectives for water quality within the LSP area, structural BMP treatment trains will be selected and designed based on the following local level design principles:

- Maximise at source retention (via infiltration) where possible.
- 'Disconnect' the low flow (Storm Events < 1 year ARI) stormwater drainage system from the main drainage system (minimise the 'Effective Imperviousness' of the subcatchment).
- Retention and/or detention of stormwater within open space areas prior to overflow into the main drainage system.
- Retain the pre-development hydrology of a site, the order of management priorities is:
 - The magnitude of peak flows.
 - The volume of catchment run-off.
 - The seasonality of catchment run-off.

3.2.6 Implementation & Monitoring

The LSP1A LWMS sets out a construction management plan as well as ongoing monitoring commitments.

A local monitoring program has commenced within LSP1A to collect groundwater level and quality data for the 2009 and 2010 winter rainfall periods. The LWMS sets out a program for ground water monitoring at UWMP stage, pre and post development.



Various BMP's are proposed within the LSP area to minimise stormwater pollutant loads, groundwater pollution and variations in hydrology. Some of these are structural (e.g. POS and bioretention systems) while others non-structural (e.g. fertiliser control, waterwise landscaping, soil amendment etc.).

A monitoring program will be developed to monitor the performance of BMP treatment trains and the performance of subsoil drains. The BMP monitoring program will be developed in the UWMP, once the treatment trains have been finalised. Costs for BMP monitoring will be funded by the developer.

Outflow to Horse Swamp should be included in the post development monitoring program to record post development water quality and the effectiveness of upstream BMP's.

The Albion DSP LWMS (JDA, 2009) proposed contingency actions during the assessment of BMP performance compliance. A site specific contingency plan will be developed during UWMP stage with associated trigger values. In the interim the long and short term nutrient reduction targets established in the DWMP will be used.

UWMP's will be prepared for all subsequent subdivision application areas. The LSP1A LWMS sets out requirements to be addressed in each UWMP.

The Financial Assessment Report, at Appendix 6, sets out more detailed information as to the funding and responsibilities for the implementation of the LWMS and subsequent UWMP.

3.2.7 Groundwater Abstraction Licences

There are no current groundwater allocations for the properties within LSP1A.

The LSP1A site is located within the Swan Groundwater Area. Discussions with Department of Water have indicated that the Swan Groundwater Area is fully allocated and new water allocations are unlikely to be approved (pers. comm. Kylie Lambert).

Stockland currently holds a water allocation for their Vale project. A balance exists within this allocation that is proposed to be transferred to the Albion LSP1A area.

3.3 Acid Sulphate Soils

Pursuant to LPS 17 a Strategic Acid Sulphate Soils (ASS) Management Plan was adopted as a detail of the Albion DSP. LPS 17 requires an ASS Site Assessment Management Plan at LSP stage.

The LSP1A ASS Site Assessment Management Plan is contained at Appendix 2.

Generally the topsoil profile was found to be acidic and will require management. The subsoil profile below the topsoil and above the groundwater level was generally not ASS or marginally ASS (with SPOS <0.04%S). The profiles above groundwater that had strong associations with ASS were the coffee rock and grey clayey sand units.



In accordance with the WAPC Acid Sulphate Soils Planning Guidelines 2009 detailed ASS investigations and management will be implemented as a standard condition of subdivision approval, once the civil engineering design of the site is finalised. An ASS Management Plan will be prepared and presented to the Department of Environment & Conservation and Department of Water obtain appropriate licences prior to site works commencing. This approach will fulfil the requirements of the City of Swan's LPS17 Section 5.2.1 (a) and (b).

3.4 Wetland Management Plan

The LSP1A Area does not contain any Conservation Category or Resource Enhancement wetlands identified for retention under the endorsed Albion DSP. Pursuant to LPS 17 a Wetland Management Plan is not required.

The area contains a Multiple Use Palusplain 77 (Hill et.al., 1996) (UFI 13396). A Multiple Use Wetland has few important ecological attributes and functions remaining.

The Albion DSP indicates Palusplain 77 will be retained in part and the retained portions will be modified, filled and channelled, for drainage purposes. The drainage, re-contouring and landscape treatment of retained and modified portions of the Multiple Use Palusplain 77 is addressed in the LWMS at Appendix 1 and the Public Open Space Strategy, Section 6.0.

3.5 Cultural Heritage Management Plan

LPS 17, Schedule 4, requires the preparation of a Cultural Heritage Management Plan at LSP stage, contained at Appendix 3.

Importantly there are no Aboriginal heritage sites within LSP1A. This has been confirmed as part of investigations under taken by Martinick and Associates in 1994 and more recent searches of the Department of Indigenous Affairs Aboriginal Heritage Inquiry System.

The Department of Housing have received approval from the Minister for Aboriginal Affairs under Section 18 of the Aboriginal Heritage Act 1972, for Lot 310, refer Appendix 3.

In accordance with the City of Swan's LPS 17 Section 5.2.4 (c) and the Section 18 approval, the commitments made to the Aboriginal people during consultation will be undertaken and the advice of the Aboriginal people will be sought in the naming of streets.

Acknowledging the requirements of the Aboriginal Heritage Act 1972, all contractors working on the site will be made aware of their responsibilities with regards to the discovery of Aboriginal Heritage Sites through induction training. They will be educated to recognise materials that may constitute a possible Aboriginal Site, as per Section 5.2.4 (e) of the City of Swan's LPS17, and the steps to be taken in the event of an Aboriginal Site being found.





3.6 Fire Management Plan

LPS 17 requires the submission of a Fire Management Plan as a detail of a LSP. The LSP1A Fire Management Plan has been prepared in accordance with the WAPC's Planning for Bushfire Protection guidelines and is contained at Appendix 4.

Given the site is largely cleared the fire risk has been identified as being low. The LSP1A area is surrounded by road reserve on all sides and does not contain, nor directly abut, bush land areas that represent a significant fire risk.

The Fire Management Plan sets out a strategy for strategic fire breaks around development stages during construction.

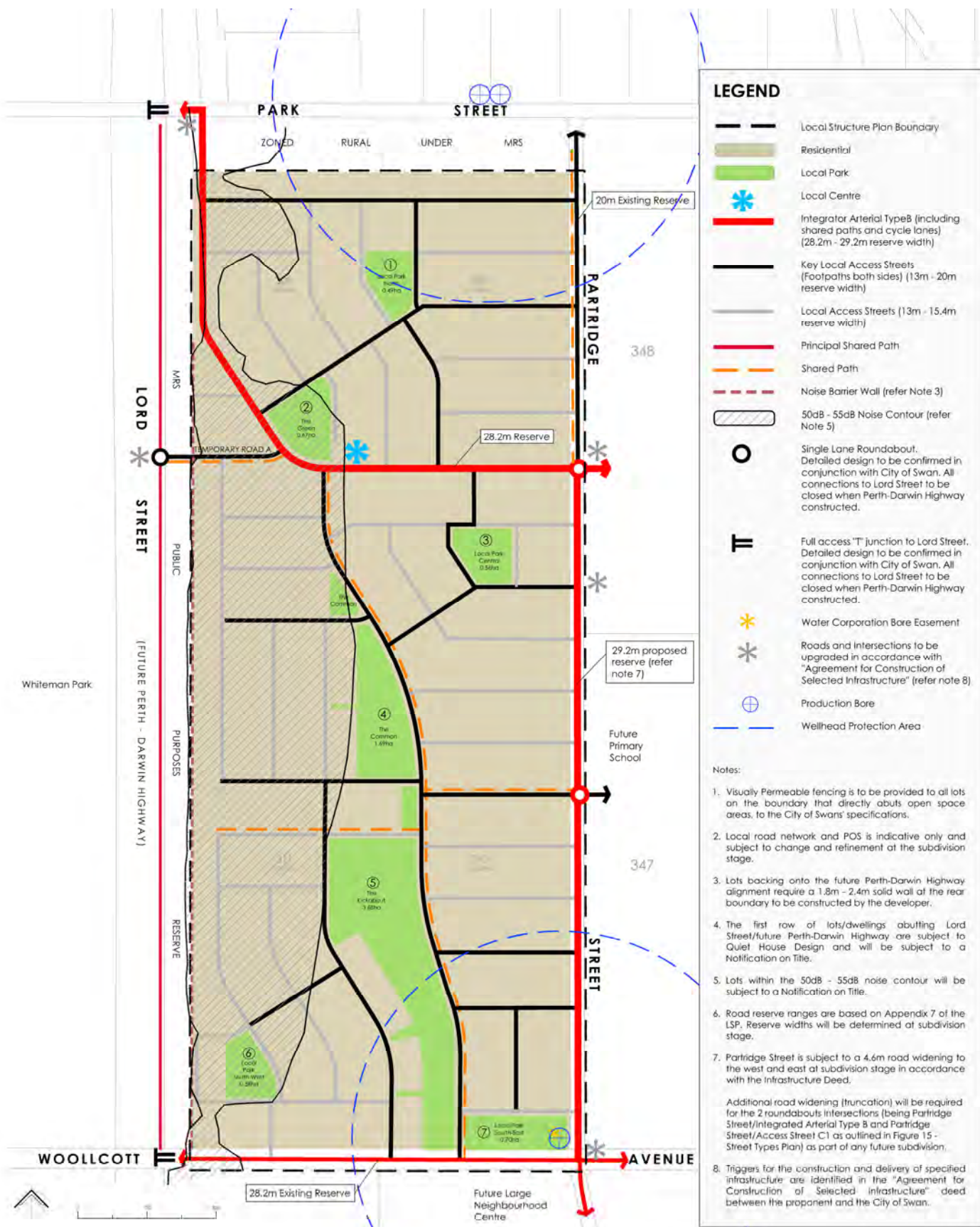


FIGURE S1

4.0 LOCAL STRUCTURE PLAN DESCRIPTION & OVERVIEW

4.1 Development Principles

The following summarises the guiding LSP1A design and development principles, which are explained further in subsequent sections of this report. Statutory Figure S1 Local Structure Plan 1A and S2 Zones, Reserves & R Code Plan demonstrate the design approach, refer Section 13.0.

INTEGRATION WITH THE DISTRICT AND LOCAL CONTEXT

- Establish staged connections to the regional movement corridor of Lord Street at Park Street and Woollcott Avenue. This includes a connection to Lord Street, 'Road A', approximately 500m south of Park Street improving accessibility and creating a strong entry to the future local centre retail node in the north of LSP1A without compromising the function of Lord Street.
- Provide opportunities to connect to the regional path network via Woollcott Avenue for east west connections and Lord Street (future Perth Darwin Highway) for north south linkages.
- Provide opportunities to connect to the existing and future planned public transport routes, with a bus stop on Lord Street generally adjoining 'Road A' from project commencement.
- Integrate with future development to east and south through a connected street network.

A CLEAR URBAN STRUCTURE

- Key local access streets create easy movement, legibility and public transport access.
- Local Centre with neighbourhood convenience retail at the key entry point focused on the local open space.
- The Integrator Arterial B, Activity Corridor, connected to Park Street, without compromising an efficient urban pattern and preferred solar orientation.
- Robustness in urban structure, road and lot configuration, to allow the place to evolve.



CONNECTED OPEN SPACES

- Central spine of open space connecting a series of local and district level open spaces with both informal and formal recreational opportunities. This will continue to the south through to the Large Neighbourhood Centre.
- Large central open space area of approximately 2ha providing opportunities for passive recreation and kick-about, in addition to the formal active open spaces associated with the primary school.
- The open space spine serves a drainage management function, connecting drainage to Whiteman Park and Horse Swamp, re-establishing a previous drainage corridor.
- Streets oriented towards open space creating views and connectivity.

ENCOURAGING WALKING AND CYCLING

- A pedestrian and cycle network that links north south through the central open spaces of the site and along the Integrator Arterial B to the Large Neighbourhood Centre, and east west to the future primary school.
- Connected, shaded streets with a footpath on every street, encouraging walking and cycling.
- Urban structure promotes walking and cycling to wider recreational opportunities in Whiteman Park.

A STREET BLOCK PATTERN CREATING A HIGH AMENITY ENVIRONMENT

- Street and lot layout designed to optimise solar access and efficiency, while allowing some non-orthogonal vistas and streetscape variety, which respond to open space/ water flow structure.
- Create efficient street block lengths that maximise permeability.
- Terminate street vistas on open space where possible.



A CHOICE OF HOUSING

- Create a variety of lot and housing types meeting housing diversity, density and affordability objectives.
- Focus medium to higher densities around open spaces, public transport routes and in south eastern area within the 800m catchment to the future Large Neighbourhood Centre.
- Establish a framework for R Codes and built form control that encourages dwelling diversity and includes incentives for solar passive housing design, facilitating high amenity private open spaces.
- Use rear lanes to access housing to increase range of typologies and maximise opportunities for surveillance and interaction with the street.

4.2 Land Use Schedule

The Land Use Schedule below summarises the land uses within the LSP 1A area, described in subsequent sections of this report. A detailed public open space schedule is provided in Section 6.0 and dwelling yields are provided in Section 5.0.

TABLE 7: LSP1A Land Use Summary

DESCRIPTION	AREA (ha)
Gross Area of LSP1A*	81.909
Non Residential Land Uses	
Existing Partridge Street Reserve	2.85
Partridge Street Reserve widening (western side)	0.46
Existing Woollcott Avenue Reserve	1.72
Water Corporation Production Bore Easement	0.1
Local Centre	0.07
Drainage Area for less than 1:1yr storm events	1.16
Gross Subdivisible Area	75.32
Public Open Space Required @ 10%	7.53
Total Public Open Space Provided (refer Table 9)	7.22
Public Open Space as a % of Gross Subdivisible Area	9.6%

* Gross area excludes the Rural zoned portion of lots 308 and 309, and includes the existing Partridge Street and Woolcott Avenue road reserves.

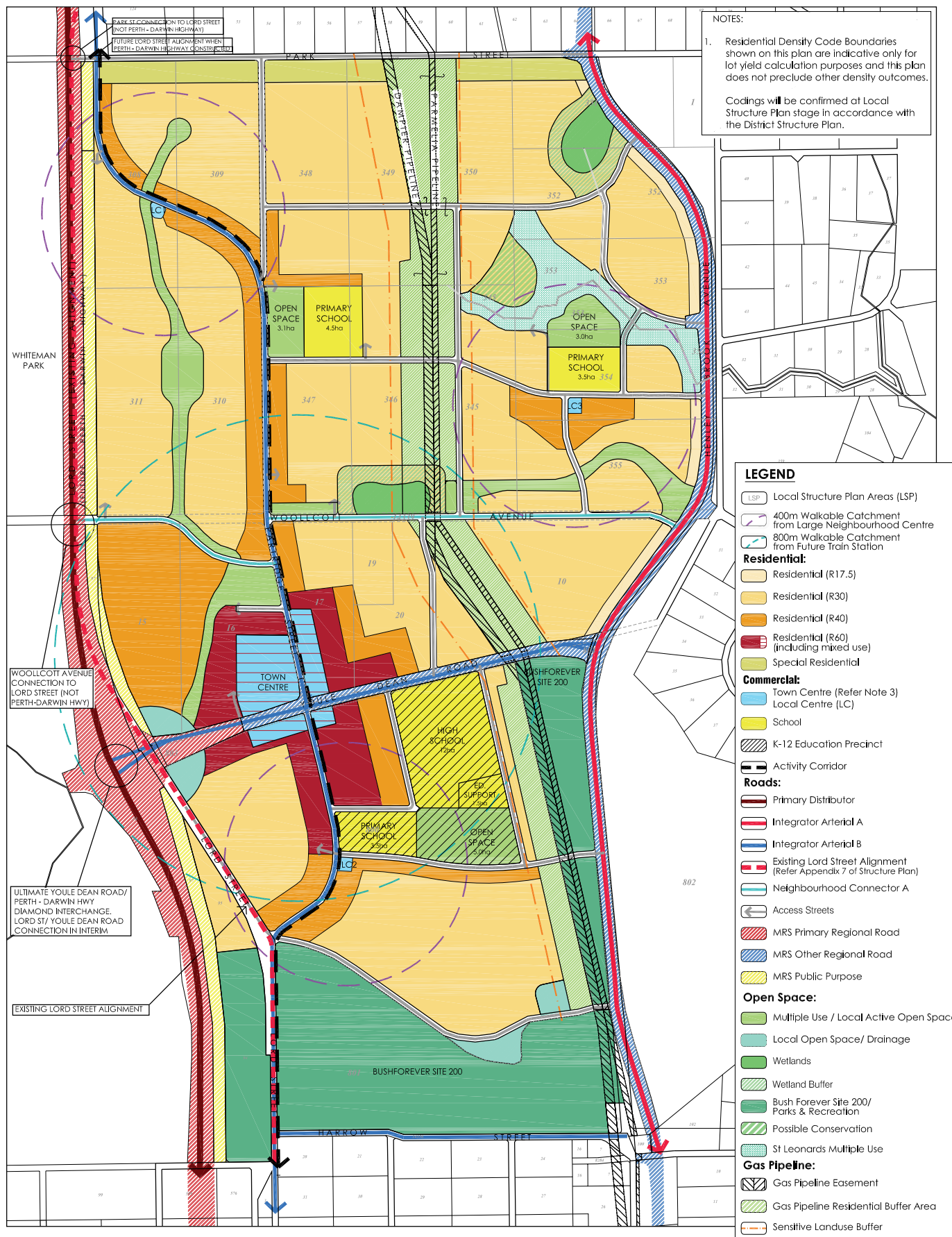


FIGURE 9

5.0 HOUSING STRATEGY

5.1 Housing Density Principles: DSP Objectives

The DSP establishes the following housing principles:

- Provide diversity in housing choice, lot sizes and tenure.
- Higher density within 400metres 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.
- Provide larger lots and appropriate land use controls adjoining Park Street allowing for a transition of residential densities.

The DSP indicatively identifies R - Codes of between R30 and R40 within LSP1A, to be refined at LSP stage, refer Figure 9.

5.2 Residential Densities & Housing Types

The LSP1A area provides for a range of lot types that respond to local facilities, public transport, and open space, consistent with the objectives of the DSP.

The LSP creates a split R30/40/60 coding to maximise opportunities for diversity in housing types and tenure, allowing for the delivery of a range of housing density in the first and future generation of housing, and meet housing affordability imperatives, refer Fig S2.

This is in line with 'Housing 2020: Future Directions for Affordable Housing', released by the Minister for Housing in October 2009. Reform Theme 3 looks for opportunities for:

Improving planning policies, tools and incentives to encourage a wider range of housing densities, forms and tenures to provide appropriate choice and options. For example, providing density bonuses and encouraging a wider use of ancillary dwellings.



FIGURE 10

The LSP1A area is comprised of two precincts for the purposes of applying residential density codes. Precinct 1 is located to the north, while Precinct 2 is located to the south of the LSP, closest to the Large Neighbourhood Centre, primary school, active open space and future bus route along the north south Integrator Arterial. Precinct 2 is a logical location for increased density in accordance with state and local policy. Table 8 summarises the allocation of density codes in each precinct.

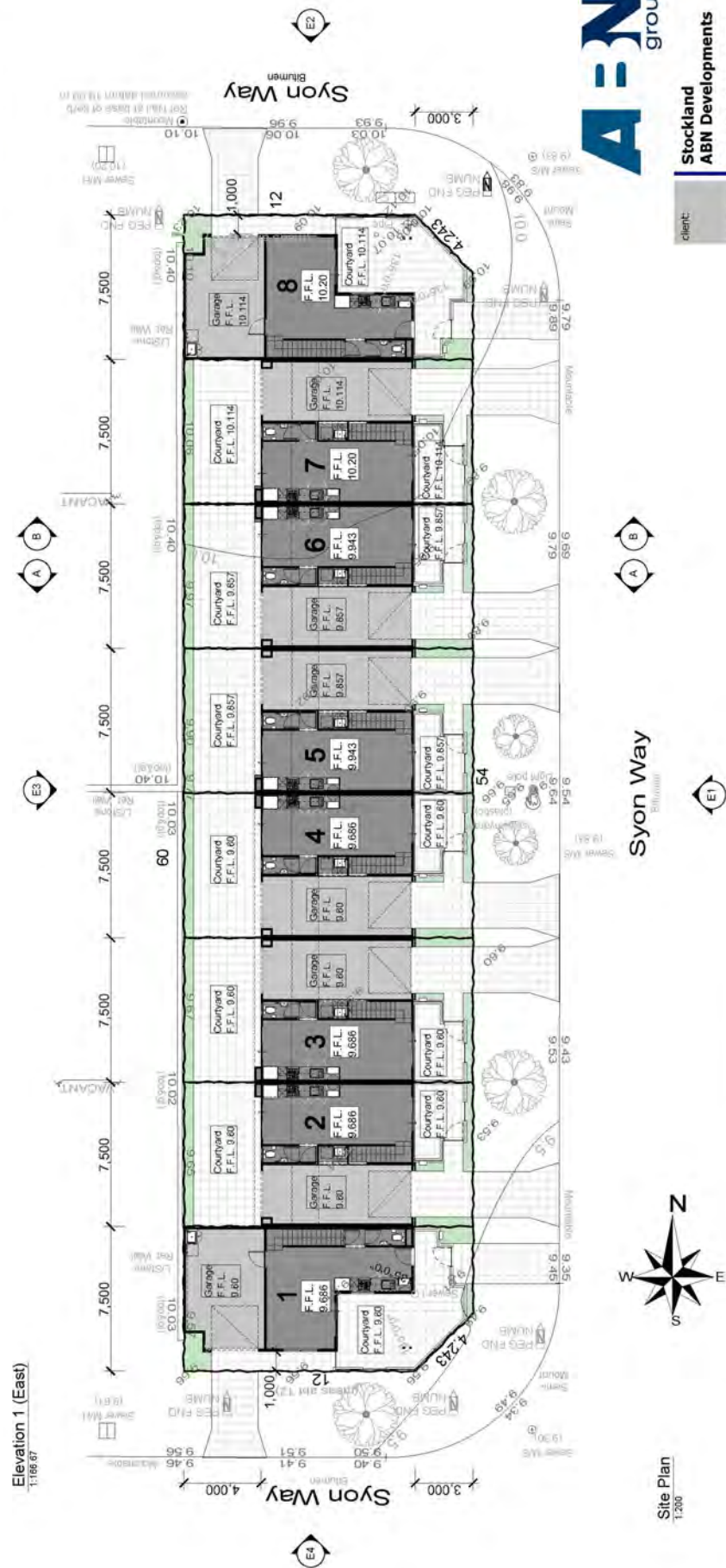
TABLE 8: Density Code Allocation

LOT TYPE	PRECINCT 1	PRECINCT 2
Base Code	R30	R40
Laneway Lots	R40	R40
Lots abutting public open space	R40	R40
Lots with frontage to two streets and a laneway	R60	R60
Lots greater than 800m ² (excluding parent lots and balance of title lots)	R60	R60
Local Centre Zone	R60	N/A
Innovative Housing Precinct Lots	N/A	R80

This innovative approach to applying residential densities allows robustness for the place to evolve as the locality matures. It also simplifies the statutory approach and avoids spot R-Coding that is directly tied to the lot layout, necessitating R Code changes where a minor change in subdivision design occurs. The split coding will apply from project commencement, therefore providing certainty to home buyers.

Overall cottage product (lots served by a rear laneway) and density sites are generally located adjacent open space, along the Integrator Arterial B (Activity Corridor) and within the catchment to the Large Neighbourhood Centre, consistent with the DSP, refer Fig 10. The split coding, coupled with the residential density standards outlined in Section 5.5, allows for a variety of innovative lot and housing types, including:

- Opportunities for corner duplex sites
- Ability for studio unit accommodation on all lots
- Town houses on group housing sites
- Cottage lot housing style adjoining key transport routes, open space and within the catchment to the Large Neighbourhood Centre
- 15m wide lot frontages as the predominant 'traditional' lot type
- Ability for larger housing on 18 & 20m wide lots, generally located adjoining the rural zoned land abutting Park Street



A = N group

client: **Stockland ABN Developments**
 job address: **Lot 759 Syon Way Whiteman Edge**
 job number: 3
 concept: 4
 5
 6
 7

DB 12-2-2014
 DB 17-02-14
 DB 26-02-14
 DB 12-03-14
 DB 13-03-14

7.5x15 Lots
Site Plan

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INDICATIVE INNOVATIVE HOUSING PRECINCT LOT DENSITY

FIGURE 11

- 4-pack (garden court housing), providing a managed interface to the open space. The garden court housing adjoins a portion of two large open space areas on the western side, with road frontage on the remaining sides, in accordance with Liveable Neighbourhoods. The housing on these lots will be delivered as an integrated package with builders. The interface to the open space will be controlled with visually permeable fencing and the finished lot level being higher than the open space level. The residential development standards outlined in Section 5.5 provide further controls to the development of these lots to deliver passive surveillance and a managed interface.
- Innovative Housing Precinct Lots (IHPs), which are a single, stand-alone residential lot developed in a coordinated manner to deliver housing that provides an alternative form of high density housing at an R80 density, on a green title or survey strata lot, as indicated in Figure 11. IHPs are typically located at the end of a streetblock and adjacent to POS and within proximity to transport routes.

5.3 Lot & Dwelling Yield Estimates

LSP1A is estimated to yield approximately 1 100 lots, with a potential population of approximately 3000 people, based on 2.68 persons per household (as per the Albion DSP), refer Table 9. The design achieves a net residential lot yield of approximately 23 lots per site ha (1 100 lots with a site area of approx 47ha). Site area excludes roads, lanes, open space, and other non residential land uses and is pure residential area.

The LSP1A lot and dwelling densities per site hectare are in line with estimates made at district planning stage. Table 6 of the approved Albion DSP estimates a total dwelling unit yield of 24 dwelling units per site hectare over the entire Structure Plan area and 23.53 dwelling units within LSP1.

With the application of the split residential density coding a higher dwelling unit yield is encouraged to be achieved. An upper range of approximately 1 250 dwelling units, comprising 85 units on the 5 density sites plus a possible 60 grouped or multiple dwelling units on corner duplex sites or single lots within Precinct 2 may be achieved. Based on an optimistic dwelling unit yield of 1 250 a residential density of approximately 26 dwelling units per site hectare is achieved (1 250 dwelling units on 47ha).

The City of Swan Neighbourhood Planning Policy (Pol-C-103) sets out a residential density target of 22 dwellings per site area averaged over an entire structure plan area. Liveable Neighbourhoods suggests, as a guide, 12 to 20 dwelling units per site hectare across a structure plan area. LSP1A exceeds the density requirements of local and state policy.

The Neighbourhood Planning Policy and Liveable Neighbourhoods both establish density targets for areas within 400m of a neighbourhood centre. The LSP1A is outside the 400m catchment to the Large Neighbourhood Centre at the intersection of Youle Dean Road and Partridge Street. Notwithstanding this the landowners recognise the need to deliver sustainable and diverse communities and consequently the residential density codings and indicative lot mix plan allow for higher densities to be delivered in the south east precinct, in closest proximity to the Large Neighbourhood Centre, primary school, active open space and future bus route along the north south Integrator Arterial, refer Section 5.2.



TABLE 9: Residential Lot Yield Estimate

Lot Type	Typical Area	Typical Frontage	Typical Depth	Est. Lot Yield	Approx % of total dwelling unit yield
Medium Density R30 (approximately 50% of total dwelling unit yield)					
Premium	600m ²	20m	30m	36	3%
Classic	540m ²	18m	30m	165	14%
Contemporary	450-480m ²	15m	30m	424	36%
Medium Density R40 to R60 (approximately 48% of total dwelling unit yield)					
Garden	360-400m ²	16-18m	18-20m	48	4%
Executive	375m ²	15m	22-25m	3	0.25%
Cottage	335-360m ²	12m	30m	195	16.4%
Custom	280-300m ²	10m	30m	111	9.35%
Terrace	210-230m ²	7.5m	30m	95	8%
Density Sites	800m ²			5	7%
Innovative Housing Precinct Lots R80 (approximately 2% of total dwelling unit yield)					
IHP	112m ²	7.5m	15m	24	2%
TOTAL				1106	

Notes: There are approximately 5 density sites, with an area greater than 800m², within LSP1A. A density site dwelling unit yield of approximately 85 dwelling units has been calculated at an R60 density with an average per unit site area of 180m².

5.4 Solar Orientation & Response to Site

The LSP provides a structure for the delivery of climate responsive outcomes through a combination of robust road networks, land use distribution and R Code variations, including incentives for solar passive dwelling design.

The street network has been designed to maximise solar passive design opportunities, while balancing this with other urban design, drainage, traffic and servicing considerations. Optimal solar passive design has been achieved through a predominantly north south and east west grid of streets, in accordance with Liveable Neighbourhoods.



Street blocks and lots are generally rectangular in shape, allowing dwellings to be located in optimal positions on the lot for solar access and liveability.

In some locations streets and blocks are orientated to respond to the predominantly diagonal path of drainage running through the centre of the site, these orientations will add to streetscape variety and interest within the LSP1A area.

In addition to the road network and lot orientation, the LSP also includes incentives through the development control process, for major openings, outdoor living areas and boundary walls for medium to high density lots, to be situated in solar responsive locations. These built form control mechanisms, described further in Section 5.5, coupled with maximising optimal lot configuration, allow for solar passive design outcomes through the subdivision and dwelling design process.

5.5 Residential Development Standards

5.5.1 Background & Application

R Code variations are important in encouraging dwelling density and diversity in accordance with City of Swan Policy as well as providing certainty for purchasers as to the development potential of their lot. Residential Design Code variations and site specific development standards have been applied elsewhere in the City of Swan through Detailed Area Plans (DAP's), a standard tool referenced in Liveable Neighbourhoods.

Upon review of the process for implementation of DAP's and through experience in other local authorities, it has become apparent that a generic set of R Code variation provisions applicable to all lots within the LSP area, rather than DAP's, has significant benefits:

- Consistency of provisions will improve streetscape outcomes
- Ease of application for all users, including planners, building surveyors, designers and sales representatives
- Preparation and approval of DAP's on a stage by stage basis will not be required, resulting in reduced workload for planners
- Greater certainty for home buyers, with all lots subject to the same provisions, which are in force from project commencement
- Adoption of standard provisions up front, as part of the structure plan process, avoids further consultation periods, causing delays and confusion for the community.



These standard R Code variations can be applied as statutory provisions of the structure plan, pursuant to Clause 5A.1.12.1, in the same way zones, reserves and R Codes are applied. The standard variations are included in Statutory Section 13.0 of this report, and also set out in Table S2.

This model of R Code variations being included as statutory provisions of structure plans operates extensively and successfully in a number of high growth local authorities including Wanneroo and Murray.

The LSP1A R Code variations apply to all lots with different schedules separating rear and front load lots.

DAP's can still be prepared and applied for lots that require site specific consideration. DAP's will be prepared for the garden court lots adjoining the open space. DAP's may also be prepared for strategic or landmark sites within or surrounding the Large Neighbourhood Centre (subject to a future LSP).

5.5.2 LSP1A Development Standards

LSP1A includes a responsive and tailored set of R Code variations focussed on achieving robustness in built form as the place, infrastructure, services and facility provision matures.

The LSP1A provisions are industry accepted and based on extensive builder consultation. Many of the provisions are based on existing provisions being implemented by builders within the Vale project. The provisions represent a refinement of the Vale DAP's based on builder consultation.

The provisions also recognise and respond to the following driving forces:

- Smaller lots demand greater flexibility for some design components, including walls on boundaries, site cover, overshadowing and overlooking, in order to achieve practical building envelopes and affordable outcomes.
- Solar responsive design outcomes can be encouraged through the inclusion of development control incentives.
- Reduced front setbacks to lots improve flexibility in building design, while also reinforcing engagement with the public realm.
- Demographic changes are increasing the need for flexible living arrangements with the opportunity presented by ancillary accommodation (studios over garages or 'granny flats') currently restricted by the R Codes.



- Greenfield development provides the opportunity for greater flexibility as the site represents a 'blank slate', with all purchasers acquiring land with a clear understanding of amenity expectations. The R Code variations provide certainty for land owners as to permissible variations and possible development outcomes for both themselves and adjoining land owners, minimising conflict and concern.

The following provides an overview of the R Code variations applicable.

Front Setbacks & Front Elevation

At present, the Codes require an average 4m front setback with a minimum of 2m to the dwelling in R40 to R60 coded areas.

The variations propose a minor relaxation to the front setback requirements to a minimum 2m setback, with a 3m average. Minor encroachments such as verandahs are permitted to 1.5m.

The reduced front setback average has the effect of:

- encouraging dwellings to address and engage with the street by bringing dwellings forward
- encouraging social interaction and surveillance with the public realm.
- creating 'tight' urban streetscapes, consistent with the urban context for laneway lots
- allowing for implementation of the site cover increase
- enabling the more efficient siting and sizing of the outdoor space.

For 'front loaded' R30 lots, it is proposed to vary the front setbacks to a 2m minimum with a 4m average, ensuring consistent and intimate streetscapes.

Walls on Boundaries

The R Codes currently allow as of right a single storey wall for up to two thirds of the length of one boundary within R40 and R60 coded areas with no second storey boundary walls. This precludes terrace style development, restricts design options on smaller lots where efficient use of space is critical, and does not encourage two storey development. Greater flexibility is needed if housing forms are to respond to density and solar imperatives.

Allowance for walls on both side boundaries for the length of the boundary is proposed for R40 and R60 lots, with a restricted length of 12m for the second storey.

For wider front loaded lots, a single storey boundary wall is permitted up to one side boundary for the length of the lot. This allows opportunities to create narrow front loaded lots that are more affordable, whilst ensuring that a suitable home can still be constructed.



Open Space

The R Codes currently require 45% of the site to be open space in R40 and R60 densities respectively. This severely limits single storey dwelling design on smaller lots undermining affordability imperatives.

A 75% site cover variation is necessary to achieve terrace product and to allow more than one dwelling per lot under the R40 and R60 Codes, facilitating delivery of affordable and diverse dwellings.

In order to off-set the lesser area of open space provided, additional design requirements are imposed on courtyard areas to ensure a higher quality, more usable living space with an emphasis on achieving (through incentives) improved passive solar design outcomes. To achieve the site cover variation the provisions mandate a minimum outdoor living area of 24m² with a minimum dimension of 4m and a solar passive location adjoining the northern most or eastern most boundary. This goes beyond the requirements of the R Codes, which in particular require a 20m² private open space area at R40 and 16m² at R60.

Variations are also proposed to front loaded lots, allowing 60% site cover for traditional lots, increasing to 75% for narrow front loaded lots, meeting affordability initiatives.

Privacy & Overshadowing

The standards for privacy and overshadowing applicable to lower density areas cannot be applied in the same way in higher density precincts without severely impacting on the quality of dwellings. For example, the 7.5m balcony setback would preclude provision of balconies on almost all of the R40 and R60 lots due to the narrowness of lots.

Greater flexibility in regards to these requirements has been incorporated to achieve the densities and housing diversity outlined in this report. The overshadowing and privacy provisions do not apply to the R40 and R60 areas, with solar passive incentives for the location of outdoor living areas and boundary walls achieving similar objectives. A standard privacy setback of 4.5m applies to major openings to all habitable spaces, including bedrooms and balconies. This approach has been accepted by builders, local authorities and WAPC in Wanneroo and Murray.



Ancillary Accommodation

The R Codes preclude ancillary accommodation as of right on lots under 450m², restricting the capacity for ancillary accommodation in R40 and R60 coded areas. This blanket preclusion undermines the achievement of housing diversity and affordable options.

The LSP1A variations allow ancillary accommodation on lots under 450m² where abutting a laneway.

The R Codes require an additional car parking bay for ancillary accommodation. Providing three car bays per lot (which may only be 210 - 230m²) is unnecessary and unachievable, undermining the ability to deliver innovative outcomes, particularly in the case of LSP1A where there is a provision for future bus and rail transit.

The requirement for an additional parking bay to accompany ancillary accommodation has been removed for rear loaded lots where on street parking is provided, as a further incentive to provide this type of accommodation. Where any additional parking demand is generated this can be accommodated through on street parking; however, any disadvantages of this are more than compensated for by the diversity of housing choice and affordability. Also it is important to note that the number of studio units actually constructed is not likely to be significant and thus unlikely to cause parking concerns.

5.5.3 DSP Noise Management Plan & Quiet House Design Provisions

The Schedule 4 provisions of LSP17 require a Noise Management Plan as part of the DSP. A Noise Management Plan for the Perth Darwin Highway and possible rail was endorsed by the City of Swan and WAPC as a detail of the Albion DSP, meeting the requirements of the Local Planning Scheme 17. There is no further requirement for the preparation of a Noise Management Plan. The DSP, Section 4.4.1, states that the noise amelioration mechanisms to be implemented will be confirmed at LSP stage.

The endorsed Noise Management Plan provides that quiet house design requirements apply to the first row of houses adjoining the future Perth Darwin Highway alignment (MRS Public Purpose Reserve and Primary Regional Road Reserve). The quiet house design requirements are set out in Appendix D of the DSP Noise Management Plan, and will be consistent with the Package A requirements of State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning.

The quiet house design requirements are set out as part of the statutory provisions of this Local Structure Plan, to be implemented as part of the LSP1A development standards. The provisions of Table S4 apply to the first row of dwellings, as shown in Figure S3, in accordance with State Planning Policy 5.4, Package A.





Purchasers will be notified by the developer as to quiet house design requirements at the point of purchase, as part of the contract of sale.

In addition to the quiet house design a noise barrier is also required adjoining the future Perth Darwin Highway alignment. The height of the barrier wall is predominately 1.8 metres with two small sections of 2.4 metres and 2.8 metres, due to the finished lot levels being elevated in relation to the future highway, refer Fig 11. This barrier will be constructed by the developer and will form the standard rear fence of those lots adjoining the Highway. Furthermore, any lots located within the 50db to 55db noise contour, refer Fig 12, are subject to notification on title in accordance with State Planning Policy 5.4.

Any lots located within the 50db to 55db noise contour, refer Fig 12, are subject to notification on title in accordance with relevant State Planning Policy and will be a condition of any future subdivision approvals.

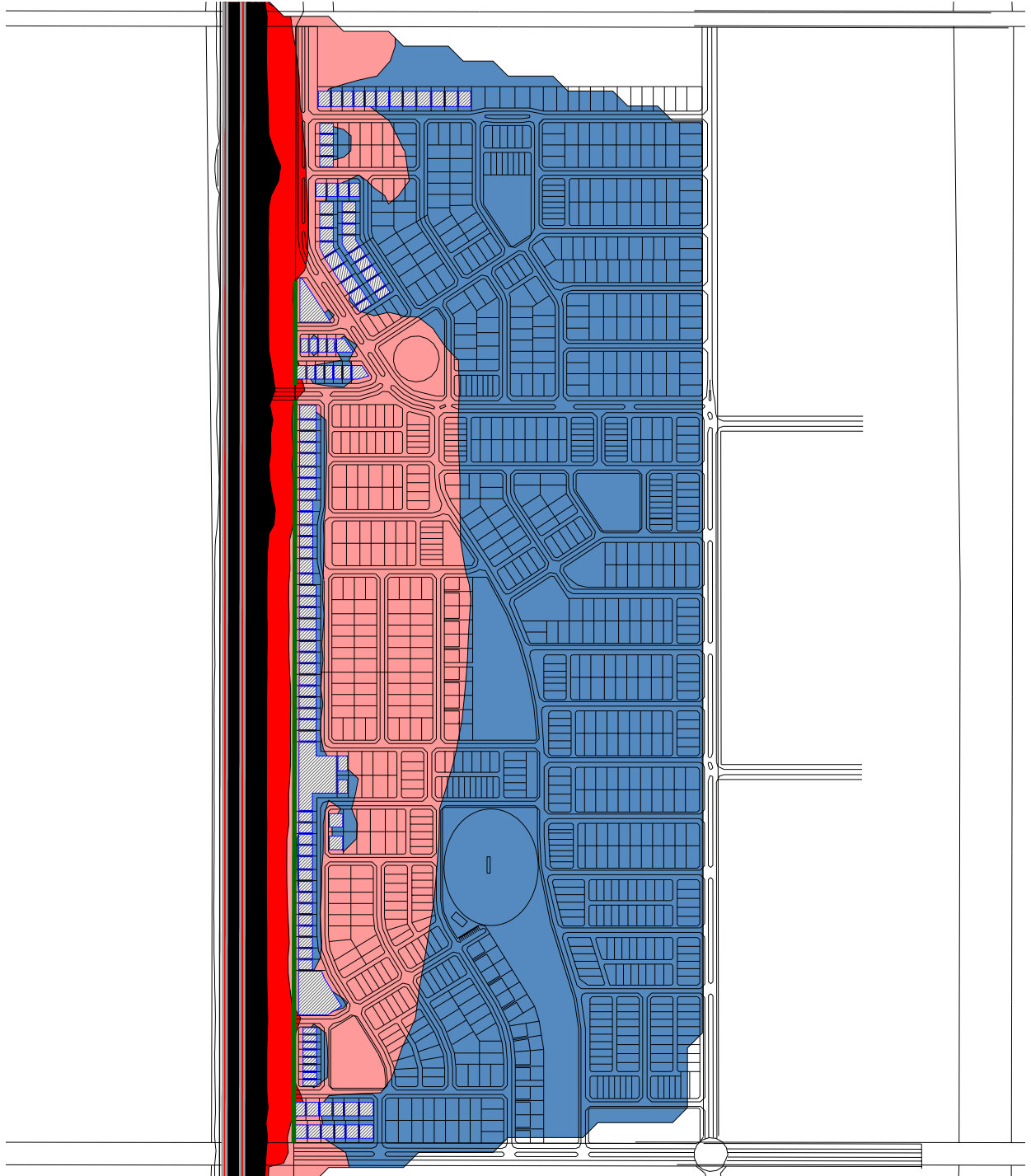


FIGURE 12



Henley Brook Subdivision - Brookfield Multiplex

L_{Aeq} (Night) Noise Level Contours
Perth-Darwin National Highway - Future (2031) Scenario
Custom Barrier Along Estate Boundary



Noise Levels
 L_{Aeq} (Night) dB

50 <=	<50
55 <=	<55
58 <=	<58

Legend

- Houses
- Road Source
- Barrier Wall



Length Scale 1:7500



25 January 2010

FIGURE 13



FIGURE 14

6.0 PUBLIC OPEN SPACE STRATEGY

6.1 District Structure Plan Background

Section 7.0 of the approved Albion DSP describes the open space strategy for Albion.

Under the DSP there are seven different categories of open space:

- Multiple Use (MU)
- Local Active and Passive Open Space (LA/LP)
- Local Open Space – Drainage (D)
- Wetlands (W/WB)
- Conservation (C)
- St Leonards Multiple Use (StL)
- Bush Forever and Parks and Recreation
- Neighbourhood Parks.

The public open space areas shown on the DSP are indicative and subject to detailed design, modelling and confirmation at LSP stage. The DSP establishes the broad principles for public open space distribution at a district level and recognises that the LSP will refine public open space provision, and additional local parks will be shown at the local planning level.

Within LSP1A the DSP shows a central spine of multiple use open space, serving a recreation and drainage function, as well as a central node of local passive open space for informal play and kickabout, refer Fig 13. The total open space area shown on the DSP within LSP1A is approximately 8ha, of which approximately 3ha is approved as part of the Early Lot Release subdivision approval.

The approved DSP states that public open space credits will be calculated in accordance with Liveable Neighbourhoods principles, which recognises the detailed water modelling undertaken at LSP stage as part of the LWMS. The approved DSP does not define public open space credits. Liveable Neighbourhoods categorises public open space as either restricted use or unrestricted use open space. Of the 10% requirement Liveable Neighbourhoods allows a maximum of 2% to be restricted use open space, with restricted use open space areas exceeding the 2% requirement taken out as a deduction from the gross subdivisible area.

The Liveable Neighbourhoods calculation treats drainage areas within open space in the following way:

- Areas subject to inundation more frequently than a one year average recurrence interval rainfall event are not included as restricted or unrestricted open space and are a deduction from the net site area (LN R33)



LOCAL OPEN SPACE	GROSS AREA
1 Local Park North	0.49ha
2 The Green	0.67ha*
3 Local Park Central	0.56ha*
4 The Common	1.69ha*
5 The Kickabout	3.68ha
6 Local Park SW	0.58ha
7 Local Park SE	0.70ha
Total POS	8.37ha

**Open Space approved as part of Early Lot Release Subdivision approval WAPC Ref: 140999.*

FIGURE 15

- Areas for the detention of stormwater for a greater than one year average recurrence interval up to the five year recurrence interval are treated as restricted open space up to 20%, the area greater than 20% is a deduction (not applicable in this case) (LN R26 & LN Table 11)
- Areas for the detention of stormwater for a greater than five year average recurrence interval are within unrestricted open space and receive a full public open space credit (LN R25).

6.2 LSP1A Public Open Space Provision

The distribution of open space throughout LSP1A is largely pre-determined by the approved Early Lot Release subdivision, which created approximately 2.9ha of public open space in the northern and central portions of LSP1A.

The public open space provision within LSP1A recognises the distribution and framework of the DSP, and refines the layout and spaces to respond to the local design considerations. Open space has been located to balance recreation, aesthetic, environmental and drainage objectives. All open space areas are within a 400m radius from the all proposed dwellings, in accordance with Liveable Neighbourhoods principles.

Public open space provision remains generally within a north south corridor central to the LSP area, consistent with the DSP principles and the Early Lot Release subdivision approval, refer Fig 14. In some instances pockets of open space, such as local park central and local park south west have been broken off the corridor to ensure equitable distribution of open space and amenity through the LSP area.

LSP1A provides a gross open space area of 8.37ha. Once open space credits are applied in accordance with Liveable Neighbourhoods the total credited public open space provision is 7.22ha, equating to 9.6% of the gross subdivisible area. In accordance with Liveable Neighbourhoods, Pedestrian Access Ways (PAW) linking to the public open space (POS) areas are to be a minimum width of 8m and are not included in the POS calculation.

Table 10 sets out the Liveable Neighbourhoods Public Open Space Schedule. Table 10 lists and specifies the drainage requirements for each open space area, consistent with the LSP1A LWMS, Early Lot Release Urban Water Management Plan and Liveable Neighbourhoods.

Table 11 shows that less than 20% of the total public open space provision is considered restricted use open space, meeting the Liveable Neighbourhoods maximum requirement. Thus, the drainage areas between the 1:1 and 1:5 year average recurrence interval receive a full credit and comprise part of the public open space contribution. Drainage areas less than the 1:1 year average recurrence interval, total of approximately 1.1ha, are treated as a deduction from the gross subdivisible area.

Stockland Developments currently hold a water allocation for their Vale project, which has a excess balance of 99,5964kL/year. It is proposed in the Egerton/Vale Operating Strategy to transfer this balance of allocation to the Albion LSP1A area, with this transfer having received in principle support from the Department of Water. In addition, a new bore will be constructed to the east of the LSP1A area, where extracted water will be pumped to the LSP1A area for irrigation.



TABLE 10: LSP1A Liveable Neighbourhoods Public Open Space Schedule

Site Area¹			81.91
Less			
Partridge Street	2.85		
Partridge Street widening (western side)	0.46		
Woollcott Avenue	1.72		
Total		5.03	
Net Site Area			76.87
Deductions			
Local Centre	0.07		
Water Corp Production Bore Easement	0.10		
<u>Restricted Open Space not included in POS contribution²</u>			
Drainage area for less than 1:1 yr event ³	1.16		
Total		1.32	
Gross Subdivisible Area			75.54
POS @ 10%		7.55	
Public Open Space Contribution			
Minimum 80% unrestricted POS	6.04		
Minimum 20% restricted POS	1.51		
Unrestricted Open Space²			
Local Passive Open Space ³	6.44		
Total Unrestricted Use		6.44	
Restricted Open Space			
Drainage area for 1:1 - 1:5 yr event ^{3 4}	0.78		
Total Restricted Use Open Space		0.78	
Total Unrestricted & Restricted Public Open Space Provision			7.22
Total Public Open Space Provision as a % of Gross Subdivisible Area			9.6%

Notes:

1. Site Area is the total urban zoned area of Lots 308, 309, 310, 311, and the total area of the Partridge Street and Woollcott Avenue road reserves

2. In accordance with Liveable Neighbourhoods: the area subject to inundation more frequently than a one year average recurrence interval rainfall event is not included as restricted or unrestricted open space and is a deduction from the net site area (LN R33); areas for the detention of stormwater for a greater than one year average recurrence interval up to the five year recurrence interval is restricted open space up to 20%, the area greater than 20% is a deduction (not applicable in this case) (LN R26 & Table 11); areas for the detention of stormwater for a greater than five year average recurrence interval is within unrestricted open space (LN R25).

3. Table 11 itemises drainage areas for the each local open space area. Drainage areas are based on the approved LWMS, and the lodged UWMP supporting the approved ELR subdivision.

4. The area required for drainage between the 1:1 and 1:5 year event represents ~15.6% of total open space, less than the 20% restricted open space provision under Liveable Neighbourhoods.

5. The provision of 9.6% (less than 10%) of POS in LSP1A is provided on the basis of the 11.5 hectares of active open space in the wider Albion District Structure Plan cell that will be acquired through the Development Contribution Plan.





Importantly the distribution of drainage within open space areas has been managed based on the space's strategic importance. For example, of the total areas of The Common and The Oval only comprise approximately 11% drainage between the 1:1 and 1:5 year average recurrence interval, recognising that these are key community meeting places and drainage is a secondary function in these areas.

Table 11: LSP1A Open Space Drainage Area Specification

Local Open Space Area	Gross Area	Deduction	Restricted Use Open Space *			Deduction	Unrestricted Open Space
		1:1 yr Drainage Area	1:5 yr Drainage Area	1:1 - 1:5 yr Drainage Area	1:1 - 1:5 yr Drainage Area as a % of Total Open Space Area	1:1 - 1:5 drainage area exceeding 20% of total open space area	Area not receiving drainage for < 5 yr event
Local Park North	0.49	0.18	0.22	0.04	8.21%	-0.06	0.27
The Green	0.67	0.08	0.08	0.00	0.00%	-0.13	0.59
Local Park Central	0.56	0.32	0.36	0.04	7.11%	-0.07	0.21
The Common	1.69	0.08	0.11	0.03	1.77%	-0.31	1.59
Kickabout & Linear Parklands	3.68	0.34	0.78	0.45	12.10%	-0.29	2.90
Local Park South West	0.58	0.08	0.19	0.12	20.09%	0.00	0.39
Local Park South East	0.70	0.09	0.19	0.11	14.98%	-0.04	0.52
TOTAL	8.37	1.16	1.93	0.78	9.27%		6.44

* Note: Drainage areas are based on the approved LWMS and the lodged UWMP supporting the Approved Early Lot Release subdivision.

(2142POS158E)



6.3 Open Space Concept Plan

The LSP1A Landscape Concept Plan is set out in Figure 13 & Appendix 5, and summarised below. The landscape principles for the LSP1A open spaces are consistent with the principles established in Section 7.3 of the DSP. It is important to note that the concept plan and description are indicative and subject to refinement following liaison with the City of Swan.

Consistent with the principles of the DSP and the LSP1A Transport and Access Strategy (refer Section 7.0), a shared pedestrian/cycle path will run through the open space spine creating a strong linkage to the town centre and between the various open spaces within the area.

All open spaces will be designed using water sensitive urban design practices. Planting is native, or a native derivative shrub species, with a combination of native trees and feature ornamental trees that are recognised as 'one drop' or 'two drop' species in the Water Corporation "Waterwise Guide to Gardening". Where possible hard surfaces or low water alternatives will be used instead of turf, with grass areas limited to key activity spaces. Water will be harvested where possible for passive irrigation purposes using swales, weirs, channels and soil amendment to reduce irrigation requirements.

The following sections provide a description of each open space area. It should be noted that The Green, Local Park Central, and The Common are all approved as part of the Early Lot Release subdivision.

Local Park North 0.5Ha

This public open space is a community pocket park with trees and shrubs creating a series of small spaces for passive recreation. The park also provides some local stormwater management, with swales for regular stormwater events, opening out onto the small kickabout areas in larger storms. This open space may include a native garden with interpretation to encourage similar planting at home, consistent with the principles of the LWMS.

The Green 0.7Ha

This public open space is located along the two major traffic routes, is the main focus on entry into the LSP area and is based around the theme of the village green. As with traditional greens, the park will be predominantly open grass, framed by large shade trees, providing a place for community gatherings.

The local centre, initially comprising of a sales office and community meeting space (similar to The Vale), as well as a local cafe and deli, will spill out onto this space, encouraging passive surveillance.

'The Green' open space was approved as part of the Early Lot Release subdivision approval, and forms an integral part of the first stage of construction.



Local Park Central 0.6Ha

Local Park Central is easily accessed from all sides via a circular footpath system with a central kick about area. This space is surrounded by bio-retention swales and native tree and shrub planting to provide a backdrop to the park, as well as perform a stormwater drainage function.

The Common 1.7Ha

The Common will be a central focus and is predominantly oriented around organised play and family activities. The core of the park will include a play equipment area, with a more informal kick about area at the southern end, framed by shade trees.

The park will be accessed by a strong path layout allowing users to move throughout the open space easily and, being located on the major north-south dual-use path, will be easily accessible by cyclists.

Swales and bio-retention areas run the length of the park, to be planted with tree species that strip nutrients from the more regular stormwater events, with occasional, larger events running into the open grass areas.

The Kickabout & Linear Parklands 3.7Ha

The Kickabout, comprising approximately 2ha of this 3.7ha space, focuses on more active, informal recreation, such as family cricket and kickabout.

The southern, linear section of this park will be a combination of passive recreation and secondary active area. Again the natural swale will pass along the length of the park, framed by native vegetation and passive areas of seating. Secondary open grass areas provide opportunities for unstructured passive exercise away from the formal sports field.

Local Park South West 0.6Ha

This park provides active recreation, with children's play and grassed kick about area. A small shade structure with seating adjacent to the play area allows good surveillance. Swales, with native vegetation, serve a drainage function.

Local Park South East 0.7Ha

This park provides a connection to the future development to the south. The Water Corporation production bore within this open space will be created as an easement for the Corporation's use and has been treated as a deduction for the purposes of open space calculations.



6.4 Public Open Space Maintenance

The LSP1A Financial Assessment Report, refer Appendix 6, contains a detailed costing and breakdown of open space construction costs and maintenance costing.

All open spaces will be maintained by the developer for a period of 2 years, consistent with Liveable Neighbourhoods. However, The Green and The Common will be maintained for a period of 5 years, recognising their integral marketing role.

Importantly the Financial Assessment Report shows that Council has a positive net position of \$3 717 029 over a five year period when estimated sales rates, Council rates, open space maintenance and replacement costs and landowner contributions are considered.

Liveable Neighbourhoods recommends the provision of 'local parks' up to 3000m² for children's play and as resting places, as well as 'neighbourhood parks' of around 3000² to 5000m². In recognition of the City's maintenance requirements and preference for larger spaces all open space areas within LSP1A exceed 5000m², with only two spaces north and south of The Common core smaller than this. For maintenance purposes these spaces are only separated from the Common by a local access street, allowing mowers etc to be easily moved between.

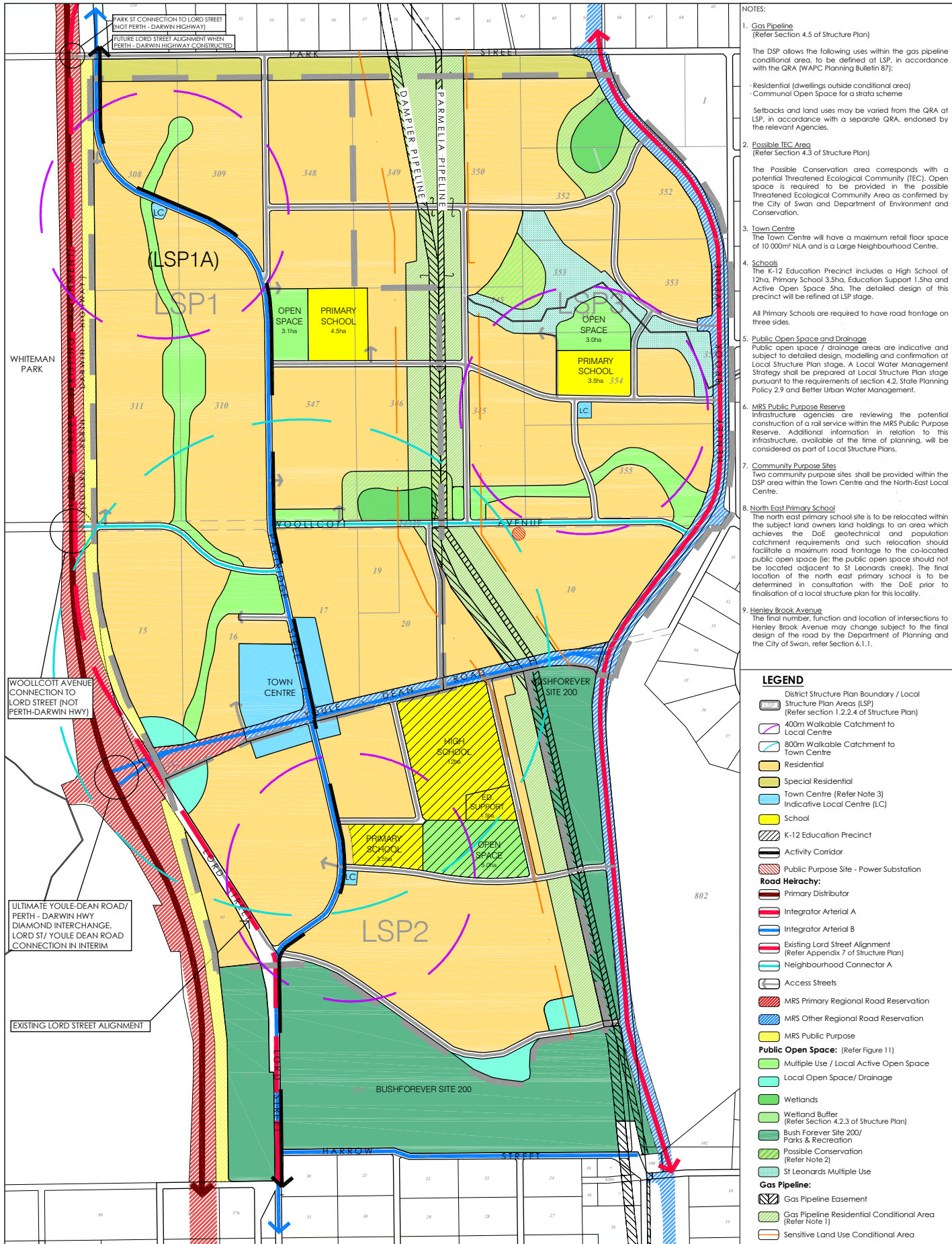


FIGURE 1 (repeated)

7.0 TRANSPORT & ACCESS

The adopted Swan Urban Growth Corridor SRSP and Albion DSP provide a framework for transport and access planning within LSP1A. LSP1A is consistent with the principles of the SRSP and DSP.

A Traffic and Movement Network Report has been prepared for LSP1A by Bruce Aulabaugh Traffic Engineering and Transport Planning, with input from TTM Consulting, Emmerson Stewart and Transcore. The report addresses the district road network, street cross sections, interim access to Lord Street, traffic forecasts, intersection treatments, pedestrian and cyclist facilities, traffic management at schools and public transport planning, refer Appendix 7. The following provides a summary of this report and key implications in local structure planning.

7.1 District Road Network

Lord Street, a principal north south distributor, adjoins the site's western boundary, refer Figure 1. In the future Perth Darwin Highway (PDH) will be constructed immediately to the west of the LSP, within the current MRS Primary Regional Road Reserve and corresponding in part with the Lord Street alignment. Lord Street will be replaced by a north south Integrator Arterial B (Activity Corridor) generally parallel to the PDH through the urban growth corridor, with a portion of this road within the existing Partridge Street alignment adjoining the LSP.

Henley Brook Avenue, an MRS Other Regional Road, will be constructed in the future to the east, forming an important district north south connection.

Park Street, north of the LSP boundary, and Woollcott Avenue, adjoining the southern boundary of the LSP, are important existing east west connections. Woollcott Avenue will be upgraded / constructed as part of the development of the DSP area.

Youle Dean Road, south of the LSP within the DSP area, will be constructed as a future Integrator Arterial Type B connecting to PDH via a grade separated interchange.

7.2 Local Road Network

The LSP, and indicative subdivision layout, reflects a robust modified grid road pattern, consistent with the principals of Liveable Neighbourhoods. The interconnected design disperses and slows traffic, and satisfies car parking, pedestrian, cyclist and public transport objectives.

LSP1A is consistent with the principal elements of the DSP road network. The LSP1A design represents a refinement in the level of detail and planning, including a rationalisation of the Woollcott Avenue alignment and a rectilinear layout of the Partridge Street north south connector alignment.

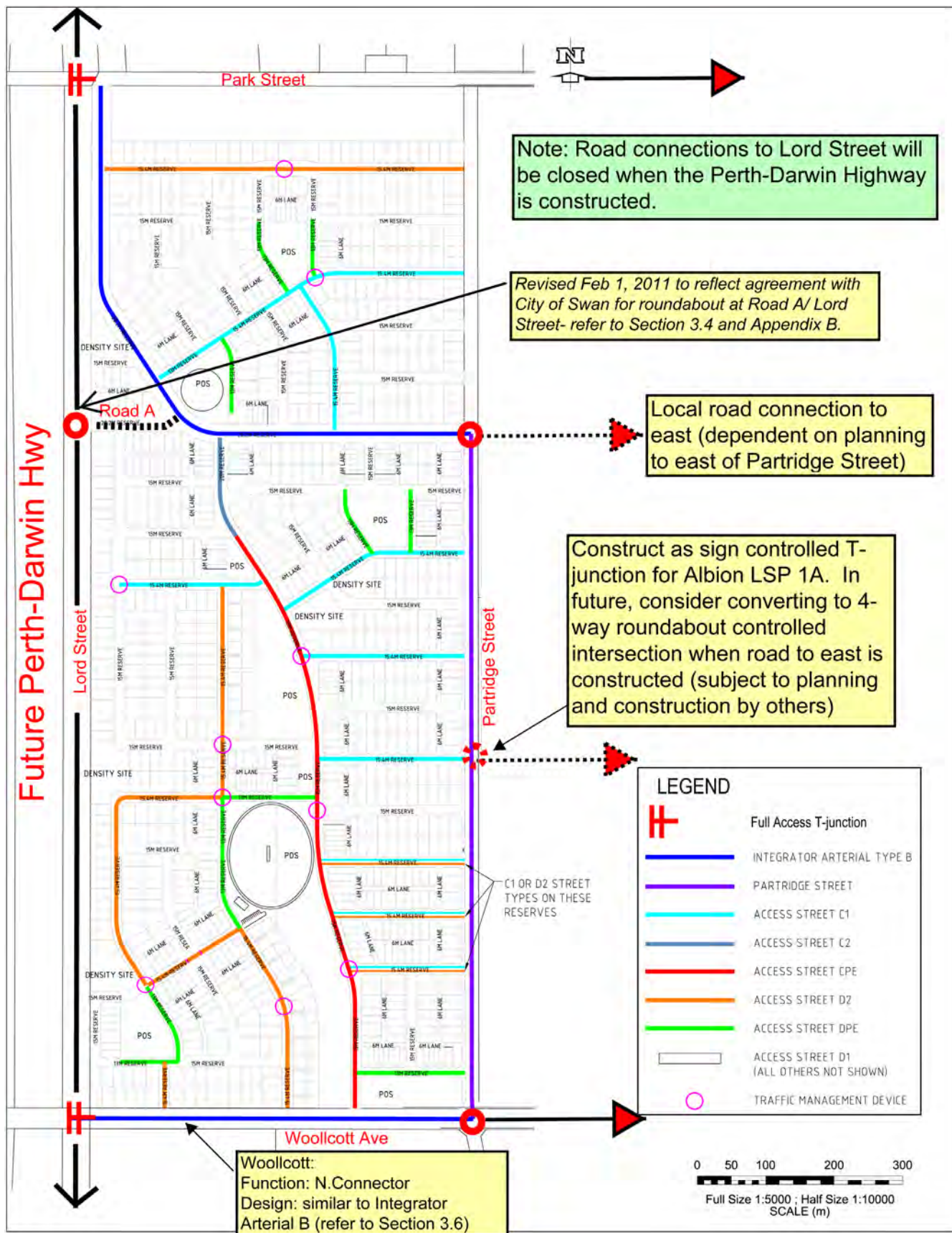


FIGURE 16

STREET TYPES PLAN

Under LSP1A Woollcott Avenue follows the existing road reserve alignment to create better east west connectivity, rather than a sweep to the south at the Partridge Street intersection. This avoids unnecessary and lengthy road closure processes as well as maintaining a higher degree of permeability.

The north south Integrator Arterial B, refer Fig 15, follows a more rectilinear alignment, rather than a sweeping curve as shown on the DSP, in the north of LSP 1A. Whilst the proposed DSP alignment suggests geometric priority for the N/S integrator arterial, the forecast traffic volumes for this section at full build out of the DSP area are still low enough (2,000 to 4,000 vpd) to not make geometric priority of the road the primary traffic consideration, but rather the urban design and connectivity of the overall road network in the LSP.

The sweeping curve has been replaced by a roundabout controlled intersection that will improve east west connectivity through a direct access into the roundabout, in place of two tees via the residential access streets, as proposed in the DSP. This provides a more direct access to the Road A connection to Lord Street. The location of the roundabout is generally consistent with the location of the local access street intersection to the east shown on the DSP, and has been approved as part of the ELR subdivision process.

During the preparation of the LSP discussions were held with the Public Transport Authority (PTA) to confirm that the proposed alignment and roundabout intersection treatment will still meet their requirements for a bus route and no objections were received.

Furthermore, the rectilinear alignment optimises passive solar design.

This rectilinear alignment is similar to the Integrator Arterial B where it passes through West Swan, north of Marshall Road.

7.3 Street Cross Sections

Typically access streets are accommodated within a:

- 13m – 15m Reserve, where adjoining open space, depending on on-street parking and carriageway width requirements
- 15m – 15.4m Reserve, where lots are adjoining both sides, depending on carriageway width requirements
- 20m where additional verge width is required for landscaping.

As per the DSP Partridge Street is accommodated within a 29.2m road reserve, requiring a 4.1m widening both sides for the ultimate cross section. The widening on the western side has been approved as part of the Early Lot Release subdivision approval, with a reduced verge width on the eastern side until such time future planning occurs to the east. It is intended to construct Partridge Street as per the cross section shown within Appendix 7, with a reduced eastern verge, as part of the development of LSP1A. It is considered that staged construction will prevent unnecessary future disruption and additional costs.



Woollcott Avenue will be upgraded to an Integrator Arterial B, as part of the development of the DSP, within the existing 28.2m road reserve encompassing embayed parking within the road reserve. Despite traffic volumes warranting a Neighbourhood Connector (as identified under the DSP), rather than an Integrator Arterial, it is not proposed to narrow the reserve and close a portion of the existing road reserve in order to maintain flexibility for future servicing, landscaping treatments and future connections to public transport infrastructure within the MRS Public Purposes Reserve.

Embayed parking will generally be provided within road reserves adjacent to medium and high density residential development, commercial and retail development and on access streets adjoining public open space.

7.4 Traffic Forecasts

In the context of the DSP an LSP1A traffic model has been developed at interims (year 2017) and ultimate (full development of the DSP) scenarios.

Traffic volumes on local access streets under the interim and ultimate scenarios are generally less than 1000vpd, due to the interconnected subdivision layout.

The north south Integrator Arterial B volumes are generally 2 000vpd – 4 000vpd, with a short section at 6000vpd adjoining the southern section of the LSP. No driveway access is proposed onto those sections of Partridge Street where volumes exceed 5000 vpd.

7.5 Intersection Treatments

Lord Street

Lord Street currently functions as the principal north south distributor until such time as PDH, Henley Brook Avenue and the Integrator Arterial B are constructed.

The DSP identifies two Integrator Arterial / Neighbourhood Connector intersections to Lord Street adjoining LSP1A, at Park Street and Woollcott Avenue. The LSP allows for a full access T junction at Woollcott Avenue. Connectivity to land parcels to the east is maintained in accordance with the DSP.

As identified under the DSP, in the interim temporary connections are required to the current Lord Street to facilitate north south connectivity. These connections will be removed when the PDH is constructed and replaced with a grade separated interchange at Youle Dean Road.

Detailed planning identified the need for an additional local street connection approximately 500m south of Park Street, referred to as Road A. This connection provides a local connection to the LSP area and will be a single lane roundabout. This street connection has been discussed with the City, who have indicated their support and as such this connection forms part of the Early Lot Release subdivision application. The City have the care and control of Lord Street, until such time as PDH is constructed.



The Traffic Report includes an assessment of the unsignalised junction capacity of the Lord Street intersections, indicating that until their removal (at construction of PDH) they are expected to operate with adequate capacity and acceptable delays. The intersection design will be to the specification and satisfaction of the City of Swan, Appendix 7 includes indicative designs.

As discussed with the City signage can be installed at the time of construction of these temporary connections to Lord Street in addition to the notifications being lodged on the certificates of title of all residential lots within the LSP1A area, to advise that these road connections will be removed when the PDH is constructed.

Partridge Street

Three roundabouts are ultimately identified for construction along Partridge Street, maximising connectivity to the east and to the primary school. These controlled intersections generally correspond with the indicative eastern access street connections shown on the DSP.

The northern and southern roundabout will be constructed as part of LSP1A allowing for a future eastern leg. The central roundabout will be constructed in the future when demand warrants.

Construction of these roundabouts requires a small land take of approximately 220m² on the eastern side of Partridge Street in order to accommodate roundabouts of a sufficient size. The eastern side of Partridge Street is identified in the DSP as requiring a 4.6m road widening. The proposed roundabouts can be accommodated within this 4.6m road widening. Appendix 9 includes a plan detailing an indicative roundabout design and approximate land take.

Local Access Streets

Appendix 7 sets out detailed intersection controls and traffic management treatments for the LSP, these include:

- Recommended speed zoning for particular urban environments and road traffic conditions
- Traffic signals and roundabouts
- Four way intersections requiring special measures at subdivision design stage, such as raised plateaus, splitter islands and supplementary stop of giveaway signs on minor road approaches.

7.6 Pedestrian and Cyclist Facilities

A network of shared paths and footpaths are proposed within the LSP area. A footpath will be provided on one side of all streets, with key local access streets having footpaths on both sides and shared paths where required. All at grade road crossings, including Partridge Street, will have kerb ramps and median gaps or paths for pedestrians and cyclists.

In addition to the shared paths, on road cycle lanes will be provided along roads carrying more than 3 000vpd, in accordance with Liveable Neighbourhoods.



7.7 Traffic Management at Schools

A primary school is located east of the LSP area and the Traffic Report includes a set of traffic management principles for consideration at subdivision and construction stage. The Report includes an assessment of safe routes to school, as per the draft WAPC Guidelines.

7.8 Public Transport Planning

Bruce Aulabaugh has liaised with PTA regarding future public transport provision. The LSP reflects the outcomes of these discussions.

The Albion DSP incorporates two key public transport planning elements:

- A bus transit system that serves the Albion, Ellenbrook and Aveley areas until at least 2030.
- Land use planning that does not preclude connection to a rail system within the PDH or adjoining MRS Public Purpose Reserve in the longer term.

The DSP includes a note that states:

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 our understanding that public transport options and alignments for this corridor are currently being investigated by key state agencies and the City. This investigation is at very early stages and is unlikely to be confirmed for some time. There is no further certainty as to rail infrastructure provision than was available at the time of preparing the DSP. If a passenger rail line is introduced in the MRS Reserves to the east then a rail station and bus transfer facility may be introduced at the Youle Dean grade separated interchange, as has occurred on other rail lines running in freeway reserves.

Importantly the LSP provides a land use planning outcome that does not compromise the ability to provide a rail station and bus interchange at the Youle Dean interchange. Given the significant degree of uncertainty as to provision the residential density codes and interconnected road network allow for land use transition over time as infrastructure provision evolves. The strong north south road connections through the LSP to Woolcott Avenue maximises accessibility to any future infrastructure provision. The future LSP for the Large Neighbourhood Centre will also allow for this land use evolution.

All of the planned bus routes run in a north south direction from Ellenbrook to the Bassendean or Morley rail stations. The DSP identifies a future north south route along the Integrator Arterial B. Provision of this route is subject to funding availability.

In the short term a bus service is provided to the LSP via the current route 336 and 337 operating on Lord Street. New bus stops, with embayments, will be constructed as subdivision development occurs. Transperth have supported the provision of new bus stops on Lord Street, in the vicinity of the Road A intersection, serving stage one. A new shared path will be constructed to connect the subdivision path system to the new bus stop.



8.0 LOCAL CENTRE

8.1 Background

The DSP Commercial Centres Strategy designates a local centre in the northern part of the LSP1A approximately 500m south of Park Street and adjacent to an indicative linear open space system. Consistent with the DSP the local centre interfaces directly with The Green adjoining the Integrator Arterial B. The centre provides passive surveillance to the open space, encouraging community use.

The centre is intended to provide a localised level of convenience retailing to serve the needs of the catchment:

- north to Park Street
- east across Partridge Street to the gas pipeline easements
- west to Lord Street, and
- south to approximately Woollcott Avenue, where the influence of the eventual town centre (large neighbourhood centre) will become more walkable / proximate.

The DSP Centres Strategy suggests that this local centre could ultimately comprise:

- Convenience store: 300 – 400m²
- Other retail tenancy: 220 – 120m²
- Non-retail tenancy: 100 – 150m²

The DSP also states 'although the locations and indicative sizes of the local centres have been specified there is no guarantee that they will be developed. The feasibility and timing of their eventual development will be entirely dependent on future market conditions'.

8.2 Land Use & Evolution of the Centre

During the establishment phases of the Albion area the centre will provide important local services, and become a feature of the developing area. Upon establishment of the town centre to the south, the role of the local centre will be reduced.

In the immediate term the site directly adjoining The Green will be developed by the landowners as a sales office and community meeting place, with immediate or short term development of a corner store of approximately 300m², providing a wide range of daily needs and the opportunity for evening operation, as well as a cafe.



Location Plan - N.T.S.

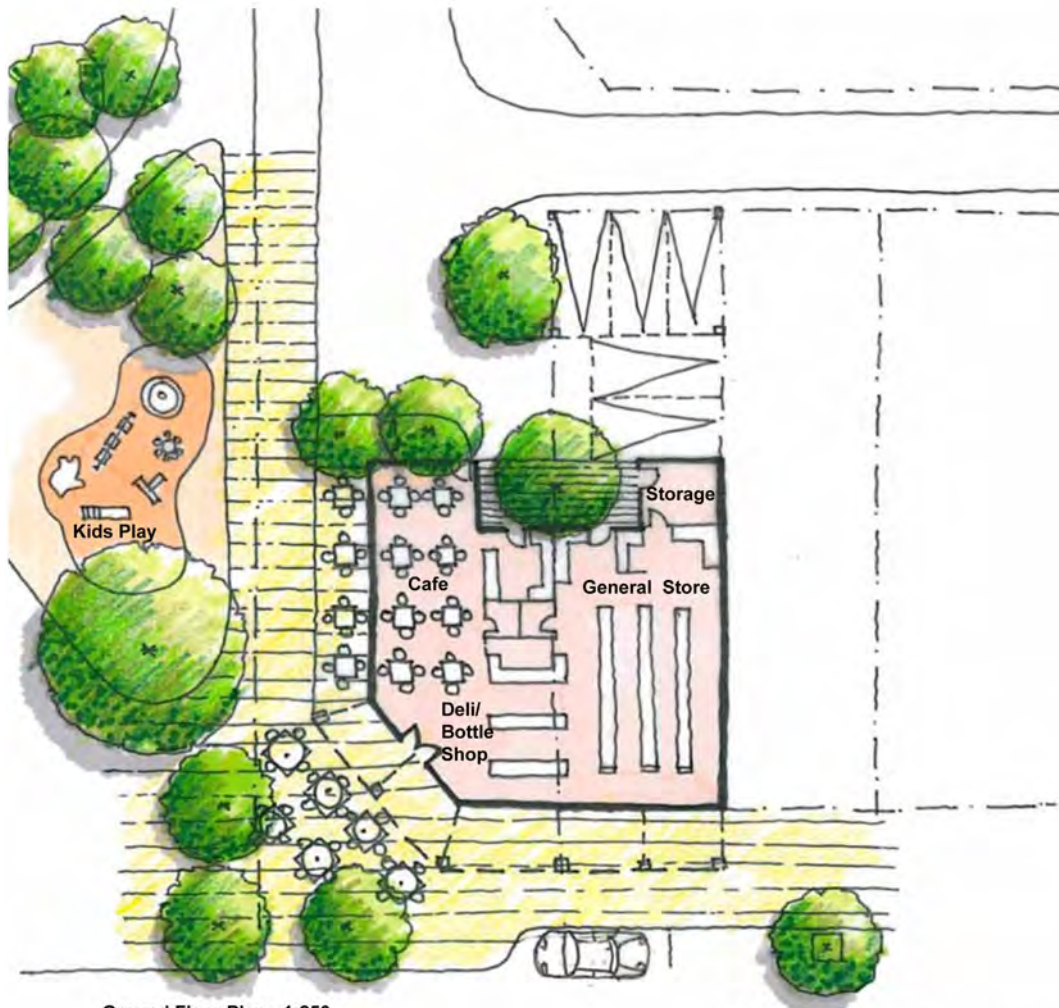
Albion LSP1A

MULTIPLEX LIVING

BY BROOKFIELD MULTIPLEX



Elevation - 1:250



Ground Floor Plan - 1:250

Note: This plan is indicative only and is subject to further detailed design.

FIGURE 17

The land requirement for this type of use is minimal, with preliminary designs indicating that a local centre with a NLA of 300m²-500m², consistent with the DSP Commercial Centres Strategy, can be accommodated within a lot area of approximately 700-800m². As such, the Local Centre zone applies to a single lot, adjacent to 'The Green' open space. This will ensure that the Local Centre does not exceed its designated function under the DSP provisions, and continues to provide a suitable interface to the open space, as well as providing a prominent entry point to the estate.

The LSP1A – Zones, Reserves and R-Code Plan, refer Fig S2, designates the street block adjoining The Green for 'Local Centre' zone with the following uses permitted as 'D', refer also Section 13.0:

- Ancillary Accommodation
- Child Care Premises
- Convenience Store
- Family Day Care Centre
- Grouped Dwelling
- Home Business
- Home Occupation
- Home Office
- Home Store
- Local Shop
- Multiple Dwelling *
- Office
- Office – Professional
- Office - Service
- Restaurant
- Shop
- Single House

* Multiple dwellings are not permitted on the ground floor

The Local Centre has a residential density code of R60.

8.3 Design Principles

The core of the centre immediately adjoining The Green will be subject to a Detailed Area Plan, prepared as a condition of subdivision approval.

The Detailed Area Plan will reflect the following indicative design principles, which will encourage the centre to read as a small urban node:

- buildings typically built to the street alignment
- awning/verandah to street
- 'urban' in character, with commercial shopfronts and signage
- outdoor tables and chairs
- special street design/paving to allow engagement with The Green
- parking on site and on street to be sufficient to support commercial uses, including rear parking
- easy access to and surveillance of The Green and directly adjacent kids play area

Figure 16 shows an indicative layout for the core of the LSP1A local centre consistent with these principles.

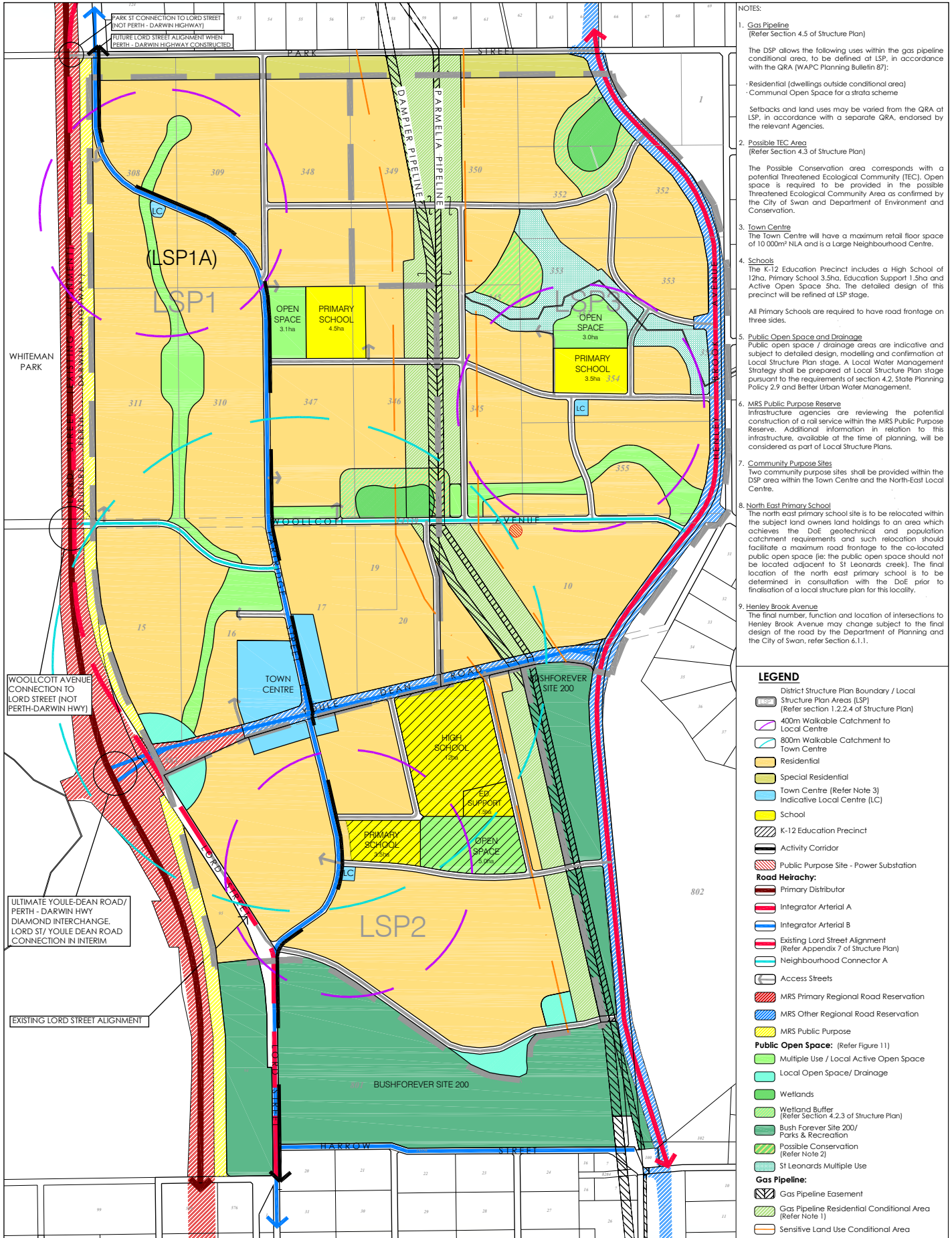


FIGURE 1 (repeated)



9.0 SCHOOLS

The DSP identifies three primary school sites, a high school and education support facility within Albion, refer Fig 1. The LSP1A area will ultimately be serviced by a Primary School to the east of Partridge Street on Lot 347, outside the LSP area.

The landowners recognise the need to provide primary school facilities to serve the LSP area within the short to medium term. Stockland have discussed this with Department of Education and it has been agreed that the primary school could be provided within houses in LSP1A, as an interim measure until such time as schools in the area are operational.

The provision of a school in houses and the ultimate primary schools, will be dependent on sales rates, Department of Education's demographic modelling, existing primary school provision in the locality and state government budget constraints, and therefore can not be determined immediately.

Stockland are continuing to liaise with Department of Education regarding the provision of primary school infrastructure and will co-operate with the Department to assist in delivering infrastructure suitable to the community's needs.



10.0 COMMUNITY & ECONOMIC DEVELOPMENT

A District Community and Economic Development Plan (CEDP) was endorsed by the City of Swan and WAPC as a detail of the Albion DSP. The District CEDP provides a framework for the refinement of community and economic planning as part of a Local CEDP at local structure plan stage, when more detail and input from landowners is available.

A Local CEDP has been prepared for LSP1A, refer Appendix 8. This Local CEDP will evolve and be amended as the landowners develop future stages on their remaining land holdings within the DSP area.

The Local CEDP is informed by a comprehensive state and local policy framework, providing guidance for physical infrastructure provision and developer contributions.

The SRSP and Albion DSP identify school provision, broad public open space distribution and sites for key community buildings. LSP1A is primarily residential and does not contain any of these identified key district community infrastructure items.

The need to provide community facilities from the outset is however recognised by the landowners and the following is included within LSP1A, to be provided and / or facilitated by the landowners:

- A public open space network that will provide valuable community meeting and activity spaces. The linear network will encourage walking and cycling. The Oval will encourage informal kick about and play, as well as children's play facilities located strategically throughout the LSP area.
- A sales office that will include a community meeting space, similar to the space provided in Vale stage 1. The sales office will be located as part of the local centre, with a convenience store and cafe in the immediate / short term, opening onto The Green.
- A comprehensive walking and cycling network connected to the district network, with a path on at least one side of every street.
- The opportunity for the provision of school in houses to meet short term demand for primary school provision. This is subject to ongoing discussions with Department of Education.
- The opportunity for a diverse range of housing typologies, responding to a potentially broad demographic as well as affordable housing imperatives.
- A road network that allows for future bus routes through the LSP area, with PTA allowing for a stop for existing services on Lord Street to service the LSP area from day one.
- A number of non-physical community development initiatives to support the economy, promote sustainable living, encourage community engagement, facilitate local employment and develop a unique sense of place, refer Table 4 of Appendix 8.





The City of Swan are currently preparing a Development Contributions Plan that contemplates developer funding for district community infrastructure. The Development Contributions Plan is being prepared within the framework of State Planning Policy 3.6 Development Contributions for Infrastructure, which requires a needs analysis and capital expenditure planning.

The Financial Assessment Report, Appendix 6, sets out further detail as to the funding sources and responsibilities for community infrastructure.



11.0 SERVICING AND INFRASTRUCTURE STRATEGY

Cossill & Webley Engineers have prepared an Infrastructure Report for LSP1A, refer Appendix 9.

The DSP provides a broad overview of district infrastructure provision, which has now been refined for LSP1A. The servicing strategy remains consistent with Figure 14 of the Albion DSP.

The servicing initiatives are summarised below.

11.1 Sewer

The Water Corporation has undertaken sewer infrastructure planning for the Albion DSP area.

An existing Water Corporation pump station is located on Lot 40 Barrambie Way, approximately 2km north of the site. Additional sewer infrastructure will be required for the initial stages of development to proceed and will comprise an additional sewer main and pump station to the south.

A temporary type 40 pump station is proposed to be constructed on Lot 310, adjacent Partridge Street, approximately 240m north of its intersection with Woolcott Avenue. The catchment of the pump station encompasses all of Lot 308, Lot 309, Lot 310, and all but 10.7ha of Lot 311 that form the LSP1A area. Wastewater will be pumped via a 250mm sewer pressure main from the temporary pump station to the Water Corporations existing Barrambie Way pump station.

Any further development outside the LSP1A development area will be subject to the delivery of additional wastewater infrastructure.

11.2 Water

An existing 250mm diameter main is located in Pinnaster Road, as part of the Ellenbrook water supply system. Additional water supply services will be required to supply the LSP1A area, for the initial stages of development, up to 100 lots, a new 250mm diameter water main will be constructed from the existing Pinnaster Street main, southwards along Lord Street and up to Park Street.

For development beyond the initial 100 lots, the water system in Ellenbrook will require upgrading in order to accommodate the additional demand. A 400mm water main must be constructed in Gngangara Road from the gas pipeline easement up to Lord Street where it will connect into the 250mm main constructed as part of the initial stages.

The ultimate water supply scheme must be implemented in order to supply water beyond the 400 lot capacity created by the 400mm reinforcing in Gngangara and Ellenbrook. This entails installation of a 500mm main from Gngangara Road to Park Street and the extension of a 400mm main southwards from Park Street along Partridge Street.



A Water Corporation well head (production bore) is located within the area of public open space adjacent to Woolcott Avenue (Local Park South East), with an easement ensuring appropriate access. A further two well heads are located on the northern side of Park Street, outside of, but adjacent to the LSP area. The LSP1A designates only compatible land uses within the vicinity of the well heads, as required by the Water Corporation, Department of Water guidelines (Water Quality Protection Note No.25) and State Planning Policy. The Water Corporation has confirmed via email dated 5 December 2011 that the land uses proposed by LSP1A within the 300 metre 'wellhead protection zones' are compatible with the operation of the production bores.

11.3 Power

Transmission Network

There are existing Western Power transmission assets in the vicinity of LSP1A, as described below:

- Henley Brook Zone Sub Station - This substation is located south of Gnangara Road and West of Lord Street. This substation currently only has a single transformer in operation and a further two may be installed as load in the surrounding areas increase over time. LSP1A is located within the supply area of this substation.
- Woolcott Avenue - An existing 132kV overhead transmission main is located on the southern boundary of Woolcott Avenue.

Western Power planning indicates that the regional HV system will require further expansion in the future, with up to two new sub stations required, possibly near Albion and Caversham. A site for the Albion sub-station, Lot 10, and the associated 132kV transmission mains, Henley Brook Avenue and Woolcott Avenue, has been identified in the Albion DSP.

Development of LSP 1A will not require the construction of any of these new substations as all demand for this site can be met from the existing Henley Brook Zone Sub Station. Similarly the installation of the additional 132 kV transmission main that interconnect the proposed substations will only be required once the construction of a new substation commences, which is likely to be in the 10-15 year timeframe.

High Voltage Network

A Western Power feasibility study has found that the existing Lord Street, Park Street and Partridge Street 22kV feeders has sufficient capacity for up to 270 lots, after which some upgrading may be required to either the Henley Brook substation, or the installation of an additional HV feeder in Lord Street.

Based on the developments in adjacent areas, if the new development is staged at 30 to 50 lots per stage, at a rate of about 3 per year, then WP would see this as natural load growth and it would most likely not require any up front feeder infrastructure to be installed to feed the development.





As a rule Western Power will not allow more than 1MVA to be connected to the network without a detailed planning study of the surrounding network. Western Power will only allow about 100-150 lots to be connected to the existing 22kV HV network prior to any reinforcement or network upgrades are required.

11.4 Gas

WA Gas Network has advised that a new 160mm gas main extension, approximately 2.6km in length, will be required along Gnangara Road, southwards along Lord Street and up to Park Street. This infrastructure item is included as a shared infrastructure cost between landowners as part of the Development Contribution Plan.

11.5 Telecommunications

A Telstra exchange is located in Gnangara Road and can be used to extend Telstra infrastructure into the LSP1A area.

Stockland has entered a servicing agreement with Telstra to provide high speed telecommunications to its developments on a national basis, including Albion. The Federal Government's 'National Broadband Network' initiative has also been taken into consideration and can be implemented throughout the Estate.



12.0 DEVELOPER CONTRIBUTION ARRANGEMENTS AND IMPLEMENTATION

12.1 Developer Contributions and Deeds of Infrastructure

The Albion DSP, which includes the LSP1A area, is within Development Contribution Area 1 (DCA 1) under Schedule 13 of LPS17 and thus is subject to the relevant DCP for DCA 1.

The DCP applicable to DCA 1 identifies infrastructure items that are outside of, and in some cases immediately adjoining the LSP1A area, which are required to be ceded, resumed or constructed as part of the urban development of the area. The DCP does not identify any infrastructure items located within the LSP1A area.

The 'Infrastructure Demand' is apportioned across the development in order to derive Infrastructure Contribution Rates for each network of Infrastructure.

Each subdivider will be required to make Cost Contribution payment based on the area that they develop against the applicable Contribution Rate for DCA 1.

As part of the approval of the Early Lot Release subdivision application, the landowners entered into an agreement with the City of Swan, providing a commitment in the form of a caveat over the LSP area that payment of all cost contributions identified in the DCP will be paid upon finalisation and gazettal of the DCP.

For Albion LSP1A, a deed of agreement applies to all LSP1A land for the construction of selected infrastructure, which was previously identified within the Infrastructure Strategy and draft DCP, and subsequently removed. Under this deed, the subdivider agrees to carry out and complete at its own expense the Selected Infrastructure to the specifications and satisfaction of the Local Government.

Figure 17 identifies the infrastructure provided for in the Deed, as well as an indicative staging plan, which provides the triggers for the delivery of the identified infrastructure.

Table 12 identifies the infrastructure to be funded through the abovementioned deed and selected DCP trunk infrastructure and whether the infrastructure is funded entirely by the proponent, or via a proportionate contribution.

The selected DCP trunk infrastructure on Figure 11 is not a comprehensive listing of works and land identified in the Development Contribution Plan for DCA 1 - Brabham (Albion). Where a DCP item is not listed on Figure 11, the trigger for the acquisition and/or construction of the DCP item is addressed in the relevant Local Structure Plan and the 'Capital Expenditure Plan for the Urban Growth Corridor' ('CEP'). In the absence of an endorsed LSP or CEP, the CEP advertised by City of Swan applies.

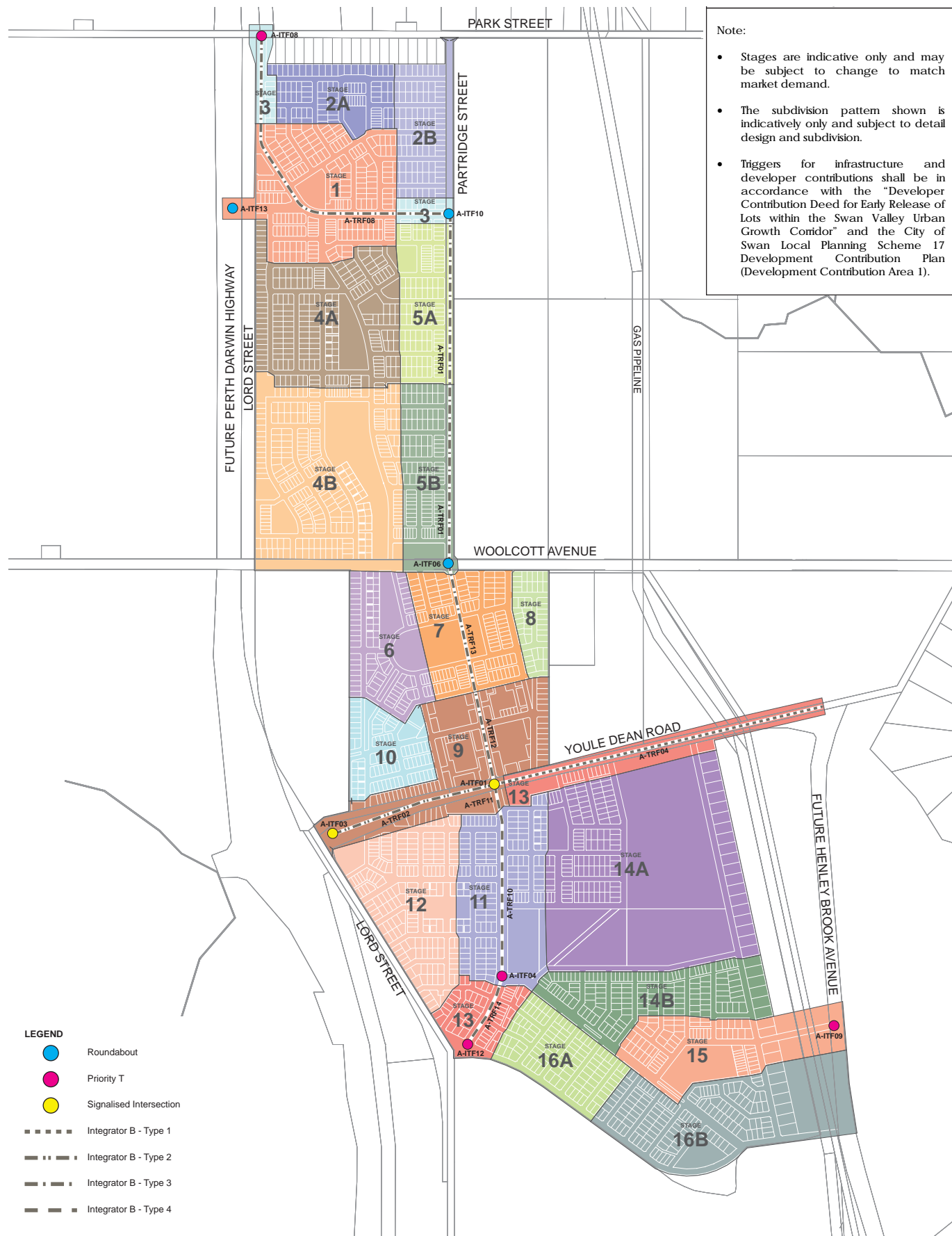


FIGURE 18

TABLE 12: Infrastructure Provision Funding and Maintenance Summary

Infrastructure Item	Developer	Shared Provision via Developer Contribution Plan	City of Swan	Infrastructure Agency Standard Servicing Arrangements
Local Public Open Space	✓ •	✓ (active POS)	#	
District Public Open Space		✓		
Government Primary Schools	✓			#
Local Roads	✓		#	#
District Roads (Henley Brook Ave & Lord St South)		✓	#	
Reticulation and Headworks of <ul style="list-style-type: none"> • Water • Sewerage • Drainage works • Electricity supply Gas 	✓			#
Urban Water Management	✓			
Community Infrastructure	✓ (Soft Infrastructure)	✓ (Land & Construction of Facilities)	✓ #	

Legend: ✓ Provision • Initial monitoring / maintenance # Ongoing maintenance 12.1

As part of the formulation of LSP1A the proponent has undertaken extensive consultation with all relevant servicing agencies regarding their requirements for service provision, capital investment costs and ongoing maintenance responsibilities. The proposed structure plan and above Table aligns with the positions of each of these agencies, as outlined within Appendix 6 and 9.

The applicant has also undertaken extensive consultation with the City of Swan with regard to the provision of local reserves for roads, drainage and public open space. The applicant has agreed to develop local reserves to the required City standards as a condition of subdivision approval and will undertake the agreed monitoring and maintenance of the relevant infrastructure items.

12.2 Financial Assessment Report

In accordance with City of Swan Urban Growth Policy POL-C-102 a Financial Assessment Report was prepared by Brookfield Residential Properties (previous landowners), and is submitted as part of LSP1A for information purposes, refer Appendix 6.

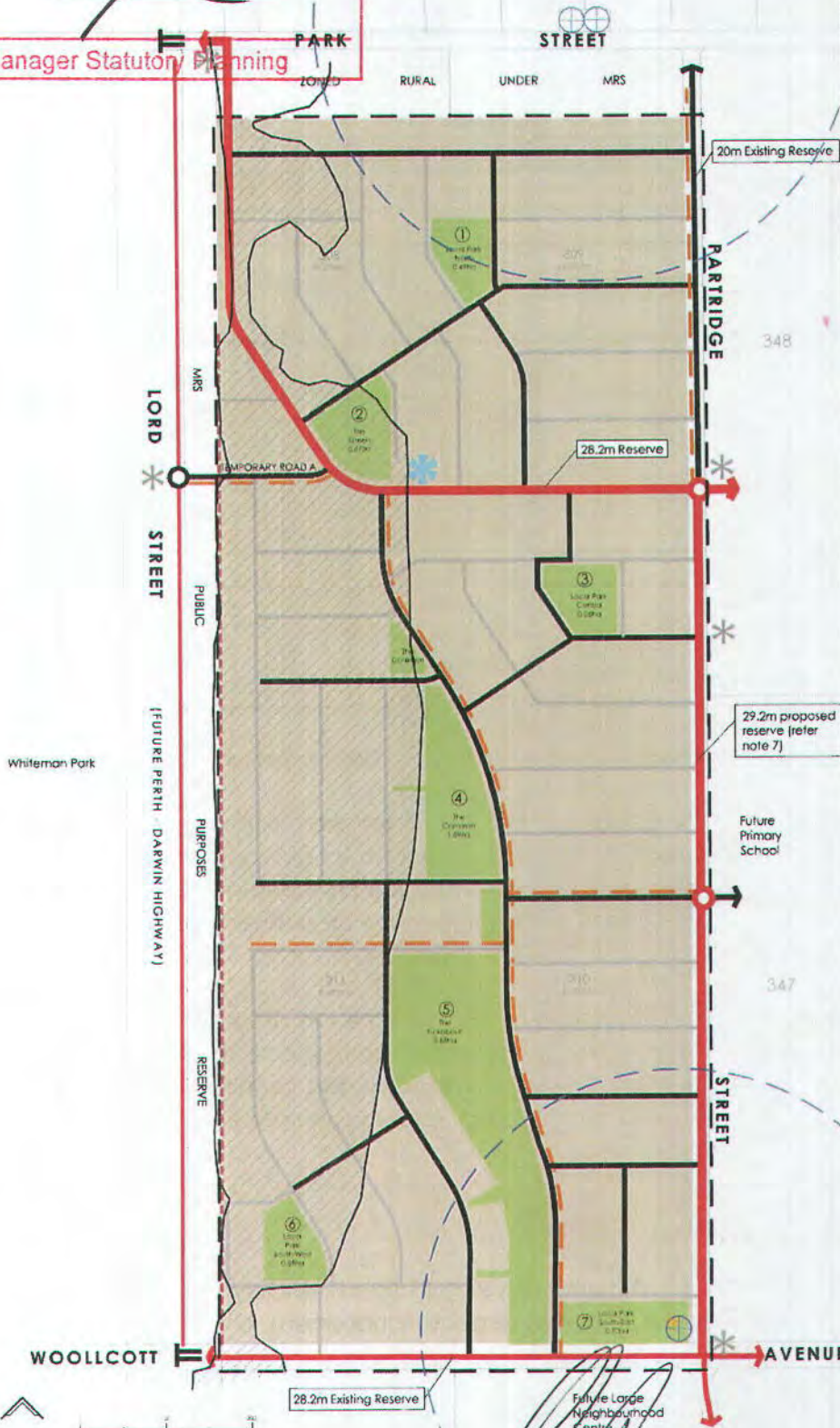
The Developer Contribution Plan and associated Deeds are the most recent statutory documents pertaining to contributions for infrastructure, and supersede some of the information provided in Appendix 6.

CITY of SWAN
APPROVED STRUCTURE PLAN

No: SP17-020

Date: 30 / 07 / 2014

Manager Statutory Planning



LEGEND

- Local Structure Plan Boundary
- Residential
- Local Park
- Local Centre
- Integrator Arterial Type B (including shared paths and cycle lanes) (28.2m - 29.2m reserve width)
- Key Local Access Streets (Footpaths both sides) (13m - 20m reserve width)
- Local Access Streets (13m - 15.4m reserve width)
- Principal Shared Path
- Shared Path
- Noise Barrier Wall (refer Note 3)
- 50dB - 55dB Noise Contour (refer Note 5)
- Single Lane Roundabout. Detailed design to be confirmed in conjunction with City of Swan. All connections to Lord Street to be closed when Perth-Darwin Highway constructed.
- Full access "T" junction to Lord Street. Detailed design to be confirmed in conjunction with City of Swan. All connections to Lord Street to be closed when Perth-Darwin Highway constructed.
- Water Corporation Bore Easement
- Roads and Intersections to be upgraded in accordance with "Agreement for Construction of Selected Infrastructure" (refer note 8)
- Production Bore
- Wellhead Protection Area

Notes:

1. Visually Permeable fencing is to be provided to all lots on the boundary that directly abuts open space areas, to the City of Swan's specifications.
2. Local road network and POS is indicative only and subject to change and refinement at the subdivision stage.
3. Lots backing onto the future Perth-Darwin Highway alignment require a 1.6m - 2.4m solid wall at the rear boundary to be constructed by the developer.
4. The first row of lots/dwellings abutting Lord Street/future Perth-Darwin Highway are subject to Quiet House Design and will be subject to a Notification on Title.
5. Lots within the 50dB - 55dB noise contour will be subject to a Notification on Title.
6. Road reserve ranges are based on Appendix 7 of the LSP. Reserve widths will be determined at subdivision stage.
7. Partridge Street is subject to a 4.6m road widening to the west and east at subdivision stage in accordance with the Infrastructure Deed.

Additional road widening (truncation) will be required for the 2 roundabout intersections (being Partridge Street/Integrator Arterial Type B and Partridge Street/Access Street C1 as outlined in Figure 15 - Street Types Plan) as part of any future subdivision.

8. Triggers for the construction and delivery of specified infrastructure are identified in the "Agreement for Construction of Selected Infrastructure" deed between the proponent and the City of Swan.

Signed by an officer duly authorised by the Western Australian Planning Commission pursuant to section 24 of the Planning and Development Act 2005

FIGURE S1

LOCAL STRUCTURE PLAN 1A

13.0 STATUTORY SECTION

The provisions of the Part Four: Statutory Section apply as if they were provisions of the Scheme, pursuant to Clause 5A.1.12.

13.1 Statutory Area & Plans

This document has been prepared to satisfy the requirements for a Local Structure Plan pursuant to Local Planning Scheme No. 17.

The structure plan area is the land contained within the inner edge of the LSP1A boundary as shown on Figures S1 and S2.

The statutory plans comprise:

- Albion Local Structure Plan 1A – Figure S1
- Albion Local Structure Plan 1A – Zones, Reserves & R Code Plan - refer Figure S2

(refer A3 versions of statutory plans at Appendix 10)

13.2 Density

Figure S2 identifies split residential density codes that apply to specific areas within the Structure Plan. A Residential Density Code Plan (RDCP) is to be submitted at the time of subdivision to the WAPC to inform the subdivision assessment. The RDCP shall indicate the residential density coding applicable to each lot within the subdivision and shall be consistent with the Structure Plan, including the split residential density coding and criteria contained within Figure S2.

The Residential Density Codes Plan is to include a summary of the proposed dwelling yield of the subdivision.

Variation to the average lot size specified in Table 1 or elsewhere in the R-Codes may be approved by the City of Swan or the WAPC, on the recommendation of the City of Swan.

13.3 Public Open Space

Public open space is to be provided generally in accordance with Figure S1 and Table 10, with an updated public open space schedule to be provided at the time of subdivision for determination by the WAPC, upon the advice of the City of Swan.



13.4 Conditions of Subdivision Approval

At the time of subdivision the following conditions may be recommended, as applicable, to enable the implementation of the Albion LSP1A and its associated strategies/plans:

- Noise barrier wall to be constructed in accordance with Figure 11 and the Lloyd George Acoustic report.
- Notification on titles for lots within the 50-55dB noise contour as shown on Figure S1.
- Prospective purchasers being advised of the quiet house design requirements for those lots identified within Figure S3.
- Notification on titles advising that road access to Lord Street will be removed when Lord Street is upgraded and constructed as part of the Perth - Darwin National Highway.
- Contributions to common services and community infrastructure within the Development Contribution Plan for DCA 1 - Albion (Brabham).
- Detailed Acid Sulphate Soils investigations and management.
- Preparation and implementation of an Urban Water Management Plan.
- The Fire Management Plan being implemented.
- Visually permeable fencing being provided to lots directly abutting public open space.
- Preparation of a Detailed Area Plan for Innovative Housing Precinct lots.
- Dwellings being constructed to plate height prior to the submission of the diagram or plan of survey (deposited plan) for land within an Innovative Housing Precinct lot.
- Provision of embayment parking to the City's standard for land within an Innovative Housing Precinct lot.

13.5 Special Use – Local Centre

The following requirements apply to development within the 'Special Use – Local Centre' zone.

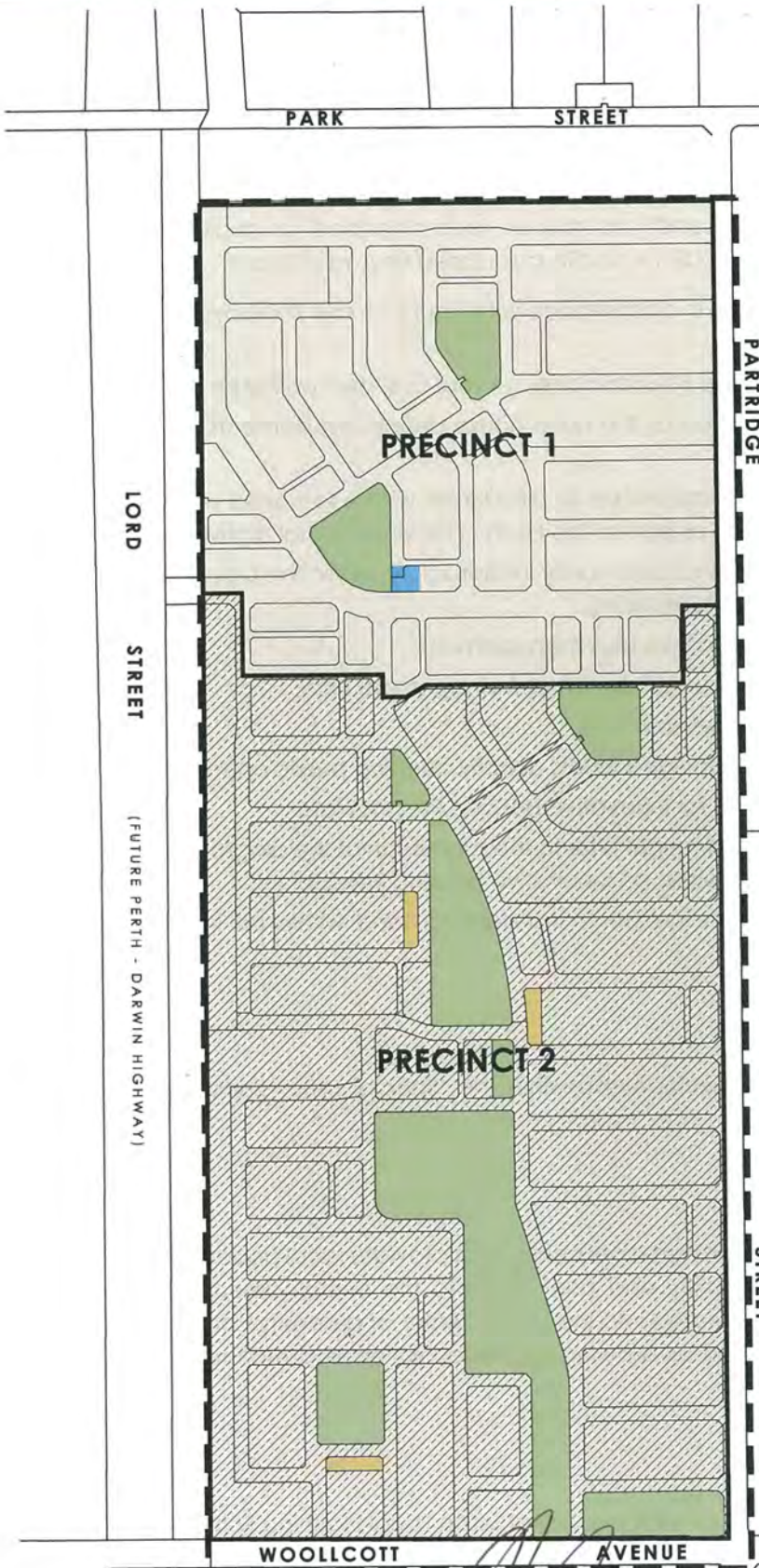
Zone Purpose & Objective:

To facilitate the development of an integrated local centre that provides local goods, services and facilities to the surrounding community and contributes to the overall amenity of the locality. Residential uses may be incorporated into the Local Centre at a density code of R60, complementing local centre uses as well as allowing for the evolution and maturing of the centre.

Land Use Permissibility:

Land use definitions shall be in accordance with the City of Swan Local Planning Scheme.

Land use permissibility for uses in the Special Use – Local Centre zone shall be in accordance with Table S1.



LEGEND

- LSP 1A Boundary
- Residential R30/R40/R60
- Residential R40/R60
- Residential R80 Innovative Housing Precinct
- Special Use - Local Centre
The following uses are 'D' within the Special Use - Local Centre Zone:
Ancillary Accommodation
Child Care Premises
Convenience Store
Family Day Care Centre
Fast Food Outlet
Grouped Dwelling
Home Business
Home Occupation
Home Office
Home Store
Local Shop
Multiple Dwelling
Office
Office - Professional
Office - Service
Restaurant
Shop
Single Bedroom Dwelling
Single House
- Local Scheme Reserve

PRECINCT 1
R30/R40/R60

1. A split coding of R30/40/60 applies in Precinct 1 as follows:
 - 1.1 The R30 code applies as the base code to all single dwelling on lots that do not have a laneway abutting the rear boundary.
 - 1.2 The R40 code applies to all lots with a laneway abutting the rear boundary and lots abutting open space.
 - 1.3 The R60 code applies to all corner lots served by two streets and a laneway, lots 13m wide or greater served by a laneway, lots greater than 800m² and lots within the Local Centre zone excluding balance of title lots.

PRECINCT 2
R40/R60/R80

2. R40 applies as the base code to all lots, with the exception of those lots coded R60 or R80 as set out below,
3. The R60 code applies to the following lots:
 - Corner lots that are served by two streets and a laneway;
 - Residential lots greater than 800m² excluding balance of title lots;
4. The R80 code applies to those lots as depicted on this plan.

Note:
Local road network depicted is indicative only and subject to change and refinement at the subdivision stage.

Development of more than one dwelling on a single lot shall require a development application.

15 *[Signature]* 16

Signed by an officer duly authorised by the Western Australian Planning Commission pursuant to section 24 of the Planning and Development Act 2005

CITY of SWAN
APPROVED STRUCTURE PLAN
No: SP17-020
Date: 30 / 07 / 2014

Manager Statutory Planning **FIGURE S2**

Table S1: Special Use Local Centre Land Use Permissibility

Use Class *	Permissibility
Ancillary Accommodation	D
Child Care Premises	
Convenience Store	
Family Day Care Centre	
Grouped Dwelling	
Home Business	
Home Occupation	
Home Office	
Home Store	
Local Shop	
Multiple Dwelling	
Office	
Office – Professional	
Office - Service	
Restaurant	
Shop	
Single Bedroom Dwelling	
Single House	

* As defined by the City of Swan Local Planning Scheme 17

13.6 Residential Zone

Zone Purpose and Objective:

The objectives of the Residential Zone are as per clause 4.2.13 of Local Planning Scheme 17.

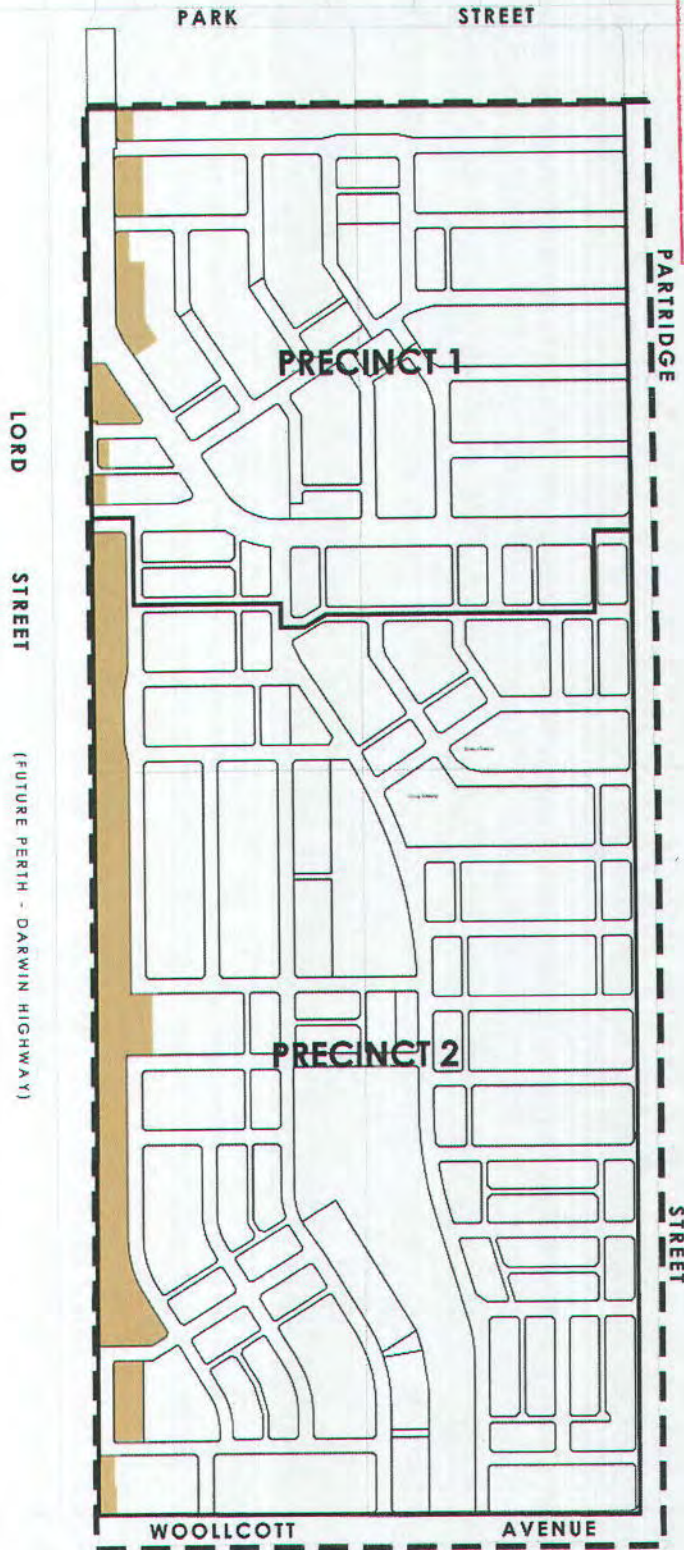
Land Use Permissibility:

Land use definitions shall be in accordance with Local Planning Scheme 17.

Land use permissibility for uses in the Residential Zone shall be in accordance with clause 4.3 – Zoning Table of Local Planning Scheme 17. In addition, the following uses are ‘D’ uses in the Residential Zone:

Display Home Centre: A group of two or more dwellings and incidental car parking which are intended to be open for public inspection as examples of dwelling design.

Residential Sales Office: A building of either a temporary or permanent nature, and incidental car parking, used directly in relation to the sale of land and dwellings in new residential estates.



CITY of SWAN
APPROVED STRUCTURE PLAN
No: SP17-070
Date: 30 / 07 / 2014
Manager Statutory Planning

348 349
347 346

LEGEND
- - - LSP 1A Boundary
■ First row of dwellings subject to Quiet House Design, Table S4

15 16 17

13.7 Innovative Housing Precinct Lots

Any building developed on an Innovative Housing Precinct lot as identified on Figure S2 (Local Structure Plan 1A - Zones, Reserves & R Code Plan), shall have a high quality built form and streetscape presentation, and shall match or otherwise coordinate with any existing or proposed building developed on the same Innovative Housing Precinct lot to the satisfaction of the City, including consideration of distinctive roof forms, special building elevations, window treatments, materials and colour. Details of the requirements for Innovative Housing Precinct lots should be included in a Detailed Area Plan.

Each Innovative Housing Precinct lot shall be developed in its entirety as a single development. The City shall not approve development of land within an Innovative Housing Precinct lot unless the City is satisfied that the development will not prejudice the specific purpose and requirements for which the Innovative Housing Precinct lot is intended.

The WAPC, on the advice of the City of Swan, may require as a condition of subdivision approval for land within an Innovative Housing Precinct lot:

- the preparation of a Detailed Area Plan (DAP) in accordance with Clause 5A.1.15 of the Scheme.
- that dwellings be constructed to plate height prior to the submission of the diagram or plan of survey (deposited plan).
- that embayment parking be provided to the City's standards.

13.8 R Code Variations

Table S3 sets out the variations to the R Codes applicable to all traditional front loaded lots coded Residential R30 and R40. These variations are deemed to constitute Acceptable Development and do not require neighbour consultation. Table S2 sets out the variations to the R Codes applicable to lots coded Residential R40 and R60 with a laneway at the rear or adjoining open space that are deemed to constitute Acceptable Development and where neighbour consultation is not required.

The preparation of a Detailed Area Plan (DAP) in accordance with Clause 5A.1.15 of the Scheme may be required by the WAPC on advice from the City of Swan as a condition of subdivision approval for land within an Innovative Housing Precinct lot as depicted in Figure S2 (Local Structure Plan 1A - Zones, Reserves & R Code Plan).

Where there is a conflict between the provisions of the Tables S2/S3 and the R-Codes or an approved Detailed Area Plan (DAP) and the R-Codes, the provisions of the Tables S2/S3 or the approved Detailed Area Plan (DAP) shall prevail in each case.

13.8 Quiet House Design

Table S4 sets out the provisions that apply to the first row of dwellings immediately adjoining the Metropolitan Region Scheme Public Purposes and Primary Regional Road Reserves, as shown on Figure S3. The following provisions are deemed to comply. Any proposal outside the deemed to comply specifications require development approval and need to be accompanied by an acoustic certification.

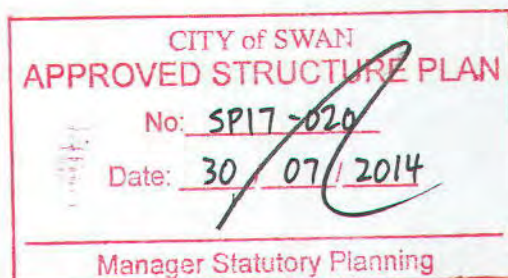


TABLE S4 – Quiet House Design Provisions

Area Type	Orientation	Requirements
Indoors		
Bedrooms	Facing Lord Street / PDH	<ul style="list-style-type: none"> • 6mm laminated glazing • Casement or awning windows in high quality residential grade frames • No external doors • Closed eaves • No vents to outside walls/eaves • Mechanical ventilation/airconditioning¹
	Side-on to corridor	<ul style="list-style-type: none"> • 6mm laminated glazing • Closed eaves • Mechanical ventilation/airconditioning
	Away from corridor	No requirements
Living and Work Areas ²	Facing Corridor	<ul style="list-style-type: none"> • 6mm laminated glazing • Casement or awning windows • 35mm (min) solid core external doors with acoustic seals • Sliding doors must be fitted with acoustic seals³ • Closed eaves • No vents to outside walls/eaves • Mechanical ventilation/airconditioning
	Side-on to corridor	<ul style="list-style-type: none"> • 6mm glazing • Closed eaves • Mechanical ventilation/airconditioning
	Away from corridor	No requirements
Other Indoor Areas	Any	No requirements
Outdoors		
Outdoor Living Area ⁴	Facing corridor Side-on to corridor	<ul style="list-style-type: none"> • Minimum 1.8m high solid fence (e.g. brick, limestone or Hardifence) • Colorbond and picket fences are not acceptable
	Away from corridor	No requirements
Second Storey	Facing corridor	<ul style="list-style-type: none"> • Acoustic engineer certification is required for the second storey of dwellings

Footnotes:

- 1 See section on Mechanical ventilation/airconditioning in State Planning Policy 5.4 for further details and requirements.
- 2 These deemed-to-comply guidelines adopt the definitions of indoor spaces used in AS 2107-2000. A comparable description for bedrooms, living and work areas is that defined by the Building Code of Australia as a "habitable room". The Building Code of Australia may be referenced if greater clarity is needed. A living or work area can be taken to mean any "habitable room" other than a bedroom. The Building Code of Australia describes these utility spaces as "non-habitable rooms."
- 3 Glazing panels are acceptable in external doors facing the transport corridor. However these must meet the minimum glazing requirements.
- 4 The Policy requires that at least one outdoor living area can be reasonably protected from transport noise. The protected area should meet the minimum space requirements for outdoor living areas, as defined in the Residential Design Codes of Western Australia.



The following provisions apply as R-Code Acceptable Development provisions and development standards under City of Swan Local Planning Scheme for rear loaded lots in Precinct 1 and 2. Rear loaded lots are those where vehicle access is provided via a rear laneway. Where there is conflict between the following provisions and the R-Codes the provisions below prevail. Compliance with the Acceptable Development provisions below will not require neighbourhood consultation. Where the criteria outlined below cannot be satisfied, the application shall be assessed in accordance with the applicable Performance Criteria of the Residential Design Codes.

	RELEVANT R-CODE CLAUSE	ACCEPTABLE DEVELOPMENT PROVISIONS APPLICABLE TO LOTS ACCESSED VIA A REAR LANEWAY
Directly abutting Public Open Space	Additional Requirement 6.2.5 A5 6.3.2 A2 6.2.1 A1.1 (i)	The following provisions apply to lots with a boundary directly abutting open space and does not apply to side boundaries of dwellings: <ul style="list-style-type: none"> All dwellings shall have a minimum of one habitable room with a major opening facing toward the public open space. All lots shall have visually permeable fencing to the primary frontage of the public open space boundary, to the specification and satisfaction of the Local Authority. Boundary walls are not permitted abutting the primary frontage to the public open space boundary. Buildings on lots adjoining public open space shall be setback a minimum of 2 metres from the public open space boundary.
Setbacks	6.2.1 A1.1 (i), 6.2.2 A2 (i) & 6.3.1 A1 (i)	Buildings shall be setback from the primary street as follows: <ul style="list-style-type: none"> Minimum Setback – 2m dwelling and 1.5m for verandah/front facade treatment Garages are permitted up to the rear laneway boundary, except where: <ol style="list-style-type: none"> There is conflict with service infrastructure such as power domes; or The lot width is less than 8m; In which case the minimum setback is 1m. Setback distances may need to be increased where an acceptable driveway gradient cannot be achieved. Garage doors shall not overhang the laneway reserve when open or in the process of being opened. <p>A wall up to a maximum height of 3.5m containing major openings shall provide a 1m minimum setback from the side boundary.</p>
Surveillance of the street	6.2.4 A4.1	Dwellings on corner lots shall provide a minimum of one habitable room window that has a clear view of the secondary street and secondary street setback area.
Boundary Walls	6.3.2 A2 6.3.2 A2 (iii)	Boundary walls are permitted to both side boundaries of a lot and the rear laneway, within the following limits: <p><u>Single Storey</u></p> <ul style="list-style-type: none"> Maximum height - 3.5m Maximum length - No limit <p><u>Two Storey & Above</u></p> <ul style="list-style-type: none"> Maximum height - 6.5m Maximum length - Up to 12m in length Boundary walls up to 3.5m high and 6m in length are permitted up to the secondary street boundary where: <ul style="list-style-type: none"> The secondary street boundary forms the southern or western boundary of the lot; The boundary wall is set back a minimum of 4m from the corner truncation; Surveillance of the secondary street is provided via a major opening to a habitable room. Highlight windows or similar articulation/fenestration is provided to the secondary street elevation. The height of walls to side boundaries may be increased to the top of the ridgeline for dwellings with a single pitched roof and ridgeline located parallel to the street, and where they abut a similarly configured wall or secondary street.
Private Open Space	6.4.1 A1 & 6.4.2 A2 - Table 1	The minimum open space to be provided is 25% of the site (75% site cover) subject to the provision of an Outdoor Living Area with a minimum useable space of 24m ² , minimum dimension of 4m and may include the nominated secondary street setback area. <p>Permanent roof cover is permitted up to a maximum of two thirds of the outdoor living area provided the outdoor living area is open on at least two sides.</p>
Ancillary Accommod.	6.11.1 A1 (ii) & (iv)	Ancillary Accommodation comprises an additional dwelling or independent accommodation associated with a dwelling on the same lot where the accommodation can be separate to the main dwelling, and where there is a maximum floorspace of 60m ² . <p>Ancillary Accommodation is permitted on lots less than 450m² where abutting a laneway.</p> <p>Ancillary Accommodation does not require an additional car parking bay on site where on-street parking is provided at the front of the property. Pedestrian access should be provided from the ancillary accommodation unit to the on-street car parking.</p>
Privacy	6.8.1 A1 (i), (ii) & (iii)	Where the floor level to any habitable spaces is greater than 500mm above natural ground level, a minimum 4.5m cone of vision privacy setback applies to major openings to side and rear boundaries abutting residential properties.
Design for Climate	6.9.1 A1	Overshadowing provisions of the R-Codes do not apply.
Access & Parking	6.5	On site car parking may be reduced to 1 bay per dwelling where the dwelling does not provide more than 2 bedrooms:
Essential Facilities	6.10.3	A recessed rubbish bin storage area shall be provided within the lot adjoining the laneway, 1.5m wide and 1m deep. Bin storage areas may extend in to the 1m wide garage setback for lots less than 8m in width.

CITY of SWAN
APPROVED STRUCTURE PLAN
No: SP17-020
Date: 30 / 07 / 2014
Manager Statutory Planning

The following provisions apply as R-Code Acceptable Development provisions and development standards under City of Swan Local Planning Scheme for front loaded lots, excluding Innovative Housing Precinct Lots, being those lots with a density code of R80. Front loaded lots are those where vehicle access is provided via a primary or secondary street and are not serviced by a rear laneway. Where there is conflict between the following provisions and the R-Codes the provisions below prevail. Compliance with the Acceptable Development provisions below will not require neighbourhood consultation. Where the criteria outlined below cannot be satisfied, the application shall be assessed in accordance with the applicable Performance Criteria, as outlined in Part 6 and 7 of the Residential Design Codes.

RELEVANT R-CODE CLAUSE		TABLE S3.1: ACCEPTABLE DEVELOPMENT PROVISIONS FOR SINGLE & GROUPED DWELLINGS WITH FRONTAGE 13m OR LESS			
Setbacks	6.2.1 A1.1 (i) & 6.2.2 A2 (i)	Buildings setback from the primary street as follows: <ul style="list-style-type: none"> Minimum Setback - 2m (including verandahs, porticos and other minor incursions). Buildings to be setback 1m from the secondary street. <p>Garages shall be set back a minimum of 4.5 metres from the primary street, and are not permitted to be greater than 2 metres forward of the main building line of the dwelling.</p> <p>For lots with frontage less than 10m, garages shall not exceed 3.5 metres in width, except where the dwelling is 2 storeys, and provides surveillance of the street for a habitable room.</p> <p>For lots with a frontage of 10m - 13m double garages are permitted where:</p> <ul style="list-style-type: none"> Surveillance of the street is provided from a habitable room; and The design includes provision of a portico, front verandah or similar, that is located equal to or forward of the garage facade. 	<div style="border: 2px solid red; padding: 5px; text-align: center;"> <p>CITY of SWAN APPROVED STRUCTURE PLAN</p> <p>No: <u>SP17-020</u></p> <p>Date: <u>30 / 07 / 2014</u></p> <p>Manager Statutory Planning</p> </div>		
Street Surveillance	6.2.4 A1	The principal pedestrian access to the dwelling to be clearly visible from the street. <p>Dwellings on corner lots with garages fronting the primary street (narrow frontage) shall provide:</p> <ul style="list-style-type: none"> Surveillance of the primary street via a major opening to a habitable room; and A principal pedestrian access (front door) facing the primary street facade and shall be visible from the street. 			
Boundary Walls	6.3.2 A2 6.3.2 A2 (iii)	Boundary walls are permitted to both side boundaries of a lot (excluding secondary street boundaries), within the following limits: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <u>Single Storey</u> <ul style="list-style-type: none"> Maximum height - 3.5m Maximum length - No limit </td> <td style="width: 50%; vertical-align: top;"> <u>Two Storey & Above</u> <ul style="list-style-type: none"> Maximum height - 6.5m Maximum length - Up to 12m in length </td> </tr> </table> <p>For dwellings with a single pitched roof and ridgeline parallel to the street, the height of walls on side boundaries may be increased to the top of the ridgeline where this runs parallel to the front boundary and abuts a similarly configured wall or secondary street.</p>		<u>Single Storey</u> <ul style="list-style-type: none"> Maximum height - 3.5m Maximum length - No limit 	<u>Two Storey & Above</u> <ul style="list-style-type: none"> Maximum height - 6.5m Maximum length - Up to 12m in length
<u>Single Storey</u> <ul style="list-style-type: none"> Maximum height - 3.5m Maximum length - No limit 	<u>Two Storey & Above</u> <ul style="list-style-type: none"> Maximum height - 6.5m Maximum length - Up to 12m in length 				
Private Open Space	6.4.1 A1 & 6.4.2 A2 - Table 1	Minimum open space of 25% (site cover 75%) subject to the provision of an Outdoor Living Area with: <ol style="list-style-type: none"> A minimum useable space of 24m², minimum dimension of 4m and may include the nominated secondary street setback area; and Located adjoining the northernmost or easternmost side boundary (with the exception of corner or irregular shaped lots and where it can be demonstrated that (a) can be achieved). <p>Permanent roof cover up to a maximum of two thirds of the outdoor living area provided the outdoor living area is open on at least two sides.</p>			
Directly abutting POS	Additional Requirement 6.2.5 A5 6.3.2 A2 6.2.1 A1.1 (i)	The following provisions apply to lots with a boundary directly abutting open space and does not apply to side boundaries of dwellings: <ul style="list-style-type: none"> All dwellings shall have a minimum of one habitable room with a major opening facing toward the public open space. All lots shall have visually permeable fencing to the primary frontage of the public open space boundary, to the specification and satisfaction of the Local Authority. Boundary walls are not permitted abutting the primary frontage to the public open space boundary. Buildings on lots adjoining public open space shall be setback a minimum of 2 metres from the public open space boundary. 			

RELEVANT R-CODE CLAUSE		TABLE S3.2: ACCEPTABLE DEVELOPMENT PROVISIONS FOR SINGLE DWELLINGS WITH FRONTAGE GREATER THAN 13m	
Setbacks	6.2.1 A1.1 & 6.2.2 A2	Buildings setback from the primary street as follows: <ul style="list-style-type: none"> Minimum Setback - 2m Buildings set back 1m from the secondary street. <p>Garages shall be set back a minimum of 4.5 metres from the primary street, and are not permitted to be greater than 1 metre forward of the main building line of the dwelling. This may be increased to 2 metres where a portico, verandah or other entry feature projects at least 1 metre forward of the main building line.</p>	
Private Open Space	6.4.1 A1 and 6.4.2 A2	Minimum open space of 40% (60% site cover) <p>For lots with a lot depth of 25m or less, minimum open space of 25% (site cover 75%) subject to the provision of an Outdoor Living Area with:</p> <ol style="list-style-type: none"> A minimum useable space of 24m², minimum dimension of 4m and may include the nominated secondary street setback area; and Located adjoining the northernmost or easternmost side boundary (with the exception of corner or irregular shaped lots and where it can be demonstrated that (a) can be achieved). <p>Permanent roof cover up to a maximum of two thirds of the outdoor living area provided the outdoor living area is open on at least two sides.</p>	
Directly abutting POS	Additional Requirement 6.2.5 A5 6.3.2 A2 6.2.1 A1.1 (i)	The following provisions apply to lots with a boundary directly abutting open space and does not apply to side boundaries of dwellings: <ul style="list-style-type: none"> All dwellings shall have a minimum of one habitable room with a major opening facing toward the public open space. All lots shall have visually permeable fencing to the primary frontage of the public open space boundary, to the specification and satisfaction of the Local Authority. Boundary walls are not permitted abutting the primary frontage to the public open space boundary. Buildings on lots adjoining public open space shall be setback a minimum of 2 metres from the public open space boundary. 	