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28/6/2010

CITY OF ALBANY

OUTLINE DEVELOPMENT PLAN

LOTS 32 & 37 SILVER ST, MCKAIL
LOT 33 COSTIGAN ST, MCKAIL
LOTS 35 & 134 LE GRANDE AVE, MCKAIL
LOT 36 JUNCTION ST, MCKAIL



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ENDORSEMENT PAGE

This structure plan is prepared under the provisions of the City of Albany Local Planning Scheme No. 2.

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

28 JUNE 2010

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*.

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Project Name: Lots 32 & 37 Silver Street, Lot 33 Costigan Street, Lots 35 & 134 Le Grande Avenue and Lot 36 Junction Street, McKail Outline Development Plan

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1.	7/9/07	First Draft	SDP	SDP	CTP	
2.	7/12/07	Draft to Clients	SDP	SDP/RAW	RAW	RAW
3.	17/1/08	Final to City of Albany	SDP	SDP/RAW	RAW	Clients
4.	21/5/09	Modifications for WAPC	SDP	SDP	CTP	CTP
5.	29/1/10	New ODP Amendment to City of Albany	JH	JH		

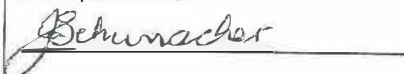
ENDORSEMENT OF OUTLINE DEVELOPMENT PLAN

The Western Australian Planning Commission resolved on 28 June 2010 to endorse the Outline Development Plan for Lots 32 and 37 Silver Street, Lot 33 Costigan Street, Lots 35 and 134 Le Grande Avenue, and Lot 36 Junction Street, McKail, dated January 2010, as a guide for subdivision within the locality.

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant to section 24 of the *Planning and Development Act 2005* for that purpose in the presence of



Witness

28/6/10 Date

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1.0 INTRODUCTION

The purpose of this Outline Development Plan (ODP) is to provide the necessary details to guide the future subdivision of Lots 32 and 37 Silver Street, Lot 33 Costigan Street, Lot 36 Junction Street and Lots 35 and 134 Le Grande Avenue, McKail in a manner that will ensure that the future development:

- i) Respects the sites constraints and opportunities;
- ii) Is coordinated with surrounding development;
- iii) Is fully serviced and subdivided at the Residential 'R20' density (or in the case of Lot 35, developed with Grouped Dwellings at the Residential 'R30' density); and
- iv) Allows for coordination of development between lots within the ODP area.

This ODP shows the coordinated development of the subject land. The land is currently zoned 'Residential Development' by City of Albany Town Planning Scheme No.3. The 'Residential Development' zoning requires that the Council adopt an ODP over the site prior to allowing subdivision or further development to occur.

The ODP has been prepared in accordance with the requirements of the Scheme. The preparation is also guided by Western Australian Planning Commission (WAPC) guidelines.

The ODP is included in **Appendix A**. The plan creates a logical internal road layout and installs appropriate drainage measures. It also establishes suitably sized, useable lots with good solar orientation. The proposed density of residential use within the ODP area is to generally be R20. This provides an average lot size greater than 500m² and a minimum lot size of 440m². Lot 35 Le Grande Avenue located at the intersection of Le Grande Avenue and Boundary Street is proposed to be developed with grouped dwellings at a density of R30. This provides an average lot size greater than 300m² and a minimum lot size of 270m².

The ODP was prepared with the assistance of Wood & Grieve Civil Engineers (WGE). WGE prepared the supporting Engineering Report and Letter enclosed in **Appendix B**. This ODP is to be read in conjunction with this.

2.0 BACKGROUND

The subject land lies directly south of the area currently included in the McKail Local Structure Plan, prepared by Ayton, Taylor & Burrell in April 1999. This document has coordinated development of the McKail suburb to date. However it has also increased pressures on adjacent land to be developed. This Outline Development Plan will enable the future coordinated subdivision of the subject lots in accordance with the City of Albany and Western Australian Planning Commission policies.

The land is currently used for the purposes of small rural-residential retreats or lifestyle lots although it is now almost surrounded by urban development. Some lots still contain remnant vegetation, including historic road reserves, which have remained unutilised and uncleared.

The current rapid growth of the McKail urban front, coupled with restrictions placed on other Albany urban fronts has increased pressure for the development of the land within the ODP.

3.0 CONSULTATION

This plan has been prepared with the assistance of Wood & Grieve Civil Engineers who has provided the Engineering Report included in **Appendix B**. Officers from the Department of Planning and Infrastructure, Department for Environment and Conservation, Department for Water, Water Corporation and City of Albany Planning Officers were consulted during the drafting of the ODP.

4.0 OWNERSHIP OF LAND

Below is an ownership regime, containing Certificate of Title details and the registered proprietors of each lot.

Lot No.	Diagram No.	Certificate of Title Details			Area	Registered Proprietor/s
Lot 32	P194	C/T	Vol. 33	Fol. 307A	0.8112ha	Neil Jeffery Sargeant & Jodie Maree Sargeant
Lot 33	P194	C/T	Vol. 33	Fol. 306A	0.8112ha	Woomera Pty Ltd
Lot 35	P194	C/T	Vol. 1800	Fol. 748	1.1315ha	Trewick Holdings Pty Ltd. Golden Eight (WA) Pty Ltd.
Lot 134	P191660	C/T	Vol. 2549	Fol. 741	0.6287ha	WA Land Authority
Lot 36	P194	C/T	Vol. 1898	Fol. 828	1.4600ha	J & TW Dekker Pty Ltd
Lot 37	P194	C/T	Vol. 1898	Fol. 827	1.4600ha	Jody Leeann Shanahun

Table 1: Ownership Regime for the ODP area.

Copies of each Certificate of Title are attached at **Appendix C**.

5.0 THE SUBJECT LAND

5.1 Area to Which this ODP Applies

This Outline Development Plan (ODP) applies to Lots 32 and 37 Silver Street, Lot 33 Costigan Street, Lot 36 Junction Street and Lots 35 and 134 Le Grande Avenue, McKail, which is located approximately 4.5 kilometres northwest of the Albany CBD, see location plan in **Appendix D**.

The total land area affected by the ODP is 6.32ha. The ODP has a frontage of approximately 190 metres to Le Grande Avenue, which is identified as a District Distributor Road role by the Albany Local Planning Strategy.

5.2 Site Context

McKail is one of many identified urban fronts in Albany. It is currently characterised by sewered residential lots (600-700m²) and unsewered residential (2000-4000m²) development. The majority of the land currently being developed is controlled by the McKail Local Structure Plan.

Other structure plans, like this ODP, are being developed in the vicinity to assist in controlling and coordinating the supply of residential land.

The subject land has adequate access to future shopping opportunities. A local centre is proposed within the McKail Local Structure Plan 400 metres to the west and the proposed Orana Neighbourhood Centre is 800 metres to the northeast. A number of small shops are located nearby in South Coast Highway.

The subject land has good access to education facilities being 1 kilometre from the Great Southern Regional College of TAFE and 1.2 kilometres from the North Albany Senior High School. The Mount Lockyer Primary School is located 700 metres to the southeast. It is expected that the new Primary School proposed within the McKail Local Structure Plan will service the ODP area and is located 400 metres to the west. Cost contribution to this school is required as described in section 8.5 of this report.

See the Location Plan and Site Plan at **Appendix D** for details.

5.3 Land Use

5.3.1 Current Land Use

The subject land is currently largely used for small lifestyle lots, as is found in many locations on the urban periphery of Albany. However, given the extent of urban development occurring within the McKail/Milpara vicinity and the excellent location of the ODP area for residential use, these lifestyle lots are seen as an underutilisation of the land.

5.3.2 Surrounding Land Uses

To the north is land currently used as lifestyle lots but earmarked for future residential subdivision under the guidance of the McKail Local Structure Plan 1999.

The land to the west and south is generally zoned Residential under City of Albany Town Planning Scheme No.3 and is mostly developed with large lot residential development.

To the east is land zoned Residential under the City of Albany Town Planning Scheme No.1A and is generally sewerer residential development with lot sizes around 1800-2000m² in area.

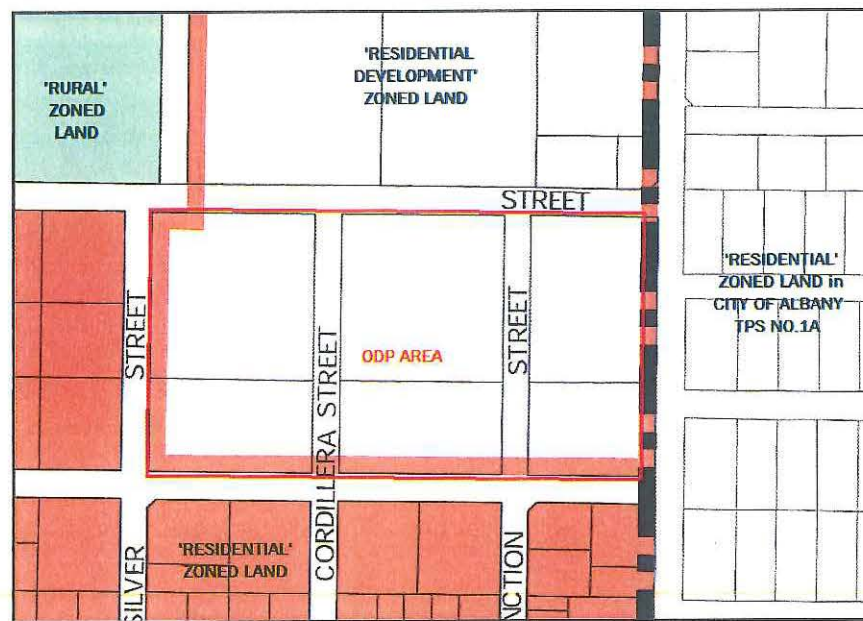


Figure 1. Surrounding Land Use and Zonings

5.4 Environmental Characteristics

5.4.1 Topography

The ODP area is divided into two catchment areas by a ridge running within the Junction Street road reserve.

The majority of the ODP area land slopes gently down to the north and northwest within the ODP area with an average grade of 1 in 40. This area has a high point of 50.1m AHD in the Junction Street Road reserve and slopes down to a low point of 41m AHD in the northwest corner of Lot 37 Silver Street, McKail.

The smaller portion of the ODP area between Junction Street and Le Grande Avenue slopes at a similar grade to the northeast corner of the ODP area.

There are no permanent or intermittent water sources or drainage lines in the immediate vicinity of the subject site.

5.4.2 Soil Type/Land Capability

The land is identified as being within the 'Dc Dempster' and 'S7 Minor Valleys' soil types. The land quality assessment from the Shire of Albany Local Rural Strategy – 'Physical Assessment and Hazards' publication produced by AGC Woodward – Clyde, describes the S7 soil type as "broad concave valleys incised in sedimentary rocks...with...deep leached sands and podzols on the slopes with humus podzols and some yellow duplex soils on the floors (S7f)."

The document describes the Dc soil type as "broad convex crests of spurs and ridges with gravelly yellow duplex soils and some lateritic boulders."

Within the ODP area, Dempster soil types predominate southeast of a line running between the southwest corner of Lot 32 and the northeast corner of Lot 35. Minor Valley soils types are found to the northwest of this line, as shown in Figure 2 below.

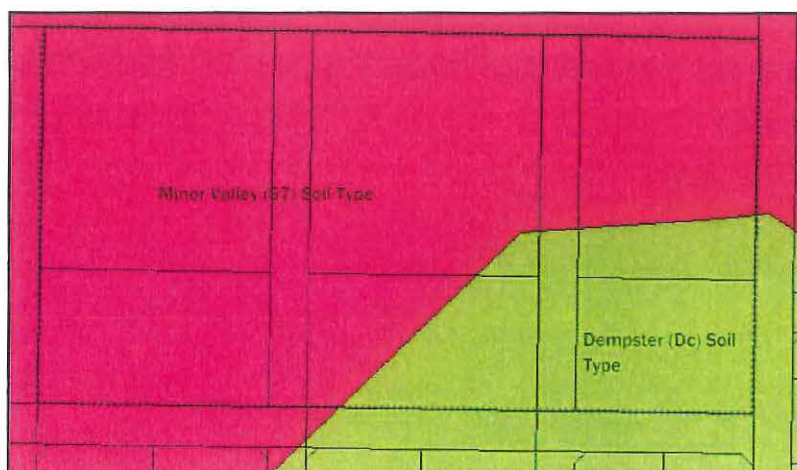


Figure 2. CSIRO land form/soil mapping units

The following is the land quality assessment table from the Shire of Albany Local Rural Strategy – 'Physical Assessment and Hazards' publication produced by AGC Woodward – Clyde.

Land Qualities	Map Unit Minor Valley (S7)	Map Unit Dempster (Dc)
Water Erosion Risk	Moderate	V_Low
Wind Erosion Risk	Low	Moderate
Microbial Purification Ability	Very Low	Low
Water Pollution Risk O.F.	Moderate	Moderate
Water Pollution Risk S.D.	Very High	Low
Ease of Excavation	Moderate	Low
Inundation Risk	Low	Moderate
Flood Risk	Moderate	Nil
Foundation Soundness	Good	Fair
Slope Instability	Nil	Nil
Soil Absorption Ability	High	Low
Subsoil Water Retention	Low	High
Soil Workability	Fair	Poor
Nutrient Availability	Low	Low
Nutrient Retention Ability	Very Low	Moderate/High
Topsoil Nutrient Retention	Very Low	Moderate
Moisture Availability	Very Low	Moderate
Rooting Condition	Easy	Moderate
Salinity Risk	NS	NS
Exposure Factor	Very Low	Low
Wind Erodibility	High	High
Water Erodibility	Low	Moderate
Soil Resistance	Low	Moderate
Rain Acceptance	Very High	Moderate

Table 2: AGC Woodward-Clyde Assessment of Soil Units.

This document describes the 'Dempster (Dc)' soil type as having a 'fair capability' for supporting on-site effluent disposal. However, as the site is to be connected to the deep sewerage system as

part of any subdivision of the property, this is largely irrelevant. Importantly, the study indicates the Dc Unit has a 'high capability' for housing development.

The 'Minor Valleys (S7)' soil type is described as having a 'low capability' for supporting on-site effluent disposal and housing development, given the low ability for microbial purification and flooding risk. However, the subject land is to be connected to a reticulated sewerage supply, meaning on-site effluent disposal is irrelevant when evaluating housing capability. Importantly the S7 land capability unit has 'Good' foundation soundness, 'High' rain acceptance and a 'Low-Moderate' chance of erosion. However, it is noted that the soil does have poor nutrient retention and appropriate drainage retention measures will be incorporated into any future development to limit nutrient export from the ODP area.

More specifically, WGE predict that the soil would generally comprise of "silty organic topsoil 200-500mm, overlying silty sand (300-800mm), overlying silty, clayey coffee rock".

WGE were of the opinion that "...as you move south away from this lower area, we would expect the topsoil layer and underlying silty sand profile to thin down..." and that "...the underlying coffee rock/clayey material will become more dominant."

It is acknowledged that a detailed geotechnical assessment may be required as a condition of subdivision within the ODP area. Most importantly, it has been demonstrated that the ODP area is capable of supporting residential development, given the above information. Further, the soil types are similar to those on surrounding land that has already been successfully developed for residential uses.

5.4.3 Existing/Remnant Vegetation

The majority of lots in the ODP area are cleared or parkland cleared. Lots 134 and 33 are currently undeveloped and contain remnant vegetation.

On Lot 134, remnant vegetation generally consists of an under storey which is thick and in relatively good condition, despite having been cleared in the past. The vegetation group is 'jarrah woodland' and consists mainly of jarrah, marri, and various eucalypt varieties. Trees were of medium height (up to 15 metres).



Figure 3. Vegetation at Lot 134 Le Grande Avenue

Lot 33 also contains remnant vegetation. However, this can be considered to be regenerating bushland, containing similar species as found on Lot 134. There are fewer mature trees, indicating that the land has either been cleared or parkland cleared in the recent past. There was also the presence of declared weed species, such as Watsonia, Taylorina and Sydney Wattle.



Figure 4. Example of vegetation on Lot 33 Costigan Street

5.4.4 Surface Water

The ODP area is divided into two smaller catchment areas:

- Lots between Junction and Silver Streets that drain into road reserves and then drain into Darebin Street, flowing to the north.
- Lots between Junction Street and Le Grande Avenue that drain into road reserves and runoff is directed down Le Grande Avenue.

5.5 Existing Services

The ODP area is currently well situated for connection to all services. The subject land is currently connected to reticulated water, power and telecommunications and in close proximity to the existing gas and sewer networks. It is anticipated that small upgrades and extensions to services will be required to service the ODP area.

5.5.1 Sewerage

There is currently an existing 225 diameter gravity sewer on the western side of Silver Street and a 150 diameter gravity sewer on the eastern side of Le Grande Avenue.

Wood and Grieve Civil Engineers expect that the majority of the subject land will be serviced by extending the sewer from the existing manhole in Boundary Street, opposite Darebin Street.

5.5.2 Potable Water Supply

Water is currently supplied via a 100 PVC water main on the northern side of Boundary Street. Wood and Grieve Civil Engineers expect that a 150PVC main will need to be extended from South Coast Highway to service the proposed development of the ODP. 100PVC mains will be used to service individual streets of the ODP area in accordance with the Water Corporation requirements.

5.5.3 Power

Power is supplied via aerial lines in road reserves. The subdivision will be serviced by Western Power approved underground mains.

The capacity of the current power supply cannot be adequately determined until a formal request for services is made. However, given the context of nearby development, it is assumed that power supply is of an adequate capacity to service the development of the ODP area.

Should it be required, WGE have suggested that any necessary transformer and switchgear could be installed in Public Open Space areas within the subject land.

5.5.4 Telecommunications

The subject land is fully connected to telecommunications that are assumed to be of a sufficient capacity to support the development of the ODP area, or can be readily expanded by the Telstra Corporation.

5.5.5 Gas

Reticulated LP Gas is available from Alinta in the Albany area. Currently gas mains are located some distance from the ODP area and would need to be extended.

The provision of reticulated gas is beneficial due to it being inherently more energy efficient than electricity for air and water heating. However, as it is not considered a pre-requisite for allowing development to occur, the potential for gas to be provided to the site has not been considered at this time. However, it is anticipated that provision of gas will be investigated at the subdivision stage.

5.5.6 Road Network

There are currently two road reserves running through the ODP area, being Cordillera and Junction Streets. Junction Street is constructed to a fully bitumised surface with open drains. Cordillera Street road reserve has not been developed within the ODP area and is fully vegetated.



Figure 5. Built portion of Junction Street road reserve within the ODP area

There are four road reserves surrounding the ODP area, being Boundary Street to the north, Silver Street to the west, Costigan Street to the south and Le Grande Avenue to the east. Costigan Street is not constructed or open to public thoroughfare. All other boundary roads are constructed to bitumen standard with open drains.



Figure 6. Boundary Street



Figure 7. Le Grande Avenue

Le Grande Avenue has been identified in the draft Albany Local Planning Strategy (ALPS) as a District Distributor Road.

A full description of the existing road network can be found within the Engineering Report (Appendix B).

5.5.7 Public Transport

There is currently one public transport service serving the ODP area, the 101 bus route. This is operated by Loves Bus Service, on behalf of PTA. It has stops on both South Coast Highway and Katoomba Street. It is envisioned by the McKail Local Structure Plan that there will be bus routes operating along Le Grande Avenue at some later date.

5.5.8 Pedestrian/Cycling Facilities

Presently there are no pedestrian or cycling facilities provided on Le Grande Avenue or any other streets within or surrounding the ODP area. This will be addressed in this ODP by the provisions of appropriate footpaths through the subdivision.

6.0 STATUTORY AND STRATEGIC PLANNING CONSIDERATIONS

6.1 Lower Great Southern Strategy (2007)

The Lower Great Southern Strategy (LGSS) aims to set the broad strategic direction for planning in the Lower Great Southern for the next 20 to 30 years. Its purpose is to guide regional land use and infrastructure planning and development, especially on matters of regional significance. It relies on further investigations to add detail to broad concepts. The strategy is designed to provide the region-wide context and consistency when local governments are setting priorities for their area through local planning strategies and schemes.

Of relevance to the ODP area, the Strategy makes particular reference to planning for the sustainable growth of settlements, including;

- *“the identification of additional residential land within centres and rural villages; and*
- *the provision of adequate and appropriate infrastructure to support development.”*

This proposal can be regarded as meeting the above strategies given that it seeks to intensify development in a area immediately adjoining the Albany urban areas.

6.2 Guidelines for the Preparation of Local Structure Plans for Urban Release Areas (1992) (the Guideline)

This Guideline has been released as part of the WAPC Development Control Policies and seeks to offer guidance on the preparation of structure plans and development plans for urban release areas.

The Guideline offers a hierarchy of plans ranging from “Strategy Plans” for broad level planning to “Development Plans” that are more detailed and are intended to show enough detail to guide subdivision and development. The Guideline refers to Development Plans as:

“...a requirement of some town planning schemes and may be referred to as Outline Development Plans or Comprehensive Plans of Development. These development plans are required to be prepared prior to the subdivision and development of land occurring in urban release areas (usually referred to as Residential Development Zone). They are usually prepared at a scale of 1:2000, showing more detail than LSP’s. They guide subdivision and development, often showing the lot layout, major buildings, (eg shopping centres) and in some cases, landscaping proposals.”

This ODP has been prepared in a manner that is mindful of the requirements of both this Guideline and Scheme No 3.

6.3 Draft Albany Local Planning Strategy (2007)

Council resolved to receive a draft of the Albany Local Planning Strategy (ALPS) at its meeting of the 20th December 2005. The Western Australian Planning Commission granted consent to advertise the current draft on the 9th August 2006. ALPS was available for public comment until the 15th December 2006. ALPS was adopted by the City of Albany at its meeting of the 21st August 2007 and has been forwarded to the WAPC for its endorsement.

The current draft ALPS sets out the long term planning direction for the City of Albany and has regard to all State and regional planning policies for the City's planning.

Draft ALPS identifies the ODP area as 'Existing Residential'.

ALPS recommends consolidation of urban areas. This ODP has the objective of consolidating residential uses in the City of Albany. The ALPS document also favours the use of outline development planning as a means of achieving coordinated community development.

ALPS encourages a smaller development footprint and seeks to '*facilitate staged fully serviced urban frontal development*'.

The fact that this ODP seeks to intensify development in an area identified as being suitable for this is supported by ALPS.

6.4 City of Albany Town Planning Scheme No.3

The ODP area is zoned 'Residential Development' by City of Albany Town Planning Scheme No.3. Clause 5.2 of the Scheme notes that in order for 'Residential Development' zoned land to be subdivided, an Outline Development Plan must first be adopted by Council and endorsed by the WAPC.

Clause 5.2 sets out the minimum requirements of an ODP. A checklist has been prepared detailing this documents compliance with the Scheme's requirements and is located at **Appendix E**.

6.5 Liveable Neighbourhoods Edition No.3 (2003)

This document is not a statutory document at this stage. However, it is a strategic document and a 'best practice' document that may be considered by Council to assist in its consideration of planning-related matters.

The Liveable Neighbourhoods is intended to operate as a policy to facilitate the development of sustainable communities. It is to be used in the preparation of Outline Development Plans and subdivisions but many of the principles of the document are pertinent in outlining the benefits of sustainable frontal development.

The following Liveable Neighbourhood aims are relevant to this proposed Outline Development Plan:

- To ensure cost-effective and resource efficient development to promote affordable housing;
- To maximise land efficiency wherever possible;
- To provide for an integrated approach to the design of open space and urban water management; and

- To provide access generally by way of an interconnected network of streets that facilitate safe, efficient and pleasant walking, cycling and driving.

This ODP attempts to address these key objectives of Liveable Neighbourhoods, of particular note is the consideration of pedestrian and cyclists linkages through the ODP area.

6.6 City of Albany Housing Position Paper (2005)

The Housing Position Paper makes recommendations regarding the residential areas throughout the City of Albany. The Vision of this document is to *“facilitate and encourage the provision and development of a significant variety of housing choice, types, styles and opportunities through the City of Albany and provide a high standard of residential amenity and facilities for the benefit of the residents of the City.”*

The position paper makes general recommendations applicable to the entire Local Government area and specific recommendations based on a precinct basis.

The ODP area falls within Precinct 4A, McKail. Precinct 4A recommends a density of R20, with a connection to deep sewer being established.

7.0 THE OUTLINE DEVELOPMENT PLAN

7.1 Overview

This Outline Development Plan (ODP) is to be officially known as the ‘Outline Development Plan – Lots 32 & 37 Silver Street, Lot 33 Costigan Street, Lots 35 & 134 Le Grande Avenue and Lot 36 Junction Street, McKail’. This ODP is to be read in conjunction with the Plan and Engineering Report at **Appendix A** and **Appendix B** of this report.

Details of the ODP are at **Appendix A**. The plan:

- Creates a logical internal road layout;
- Installs appropriate drainage measures;
- Makes provision for useable public open space;
- Acknowledges the site’s constraints; and
- Establishes suitable, useable lots.

The proposed density of residential use within the ODP area is to be generally R20. Lot 35 Le Grande Avenue is proposed as a grouped dwelling site without direct vehicle access to Le Grande Avenue and is proposed to have a density of R30. Lots have been orientated to achieve a good level of solar orientation.

This ODP has been kept deliberately simple and concise as the subject land is relatively small and will yield a relatively small number of lots when compared to the McKail Local Structure Plan. It is also entirely residential in nature and will depend upon the McKail Local Structure Plan for other services. The main purpose of this ODP is to allow the coordinated development of small fragmented lots zoned ‘Residential Development’. It will require them to connect to services and provide for Public Open Space. It is anticipated that detailed studies (such as geotechnical investigations) will be required as conditions of subdivision.

7.2 Aim

The aim of this ODP is

“To provide for the coordinated development of the subject land, encompassing key planning principles and practices with particular regard to solar orientation of lots and water sensitive urban design principles.”

7.3 Elements of the Outline Development Plan

Future subdivision of Lots 32 & 37 Silver Street, Lot 33 Costigan Street, Lots 35 & 134 Le Grande Avenue and Lot 36 Junction Street, McKail shall be generally in accordance with the details shown in the Outline Development Plan (ODP).

7.3.1 Projected Population

Given its location and predominant density coding of 'R20', the ODP area is expected to accommodate families in predominantly single detached housing. Grouped Dwelling development on Lot 35 Le Grande Avenue may also attract young couples and/or retirees. The total projected population for the ODP area is expected to be approximately 284 persons, calculated at 2.7 persons per household, based on a potential for approximately 106 dwellings for the ODP area.

7.3.2 Proposed Land Use

The ODP area will be developed entirely for residential purposes predominantly at the R20 density. Lots sizes will have an average exceeding 500m² in accordance with Table 1 of the Residential Design Codes of Western Australia. Grouped dwellings will be developed at the R30 density on Lot 35 Le Grande Avenue and will have an average site area exceeding 300m².

As required by Development Control Policy 2.3 of the Western Australian Planning Commission, a portion of the ODP area will be used for POS purposes to complement the residential uses.

7.3.3 Staging

Given the relatively small size, there are to be no staging measures as part of this ODP. However, the ODP is designed to allow for individual lot owners to subdivide independently of the others.

Should Lot 37 Silver Street choose to not subdivide for some time, individual drainage measures may have to be put in place for surrounding lots until such time as the communal drainage site becomes available.

7.3.4 Proposed Lot Sizes and Density

The predominant residential density proposed in the ODP area is R20, which allows an average and minimum lot size of 500m² and 440m² respectively. A density of R30 is proposed for Lot 35 Le Grande Avenue to allow for group dwelling development with a average and minimus site area of 270m² and 300m² repectively.

Given the suburban location and good access to shopping and education opportunities it is anticipated that the majority of the ODP area will be developed largely for family housing, i.e. single detached residences on lots of approximately 500m² and 600m².

A grouped housing development site of approximately 2,700m² has been identified on Junction Street. This will provide an opportunity to provide housing for smaller household types. The site will allow for the development of up to 5 ordinary units or 8 aged or dependent persons units at the R20 density.



7.3.5 Detailed Area Plan

The ODP attempts to maximize the potential of the site given its close proximity to appropriate services and facilities. The need to work within an existing land ownership structure and road network has led to lot sizes of predominantly 500m² to 600m². Although these sizes are consistent with the requirement for R20 development, the dimensions of the lots lend themselves to the application of specific development requirements.

A draft Detailed Area Plan (DAP) is included in **Appendix F**. The DAP will be refined at the subdivision stage to take into account any agency / Council comments. Given this, the attached DAP should not be considered final and changes may occur prior to creation of the lots.

The purpose of the DAP is to allow maximum use of each residential lot, whilst ensuring appropriate streetscape and amenity is provided. Under the R20 density, a primary street setback of 6m is normally required. Many of the lots proposed by the ODP have depths of 25-30m. Development with a 6m front setback would be problematic on these lots. Given this, the DAP proposed a minimum primary street setback of 3m. Averaging of the setback in accordance with section 3.2.1 of the R-Codes would not be required. Open-sided porches would be permitted to 1.5m from the front boundary.

Another significant change from the normal R-Codes requirements is open space provision. Normally, the Codes require 50% of a lot designated as R20 to remain as open space. It is proposed to make this 40% given the relatively small lot sizes proposed and the ability to ensure an appropriate level of amenity through the DAP. Courtyards and outdoor living areas are to be afforded with a northerly aspect as far as practicable.

Other changes to the normal R-Codes requirements proposed by the DAP are:

- Provision of building envelopes where all buildings on a lot must be constructed within;
- Nomination of garage locations for each lot to ensure appropriate solar access and separation of vehicle access points;
- Garages are to be located behind or in line with the front wall of the house to ensure they do not dominate the streetscape;
- Houses on corner lots are to be designed to address both street frontages. At least one window from a habitable room is to be afforded an unimpeded view of the secondary street;
- Houses with frontage to POS areas area to provide for visual surveillance over the POS; and
- A number of energy and water efficiency design elements are encouraged for the development over and above Building Code requirements.

The DAP does not include specific requirements for Lot 35 Le Grande avenue which is proposed to be coded R30 and developed with grouped dwellings. For this site, compliance with the Residential Design Codes, together with the additional provisions outlined in Part 7.3.12 of this report is required. Reference to these requirements is included on the ODP.

7.3.6 Road Layout

Access to the ODP area will occur from the surrounding road network as well as a number of new internal 'access streets'. No new road reserves will connect to Le Grande Avenue or Boundary Street. Internal access streets will connect to Costigan, Silver and Junction Streets.

The standard road reserve width is to be 15 metres. This width allows sufficient room for a 4.1 metre wide verge for services and street trees on either side of the road, with a 6 metre paved road surface. Road construction is to be kerbed, drained and sealed with brick paved intersections



in accordance with the recommendations of the Engineering Report in **Appendix B** of this document and the City of Albany Subdivision and Development Guidelines.

It is proposed to base street design on that recommended by the draft Liveable Neighbourhoods Edition 3, 2004. Given the low number of dwellings proposed it is suggested that streets are modelled on 'Access Street D' of the document. An excerpt of 'Access Street D' is demonstrated below.

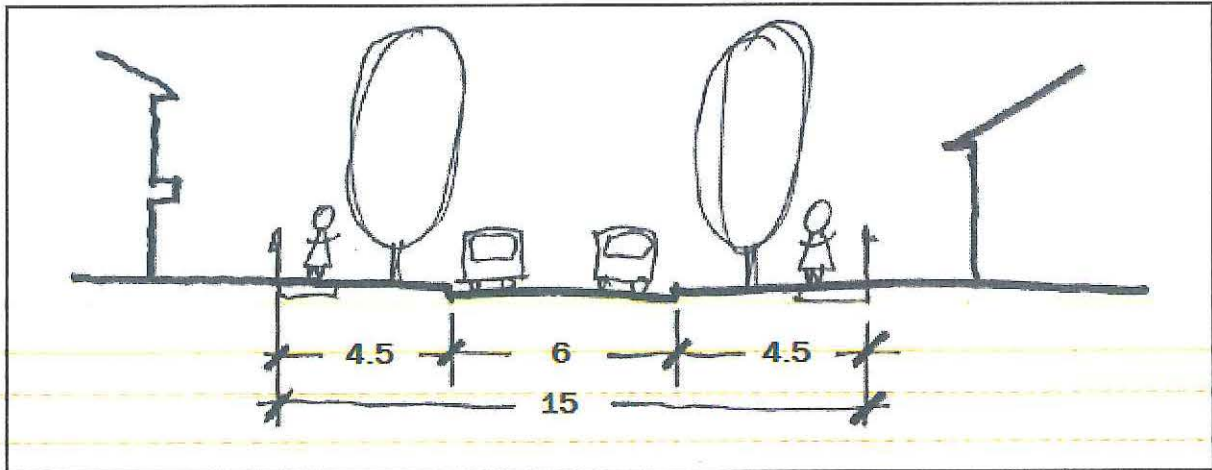


Figure 8. Access Street D, draft Liveable Neighbourhoods Edition 3 2004.

Within the ODP area it is proposed that the Cordillera Street road reserve be narrowed to a width of 16 metres. This reserve is currently excessive at 20 metres in width, considering it will only perform the role of a local access street. Adjoining landowners may apply to the City of Albany and DPI to have the portion of road adjacent to their landholding closed and amalgamated with their property at the time of subdivision.

Costigan Street road reserve is proposed to be fully constructed in the ODP with an intersection with Le Grande Avenue. WGE has indicated that this intersection exceeds the minimum sight line distances and separation from the Minor Road intersection with Le Grande Avenue required by Austroads.

Road reserves are to be appropriately narrowed to 12m in width fronting Public Open Space. This narrowing realises that only one side of the road reserve will be utilised for the provision of services and a narrower width is more appropriate.

The ODP indicates that there will be no direct vehicle access between to Le Grande Avenue from Lot 35.

This document realises that the Western Australian Planning Commission will require the contribution to the upgrade of roads surrounding the ODP area as conditions of subdivision. The Engineering Report and Letter at **Appendix B** discusses the existing road standards in and around the ODP area and the upgrading and contributions required toward upgrading of these roads.

Road names from the City of Albany street name register have been allocated to assist in the ODP and future subdivision process. The names chosen are derived from persons who are known to have first sighted King George Sound. The names are:

- McNeal (Donald); and
- Sykes (John).

It is noted that Cordillera Street within the ODP area is proposed to be renamed. This is to remove confusion given this section of road will not be physically linked to the existing section of Cordillera Street.

7.3.7 Pedestrian/Cycling/Public Transport

In line with Liveable Neighbourhoods objectives, the ODP area has been designed to provide a high degree of pedestrian/cyclist permeability.

Pedestrian:

It is proposed that a 1.5m wide footpath is provided on the eastern side of Silver Street, north side of Costigan Street, western side of Junction Street and through the POS area. This will ensure that all residents are connected to Public Open Space as well as the local dual use path network.

It is proposed to construct a 2.5m wide Shared Path within the Le Grande Avenue and Boundary Street road reserves. This will connect to the proposed shared path to the north on Le Grande Avenue. Importantly, this dual use path network will connect the subject land to shopping and education facilities to the northwest in the McKail Local Structure Plan area.

The proposed paths are indicated on the Plan at **Appendix A**.

Cycling:

Given the contained nature of the ODP area it is expected that the individual separation of cycling modes of transport is not necessary. However, streetscapes shall be designed to encourage the use of cycling as an effective mode of transport.

On Le Grande Avenue and Boundary Street, the proposed Dual Use Path shall be considered adequate separation of cycling transport from moderate speed vehicular traffic.

Public Transport:

The McKail Local Structure Plan 1999 suggested the future establishment of a public transport route (bus) on Le Grande Avenue and Clydesdale Road. Should these routes be established, all residents of the ODP area will be within 400 metres suggested walking distance from a public transportation stop.

7.3.8 Services

All lots to be developed within the Outline Development Plan will be connected to reticulated water, sewerage, power and telecommunications as a condition of subdivision. It is not currently known if Alinta Gas will be in a position to supply reticulated LPG gas to the ODP area. However this opportunity will be pursued at the subdivision stage.

An investigation of servicing has been undertaken by WGE in the Engineering Report included in **Appendix B**. It found that:

- Reticulated water can be provided to the ODP area through the existing pipes which already service the ODP area. Upgrade of the main from South Coast Highway to the ODP area may be required as a condition of subdivision;
- It is assumed that power of a suitable capacity connection can be established from the existing power supply but that this cannot be determined until a formal application for subdivision is lodged. Should transformers be required, these will be located in POS areas;

- The existing Telstra Corporation network could be connected to service the development; and
- The provision of a reticulated sewerage supply is to occur. The service will require extension from the manhole in Boundary Street, near the Darebin Street intersection.

7.3.9 Public Open Space (POS)

POS contributions within the ODP consist of the following:

- i) Lot 37 Silver Street is to provide 2294m² (10% of total lot area (TLA of Lots 32 & 37)) of POS in the northeastern corner of the lot adjacent to the Cordillera Street road reserve; and
- ii) Lot 36 Junction Street is to provide 2320m² (10% of TLA of Lots 33 & 36) of POS in the northwestern corner adjacent to the Cordillera Street road reserve.

These POS areas are to be provided on the northern boundary of each lot and will be joined by the Cordillera Street road reserve. This will remain unconstructed and retain remnant vegetation. Therefore an effective consolidated area of POS is accommodated within the ODP area. In total the POS area contributed equals 4614m², being approximately 7.3 percent of the total ODP area. This provides 10% POS for the land area between Silver Street and Junction Street in the ODP area.

Approximately 1400m² of the Cordillera Street road reserve is to remain as road reserve but be utilised for linking the separated portions of POS and providing a Pedestrian Access Way (PAW). This land area is not included in the POS calculations.

Lot 32 Silver Street will be required to contribute 10% cash-in-lieu to Lot 37 Silver Street. Lot 33 Costigan Street will be required to contribute 10% cash-in-lieu to Lot 36 Junction Street.

Lot 35 Le Grande Avenue is to provide 728m² of POS in the northeastern corner adjacent to the intersection of Le Grande Avenue and Junction Street. This equates to a 6.43% POS contribution. The balance (3.57%) of the required 10% would be made as a cash-in-lieu contribution

Lot 134 Le Grande Avenue will be required to contribute 10% cash-in-lieu of POS to the City of Albany for the general upgrade of POS facilities in the vicinity of the development. In particular, the Le Grande Reserve to the north of the ODP area. This has been done to maximize lot yield in close proximity to Le Grande Avenue, and allow the City to utilise funds to upgrade nearby POS.

The drainage basin of the ODP area will be located on the POS contribution of Lot 37 as this forms a low point of the site. This will be a wet/dry drainage basin designed to attenuate 10 year ARI storm events. This basin will be constructed as such that it can be used as POS except immediately following a storm event. Therefore in accordance with WAPC policy, 100% of this area is to be credited as POS. The cost of construction of drainage infrastructure is to be distributed across all parent lots (see section 8.0).

7.3.10 Remnant Vegetation

Gaining the necessary approvals for the clearing of remnant vegetation shall be the responsibility of individual landowners at the time of subdivision.

7.3.11 Drainage Infrastructure

Water Sensitive Design Principles are to be incorporated within the ODP area. On-site drainage dispersal at a household level, with road drainage being directed to the drainage basin, to be

located within the proposed Public Open Space contributed by Lot 37. This drainage basin has been located and designed by Wood and Grieve Civil Engineers. It is recommended that the drainage basin is predominantly a wet/dry basin with a maximum (temporary) 10 year ARI water surface area of 700m².

The drainage basin has been designed to attenuate a 10 year ARI post development flow. It has been assumed that existing pre-development flows will be able to be discharged into the drainage system within Darebin Street, which will then drain to the McKail Local Structure Plan 1999 linear park. Drainage measures in the future Linear Park are currently being examined by WGE as part of a separate exercise.

It is noted that during the subdivision and development of the ODP area individual landowners may be required to construct temporary drainage basins. These will operate until such a time that land on Lot 37 is available for the construction of the permanent drainage basin. These basins will operate on the same principles such as attenuation of a 10 year ARI post development flow and will require the approval of the City of Albany.

The drainage of Lots 35 and 134 Le Grande Avenue drains to the northeast. Therefore these lots do not drain to the proposed basin on Lot 37. It is expected that these lots will drain into the Le Grande Avenue road reserve, whereby storm water will be directed to the Linear Park and Le Grande Reserve further 'down-catchment' on Le Grande Avenue.

Within the proposed ODP area all lots will be required to dispose of drainage on-site, through the use of on-site soak wells of adequate capacity. Future residents will be encouraged to harvest and store rain water, as a measure to reducing the overall water requirement of the ODP area.

For further detailed information refer to the Engineering Report at **Appendix B**.

The construction of the drainage basins shall be the responsibility of the owner of Lot 37. However the cost of construction of the drainage basin shall be contributed to by the owners of Lots 32, 33, 36 and 37 via the cost sharing scheme described in **section 8.0**.

7.3.12 Grouped Dwelling Sites

Lot 134 Le Grande Avenue

A grouped dwelling site of approximately 2,700m² has been identified on the ODP fronting Junction Street. It is proposed that development of this site should be based upon sustainable development principles with particular regard to the following:

- Development of the site will need to allow for the retaining of vegetation surrounding building envelopes. In order to ensure this, a vegetation clearing plan will be required to be approved by the City at the planning approval stage. This plan will show the location of building envelopes and clearing required for driveways and open space as well as significant shade trees to be retained.
- The dwelling units are to be oriented to maximise northern light to indoor and outdoor living areas.
- Natural ground level is to be retained where possible with the use of non-slab construction encouraged.
- Use of energy and water efficient design and appliances is to be encouraged.

In the event of sale of the future grouped dwelling site prior to development, the current owner reserves the right to place a covenant or similar mechanism on the title to require the development to comply with the above sustainable provisions.

Lot 35 Le Grande Avenue

The previously approved ODP layout over Lot 35 would result in a cul-de-sac servicing just 4 lots, and would also result in multiple crossovers to Le Grande Avenue. Alternative design options have been explored by the landowner to improve on the existing approved layout, however due to the dimensions of the lot, it has become evident that the site is better suited to quality grouped dwelling development rather than low density residential subdivision. An R30 density over the site would result in a number of benefits, including the provision of additional open space at the corner of Le Grande Avenue and Junction Street, removal of crossovers to Le Grande Avenue and improved surveillance with development designed to address public roads and areas of POS. Additionally, the proposed density would meet a demand for smaller housing lots and would result in improved amenity through the provision of a continuous dual use path and tree planting along Le Grande Avenue.

To ensure development meets a high standard the following requirements are proposed to apply in addition to R-Code requirements:

- Development adjoining or adjacent to public open space (POS) is required to provide an outlook to the POS from at least one major opening (habitable room window).
- No direct vehicle access is permitted from individual dwellings to Le Grande Avenue.
- All dwellings with frontage to Le Grande Avenue are required to be provided with pedestrian paths linking the front entry of the dwelling with the dual use path.
- Uniform fencing is to be provided to Le Grande Avenue that is visually permeable above 1.2 meters.
- All dwellings with frontage to Le Grande Avenue are to be provided with at least two major openings (habitable room windows) with an outlook to the street.



8.0 COST CONTRIBUTIONS

Cost sharing has been kept deliberately simple within this ODP, given the relatively small size and number of lots to be included within the plan.

8.1 Public Open Space

Lot 37 Silver Street and Lot 36 Junction Street are to contribute 10 percent of their respective lot areas as POS for the ODP area. Lot 35 Le Grande Avenue will contribute 6.43 percent of its lot area as POS and the balance as a cash-in-lieu payment to the City of Albany. The remainder of lots are to contribute cash-in-lieu of POS. Lot 32 Silver Street will contribute 10% cash-in-lieu of POS to Lot 37 Silver Street. Lot 33 Costigan Street will contribute 10% cash-in-lieu of POS to Lot 36 Junction Street and Lot 134 Le Grande Avenue will contribute 10 percent cash-in-lieu of POS to the City of Albany for the general improvement of POS in proximity to the ODP area.

	Total Area (m ²)	10% POS (m ²)	Form of Contribution	Amount Contributed
Lot 37 Silver St	14600m ²	1460m ²	Land	2294m ²
Lot 36 Junction St	14600m ²	1460m ²	Land	2320m ²
Lot 33 Costigan St	8112m ²	812m ²	Cash-in-lieu	10% Cash-in-lieu to Lot 36
Lot 32 Silver St	8112m ²	812m ²	Cash-in-lieu	10% Cash-in-lieu to Lot 37
Lot 35 Le Grande Av	11315m ²	1132m ²	Land and Cash-in-lieu	728m ² land and 3.57% Cash-in-lieu to City of Albany
Lot 134 Le Grande Av	6314m ²	632m ²	Cash-in-lieu	10% Cash-in-lieu to City of Albany
TOTAL	63125m²	6314m²		5272m²

Table 3: Public Open Space Contribution Schedule.

8.2 Roads

The construction of roads and associated infrastructure within road reserves is to be the responsibility of individual land owners at the time of subdivision. There are adequate provisions within the *Planning and Development Act 2005* and the City of Albany Subdivision and Development Guidelines (2006) to address the requirement for road upgrades on an individual basis. The required upgrading contributions are discussed in the Engineering Report in **Appendix B**.

8.3 Dual Use Path

The contribution to the construction of Dual Use Paths on Le Grande Avenue and Boundary Road are to be solely the responsibility of the adjoining landowners.

8.4 Drainage Infrastructure

Lots 32 and 37 Silver Street, Lot 33 Costigan Street and Lot 36 Junction Street will be required to contribute to the construction of a drainage basin in the Public Open Space of Lot 37. Landowners will contribute an equal proportion to the costs of construction (based on the land area and subsequent development potential), as demonstrated in the table below.

	Total Area (m ²)	% of Overall Area	Contribution to Cost of Drainage Infrastructure
Lot 37 Silver St	14600m ²	32%	32%
Lot 36 Junction St	14600m ²	32%	32%
Lot 33 Costigan St	8112m ²	18%	18%
Lot 32 Silver St	8112m ²	18%	18%
TOTAL	45496m²	100%	100%

Table 4: Drainage Costs Contribution Schedule.

Table 4 above demonstrates the amount that each lot of the ODP area will contribute to the cost of construction of the drainage basin in the Public Open Space.

Given that the land required for the drainage basin is considered to be claimed as Public Open Space, it should be considered that the landowner has already been compensated for land contribution to Public Open Space. Therefore only the cost of construction needs to be considered when applying cost sharing measures.

Lots 35 and 134 Le Grande Avenue will not have to contribute to drainage infrastructure in the ODP area, as they are located in a different catchment to the drainage basin. It is expected that as a condition of subdivision, that the WAPC will require that these two lots will be required to contribute to the cost of drainage infrastructure outside of the ODP area.

8.5 McKail Primary School

As the subject land is within the catchment of the proposed McKail Primary School, it is required by this Plan that pro-rata contribution to the primary school occur. The contribution amount will be determined by the WAPC at the time of subdivision approval.

9.0 CONCLUSION

This Outline Development Plan has been prepared to guide the future subdivision and development of Lots 32 & 37 Silver Street, Lot 33 Costigan Street, Lots 35 & 134 Le Grande Avenue and Lot 36 Junction Street, McKail. This has been done in a manner that respects the site's opportunities and constraints and facilitates the coordinated development of fully serviced residential lots at the R20 density.

The ODP design creates lots with good solar orientation and access to public open space in a location with good access to education and shopping opportunities. The road layout is simple and legible.

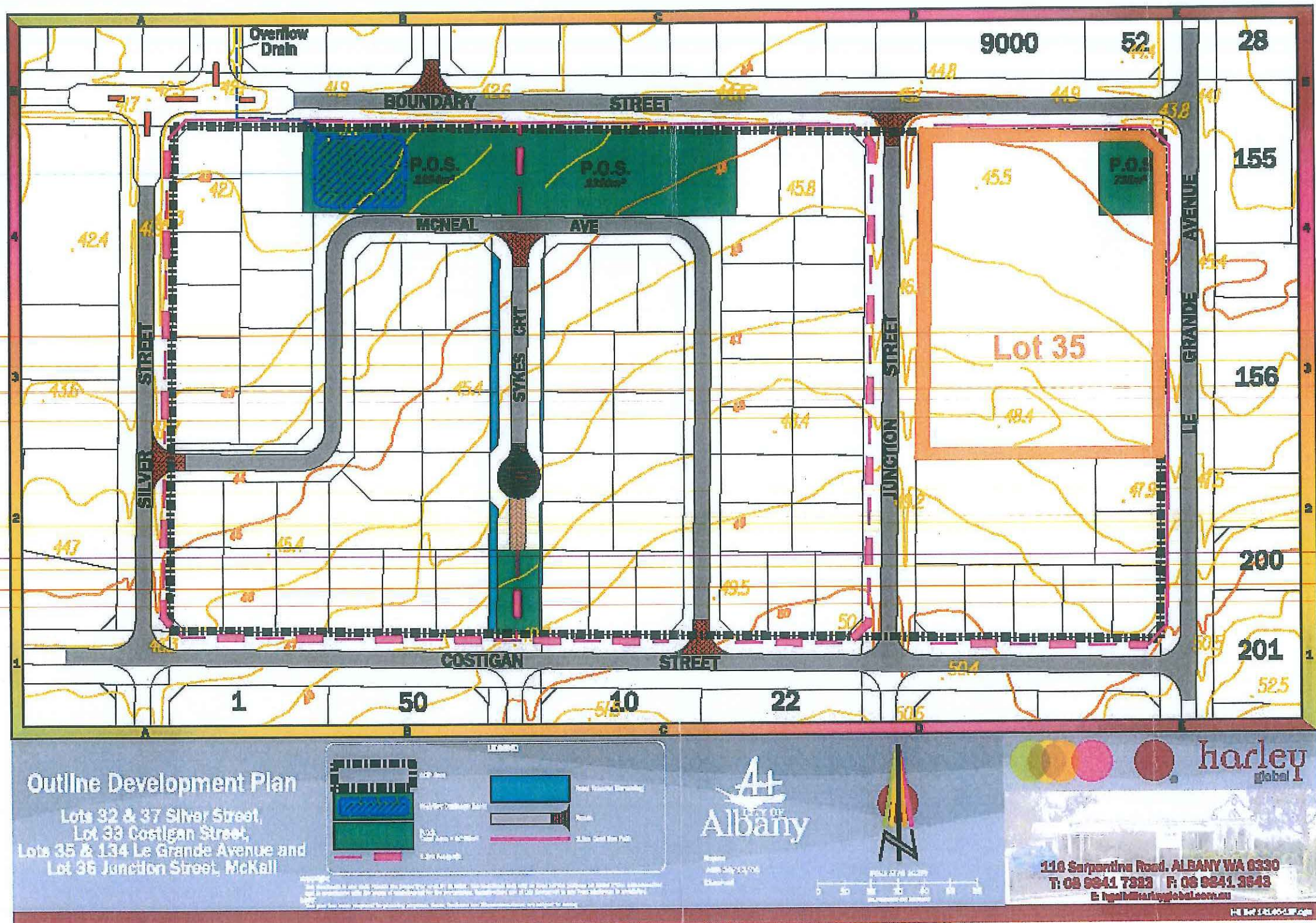
The adoption of this ODP will mean a consistent, structured approach to the development of highly fragmented land within the McKail suburb.

This ODP is therefore intended for Council's and Western Australian Planning Commission (WAPC) endorsement. Council is requested to advertise and adopt this Outline Development Plan before forwarding it to the WAPC for its endorsement.

APPENDIX A.

Outline Development Plan





APPENDIX B.

Engineering Report – Wood and Grieve Civil Engineers

Engineering Letter – Drainage and Costigan/Le Grande Intersection



Lots 32 & 37 Silver St, Lot 33 Costigan St,
Lot 36 Junction St
and Lots 34 & 134 Le Grande Ave, McKail
Outline Development Plan
Engineering Report

Provision of Civil Engineering Consultancy Services for

Harley Survey Group
Attention: Mr Craig Pursey

31 August 2007

Prepared by Michael Prior Project Number: 19710-ALB-C

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FIGURE 1	Site Plan - HSG Drawing 14145-09A
FIGURE 2	Drainage – Catchments & Flows
FIGURE 3	Road and Footpath Plan
FIGURE 4	Existing Sewerage and Water Plan



1. Background

This document has been established by Wood & Grieve Engineers at the request of Harley Survey Group, to provide engineering advice and recommendations in relation to the attached Outline Development Plan for Lots 32 & 37 Silver Street, Lot 33 Costigan Street, Lot 36 Junction Street and Lots 34 & 134 Le Grande Avenue, McKail, Albany (Harley Survey Group Ref Numbers 14145-09A) – see Figure 1.

This report should be read in conjunction with Harley Survey Group's Outline Development Plan Report.

The development area comprises approximately 6.32ha and proposes some 92 residential lots and associated public open space.



2. Topography, Soil Types & Groundwater

The site currently consists of special rural style lots which are predominantly cleared with scattered remnant vegetation. The land generally falls from Costigan Street on the south boundary to Boundary Street on the north at an average grade of 1 in 40.

At the time of this engineering report, no on site geotechnical works have been undertaken. However, it is predicted that the soil profile will generally be consistent with a silty organic topsoil 50 - 200mm thick, overlying silty clayey soils, with isolated areas of laterite and coffee rock.

The underlying silty clays may possibly cause a perched water table in some areas which may effect development proposals. This will require the installation of sub soil drainage infrastructure along the side of roads and behind any constructed retaining walls (mainly those roads and walls running parallel with the existing contours) to ensure control of any encountered groundwater levels.

The stormwater from all roadways and residential lots will be connected into the comprehensive district drainage system which would help reduce the current perched winter water table.

If earthworks and retaining was to occur, the lots would need to be filled with imported clean, granular, free draining sand, as the existing insitu soils are expected to be unsuitable for cut to fill purposes.

Please note that a geotechnical investigation and report will need to be performed prior to detailed development design to confirm the above assumptions and provide technical advice on the insitu soil types and profiles.

3. Stormwater Drainage

In accordance with the Ayton Taylor Burrell McKail Local Structure Plan dated 1999, the main drainage outfall for this area is contained within a proposed linear public open space area to the north of Flemington Street, some 200 metres north of the site.

To assist in minimising the size of any required basins within the linear park, it is recommended that a drainage basin be established on the southern side of Boundary Street, opposite Darebin Street (see Figure 2). The catchment area (Catchment A) established for this basin is as shown in Figure 2, being approximately 42,000m² of development area. Currently the drainage along / from Junction, Boundary, Costigan and Silver Streets all bypass the site via open drains and discharge into the Darebin Street drain. The proposed development will not impede on this existing drainage condition, however will ensure that stormwater from the proposed new lots is attenuated back to pre-development levels prior to discharge into the existing system on Darebin Street.

Due to the expected underlying impermeable silty clays, it is predicated that it will not be possible to utilise the proposed basin as an infiltration point for stormwater. That is, it is expected that this basin will simply act as an attenuation point, with only minor "first flush" events being able to be contained / absorbed on site. As the POS area is only approximately 0.56ha in size, it is proposed to construct this basin to a wet / dry standard, with the basin area being predominantly dry, however able to attenuate a post development 10yr ARI storm event when required.

To ensure the basin area is useable for passive recreational purposes, the base would be constructed with bubble-up pits surrounded with sub-soil drainage pipes and granular free draining sand to allow drying of the surface soils as quickly as possible. Furthermore, we would expect the basin to have maximum 1:10 internal batters, with mowable (1:6) grades on any external bunds to existing ground. It is estimated that this basin would have a maximum (temporary) 10 year ARI water surface area of 700m².

The above assumptions are based on the typical criteria of a maximum discharge from site of the 5 year ARI pre-development catchment flows, and the requirement to attenuate the 10 year ARI post development flow.

The basin would be designed with silt traps within the bubble-up structures to assist in the collection of coarse sediments, and with the inclusion of planted landscaping at the surface, will assist in the uptake of nutrients when the larger events overflow / bubble-up.

The internal development will be designed with a pipe network which allows for the 5 year ARI post development flow. The network will provide house connection points for all lots. All house connection pits will be designed with blue metal weep hole bases to allow as much on site infiltration/recharge of the first flush events as possible.

The upgrade of Junction, Boundary, Silver and Costigan Streets will incorporate installation of kerbing and pipe drainage. The piped drainage infrastructure along these roads will be designed to direct and cater for all existing stormwater flows from upstream catchments. As such, it is assumed that some form of cost contribution arrangement covering the bulk of the cost would be established / agreed with the City of Albany in relation to this infrastructure as it is all existing external drainage flows.

A secondary catchment (Catchment B) seen in Figure 2, which includes Junction Street, will discharge towards Le Grande Avenue. It is expected that development within this catchment area will incorporate a cost sharing arrangement with landowners to the north allowing discharge of unattenuated post development stormwater flows into constructed basins downstream. This would need to be confirmed with further negotiations upon detailed design.

4. Road and Footpath Networks

At present, the site is surrounded by Le Grande Avenue to the east, Boundary Street to the north and Silver Street to the west. Junction Street currently runs through the middle of the development between Lots 134 Le Grande Avenue and Lot 36 Junction Street. The relevant sections of Costigan and Cordillera Streets are currently unconstructed road reserves.

A preliminary traffic study undertaken by Wood & Grieve Engineers indicates that the development will generate low traffic flows into the existing road network with a maximum extra:

- 390 vpd on Le Grande Avenue.
- 280 vpd on Costigan Street
- 340 vpd on Boundary Street

Based on these minor increased traffic flows, it is not considered necessary to implement any substantial road or road traffic management upgrades on the surrounding existing network.

The existing surrounding roads are currently at the following standards:

- Le Grande Avenue - 8.4m wide asphalt seal and kerb
- Boundary Street – 6.1m two coat seal, gravel shoulders and open drains
- Silver Street – 5.9m two coat seal, gravel shoulders and open drains
- Junction Street – 5.8m two coat seal, gravel shoulders and open drains
- Costigan Street (section to the west of the development) – 6m two coat seal, gravel shoulders and open drains
- Cordillera Street (section to the south of the development) - 5.8m two coat seal, gravel shoulders and open drains

Based on these current standards, it is expected the following upgrades will be required for the various existing roads for the length of the development frontage:

- Le Grande Avenue – Construction of the verge on the western side
- Boundary Street – Construction of piped drainage (with COA contribution), widening of basecourse, two coat sealing and kerbing the southern side, with a contribution to COA (of 50%) for the cost of asphaltting to a 7.4m wide standard
- Silver Street – Construction of piped drainage (with COA contribution), widening of basecourse, two coat sealing and kerbing the eastern side, with a contribution to COA (of 50%) for the cost of asphaltting to a 6m wide standard
- Junction Street – Construction of piped drainage (with COA contribution), widening of basecourse, primer sealing and kerbing both sides, with the installation of asphalt to a 6m wide standard
- Costigan Street and the Cordillera Street intersection (with Costigan) - Construction of piped drainage (with COA contribution), construction of subgrade, basecourse primer sealing, kerbing and asphalt to a 6m wide standard with a 50% contribution from the COA.

Due to the relatively low number of lots developed, we would recommend the construction of 5m to 6m wide (seal) internal roads depending on the road reserve widths established. The roads would be to a kerbed and asphalted standard with brick paved intersections. We would expect that the Public Open Space area in the north would be provided with a few parallel parking bays to allow for public usage.

In relation to pedestrian traffic, it is proposed that the development will provide the following constructed pedestrian facilities for the length of the development frontage:

- 2.5m Dual Use Paths – Western side of Le Grande Avenue, southern side of Boundary Street
- 1.5m Footpaths – Eastern side of Silver Street, northern side of Costigan Street, western side of Junction Street, through the PAW and the POS areas.

Figure 3 illustrates the proposed road and pedestrian facilities.

5. Sewerage



The site is well located immediately upstream and adjacent to the existing sewerage network, which can be seen in Figure 4.

It is proposed that the development will be connected to the sewerage network at the existing 225mm diameter gravity sewer in Silver and Boundary Streets on the west / north and to the 150mm diameter sewer in Le Grande Avenue on the eastern boundary. The site slopes in a manner which enables a straightforward connection to the existing sewerage network via a 150mm reticulated system.

There is an existing 450DI rising main on the northern side of Boundary Street which will need to be accommodated when performing detailed design works of services along the road.

6. Water Reticulation



There is currently an existing 100PVC water main along part of the northern side of Boundary Street and along the eastern side of Le Grande Avenue. The existing main on Silver Street comprises only a 58AC and a 63MDPE which are not appropriate to accommodate the proposed development. See Figure 4 for existing infrastructure.

No liaison or confirmation from the Water Corporation has been performed in relation to the capacity of the existing reticulation network, however it is expected that some form of upgrade to the system will be required, more than likely being a new 150PVC main extension from the existing 200CI main on South Coast Highway. This would need to be discussed further with the Water Corporation upon the commencement of the detailed design phase.

In general, the development will incorporate the installation of new 100PVC reticulation mains to services the new lots.

Standard Water Corporation headworks charges would apply for connection to their existing facilities for both sewerage and water reticulation.



7. Power

There is existing aerial power in the surrounding streets. We assume that a suitable capacity connection can be established to this existing network, however, this cannot be determined until a formal request to Western Power is made.

It is expected that a number of switch and transformer infrastructure will be required as part of the development. These can be installed within the constructed Public Open Space and PAW areas as required to service the development.



8. Telstra

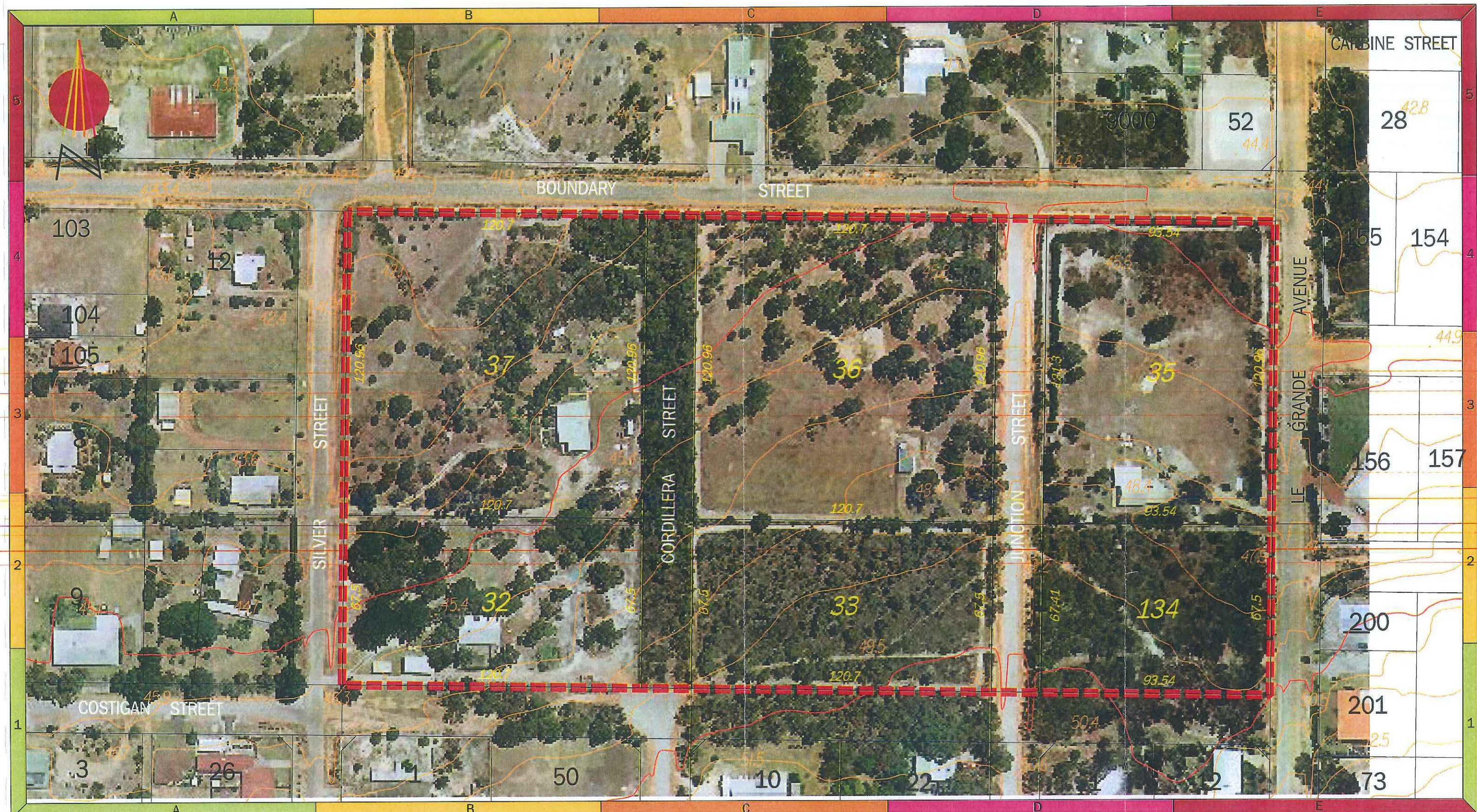
There is an existing Telstra network in the area which we would expect could be connected to service the development.

9. Summary

The investigations performed in establishing this engineering report to support the Outline Development Plan for Lots 32 and 37 Silver Street, Lot 33 Costigan Street, Lot 36 Junction Street and Lots 34 and 134 Le Grande Avenue, McKail, have indicated that there does not appear to be any impediment in relation to developing the proposed lots in accordance with the ODP.



Figures 1 - 4



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			survey	cad file
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FIGURE 1: □

SITE PLAN - COSTIGAN / □ BOUNDARY STREET OUTLINE □ DEVELOPMENT PLAN



PYRMONT HOUSE, ALBANY

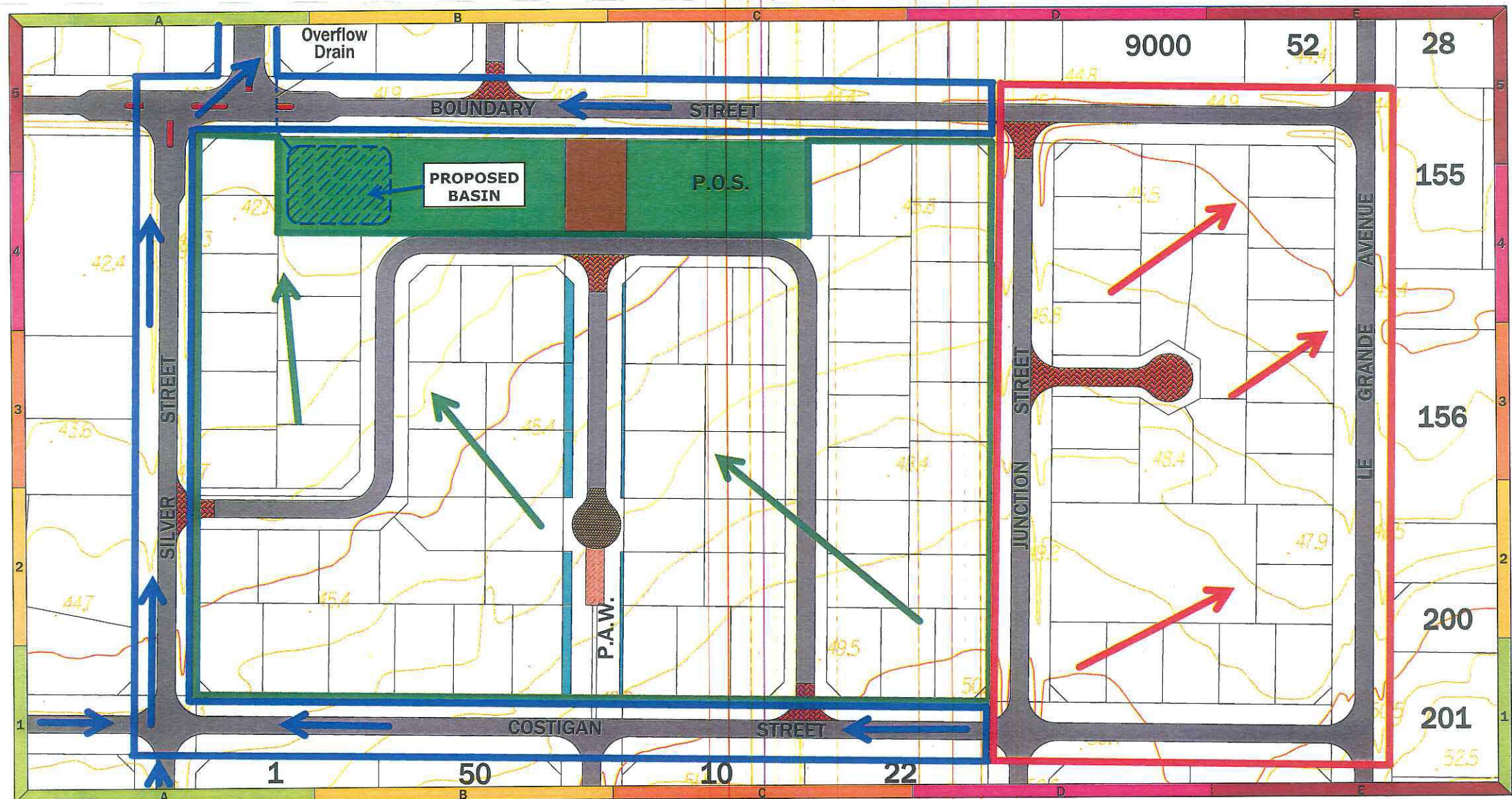


FIGURE 2: □

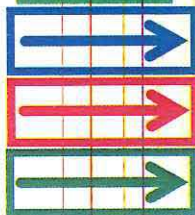
DRAINAGE - CATCHMENTS AND FLOWS □

COSTIGAN / BOUNDARY STREET OUTLINE □
DEVELOPMENT PLAN



Wet/Dry Drainage Basin

P.O.S.

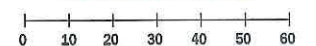


BYPASS CATCHMENT

CATCHMENT A AND ASSOCIATED FLOW

CATCHMENT B AND ASSOCIATED FLOW

scale at A3 1:1250



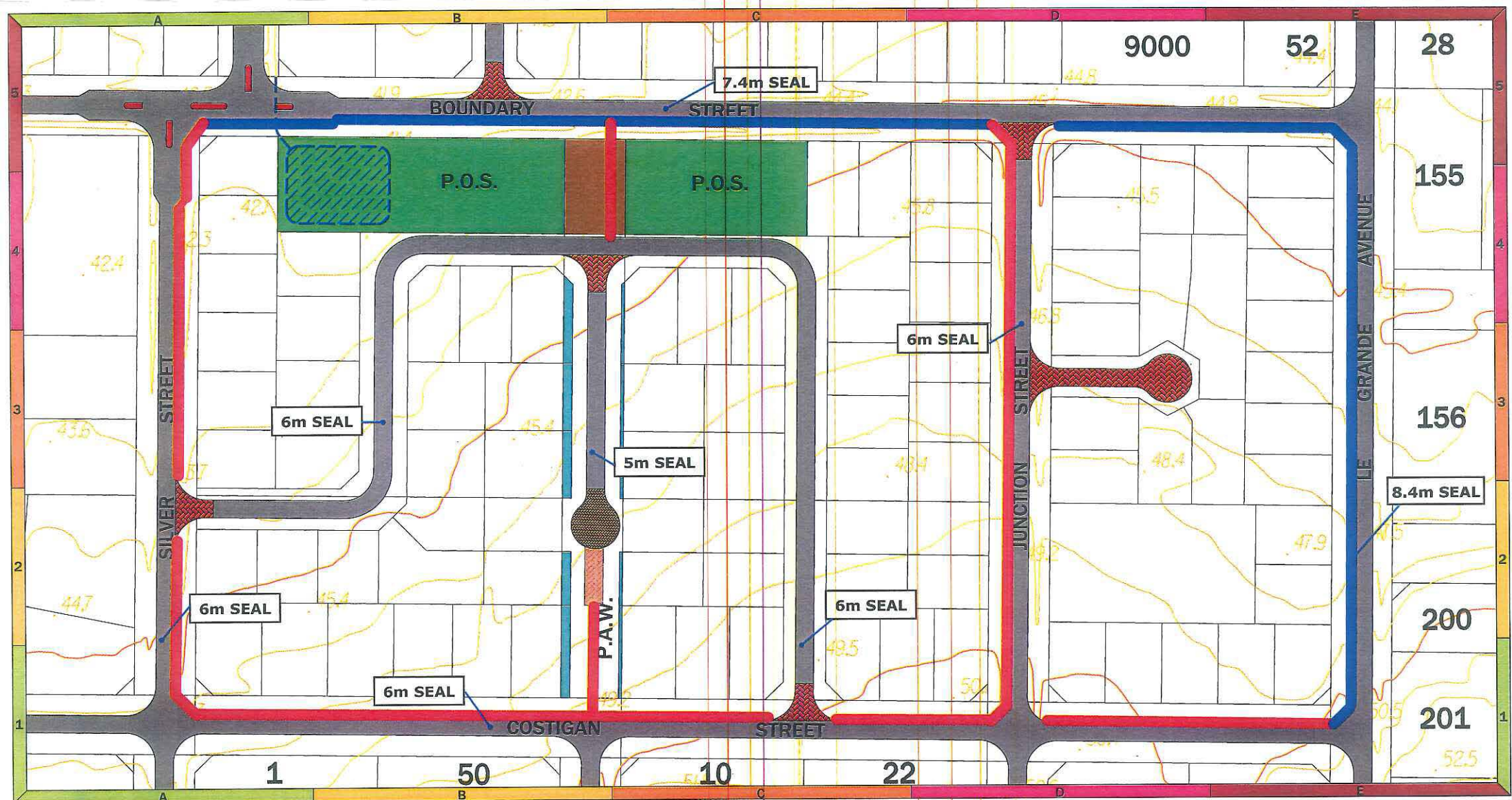


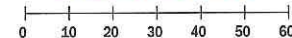
FIGURE 3:

ROADS AND FOOTPATHS PLAN

**COSTIGAN / BOUNDARY STREET OUTLINE
DEVELOPMENT PLAN**



scale at A3 1:1250



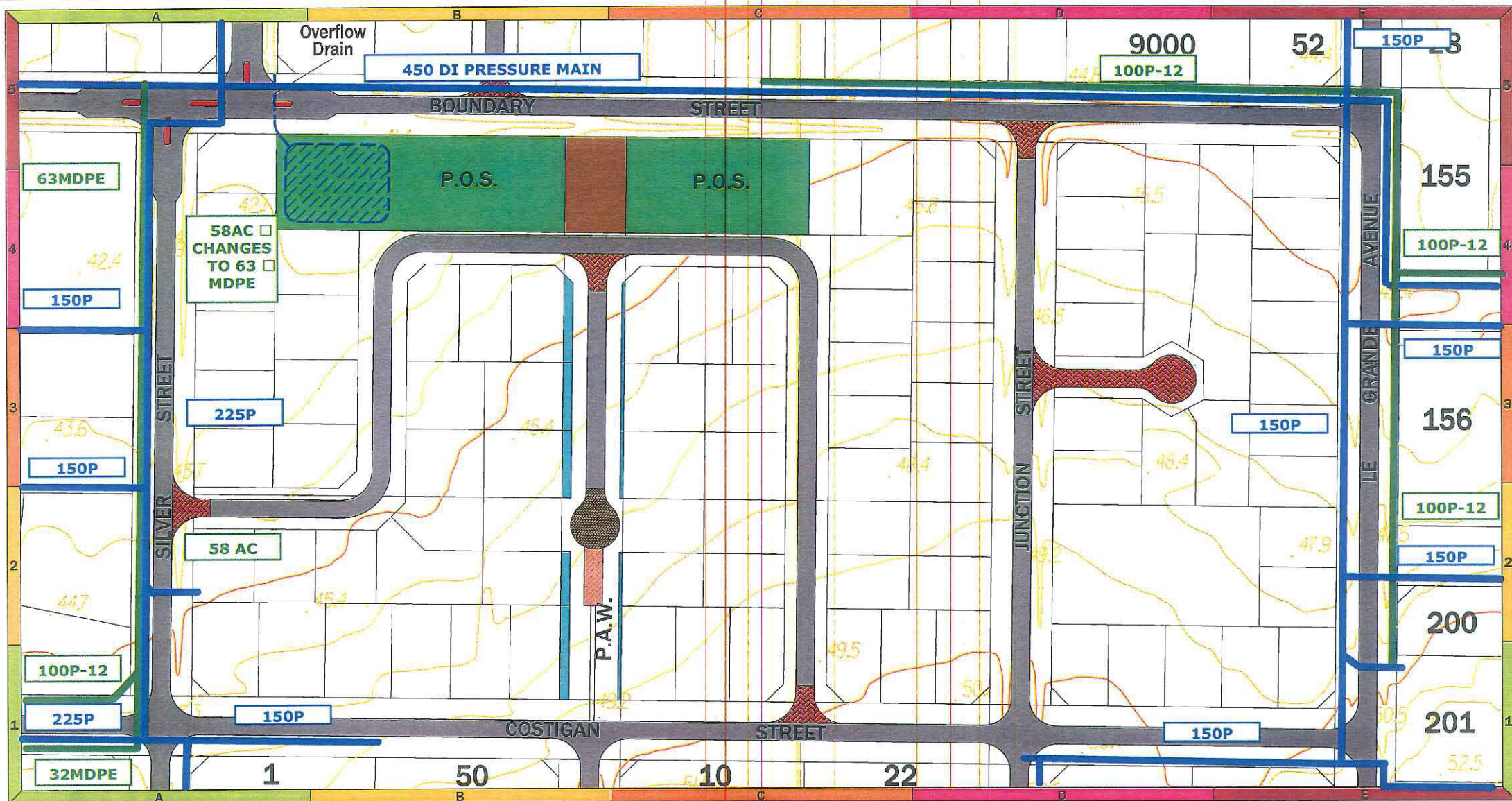
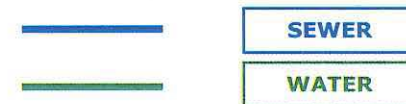
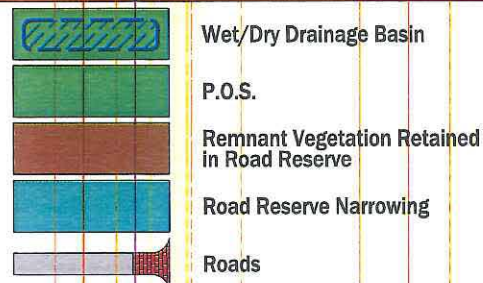


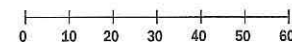
FIGURE 4: □

EXISTING SEWERAGE AND WATER PLAN □

COSTIGAN / BOUNDARY STREET OUTLINE □
DEVELOPMENT PLAN



scale at A3 1:1250



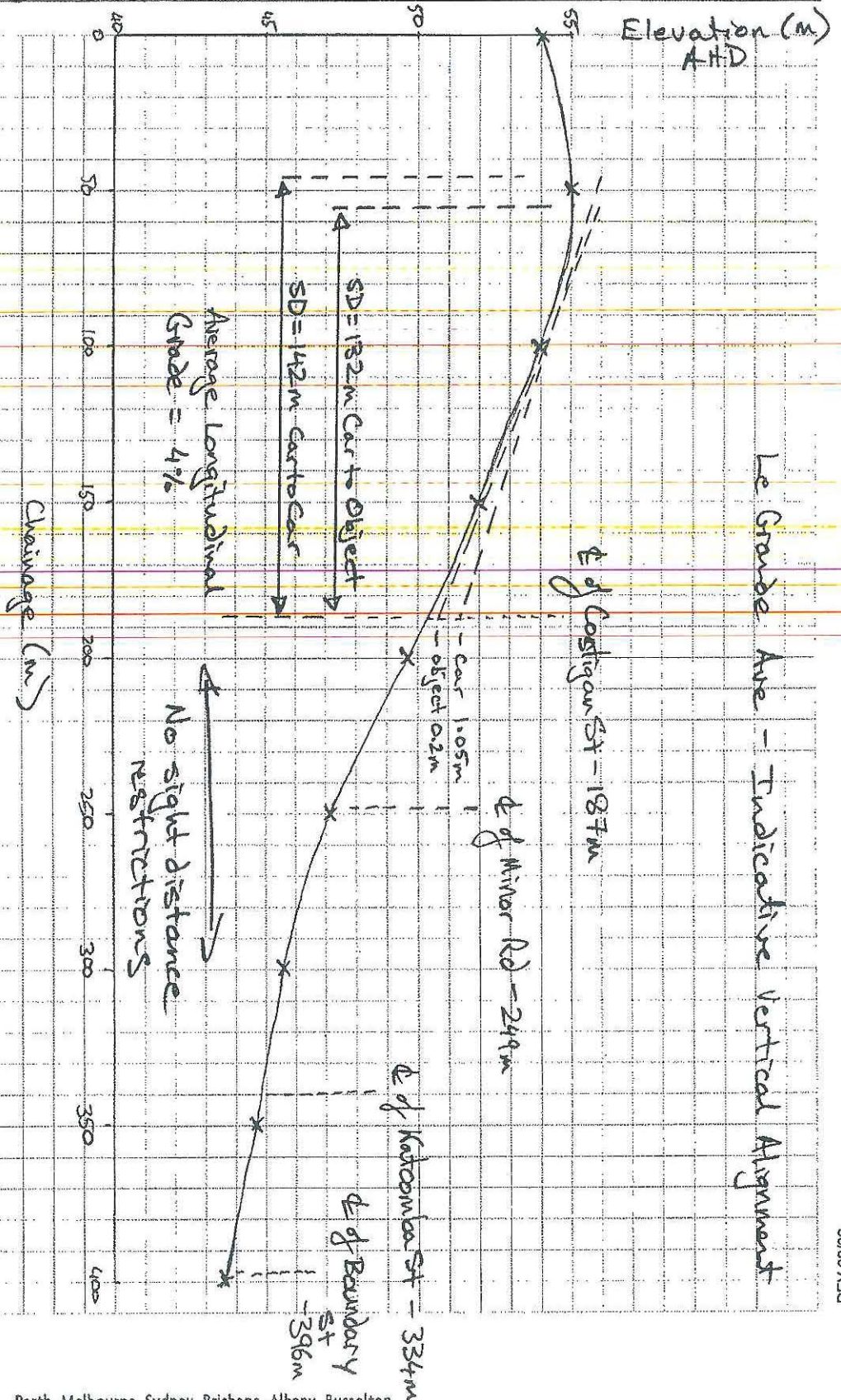
Project: Costigan / Boundary

Project Number: 19710-ALB-C

Date: 21/10/08

Section of project: Sight lines - Intersection By: MSP

Page: 1-1



Ch: 0.0 Is the centreline of Albany Hwy

AusROADS STANDARDS - Assume Le Grade Ave speed zone 60km/hr

- 1) Min truck stopping sight distance = 117m ($h = 2.4m$ $h = 0.2m$)
- 2) Min car stopping sight distance = 74m ($h = 1.05m$ $h = 0.2m$)

Available SD = 132m, therefore fine.

Le Grade Ave - Indicative Vertical Alignment

Element 2 - Movement network

Table 5 – Junction spacing (measured from road reserve centreline to centreline of terminating street pavements)

Street type	L/R staggers (to avoid overlapping right turns)	R/L staggers To provide for left-turn deceleration lanes arterials and to avoid corner cutting on local streets	Junctions on same side of street
Local streets			
Laneway	NA	NA	
Access street*	20 m	20 m	20 m
Neighbourhood connector	40 m	40 m	40 m
Arterials			
Integrator B	60 m	40 m	40 m
Integrator A – 60 km/hr**	150 m	190 m	110 m
Integrator A – 70 km/hr**	130 m	110 m	130 m

* Laneways junctions are not to be located closer than 20 m from street intersections. There is no minimum spacing requirement between laneway junctions on local streets. Along integrator B streets, laneways should be offset a minimum of 20 m from each other (unless a median renders them left in/ left out). On integrator A streets, laneway junctions should be located no closer than 30 m from unsignalised intersections and 40 m from signalised intersections.

** Design speed used for integrator arterial street spacing is to be based on speed limit at full build out. Refer to Design speed table 5B.

Rationale behind Table 5: Junction spacing

L/R stagger spacings have been determined to suit typical deceleration and right-turn vehicle storage requirements at local street junctions along integrator arterials. Distances are determined from Austroads Guide to Traffic Engineering Part 5: Intersections at Grade, Table 5.6 for a design speed equal to the final posted speed limit (table 5B). Where medians are wide enough to allow right turns to overlap, the required storage and deceleration may be provided over a shorter distance.

Spacing for R/L staggers and Left in/Left out junctions on the same side of the integrator arterial have been determined to suit the left-turn lane requirements according to Austroads Part 5 Table 5.6 for a design speed equal to the final posted speed (table 5B). It should be noted that right-turn lanes are to be provided as a standard feature at junctions along integrator arterials (except for Integrator B's in some main street or commercial centre circumstances). Left-turn lanes may not be required on some junctions along integrator A's and would not typically be required along integrator B's except where turning demand is high).

Table 5A – Signalised junction spacing

Street type	Minimum signal spacing (typically used in town centres/city centres)	Desirable spacing (value depends on signal cycle length and the need for two-direction signal coordination)
Integrator B	Typically 300 m, but may be reduced to 150 m in larger centres	400-500 m
Integrator A – 60 km/hr operating speed at full build out	350 m	500-750 m
Integrator A – 70 km/hr operating speed at full build out	500 m	750-1000 m

Note: Ideal signal spacing for two-direction signal coordination is calculated according to Distance = $CV/2$ where C = cycle length in seconds and V = vehicle operating speed in metres per second. Example: D = 667 m for an 80-second signal cycle and 60 km/hr. The distance range indicated allows for acceptable variations on these theoretical values.

The minimum spacings in this table are provided for those urban areas typically resulting from Liveable Neighbourhoods designs, ie where there is a finer street block layout, higher pedestrian demands and traffic access demands are more concentrated.

From: Michael Prior (WGE) [michael.prior@wge.com.au]
Sent: Thursday, 14 June 2007 12:28 PM
To: Craig Pursey
Subject: Harley Survey Group - Various Projects

Attachments: WGE_LOGO_2006.jpg



WGE_LOGO.
(36687
bytes)

Albany Office

11 Duke Street, Albany, WA 6330
Phone 08 9842 3700 Fax 08 9842 1340
email albany@wge.com.au Web www.wge.com.au
Perth Melbourne Sydney Brisbane Albany Busselton

Email Reference No C0001
Project No 19710-ALB-C
Project Name Harley Survey Group - Various Projects
Date 14/06/2007

Craig,

I have evaluated that the basin at the corner of Silver and Boundary would take up an area of approximately 1500m². As such, please allow at least 1800m² for peripheral issues (footpaths, transformers etc). This is based on 1:10 grades (to make the area at least semi usable) and to give you some POS credit, I would think that it would be best to go with a wet/dry basin arrangement.

Really the info / notes that I gave you in February (email 8th) still stand. Here are some extras:

- Make sure that when you direct Flemington St to the south, that you try and avoid creating a 4 way intersection with Junction St. Really need a minimum of 40m btw both road centrelines.
- Large drainage basin in WGE report (2002) suggests need 8500m². Based on the assumptions (depth and batters) in the report, I evaluated this to be approximately 7000m³ of attenuation storage required. Looking at the currently proposed linear park, if we were to build two by 1m high bunds (one located at Le Grande, and one located half way along linear park length) to create two "in series" basins, this would fill the full width and the full length of the linear park as currently sized, and will also mean that the surrounding land will have to be filled to assist in creating the basins. As such, I think we need to widen the linear park if possible to ensure this is easily achievable. Note I have not performed detailed calculations on this (as survey would really be required to ensure it could work) and the Opus Report may suggest a different sized basin is required (noting that it is the Opus report that I assume the COA will be working off).
- A DUP should be installed along Le Grande and Boundary (and of course within the linear park)
- The North Rd pressure main runs along Boundary St.
- Sewering should not be an issue
- I would suggest there will need to be some water upgrades.

Let me know whether you need any other preliminary info.

Regards

Michael Prior

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Perth (Head Office) - Level 3, 3 Plain Street, East Perth WA 6004
Albany - 11 Duke Street, Albany WA 6330
Brisbane - Level 2 / 383 Wickham Terrace, Spring Hill QLD 4000
Busselton - 10/44-48 Queen Street, Busselton WA 6280
Melbourne - Level 1, 280 King Street, Melbourne VIC 3000
Sydney - 2/33 Ryde Road, Pymble NSW 2073

<Ref=19710-ALB-C,C0001,xcl>

APPENDIX C.

Certificates of Title



WESTERN



AUSTRALIA

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

REGISTER NUMBER	
134/DP191660	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
1	17/3/2004

VOLUME 2549 FOLIO 741

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

R. Roberts

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 134 ON DEPOSITED PLAN 191660

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)WESTERN AUSTRALIAN LAND AUTHORITY OF LEVEL 3, 40 THE ESPLANADE, PERTH
(TF I718348) REGISTERED 4 DECEMBER 2003**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP191660 [SHEET 1].
PREVIOUS TITLE: LR3100-656.
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

NOTE 1: I718348 ALTERNATIVE PARCEL IDENTIFIER - GLEDHOW LOT 134.

WESTERN



AUSTRALIA

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

REGISTER NUMBER

36/P194DUPLICATE
EDITION**3**

DATE DUPLICATE ISSUED

5/7/2005VOLUME
1898FOLIO
828

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 36 ON PLAN 194

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

J. & T.W. DEKKER PTY LTD OF 156 LANCASTER ROAD, ALBANY
(T J117638) REGISTERED 13 DECEMBER 2004

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. J330260 MORTGAGE TO NATIONAL AUSTRALIA BANK LTD REGISTERED 22.6.2005.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.

* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1898-828 (36/P194).
PREVIOUS TITLE: 1120-884.
PROPERTY STREET ADDRESS: 25 JUNCTION ST, MCKAIL.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

ORIGINAL—NOT TO BE REMOVED FROM OFFICE OF T

CT 1898 0828 F



Application E570062
Volume 1120 Folio 884

WESTERN



AUSTRALIA

1898 828

CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED



I certify that the person described in the First Schedule hereto is the registered proprietor of the undermentioned estate in the undermentioned land subject to the easements and encumbrances shown in the Second Schedule hereto.

Dated 20th March, 1991

S. J. Mulcahy

REGISTRAR OF TITLES



ESTATE AND LAND REFERRED TO

Estate in fee simple in portion of Plantagenet Location 399 and being Lot 36 on Plan 194, delineated on the map in the Third Schedule hereto.

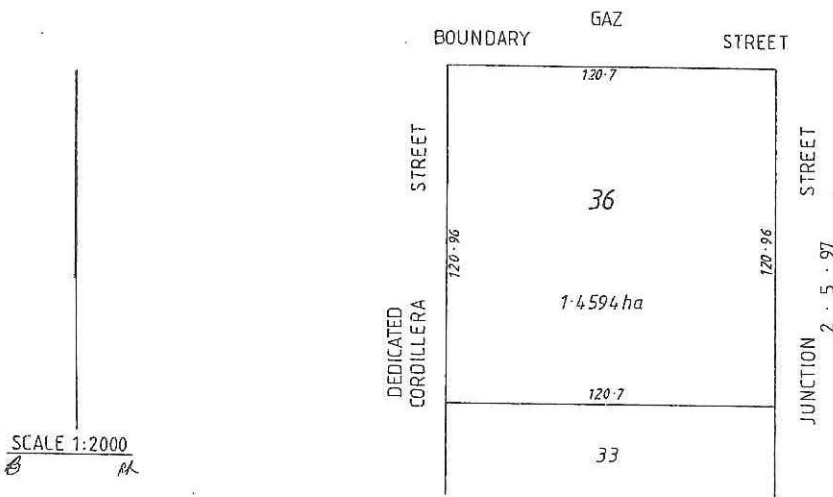
FIRST SCHEDULE (continued overleaf)

~~George William Bell of 3 Cambridge Street, Forrestfield; Doris Millie Gillam of 104 Chester Pass Road, Albany; Leslie Stephen Bell of 5 Kooyong Avenue, Albany; Gloria Jean Dryden of 102 Ivanhoe Street, Eden Hill and Trevor John Bell of 31 Flemington Street, Albany, as tenants in common in equal shares.~~

SECOND SCHEDULE (continued overleaf)

NIL

THIRD SCHEDULE







NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.



E67590/3/89-20M-L/4664

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Page 2 (of 2 pages)

LT. 37

FIRST SCHEDULE (continued)		NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS					
REGISTERED PROPRIETOR		INSTRUMENT		REGISTERED	TIME	SEAL	CERT. OFFICER
		NATURE	NUMBER				
Elaine Jean McIntosh of 30 Hofrad Court, Albany		Transfer	E896493	2.6.92	8.00		
Carl Maxwell Weinert and Vicki Ellen Moir both of 37 Le Grande Avenue, Albany, <u>as tenants in common in equal shares.</u>		Transfer	H640591	10.1.01	8.18		

SECOND SCHEDULE (continued)		NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS									
INSTRUMENT		PARTICULARS	REGISTERED	TIME	SEAL	CERT. OFFICER	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL	CERT. OFFICER
NATURE	NUMBER										
Mortgage	H640592	to <u>National Australia Bank Ltd.</u>	10.0.01	8.18							

CERTIFICATE OF TITLE VOL. 1898 FOL. 828

WESTERN



AUSTRALIA

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

REGISTER NUMBER

37/P194DUPLICATE
EDITION**1**

DATE DUPLICATE ISSUED

8/1/2003VOLUME
1898FOLIO
827

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 37 ON PLAN 194

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

JODY LEANN SHANHUN OF 34 SILVER STREET, ALBANY

(T 1332737) REGISTERED 19 DECEMBER 2002

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.

* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.

Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1898-827 (37/P194).
PREVIOUS TITLE: 1120-884.
PROPERTY STREET ADDRESS: 34 SILVER ST, MCKAIL.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

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827

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CT 1898 0827 F

Transfer E570061

WESTERN

AUSTRALIA

Volume 1120 Folio 884



1898

827

CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

I certify that the person described in the First Schedule hereto is the registered proprietor of the undermentioned estate in the undermentioned land subject to the easements and encumbrances shown in the Second Schedule hereto.

Dated 20th March, 1991

S. J. Mulcahy

REGISTRAR OF TITLES



ESTATE AND LAND REFERRED TO

Estate in fee simple in portion of Plantagenet Location 399 and being Lot 37 on Plan 194, delineated on the map in the Third Schedule hereto.

FIRST SCHEDULE (continued overleaf)

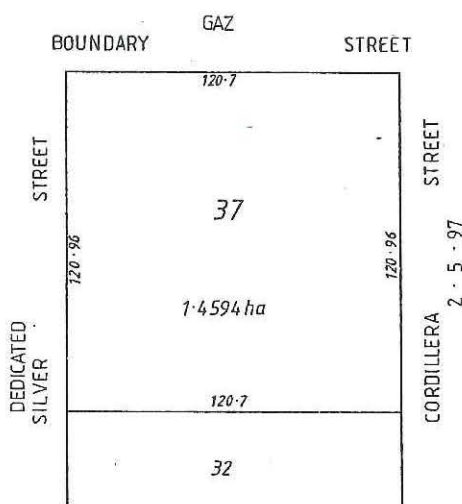
Kenneth Ian Shanhun of 299 South Coast Highway, Albany.

SECOND SCHEDULE (continued overleaf)

NIL

THIRD SCHEDULE

SCALE 1:2000
B RA



PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON


NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS.


E67590/3/89-20H-L/4664

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Page 2 (of 2 pages)

LT. 37

FIRST SCHEDULE (continued)		NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS					
REGISTERED PROPRIETOR		INSTRUMENT		REGISTERED	TIME	SEAL	CERT. OFFICER
		NATURE	NUMBER				
The correct address of the registered proprietor is now <u>34 Silver Street, Albany</u>		By	G211486	26.6.96	14.53		01

SECOND SCHEDULE (continued)		NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS									
INSTRUMENT		PARTICULARS	REGISTERED	TIME	SEAL	CERT. OFFICER	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL	CERT. OFFICER
NATURE	NUMBER										
Mortgage	G211486	to <u>Home Building Society Ltd.</u>	26.6.96	14.53		01					

CERTIFICATE OF TITLE VOL. 1898 FOL. 827

WESTERN



AUSTRALIA

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

REGISTER NUMBER

35/P194DUPLICATE
EDITION**3**

DATE DUPLICATE ISSUED

22/12/2006

VOLUME

1800

FOLIO

748

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

R. Roberts

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 35 ON PLAN 194

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

TREWICK HOLDINGS PTY LTD OF 32 CATHERINE STREET, SUBIACO
GOLDEN EIGHT (WA) PTY LTD OF 38 MACRAE ROAD, APPLECROSS
AS TENANTS IN COMMON IN EQUAL SHARES

(T K408912) REGISTERED 12 NOVEMBER 2007

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. *K408913 MORTGAGE TO BANK OF WESTERN AUSTRALIA LTD REGISTERED 12.11.2007.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1800-748 (35/P194).
PREVIOUS TITLE: 1120-887.
PROPERTY STREET ADDRESS: 29 LE GRANDE AV, MCKAIL.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING
K408913

WESTERN



AUSTRALIA

REGISTER NUMBER

32/P194DUPLICATE
EDITION**N/A**

DATE DUPLICATE ISSUED

N/A**RECORD OF CERTIFICATE OF TITLE**
UNDER THE TRANSFER OF LAND ACT 1893VOLUME
33FOLIO
307A

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

R. Roberts

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 32 ON PLAN 194

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

NEIL JEFFREY SARGEANT
JODIE MAREE SARGEANT
BOTH OF 32 SILVER STREET, ALBANY
AS JOINT TENANTS

(T G851882) REGISTERED 17 JULY 1998

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. *J954684 MORTGAGE TO AUSTRALIA & NEW ZEALAND BANKING GROUP LTD REGISTERED
17.10.2006.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 33-307A (32/P194).
PREVIOUS TITLE: 1120-888.
PROPERTY STREET ADDRESS: 32 SILVER ST, MCKAIL.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING
J954684.

INDEXED

JT

Application 53680/67
Volume 1120 Folio 888

WESTERN



REGISTER BOOK

VOL: 33

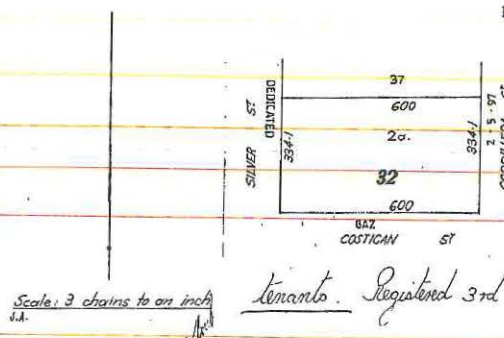
FOL. 307 A

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

Harold Bernard Kesper of 14 Sussex Street, Albany, Missioner, is now the proprietor of an estate in fee simple subject to the easements and encumbrances notified hereunder in all that piece of land delineated and coloured green on the map hereon containing two acres or thereabouts, being portion of Plantagenet Location 399 and being Lot 32 on Plan 194.

Dated the 18th day of July, 1967.



ASSISTANT REGISTRAR OF TITLES

Transfer A90778 to Raymond Basil Manton
Fidler and Turner and Marie Florence Manton, his
wife, both of 3 Minerva Street Albany, as joint
holders 1968 at 3-51/6.

Transfer B242751 to William Frederick Combes, Factory Hand and Marlene Joan Combes, his wife, both of Townsend Street, Albany, as joint tenants. Registered 8th November 1976 at 11.13 o'clock.

Transfer E233097 to Craig Lloyd Wood, and Leigh Karen Wood, both of 13 Beckenham Street, Beckenham, as joint tenants.
Registered 13th November, 1989 at 8.00 hrs.

The correct address of the registered proprietors is now 7 Beckenham Street, Beckenham. By E471039. Dated 22nd October 1990 at 8.48 hrs

Transfer E704304 to Ronald Ian MacKay and Janet Ray Dowson both of 37 Greenshields Street, Albany, as joint
tenants. Registered 18th September 1991 at 10.01 hrs.

Application F928721. The correct name of the second proprietor is Janet Ray MacKay and the address of both proprietors is Lot 77 Coral Sea Road, Jerramungup. Registered 17th July 1995 at 8.13 hrs.

Transfer 6851882 to Neil Jeffrey Sargeant and Jodie Maree Sargeant both of 32 Silver Street, Albany, as joint tenants.
Registered 17th July 1998 at 10.46 hrs.

For encumbrances and other matters affecting the land see back

Superseded - Copy for Sketch Only

EASEMENTS AND ENCUMBRANCES REFERRED TO

Mortgage E262904 to Westpac Savings Bank Ltd. Registered 21st December 1989 at 9.13 hours.

DISCHARGED

Mortgage E471039 to National Australia Bank Ltd. Registered 22nd October 1990 at 8.48 hrs

DISCHARGED

Discharge E704302 of Mortgage E262904. Registered 18th September 1991 at 10.01 hrs.

Discharge E704303 of Mortgage E471039. Registered 18th September 1991 at 10.01 hrs.

Mortgage E704305 to Challenge Bank Ltd. Registered 18th September 1991 at 10.01 hrs.

DISCHARGED

Discharge F928720 of Mortgage E704305. Registered 17th July 1995 at 8.13 hrs.

Mortgage F928722 to Bank of Western Australia Ltd. Registered 17th July 1995 at 8.13 hrs.

DISCHARGED

Discharge G851891 of Mortgage F928722. Registered 17th July 1998 at 10.46 hrs.

Mortgage G851883 to Adelaide Bank Ltd. Registered 17th July 1998 at 10.46 hrs.



CT 0033 0307A B



CERTIFICATE OF TITLE

VOL. 33 FOL. 307 A

WESTERN



AUSTRALIA

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

REGISTER NUMBER

33/P194DUPLICATE
EDITION**N/A**

DATE DUPLICATE ISSUED

N/A

VOLUME

33

FOLIO

306A

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

R. Roberts

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 33 ON PLAN 194

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

WOOMERA PTY LTD OF 51 COLLIE STREET, ALBANY

(T A163777) REGISTERED 13 MAY 1969

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.

* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.

Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 33-306A (33/P194).
PREVIOUS TITLE: 1120-888.
PROPERTY STREET ADDRESS: 16 COSTIGAN ST, MCKAIL.
LOCAL GOVERNMENT AREA: CITY OF ALBANY.

Superseded - Copy for Sketch Only

INDEXED

JT

Transfer 53679/67
Volume 1120 Folio 888

WESTERN



ORIGINAL
AUSTRALIA

REGISTER BOOK

VOL. 33 FOL. 306A

Certificate of Title

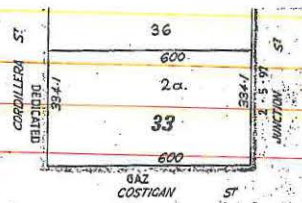
UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

Brian Vincent Attwell, Farmer and Contractor, and Yvonne Winifred Attwell, his Wife, both of 28 Chester Pass Road, Albany, are now the proprietors as joint tenants of an estate in fee simple subject to the easements and encumbrances notified hereunder in all that piece of land delineated and coloured green on the map hereon containing two acres or thereabouts, being portion of Plantagenet Location 399 and being Lot 33 on Plan 194.

CT 0033 0306A F



Dated the 18th day of July, 1967.



Od. Brinsford
ASSISTANT REGISTRAR OF TITLES.

Scale: 3 chains to an inch
S.A.

Transfer 19163777 to Woomera Pty Ltd of 51 Collier Street, Albany. Registered 13th May 1969 at 9.00a.

W. Brinsford
ASSISTANT REGISTRAR OF TITLES

For encumbrances and other matters affecting the land see back

Superseded - Copy for Sketch Only

EASEMENTS AND ENCUMBRANCES REFERRED TO

CT 0033 0306A B



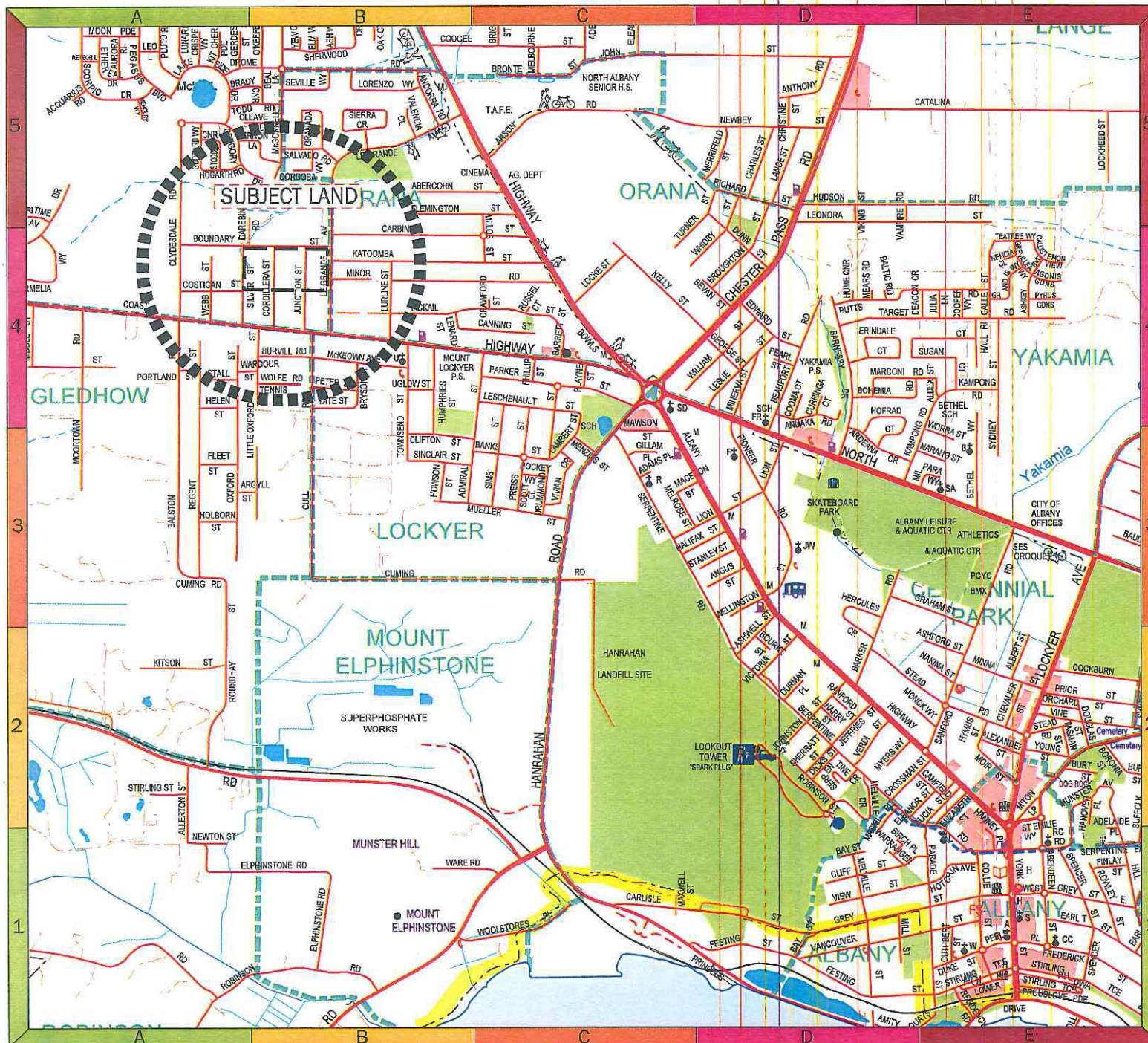
CERTIFICATE OF TITLE

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APPENDIX D.

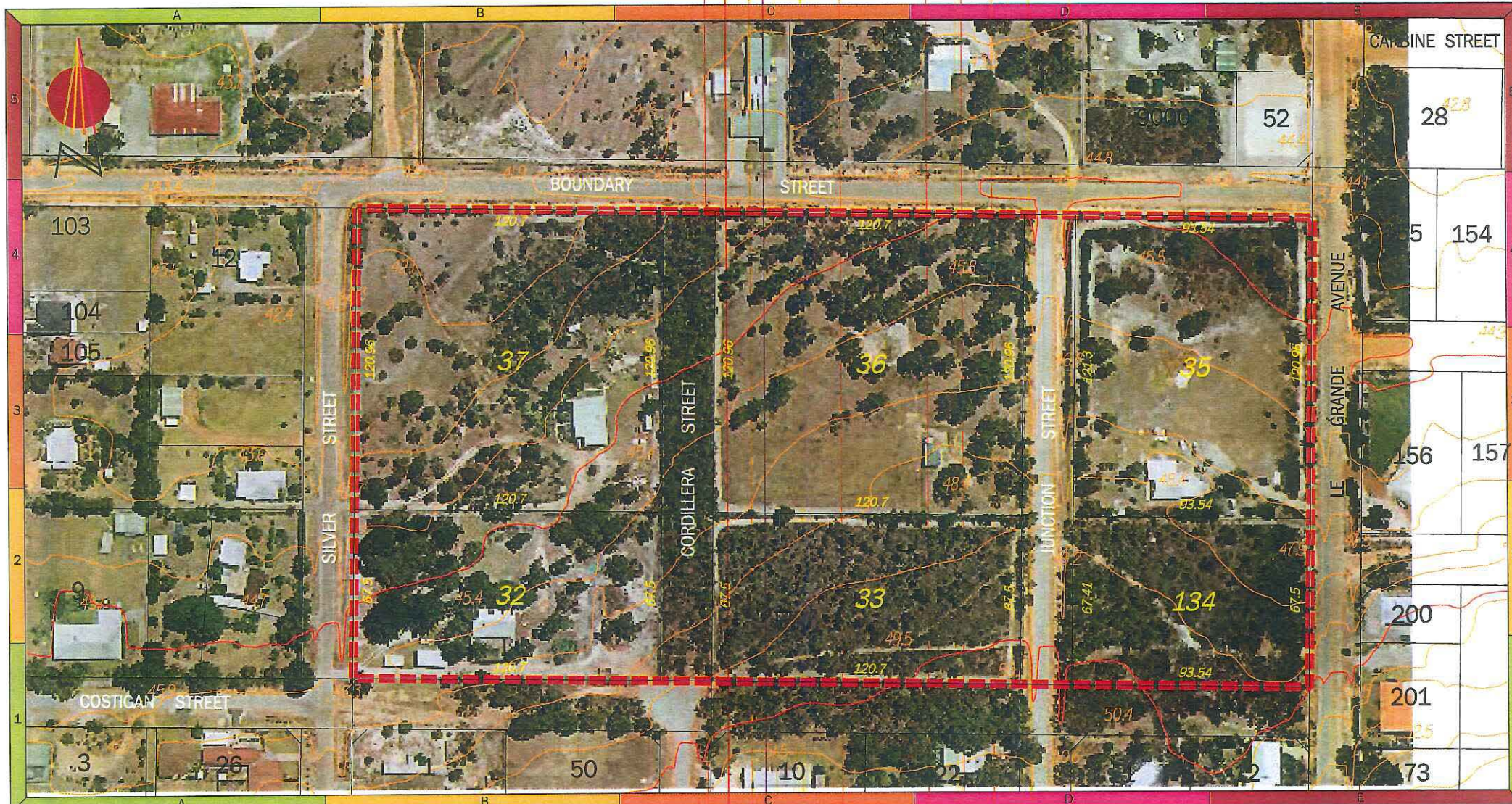
Location and Site Plans





PLAN 1

A	Original drawing	06-12-06
rev	details	date
note: this drawing is the property of harley survey group pty ltd. it may not be copied or altered without the consent of the owner.		
Harley Survey Group Pty Ltd 116 Serpentine Road. ALBANY WA 6330 T: 08 9841 7333 F: 08 9841 3643 E: hsgalb@harleygroup.com.au		
survey	COMPILED	cad file 14145-06A.dgn
drawn	ABS 06-12-06	checked CP 06-12-06
horiz datum		level datum
scale at A4 all distances are in metres 1 : 25000 <div> <div></div> <div>0</div> <div>200</div> <div>400</div> <div>600</div> <div>800</div> <div>1000</div> </div>		
client SOUTHERN MCKAIL		
description LOCATION PLAN FOR LOT 32 & 37 SILVER ST, LOTS 35 & 134 LE GRANDE AVE, LOT 33 COSTIGAN ST, LOT 36 JUNCTION ST, MCKAIL		
drawing no 14145-06A		
PYRMONT HOUSE ALBANY 		



note: this drawing is the property of harley survey group. it may not be copied or altered without the consent of the owner.

Harley Survey Group Pty Ltd

116 Serpentine Road, ALBANY WA 6330
T: 08 9841 7333 F: 08 9841 3643
PO Box 5207 WA 6332
E: hsgal@harleygroup.com.au
Also at Bunbury & Busseton

A	Original drawing	21-12-06
rev	details	date

survey	cad file
COMPILED	14145-09A.dgn
drawn	checked
ABS 21-12-06	CP 21-12-06
horiz datum	level datum
MGA94	AHD
scale at A3	all distances are in metres
1 : 1500	0 20 40 60 80

description
SITE PLAN FOR
Lots 118, 114 and 113 Boundary Street
Lot 51 Le Grande Avenue and
Lots 115 - 117 Flemington Street, McKail

client

drawing no

14145-09A



PYRMONT HOUSE, ALBANY

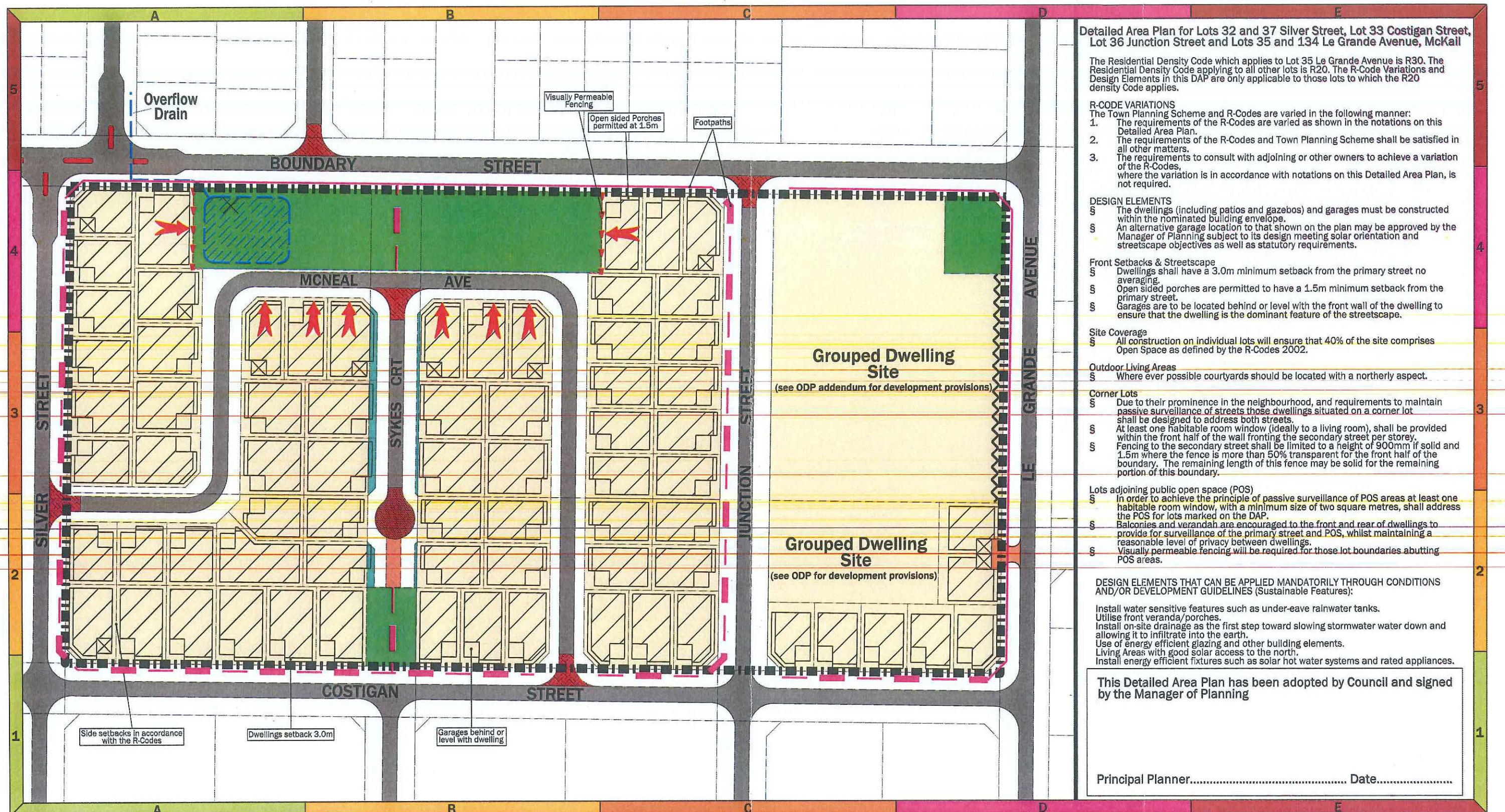
APPENDIX E.

Scheme Checklist

TPS3 Clause	Matter required by Scheme to be addressed in ODP	Done
5.2.1	<i>Before Granting approval for any uses permitted within the Development Zones subject to Council approval under Table No.1 or endorsing an application for subdivision the Council will require the submission to, and approval by, the Western Australian Planning Commission of an Outline Development Plan for such areas as are subject of an application to develop or subdivide being not less than the area shown within the outer edge of the green border on the part of the scheme map containing the subject land, with other areas determined by the Council having regard to:</i>	
5.2.1(a)	The major road systems under the scheme	√
5.2.1(b)	Topographic conditions	√
5.2.1(c)	Land holdings adjacent to or in the vicinity of the subject land	√
5.2.1(d)	The necessity of providing civic and public facilities	√
5.2.1(e)	Preservation of the environment	√
5.2.3	<i>Outline Development Plans shall show the principles under which it is proposed to develop or subdivide the land and as a minimum requirement shall show:-</i>	
5.2.3(a)	The location and width of the distributor road system proposed	√
5.2.3(b)	The approximate location and quantity of shopping, civic and public facilities proposed together with an analysis of the factors used in determination of such facilities	√
5.2.3(c)	The distribution of the recreation and open space areas proposed	√
5.2.3(d)	The population and residential densities proposed	√
5.2.3(e)	The physical condition of the land having regard to the need for deep sewerage and/or main drainage	√

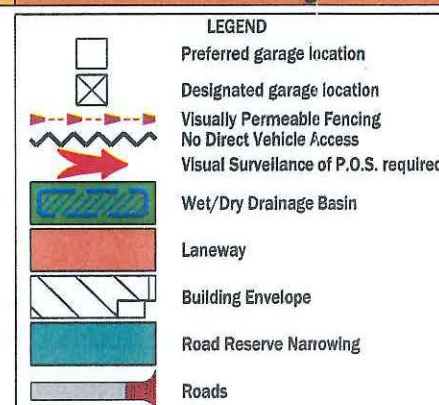
APPENDIX F.

Detailed Area Plan



Detailed Area Plan

Lots 32 & 37 Silver Street,
Lot 33 Costigan Street,
Lots 35 & 134 Le Grande Avenue and
Lot 36 Junction Street, McKail



AIM
The primary aims of the detailed area plan are to provide encourage passive solar construction by providing access to northern light, increased opportunity for community interaction, a safe, pedestrian orientated development with high levels of passive surveillance, quality streetscape where the focus is on the dwelling and its interface with the surrounding streets and POS.

