WESTERN PLAINS REGIONAL COUNCIL

Incorporating the former Dubbo City & Wellington councils

Southlakes Estate

Development Control Plan 1

Adopted by Council on 27 July 2016

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Part 1 Introduction

1.1 Name and Application of this Plan

This Development Control Plan is known as the Southlakes Estate Development Control Plan (DCP) Number 1.

1.2 Purpose of this Plan

The purpose of this Plan is to:

- Provide guidance to developers/applicants in the design of development proposals for land to which this Plan applies.
- Communicate the planning, design and environmental objectives and controls against which the Consent Authority would assess Development Applications in the Southlakes Estate.
- Provide guidance on the orderly, efficient and environmentally sensitive development of the Southlakes Estate.
- Promote quality urban design outcomes within the context of environmental, social and economic sustainability.

1.3 Savings and Transitional Arrangements

If a development application is made before the commencement of this Plan in relation to land to which this Plan applies and the application has not been finally determined before that commencement, the application may be determined as if this Plan had not commenced.

1.4 Statutory Context

This Plan has been prepared by Council in accordance with Section 74C of the Environmental Planning and Assessment Act, 1979 (the Act) and Part 3 of the Environmental Planning and Assessment Regulation, 2000.

The Plan was adopted by Council at the meeting on 27 July 2016. The Plan commenced on 27 July 2016.

The Plan should be read in conjunction with the Dubbo Local Environmental Plan 2011 and the Dubbo Development Control Plan 2013.

1.5 Application of Plan

This Plan applies to land zoned R2 Low Density Residential within the area identified in Figure 1 below within Lot 12 DP 1207280, Lot 399 DP 1199356 and Lot 503 DP 1152321, only, of the South-East Dubbo Residential Release Area:

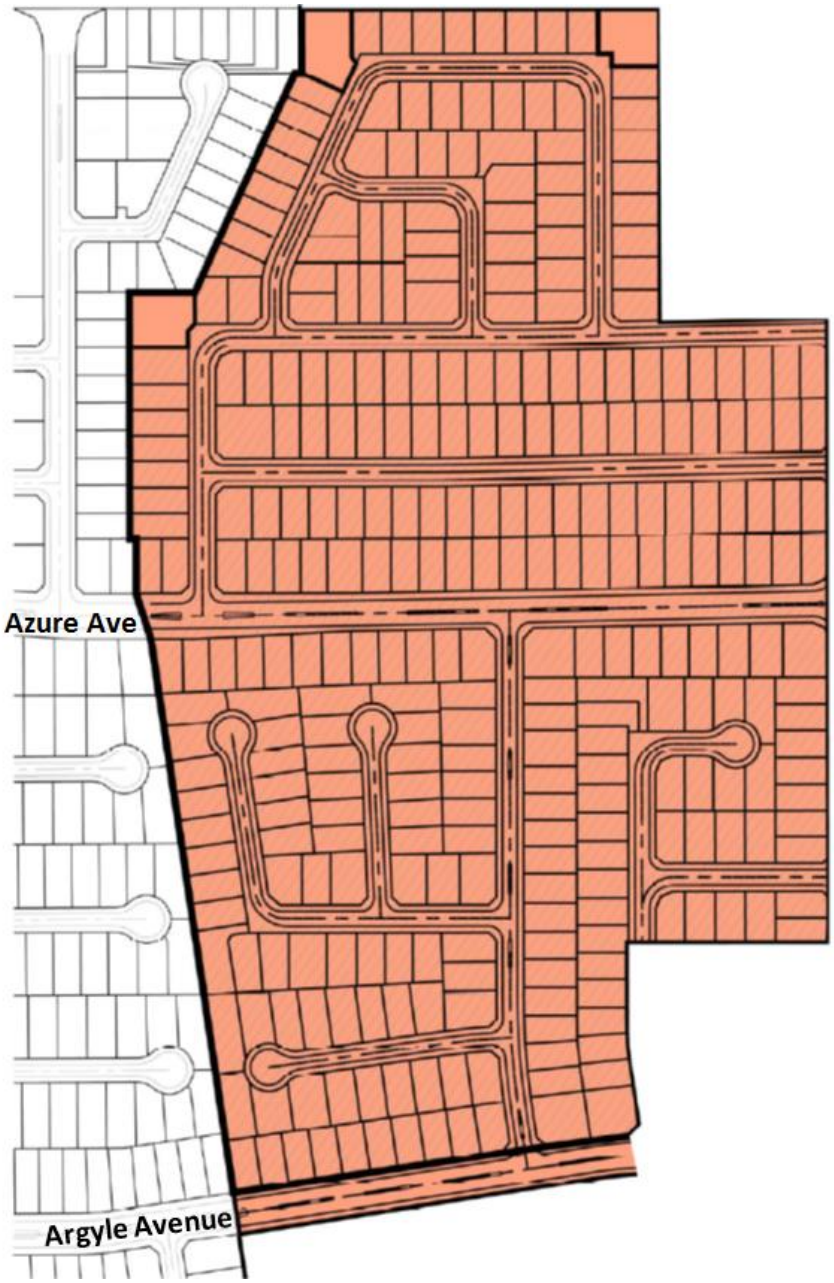


Figure 1. Area to which this Plan applies

1.6 Background

This Plan has been written to guide residential development of the subject land. The development controls provided here rely on proponents demonstrating how development of the land meets the objectives of each relevant element and the associated performance criteria.

1.7 Relationship to other plans and documents

Under the Environmental Planning and Assessment Act, 1979 (the EP&A Act), Council is required to take into consideration the relevant provisions of this Plan in determining an application for development on land to which this Plan applies.

In the event of any inconsistency between an Environmental Planning Instrument (EPI) and this Plan, the provisions of the EPI will prevail.

Council in the assessment of a development application will consider all matters specified in Section 79C of the Environmental Planning and Assessment Act, 1979. Compliance with any EPI or this Plan does not infer development consent will be granted.

1.8 How to use this Plan

When preparing a development application, all relevant sections of the Plan are required to be considered.

The majority of sections in the Plan incorporate design elements that are required to be considered and addressed by a proponent in the design process.

Each section of the Plan has a consistent format to allow for ease of use and understanding. The objectives of each section are stated at the top of the page and the proposed development is required to focus on satisfying these objectives.

Below the objectives is a table with two columns. The column on the left outlines the aim of the design element, while the column on the right offers default design guidelines that an applicant can choose to use in their development in lieu of designing to satisfy the intent of the column on the left.

In summary, the column on the left provides more flexibility in design, while the column on the right provides standard solutions that are acceptable to Council.

If a proponent chooses not to use the 'Acceptable Solutions' in the right hand column, written detail must be provided with any development application of how the design satisfies the 'Performance Criteria' in the left hand column.

An example of how an element of the Plan is structured is provided as follows.

Performance criteria The streetscape character objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Built form	
P1 The frontage of buildings and their entries are readily apparent from the street.	A1.1 Buildings adjacent to the public street, address the street by having a front door or living room window facing the street. A1.2 Where dual occupancies are situated on corner blocks (where one is not a lane), the development is designed to face each street frontage.
P2 Building height at the street frontage maintains a compatible scale with adjacent development.	A2.1 Differences in building height between existing buildings and new development is not more than one storey when viewed from the public street and adjoining properties. A2.2 Where a building is adjoined on either side by a single storey building, the second storey is setback a minimum of 3 m from the front of the building to achieve a stepped height. A2.3 The design includes attic rooms which provide additional floor space with minimal streetscape impact.

1.9 Strategic Context

Dubbo Urban Areas Development Strategy 1996

The Dubbo Urban Areas Development Strategy 1996 has facilitated the creation of a range of lifestyle options for the urban area of the city. Through the restriction of urban development to a defined area, Council is seeking to protect the long-term future of agricultural land located beyond the urban area.

These lifestyle options have been developed through the Dubbo Urban Areas Development Strategy (UADS) adopted by Council in 1996 and the Review of the UADS adopted by Council in 2007. The Dubbo Local Environmental Plan (LEP) 2011 facilitates achievement of the Strategy components in zoning land for the sustainable development of the city.

The following figure details the context of the planning documents applicable to residential lands.

The Dubbo Urban Areas Development Strategy consists of the following components:

- Residential Areas Development Strategy;
- Commercial Areas Development Strategy;
- Industrial Areas Development Strategy;
- Institutional Areas Development Strategy;
- Recreational Areas Development Strategy; and
- Future Directions and Structure Plan

The Urban Areas Development Strategy was created to manage the development and conservation of land within the urban area of the city through ensuring the Central Business District is the centre of the City.

Re-centralisation of the Dubbo Central Business District will be facilitated by further residential development being undertaken in west Dubbo. The Strategy includes extensive areas in north-west and south-west Dubbo as being suitable for further residential development to incorporate the following:

North-west sector – 2,600 lots (approximately)
South-west sector – 3,281 lots (approximately)

The Dubbo Local Environmental Plan 2011 offers a range of lot sizes in the West Dubbo Urban Release Areas, ranging from 600 square metres to 20 ha. This ensures a variety of lifestyle opportunities can be provided with a close proximity to the city centre.

The Strategy also allows for infill subdivision opportunities in the south-east sector with the Dubbo LEP 2011 allowing for the potential development of 1,059 lots within this sector. The subdivision considered by this Plan is in the south- east sector.

The Strategy does not provide for any further reduction in the minimum lot size for subdivision in the eastern sector of the city based on centralisation of the Central Business District to the west, environmental constraints, infrastructure provision and transport requirements.

South-East Dubbo Residential Urban Release Area Stage 1 Structure Plan

Council has prepared a Stage 1 Structure Plan for the South-East Dubbo Residential Urban Release Area. The role of the Stage 1 Structure Plan is to set the overall direction for development in the South-East Dubbo Residential Urban Release Area and in particular the Southlakes Estate. The Stage 1 Structure Plan also informs land use decisions in the Dubbo LEP 2011 and will allow developers in the area to pursue partial development having regard to overall infrastructure and servicing constraints.

The objectives of the Stage 1 Structure Plan are to:

- Identify the opportunities and constraints of the land and the anticipated needs of the community;
- Broadly indicate the likely future development potential of the area;
- Enable the characteristics of the area to determine the most appropriate location and form for future development;
- Provide a broad context of the consideration, by Council, of individual rezoning submissions within the area; and
- Establish a vision and set of development objectives which future development proposals will be required to meet.

1.10 Urban Release Areas

Development of the subdivision considered in this Plan has been undertaken in accordance with Part 6 of the Dubbo Local Environmental Plan 2011. The relevant Clauses contained in Part 6 of the Dubbo LEP 2011 are provided below:

Clause 6.1 Arrangements for designated State public infrastructure

(1) The objective of this clause is to require satisfactory arrangements to be made for the provision of designated State public infrastructure before the subdivision of land in an urban release area to satisfy needs that arise from development on the land, but only if the land is developed intensively for urban purposes.

(2) Development consent must not be granted for the subdivision of land in an urban release area unless the Director-General has certified in writing to the consent authority that satisfactory arrangements have been made to contribute to the provision of designated State public infrastructure in relation to that land.

The Department of Planning and Environment has undertaken consultation with State Public Agencies to consider the provision of State infrastructure in the South- East Residential Urban Release Area.

The former Dubbo City Council was provided with certification from the Director General of the Department of Planning on 17 December 2012 for the provision of State public infrastructure. This certification means that no contributions are required from developers in the South-East Dubbo Residential Urban Release Area towards the provision of State public infrastructure.

Clause 6.2 Public Utility Infrastructure

(1) Development consent must not be granted for development on land in an urban release area unless the Council is satisfied that any public utility infrastructure that is essential for the proposed development is available or that adequate arrangements have been made to make that infrastructure available when it is required.

Subdivision of the land is required to provide all urban infrastructure to facilitate residential development, this includes road infrastructure, power, sewerage, water, stormwater drainage and telecommunications prior to residential development being undertaken.

Clause 6.3 Development Control Plan

(1) The objective of this clause is to ensure that development on land in an urban release area occurs in a logical and cost-effective manner, in accordance with a staging plan and only after a development control plan that includes specific controls has been prepared for the land.

(2) Development consent must not be granted for development on land in an urban release area unless a development control plan that provides for the matters specified in subclause (3) has been prepared for the land.

(3) The development control plan must provide for all of the following:

a) a staging plan for the timely and efficient release of urban land, making provision for necessary infrastructure and sequencing,

b) *an overall transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists,*
c) *an overall landscaping strategy for the protection and enhancement of riparian areas and remnant vegetation, including visually prominent locations, and detailed landscaping requirements for both the public and private domain,*
d) *a network of passive and active recreational areas,*
e) *stormwater and water quality management controls,*
f) *amelioration of natural and environmental hazards, including bush fire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected,*
g) *detailed urban design controls for significant development sites,*
h) *measures to encourage higher density living around transport, open space and service nodes,*
i) *measures to accommodate and control appropriate neighbourhood commercial and retail uses,*
j) *suitably located public facilities and services, including provision for appropriate traffic management facilities and parking.*

This Plan has been prepared in accordance with Clause 6.3 and contains all applicable information.

1.11 Notification of Development

Council will generally not publicly notify any development applications for residential accommodation within the area to which the Plan applies. However, if in the opinion of the Council a proposed development could impact the amenity of surrounding development, Council may publicly notify and/or advertise the development application in the local newspaper.

Any development application received by Council for non-residential development will be publicly notified to adjoining and adjacent property owners in the immediate locality who in the opinion of Council may be impacted by the proposed development.

Part 2 Residential Development and Subdivision

2.1 Residential Subdivision Controls (Dwellings and Dual Occupancy)

This section is designed to encourage current 'best practice' solutions for subdivision design. The achievement of pleasant, safe and functional subdivision is the main objective for subdivision design.

This section lists subdivision design elements under the following headings:

Element 1 Streetscape character and building design
Element 2 Lot layout
Element 3 Public open space and landscaping
Element 4 Infrastructure
Element 5 Street design and road hierarchy
Element 6 Pedestrian and cycle links
Element 7 Stormwater management
Element 8 Water quality management

Each design element has been structured so that it contains:

- 'Objectives' for each design element that describe the required outcomes;
- 'Performance criteria' which outlines the range of matters which shall be addressed to satisfy the objectives (i.e. the performance criteria explains how an objective is to be achieved);

Note: Not all performance criteria will be applicable to every development.

- 'Acceptable Solutions' which are specific measures which illustrate one way of meeting both the performance criteria and objectives of an element. They are examples only and are not mandatory; and
- 'References' to relevant clauses of the Dubbo LEP 2011, other relevant legislation, Council policies and literature relevant to the design element.

Element 1. Streetscape Character and Building Design

Introduction

Successful neighbourhoods have a sense of community, are designed to promote social interaction, are pleasant and have a high level of safety for residents and visitors. Good neighbourhood design assesses how residents will interact within the neighbourhood and considers the street and pedestrian networks in addition to housing.

Objectives

- To provide neighbourhoods that offer opportunities for social interaction;
- To encourage aesthetically pleasing neighbourhood designs that caters for a broad diversity of housing needs;
- Ensures motor vehicles do not dominate the neighbourhood; and
- To encourage walking and cycling.

Performance criteria The streetscape character and building design objectives may be achieved where:		**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:	
P1	Natural and cultural features in the area are emphasised and enhanced in the design of neighbourhoods.	A1.1	Watercourses, natural vegetation and heritage items are retained and emphasised in the design.
P2	The layout provides for community focal points and public open space that promotes social interaction and caters for a range of uses by the community.	A2.1	Pedestrian connectivity is maximised within and between each residential neighbourhood with a particular focus on pedestrian routes connecting to public open space, bus stops, educational establishments and community/recreation facilities.
P3	The layouts of street blocks establish a clear urban structure and are of a size and length that promotes and encourages walking and cycling.	A3.1	Street blocks are to be generally a maximum of 250 m long and 90 m deep.
P4	Neighbourhood design provides for passive surveillance of residences and public areas to enhance personal safety and minimise the potential for crime.	A4.1	The subdivision layout minimises narrow pedestrian pathways between or behind development (for example, at cul-de-sac heads) and sound barriers and fencing which remove or reduce passive surveillance of higher order roads.

Performance criteria The streetscape character and building design objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	A4.2 Neighbourhood design enhances legibility and way-finding through an easily-understood street layout and provides vistas towards natural features and buildings. A4.3 Neighbourhoods are designed with high levels of physical connectivity for pedestrians, cyclists and vehicles, both within and to adjacent neighbour-hoods.
P5 Street networks provide good external connections for local vehicle, pedestrian and cycle movements. Street design promotes functional movement while limiting speed and detours through traffic.	A5.1 The overall subdivision development shall achieve a minimum Internal Connectivity Index (ICI) score of 1.30. A5.2 In the case of staged subdivision development, an individual stage/s of a subdivision may have an Internal Connectivity Index score below 1.30. However, the Internal Connectivity Index score of the overall Southlakes Residential Housing Estate must be maintained at a minimum of 1.30. Note: The importance of a well-connected subdivision which can be achieved through a good ICI is further explained in the following section.

Internal Connectivity Index

The Internal Connectivity Index (ICI) is calculated by the number of street links divided by the number of street nodes (Ewing, 1996). A link is defined as a segment of road between two intersections or from an intersection to a cul-de-sac, including road segments leading from the adjoining highway network or adjacent development.

A node is defined as an intersection and the end of a cul-de sac. They do not include the end of a stub-out at the property line. The higher the connectivity index, the more connected the roadway network. Residential subdivisions that are dominated by cul-de-sacs provide discontinuous street networks, reduce the number of footpaths, provide few alternate travel routes and tend to force all trips onto a limited number of arterial roads.

Figure 1 shows two examples of a subdivision. Example 1 shows a well-connected subdivision layout that minimises the distances to travel from a dwelling house to a focal point. Example 2 shows the same trip through a poorly connected subdivision.

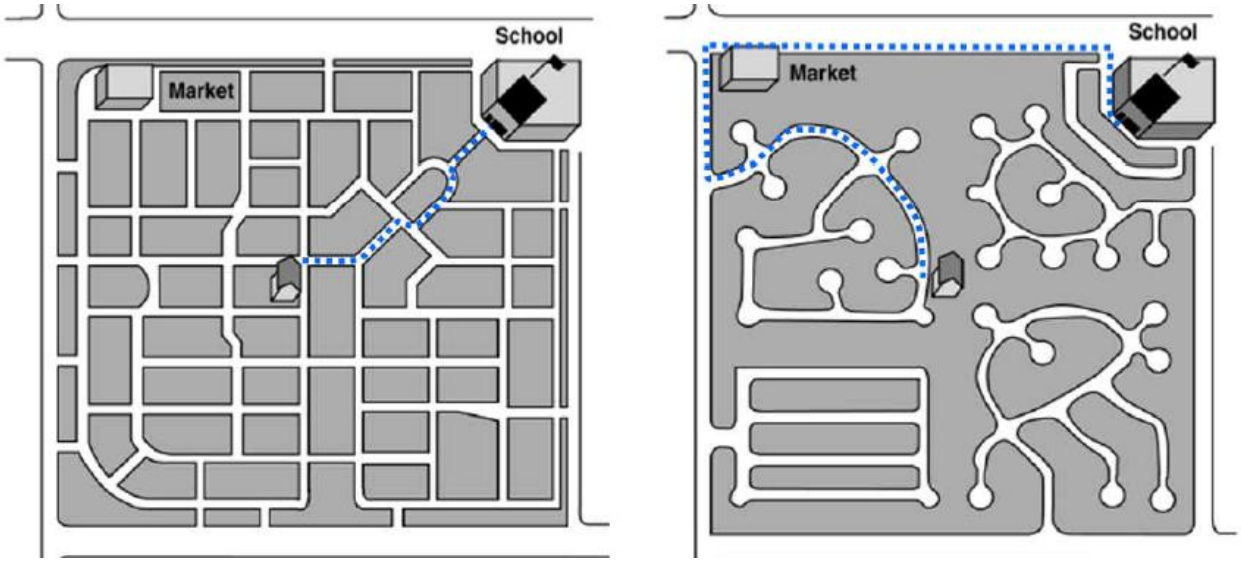
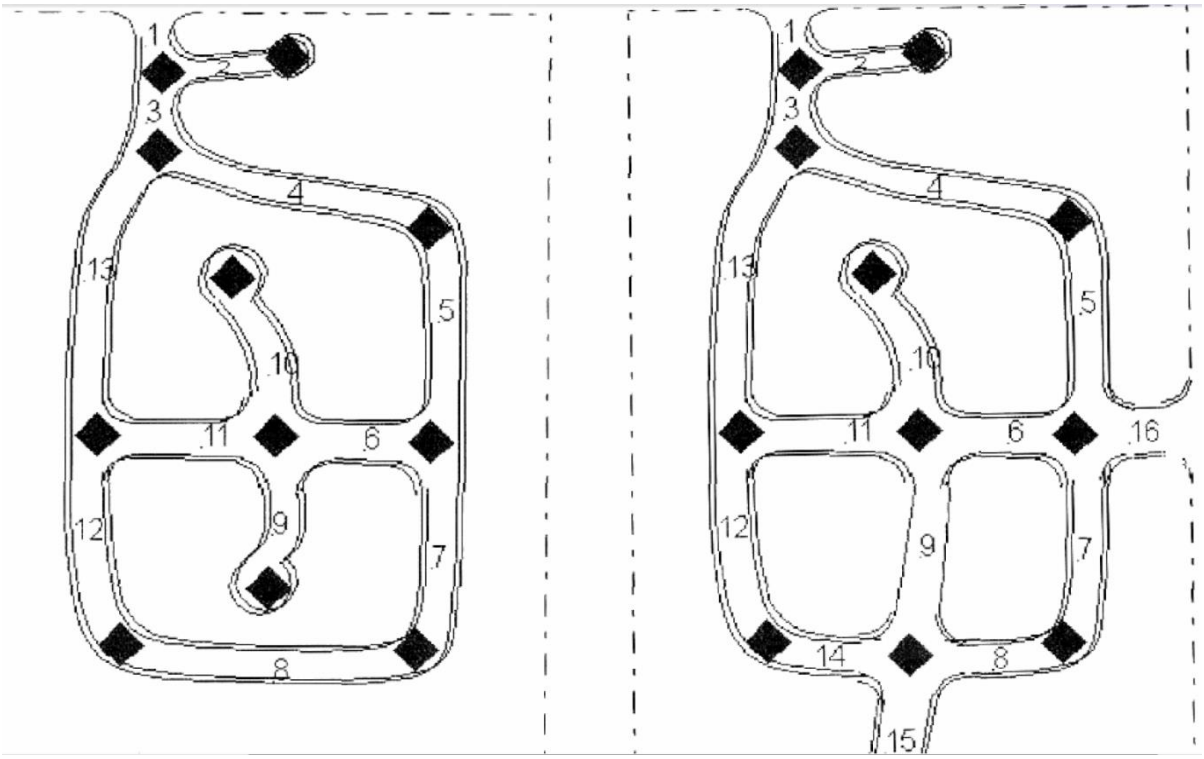


Figure 1. Subdivision Connectivity example

Example calculation of ICI:



Example 1
13 links/11 nodes = 1.18 ratio

Example 2
16 links/11 nodes = 1.45 ratio

Figure 2. Calculation of the Internal Connectivity Index

Element 2. Lot Layout

Introduction

The provision of an efficient and effective lot layout can allow for the creation of neighbourhoods that encourage connectivity and achieve quality urban design outcomes.

The arrangement of future dwellings will have an important influence on the quality of the neighbourhood that develops and should be considered as part of the lot design.

Objectives

- To provide a range of lot sizes to suit a variety of household types and requirements whilst considering the surrounding established area.
- To create attractive residential streets by removing garages and driveway cuts from the street frontages, improving the presentation of houses and maximising on street parking spaces and street trees.

Performance criteria The lot layout objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Lot frontage P1 Lots are designed to optimise outlook and proximity to public and community facilities, parks and public transport with increased residential activity.	There is no applicable Acceptable Solution to this Performance Criteria.
P2 Lots are of a suitable configuration to reduce garage dominance in residential streets.	There is no applicable Acceptable Solution to this Performance Criteria.
P3 The design of lots provides vehicular access to the rear or side of lots where front access is restricted or not possible, particularly narrow lots where front garaging is not permitted.	There is no applicable Acceptable Solution to this Performance Criteria.
Lot Types P2 A range of residential lot types (area, frontage, depth and access) is provided to ensure a mix of housing types and dwelling sizes and to create coherent streetscapes with distinctive garden suburb, suburban and urban characters across a neighbourhood.	A2.1 Within each street block, the subdivision design shall provide varied lot frontages to provide a differentiation in design and housing product.

Performance criteria The lot layout objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
P3 A variety in dwelling size, type and design to promote housing choice and create attractive streetscapes with distinctive characters is encouraged.	A3.1 Lots should generally be rectangular in shape. Where lots are an irregular shape, they are to be of a sufficient size and orientation to enable siting of future dwellings to meet the controls in this Plan. A3.2 Where residential development adjoins land zoned RE1 Public Recreation and/or utilised for open space purposes, the subdivision is to create lots to enable a living area within the dwelling to overlook the open space or drainage land. A3.3 Optimal lot orientation is east-west, or north-south where the road pattern requires. Exceptions to the preferred lot orientation may be considered where factors such as the layout of existing roads and cadastral boundaries, or topography and drainage lines prevent achievement of the preferred orientation.
Battle-axe Lots P4 Battle-axe lots shall only be provided in limited circumstances where the topography and development orientation results in regular subdivision not being able to be achieved.	A4 Battle axe lots are provided in accordance with the principles for the location of battle-axe lots as shown in Figure 3.
P5 The visual impact to the streetscape of battle-axe entry ways and driveways should be ameliorated where possible.	A5 The driveway or shared driveway will include adjacent planting and trees, as indicated in Figure 4.

Performance criteria The lot layout objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Corner Lots P6 To ensure corner lots are of sufficient dimensions and size to enable residential controls to be met.	P6.1 Corner lots are to be designed to allow residential accommodation to positively address both street frontages as indicated in Figure 5. P6.2 Garages on corner lots are encouraged to be accessed from the secondary street or from a rear lane.

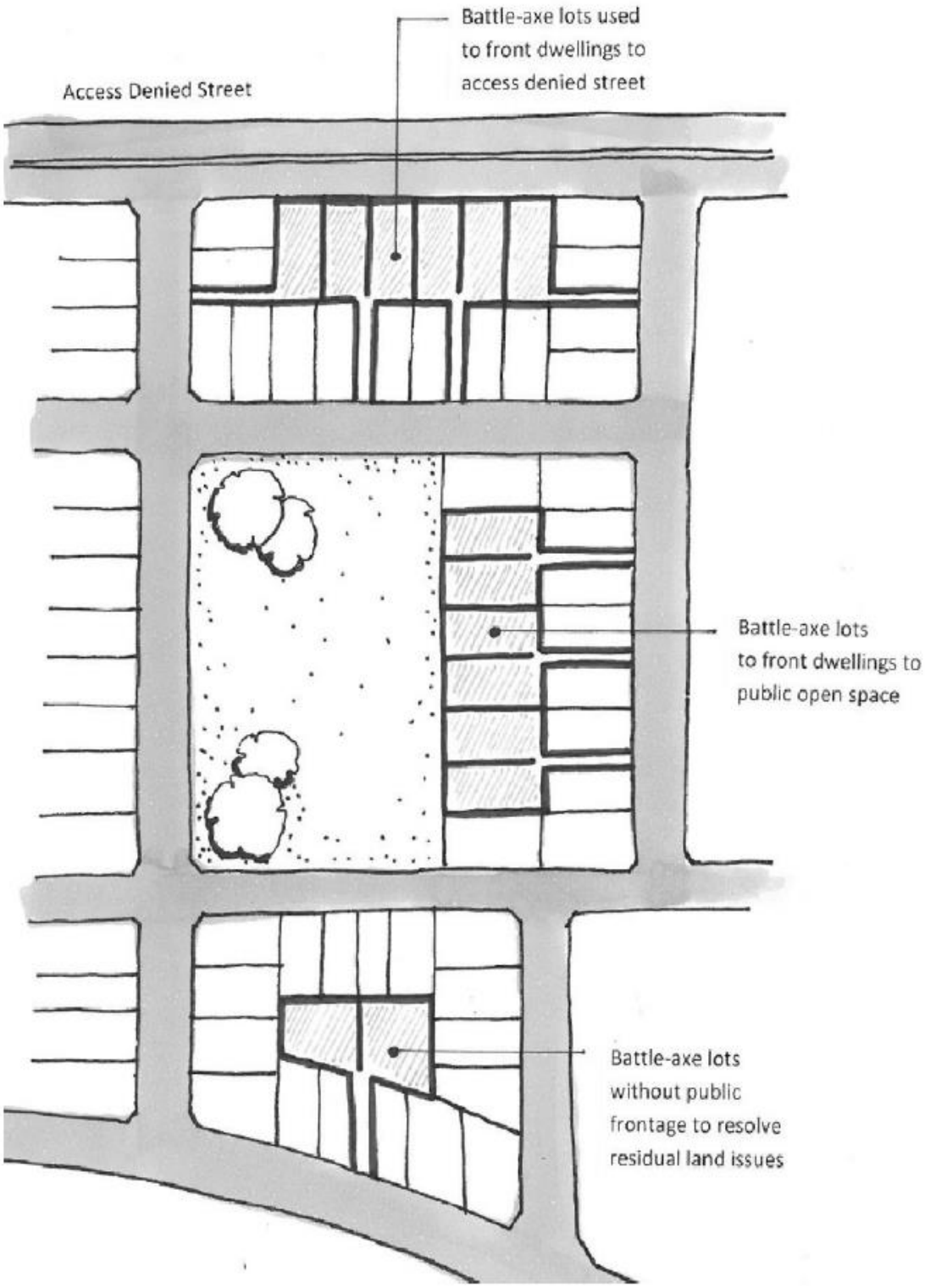


Figure 3. Examples of locations of battle-axe lots

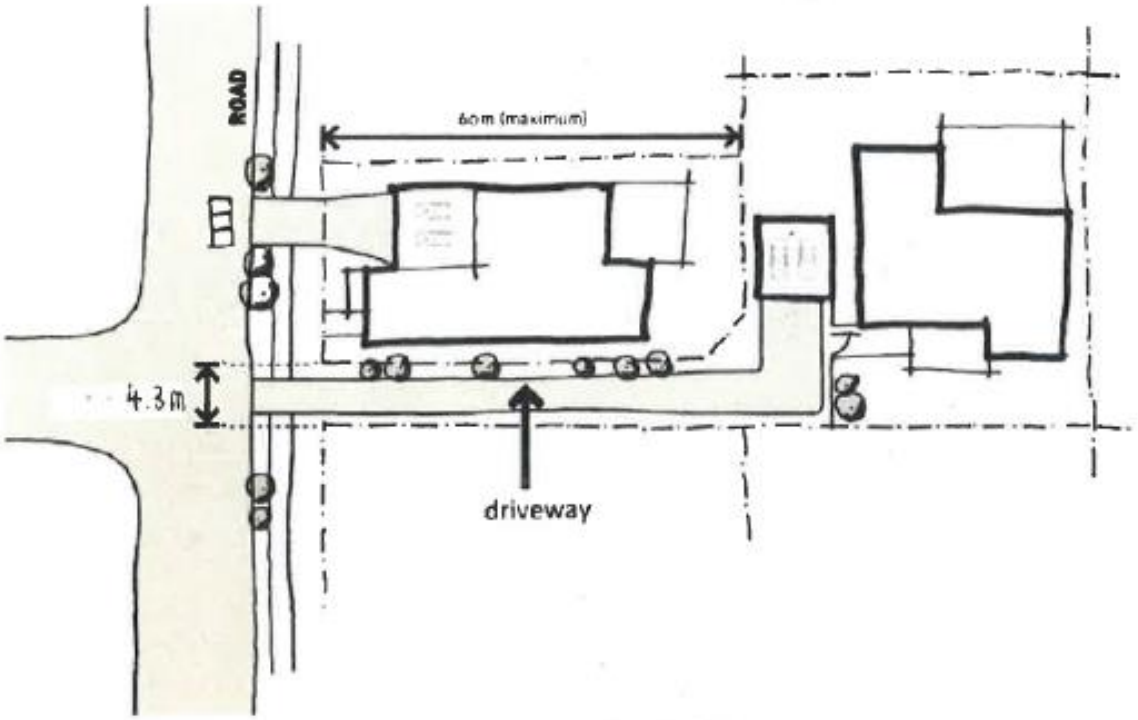


Figure 4. Example of driveway location and alignments for battle-axe lots

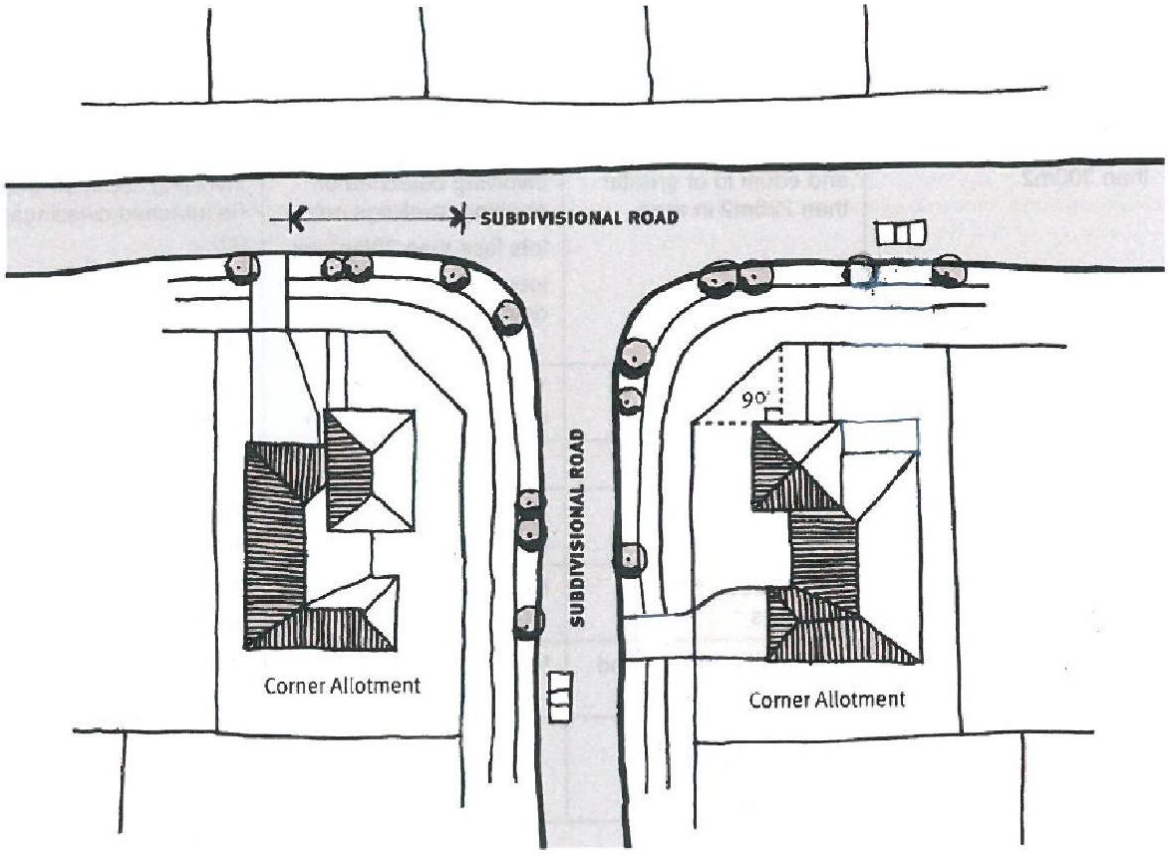


Figure 5. Corner lots

Element 3. Landscaping

Objectives

- To provide landscaping that contributes to the identity and environmental health of the community; and
- To ensure streetscape components do not detrimentally affect solar access to individual dwellings.

Performance criteria The public open space and landscaping objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Landscaping – General P1 Landscaping is designed and located to not negatively impact on built infrastructure.	A1.1 Landscaping is provided in accordance with the requirements of a landscaping schedule that has been approved by Council's Dubbo Branch, Parks and Landcare Services Division.
P2 Landscaping is undertaken in an environmentally sustainable manner which limits the time and costs associated with maintenance.	A2.1 Existing native trees are retained wherever possible. A2.2 Species selected are suitable for the local climate. A2.3 Species selected require a minimal amount of watering. A2.4 Landscaping does not impact ground-water levels by encouraging over-watering resulting in groundwater level increases or the pollution of waters.
Street Trees P3 Street trees are selected to provide summer shading while not impeding solar access to dwellings in winter.	A3.1 Street trees are provided in accordance with the requirements of Council's Dubbo Branch, Parks and Landcare Services Division generally and any applicable Tree Planting Standards. A3.2 Deciduous trees are selected where shadows adversely impact solar access.

Performance criteria The public open space and landscaping objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	A3.3 Taller tree species are planted on the northern side of east-west aligned streets, shorter species are planted on the southern side. A3.4 Indigenous species or species with a proven tolerance to the local climate and conditions that preserve solar access of adjoining properties are provided. A3.5 Plantings with low maintenance and low water consumption are provided. A3.6 Evergreen species for windbreaks and planting along the south or west side of the area are protected against wind.

Element 4. Infrastructure

Objectives

- To ensure residential areas are serviced with essential services in a cost-effective and timely manner, and;
- To ensure residential areas are adequately serviced with water and sewerage infrastructure.

Performance criteria The infrastructure objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Utilities P1 Design and provision of utility services including sewerage, water, electricity, gas, street lighting and communication services are cost-effective over their lifecycle and incorporate provisions to minimise adverse environmental impact in the short and long term.	A1.1 The design and provision of utility services conforms to the requirements of relevant service authorities. A1.2 Water and sewerage services are to be provided to each allotment at the full cost of the developer. A1.3 Water and sewerage services are to be designed and constructed in accordance with the requirements of NAT-SPEC (DCC version) Development Specification Series – Design and Development Specification Services – Construction. A1.4 Electricity supply is provided via underground trenching in accordance with the requirements of the energy supply authority.
Common Trenching P2 Compatible public utility services are located in common trenching in order to minimise the land required and the costs for underground services.	A2.1 Services are located next to each other in accordance with Council's Dubbo Branch policy for trenching allocation in footways (Standard Drawing 5268).

Performance criteria The infrastructure objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Availability of Services P3 Water supply and sewerage networks are available, accessible, easy to maintain and are cost-effective based on life cycle costs.	A3.1 Council will not consent to the subdivision of land until adequate water supply and facilities for sewage and drainage are available or until arrangements satisfactory to Council have been made for the provision of such supply and facilities. A3.2 Development is to be carried out within the water supply and sewer catchments as described by Council's Dubbo Branch, Section 64 Policy for Water and Sewerage. Note: Where water and/or sewer are available, any new allotments will be connected to the system. Where not available, refer to A3.1.

Element 5. Street Design and Road Hierarchy

Objectives

- To ensure streets fulfil their designated function within the street network;
- To facilitate public service utilities;
- Encourage street designs that accommodate drainage systems, and;
- Create safe and attractive street environments.

Performance criteria The street design and road hierarchy objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Function and Width	
P1 The street reserve width is sufficient to cater for all street functions, including: - Safe and efficient movement of all users, including pedestrians and cyclists; - Provision for parked vehicles; - Provision for landscaping; and - Location, construction and maintenance of public utilities.	A1.1 The road hierarchy complies with the relevant Residential Release Strategy. A1.2 The road hierarchy is designed and constructed in accordance with Aus-Spec (DCC version). A1.3 Road reserve widths are in conformity with the Dubbo Road Transportation Strategy to 2045. A1.4 The road layout provides appropriate connectivity as approved by Council, between adjoining residential estates for both vehicular and pedestrian movement.
P2 The verge width is sufficient to provide for special site conditions and future requirements.	A2.1 The verge width is increased where necessary to allow space for: - Larger scale landscaping; - Indented parking; - Future carriageway widening; - Retaining walls; - Cycle paths; and - Overland flow paths.
Design for Safety	
P3 Street design caters for all pedestrian users including the elderly, disabled and children by designing streets to limit the speed motorists can travel.	P3.1 The length of straight streets are limited to between 200m to 250m for a control speed of 50 km/hr.

Performance criteria The street design and road hierarchy objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	P3.2 Incorporating speed control devices (mostly for redesigning existing streets) such as: - Horizontal deflection devices: - Roundabouts; - Slow points; - Median islands; - Street narrowing; - Vertical deflection devices; - Speed humps and dips; and - Raised platforms at pedestrian crossings or thresholds.
Driveway Access P4 Driveway egress movements do not create a safety hazard.	A4.1 Motorists can enter or reverse from a residential lot in a single movement. A4.2 Motorists enter and leave medium density and non-residential developments in a forward direction. A4.3 Lot design enables driveways on major collector streets and streets which carry more than 3,000 vpd to be designed to promote forward movement of vehicles across the verge.
Geometric Design P5 Bus routes have a carriageway width that: - Allows for the movement of buses unimpeded by parked cars; - Safely accommodates cyclists; and - Avoids cars overtaking parked buses.	A5.1 The geometry of streets identified as bus routes provides suitable turning, stopping sight distance, grade and parking for buses.
P6 Geometric design for intersections, roundabouts and slow points is consistent with the vehicle speed intended for each street.	A6.1 Sufficient area is provided at the head of cul-de-sacs for waste disposal vehicles to make a three point turn.

Performance criteria The street design and road hierarchy objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
On-Street Parking P7 Car parking is provided in accordance with projected needs determined by: - The number and size of probable future dwellings; - The car parking requirements of likely future residents; - Availability of public transports. - Likely future onsite parking provisions; - Location of non-residential uses such as schools/shops; - The occasional need for overflow parking.	A7.1 One on-street parking space is to be provided per dwelling. These are to be located against the kerb or in pairs in parking bays constructed within the verge, located within 60m of each allotment.
Design P8 Car parking is designed and located to: - Conveniently and safely serve users, including pedestrians, cyclists and motorists; - Enable efficient use of car spaces and access ways including adequate manoeuvrability between the street and lots; - Fit in with adopted street network and hierarchy objectives and any related traffic movement plans; - Be cost effective; and - Achieve relevant streetscape objectives.	There is no applicable Acceptable Solution to this Performance Criteria.

Element 6. Pedestrian and Cycle Links

Objective

- To encourage walking and cycling by providing safe and convenient movement networks to points of attraction and beyond the development.

Performance criteria The pedestrian and cycle links objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Planning P1 The residential street and path network provides a network of pedestrian and cyclist routes, with connections to adjoining streets, open spaces and activity centres.	A1.1 Where a Traffic Calming Plan or an approved Pedestrian and Cyclist Plan exist, pedestrian and cyclist paths are provided in accordance with that Plan. A1.2 Pedestrian and cycle paths are provided in accordance with the Dubbo Strategic Open Space Master Plan. A1.3 A network of footpaths and cycle routes is provided that accounts for: - The need to encourage walking and cycling; - Likely users (eg school children, parents with prams, aged/, commuter and cyclists); - Opportunities to link open space networks and community facilities including public transport, local activity centres, schools and neighbouring shopping centres; - Topography; and - Cyclist and pedestrian safety.
Location and Design P2 The alignment of paths allows safe and convenient use by pedestrians and cyclists and is varied to preserve trees and other significant features. A focus on vistas and landmarks adds visual interest where they exist.	There is no applicable Acceptable Solution to this Performance Criteria.

Performance criteria The pedestrian and cycle links objectives may be achieved where:		**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:	
P3	Footpaths and cycle ways are well-lit and located where there is casual surveillance.	P3.1	Lighting conforms to AS/NZ 1158.1.
P4	Footpaths or shared paths are designed and constructed at appropriate widths, longitudinal gradient and sight distance to cater for the number of projected pedestrians and cyclists and user types (e.g. the aged, the very young, people with prams and people with disabilities).	A4.1	Collector streets on which there is access to lots or where there is a planned pedestrian or cyclist path are provided with a separate path on each side clear of the carriageway pavement.
		A4.2	A pedestrian (only) footpath, where required, is 1.2 m wide and is constructed of concrete or paving block for the full width and is located central to the existing or proposed kerb. Shared pedestrian and cyclist paths shall be 2.5 metres in width.
		A4.3	Footpaths are widened to full width in the vicinity of meeting points, schools, shops and other activity centres.
		A4.4	Maximum longitudinal gradient of cycle paths is no greater than that at any adjacent street pavement.
P5	Provision is made for the location of seats in appropriate places.	A5.1	Seats to be provided in accordance with the requirements of Council's Dubbo Branch, Parks and Landcare Services Division.
P6	There is adequate provision for passing with paths widened at potential conflict points or junctions on high-use facilities to allow for passing of pedestrians/cyclists.	A6.1	Paths are widened at potential conflict points or junctions in areas of high use such as schools, corner stores etc.

Performance criteria The pedestrian and cycle links objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Safe Crossings P7 Safe street crossings are provided for all street users with safe sight distances and adequate pavement markings, warning signs and safety rails (where appropriate for cyclists).	A7.1 Where traffic volumes exceed 3,000 vpd or speeds exceed 50 km/hr, safe crossings are created with the use of pedestrian refuges, slow points, thresholds or other appropriate mechanisms A7.2 Pram and wheelchair crossings are provided at all kerbs and are adequately designed for this purpose as well as assisting sight-impaired people.
Construction P8 Pedestrian and cyclist paths are constructed to provide a stable surface for projected users and is easily maintained.	There is no applicable Acceptable Solution to this Performance Criteria.

Element 7. Stormwater Management

Objectives

- To provide major and minor drainage systems which:
  - Adequately protect people and the natural and built environments to an acceptable level of risk and in a cost effective manner in terms of initial costs and maintenance, and;
  - Contribute positively to environmental enhancement of catchment areas.
- To manage any water leaving the site (during construction and operation) with stormwater treatment measures.

Performance criteria The stormwater management objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
P1 Post development peak flows (up to 100 year ARI storm events) are limited to 'pre-development' levels.	A1.1 Water sensitive urban design or onsite bio-retention in the form of rain gardens, swales and absorption trenches are amalgamated into the design of the road network. A1.2 In areas where there is a likelihood of salinity impacts, infiltration shall not be used.
P2 The stormwater drainage system has the capacity to safely convey stormwater flows resulting from the relevant design storm under normal operating conditions, taking partial minor system blockage into account.	A2.1 The design and construction of the stormwater drainage system is in accordance with the requirements of Australian Rainfall and Runoff 1987 and Aus-Spec (Former Dubbo City Council version) Development Specification Series – Design and Development Specification Series – Construction. A2.2 Construction Certificate plans for subdivisions shall show all minor and major stormwater systems clearly defined and identified. Minor systems for residential areas are designed to cater for the 1 in 100 year storm event. These systems are to be evident as 'self-draining' without impacting on flooding of residential houses etc.

Performance criteria The stormwater management objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
P3 Natural streams and vegetation are retained wherever practicable and safe, to maximise community benefit.	A3.1 Natural streams and vegetation are incorporated into the stormwater drainage system for the subdivision and open space requirements.
P4 The stormwater system/drainage network is designed to ensure that there are no flow paths which would increase risk to public safety and property.	A4.1 While addressing the statutory requirements stated above, the incorporation of sports grounds and other less flood-sensitive land uses into the drainage corridor and the appropriate placement of detention basins.
P5 The system design allows for the safe passage of vehicles at reduced speeds on streets which have been affected by run-off from the relevant design storm.	A5.1 The system allows for the safe passage of vehicles at reduced speeds on streets which have been affected by run-off from a 20% AEP event.
Site Drainage P6 Subdivision design and layout provides for adequate site drainage.	A6.1 Where site topography prevents the discharge of stormwater directly to the street gutter or a Council controlled piped system, inter-allotment drainage is provided to accept run-off from all existing or future impervious areas that are likely to be directly connected. A6.2 The design and construction of the inter-allotment drainage system are in accordance with the requirements of Australian Rainfall and Runoff (1987) and Aus-Spec (Former Dubbo City Council version) Development Specification Series – Design and Development Specification Series – Construction.

Performance criteria The stormwater management objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Flooding P7.1 Where residences (new or existing) are proposed in flood-affected areas, these shall be protected from flood waters. P7.2 Flood-ways are developed in a manner which ensures that there is a low risk of property damage.	A7.1 Ground floors of residences are located at or above the 'flood planning level' to provide protection to life and property in accordance with the accepted level of risk.

Element 8. Water Quality Management

Objective

- To provide water quality management systems which:
  - Ensure that disturbance to natural stream systems is minimised, and;
  - Stormwater discharge to surface and underground receiving waters, during construction and in developing catchments, does not degrade the quality of water in the receiving areas.

Performance criteria The water quality management objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
P1 Adequate provision is made for measures during construction to ensure that the land form is stabilised and erosion is controlled.	A1.1 An Erosion and Sediment Control Plan is prepared by suitably qualified professionals using the 'Blue Book – Managing Urban Stormwater: Soils and Construction' and provided to Council.
P2 The system design optimises the interception, retention and removal of water-borne pollutants through the use of appropriate criteria prior to their discharge to receiving waters.	A2.1 The Erosion and Sediment Control Plan is to comply with the document 'Managing Urban Stormwater: Soils and Construction', produced by NSW Department of Housing.
P3 The system design minimises the environmental impact of urban run-off on surfaces receiving water quality and on other aspects of the natural environment, such as creek configuration and existing vegetation, by employing techniques which are appropriate and effective in reducing run-off and pollution travel.	A3.1 Water pollution control ponds or wetlands are developed (where appropriate) for final treatment before discharge to the wider environment and should be sited to minimise impacts on the natural environment. A3.2 Sensors are used to control watering systems.

2.2 Residential Design (Dwellings and Dual Occupancy)

This section is designed to encourage 'best practice' solutions and clearly explain requirements for the development of dwelling houses and dual occupancy development (attached or detached).

The objectives of this section are:

- To facilitate a mix of dwelling sizes complementing the character of the area and that provide accommodation for all sectors of the community; and
- To facilitate low density residential accommodation with an economic use of infrastructure.

This section lists design elements under the following headings:

Element 1	Streetscape character
Element 2	Building setbacks
Element 3	Solar access
Element 4	Private open space and landscaping
Element 5	Infrastructure
Element 6	Visual and acoustic privacy
Element 7	Vehicular access and car parking
Element 8	Waste management
Element 9	Site facilities
Element 10	Environmental Management
Element 11	Non-residential uses
Element 12	Signage

Each design element has been structured so that it contains:

- 'Objectives' describing the required outcomes;
- 'Performance criteria' outlining the range of matters that need to be addressed to satisfy the objectives (ie the performance criteria explains how an objective is to be achieved);

Note: Not all performance criteria will be applicable to every development.

- 'Acceptable solutions' are specific measures which illustrate one way of meeting both the performance criteria and objectives of an element. They are examples only and are not mandatory; and
- 'References' to relevant clauses of the Dubbo LEP 2011, other relevant legislation, Council policies and literature relevant to the design element.

Element 1. Streetscape Character

Objectives

- To design residential housing development to complement existing streetscape and neighbourhood character;
- To design residential housing in keeping with the desired future streetscape and neighbourhood character; and
- To provide a mix of dwelling sizes complementing the character of the area and that provide accommodation for all sectors of the community.

Performance criteria The streetscape character objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Built form	
P1 The frontage of buildings and their entries are readily apparent from the street.	A1.1 Buildings adjacent to the public street, address the street by having a front door facing the street. A1.2 The minimum frontage for dual occupancy developments is 15m. A1.3 Where dual occupancies are situated on corner blocks (where one is not a laneway), the development is designed to face each street frontage. A1.4 Dual occupancy development shall not be designed as 'mirror reversed'.
P2 The development is to be designed to respect and reinforce the positive characteristics of the neighbourhood, including: – Built form; – Bulk and scale; – Vegetation; and – Topography.	A2 Design elements to consider include: – Massing and proportions; – Roof form and pitch; – Façade articulation and detailing; – Window and door proportions; – Features such as verandahs, eaves and parapets; – Building materials, patterns, textures and colours; – Decorative elements; – Vehicular footpath crossing (location and width); – Fence styles; and – Building setbacks.

Performance criteria The streetscape character objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
P3 Walls visible from the street are adequately detailed for visual interest.	A3.1 This may be achieved by recesses, windows, projections or variations of colour, texture or materials. A3.2 Walls longer than 10 m are articulated with a variation of not less than 600 mm for a minimum length of 4 m.
P4 Garages and parking structures (carports) are sited and detailed to ensure they do not dominate the street frontage, integrate with features of the dwelling and do not dominate views of the dwelling from the street.	A4.1 The width of a garage door or parking structure facing the street shall not be greater than 50% of the total width of the front of the building for an allotment in excess of 12 m in width, measured at the street frontage. A4.2 Garages or parking structures are located in line with or behind the alignment of the front façade/ entrance of the dwelling, with a minimum setback of 5.5 m (see Element 2 – Building Setbacks), where the street frontage is in excess of 12 m.
Fencing P6 Fencing is consistent with the existing character of the area.	A6 Fences shall take elements from neighbouring properties where elements are representative of the character of the street.
P7 Front fences enable outlook from the development to the street or open space to facilitate surveillance and safety. Front fences provide noise attenuation on classified roads. Front fences provide security in areas where there is a difference of land use (eg residential, commercial or industrial).	A7.1 Front fences have a maximum height of 1.2 m if solid or less than 20% transparent and 1.5 m if greater than 50% transparent. A7.2 A front fence on the secondary frontage may have a maximum height of 1.8 m for 50% of the length of the boundary to the secondary road, which is measured from the corner splay of the primary road boundary. In addition,

Performance criteria The streetscape character objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	– The fence is constructed of materials which are consistent with those used in development on the site and adjoining developments; and – The fence is softened with the use of landscaping. A7.3 Solid front fences to main roads or highways for the purposes of noise attenuation may be considered to a height of 1.8 m provided that: – The fence does not exceed 5 m in length without articulation or detailing to provide visual interest; – The fence is constructed of materials which are consistent with those used in the development on the site and adjoining developments (other than solid metal panels or chain wire fencing); and – The fence is softened with the use of landscaping.
P8 Fencing style and materials reflect the local streetscape and do not cause undue overshadowing of adjoining development. Note: Barbed/razor wire or electrified fencing in residential areas is not permitted.	A8.1 Side fences on corner allotments are setback and/or articulated to provide for vegetation screening to soften the visual impact of the fence. A8.2 Side fences forward of the building line are not constructed of solid metal panels or chain wire fencing (including factory pre-coloured materials).

Performance criteria The streetscape character objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
P9 Fencing on corner allotments does not impede motorists' visibility at the intersection.	A9.1 Fencing is either splayed, setback, reduced in height or transparent to maintain visibility for motorists. Note: The extent of the splay will be determined by Council in consideration of the characteristics of the road and the radius of the kerb return.
P10 Gates are designed to ensure pedestrian and motorist safety. Note: Gates are not permitted to open across the footpath (Clause 21, Roads Regulation 2008).	A10.1 Where a driveway is provided through a solid fence, adequate visibility for the driver is maintained.

Element 2. Building Setbacks

Objectives

- To ensure that the setback of a building from the property boundaries, the height and length of walls, site coverage and visual bulk are acceptable in the neighbouring setting, and;
- To ensure habitable rooms of dwellings and private open space within the development and in adjacent development can receive adequate sunlight, ventilation and amenity.

Performance criteria The building setback objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
P1 **Front Boundary Setback – Dwellings and ancillary structures** The setback of the development from the front boundary of the allotment is consistent with established setbacks, or is consistent with the desired amenity of the locality. Residential development on corner allotments shall address both street frontages. Note**:** The setback is measured from the property boundary to the first vertical structural element of the development. No portico, posts, etc shall be any closer than the stated setback. Note: This applies to a dwelling house and any ancillary structure that is attached or detached to a dwelling house.	**Primary Frontage** A1.1 Minimum setback of 4.5 m from the front property boundary where no streetscape setback has been established. A1.2 In established areas, infill development is to be setback the average of the front building setbacks of the adjoining and adjacent dwellings, if the difference between the setbacks of the adjoining buildings is greater than 2 m. Alternatively, a dwelling may be progressively stepped in as detailed in Figure 6. **Secondary Frontage** A1.3 The secondary (side) setback is 3 m. Where the corner is splayed, residential development is designed accordingly.
P2 **Side and rear boundary setbacks – dwellings** The setback of the development from the side and rear boundaries of the allotment is consistent with established setbacks or is consistent with the desired amenity of the locality. Note: The setback is measured from the property boundary to the first vertical	A2.1 Residential development is setback such that it complies with the requirements of the Building Code of Australia (BCA).

Performance criteria The building setback objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
structural element of the development. No portico, posts etc. shall be any closer than the stated setback. Note: This applies to a dwelling house and any ancillary structure that is attached or detached to a dwelling house.	
P3 **Front boundary setback – garages and carports** The location of garages and carports does not diminish the attractiveness of the streetscape, does not dominate views of the dwelling from the street and integrates with features of associated dwellings.	**Primary frontage** A3.1 Garages and carports are setback a minimum of 5.5 m from the front property boundary and in line with or behind the alignment of the front façade of the dwelling. This does not apply to allotments where the frontage is less than 12 m in width. **Secondary frontage** A3.2 Garages and carports on secondary frontages of corner allotments may extend beyond the alignment of the secondary façade of the dwelling and shall achieve a minimum 5.5 m setback from the secondary property boundary (see Figure 7).
P4 **Side and rear boundary setbacks – garages and carports** The location of garages and carports does not diminish the attractiveness of the locality and integrates with features of associated dwellings.	A4.1 Garages and carports are setback such that they comply with the requirements of the Building Code of Australia. Where a garage or carport is provided on a secondary street frontage, regular building setback requirements of this Plan are applicable.

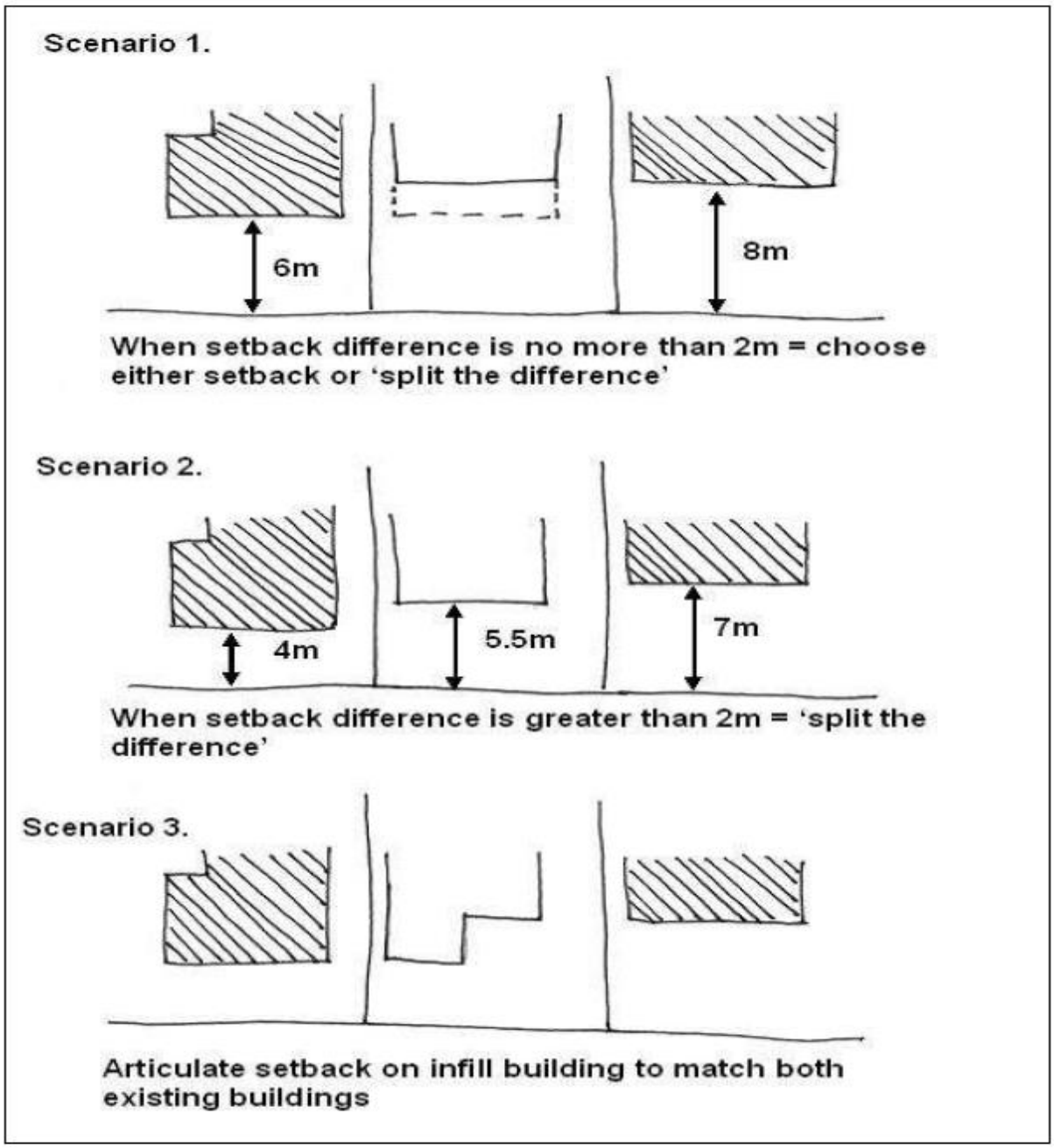


Figure 6. Setbacks for infill development in established areas

PRIMARY FRONTAGE

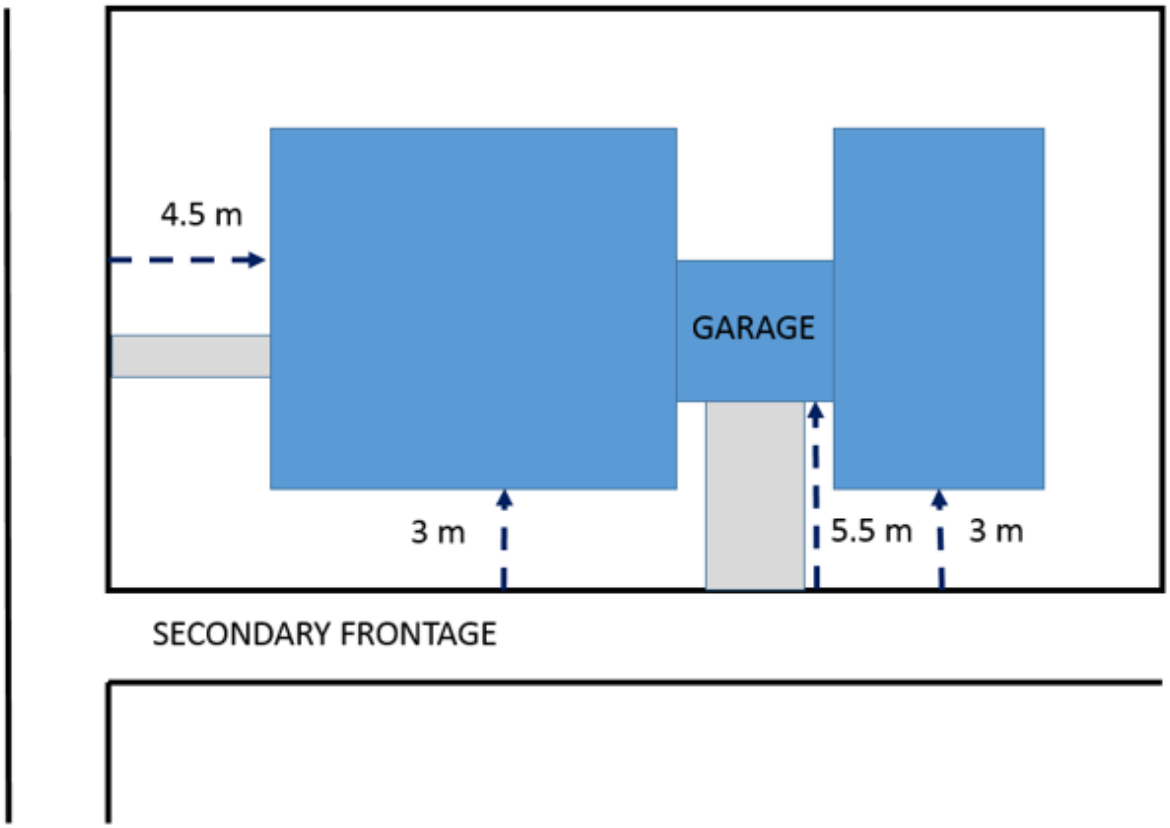


Figure 7. Corner allotment with the main entry to the primary road and the garage to the secondary road, with a setback minimum of 5.5 metres

Element 3. Solar Access

Objectives

- To ensure all development provides an acceptable level of solar access for occupants, and;
- To ensure development does not significantly impact on the solar access and amenity of adjoining and adjacent allotments.

Performance criteria The solar access objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Solar Access P1 Development is designed to ensure solar access is available to habitable rooms, solar collectors (photovoltaic panels, solar hot water systems etc.) private open space and clothes drying facilities. Note 1: Council requires the submission of a shadow diagram to demonstrate the impact of overshadowing on adjoining and adjacent allotments for any residential development above single storey. Shadow diagrams are to be prepared for 9 am, 12 noon and 3 pm on 22 June. The shadow diagrams are to demonstrate the extent of overshadowing of the proposed and existing development on the subject land and adjacent sites. Note 2: The length of shadows cast by the sun in Dubbo for 22 June is able to be calculated using the information provided at the end of this element.	A1.1 Dwellings are sited in accordance with Figure 8. A1.2 On east/west orientated lots, the setback on the north-side of the lot is increased to allow for maximum solar access to habitable rooms located on the north-side of the dwelling. A1.3 A roof area sufficient to meet the space requirements for a solar hot water service is provided where it faces within 20^{o} of north and receives direct sunlight between the hours of 9 am and 3 pm on 22 June. A1.4 Outdoor clothes drying areas are located to ensure adequate sunlight and ventilation are provided between the hours of 9 am and 3 pm on 22 June to a plane of 1 m above the finished ground-level under the drying lines.
P2 The proposed development does not reduce the level of solar access currently enjoyed by adjoining or adjacent allotments.	A2.1 Habitable rooms of adjoining development receive a minimum of four hours solar access between the hours of 9 am and 3 pm on 22 June.

Performance criteria The solar access objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	A2.2 Principal private open space (PPOS) of adjoining and adjacent development receives a minimum of four hours solar access over 75% of the principal private open space area between 9 am and 3 pm on 22 June. A2.3 Landscaping is designed to ensure that when mature, required areas of private open space or established BBQ/pergola areas on adjoining allotments maintain solar access on 22 June in accordance with A2.2. A2.4 The solar impact of development shall be shown with the submission of shadow diagrams taken on 22 June (winter solstice).

House orientation not encouraged

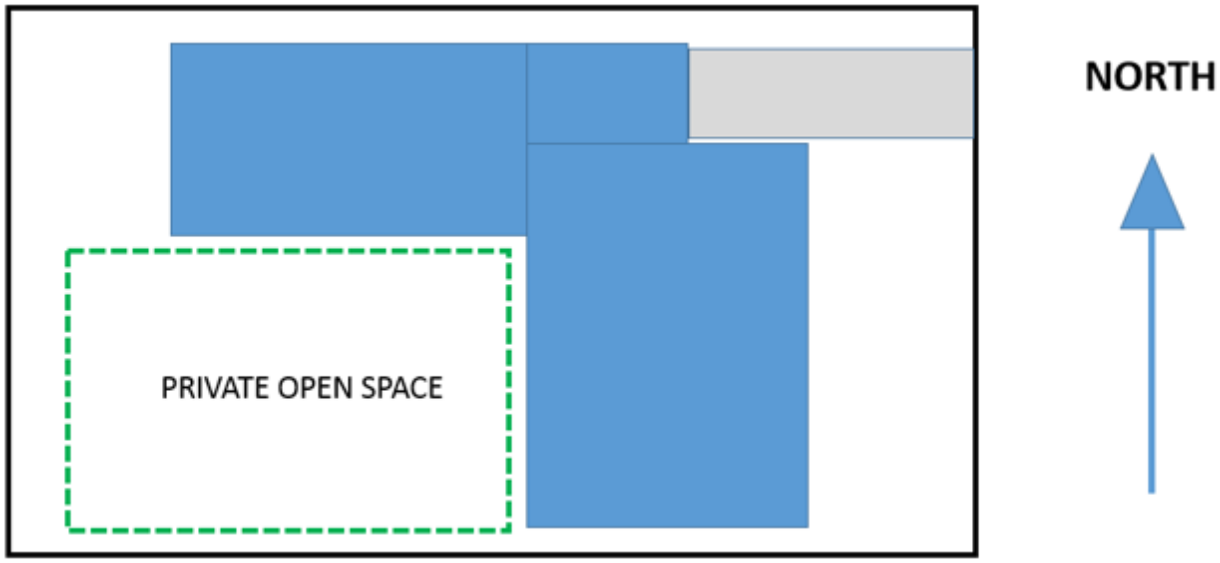


Figure 8. Siting of dwellings on east/west lots

Rationale

A dwelling built close to the northern boundary results in little to no winter sunlight being able to enter habitable rooms in the dwelling. The location of the house increases the shading of the private open space area.

House orientation encouraged

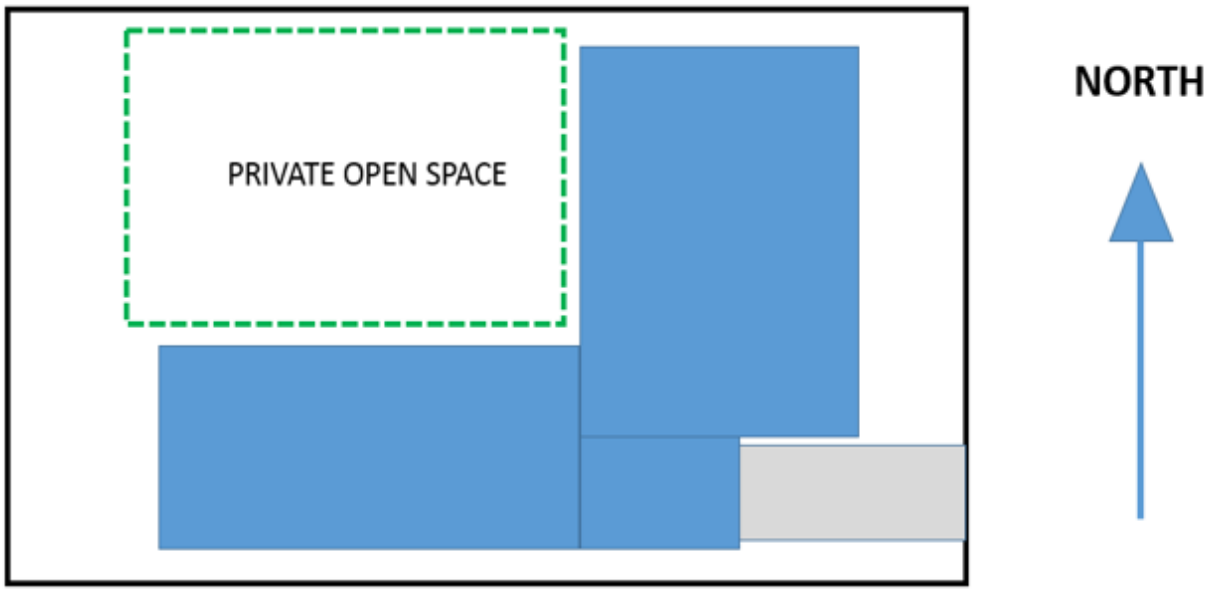


Figure 8. Siting of dwellings on east/west lots

Rationale

A dwelling built close to the southern boundary enables winter sunlight to enter habitable rooms in the dwelling. Good solar access is available to private open space during winter.

Element 4. Private Open Space and Landscaping

Objectives

- To provide private outdoor open space that is well-integrated with the development and is of sufficient area to meet the needs of occupants;
- To provide a pleasant, safe and attractive level of residential amenity, and;
- To ensure landscaping is appropriate in nature and scale for the site and the local environment.

Performance criteria The private open space and landscaping objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Private Open Space P1 Private open space is of an area and dimension facilitating its intended use. Note: See Element 3 – Solar Access requirements for private open space development in residential areas.	A1.1 Dwelling houses and dual occupancy developments shall have a Principal Private Open Space (PPOS) area, in addition to the general Private Open Space (POS). A1.2 The PPOS area has a minimum area per dwelling of 25 m^2 and a minimum dimension of 5 m. This area can include covered (not enclosed) outdoor entertainment areas. A1.3 Dwelling houses and dual occupancies have an overall minimum POS area (including PPOS) of 20% of the site area (excluding the area located forward of the front building line).
P2 Private open space is easily accessible by the occupants of the development and provides an acceptable level of privacy.	A2.1 All Principal Private Open Space (PPOS) is directly accessible from the main living area. A2.2 All private open space is located behind the front building line and is screened to provide for the privacy of occupants and the occupants of adjoining properties.

Performance criteria The private open space and landscaping objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Landscaping	
P3 Landscaping is provided at a scale and density which is appropriate for the development.	A3.1 Landscaping is provided in accordance with the requirements of the Landscaping Schedule. A3.2 The height and density of vegetation at maturity should be suitable to screen and soften the development. A3.3 A landscape plan is required to be provided for assessment with the lodgement of development applications for dual occupancy developments.
P4 Landscaping is located to not impact infrastructure, development on the site or development adjoining the site.	A4.1 Species are selected and located taking into consideration the size of the root zone of the tree at maturity and the likelihood of potential for the tree to shed/drop material. A4.2 Landscape species are selected and located to ensure the amenity of adjoining and adjacent properties is not impacted. This shall ensure that inappropriate vegetation is not provided that reduces the level of solar access enjoyed by adjoining and adjacent properties and is likely to provide any safety impacts to residents.
P5 Landscaping activities are undertaken in an environmentally sustainable manner which limits the time and costs associated with maintenance.	A5.1 Existing native trees are retained. A5.2 Species selected are suitable for the local climate. A5.3 Species selected require a minimal amount of watering (Waterwise Garden).

Performance criteria The private open space and landscaping objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	A5.4 Landscaping does not impact ground-water levels by over watering resulting in ground-water level increases or the pollution of waters. A5.5 Landscaping is provided with a timed watering system and moisture meter to determine if watering is required. A5.6 Sensors are used to control watering systems (see also Element 9).

Element 5. Infrastructure

Objectives

- To encourage residential development in areas where is can take advantage of existing physical and social infrastructure;
- To ensure infrastructure has the capacity or can be economically extended to accommodate new residential development;
- To efficiently provide development with appropriate physical services, and;
- To minimise the impact of increased stormwater run-off to drainage systems.

Performance criteria The infrastructure objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
P1 Residential development shall not overload the capacity of public infrastructure including reticulated services, streets, open space and human services.	A1.1 Physical infrastructure is provided by the proponent in accordance with the former Dubbo City Council's adopted version of NAT Spec and relevant policies.
P2 Design and layout of residential development provides space (including easements) and facilities to enable efficient and cost-effective provision of telecommunication services.	A2.1 Development is connected to a telecommunication system provided in accordance with the requirements of the appropriate authority.
P3 The development is connected to reticulated sewerage, water supply and electricity systems and to natural gas where available.	A3.1 Development is connected to Council's reticulated water supply, stormwater drainage and sewerage system to the former Dubbo City Council's adopted version of AUSPEC and relevant policies (including separate water meters where the development is to be subdivided). A3.2 Development is located where ready access to an electricity supply is available or where electricity supply can be easily extended. A3.3 Where Council sewerage services are not available, an approved effluent disposal system is installed and located so it is not: - Situated on flood-affected land;

Performance criteria The infrastructure objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	- Within or adjacent to drainage lines; and - Likely to contaminate any surface or groundwater supplies.
P4 In areas where drainage infrastructure has little or no excess capacity, developments which would generate stormwater run-off beyond that equivalent to 35% site cover (or beyond that presently generated by the site if greater) should provide for stormwater drainage mitigation or upgrading of the local drainage system.	A4.1 Onsite stormwater detention shall be provided with delayed release into the stormwater system. A4.2 Minimal impervious areas shall be provided.

Element 6. Visual and Acoustic Privacy

Objectives

- To limit overlooking of private open space and views into neighbouring development;
- To substantially contain noise within each dwelling and to limit noise from communal areas or shared facilities affecting nearby dwellings, and;
- To protect internal living and sleeping areas from inappropriate levels of external noise.

Performance criteria The visual acoustic and privacy objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Visual Privacy P1 Private open spaces and living rooms of adjacent residential accommodation are protected from direct overlooking by an appropriate layout, screening device and distance. Note: No screening is required if: - Bathrooms, toilets, laundries, storage rooms or other non-habitable rooms have translucent glazing or sill heights of at least 1.5 m. - Habitable rooms having sill heights of 1.5 m or greater above floor level or translucent glazing to any window less than 1.5 m above floor level. - Habitable rooms facing a property boundary have a visual barrier of at least 1.5 m high (fences and barriers other than landscaping are not to be any higher than 1.8 m) and the floor level of the room is less than 0.6 m above the level of the ground at the boundary.	A1.1 Windows of habitable rooms with an outlook to habitable room windows in adjacent development within 10 m: - Are offset a minimum distance of 1 m from the edge of the opposite window in the proposed development; - Have a sill height of 1.5 m above floor level; - Have a fixed obscure glazing in any window pane below 1.5 m above floor level; or - Have screens which obscure the view from habitable room windows, balconies, stairs, landings, terraces and decks or other private, communal or public areas within a development into private open space and/or habitable rooms of existing residential accommodation. A1.2 Screens are solid, translucent or perforated panels or trellis which: - Have a minimum of 25% openings; - Are permanent and fixed; - Are of durable materials such as galvanised steel, iodised aluminium or treated timber; and

Performance criteria The visual acoustic and privacy objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
	- Are painted or coloured to blend in with the surrounding environment. A1.3 Windows and balconies of residential accommodation shall be designed to prevent overlooking of more than 50% of the private open space of any adjoining residential accommodation.
Acoustic Privacy P2 The transmission of noise to and the impact upon habitable rooms within the proposed development and adjoining and adjacent development is minimised.	A2.1 Living rooms or garages of residential development does not adjoin or abut bedrooms of adjacent residential development. A2.2 The plumbing of residential development and is separate and contained sufficiently to prevent transmission of noise. A2.3 Electrical, mechanical or hydraulic equipment or plant generating a noise level no greater than 5dBA above ambient L90 sound level at the boundary of the property. A2.4 Dividing walls and floors between residential uses are constructed in order to comply with the requirements of part F5 of the BCA (Class 2 and 3 buildings only). A2.5 Residential development is constructed to ensure habitable rooms are not exposed to noise levels in excess of the standards contained in the relevant Australian Standard(s) including AS 3671 – Road Traffic.

Element 7. Vehicular access and car parking

Objectives

- To provide adequate and convenient parking for residents, visitors and service vehicles;
- To ensure street and access ways provide safe and convenient vehicle access to dwellings and can be efficiently managed; and
- To avoid parking and traffic difficulties in the development and the neighbourhood.

Performance criteria The vehicular access and car parking objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Parking Provision P1 Car parking is provided according to projected needs, the location of the land and the characteristics of the immediate locality.	A1.1 Dwelling houses and dual occupancy development provides the following vehicle parking: - One bedroom dwelling – one car parking space per dwelling, situated behind the front building setback; and - Dwelling with two or more bedrooms – two car parking spaces per dwelling. At least one of the required spaces shall be situated behind the front building setback.
Design P2 Car parking facilities are designed and located to: - Conveniently and safely serve users including pedestrians, cyclists and vehicles; - Enable efficient use of car spaces and access ways including adequate manoeuvrability for vehicles between the street and the lot; - Conform to the adopted street network hierarchy and objectives of the hierarchy and along with any related local traffic management plans; - Be cost effective; and - Protect the streetscape.	A2.1 The dimensions of car spaces and access comply with AS2890.1. A2.2 Access ways and driveways are designed to enable vehicles to enter the designated parking space in a single turning movement and leave the space in no more than two turning movements. A2.3 Where five or more car spaces (or three or more dwellings) are served, or a driveway connects to a distributor road, manoeuvring space is provided to make it unnecessary for cars to reverse on to or off the road. The entrance is at least 5 m wide for a

Performance criteria The vehicular access and car parking objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
	distance of 7 m to allow vehicles to pass each other. A2.4 The design and appearance of garages and carports shall: - Be in line with or behind the alignment of the front façade of the dwelling (noting that they cannot be less than 5.5 m from the front property boundary in the R2 zone); - Garages and carports on secondary frontages of corner allotments may extend beyond the alignment of the secondary façade of the dwelling but shall achieve a minimum 5.5 m setback from the secondary property boundary; - Lots with a narrow frontage of 15 m or less have a single width garage/carport; - Large parking areas are broken up with trees, buildings or different surface treatments; - Parking is located so that the front windows of a dwelling are not obscured; - The dwelling design highlights the entry and front rooms rather than the garage; and - Garages are located under the roof of two-storey dwellings.
Emergency Vehicle Access P3 Standing and turning areas for service, emergency or delivery vehicles are provided where access to any dwelling from a public street is remote or difficult.	A3.1 Access ways are designed to cater for an 'AUSTROADS 8.8 m length Design Service Vehicle'.

Performance criteria The vehicular access and car parking objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Surface Treatment P4 Driveways, car parks and access points are designed in accordance with Section 3.5 Parking.	A4.1 Car spaces, accessways and driveways are formed, defined and drained to a Council drainage system and surfaced with: - An all-weather seal such as concrete, coloured concrete, asphalt or mortared pavers. - Stable, smooth, semi-porous paving material (such as brick, stone or concrete pavers) laid to the paving standard of light vehicle use.
Location of Driveways and Accessways from Residential Uses P5 Shared driveways, accessways and car parks of other dwellings are setback from habitable rooms of adjoining residential uses to enhance resident's privacy.	A5.1 Shared driveways, accessways and car parks of other residential uses are setback a minimum of 1.5 m from windows to habitable rooms of residential accommodation unless the floor level of the dwelling is at least 1 m above the driveway. The setback may be reduced to 1.0 m when the driveway etc. is bound by a fence of 1.5 m in height.

Element 8. Waste Management

Objective

- To ensure waste disposal is carried out in a manner which is environmentally responsible and sustainable.

Performance criteria The waste management objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Domestic Solid Waste	
P1 Domestic solid waste is disposed of in an environmentally responsible and legal manner.	A1.1 Residential development shall participate in Council's garbage and recycling materials collection service. A1.2 Organic waste shall be composted. A1.3 Recycling of wastes such as paper (mulch in garden), plastics, glass and aluminium. A1.4 Reuse of waste such as timber. A1.5 Dispose of waste to a Council-approved waste facility or transfer station.
P2 The amount of liquid waste generated is minimised.	A2.1 Dual-flush toilet systems and water saving fittings and appliances shall be used.
P3 Adequate space is provided to store waste collection bins in a position which will not adversely impact upon the amenity of the area.	A3.1 Waste collection bins are stored behind the building line.

Element 9. Site Facilities

Objective

- To ensure that site facilities are functional, readily accessed from dwellings, visually attractive, blend in with the development and street character and require minimal maintenance.

Performance criteria The site facilities objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Mail Boxes P1 Mail boxes are located for convenient access by residents and the delivery authority.	A1.1 Individual mail boxes are located to each ground-floor entry of residential accommodation or a mail box structure is located close to the major pedestrian entrance to the site.
Antennae P2 Telecommunications facilities are provided to serve the needs of residents and do not present any adverse visual impacts.	A2.1 The number of television antennae and other receiving structures is kept to a minimum or, where appropriate, a receiver is provided to serve all dwellings within a single building.

Element 10. Non-Residential Uses

Objective

- To ensure non-residential development is of a type, scale and character which will maintain an acceptable level of amenity.

Performance criteria The non-residential uses objective may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Amenity P1 Non-residential use does not result in detrimental impacts to residential amenity having regard to traffic, parking, noise, odour, signage and safety.	A1.1 The scale and character of non-residential buildings is compatible with the residential nature of the locality. A1.2 The level of noise and volume of traffic is not greater than the expected level associated with the regular activities of a residential area. A1.3 Car parking is provided and designed appropriate for the site. A1.4 Traffic can manoeuvre in and out of the site in a forward direction. A1.5 Noise from the development does not exceed the background noise level (LA90) by more than 5dB(A) during approved business hours and does not exceed the background noise level at any frequency outside approved business hours. A1.6 Hours of operation are to be restricted to normal business hours.

Element 11. Signage

Objectives

- The residential character of the locality is maintained; and
- Any signage is appropriate for the locality and does not detract from the development or the street character.

Performance criteria The signage objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
Signage P1 Signs are appropriate for the nature of the business and the locality.	A1.1 Signage shall: - Be non-moving; - Relate to the lawful use of the building (except for temporary signs) on which the sign is located; - Not be detrimental to the character and functioning of the building; - Not cover mechanical ventilation inlet or outlet vents; - Not obstruct the sight line of vehicular traffic; - Not obstruct pedestrian traffic; and - Not be illuminated or flashing.
Business Identification Signage P2 Signs are appropriate for the nature of the business and the locality.	A2.1 Home-based child care, home business, home industry and home occupation development signage shall: - Meet the general requirements for signage (P1); - Have one sign per premises. - Have a maximum area — 0.75 m2; and - Not advertise specific products or brands. Note: Signs meeting the above requirements will not require development approval.

Performance criteria The signage objectives may be achieved where:	**Acceptable solutions** The acceptable solutions illustrate one way of meeting the associated performance criteria:
	A2.2 Permissible non-residential development signage shall: - Meet the general requirements for signage (P1); - Have one sign per premises; and - Have a maximum area 1.5 m^2. Note: Signs meeting the above requirements will not require development approval.
Real Estate Signs (Advertising Premises or Land Sale or Rent) P3 Signs are appropriate for the residential locality and are of a temporary nature.	A3.1 Real estate signage shall: - Meet the general requirements for signage (P1); - Have a maximum area—3 m^2; and - Be removed within seven days after the premises or land is sold or let. Note: Signs meeting the above requirements will not require development approval.
Temporary Signs (Special Events) P4 Signs are appropriate for the residential locality and are of a temporary nature.	A4.1 Temporary (special events) signage shall: - Meet the general requirements for signage (P1); - Have a maximum of two signs onsite; - Have a maximum one sign off site, which if located in a road reserve shall be acceptable to the relevant road authority in terms of location, traffic and pedestrian safety; - Have a maximum area 1.5 m^2 and maximum height of 1.5 m; - Not include commercial advertising apart from the name of any event sponsors; and

Performance criteria The signage objectives may be achieved where:	Acceptable solutions The acceptable solutions illustrate one way of meeting the associated performance criteria:
	- Not be displayed earlier than one month before or later than two days after the event. Note: Signs meeting the above requirements will not require development approval.