

Chapter 10

North Lismore Plateau

Urban Release Area



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1.0 Introduction

1.1 Name and application of this DCP Chapter

This Development Control Plan (DCP) Chapter is called the North Lismore Plateau Urban Release Area Development Control Plan Chapter. North Lismore Plateau is a new urban release area located approximately 1.5 kilometres north-west of the Lismore CBD, as shown in **Figure 1**. This DCP Chapter provides the coordination, urban design principles and an overall structure for future development of the urban release area. This DCP Chapter applies to development in the North Lismore Plateau Urban Release Area that is identified as permitted development within the following Land Use Tables of the *Lismore Local Environmental Plan 2012* (LEP).

- R1 – General Residential
- B1 – Neighbourhood Centre
- E2 – Environmental Conservation
- E3 – Environmental Management

1.2 Planning Background

North Lismore Plateau is identified in regional and local planning strategies, the '*Far North Coast Regional Strategy*' and the '*Lismore Urban Strategy*' as land potentially suitable for future urban development. In 2010 – 2011, the potential of the site for urban development was further explored through a series of strategic planning workshops (referred to as design charrettes). At the workshops the key issues that require consideration in the planning of the North Lismore Plateau, were identified and a draft structure plan was developed for the site. Since then, detailed investigations and comprehensive constraints mapping have been undertaken, all of which have informed the preparation of this DCP.

1.3 Purpose

The purpose of this DCP Chapter is to set out the vision, objectives and acceptable development solutions for the future development of the North Lismore Plateau area in order to achieve a coordinated and consistent approach to the subdivision and subsequent built form for the area. The DCP Chapter is intended to promote high quality urban design outcomes for the area within the context of environmental, social and economic sustainability.

1.4 Relationship to other plans

This DCP Chapter is to be read in conjunction with the *Lismore Local Environmental Plan 2012* and other Chapters within the *Lismore Development Control Plan* (DCP). In the event that any inconsistency arises from the reading of these documents and from the reading of this DCP Chapter the following applies:

- a) The development standards in the *Lismore Local Environmental Plan 2012* prevail over any development controls in this DCP Chapter; and
- b) The development controls in this DCP Chapter prevail over any development controls within the remaining components of the *Lismore Development Control Plan*.

1.5 How does this DCP chapter work?

Specific requirements for various forms of development addressed by this Chapter are divided into the primary *Elements* of the particular type of development. *Elements* comprise *Element Objectives*, *Performance Criteria* and *Acceptable Solutions*. In some cases both *Performance Criteria* and *Acceptable Solutions* are specified, but in other cases only *Performance Criteria* are specified. Every development proposal must meet the *Element Objectives*. This will usually be achieved by meeting the *Acceptable Solutions*. The *Acceptable Solutions* are options that Council considers will meet the *Element Objectives* and *Performance Criteria* of the particular *Element*. Alternatively, Council may be prepared to approve development proposals that are demonstrated to meet both the *Element Objectives* and the *Performance Criteria*. This provision enables the development of innovative schemes that meet the particular characteristics of an individual site.

1.6 Structure of this DCP Chapter

This DCP Chapter comprises the following parts:

Section	
Section 1	Introduction Section 1 sets out the administrative provisions of the DCP Chapter and provides definitions of terms used.
Section 2	Vision & Future Character Section 2 provides a vision statement for the development of the North Lismore Plateau urban release area which provides a snapshot of the potentials and desired outcomes for development of the land.
Section 3	Development Principles Section 3 outlines twelve principles which are the broad urban design objectives that Council is seeking to achieve in the design and future development of urban release area. The principles are intended to guide the planning for the development.
Section 4	Aboriginal Cultural Heritage Section 4 acknowledges the high value and importance of the North Lismore Plateau to Aboriginal people and sets out a framework for conservation and on-going management of the cultural heritage values of the land.
Section 5	Cultural Heritage Section 5 provides controls for conservation of all other heritage.
Section 6	Subdivision This section contains the Element Objectives, Performance Criteria and Acceptable Solutions for the overall design and layout of the subdivision, including management of the existing natural drainage lines, flora and fauna within the site and treatment of proposed new streets, pathway network, parks and bushland reserves.
Section 7	Residential Development This section contains the Element Objectives, Performance Criteria and Acceptable Solutions for the housing anticipated in the urban release area.
Section 8	Neighbourhood Centre Development This section contains the Element Objectives, Performance Criteria and Acceptable Solutions for the creation of a multi-purpose centre for retail and community facilities, that will provide a social hub for the community.

1.7 Definitions

A term or word used in this DCP Chapter has the same meaning as *Lismore Local Environmental Plan 2012* unless otherwise defined.

building line – means the closest part of the front elevation of the building to the front property boundary (e.g. the street frontage).

dbhob – means diameter at breast height over bark.

habitable room – has the same meaning as defined by the Building Code of Australia.

lot – means an allotment of land.

major subdivision – means a subdivision proposal to create more than 10 allotments (based on the minimum lot size for North Lismore Plateau of 300m²).

medium density – means a residential development containing three or more dwellings on one site.

net density - means the number of dwellings per hectare on land used for residential lots plus the area of local roads and parks. It is calculated by adding the area of residential lots to the area of local roads and parks, and then dividing by the number of dwellings created. Excludes higher and middle order roads (freeways down to trunk collector) and all other types of open space and non-residential land uses, but includes mixed use containing residential (RPS, 2013).

NLP – means the North Lismore Plateau land release area.

place-making – means a multi-faceted approach to the planning, design and management of public spaces. It involves looking at, listening to, and asking questions of the people who live, work and play in a particular space, to discover their needs, aspirations and what they value about a place. This information is then used to create a common vision for that place. Placemaking capitalizes on a local community's assets, inspiration, and potential, ultimately creating good public spaces that promote people's health, happiness, and well-being (Source: Project for public spaces, 2009).

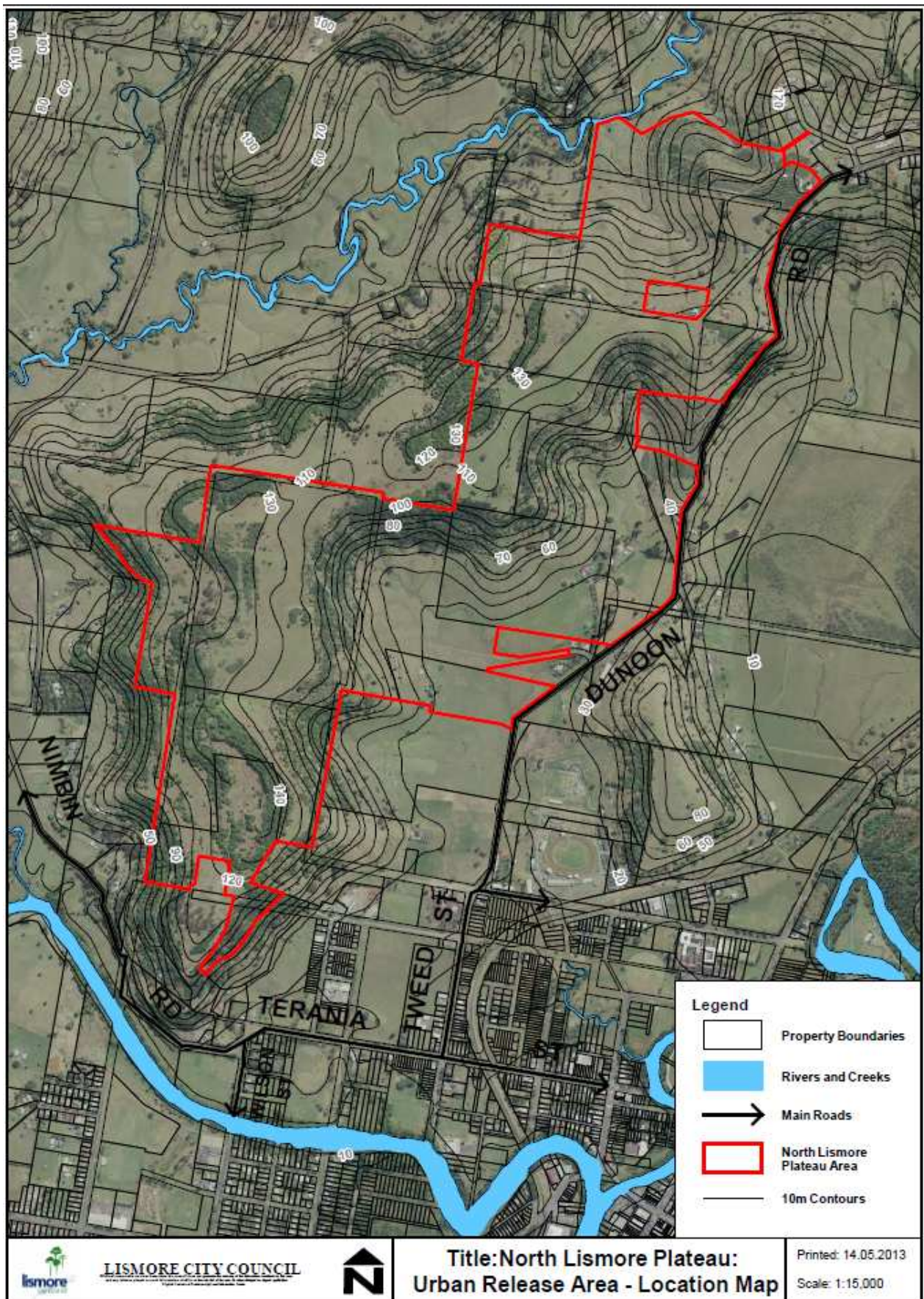
public space / public open space/ public domain/ public realm – means any outdoor area within the urban environment that is intended for public access and/or public use, including (but not limited to): parks, streets, outdoor plazas/ squares, bushland reserves, waterways, drainage lands, pedestrian footpaths and cycleways.

small lot - means an allotment of land which has an area of 400m² or less.

small lot housing – means dwellings on allotments that are between 300m² and 400m².

urban blocks – means a collection of individual residential lots.

Figure 1 Location Plan



2.0 Vision & Future Character

North Lismore Plateau represents a significant opportunity for the development of a substantially sized residential community located in easy walking and cycling distance of the Lismore CBD and within a unique landscape setting rich in natural and cultural heritage values and with outstanding scenic qualities. The vision is to facilitate sustainable development that responds to and conserves the unique environmental attributes of the site and is well integrated with the existing urban fabric of Lismore.

It is anticipated that development at North Lismore Plateau will be predominantly residential in nature and will provide a variety of housing types. The aim is to deliver a range of housing options to meet the needs of people at different stages of life and different household structures.

The North Lismore Plateau will offer a street network that promotes a vibrant and friendly living space that will be inviting to walk, play and cycle in safety. The network will strive to provide equality between the various transport modes of walking, cycling, bussing and driving. Streets will be considered an extension to the open space network and will be attractively landscaped with species that reflect and support the local ecology.

A focal point of the development at North Lismore Plateau will be a neighbourhood centre providing local services such as a convenience store, childcare centre and community facilities. This community hub will be well connected by paths and cycleways to the residential area and adjacent parkland.

Another feature of the development will be its network of parks and public open spaces, interconnected by paths and cycleways, that will provide for a range of recreational experiences and will showcase the scenic bushland escarpment and outstanding views from the top of the elevated plateau.

The disused hard rock quarry in the southern part of the site, with its dramatic rock wall, has potential for development as an iconic, signature parkland within the North Lismore Plateau. With the cliff-face as a dramatic backdrop, a park in the base/ floor of the quarry has the potential to provide an attractive and exciting venue for recreational activities such as picnicking, off-road cycling, rock-climbing, weekend markets and performance events.

The quarry land is of particular significance to the local Aboriginal community and it is imperative that Aboriginal people are consulted and involved in any future planning for this area. With the traditional custodians' consent and involvement, there is potential for the cultural significance of the site to be celebrated through interpretive resources such as signage, visual artworks, performance and other special events.

Importantly, buildings within the development will be innovative in architectural design to reflect the sub-tropical climate in Lismore and to achieve sustainability outcomes in terms of reduced water and energy usage as well as being adaptable to cater for the evolving needs of residents.

The vision is for development at North Lismore Plateau to be exemplary in demonstrating best practice urban design and integrated environmental management outcomes, including water sensitive urban design and sustainable landscape management.

The North Lismore Plateau development has the potential to improve water quality in the Slater's Creek and Booerie Creek catchments. To treat stormwater from the new urban area, a detention basin is likely to be developed on top of the plateau on the eastern edge, linking to a constructed wetland at the base of the plateau. This basin/ wetland could be linked (via the Lismore Showground) to the proposed constructed wetland on Slater's Creek, creating an integrated wetland system. As well as improving stormwater quality, the wetland system could dually provide for recreational activities such as walking, cycling, picnicking and bird-watching. This wetland park would also function as an attractive gateway entry feature into the North Lismore Plateau from Dunoon Road.

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3.0 Development Principles

The following development principles support the vision for the site and are intended as broad aims to guide future planning and design of the subdivision and development at North Lismore Plateau. In this DCP, these principles are listed under the element objectives to which they relate.

Reference should also be made to the Australian Government's urban design guideline *Creating Places for People; an Urban Design Protocol for Australian Cities*. This guideline provides broad principles for urban design that take into account the unique characteristics of a location, people's enjoyment, experience and health, and encourages excellence and collaboration in the design and custodianship of urban places. The full protocol and website can be viewed at: www.urbandesign.gov.au. The urban design protocol is reflected in the development principles for North Lismore Plateau below:

Principle 1

Planning and design of the subdivision as a whole, and the individual buildings within it, must address key sustainable development principles and deliver, for example, reductions in water and energy consumption and generation of waste and greenhouse gases.

Principle 2

Residential development will include a diversity of lot sizes and dwelling types to provide greater choice and affordability in housing options.

Dwelling designs will be adaptable so they can service the needs of residents at different stages of life.

Higher density residential development will be encouraged in locations close to public transport nodes, open space areas or centres.

Principle 3

Neighbourhood centre development will promote mixed use outcomes by providing opportunity for a range of residential, retail, commercial as well as community uses.

The new centre will be well connected to existing adjacent development and social infrastructure by pedestrian/ cycle path links and public transport.

Principle 4

Development will provide innovative, well-designed buildings that are site responsive, water and energy efficient, sustainable, of appropriate scale and contribute positively towards desirable local character and amenity.

Buildings will be designed to address and activate the public realm, to create safe and comfortable public streets and open space areas that encourage walking, social interaction and use of local facilities.

Principle 5

The development will offer a street network ranging from laneways through to major collectors that promotes a vibrant living and friendly space that will be inviting to walk, play and cycle in safety. The network will strive to provide equality between the various transport modes of walking, cycling, bussing and driving. Streets will be considered an extension to the open space network and will be attractively landscaped with species that reflect and support the local ecology.

The street network shall be of a permeable nature providing:

- High levels of internal accessibility and good external connections
- Manageable street spacing and intersection spacing providing walkable and economically efficient blocks
- Networks that are legible for active transport
- Public transport access.

Principle 6

Development will encourage active and healthy lifestyles through provision of interconnected open spaces with appropriate, aesthetic and accessible park infrastructure to support a range of active and passive recreational pursuits suited to the needs of the community.

Principle 7

Infrastructure and essential services such as sewerage, water and roads will be delivered in a timely manner to support the projected future population and meet community needs, without compromising the environmental values of the area.

Principle 8

Development will protect and improve ecological systems, biodiversity and the environmental values of the area. Areas of native vegetation which have inherent value in terms of conserving biodiversity, landscape visual amenity and/ or water quality will be retained and consolidated as an integral part of the development.

Principle 9

Development will conserve and protect landscape features that contribute towards desired local character and visual amenity such as significant views and vistas, existing trees and built or natural elements of cultural or visual significance.

Landscaping on public and private land within the development will reflect the native vegetation of the area, help to consolidate the wildlife corridor function of the land, minimise threats to native vegetation (such as weed invasion) and contribute to a desirable local landscape character.

Principle 10

Development incorporates the integration between urban planning and the management, protection and conservation of the urban water cycle while supporting healthy ecosystems, lifestyles and livelihoods through smart management of all water usage. This may be achieved by addressing the following fundamental principles

- Minimise impacts on existing natural features and ecological processes
- Minimise impacts on natural hydrologic behaviour of catchments
- Protect water quality of surface and ground waters
- Minimise demand on the reticulated water supply system
- Improve the quality of and minimise polluted water discharges to the natural environment
- Incorporate collection treatment and/or reuse of runoff, including roofwater and other stormwater
- Reduce run-off and peak flows from urban development
- Minimise wastewater generation
- Increase social amenity in urban areas through multi-purpose green space, landscaping and integrating water into the landscape to enhance visual, social, cultural and ecological values

- Add value while minimizing development costs (e.g. drainage infrastructure costs)
- Account for the nexus between water use and wider social and resource issues
- Harmonise sing water cycle practices across and within the institutions responsible for waterway health, flood management, pollution prevention and protection of social amenity.

Principle 11

Placemaking elements are incorporated in the design of public areas, like streets and parks, that contribute to a sense of local character and identity for the North Lismore Plateau, help to define and differentiate individual precincts within the development and assist with way-finding.

Principle 12

Development includes design measures for the protection of people, property and the environment from bushfire hazards.

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4.0 Aboriginal Cultural Heritage

Items and places of Aboriginal cultural heritage significance have been identified within the North Lismore Plateau land release area. Aboriginal Objects and Aboriginal Places are protected under Part 6 of the National Parks and Wildlife Act 1974 and there are legislative penalties if a person harms or desecrates an Aboriginal Place or Object (s.86). Four Aboriginal sites were identified during a heritage assessment undertaken in 2012 (see previous studies). These sites have since been registered on the 'NSW Aboriginal Heritage Information Management System' (AHIMS).

The 2012 Heritage Assessment Report (by Converge Heritage + Community) describes that "traditional Aboriginal people of the Lismore region were part of a large culturally connected group with a common language base that geographically occupied country north from the Clarence River at Grafton; as far as the Logan River in coastal south east Queensland; northwest to Warwick; and west to the Great Dividing Range around Tenterfield (Crowley, 1978; Steele 1984). The language is known today as Bundjalung, of which there were originally between one and two dozen separate dialects (Crowley, 1978). However, there remains throughout the region today different opinions and knowledge as to how many named and separate cultural groups were present at the time of first European contact. According to Crowley (1978 p.152) the dialect spoken around Lismore was Wiyabul, although there are variations of the spelling, such as Widjabul, which many people prefer. It is recognised that some descendant families prefer to use other descriptors for their cultural identity and the choice of cultural identity is both personal and meaningful to descendants."

The lands surrounding the North Lismore Plateau are also rich in Aboriginal history. The low-lying areas around the Lismore Showground and adjacent Slaters Creek are particularly significant (refer publication by Banyam Baigham Landcare Group 2011 'Reconnecting to Slaters Creek, North Lismore'). Slaters Creek is the site of on-going revegetation works by volunteer members of the Banyam Baigham Landcare Group, many of them people of Aboriginal ancestry. Development of the North Lismore Plateau has the potential to complement the efforts of these volunteers, by delivering significant environmental improvements to riparian and wetland systems within the Slaters Creek catchment.

With the involvement of the Aboriginal community, there is also potential for the new residential living environment that may be created at North Lismore Plateau, to celebrate the rich Aboriginal cultural heritage attributes of the land. These values may be acknowledged through Aboriginal cultural heritage conservation areas and/or the incorporation of design elements such as artworks and interpretive signage into the public open space areas within the subdivision.

The 2012 investigations into Aboriginal heritage at North Lismore Plateau were undertaken in consultation with the local Aboriginal community and in accordance with the following NSW Office of Environment and Heritage guidelines:

- *'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW'*
- *'Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010'*
- *'The Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW'.*

The resultant '*Cultural Heritage Assessment Report*' made a number of recommendations in regards to the protection and on-going management of Aboriginal heritage items. These recommendations are reflected in the following performance criteria and acceptable solutions applicable to future development applications at North Lismore Plateau.

A Native Title Claim by ten Widjabul Wia-bal people was registered with the Federal Court of Australia on 28 August 2013, applicable to the land which is the subject of this DCP. The claimant group is represented by NTSCorp Limited, who may be contacted on phone no. (02) 9310-3188. This stakeholder group (via NTSCorp) is to be kept updated on the status of all Aboriginal cultural heritage matters at NLP.

Previous studies:

Converge Community and Heritage 2012 'North Lismore Plateau NSW Cultural Heritage Assessment 12043C/2012'

4.1 Element – Aboriginal Cultural Heritage Identification, Assessment & Management

Objective
<p>To ensure that:</p> <ul style="list-style-type: none"> the local Aboriginal community are consulted in the early planning stages for the subdivision in regards to the identification and on-going management of known sites, and potential further sites, of Aboriginal cultural heritage significance items and places of Aboriginal cultural heritage significance are identified, conserved and appropriately managed in perpetuity. <p><i>Relevant Development Principle: 9</i></p>

Performance Criteria	Acceptable Solutions
<p>P1</p> <p>In acknowledgement that:</p> <ul style="list-style-type: none"> AHIMs registered items and places of Aboriginal cultural heritage significance are present at North Lismore Plateau there is potential for more Aboriginal sites to be found (inadvertent discoveries) the landscape is acknowledged and recognised by the Aboriginal community as a place of high cultural value <p>all development applications for subdivision of land and any proposed development on that land, are in accordance with the following documents which provide measures for the protection and conservation of such items:</p> <ul style="list-style-type: none"> Urban Release Area Structure Plan – Appendix A; and an approved 'Aboriginal Cultural Heritage Management Plan' (ACHMP) for currently known AHIMS registered sites within the North Lismore Plateau land release area along with any other items/ places of Aboriginal cultural heritage significance identified through further investigations at development application stage; and the process outlined in Appendix H – Process for inadvertent discoveries of items of potential cultural heritage significance. 	<p>A1.1</p> <p>All development applications at North Lismore Plateau, provide in the 'Statement of Environmental Effects' the following:</p> <ul style="list-style-type: none"> results of a search of the current AHIMs database, pertaining to the subject land details of procedure for inadvertent discoveries (refer Appendix H). The procedure for inadvertent discoveries may also be included as a condition of development consent <p>A1.2</p> <p>The first development application for subdivision of land at North Lismore Plateau, is to provide an 'Aboriginal Cultural Heritage Assessment Report' (ACHAR) detailing the outcomes of further field survey and/or archaeological investigations in the areas identified in Appendix F. The investigations and reporting are to be carried out by a suitably qualified Heritage Management consultant.</p> <p>The ACHAR is to detail the methodology and findings of targeted resurvey and/or monitoring investigations post vegetation clearance. The investigations are to be carried out in accordance with current, relevant NSW Office of Environment and Heritage guidelines such as:</p> <ul style="list-style-type: none"> 'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW' and 'Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010' 'The Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW'. <p>The report is to include a 'Statement of Heritage Significance' for each item and/or place identified.</p> <p>Copies of the ACHAR are to be provided to all registered Aboriginal parties, the Ngulingah Local Aboriginal Land Council, Widjabul Wia-bal Native Title claimants and any other relevant Aboriginal stakeholder group(s).</p> <p>A1.3</p> <p>The first development application for subdivision of land at North Lismore Plateau is to provide along with the 'Statement of Environmental Effects' an 'Aboriginal Cultural Heritage Management Plan' for:</p> <ul style="list-style-type: none"> all AHIMS registered sites (refer Appendix J - map of Aboriginal heritage items identified in 2012 field survey), and

Performance Criteria	Acceptable Solutions
	<p>all other site(s) of Aboriginal cultural heritage significance identified through further field survey/ archaeological investigations.</p> <p>The 'Aboriginal Cultural Heritage Management Plan' is to be prepared by a suitably qualified Heritage Management professional and include the following minimum requirements:</p> <ul style="list-style-type: none"> • further consultation with the registered Aboriginal stakeholder group, following on from the process initiated by Converge Community & Heritage in 2012 for the preparation of the 'Cultural Heritage Assessment Report'; • if the abovementioned consultation commences more than 12 months after any previous consultation with the registered stakeholder group, it is to include a new round of advertising to provide new opportunity for members of the Aboriginal community to register their interest; • detailed recording of all features; • detailed site specific management protocols; • a monitoring plan for identified areas; • further research as required; • an 'Interpretation Strategy' , details of which are described in P2 and A2.1 in the following section of this DCP titled Cultural Heritage. <p>The ACHMP is to be submitted for approval by Lismore City Council and the NSW Office of Environment & Heritage (or relevant concurrence agency) along with the Statement of Environmental Effects as part of the first development application for subdivision of land at NLP.</p> <p>Copies of the ACHMP are to be provided to the registered Aboriginal stakeholders, the Ngulingah Local Aboriginal Land Council and any other relevant Aboriginal stakeholder group(s) prior to lodgement of the DA.</p> <p>A1.4</p> <p>Subdivision layouts demonstrate consistency with the Urban Release Area Structure Plan – Appendix A and any approved ACHAR and/or ACHMP for the NLP land and any adjoining lands.</p>
<p>P2</p> <p>Development in North Lismore Plateau protects Aboriginal objects and declared Aboriginal places, wherever possible, and proponents exercise due diligence in determining whether aboriginal heritage will be impacted by any activities associated with their development.</p> <p>The National Parks and Wildlife Act 1974 requires that, if any person finds an Aboriginal object on land and the object is not already recorded on the Aboriginal Heritage Information Management System (AHIMS), they are legally bound under s.89A of the Act to notify the NSW Office of Environment and Heritage of the object's location, as soon as possible.</p>	<p>A2.1</p> <p>Proponents take reasonable and practicable steps to:</p> <ol style="list-style-type: none"> 1. identify whether or not Aboriginal objects are, or are likely to be, present in an area 2. determine whether or not activities associated with their proposed development are likely to harm Aboriginal objects, and 3. determine whether an AHIP application is required <p>in accordance with NSW Office of Environment and Heritage guidelines 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales'. The guideline can be viewed at: www.environment.nsw.gov.au/legislation/DueDiligence.htm</p> <p>A2.2</p> <p>In circumstances where harm to Aboriginal objects and places cannot be avoided, the proponent has obtained the</p>

Performance Criteria	Acceptable Solutions
	<p>approval of the Director General of the NSW Office of Environment & Heritage for an 'Aboriginal Heritage Impact Permit' (AHIP), prior to Council assessment of the DA commencing.</p> <p>A2.3</p> <p>Copies of the AHIP have been provided to all registered Aboriginal parties, the Ngulingah Local Aboriginal Land Council, Widjabul Wia-bal Native Title claimants and other relevant Aboriginal stakeholder groups, prior to it being submitted as part of any development application for subdivision of land.</p>
<p>P3</p> <p>The Aboriginal cultural heritage values of the land are acknowledged and reflected through interpretive elements incorporated into the design of public open space areas within the North Lismore Plateau development, where appropriate.</p> <p>Aboriginal people are consulted and involved in the design development of such elements.</p>	<p>A3.1</p> <p>For subdivision of land, where an 'Aboriginal Cultural Heritage Management Plan' (ACHMP) is required, this plan includes an 'Interpretation Strategy' (refer P2 and A2.1 in the following section of this DCP titled Cultural Heritage).</p>

5.0 Cultural Heritage

A 'Cultural Heritage Assessment of the North Lismore Plateau' was undertaken in 2012, to complement investigations into Aboriginal heritage. The study identified numerous items which evidence the changes in land use over time such as dry stone terrace walls, mineshafts and the disused hard rock quarry. Conservation of significant heritage items will add to the layering of story about the place and contribute to the local identity of the future new residential area.

Previous studies:

Converge Community and Heritage 2012 North Lismore Plateau NSW Cultural Heritage Assessment Report 12043C/2012'

5.1 Element - Cultural Heritage Identification, Assessment & Management

Objective	
To ensure that items and places of cultural heritage significance are identified, conserved and appropriately managed in perpetuity. <i>Relevant Development Principle: 9</i>	
Performance Criteria	Acceptable Solutions
<p>P1</p> <p>Development within the North Lismore Plateau land release area, protects items and places of cultural heritage significance, wherever possible, and proponents exercise due diligence in determining whether heritage will be impacted by any activities associated with their development.</p>	<p>A1.1</p> <p>For subdivision of land, further field investigations are to be carried out to ensure all potential items of cultural heritage have been identified and mapped, prior to the first development application for subdivision of land being lodged.</p> <p>A1.2</p> <p>For subdivision of land, where the subject land is identified in Appendix G, or through further field investigations, as containing one or more identified heritage feature(s), further research and assessment is to be carried out to determine whether, or not, such feature(s) are of heritage significance. In order for a site to be considered significant, it must meet at least two of the seven heritage criteria outlined in the NSW Office of Environment and Heritage guideline "Assessing Heritage Significance."</p> <p>A 'Statement of Significance' is to be prepared by a suitably qualified Heritage Management professional. The 'Statement of Significance' is to include the following information:</p> <ul style="list-style-type: none"> • A history of the site and its place within the larger local and regional history, based on local records and sources • Undertake a comparative analysis; • Undertake a site inspection and recoding of the features • A statement of significance from earlier work; • Recommendations for further management if the site is determined to be of significance. <p>Timing for preparation of 'Statements of Significance' is as follows, for each of the landowner areas identified on the map in Appendix I:</p> <ul style="list-style-type: none"> • For the Winten area shown in Appendix I, the first development application for subdivision of land is to include 'Statements of Significance' for all identified heritage items within the Winten landowner area, to

	<p>be submitted along with the 'Statement of Environmental Effects'.</p> <ul style="list-style-type: none"> For the TPG area shown in Appendix I, the first development application for subdivision of any elevated land (ie. land located above the 60metre AHD contour line) is to include 'Statements of Significance' for all identified heritage items within the TPG landowner area, to be submitted along with the 'Statement of Environmental Effects'. For the LCC area shown in Appendix I, the first development application for subdivision of land within Stage 1 is to include 'Statements of Significance' for all identified heritage items within the LCC landowner area, to be submitted along with the 'Statement of Environmental Effects'. <p>A1.3</p> <p>Where a 'Statement of Significance' determines that items of heritage significance are present, a 'Cultural Heritage Management Plan' (CHMP) is to be prepared for such item(s). The CHMP is prepared by a suitably qualified Heritage Management professional and undertaken utilising NSW Office of Environment and Heritage standards and the publication by James Semple Kerr 2013 <i>The Conservation Plan</i> which is available as a free-of-charge download from the Australia ICOMOS website: http://australia.icomos.org/publications/the-conservation-plan/</p> <p>The CHMP includes the following minimum requirements:</p> <ul style="list-style-type: none"> includes the earlier work undertaken for the significance assessment; examines known and potential impacts upon sites; provides a discussion of the relevant legislation and how it pertains to the site, its significance and future development detailed recording of all features (if further recording is deemed necessary) detailed site specific management protocols <p>Timing for preparation of CHMPs follows on from the 'Statement(s) of Significance' detailed above in A1.1.</p> <p>The CHMP is to be submitted along with the Statement of Environmental Effects as part of the first development application for subdivision, for approval by LCC and the NSW Office of Environment and Heritage (or relevant referral agency).</p> <p>A1.4</p> <p>Subdivision layouts demonstrate consistency with the Urban Release Area Structure Plan – Appendix A and any approved CHMP pertaining to the land and the process for inadvertent discoveries outlined in Appendix K.</p>
<p>P2</p> <p>The cultural and environmental heritage of the North Lismore Plateau is acknowledged and celebrated through interpretive resources incorporated into the design of public open space areas, where appropriate, in accordance with an approved 'Interpretation Strategy'.</p>	<p>A2.1</p> <p>For subdivision of land, where an 'Aboriginal Cultural Heritage Management Plan' (ACHMP) and/ or a 'Cultural Heritage Management Plan' (CHMP) is required, this plan includes an 'Interpretation Strategy'.</p> <p>The 'Interpretation Strategy' is prepared by a suitably qualified Heritage consultant with demonstrated relevant experience in the design development of interpretive resources.</p> <p>An 'Interpretation Strategy' is prepared for each of the three landowner areas identified in the map shown in</p>

	<p>Appendix I. The Interpretation Strategy is intended to:</p> <ul style="list-style-type: none"> • inform the design development of signage, artworks and/or other interpretive resources in public parks and open space within the development ; and • the naming of the development and the streets, parks and places within the development; and • describe, quantify and locate where and what interpretive resources are recommended for incorporation into the built form of the development. <p>The 'Interpretation Strategy' for each landowner area is to include:</p> <ul style="list-style-type: none"> • Consideration of all Aboriginal and non-indigenous heritage items and values within the landowner area as a whole and recommendations on which heritage items and/or values should be interpreted and how. • Consultation with the registered Aboriginal stakeholders, as part of the process for preparation of the ACHMP. This may involve, for example, the consultant working with the Aboriginal people to research relevant Aboriginal language, words or place names for naming of streets, parks and other precincts within the subdivision or to select themes to do with Aboriginal culture and lifeways in the North Lismore area, that can be explored through signage and/or public artworks. All matters relating to Aboriginal heritage, including art, language, research, naming etc, must be referred to the Aboriginal stakeholders (or their nominee/s) for advice prior to selection or a decision being made. • Consultation as required with any other relevant stakeholders such as local historical societies. • Coordination with any previously approved Interpretation Strategy for the other landowner areas as shown in the map in Appendix I.
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6.0 Urban Subdivision

This section of the DCP Chapter provides the objectives, performance criteria and some acceptable solutions for elements relevant to the subdivision of land within the North Lismore Plateau. It is to be read in conjunction with Part A, Chapters 4 and 5 of *Lismore Development Control Plan*. The recommended pre-lodgement processes outlined in Chapter 4, Section 4.5 of *Lismore Development Control Plan* should be noted, particularly for large and more complex subdivision proposals.

6.1 Element – Stormwater Management

Preliminary stormwater investigations in 2012 identified that there are 17 drainage catchments within the North Lismore Plateau site, mostly located on the western side of the plateau and discharging to Boorie Creek. The eastern side of the plateau comprises a single large catchment draining to Slater's Creek.

Slater's Creek is a place of cultural heritage significance and value to Aboriginal people. The Banyam Baigham Landcare Group, which has many Aboriginal members, is currently working to rehabilitate the degraded creek corridor.

The North Lismore Plateau development has the potential to improve water quality in both the Slater's Creek and Boorie Creek catchments. A bio-retention basin/ constructed wetland is likely to be developed in public parkland at the base of the plateau, in the east of the NLP site, upstream from Slater's Creek. This could be linked (via the Lismore Showground) to the proposed constructed wetland on Slater's Creek, creating an integrated wetland system. As well as improving water quality, the wetland system could also provide for recreational activities such as walking, cycling, picnicking and bird-watching. This wetland park would function as an attractive gateway/ entry feature into the North Lismore Plateau from Dunoon Road.

Previous studies/ references:

Banyam Baigham Landcare Group, 2011 '*Reconnecting to Slaters Creek, North Lismore*'
TGM Group Ballina, 2012 '*Stormwater Management Plan North Lismore Plateau*'

Objective
<p>Water management is a key consideration in the urban design process and new developments incorporate best practice Water Sensitive Urban Design(WSUD) techniques to :</p> <ul style="list-style-type: none">• maximise opportunities for water reuse, reducing the demand on the town water supply• minimise adverse impacts of stormwater discharge from the development on the environment and downstream receiving waters• protect and restore aquatic ecosystems within the development site and downstream. <p><i>Relevant Development Principles: 1, 7, 8, 9 and 10</i></p>

Performance Criteria	Acceptable Solutions
<p>P1</p> <p>Where possible water sensitive urban design (WSUD) measures are incorporated in design of roads, public open space and private lots in order to:</p> <ul style="list-style-type: none">• manage stormwater discharge from the development• protect receiving waters from high flows, erosion and pollution• provide opportunities for water reuse.	<p>A1.1</p> <p>Subdivisions comply with '<i>Lismore Development Control Plan</i> (DCP) Part A Chapter 22 - Water Sensitive Design'.</p>

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P2 Stormwater management and treatment devices are appropriately designed and landscaped such that they:</p> <ul style="list-style-type: none"> • contribute to the amenity of the public realm; • contribute to recreational opportunities within parks and streetscapes; and • where appropriate, provide features, key focal points and destinations within the open space network. 	<p>A2.1 Drainage lines and watercourses are designed and landscaped in accordance with best practice guidelines. An example of a best practice guideline is <i>"Natural Channel Design Guidelines"</i> Brisbane City Council, 2003.</p> <p>A2.2 Detention basins, ponds and/or constructed wetlands are designed to maximise dual function in that they contribute to, rather than detract from, landscape amenity and recreational opportunities within open space areas as well as treating stormwater quality.</p>
<p>P3 Existing native riparian vegetation is retained and conserved wherever possible in the planning, design and construction of stormwater quality management systems and appropriate widths of vegetated buffers are provided to watercourses.</p>	<p>A3.1 Vegetated riparian corridors are retained or established in accordance with NSW Office of Water guidelines <i>"Controlled activities on waterfront land - Guidelines for riparian corridors on waterfront land"</i> NSW Office of Water, July 2012.</p>
<p>P4 Where lakes, ponds, detention basins or other stormwater treatment devices require fencing for safety or other purposes, fencing has minimal visual impact, is appropriately landscaped and contributes positively to the amenity of the neighbourhood.</p>	<p>A4.1 Black powdercoated metal pool fencing of maximum height 1.5m is used to fence stormwater devices.</p>
<p>P5 Design of detention ponds where there is standing water includes measures to exclude cane toads.</p>	<p>A5.1 Detention ponds are designed and landscaped in accordance with best practice guidelines. An example of a best practice guideline / fact sheet is the Byron Shire Council <i>"Guidelines for excluding-cane-toads-from-water-bodies"</i>.</p>



Figure 2: Stormwater infrastructure such as drainage channels and retention/ detention basins are well landscaped and integrated with open space planning, to provide recreational opportunities within the open space network.

6.2 Element - Flora and Fauna Conservation

Flora and fauna assessments undertaken in 2011-12 at North Lismore Plateau, identified the following features of ecological significance on the site:

- Seven threatened species, comprising five plant species (Thorny Pea, Hairy Joint Grass, Sweet Myrtle, Rough-shelled Bush Nut and Tinospora Vine), one bird species (Rose-crowned Fruit Dove) and two mammals (koala and a species of microbat).
- Vegetation of moderate to high conservation value (lowland rainforests, grassland communities and freshwater wetlands). The vegetation associations on the site do not meet the definitions of an endangered ecological community, as they are mostly in a highly degraded condition.
- Large paddock trees including fig trees and hollow-bearing trees

Native vegetation at North Lismore Plateau is generally highly degraded reflecting the landuse history of large scale vegetation clearing for pastoral and quarrying purposes.

Koala SAT plot sampling undertaken in 2012, within the two main areas of potential habitat, yielded only minimal evidence of Koala usage of the site.

Previous Studies:

Greenloaning Biostudies Pty Ltd, April 2012 'Assessment of Flora and Fauna Occurrence on the North Lismore Plateau, Report No. 1202002RP1'

Greenloaning Biostudies Pty Ltd, June 2012 'North Lismore Supplementary Report No. 1202002RP2'

James Warren & Associates Pty Ltd, 2011' An Ecological Constraints Analysis for North Lismore Plateau'

Objective	
To protect and enhance the biodiversity of the North Lismore Plateau and surrounding areas. <i>Relevant Development Principles: 8</i>	

Performance Criteria	Acceptable Solutions
<p>P1</p> <p>Areas of ecological value and significance within the North Lismore Plateau are identified, conserved, rehabilitated and appropriately managed in perpetuity, in accordance with an approved 'Environmental Management Plan' (EMP).</p> <p>An EMP is prepared for each of the three landowner areas identified in the map shown in Appendix I.</p>	<p>A1.1</p> <p>For each of the three landowner areas identified in the map shown in Appendix I, an 'Environmental Management Plan' (EMP) is prepared, for the whole of the landowner area.</p> <p>The EMP is submitted along with the Statement of Environmental Effects for the first development application for subdivision of land, in each landowner area, for approval by Lismore City Council and the NSW Office of Environment and Heritage (or relevant concurrence agency).</p> <p>The EMP is prepared by a suitably qualified Ecologist, Bush Regenerator or similar and provides detailed strategies, staging plans and timeframes for implementation/ completion of key environmental outcomes, as well as cost estimates for the management of all E2 and E3 zoned lands, riparian corridors, buffer areas and native vegetation retained within parks and public open space areas, within the subject landowner area.</p> <p>The EMP includes:</p> <ul style="list-style-type: none"> • Threatened Species Management Plan • Vegetation Management Plan

Performance Criteria	Acceptable Solutions
	<ul style="list-style-type: none"> • Weed Management Plan • Vertebrate Pest Management Plan (including recommended measures for control of domestic companion animals at NLP). <p>The EMP takes into account the recommendations of any previously approved EMP(s) for any of the other landowner areas and particular attention is given to maintaining vegetation linkages and minimising barriers to movement of wildlife at the study site extents/ boundaries.</p> <p>A1.2</p> <p>The 'Vegetation Management Plan' demonstrates consistency with the 'Urban Release Area Structure Plan – Appendix A' and Lismore City Council (2010) <i>Guidelines for the preparation of Vegetation Management Plans</i>.</p> <p>A1.3</p> <p>The 'Vegetation Management Plan' provides strategies and guidelines to achieve the following:</p> <p>Conservation of threatened species.</p> <p>Progressive rehabilitation of the endemic vegetation communities in conservation lands zoned E2 and E3.</p> <p>Connections through the site so that patches of significant vegetation and threatened species are linked to the larger, contiguous bushland corridor on the side slopes of the plateau.</p> <p>Rehabilitation of native vegetation on the side slopes of the plateau, particularly the eastern escarpment opposite the Lismore Showground which is visible from other areas of Lismore and contributes to the landscape visual amenity of the town. The aim being to create a contiguous bushland corridor around the plateau rim that requires minimal maintenance.</p> <p>Connections through the site for the safe movement of native fauna in appropriate vegetation corridors.</p> <p>Retention of existing koala food trees and additional plantings of koala food trees of local provenance in appropriate areas. Friends of the Koala are to be consulted regarding provision of tree stock.</p> <p>Measures to conserve the habitat and movement corridors of Echidnas, in acknowledgment of the cultural heritage significance of this species. The NLP land was historically used as an "increase site" for Echidnas by the local Aboriginals.</p> <p>Provision of buffer areas in accordance with 'Lismore Development Control Plan (DCP) Part A, Chapter 11 - Buffer Areas'.</p> <ul style="list-style-type: none"> • Vegetative buffers are provided to environmentally sensitive areas within the site including: <ul style="list-style-type: none"> ○ watercourses ○ cultural heritage sites ○ threatened species. • Establishment of endemic vegetation to stabilise steeply sloping lands unsuitable for development. • Vegetation management plans identify the location of 'Bushfire Asset Protection Zones' (APZ) to areas zoned for future development.

Performance Criteria	Acceptable Solutions
	<ul style="list-style-type: none"> Vegetation management works within an APZ should be conducted in accordance with the Rural Fire Service <i>Standards for asset protection zones</i>. <p>A1.4</p> <p>The 'Vegetation Management Plan' provides a guideline for new homeowners at NLP about "Selecting appropriate plant species for your home garden at NLP, to support the local ecology and minimise environmental weeds". Copies of this guideline are to be available at Council's Corporate Centre and on Council's website.</p>

6.3 Element – Landscape Planning & Environmental Management

Features such as creeks, dams, bushland, large trees, rocky outcrops and views/ vistas can add character and interest to a subdivision, as well as contribute to the healthy functioning of ecological-systems. Historically, subdivisions have often involved the wholesale clearance of such features and the piping of watercourses. By contrast, contemporary subdivision planning at North Lismore Plateau will aim to retain key landscape elements and feature them in open space areas so they can contribute to amenity, recreational opportunities, local identity and sense of place.

Views and vistas strongly contribute to the character and visual identity of a place. At North Lismore Plateau, this is relevant to both views out from the site, as well as views into the site from other parts of Lismore. Significant views are available from many locations on and around the plateau top. These views will be a sought-after feature of the new residential living environment. Careful planning is required to ensure that future development will conserve public viewing opportunities, wherever possible.

North Lismore Plateau is visible from many parts of Lismore and its green, bushland character helps to reinforce Lismore's sense of place within its rural landscape setting. It is important that the vegetated ridgeline/ skyline and the forested side slopes of the plateau are conserved, as they make a significant contribution to the broader visual amenity of the town.

Objectives
<ul style="list-style-type: none">• To protect the biodiversity, natural landform and cultural heritage features of the site• To incorporate native flora and fauna in the design and landscaping of the subdivision• To utilise landscaping that minimises the need for maintenance• To minimise land use conflict <p><i>Relevant Development Principles: 8, 9 and 10</i></p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
<p>P1 Existing watercourses are retained and vegetated riparian corridors are established throughout the North Lismore Plateau site.</p>	<p>A1.1 For subdivisions, all mapped permanent and ephemeral watercourses (1:25000 topographic maps) are retained and established with vegetated riparian corridors, in accordance with NSW Office of Water Guidelines (July 2012) <i>Controlled activities on waterfront land - Guidelines for riparian corridors on waterfront land</i>.</p> <p>A1.2 The restoration/ revegetation of riparian corridors is documented in a 'Vegetation Management Plan', or the like, that conforms with Lismore City Council (2010) <i>Guidelines for the preparation of Vegetation Management Plans</i>.</p>

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P2</p> <p>Existing trees and vegetation of ecological, cultural heritage and/or landscape amenity value (may include exotic i.e. non-native species), are retained and protected wherever possible.</p> <p>Measures are taken to mitigate the adverse impacts of development activities on such vegetation, located within the development site and on adjacent lands.</p>	<p>A2.1</p> <p>Avoiding and/or minimising adverse impacts may be achieved through suitable site selection, sound development design and comprehensive planning. Examples of avoiding and/or minimising the impact of development activity include:</p> <ul style="list-style-type: none"> changing the route of an access road or transmission line to avoid clearing native trees and/or vegetation;
	<ul style="list-style-type: none"> changing the location and/or design of a dwelling to avoid clearing native trees; retaining native trees on Council and/or community-owned land in road reserves, parks or community allotments. <p>Development applications for subdivision are to provide sound and logical reasons as to why the retention of native trees and vegetation is not feasible if retention is not being proposed. Where adverse impacts on native trees and/or vegetation cannot be avoided by site selection, development design and planning, tree retention must be undertaken in a hierarchical manner as follows:</p> <ul style="list-style-type: none"> retain native trees >300 mm dbhob; retain native trees 100–300 mm dbhob; retain native trees <100 mm dbhob; and exotic trees, diseased and/or structurally unsound native trees that are unlikely to survive in the short term.
<p>P3</p> <p>For subdivisions, the subdivision layout conserves the key landscape attributes of the site and, wherever possible, accommodates these in the public domain. Such elements are designed in as key locations or focal points in the open space network, to contribute to local identity and sense of place.</p>	<p>A3.1</p> <p>The following key landscape features at North Lismore Plateau, are conserved, where appropriate, in the public open space network:</p> <ul style="list-style-type: none"> the dominant ridgeline and associated hill-tops and knolls on the top of the plateau; existing watercourses; remnant patches of dry rainforest; large remnant native fig trees and paddock shade trees; items and places of cultural heritage value (both Aboriginal and non-indigenous); significant viewing points from top of plateau; quarry precinct – dramatic vertical basalt rock wall and the broad open expanse of the quarry floor with associated grassland/ wetland; vegetated side slopes of the plateau (i.e. the forested rim); stands of emergent Hoop Pine in the forested rim;

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
	<ul style="list-style-type: none"> • Booyerie Creek frontage and associated riverine lowlands in the north-west of the site; • Creek flats, wetland and flood plain areas at the foot of the plateau, in the east of the site. <p>A3.2 Subdivision layout demonstrates consistency with the 'Urban Release Area Structure Plan – Appendix A'.</p>
<p>P4 Development conserves viewing opportunities wherever possible. For subdivisions, some of the key viewing locations on the North Lismore Plateau site (e.g. high points and the plateau edge) are provided as public open space, so that outlook and views are a feature of the public parks and streets within the development and significant views are accessible to all residents.</p>	<p>A4.1 Subdivision layout demonstrates consistency with the 'Urban Release Area Structure Plan – Appendix A'.</p> <p>A4.2 Development proposals for buildings conserve viewing opportunities from the subject site, adjoining and nearby lots and public parkland, wherever possible.</p>
<p>P5 Water sensitive urban design (WSUD) is incorporated in the creation of the public domain. WSUD elements and structures associated with stormwater management are well integrated with landscape concepts for streets and parks and contribute to the recreational function and amenity of open space areas.</p>	<p>A5.1 For subdivisions, design of parks and streetscapes complies with <i>Lismore Development Control Plan</i> (DCP) Part A Chapter 22 Water Sensitive Design' and stormwater infrastructure is designed for dual function (i.e. for recreational and landscape amenity purposes as well as for stormwater management).</p> <p>A5.2 Landscape plans for parks and streetscapes include details of proposed WSUD strategy and demonstrate how WSUD elements are to be integrated with landscape design proposals, at all stages of the planning process from concept development through to detailed design. Stormwater elements are appropriately designed and landscaped to provide features, key focal points and destinations within the open space network.</p> <p>A5.3 Subdivisions demonstrate consistency with the Urban Release Area Structure Plan – Appendix A.</p>
<p>P6 Planting in the public domain (see Definitions) reflects the endemic vegetation and plant communities that would have, historically, naturally occurred on the North Lismore Plateau, to support the biodiversity, environmental heritage and landscape character of the area.</p>	<p>A6.1 For subdivisions, landscape designs for parks, streetscapes and stormwater infrastructure are informal in structure and planting plans generally reflect the naturally occurring vegetation communities and plant associations that historically occurred on the North Lismore Plateau site or in the general region. Planting is generally informal in arrangement, to replicate the character of naturally occurring native vegetation.</p> <p>A6.2 Plant species specified in planting plans for public areas, are generally plants native to the area and are species that will support and enhance the vegetation management</p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <p>aims, objectives and recommendations in the approved 'Environmental Management Plan' for the relevant landowner area (shown in Appendix I).</p>



Figure 3: Street trees are provided to enhance the micro-climate and amenity of all streets.

Performance Criteria	Acceptable Solutions
<p>P7.1 To provide shade, improved micro-climate and amenity in streets and around dwellings and to support the ecology of the area, endemic species of trees are provided in public streets and on private lots within the subdivision.</p> <p>P7.2 In the selection and location of street trees, consideration is given to the height and spread of trees at maturity and trees are well located so as not to interfere with driver sight-lines, existing or proposed services (such as sewer, water, electricity, street lights, which may be overhead or underground), traffic management signs and to avoid trees causing structural damage in the long term to roads, paths or overhead structures.</p>	<p>A7.1 For subdivisions, street trees are provided at a minimum rate of one tree/ lot and two trees/ lot for each corner lot. The recommended spacing between street trees is 7m for small tree species, 10m for a medium tree, and 15m for a large tree.</p> <p>A7.2 Street trees are installed in front of higher density dwelling types, such as attached dwellings, with reduced front setbacks (e.g. 3 metre front setback) at the spacings recommended below.</p> <p>A7.3 Street tree planting is avoided in the following locations:</p> <ul style="list-style-type: none"> • Within 3 m of a power pole (< 110 kV) or pad mounted transformer or driveway or invert crossing or inspection box or fire hydrant or water valve.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
	<ul style="list-style-type: none"> • Within 5 m from the departure side of a pedestrian crossing. • Within 7 m of a street light or traffic signals or 110 kV concrete power pole (contact electricity provider to locate earth cable and for appropriate planting clearance distances from substations). • Within 10 m of the departure corner. • Within 15 m of the approach side of a pedestrian crossing and from the approach corner. • Within 20 m from the approach to a bus stop and 6m from the departure side. • Within 1.5 m of a property service connection (such as roofwater, gas, sewer, water, telecommunications, electricity). • On narrow verges and medians less than 1.8m wide. • Within 450 mm from the kerb and channelling. <p><i>Source: Brisbane City Council, 2004, Subdivision and Development Guidelines, Part B, Chapter 4, Street Landscaping</i></p> <p>A7.4</p> <p>Trees are also incorporated as part of informal planting schemes in streets and parks (refer recommendations in Sections 6.6 to 6.8 of 'North Lismore Plateau Landscape Master Plan Report; Park, Open Space and Streetscape' June 2012 by Aldersen & Associates Landscape Architects). Where trees are planted within WSUD elements, suitable species tolerant of periodic inundation are used.</p>
<p>P8</p> <p>Subdivision layout and landscaping provide defined entry points and boundaries to neighbourhoods, to assist with way finding and to foster a sense of local identity.</p>	<p>A8.1</p> <p>Place making elements such as landscaping, signage, artwork, that reflect local themes, are used to define the gateways/ entry points at the main road junctions leading into the North Lismore Plateau from Dunoon Road.</p> <p>A8.2</p> <p>The edges of neighbourhood precincts are defined by bushland corridors and/or public parkland where possible.</p>

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P9</p> <p>Subdivision contributes positively to the landscape visual amenity and liveability of the North Lismore locality.</p>	<p>A9.1</p> <p>Subdivision layout incorporates vegetative buffers of appropriate widths in accordance with <i>Lismore Development Control Plan (DCP) – Part A, Chapter 11 – Buffers</i>.</p> <p>Buffers are comprised of dense layered plantings of tree, shrub and groundcover species endemic to the area. Where a vegetative buffer area adjoins a mown section of a road reserve, a concrete mowing edge is provided.</p>
<p>P10.1</p> <p>To avoid conflict between different land uses and for general landscape amenity purposes, vegetation buffer areas are provided:</p> <ul style="list-style-type: none"> • between busy roads and residential development; • where residential lots within the subdivision adjoin conflicting landuses; • between service and utility landuses and any adjoining residential, commercial or recreation lands; • on either side of acoustic fencing/ mounding. <p>P10.2</p> <p>Where subdivision has frontage to Dunoon Road, this is a highly visible interface with the existing urban area. Development provides weed removal within the Dunoon Road road reserve and street trees and/ or vegetative buffers are installed where appropriate along the Dunoon Road frontage of the development, to provide improved amenity along this primary interface and help integrate the new development with its surrounds.</p> <p>Where parkland and/or a Neighbourhood Centre has frontage to Dunoon Road, planting along the frontage maintains visibility from Dunoon Road into the park and/or a Neighbourhood Centre (i.e. street trees rather than vegetative buffers are provided), in accordance with CPTED principles.</p> <p>P10.3</p> <p>Where earth mounding and/or fencing is installed for noise attenuation purposes, appropriate landscaping is installed on both sides of the acoustic fence and/ or earth mound, to provide visual screening of the fence and help integrate mounding into the surrounding landscape setting.</p>	<p>A10.1</p> <p>Where subdivision has frontage to Dunoon Road, residential lots are setback from the Dunoon Road frontage. A vegetative buffer (minimum 3 metres width) is provided between the rear boundary of the lots and the road reserve to mitigate the potentially negative visual impacts of rear fences on the amenity of the locality, as viewed from Dunoon Road.</p> <p>A10.2</p> <p>Where subdivision has frontage to Dunoon Road, a Landscape Plan is submitted for the treatment of the Dunoon Road frontage including weed removal adjacent to the adjoining road reserve.</p>
<p>P11</p> <p>The existing 'Low Intensity Obstruction Lights' for aeroplanes located on Lot 12 DP844585 and neighbouring Lot 4 DP 1037282 (which adjoins the southern boundary of the NLP quarry land) are to be retained.</p>	

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
P12 Land developers undertake proactive measures to inform potential purchasers in writing of the presence of noise affected land within the subdivision and particularly as shown in Appendix E with suggestions for acceptable noise management techniques for future buildings.	A12.1 Development proposals for subdivisions will be conditioned to ensure developers take appropriate action is taken to inform prospective purchasers of the likelihood of lands being affected by noise intrusion from adjacent land uses. Such measures would include detailed advice on the provisions of this DCP attached to contracts of sale.

6.4 Element – Public Open Space

North Lismore Plateau represents a significant opportunity for the development of a substantially sized residential community located in easy walking and cycling distance of the Lismore CBD and within a unique landscape setting rich in natural and cultural heritage values and with outstanding scenic qualities. The vision is to facilitate sustainable development that responds to and conserves the unique environmental attributes of the site and is well integrated with the existing urban fabric of Lismore.

A feature of the development will be its network of parks and public open spaces, interconnected by paths and cycleways, that will provide for a range of recreational experiences and will showcase the scenic bushland escarpment and outstanding views from the top of the elevated plateau.

Development of the park network at North Lismore Plateau will reflect the findings of the 'Lismore Sport and Recreation Plan 2011-2021', which identifies that:

- Lismore is already well serviced in terms of sportsfields and facilities for active sport. Most sports in Lismore are well-catered for.
- There is strong community demand for walk/ cycle paths in Lismore.
- Walking is (by far) the most frequently engaged in activity by people aged 15 and over.
- People prefer to walk/ cycle for recreational purposes in areas of natural amenity rather than in built-up areas e.g. near bushland, along waterways and in scenic locations.
- New greenfield developments should be designed in accordance with the five Principles of Active Living as outlined in Part 1.1 of the NSW Premier's Council for Active Living 2010 guideline '*Development and active living; designing projects for active living*'.

The disused hard rock quarry in the southern part of the site with its dramatic rock wall has the potential to become an iconic, signature site within the North Lismore Plateau. The quarry land is of particular significance to the local Aboriginal community and it is imperative that Aboriginal people are consulted and involved in any future planning for this area. With the traditional custodians consent and involvement, there is potential for the cultural significance of the area to be celebrated through creation of an Aboriginal cultural area, incorporating (if appropriate) viewing areas, interpretive signage and visual artworks. There is also opportunity for Aboriginal people to be involved in the on-going management of the site and for it to be used as a venue for education, training (eg in bush regeneration, land management, creation of a bush tucker garden), cultural site tours, performance art and other events (if appropriate).

Previous studies:

Alderson & Associates Landscape Architects, June 2012, "North Lismore Plateau Landscape Master Plan Report; Park, Open Space and Streetscape"

Objectives

To provide an interconnected network of public open spaces, including parks and streetscapes that:

- conserve and celebrate the ecological, cultural and heritage values of the land;
- provide outdoor recreational opportunities that meet community needs;
- facilitate active, healthy lifestyles and social interaction;
- integrate stormwater infrastructure through good design;
- are safe and attractive to use; and
- contribute to the amenity and liveability of the residential environment.

Relevant Development Principles: 1, 5, 6, 7, 8,9,10,11 and 12

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P1</p> <p>The provision of public parks and open space is equitably distributed throughout the subdivision. Local parks are generally located within 400 metres of each lot, are readily accessible to all residents, and meet Council's desired standards of service.</p>	<p>A1.1</p> <p>Parks are provided in the locations shown on the Urban Release Area Structure Plan – Appendix A.</p>
	<p>A1.2</p> <p>Land proposed for use as a local park has a preferred minimum useable park area of 2500m² and meets the performance criteria for a Local Park as outlined in Appendix 2 – Desired Standard of Service for Recreation and Sports Parks (Tables 31-33) of the <i>'Lismore Sport and Recreation Plan 2011-2021'</i> (refer pages 127-131).</p> <p>Where parks are identified as 'Pocket Parks' or 'Linear Park Nodes' on the Urban Release Area Structure Plan – Appendix A and/or the primary function of a park is to conserve significant vegetation or provide a node along a pathway route, Council may accept smaller land areas and fewer embellishments.</p>
<p>P2</p> <p>For land identified as a local park, pocket park or linear park on the 'Masterplan for Park, Open Space and Streetscape – Appendix C', park concept plans are prepared by a suitably qualified Landscape Architect with experience in park planning and the management of community/ stakeholder consultation and public art development processes.</p> <p>Planning and design development of public parks is a staged process, involving consultation with Council and key stakeholders, and the progressive submission of the following documentation for each park site:</p> <ol style="list-style-type: none"> 1. Concept Plan 2. Sketch Plan options of park elements (as required) 3. Detailed Design of preferred option(s). <p>Items 1 to 3 are prepared for each park site and submitted for approval as part of the development application for subdivision.</p> <p>Planning and design of open space areas includes community consultation, community engagement and/or participatory design processes (where considered appropriate and likely to be beneficial, at Council's discretion) to inform the development of place making themes and elements such as artwork and interpretive resources, to help foster local ownership and stewardship of finished designs.</p>	<p>A2.1</p> <p>The Park Concept Plan is prepared by a suitably qualified Landscape Architect and includes:</p> <ul style="list-style-type: none"> • Detailed site survey plan • Site analysis • Potentials and constraints identification • Objectives and priorities • Identification of potential opportunities and locations within the park for inclusion of placemaking elements (e.g. artwork, interpretive signage, events). <p>Consideration is given to the recommendations of any previously approved 'Aboriginal Cultural Heritage Management Plan' and/ or 'Cultural Heritage Management Plan' and/or associated 'Interpretation Strategy' for the NLP site.</p>

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P3</p> <p>Subdivision layout maximises the accessibility, safety and casual surveillance of public spaces.</p>	<p>A3.1</p> <p>Public roads are used to divide open space areas from development wherever possible.</p> <p>A3.2</p> <p>Road frontage is provided to a minimum of 50% of the perimeter length of all public parks including local parks, pocket parks and linear open space areas.</p>
<p>P4</p> <p>The design of the public open space network at North Lismore Plateau conserves the ecological and cultural heritage values of the land, in perpetuity.</p> <p>Where deemed culturally appropriate, the ecological and cultural history of the land is emphasised and celebrated through artwork, interpretive signage and other place-making elements incorporated in parkland designs. Such elements contribute to local identity and sense of place and may also be used in the commercial branding of the development.</p>	<p>A4.1</p> <p>Park concept proposals demonstrate how they are in accordance with any previously approved Management Plan(s) for the relevant landowner area (as shown in Appendix I) in which the park is located, such as:</p> <ul style="list-style-type: none"> • Environmental Management Plan • Aboriginal Cultural Heritage Assessment Report • Aboriginal Cultural Heritage Management Plan • Cultural Heritage Assessment Report • Cultural Heritage Management Plan
<p>P5</p> <p>Open space planning and design provides a variety of recreational opportunities and uses that meet community needs.</p>	<p>A5.1</p> <p>Park proposals at North Lismore Plateau focus on the provision of passive recreational facilities as a priority, over the provision of sports fields and facilities for traditional organised sports. The open space network at North Lismore Plateau provides for the following key recreational objectives:</p> <ul style="list-style-type: none"> • walk/ cycle path network, suitable for day and night use, that is located to take advantage of the scenic qualities of the forested plateau rim and provides links to local community facilities and the CBD; • play opportunities for children aged 0 to 12 years generally within 400 metres of every lot. Council will consider alternatives to commercial play equipment however all play elements must be designed in accordance with the relevant Australian safety standards and include provision of shade and soft fall where appropriate; • public lookouts at significant vantage points; • dog off-leash area(s); • BBQ and picnic facilities; • bushland trails for bushwalking/ mountain biking; • facilities for other recreational opportunities as identified through the park planning process (e.g. bird-watching, cultural tours, rollerblading, skateboarding, weekend markets, performance events). <p>A5.2</p> <p>Subdivisions provide open space for recreational purposes generally in accordance with the Urban Release Area Structure Plan – Appendix A and the Indicative list of park embellishments – Appendix D.</p>

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P6</p> <p>Subdivision provides an inter-connected and accessible public open space network.</p>	<p>A6.1</p> <p>Walk/cycle paths are provided that provide access to and linkage between areas of open space within the development, in accordance with the Urban Release Area Structure Plan – Appendix A.</p>
<p>P7</p> <p>Parks within the North Lismore Plateau development are interconnected by a shared pathway network which encourages walking and cycling for recreation and transport purposes.</p>	<p>A7.1</p> <p>Walk/ cycle paths are provided linking the public open space network, in accordance with the Urban Release Area Structure Plan – Appendix A.</p>
<p>P8</p> <p>On the top of the plateau, the public open space network focuses on:</p> <ol style="list-style-type: none"> 1. A series of smaller local parks along the ridgetop. These parks are strategically located to take advantage of significant viewing points or to accommodate existing large trees or other significant vegetation. The parks are connected by the pedestrian/ cycle path on the main boulevard road. 2. A linear park located around the perimeter/ rim of the plateau. The linear park incorporates the Bushfire Asset Protection Zone between the forested side slopes of the plateau and the residential development. A road separates the linear park from the development. The linear park includes a pedestrian/ cycle path visible from the road (for casual surveillance and safety) which provides a "circuit" for recreational walking and cycling. The linear park may also incorporate nodes where facilities are provided such as seating, lookouts, BBQs, picnic tables, playspace, kick-a-ball space, artwork. 3. The 'Quarry Site' at the southern end of the plateau – to be considered as a feature and signature open space area (refer P9 below). 	<p>A8.1</p> <p>Concept plans for local parks, pocket parks and linear parks located on the plateau top, demonstrate consistency with:</p> <ul style="list-style-type: none"> • Urban Release Area Structure Plan – Appendix A • Indicative list of park embellishments – Appendix D • Bushfire asset protection zone requirements • Stormwater management plan.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P9</p> <p>Any planning for the on-going management of the quarry land is to be done in consultation with the Aboriginal community and is to reflect their preferred vision for the conservation of this very significant cultural site.</p> <p>The decommissioned North Lismore Quarry has the potential to become an Aboriginal cultural heritage “reserve” with limited or no public access and the centrepiece or “grand finale” feature in an historical and cultural walking trail.</p> <p>This cultural trail could be created along the new pedestrian/ cycle pathway from the Lismore CBD, across Simes Bridge, incorporating the Slater’s Creek wetland and the Lismore Showground to the base of the plateau and then continuing up the escarpment onto the ridgetop and the quarry site.</p> <p>The potential for the quarry site to support other recreational activities that are compatible with the environmental and cultural heritage conservation objectives should also be explored through the planning process for preparation of a site management concept plan. Such activities might include: a kiosk and/or Aboriginal cultural centre and/or interpretive centre; children’s play area, picnic facilities, community garden, bush tucker garden and/or community nursery.</p> <p>A management plan for the site will need to be carefully considered and take into account the following:</p> <ul style="list-style-type: none"> the quarry wall is a commanding landscape feature which people will naturally be curious to see; it is located in very close proximity to a densely populated residential area that will potentially house more than 3000 people of all ages and stages of life. <p>A management plan for the quarry land will need to address the following objectives, as a minimum requirement:</p> <ol style="list-style-type: none"> conserve the three AHIMS registered sites; acknowledge the very significant Aboriginal cultural heritage values of the place; acknowledge the non-indigenous heritage, including previous landuses such as farming and the hard rock quarry operations; conserve significant vegetation and the ecological attributes of the site; ensure public safety; consider an accessible public viewing area where people of all ages and abilities can safely view the quarry wall in its entirety, as a minimum public access requirement. 	<p>A9.1</p> <p>Management plans for the quarry site demonstrate consistency with the following:</p> <ul style="list-style-type: none"> Urban Release Area Structure Plan – Appendix A Indicative list of park embellishments – Appendix D Aboriginal Cultural Heritage Management Plan Cultural Heritage Management Plan Bushfire asset protection zone requirements Stormwater management plan.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P10</p> <p>Parks are provided within the residential area at the base of the plateau, generally in the locations shown on the Urban Release Area Structure Plan – Appendix A.</p>	<p>A10.1</p> <p>Concept plans for the parks at the base of the plateau demonstrate consistency with:</p> <ul style="list-style-type: none"> • Urban Release Area Structure Plan – Appendix A • Indicative list of park embellishments – Appendix D • Bushfire asset protection zone requirements • Stormwater management plan. <p>A10.2</p> <p>At the base of the plateau, the open space network focuses on provision of:</p> <ul style="list-style-type: none"> • entry feature(s) to the North Lismore Plateau development; • stormwater infrastructure (e.g. constructed wetlands) appropriately landscaped to provide focal point(s) in the open space network; • opportunities for passive recreation such as: bird watching, picnicking, dog-walking, dog off leash areas, kick-a-ball, walking, cycling; • where parkland interfaces with Neighbourhood Centres, park designs provide a transition space that enhances the amenity, attractiveness and useability of the centre and supports activities like outdoor dining and children's play, to contribute to the vibrancy of the centre; • recreational walk/ cycle path located along the toe of the plateau, to take advantage of the natural amenity of the bushland escarpment/ edge; • pedestrian/ cycle links to Neighbourhood Centre, local shops, community facilities, schools, the Lismore CBD and proposed Slater's Creek constructed wetland and walking trail; • investigations into the potential to create an interpretive trail about the significance of the area to Aboriginal people, from the Lismore CBD via Slater's Creek and the Lismore Showground to North Lismore Plateau. Such a trail could be a tourist attraction for the City.
<p>P11</p> <p>Subdivision design provides for dual function of drainage corridors/ lands for low impact recreational activities such as walking, picnicking, kick-a-ball and dog off-leash areas. WSUD elements and structures associated with stormwater management are well integrated with landscape concepts for streets and parks.</p>	<p>A11.1</p> <p>Landscape plans for parks and streetscapes include details of proposed WSUD strategy and demonstrate how WSUD elements are to be integrated with landscape design proposals, at all stages of the planning process from concept development through to detailed design.</p>

Performance Criteria	Acceptable Solutions
	Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P12</p> <p>Where permanent fencing is required within, or at the boundary to, public lands for example:</p> <ul style="list-style-type: none"> at the boundary to E3 or E2 zoned lands to protect fauna habitat, environmental rehabilitation works, endangered species or heritage items/ places; or at the boundary of private lots adjoining public open space; <p>fencing is designed to:</p> <ul style="list-style-type: none"> exclude domestic and feral animals but allow the safe movement of native wildlife including koalas; contribute positively to the amenity of the neighbourhood; be see-through (not solid) to maintain casual surveillance of the public domain. 	<p>A12.1</p> <p>Where permanent fencing is required, such fencing to public lands meets the following specifications:</p> <ul style="list-style-type: none"> Black powder-coated metal pool fencing or black chain wire fencing with top rail. Maximum of 1.5m in height. Fencing includes measures to enable koalas to climb over it. Consideration is given to raising fencing panels a minimum of 250mm off the ground, to enable movement of native wildlife underneath the fence. This may not be feasible in all situations, particularly where exclusions of domestic dogs/ cats is a priority.
<p>P13</p> <p>Where residential lots directly adjoin public open space, fencing of the common boundary maintains casual surveillance of the public area from the private property and fencing styles contribute positively to the amenity of the public domain. Landscaping is incorporated in front of fencing, wherever possible, to help define the boundary between public and private areas.</p>	<p>A13.1</p> <p>Fencing of the common boundary is maximum height 1.5 metres and 40% transparent.</p> <p>A13.2</p> <p>Where visual screening of private open space areas, is desired/ required, planting is used to achieve this. Solid, high fences are not used.</p>

6.5 Element – Pedestrian and cycle path network

Objective
<p>The pathway network provides:</p> <ul style="list-style-type: none"> accessible, well located and safe pedestrian and cycle paths pedestrian and cycle path links to existing amenities/ facilities in the local area pedestrian and cycle path connections between the different precincts, neighbourhoods and open space areas within the development facilities to encourage recreational walking and cycling, particularly in scenic/ high amenity locations <p><i>Relevant Development Principles: 5, 6 and 7</i></p>

Performance Criteria	Acceptable Solutions
	Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P1</p> <p>Pedestrian and cycle path links are provided from the North Lismore Plateau development to existing roads and facilities in the local area including:</p> <ul style="list-style-type: none"> Dunoon Road 	<p>A1.1</p> <p>The location of walk/ cycle paths linking to the Lismore CBD take into account (and if possible are integrated with):</p> <ol style="list-style-type: none"> concept plans for proposed Slaters Creek wetland Appendix E.

Performance Criteria	Acceptable Solutions
<ul style="list-style-type: none"> Richmond River High School Lismore Showground proposed Slaters Creek wetland Lismore CBD. <p>Proposed pathway locations take into account any existing or proposed pedestrian and/or cyclist path routes in the local area.</p>	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <ol style="list-style-type: none"> proposed walk/cycle path linkages for Riverside and Lismore Park as shown in Appendix 3 of '<i>Lismore Sport and Recreation Plan 2011-2021</i>' (refer page 132). existing cycle path on Bridge Road.
<p>P2</p> <p>Adequate width of corridor for pedestrian/ cycle paths is provided in order to:</p> <ul style="list-style-type: none"> maintain casual surveillance and safety, and incorporate landscaping on either side of the pathway to provide shade and amenity to the pathway system. 	<p>A2.1</p> <p>Easements and other corridors for pedestrian and/ or cyclist pathways are a minimum of 10 metres wide.</p> <p>A2.2</p> <p>Pathways are designed and constructed in accordance with Austroads 'Guide to Road Design Part 6A - Pedestrian and Cyclist Paths'.</p>



Figure 4: Easements and inter-lot linkages for public pathways are minimum 10 metres wide to allow space for amenity landscaping and lighting so that casual surveillance of paths is maintained. Pathways are well lit and designed for 24 hour use.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P3</p> <p>The pathway network is designed to provide circuits for recreational walking and cycling.</p> <p>Within the network, accessible circuits are provided that are suitable for people of all ages and abilities.</p> <p>Circuits for recreational walking and cycling are provided on the top of the plateau as well as at the base of the plateau and are located to take advantage of areas of high scenic and/or natural amenity wherever possible.</p>	<p>A3.1</p> <p>Subdivisions demonstrate consistency with the pedestrian/ cycle routes illustrated in the Urban Release Area Structure Plan – Appendix A.</p> <p>A3.2</p> <p>Pathways are designed and constructed in accordance with Austroads 'Guide to Road Design Part 6A - Pedestrian and Cyclist Paths'.</p>
<p>P4</p> <p>Pathway designs include measures to aid way-finding and improve the legibility of the pathway network.</p>	<p>A4.1</p> <p>Different surface finishes are used to differentiate carriageways intended for:</p> <ul style="list-style-type: none"> • vehicles • cyclists • pedestrians. <p>A consistent surface material and surface markings are used for each, throughout the entire subdivision.</p> <p>A4.2</p> <p>Way-finding signage is provided throughout the pathway network, including maps in strategic locations which show the overall network and different circuit options.</p>
<p>P5</p> <p>The public pathway network at North Lismore Plateau is designed for day and night use and to maximise casual surveillance and safety.</p>	<p>A5.1</p> <p>The public pathway network is designed in accordance with Crime Prevention through Environmental Design (CPTED) principles and complies with <i>Lismore Development Control Plan (DCP) Part A Chapter 13- Crime Prevention through Environmental Design</i>.</p> <p>A5.2</p> <p>Easements and corridors for pathways, that are located between residential and/or commercial lots, are a minimum width of 10 metres to allow space for landscaping either side of the path and to maintain visibility and safety.</p> <p>A5.3</p> <p>All sealed paths within the pedestrian/ cycle network incorporate night lighting.</p> <p>A5.4</p> <p>All pedestrian/ cycle paths are visible from public roads with good casual surveillance. Bushland trails are an exception.</p> <p>A5.5</p> <p>Where trails are proposed in bushland, measures to improve surveillance/ safety are designed in.</p>



Figure 5: The pedestrian and cycle path network is attractively landscaped with species that support the local ecology. Shade is provided to pathways.

Performance Criteria	Acceptable Solutions <small>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</small>
<p>P6</p> <p>The pedestrian and cycle path network is attractively landscaped, well shaded, provides facilities for the comfort of users and contributes to the overall amenity of the subdivision.</p>	<p>A6.1</p> <p>Landscape plans are submitted for all off-road pedestrian/ cycle path connections/ routes.</p> <p>A6.2</p> <p>Shade trees are planted along the pathway, throughout the network.</p> <p>A6.3</p> <p>Within the overall pathway network facilities, such as the following, are provided in appropriate locations:</p> <ul style="list-style-type: none"> • drinking fountains • bicycle racks • rubbish bins • seating.

6.6 Element – Staging of infrastructure delivery

Objective	
To ensure the timely and efficient sequencing of infrastructure delivery to support the release of urban land. <i>Relevant Development Principles: 6 and 7</i>	
Performance Criteria	Acceptable Solutions
P1 Subdivision of any land parcel shall provide the key infrastructure that is required to service that land.	Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
	A1.1 Development applications for subdivision include infrastructure delivery in accordance with the 'Infrastructure Delivery Plan for North Lismore Plateau'.

6.7 Element – External road works

Objective	
The overall street function and structure of the Urban Release Area provides linkages to adjoining, existing and potential development. <i>Relevant Development Principles: 5 and 7</i>	
Performance Criteria	Acceptable Solutions
P1 Development provides connections to local facilities including Lismore Showground, proposed Slater's Creek constructed wetland, Richmond River High School and the Lismore CBD in an efficient manner applying equally to all transport modes.	Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
	A1.1 Development provides upgrades to existing roads, intersections, pedestrian/ cycle paths and also provides amenity planting/ street trees, in accordance with the 'Infrastructure Delivery Plan for North Lismore Plateau'. A1.2 The preferred access route from the CBD to the Plateau is upgraded to the requirements as detailed in the 'Infrastructure Delivery Plan for North Lismore Plateau'. The preferred access route from the CBD is from the Molesworth/ Orion Street intersection north along Winterton Parade, west along Alexandra Parade and north along Dunoon Road to the proposed entry points into the subdivision, as shown on the Urban Release Area Structure Plan – Appendix A .

6.8 Element – Internal street design

The road network is an extension of the open space network and primarily promotes a healthy lifestyle while reducing traffic congestion by offering alternatives to driving. The street network should be sympathetic to the topography of the site and align with natural drainage paths and wildlife corridors. The street network will support a multimodal transport system providing equal priority to pedestrian, cycling, public transport and motor vehicles.

The streets of the North Lismore Plateau are divided into the following categories:

Boulevard Collector (Major and Minor) – connects the various neighbourhoods and key activity areas of the North Lismore Plateau. There shall be no direct vehicular access to lots from a Major Boulevard Collector. The Boulevard Collector will provide a bus route and on street cycle lanes. The Major Boulevard Collector will have a 2m wide central median. Central medians shall be used for pedestrian storage, bio-retention and landscaping. A 1.5m pedestrian path will be provided either side of the Boulevard Collector

Collector (Major) - Shall provide the southern link between Dunoon Road and the Boulevard Collector there shall be no direct property access and shall support high levels of pedestrian and cycling activity while providing the main vehicle and bus link to the Lismore CBD. The major collector shall provide designated on-street 1.5m cycle ways (both directions) and a 2.5 m wide combined cycle/pedestrian path on the northern side between Dunoon Road and the mid intersection. The major collector west of the mid intersection shall provide with two 3.5 m traffic lanes and a 3.5m passing lane as it ascends the plateau escarpment. The pavement shall be supported by a 1.5m sealed shoulder. This section is considered steep for the volume of traffic that it is proposed to carry and safety standards required by the Austroad's Guide to Road Design are to be adopted.

Collector (Minor) - Shall link neighbourhood destinations including shops, parks and community facilities. They can include bus and cycling routes and cater for on street parking. A minor collector shall have a minimum of one parking lane and two traffic lanes. Build outs and street trees maybe used to assist in restricting the speed environment.

Local Street - Is a two-way street providing residential access in a low density area with one parking lane which may alternate between either side of the street and a minimum of one traffic lane with passing opportunities.

Access Place - Is a two-way street with a 3.5m traffic lane and staggered parking on one side of the street while provide an adequate through vehicular passage way. Access Places are suitable for medium density where walking would be the dominant access mode

Lane – Is a two-way shared street. For reasons of amenity or high traffic volume, these streets provide rear or secondary access to residences which have an alternative street frontage but find alternative access difficult. Lanes do not offer on street parking. Pedestrian, cyclists and cars must share this space equally. Good passive surveillance is required along and through lanes.

Carefully considered streetscape designs can add visual interest and variety, reinforce local identity, help to define different neighbourhoods and precincts within the development, and help residents and visitors to feel safe and find their way around.

Objective	
<p>The street network allows and encourages streets which support active and interactive communities by:</p> <ul style="list-style-type: none"> • improving safety and security • increasing vitality and interaction • reduce private motor vehicle dependency • improve development efficiency • provide valuable community space • retain economic activity in the community <p><i>Relevant Development Principles: 5, 6, 8 and 12</i></p>	
Performance Criteria	Acceptable Solutions
<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>	
<p>P1</p> <p>Vehicle access to Dunoon Road is limited to the Major Collector, Minor Collector and Boulevard Collector roads at intersections detailed on the Urban Release Area Structure Plan – Appendix A.</p>	<p>A1.1</p> <p>Each intersection is to be provided to the standards detailed in the Northern Rivers Development and Design Manual and Austroads - Guide to Road Design.</p>

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
P2 Streets are used to define the edges between development and open space areas (refer Definitions) and contribute to bushfire asset protection zones, wherever possible.	A2.1 Perimeter roads are used to create a buffer for bushfire hazards.
P3 Provision of high levels of internal accessibility and good external connectivity.	A3.1 Subdivisions demonstrate consistency with the Urban Release Area Structure Plan – Appendix A.
P4 Manageable street and intersection spacing providing walkable and efficient blocks.	A4.1 The street network within the development is comprised of connected streets forming urban blocks of not more than 120m in length. Refer Table 1 “ NLP Street Network Characteristics”
P5 Street layouts maximise connectivity and permeability for pedestrians, cyclists and vehicles.	A5.1 The street layout provides a maximum of three entry points to the development from Dunoon Road. A5.2 Street layouts involving cul-de-sacs and other barriers to connectivity generally do not provide an acceptable solution. However in the case where a cul-de-sac cannot be avoided a pedestrian and cycle path is provided at the cul-de-sac head linking to an adjacent street or open space area. The minimum width of this open space link is 10m. A5.3 Street design is in accordance with the Street Infrastructure Specifications - Appendix C . A5.4 Council will give consideration to reduced carriageway widths and alternative street typologies, to achieve a connected street network. A5.5 Where traffic volume is likely to exceed 3,000vpd or traffic speed exceeds 50kph, safe crossings are created with the use of pedestrian refuges, slow points, thresholds or other appropriate mechanisms.
P6 Street layout promotes an efficient public transport network.	A6.1 90% of residents have access to public transport within 400m. Secure bicycle storage at designated bus stops. Provision of bus shelters at 400m to 800m spacing.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P7.1 Street and lot layouts maintain the connectivity, accessibility and casual surveillance of the public street network.</p> <p>P7.2 The size and length of urban blocks are not too long or too deep, to maintain a walkable neighbourhood.</p>	<p>A7.1 “Gated” communities are not supported, regardless of whether lots are Torrens or Strata Titled, as they do not contribute to connected street networks.</p> <p>A7.2 Aged care facilities subject to the provisions of State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004, are the exception.</p> <p>A7.3 Private roads and right of carriageways are used only where necessary to service pockets of land not otherwise accessible from a public street. Private roads service a maximum of three lots.</p> <p>A7.4 Rear lots/ battle-axe lots are avoided.</p>
<p>P8 The subdivision promotes walking and cycling as a mode of travel and for recreation.</p>	<p>A8.1 Location of pedestrian and cycle pathways is consistent with the conceptual pathway network shown on the Urban Release Area Structure Plan – Appendix A.</p>
<p>P9 New streets are located so they do not fragment or sever ecological corridors.</p>	<p>A9.1 Subdivision design minimises the number and extent of street crossings through the contiguous vegetation corridor on the eastern side slopes of the plateau. Where streets must cross this vegetation corridor, streets are located and designed to minimise vegetation clearing and the environmental impacts of earthworks and retaining structures which become barriers to movement of wildlife. Street designs provide for the safe movement of native wildlife across the street.</p> <p>A9.2 Subdivision design avoids street crossings over watercourses.</p>
<p>P10 Street design includes measures to protect the safe movement of native wildlife through the subdivision.</p>	<p>A10.1 For example, street design makes provision for:</p> <ul style="list-style-type: none"> a) Compliance with the ‘North Lismore Plateau Street Network Characteristics’ detailed in Table 1; warning signage; roadside lighting; which restrict motor vehicles to a maximum speed of 40 kilometres per hour within the subject site where possible;

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
	<ul style="list-style-type: none"> b) For roads where the maximum speed of motor vehicles must be greater than 50 kilometres per hour in urban areas or greater than 60 kilometres per hour in rural areas, appropriate measures are required to exclude koalas from roads (e.g. koala exclusion fencing, underpasses) and minimise the likelihood of impediments to safe koala movement; c) Specifications for road design standards, signage, koala exclusion fencing and/or traffic calming devices and any other mitigation measures are explicitly included with the development application for subdivision.
<p>P11</p> <p>Street alignment and lot orientation maximise opportunities for natural sunlight access to lots.</p> <p>The majority of lots are configured to facilitate dwelling designs that can achieve living areas and private outdoor living spaces located in the north and/or north-east of the lot.</p>	<p>A11.1</p> <p>Subdivision design aims to achieve the following outcomes, wherever possible:</p> <ul style="list-style-type: none"> a) streets are aligned north/south; b) the long side of lots are aligned east/ west; c) lots which must be oriented north/south have north facing private backyards and frontage to the public domain/ street to the south.
<p>P12</p> <p>The street network provides for on-street visitor car parking in strategic locations.</p>	<p>A12.1</p> <p>On-street car parking spaces are provided within 60m of the lot and at the rate of one space per lot.</p>
<p>P13</p> <p>Landscaping within road reserves, including landscaping of WSUD elements/ infrastructure, is designed in accordance with sustainable landscape principles to:</p> <ul style="list-style-type: none"> • Support the local ecology and bio-diversity; • minimise landscape maintenance inputs (e.g. plant material is used that requires minimal irrigation, fertiliser and mowing); • maximise infiltration of stormwater (e.g. in vegetated swales/ berms/ channels); • contribute to desired landscape character; • provide shade and improve street micro-climate; • maintain ease of movement, safety and visibility for pedestrians, cyclists and vehicles. 	<p>A13.1</p> <p>Swales/ channels for stormwater drainage are rock-lined and planted with native grasses/ sedges/ low shrubs/ groundcovers, rather than mown turf, wherever possible. Species used are to be tolerant of site conditions (e.g. periodic inundation).</p> <p>A13.2</p> <p>Trees are incorporated in informal native planting schemes or as formal avenue plantings, in all streets.</p> <p>A13.3</p> <p>All weather crossings are provided for pedestrians, cyclists and vehicles across swales and open drainage lines.</p> <p>A13.4</p> <p>Vegetation in road reserves does not impede sightlines for pedestrians, cyclists and vehicles and maintains casual surveillance of the public domain.</p>

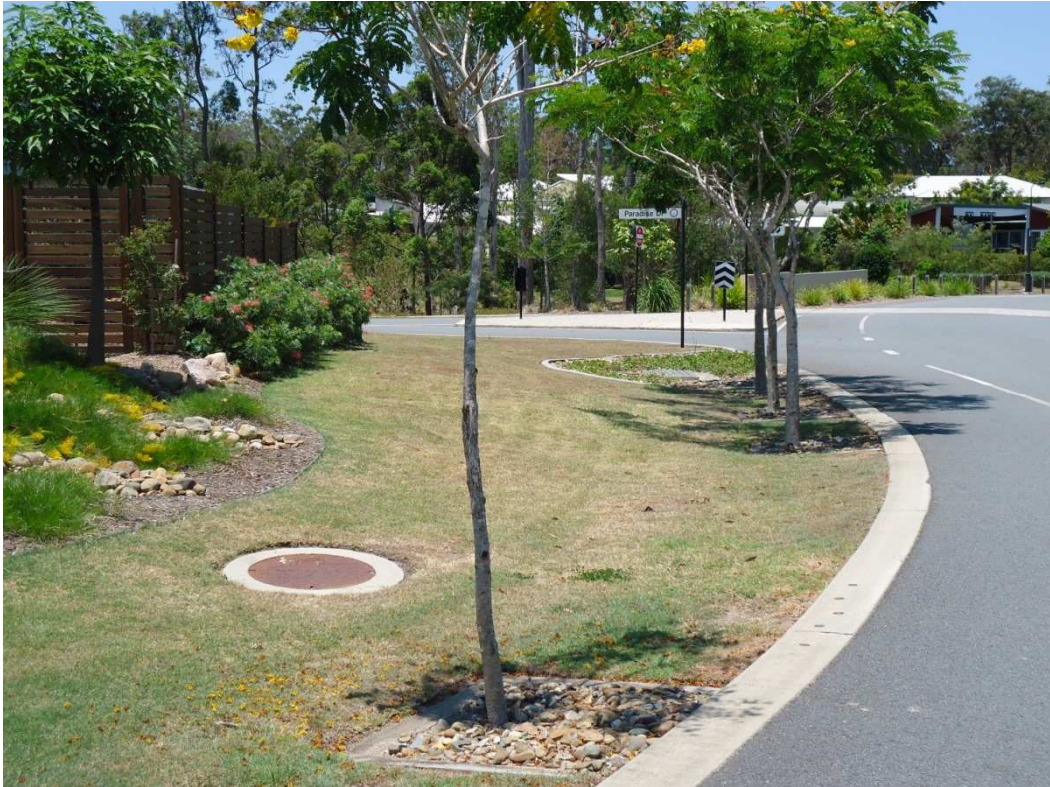


Figure 6: Road reserves are designed for water infiltration and to encourage walking and cycling. Native plant species are used in landscaping to support the local ecology and minimise maintenance requirements.



Figure 7: Pedestrian and cycle paths are provided to encourage recreational walking and cycling. Water sensitive urban design (WSUD) infrastructure is well landscaped and integrated with open space planning.

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Table 1- North Lismore Plateau Street Network Characteristics

Street Type	Boulevard Collector (Major)	Boulevard Collector (Minor)	Collector ² (Major)	Collector (Minor)	Local Street	Access Place	Lane
Function	Connects neighbourhoods and key activity areas of the north Lismore Plateau	Connects neighbourhoods and key activity areas of the north Lismore Plateau	Distributes traffic volumes from the Distributor network to the Collector/ Boulevard network	Provide direct residential property access. Provide pedestrian, cyclist and vehicle connectivity	Provide direct residential property access. Provide pedestrian, cyclist and vehicle connectivity	Provide direct residential property access. Provide pedestrian, cyclist and vehicle connectivity	Provides Two way access to rear of properties for garaging, refuse collection and other service vehicles
Lots serviced ³	<1100	<450	450 - 2,300	<800	<180	120	na
Notional Traffic Volume	<7,500 vpd	<3,000 vpd	3,000 - 15,000 vpd	<5,000 vpd	<1,000 vpd	<650 vpd	<500 vpd
Reserve Width	26.5	24.5	19 m	17.5m	14	13	6.5
Verge width (minimum)	4.0 m	4.0 m	4.0 m - 5.0m when a 2.5m pathway is required)	4.0 m	3.5 m	3.5 m	0.5 m
Carriageway Width (inc sealed shoulder) ⁷	15m	15m	10m - 13.5 m where grade exceeds 12%	9.5m	7	6	5.5
Longitudinal Grade ⁴	12%	12%	12% (the absolute maximum grade on the Major Collector is 15%)	12%	16%	16%	16%
One-way Cross fall	No	No	No	No	Optional	Optional	Optional
Median width	2m	No	Optional	No	No	No	No

Street Type	Boulevard Collector (Major)	Boulevard Collector (Minor)	Collector ² (Major)	Collector (Minor)	Local Street	Access Place	Lane
Number of traffic lanes	2 x 3.5m	2 x 3.5m	2 x 3.5m	2 x 3.5m	one 4.5m two-way traffic lane with passing opportunities	Varies , minimum one 3.5m traffic lane with passing opportunities	one lane, two way
On street Parking / number street sides ⁶	2.5m both sides - no parking lane is required where street fronts Bushland (conservation/revegetation areas)	2.5m both sides - no parking lane is required where street fronts Bushland (conservation/revegetation areas)	No on street parking lanes	2.5m one side staggered to provide passing opportunities	2.5m one side staggered to provide passing opportunities	2.5m one side staggered to provide passing opportunities	No
Footpath width / number street sides	1.5m /Both sides	1.5m /Both sides	2.5m northern side east of the mid intersection	1.5m/ one side	1.5m/ one side	No	No
Street trees	Yes	Yes	Yes	Yes	Yes	Yes	No
Bus Route	Yes, stops allowed in parking lane	Yes, stops allowed in parking lane	Yes (indented stops)	Yes	No	No	No
Cycleway ^{7, 8, 9, 10}	on carriageway lane <ul style="list-style-type: none"> 1.5m both sides between kerb and parking lane 0.75m wide painted buffer 	on carriageway lane <ul style="list-style-type: none"> 1.5m both sides between kerb and parking lane 0.75m wide painted buffer 	on carriageway lane - 1.5m both sides adjacent to parking lane east of mid intersection	on carriageway	on carriageway	on carriageway	on carriageway
Property Access	Yes	Yes	No	Yes	Yes	Yes	Yes
Traffic calming	No	No	No	No	No	No	No

Street Type	Boulevard Collector (Major)	Boulevard Collector (Minor)	Collector ² (Major)	Collector (Minor)	Local Street	Access Place	Lane
Kerb type^{1,5}	Mountable Kerb used in conjunction with grass swale - Upright elsewhere	Mountable Kerb used in conjunction with grass swale - Upright elsewhere	1.5m sealed shoulder west of the mid intersection and upright kerb east of the mid intersection	layback	layback	layback	layback
Speed Environment (85th percentile)	40kph	40kph	60kph	40kph	20kph	20kph	10kph
Intersection Spacing	120m	120m	120m	100m	100m	80m	80m

1 Concrete edging type M6 IPWEA standard drawings R-0080 and WSUD -008 are required when grass swales are used to convey stormwater runoff at the side of a street/road

2 Major Collector road to be signed "No Stopping" on both sides

3 Notional 6.5 vehicle trips per day are generated per standard residential lot

4 Refer to Austroad Guide to Road Design Part 3 "Geometric Design" for steep grade criteria

5 Where concrete edging is used bollards at 1.5m spacing or other suitable treatment are required to protect pedestrians, grassed verges and WSUD devices

6 Parking lane can be deleted if replaced with suitable on-street Cluster parking

7 3.5m passing lane required on grades that exceed 12%

8 Kerbside running bike lanes are required on the Boulevard Collector 9major and minor)

9 Kerbside running bike lanes shall have a 750mm painted buffer between the bicycle lane and the parking lane. The buffer be defined white chevrons between a solid white line adjacent to the bicycle lane and white vibra (tactile) line adjacent to the parking lane

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6.9 Element – Lot sizing for housing diversity

A key outcome that Council is seeking from development of the North Lismore Plateau, is the provision of innovative and different housing forms, in particular well-designed small houses on smaller lots. This is to meet identified community need and increasing market demand for more affordable housing options in Lismore.

Lismore lacks a diverse range of housing options. Over the past 50 years, housing developments in Lismore have historically delivered suburban blocks of typically 600 to 800m² in area, with a three or four bedroom brick and tile house. In 2011 the Lismore Local Government Area had approximately 16,343 occupied dwellings, with 85% separate houses and 13% multi-unit dwellings. Approximately 23% of the housing stock has 1 or 2 bedrooms and 73% has 3 or more bedrooms.

Household occupancy rates have declined over recent years and are expected to continue to decline due to declining fertility levels, ageing of the population, increasing single parent households, preferences for living in smaller households and higher incidence of divorce. Therefore, 1 and 2 bedroom dwellings will be needed to accommodate a greater proportion of smaller households.

Objective
Subdivision provides a range of allotment sizes that will facilitate the provision of a variety of dwelling types suited to the needs of different household structures and incomes. <i>Relevant Development Principles: 1, 2, 9 and 12</i>

Performance Criteria	Acceptable Solutions
	Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
P1 Subdivisions provide lots of a size and configuration to encourage the provision of accessible, diverse and affordable housing options.	A1.1 Subdivision of any land parcel is generally in accordance with the Urban Release Area Structure Plan – Appendix A and provides a range of lot sizes capable of achieving a minimum net density (refer Definitions) of 12 dwellings per hectare for the urban release area overall. Subdivisions demonstrate consistency with the indicative lot and dwelling typologies contained in Appendix B . A1.2 The minimum subdivision lot size applying to R1 General Residential zone for North Lismore Plateau is 300m ² under Lismore Environmental Plan 2012. The minimum lot size standard is not applicable to strata or community title subdivisions.
P2 Streets incorporate different sized lots with road frontages of varying lengths, in order to: <ul style="list-style-type: none"> • provide variety and visual interest in streetscapes; and • avoid large concentrations of a particular housing type in one area. 	
P3 Subdivisions for small lot housing and medium density developments are well designed and result in attractive and functional living environments.	A3.1 Small lots should be located to minimise the need for earthworks.

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <p>A3.2</p> <p>Small lots (400m² or less) and lots intended for attached medium density developments, are provided with rear lanes for vehicular access, in order to avoid the primary street frontage being dominated by numerous garages and driveway crossovers.</p> <p>A3.3</p> <p>Where subdivision of land will result in one or more small lots, or lots intended for medium density developments, Council requires the concurrent submission of a 'Plan of Development'.</p> <p>A 'Plan of Development' shows indicative building envelopes, floor plans, length and height of built to boundary walls and identification of all shared walls.</p> <p>The plan must demonstrate how dwelling designs will:</p> <ul style="list-style-type: none"> • relate to dwellings on adjoining lots; • provide private outdoor living space and good solar access to the subject dwelling; and • avoid / mitigate overlooking and overshadowing of neighbouring dwellings and their private open space.

6.10 Element – Lot orientation and configuration for solar access

Objective
<p>Street layout and the configuration and sizing of residential lots is responsive to site characteristics and achieves the following outcomes wherever possible:</p> <ul style="list-style-type: none"> • potential for solar access to the main living areas and private open space of future dwellings on each lot, is maximised; • lots are oriented so that future buildings can make best use of the site's characteristics (e.g. desirable views/outlook, most suitable access) in order to maximise amenity and privacy and keep building costs to a minimum; • potential for overshadowing and overlooking of neighbouring dwellings and their private open space, is minimised. <p><i>Relevant Development Principles: 1, 2, 9 and 12</i></p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
<p>P1</p> <p>In subdivision design, factors such as degree of slope, aspect of slope and presence of existing vegetation (to be retained), influence the location and sizing of lots, in order to maximise the number of lots with good solar access.</p> <p>The configuration, shape and size of lots maximises solar access to each lot and potential future dwellings on the lot.</p>	<p>A1.1</p> <p>Subdivision layouts provide rectangular shaped lots with the long side of the lot aligned east- west wherever possible, in order to maximise the potential for solar access to future dwellings.</p> <p>A1.2</p> <p>The majority of lots are of appropriate shape and width to accommodate dwelling designs where the main indoor and outdoor living spaces are located in the north and/or north-east of the lot.</p>

7.0 Residential Development

This section is to be read in conjunction with *Lismore Development Control Plan, Part A Chapter 1 - Residential Development*. In the event that any inconsistency arises, the development controls in this DCP Chapter prevail.

7.1 Element – Housing diversity

Objective	
To facilitate the provision of a diversity of dwelling types to service the needs of residents at different stages of life.	
<i>Relevant Development Principles: 1 and 2</i>	
Performance Criteria	Acceptable Solutions
<p>P1 Development at North Lismore Plateau provides a diversity of dwelling types, to suit different household structures and to meet increasing market demand for more affordable housing options.</p> <p>P2 In locating higher density development, consideration is given to the neighbourhood context, availability of infrastructure, environmental amenity and proximity of public transport and community facilities.</p> <p>P3 Medium density developments and dwellings on small lots show innovation and careful consideration in their design, so that solar access and the general residential amenity of the subject dwelling and adjoining dwellings, is maximised.</p> <p>P4 The front elevation of each dwelling contributes to the visual interest and legibility of the streetscape and the general amenity and attractiveness of the neighbourhood.</p>	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
	<p>A1.1 Development provides a minimum net density in the range of 12 dwellings/ hectare.</p>
	<p>A2.1 Higher density developments are located in areas:</p> <ul style="list-style-type: none"> a) where infrastructure is readily accessible and available to service each dwelling; b) of higher amenity e.g. overlooking parks, open space and/ or views; c) close to public transport; or d) close to community facilities.
	<p>A3.1 Development applications for dwellings on small lots (400m² or less), attached dwellings and medium density dwellings are in accordance with the 'Plan of Development' approved by Council as part of the development consent for subdivision.</p>
	<p>A4.1 Front elevation of each dwelling is individually designed and detailed showing variation in architectural elements such as eaves, verandahs, awnings, sun shading devices, wall articulation, recesses, feature walls, porticos, colour treatments or other architectural features in order to:</p> <ul style="list-style-type: none"> • provide variety and visual interest in the streetscape; • help define the main entrance to the dwelling; • reduce the visual impact of garages; and • to differentiate one dwelling from another.

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
	<p>A4.2</p> <p>Designs for attached dwellings and multi-dwelling housing incorporate architectural elements that give visual unity to the development overall but also provide variation in the design and treatment of each dwelling, so that each dwelling is individualised and contributes to the visual interest, vibrancy and attractiveness of the neighbourhood.</p>

7.2 Element – Adaptable Housing

Objective
<p>Dwelling designs will be adaptable so they can service the needs of residents at different stages of life.</p> <p><i>Relevant Development Principles: 1 and 2</i></p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
<p>P1</p> <p>Development at North Lismore Plateau provides appropriate adaptable housing.</p>	<p>A1.1</p> <p>Development applications for five or more dwellings are required to provide one adaptable designed dwelling per five dwellings. Adaptable design meets the requirements of <i>Australian Standard 4299 - Adaptable Housing</i> (Dwelling houses and dual occupancies are exempt from this control).</p>

7.3 Element – Recommended Noise Mitigation Measures for New Dwellings

North Lismore Plateau is ideally located proximal to existing urban services and development. Some of the nearby development includes commercial and industrial land uses and the Lismore Showground. The showground is the venue for music events, Lismore Speedway, Lismore Kart Club, Monster Truck Shows and other motor sport events – all of which have the potential to compromise the acoustic amenity of the residential living environment at North Lismore Plateau. The following noise mitigation provisions are therefore provided to protect the amenity of residents.

Note: New dwellings and alterations and additions to existing dwellings can be constructed without acoustic controls pursuant to the provisions of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. Consequently, these acoustic controls are advisory only and not a compulsory requirement. Furthermore, the major noise source, the Lismore Speedway, operates intermittently with a maximum number of sixteen race meetings per year (at the time of preparation of this DCP Chapter).

Previous studies:

CRG Acoustical Consultants, June 2012, *'Environmental Noise Impact Report'* (Ref: crgreg 11398a).

Objective

To protect the acoustic amenity of residents from noise generated from the existing and on-going operations of nearby commercial land uses and events held at the Lismore Showground including Lismore Speedway, Lismore Kart Club, and other motor sports.

Relevant Development Principles: 4 and 5

Performance Criteria (advisory only)	Acceptable Solutions (advisory only)
<p>P1 Dwellings achieve reasonable internal noise amenity and /or 40 dB(A) in habitable rooms (refer to Definitions).</p> <p>Acoustic treatments give consideration to:</p> <ul style="list-style-type: none"> • Building location and orientation on the lot (e.g. increase the setback of the building and the habitable rooms within it, from the noise source). • Modifications to the floorplan/ room layout so that non-habitable rooms are located closest to the noise source and provide a buffer to the habitable rooms in the house. • Shielding of the building by topography, barriers or other buildings. • Courtyards are shielded by the building itself or by perimeter walls/ fencing. • Building shell treatments such as masonry walls, thick glazing, double glazing, acoustic window and door seals, wall and ceiling insulation, 10mm ceiling plaster board. <p>Refer: NSW Department of Planning interim guideline 'Development Near Rail Corridors and Busy Roads' for information on acoustic treatment of buildings.</p>	<p>A1.1 Dwellings located at the 55 dB(A) noise contour line (refer to Appendix E - Noise Contour Map) or greater, meet the acceptable solutions listed below:</p> <p>Acceptable solutions for each noise range:</p> <p>55 dB(A) to 60 dB(A)</p> <ul style="list-style-type: none"> • Provision of air-conditioning or sealed mechanical ventilation to habitable rooms. <p>60 dB(A) to 65 dB(A)</p> <ul style="list-style-type: none"> • Provision of air-conditioning or sealed mechanical ventilation to habitable rooms; and • Laminated glass in operable acoustic grade frames and seals for windows and sliding doors (Rw rating 25 – 30) of habitable rooms; and • Standard wall and roof/ ceiling construction*. <p>65 dB(A) to 70dB(A)</p> <ul style="list-style-type: none"> • Provision of air-conditioning or sealed mechanical ventilation to habitable rooms; and • Laminated glass (Rw rating 30 – 35) in operable acoustic grade frames and seals for windows and sliding doors; and • Standard wall and roof/ceiling construction*. <p>70 dB(A) to 72 dB(A)</p> <ul style="list-style-type: none"> • Provision of air-conditioning or sealed mechanical ventilation to habitable rooms; and • Laminated glass or double glazing in acoustic grade frames and seals for windows and sliding doors(Rw rating 35 – 37); and • Standard wall and roof/ceiling construction* with insulation batts in voids.

* Standard wall and roof/ceiling construction may include:

Roof/Ceiling

- Tiled pitched roof with plasterboard flat ceiling;
- Metal pitched roof with minimum 10mm plasterboard flat ceiling;
- Tiled flat or skillion roof with a 150mm air gap and minimum 10mm plasterboard ceilings.

Walls

- Masonry veneer;
- Weatherboard.

Note: The construction of standard wall and roof/ceilings shall meet the general installation requirements for walls as contained in the Building Code of Australia (Sound Insulation - 3.8.6.3).

7.4 Element – Setback from street, side and rear boundaries and built to boundary walls

Objective	
<p>Dwellings are appropriately positioned and orientated on individual lots in order to:</p> <ul style="list-style-type: none"> • maximise sun, natural light and breezes into the main indoor and outdoor living areas • allow adequate space for landscaping to help maintain privacy and amenity • take advantage of the attributes of the site • maintain the amenity and function of the public road reserve/ streetscape. <p><i>Relevant Development Principles: 1 and 4</i></p>	
Performance Criteria	Acceptable Solutions
<p>P1</p> <p>Variable building setbacks and zero boundary alignments (or similar) are utilised in order to maximise solar access to the main indoor and outdoor living areas of dwellings.</p>	<p>A1.1</p> <p>The minimum setback of a dwelling and its ancillary buildings from the primary street frontage is:</p> <ul style="list-style-type: none"> • 3m, if the lot has an area of less than 400m². • 6m preferably and 4m minimum, if the lot has an area of 400m² or greater. • Corner blocks are permitted a 6 metre primary frontage and a 4 metre secondary frontage except in circumstances where a garage is located on the secondary frontage. • Council will consider reduced front building setbacks to a minimum of 3 metres for higher density developments such as attached dwellings and dual occupancy, where it can be demonstrated that the Objectives and Performance Criteria of this Element can be satisfied. <p>Variation of setbacks for garages and carports should not be included in a design, and may not be approved, if there is a likelihood of vehicles parked in the driveway intruding onto the public footpath, thus creating difficulties for pedestrians and the disabled.</p> <p>A1.2</p> <p>Side and rear building setbacks respond to the lot orientation to maximise solar access to indoor and outdoor living spaces. The minimum side and rear setback provisions of Part A Chapter 1, Residential Development, of Lismore Development Control Plan' apply.</p>



Figure 8: Council will consider reduced front setbacks to 3 metres minimum, for higher density dwellings.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P2.1 The location and height of built to boundary walls is coordinated with development on adjoining lots, to avoid built to boundary walls overshadowing adjoining dwellings and their private open space.</p> <p>P2.2 Dwellings with shared walls are constructed concurrently.</p>	<p>A2.1 A built to boundary wall is to be in accordance with Division 2 Subdivision 3.16 of SEPP (Exempt and Complying Codes) 2008.</p> <p>A2.2 Construction of dwellings with common party walls is to occur concurrently. Occupation certificates will only be issued once all dwellings sharing the common wall are completed.</p>
<p>P3 Adequate setbacks are provided for buildings adjacent to public parks in order to maintain casual surveillance.</p>	<p>A3.1 Where an attached dwelling, multi-dwelling unit, dual occupancy or single dwelling on a small lot (400m² or less in area) has frontage to a public park, the front building setback is a minimum of 3 metres.</p> <p>A3.2 Single dwellings on lots greater than 400m² in area, with a common boundary to a public park or open space area have the following building setbacks. Where the common boundary is a: Front Boundary – 4 metres Side Boundary – 900mm Rear boundary – 3 metres.</p> <p>A3.3 Ancillary buildings are setback a minimum of 900mm from the park boundary and must not extend along more than 50% of the length of the park boundary, in order that casual surveillance of the public park from the dwelling can be maintained.</p>

7.5 Element – Solar Access

The use of passive solar design in dwellings is encouraged. Lismore has a temperate sub-tropical climate and well designed houses should only require a limited amount of heating and cooling. The heat load resulting from direct solar penetration into buildings during the hotter months can be a major problem, and so it is important that dwellings are designed to optimise the benefits of sunlight, whilst minimising its negative effects.

The orientation of the allotment, the immediate subdivision pattern and the local topography, have a significant impact on the ability to provide solar access. Sites on the southern side of a hill, for example, may not receive the same level of sunlight access as other sites. On allotments where the side boundary has a northerly aspect, consideration should be given to increasing the side setback to improve sunlight access and to prevent overshadowing by future development on neighbouring allotments.

It is also important when designing new buildings to consider the impact of the new development on the solar access of the neighbour. In some instances, overshadowing may be unavoidable; however unreasonable overshadowing of neighbours as a result of poor design is not acceptable.

Ideally, solar access should be maximised in winter and minimised in summer. A northerly aspect is most desirable as it provides the most solar access in winter and is relatively easy to shade in summer. A westerly aspect is least desirable, particularly in summer. Protection for a westerly aspect can be achieved by using such elements as vertical sun shading devices, blinds and deciduous trees.

Daylight consists of both diffuse light and direct light. Good levels of daylight in a dwelling improve amenity and reduce the need for artificial lighting. Good levels of daylight can be achieved through the careful consideration of window size, location and proportion.

Objective
<ul style="list-style-type: none">• To maximise solar access• To create favourable residential amenity• To ensure that solar access to neighbouring dwellings and their private open space is maintained. <p><i>Relevant Development Principles: 1 and 4</i></p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
<p>P1 Solar access in living rooms is maximised in winter and minimised in summer.</p>	<p>A1.1 Living spaces are located predominantly to the north, where the orientation of the allotment makes this possible.</p> <p>A1.2 Dwellings on allotments which have a side boundary with a northerly aspect, are designed to maximise sunlight access to internal living areas by increasing the setback of these areas. In these cases a minimum side setback of 4 metres is provided.</p> <p>A1.3 Private open space of the subject dwelling receives at least two hours sunlight between 9am and 3pm on June 21.</p> <p>A1.4 Windows to north-facing habitable rooms of the subject dwelling receive at least 3 hours of sunlight between 9am and 3pm on 21 June over a portion of their surface.</p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
<p>P2 Living areas are provided with diffuse and direct sunlight at the appropriate times of the year.</p> <p>P3 Garages and other non-habitable rooms are located on the western side of the building, where possible, to protect the main living areas and bedrooms from the heat of the afternoon sun.</p>	<p>A1.5 For neighbouring properties:</p> <ul style="list-style-type: none"> a. sunlight to at least 50% of the principal area of private open space of adjacent properties is not reduced to less than 2 hours between 9am and 3pm on June 21; and b. windows to living areas receive at least 3 hours of sunlight between 9am and 3pm on 21 June. <p>Where existing overshadowing by buildings is greater than this, sunlight is not further reduced by more than 20%</p>

7.6 Element – Dwellings address the public domain

Objective
<p>Private dwellings are designed to overlook the public street and any adjoining public spaces, to contribute to the safety, attractiveness and useability of the public domain.</p> <p><i>Relevant Development Principles: 1, 2 and 4</i></p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p>
<p>P1 All dwellings address the adjoining public street, with the exception of rear laneways.</p>	<p>A1.1 Dwellings with frontage to a minor boulevard collector are designed as follows:</p> <ul style="list-style-type: none"> a) to enable casual surveillance onto the minor boulevard collector; b) front door/ main entry of the dwelling faces the minor boulevard collector; c) built form and landscaping clearly define a main pedestrian entrance to the dwelling from the minor boulevard collector; d) front and side boundary fencing, located forward of the building line, is maximum height 1.2 metres and minimum 40% transparent. <p>A1.2 Dwellings on corner lots are to address both street frontages through house design and landscaping.</p>

Performance Criteria	Acceptable Solutions
	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <p>A1.3</p> <p>Where a dwelling in a medium density or multi-dwelling housing development has frontage to a public street, the dwelling must address the street and be designed as follows:</p> <ul style="list-style-type: none"> a) to enable casual surveillance onto the street through the incorporation of windows and/or verandahs in the relevant building elevation(s) b) front door/ main entry of the dwelling faces the street c) built form and landscaping clearly define a main pedestrian entrance to the dwelling from the street d) front and side boundary fencing, located forward of the building line, is maximum height 1.2 metres and minimum 40% transparent.



Figure 9: Dwellings on corner lots address both street frontages through the inclusion of modulating elements in the building elevation such as: recesses, projections, windows, awnings and sun-shading devices, to avoid blank walls on side elevations reducing the amenity and safety of the streetscape.

Performance Criteria	Acceptable Solutions
<p>P2</p> <p>Where lots directly adjoin a park or bushland reserve, all dwellings address the park or reserve.</p>	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <p>A2.1</p> <p>Where medium density developments, attached dwellings, multi-dwelling housing or dwellings on small lots, have a common boundary with a public park, dwellings:</p> <ul style="list-style-type: none"> • have vehicular access from a rear lane or private road/ communal driveway; • front the public park with the front door and main pedestrian entry to the dwelling accessed from the park; • have a built form and landscaping that clearly defines the semi-private open space for the dwelling so it is readily distinguishable from the public domain, without the use of solid or high fencing; • provide casual surveillance of the park through the incorporation of windows and/ or verandahs in the front building elevation. <p>A2.2</p> <p>Where lots back on to a park or bushland reserve, planting is used to provide privacy screening (e.g. screening shrubs, hedges) rather than solid fencing or walls. Screen planting is designed so that some visibility is maintained between private and public areas (e.g. screen planting extends along 60% of the boundary only).</p>



Figure 10: Dwellings adjoining a public park have frontage to the park. Landscaping and built form clearly define the boundaries between private and public areas.

Performance Criteria	Acceptable Solutions
<p>P3</p> <p>Where residential lots directly adjoin a park, bushland reserve or stormwater drainage area, fencing and landscaping along the common boundary maintains visibility from the dwelling to the public open space.</p>	<p>A3.1</p> <p>Fencing along the common boundary is maximum height 1.5 metres and 40% transparent.</p>



Figures 11 and 12 above: Fencing along the common boundary to a park maintains casual surveillance from the dwelling to the open space area. The use of high, solid rear fences backing onto parks is avoided.

Performance Criteria	Acceptable Solutions
<p>P4</p> <p>Built form and landscaping clearly define a main pedestrian entrance to all dwellings, from the public domain.</p>	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <p>A4.1</p> <p>A clear pedestrian entry point and footpath is provided from the front property boundary to the front door/ main entrance of each dwelling.</p> <p>In most cases, the “front property boundary” will be the primary road frontage, unless the dwelling directly adjoins a public park and has rear lane access, in which case the common boundary with the park will be the front property boundary.</p>



Figures 13 and 14: Landscaping and built form help to define the main entry to each dwelling and pedestrian access is provided from the street to the front door of each dwelling house.

Performance Criteria	Acceptable Solutions
<p>P5</p> <p>Building front elevations include architectural design detail that:</p> <ul style="list-style-type: none"> • differentiates one house from another; • provides visual interest and variety in the streetscape; • avoids/ mitigates the potentially negative visual impacts of garages and carports on the streetscape; • maintains casual surveillance of the street/ public domain. 	<p>A5.1</p> <p>Where vehicular access is from a primary road (rather than a rear lane) garages and carports do not occupy more than 50% of the length of the building elevation that fronts the road.</p> <p>A5.2</p> <p>Building front elevations include articulation such as wall recesses/ build-outs and modulating elements such as porticos, awnings, windows, window shading devices, entry features, verandas, as well as a variety of material finishes to provide visual interest and avoid long lengths of blank, straight walls.</p>
<p>P6</p> <p>Buildings with elevated floors (e.g. pole houses) incorporate underfloor screening or advanced landscaping to mitigate visual impacts of undercroft areas, so they do not detract from the amenity of the neighbourhood.</p>	<p>A6.1</p> <p>Underhouse carparking spaces, storage areas, water tanks, metal sheds, hot water systems and other utility and plant are screened from view by battens, dwarf walls or similar.</p> <p>A6.2</p> <p>Where a building is elevated and the understorey is visible from adjoining properties or a public area, screen infill panels are to be provided with a vertical coverage of between 40-60% of the surface area below the external walls.</p>

8.0 Development in the Neighbourhood Centre

Development at North Lismore Plateau will include a small neighbourhood centre that can accommodate local services, for example: a convenience store and childcare centre. The neighbourhood centre will be located at the entrance to the NLP development, just off Dunoon Road, so that it is easy and convenient for residents to access. The centre will be well connected by paths and cycleways to surrounding residential areas and will be serviced by local buses.

The Neighbourhood Centre will provide a focal point for community life at North Lismore Plateau. It will overlook and link to the adjoining parkland and provide a potential venue for community gatherings and events.

Buildings within the centre will be either single or two-storey and of contemporary architectural style suited to the sub-tropical climate of Lismore. Attractive, shaded, pedestrian friendly, outdoor spaces will be provided. The built form of the centre will contribute to a sense of local identity for the new residential community. Vehicle access and carparking within the centre will be consolidated, so that cars and carparking do not dominate pedestrian environments.



Figure 15: The Neighbourhood Centre will accommodate a mix of uses (such as retail shops at ground level with dwellings or a community hall above) to encourage 24 hour use and passive surveillance of the centre. The centre will incorporate attractive, shaded outdoor spaces and provide pedestrian and cycle path links to adjoining parkland and surrounding residential areas.

8.1 Element – Neighbourhood centre character

Objective

- To provide a multi-purpose Neighbourhood Centre that can accommodate a range of commercial and community activities.
- To ensure the Neighbourhood Centre provides safe, attractive, comfortable and functional pedestrian environments that help facilitate social interaction.
- To ensure the Neighbourhood Centre is readily accessible for all including access for the disabled, pedestrians, cyclists, vehicles and buses.

Relevant Development Principles: 3,4, and 5

Performance Criteria	Acceptable Solutions
<p>P1</p> <p>The Local Neighbourhood Centre is appropriately located to:</p> <ul style="list-style-type: none"> • be convenient and readily accessible for residents; • maximise the potential market catchment of the centre to ensure its long term economic viability; • be suitable for mixed use developments, including dwellings. 	<p>A1.1</p> <p>Neighbourhood centre developments are located in the areas identified on the Urban Release Area Structure Plan – Appendix A.</p>



Figures 16 and 17: Neighbourhood centre development provides active building frontages at ground level and safe and attractive pedestrian spaces that are not dominated by cars and/or carparking and provide links to adjoining parkland.

Performance Criteria	Acceptable Solutions
<p>P2.1</p> <p>Development contributes to the role of the street as the focus for commercial and community life, and promotes the activation and casual surveillance of the public domain through active uses, building design and site layout.</p> <p>P2.2</p> <p>Residential uses are located within the neighbourhood centre precinct, to ensure 24 hour use and casual surveillance of the precinct.</p>	<p>Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.</p> <p>A2.1</p> <p>Buildings within the neighbourhood centre are generally two-storey and provide for mixed use. Commercial uses with active building frontages are located at ground level.</p> <p>A2.2</p> <p>The centre is well integrated with adjoining parkland, through site design, layout and the provision of pedestrian and cycle path linkages. Development has a focus towards the parkland with views/ outlook over it (rather than over the main entry road) so that both private and public open spaces can take advantage of the natural amenity the adjoining green-space provides.</p> <p>A2.3</p> <p>A transitional outdoor space with a "town square" type function is incorporated into the Neighbourhood Centre design. This neighbourhood square provides opportunity for shaded outdoor dining co-located with children's play facilities.</p>



Figure 18: Design of the Neighbourhood Centre should provide for a mix of uses such as retail, community facilities, and dwellings (as shown above) that will encourage 24 hour use of the centre. Maintaining passive surveillance of the centre is important for safety, particularly where the Neighbourhood Centre is isolated by surrounding parkland and somewhat remote from surrounding residential areas.

Performance Criteria	Acceptable Solutions Note: These are options only, not requirements. Council will consider alternative solutions that meet the Performance Criteria and Objectives of the Element.
<p>P3</p> <p>Buildings within the Neighbourhood Centre make a positive contribution to the overall legibility, function, connectivity, amenity, character and visual unity of the Centre.</p>	<p>A3.1</p> <p>Development applications for subdivision of land within the B1 Neighbourhood Centre zone demonstrate how the proposal will:</p> <ol style="list-style-type: none"> 1) provide a single/ central car-parking area to service all uses within the neighbourhood centre; 2) provide for vehicle access, pedestrian and cycle movement; 3) provide a transport inter-change function; 4) address and relate to the other buildings within the centre; 5) address and relate to adjoining public streets, parks or other public spaces; 6) achieve active building frontages at street level; 7) be of a scale and built form suitable for a Neighbourhood Centre that “fits” within the existing landscape setting and urban form; 8) provide a vibrant public domain with attractive and accessible pedestrian spaces that are not dominated by cars and carparking; 9) ensure casual surveillance of the centre (e.g. through upper level or residential uses); 10) provide interesting, contemporary, architectural form and detail that reflects the natural and cultural setting, helps to define a desired character for the centre and contributes to the local identity and sense of place; 11) provide well-designed landscaping and amenity planting to all streets and public spaces, that will enhance the function, attractiveness and character of the centre; 12) provide awnings at street level to give shade and all-weather access for pedestrians; 13) where residential uses are proposed, provide vehicular access, parking, private open space, solar access and privacy to all dwellings;
<p>P4</p> <p>Vehicle access and on-site carparking are provided within each Neighbourhood Centre. Roads in the vicinity of Neighbourhood Centres are designed for slow speeds.</p>	<p>A4.1</p> <p>A central on-site carparking area is provided in each neighbourhood centre, that services all commercial and community buildings within the centre.</p> <p>A4.2</p> <p>Residential uses are provided with carparking consistent with the provisions Lismore Development Control Plan Part A Chapter 1 and Chapter 7.</p>
<p>P5</p> <p>The Neighbourhood Centre has a transport inter-change function and encourages use of public transport and alternatives to private vehicle use.</p>	<p>A5.1</p> <p>Neighbourhood Centre development provides bicycle storage facilities as well as all-weather bus stops and taxi ranks.</p>

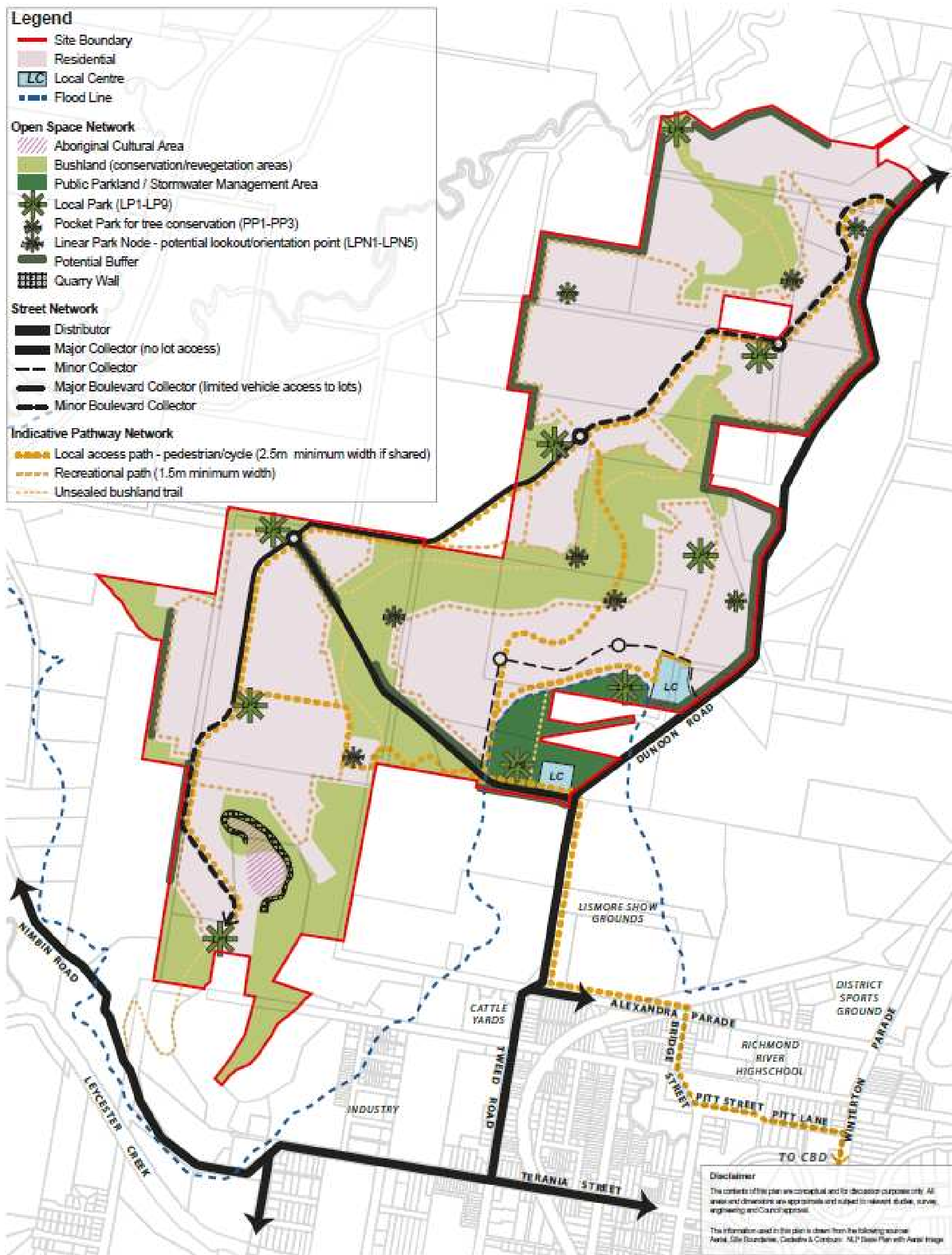
Performance Criteria	Acceptable Solutions
<p>P6</p> <p>Neighbourhood centre developments incorporate well-designed landscaping and amenity planting to streets, carparks and public spaces that:</p> <ul style="list-style-type: none"> • enhances the function, comfort, useability, attractiveness and character of the centre; • showcases sustainable landscape design principles; • is integrated with WSUD infrastructure and is in accordance with Lismore Development Control Plan Part A Chapter 22- Water Sensitive Design; • is accessible and complies with Australian Standard AS1428 - Design for access and mobility; • provides for safe, 24 hour use of the centre precinct and is in accordance with Lismore Development Control Plan Part A Chapter 13- Crime Prevention through Environmental Design; • is consistent throughout the Neighbourhood Centre precinct, to provide visual unity. 	<p>A6.1</p> <p>Development applications provide detailed landscape plans that demonstrate provision of:</p> <ul style="list-style-type: none"> • Water Sensitive Urban Design; • shade and amenity planting to carparking areas; • continuous all- weather awning to public footpaths to provide shade and shelter for pedestrians; • accessible footpaths and public areas with surface finish materials that are consistent throughout the centre; • street trees and amenity planting, using species endemic to the area and consistent throughout the centre; • a suite of street furniture (e.g. seating, rubbish bins, bollards, balustrades, bicycle racks, drinking fountains, community noticeboard) that is consistent throughout the centre; • lighting; • artwork, as required.

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Appendix A

Urban Release Area Structure Plan

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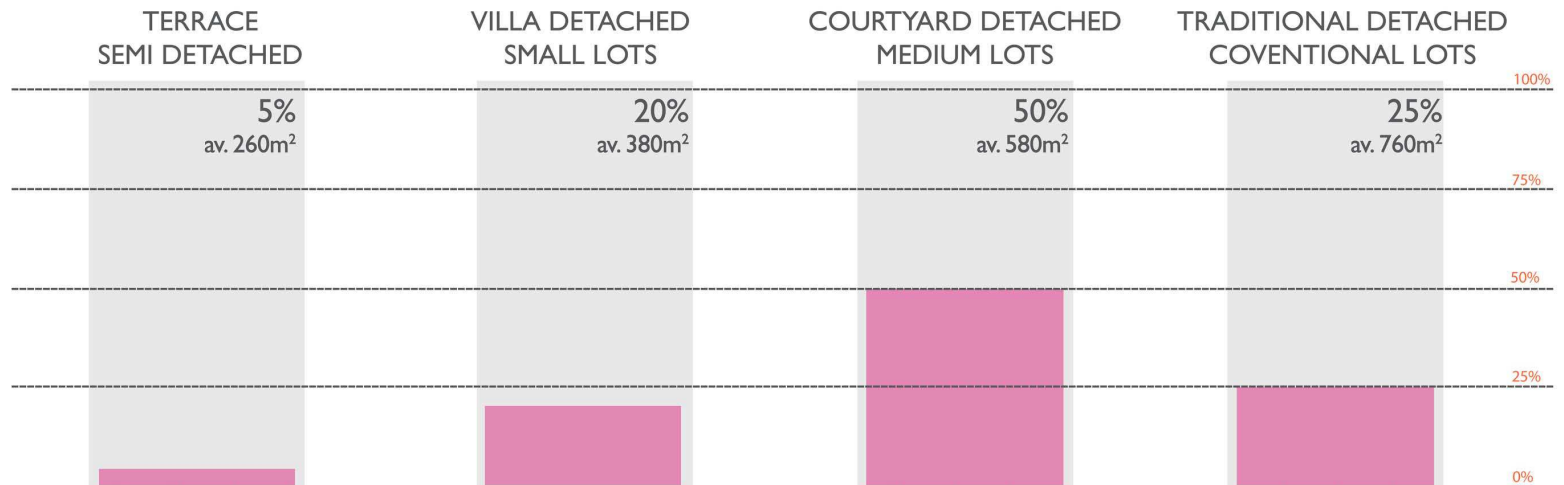
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Appendix B

Indicative Lot and Dwelling Typologies

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12/ha



duplex



triplex



terraces



soho / townhome



10m (single storey)



10m (double storey)



12 - 12.5m



laneway 10-12m



12.5m



12.5m



15m



15m



18m



20m



20m



25m

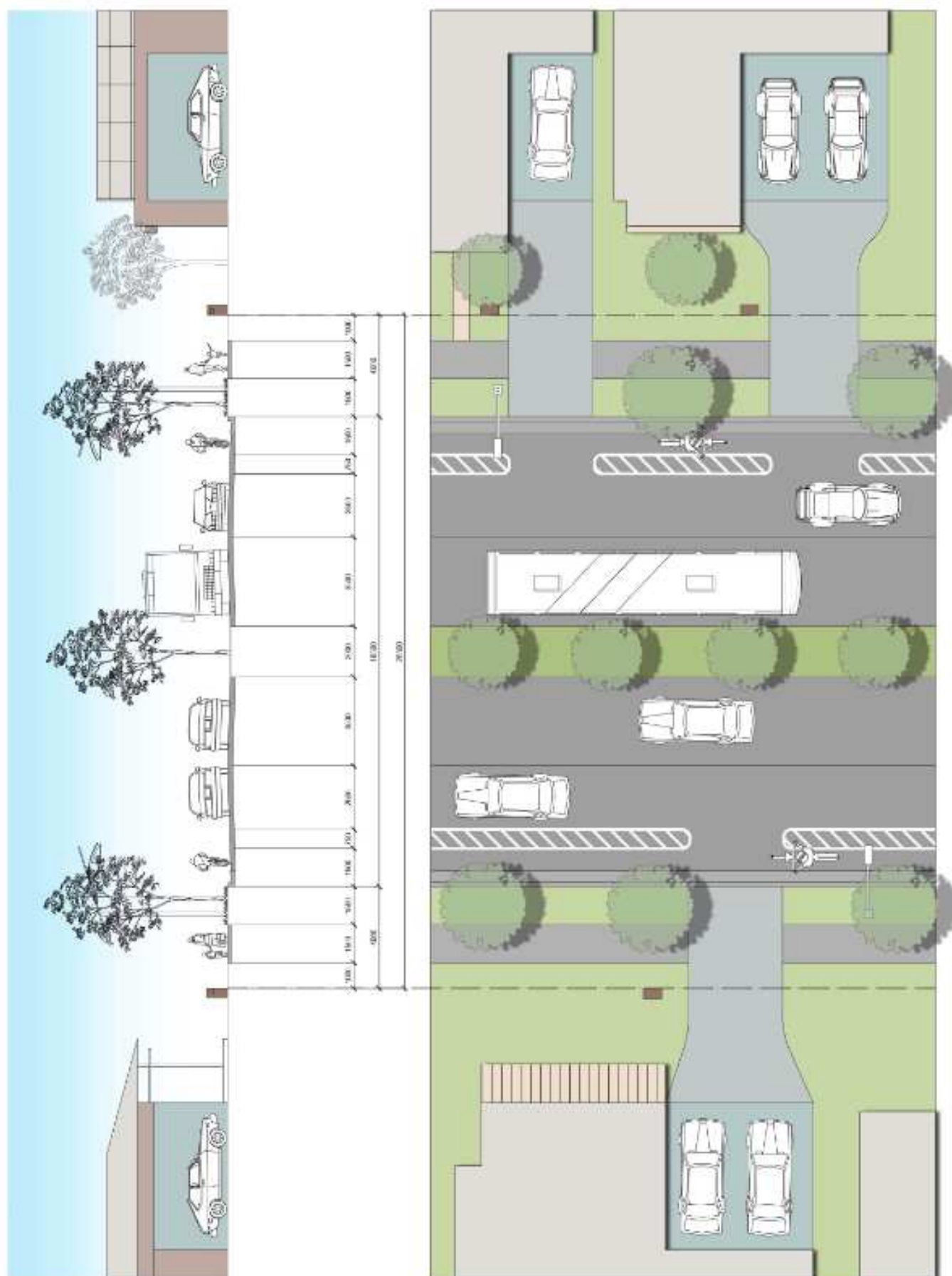
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Appendix C

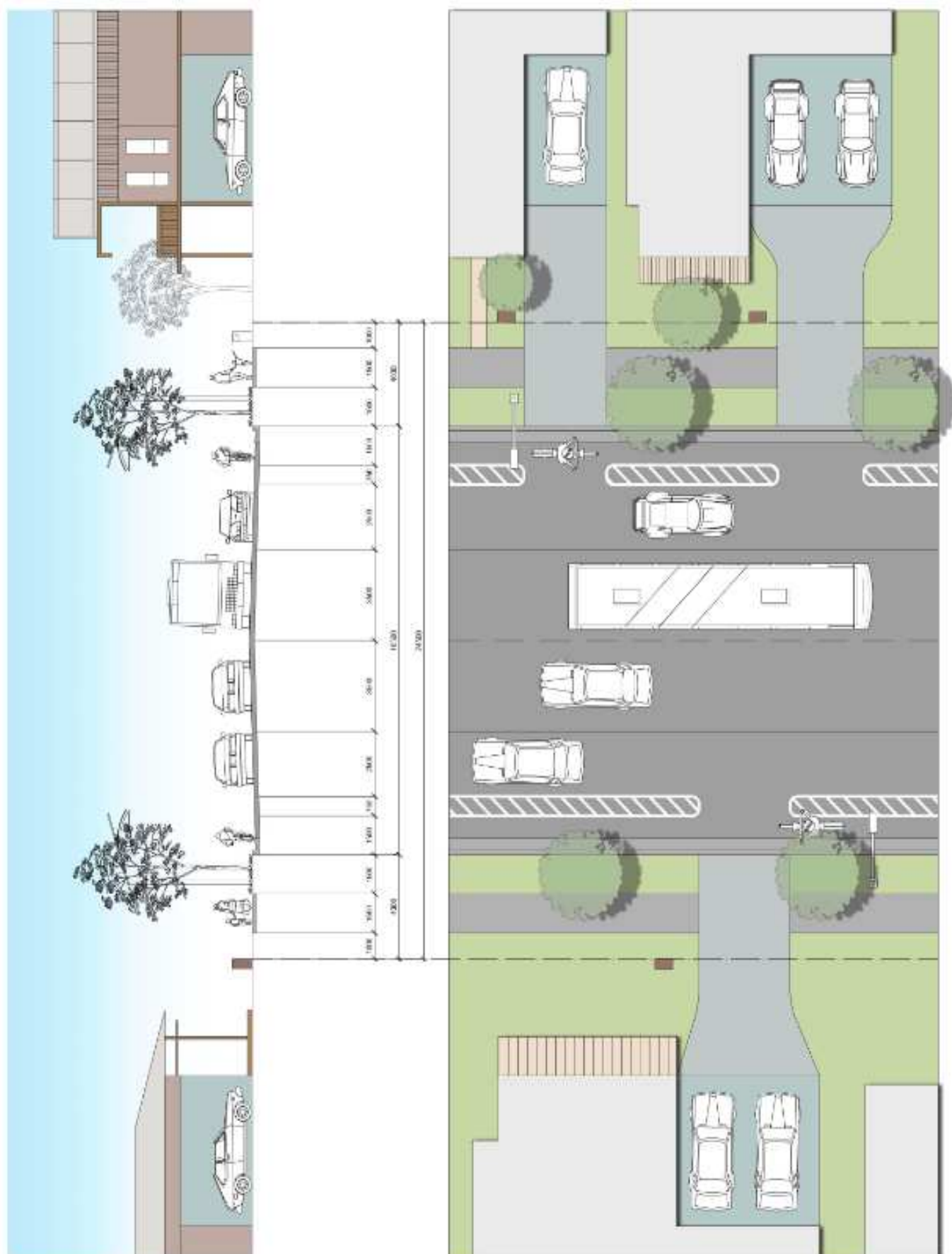
Indicative Street Specifications

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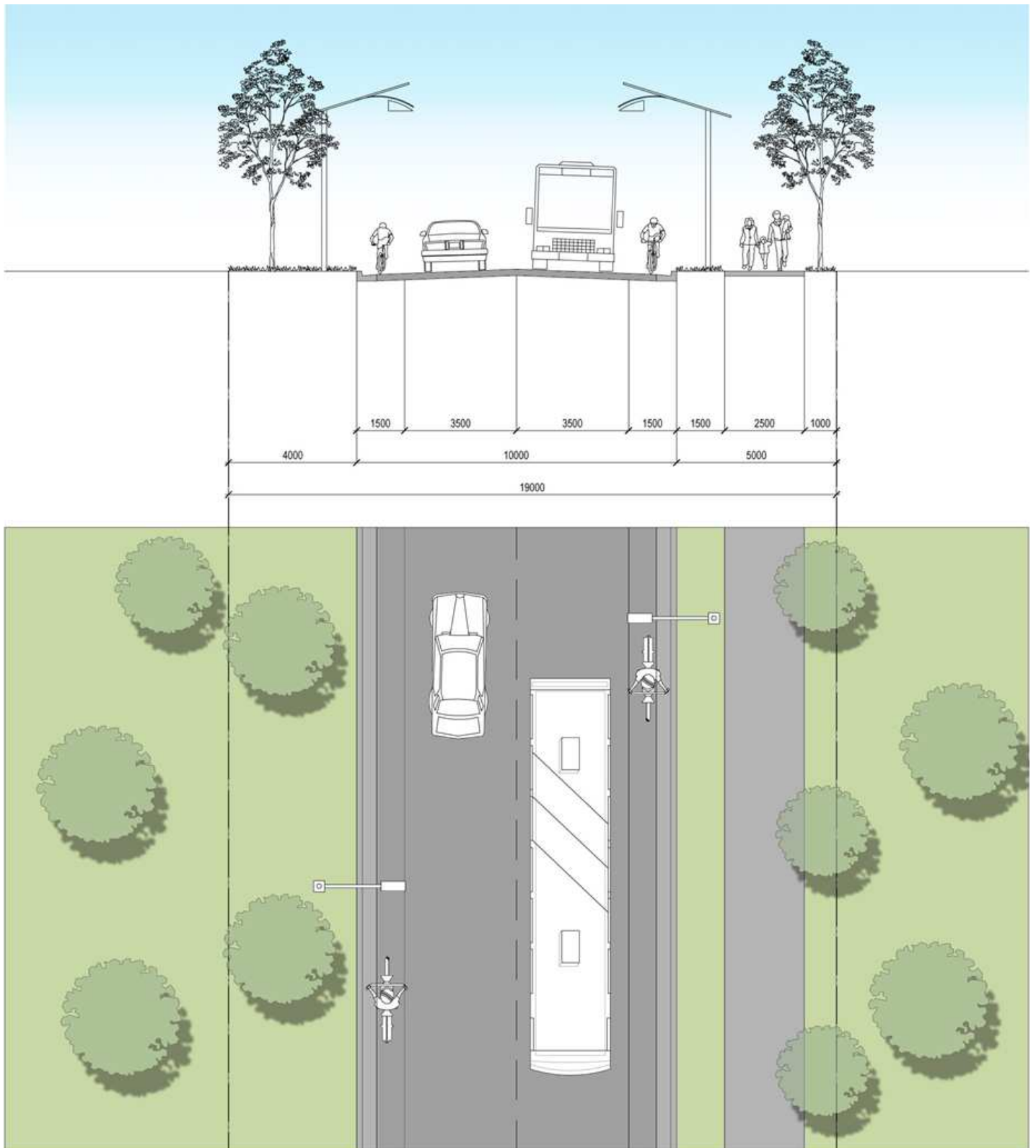
Boulevard Collector (Major)



Boulevard Collector (Minor)



Collector (Major)



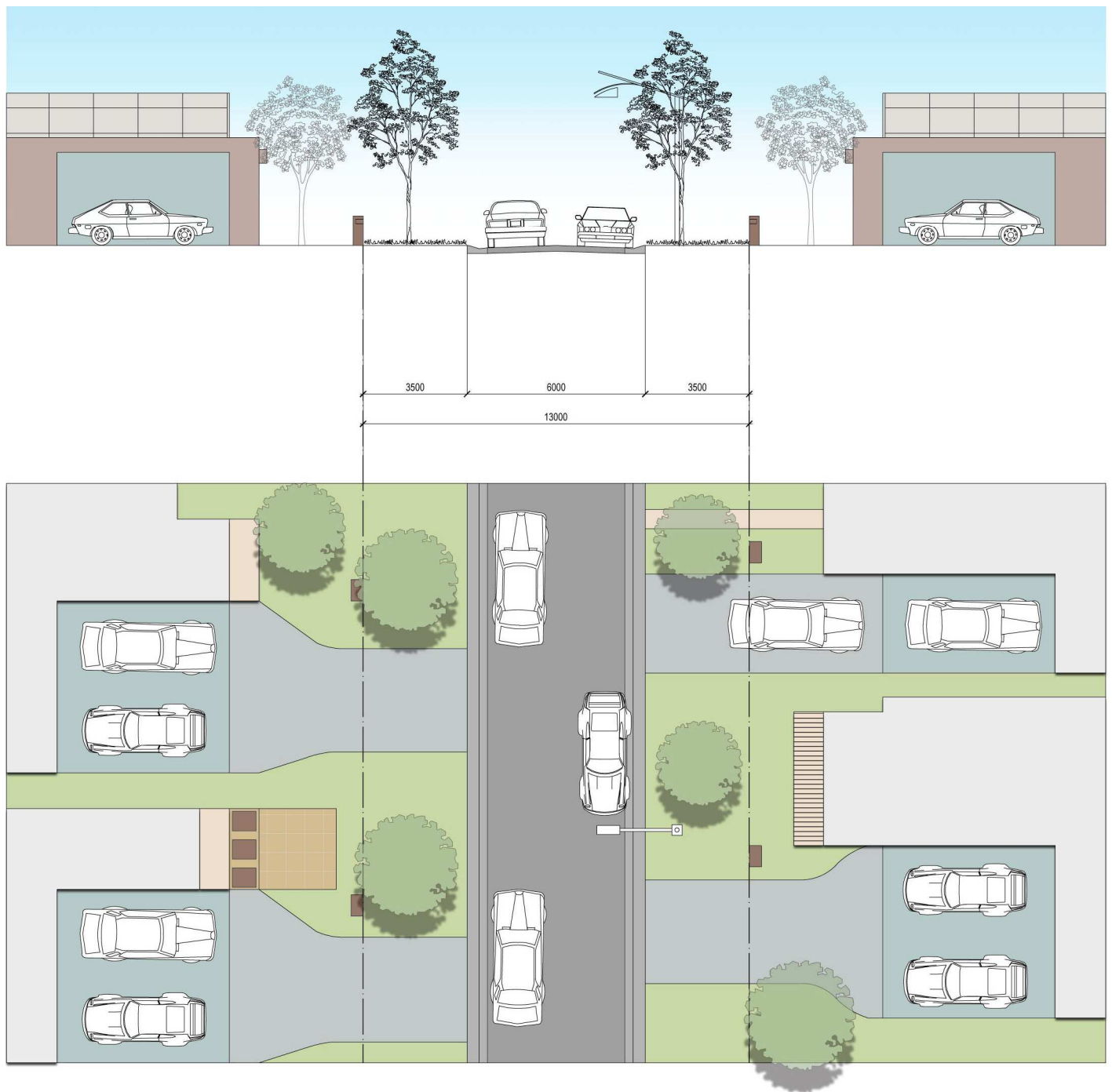
Collector (Minor)



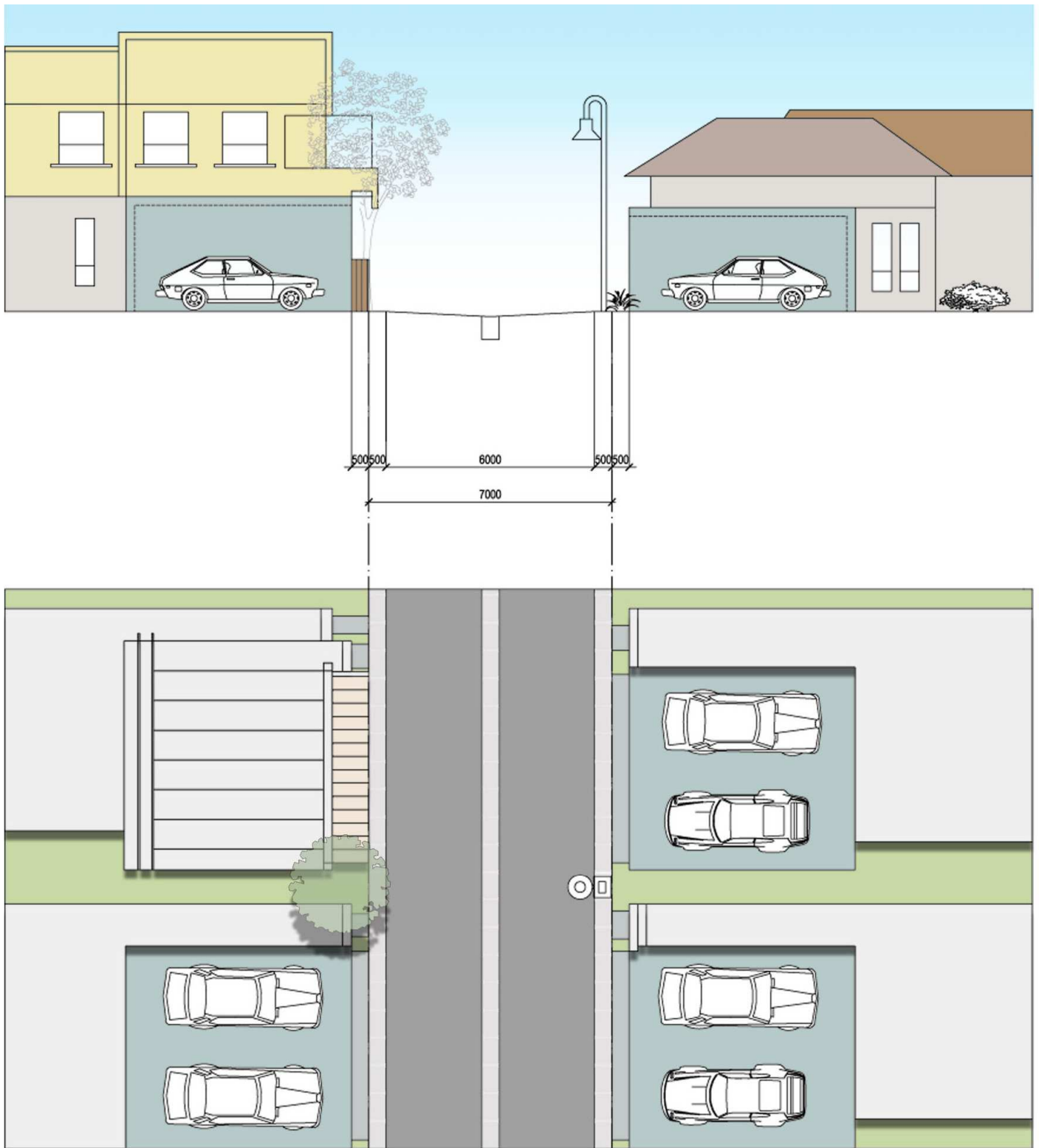
Local Street



Access Place



Lane



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Appendix D

Indicative List of Park Embellishments

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Indicative list of park embellishments

The following lists are indicative only and are intended to give a basic description of the facilities and type of park envisaged in each location. The actual park locations and embellishments may change, subject to more detailed site investigations, site analysis, site selection and concept planning for each proposed park site.

Local Parks (LP1-LP9)

Local Park 1 (LP1)

- Sheltered BBQ/ picnic tables
- Playground and play setting
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Toilets
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping
- Carparking area

Local Park 2 (LP2 – Hill Top Park)

- Sheltered Look Out
- Playground and play setting
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Local Park 3 (LP3 – Hill Top Park)

- Sheltered BBQ site
- Playground and play setting
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Local Park 4 (LP4 – Hill Top Park)

- Sheltered Look Out
- Playground and play setting
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Local Park 5 (LP5 – Hilltop Park)

- Sheltered Look Out
- Playground and play setting
- Park furniture (seating, bollards, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Local Park 6 (LP6 – Booerie Creek Park)

- Sheltered BBQ site
- Park furniture (seating, picnic tables, bollards)
- Signage (directional, regulatory, information and interpretive)
- Creek bank stabilisation
- Amenity landscaping
- Carparking area

Local Park 7 (LP7 – Creekside Park)

- Shelter
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Local Park 8 (LP8 – Constructed Wetland Park @ Middle Entry Road)

- Constructed wetland – planting, boardwalks, viewing platform
- Event power
- Sheltered BBQ site
- Playground and play setting
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Lighting (way-finding and security)
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping
- Carparking area

Local Park 9 (LP9 – Constructed Wetland Park @ Southern Entry Road)

- Constructed wetland – planting, boardwalks, viewing platform
- Dog off-leash area
- Event power
- Sheltered BBQ site
- Playground and play setting
- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Toilets
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping
- Carparking area

Pocket Parks for tree conservation (PP1-PP3)

- Park furniture (seating, bollards, bike rack, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Shared cycle / pedestrian way
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Linear Park Nodes (LPN1-4)

- Lookout shelter/ shelter
- Park furniture (seating, bollards, bike racks, drinking taps/bubblers)
- Lighting (way-finding and security)
- Pedestrian pathway
- Art in built
- Signage (directional, regulatory, information and interpretive)
- Amenity landscaping

Entry Statements at the three entry roads from Dunoon Road

Entry Statements 1-3

- Entry structure
- Signage
- Lighting
- Amenity landscaping

Path Network

Local Access Paths

- External commuter linkage from southern entry road to Richmond River High School and Lismore CBD - off-road shared cycle/ pedestrian path (2.5 m wide concrete)
- Internal commuter route along the Major and Minor Boulevard Collector - on-road cycle paths and separate off-road pedestrian paths (1.5m wide concrete)
- Other internal commuter routes within the urban release area - off-road shared cycle/ pedestrian path (2.5 m wide concrete)

Recreational paths (1.5m wide concrete)

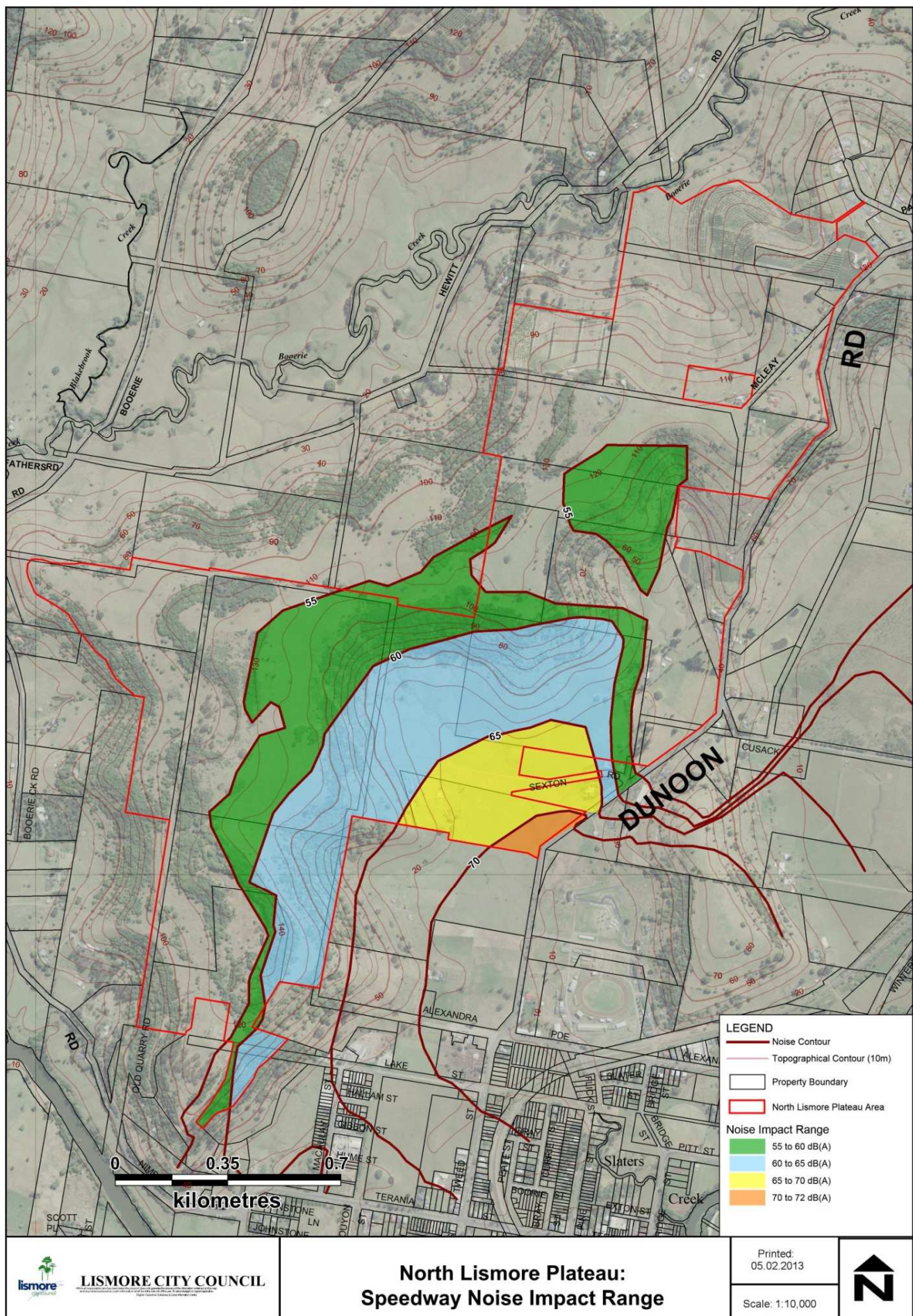
Bushland trails (minimum 1.2 m wide, unsealed, National Park style tracks)

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Appendix E

Noise map

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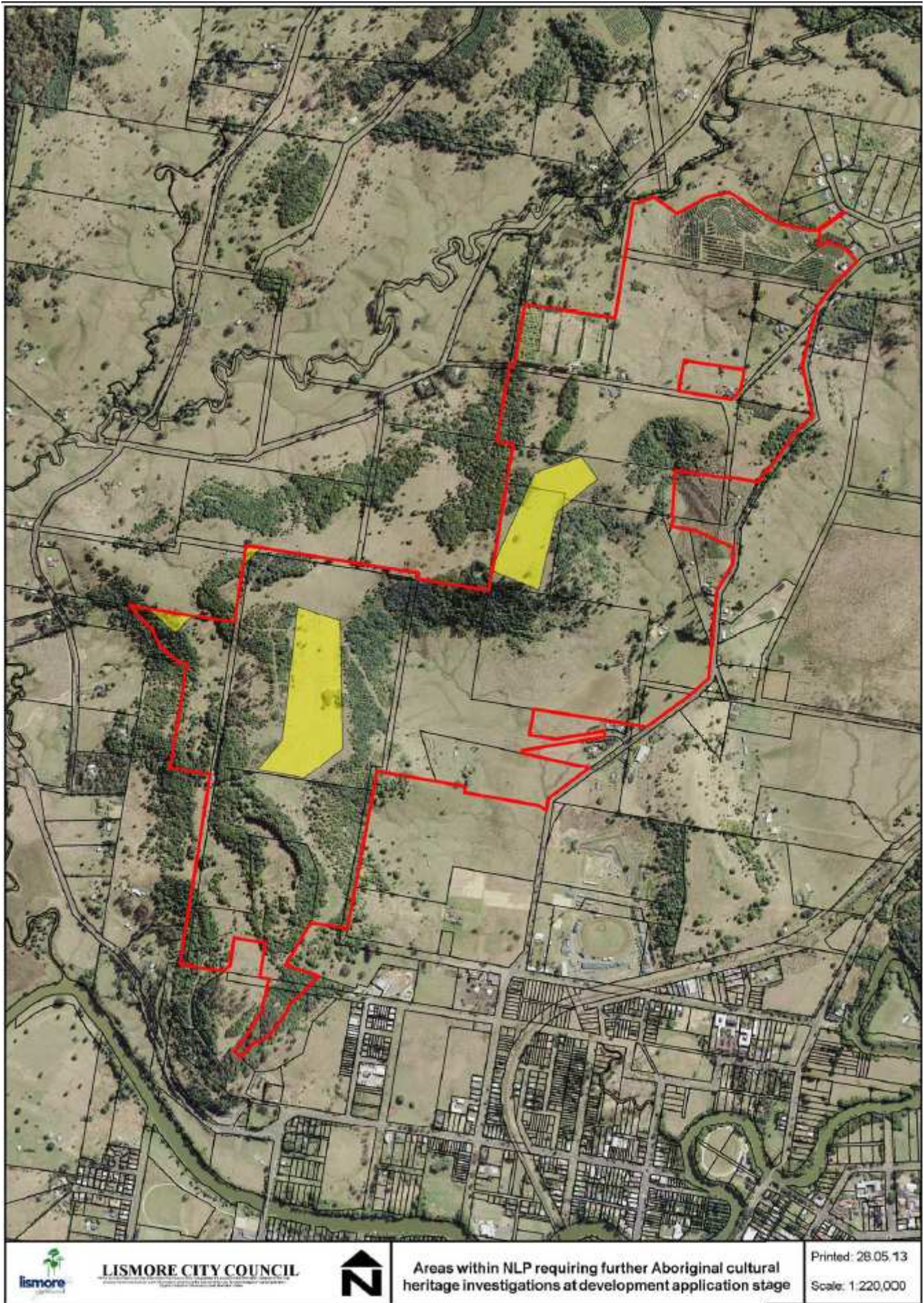


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Appendix F

Areas requiring further Aboriginal cultural heritage investigations at development application stage

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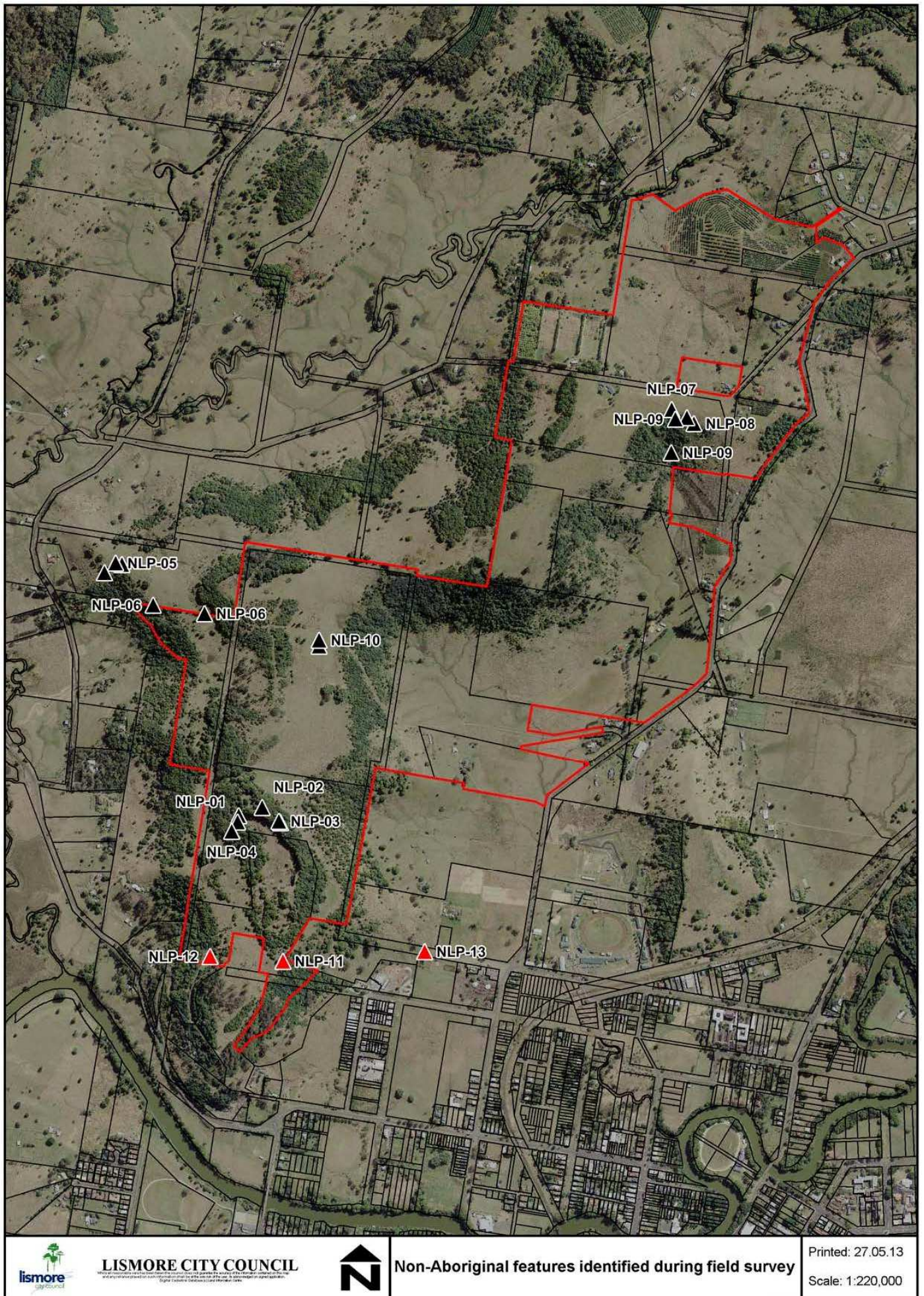


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Appendix G

Map of identified cultural heritage features
(does not include Aboriginal cultural heritage features)

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Appendix H

Process for inadvertent discoveries
of items of potential cultural heritage value
applicable to all development applications for subdivision of land
and development at North Lismore Plateau

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Process for inadvertent discoveries of items of potential cultural heritage value applicable to all development applications for subdivision of land and development at North Lismore Plateau

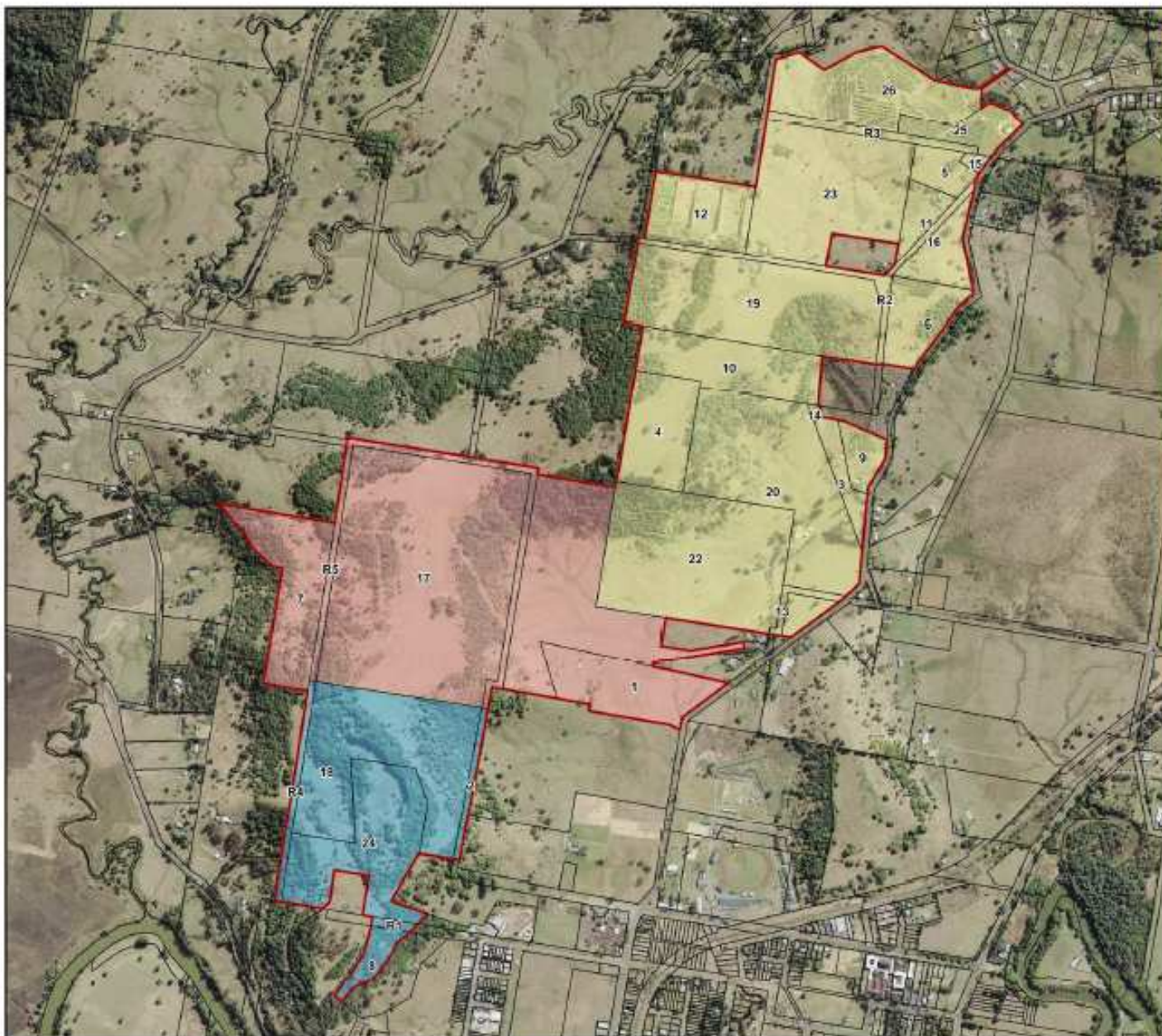
1. The applicant must comply with Part 6 of the *National Parks & Wildlife Act 1974* (NPW Act), prior to commencing any ground disturbance works or development works and during development works.
2. In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeological specialist and the representatives of the local Aboriginal community must be contacted to determine the significance of the object(s) and to develop an appropriate management strategy. The management strategy must comply with the provisions of the NPW Act. This may include avoiding impact, additional investigations and/or the submission of an Aboriginal Heritage Impact Permit application. The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) (managed by the NSW Office of Environment and Heritage) and the management outcome for the site included in the information provided to the AHIMS.
3. If human remains are located in the event that surface disturbance occurs, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police are to be contacted immediately. No action is to be undertaken until the NSW Police provide written notification to the proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact the NSW Office of Environment and Heritage's Environment Line on 131 555 and representatives of the local Aboriginal community. No works are to continue until the NSW Office of Environment and Heritage provides written notification to the applicant.
4. An Aboriginal Cultural Education Program must be developed for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program should be developed and implemented in collaboration with the representatives of the local Aboriginal community.

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Appendix I

Map of three landowner areas within the NLP urban release site

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Study Area Property No	Lot No	Plan Description	Land Area (ha)	Group
18	1	DP772627	18.67	LCC
2	1	DP118556	0.964101	LCC
24	12	DP844585	12.3818	LCC
8	3	DP1037282	1.75552	LCC
R3		Lake Street	0.378992	LCC
R4		Crown Road	1.4315	LCC
10	1	DP772626	8.50077	TPG
11	2	DP596437	2.1164	TPG
12	3	DP623619	6.53018	TPG
13	1	DP118555	0.698671	TPG
14	2	DP303296	0.125207	TPG
15	1	DP176337	0.339732	TPG
16	2	DP925006	3.3927	TPG
19	113	DP735729	19.4017	TPG
20	3	DP772626	20.4911	TPG
22	35	DP755729	21.6535	TPG
23	2	DP570029	17.2591	TPG
25	20	DP1148069	3.08555	TPG
26	21	DP1148069	10.9943	TPG
3	2	DP537418	2.07626	TPG
4	2	DP772626	2.12736	TPG
5	1	DP596437	2.21098	TPG
6	11	DP582143	4.58591	TPG
9	1	DP537418	2.05228	TPG
R2		Crown Road	2.14825	TPG
R3		Crown Road	1.77488	TPG
R6		McLeay Road	0.732018	TPG
1	3	DP808657	8.00989	Winters
17	2	DP1044983	58.9769	Winters
7	23	DP710682	0.37505	Winters
R5		Crown Road	5.20793	Winters



LISMORE CITY COUNCIL
Working in partnership with the community to create a better future for Lismore and the surrounding region. We are committed to providing a high quality of service to our residents and businesses.



Landowner Group Areas

Printed: 28.06.2013

Scale: 1:12,000



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Appendix J – AHIMs registered sites of Aboriginal cultural heritage value

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Map showing AHIMs registered sites of Aboriginal cultural heritage value located in the vicinity of the quarry, at the southern end of the North Lismore Plateau land release site.

Source: Converge Community and Heritage 2012 'North Lismore Plateau NSW Cultural Heritage Assessment 12043C/2012' Figure 46 page 77

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