



Ballina Shire Development Control Plan 2012

Chapter 3 – Urban Subdivision

3





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Part 1 Preliminary

1.1 Introduction

Name:

Ballina Shire Development Control Plan 2012, Chapter 3 – Urban Subdivision.

Purpose:

To identify Council's requirements relating to the subdivision of urban land, including residential, commercial and industrial land.

Relationship to other Chapters of this DCP:

The provisions in this chapter prevail over those in chapters 1, 2, 2a and 2b where there is an inconsistency.

Where there is an inconsistency between provisions in chapters 3, 4, 5, 6, 6a, 6b, 6c, 6d and 7 Council will determine which provision(s) will apply based on consideration of the strategic planning framework for the land the subject of the application, statutory considerations, relevant planning objectives and the nature of the proposed development.

The provisions of chapter 8 apply in conjunction with those in this chapter, but prevail in the event of an inconsistency unless otherwise specified.

Special Area Controls in this chapter prevail over General Controls in the event of an inconsistency

Application:

The planning provisions of this chapter are applied on the basis of two categories of subdivision, being minor subdivision and major subdivision.

Planning Objectives and Development Controls:

The provisions of this chapter are categorised in relation to a series of planning considerations (referred to as elements). For each element, planning objectives and development controls are specified. Development proposals must be consistent with the planning objectives for the chapter and each of the applicable elements. Such consistency is typically demonstrated by compliance with the identified development controls, although there may be circumstances where an alternative to the application of a development control is consistent with the planning objectives.

1.2 Background

The BLEP 2012 establishes the approval framework for subdivision in Ballina Shire. There are a range of inter-related clauses which must be read in conjunction with one another:

- **Clause 2.6** advises that subdivision of land generally requires consent and outlines a range of circumstances by which subdivision can occur;
- **Clause 4.1 - 4.1B** outlines Council's minimum lot sizes suitable for various types of subdivision and the circumstances under which variations to the minimum standard may be considered;





- **Clause 4.6** outlines various scenarios where variations to the subdivision standards may be further considered; and
- **Part 6** addresses urban land release areas (ready for detailed development consideration) and requires specific consideration of infrastructure provision and the establishment of detailed planning controls via a development control plan for new release areas that will be identified on the Urban Release Area Map. It should be noted, suitable sites will be added to the Urban Land Release Map as individual rezonings occur. Such sites are generally identified via Council's strategic planning processes through the Local Growth Management Strategy and other adopted strategic policies.

1.3 Information to Accompany Development Applications

Applications to subdivide land can be complex. Applicants are strongly encouraged to engage the services of appropriately qualified professionals to prepare the application and co-ordinate the range of specialist reports required to support the application. The degree of detail required will vary according to the location, nature, type and scale of the development and its surroundings. The level of detail required should be clarified with Council's Development Assessment Officers and will differ depending on the scale of the subdivision.

The *Environmental Planning and Assessment Regulation 2000* specifies the information required to be included in a development application. Appendix A to this Chapter details the minimum information required to be submitted with a development application for urban subdivision.

Part 2 Chapter Planning Objectives

The overarching objectives of this chapter are as follows:

- a. Establish parameters for the subdivision of urban land under the provisions of the BLEP 2012;
- b. Manage urban development to ensure that growth occurs in a planned and orderly way, including the provision of appropriate service infrastructure;
- c. Identify and convey Council's expectations and requirements relating to standards of subdivision design and construction, and information required to be submitted with subdivision applications;
- d. Provide for urban subdivisions that:
 - Retain and protect sensitive natural environments, including the provision of buffers where appropriate;
 - Maximise the efficient use of land which is relatively unconstrained and located in close proximity to key activity nodes;
 - Occur in an orderly manner and optimise the efficient delivery of infrastructure and services;
 - Provide for a range of housing forms to meet the different needs within the community;
 - Provide allotments which are of a size and shape suitable for their future intended use;
 - Allow a high proportion of future dwellings to be designed to achieve passive solar access;
 - Provide for reasonable certainty with respect to development form and yield; and
 - Manage the interface between the urban and non-urban uses to minimise land use conflicts.





Part 3 Urban Subdivision

3.1 Minor Subdivision General Controls

3.1.1 Application

Applies to:	
Location/s:	Urban zones
Development Type/s:	Applications for minor subdivision comprising 10 lots or less

3.1.2 Minor Subdivision Control Elements

A. Element - Modification of Landform

Planning Objectives

- Ensure subdivisions, as far as practicable, are designed to fit the topography rather than altering the topography to fit the subdivision; and
- Discourage re-contouring of land post subdivision as the preferred method of construction.

Development Controls

- Development applications for the subdivision of urban land shall be accompanied by a geotechnical report prepared by a practicing Geotechnical Engineer. The report shall include soil classification details prepared in accordance with Australian Standard AS2870.1. The subdivision shall be designed in a manner which responds to the findings and recommendations of the report;
- Proposed lots with slopes greater than 15% are to be nominated at the subdivision stage. In some cases Council may require a notification on the title or other mechanism to alert future lot owners to the slope constraint;
- Proposed lots with slopes greater than 20% are to nominate a building envelope measuring no less than 10m x 15m at the subdivision stage to demonstrate that a dwelling can be suitably accommodated on that lot;
- Where the subdivision works include site modification of individual lots for building pads and the like, *earthworks* are restricted to a maximum cut or fill of **1500mm** from natural ground level for a single cut/fill, or a maximum of **1100mm** per cut/fill where more than one cut/fill proposed for the lot;
- Each allotment shall be designed such that vehicular access can achieve the desirable maximum gradient of 1:6. This may require the creation of pads for garages at subdivision construction stage. Council may consider a maximum gradient of 1:4 but only where it can be demonstrated that no reasonable alternative to this solution is possible.



Notes:

This DCP defines slope sensitive design as design that minimises earthworks and includes alternatives to slab on ground construction. Designs that are encouraged for sites which are sloping include split level design, bearer and joist construction, deepened edge beam and suspended slab design.





Dwellings on any lot that is designated “slope sensitive” and/or incorporates a slope or level change of 15% or greater will be subject to slope sensitive design requirements.



Note:

The following "ready reckoner" is provided to assist users of this DCP in relation to the interpretation of provisions relating to slope.

SLOPE	Ratio	5:1	3:1	2:1	1:1
	Percent	20%	33%	50%	100%
	Degrees	11°	18°	26°	43°

B. Element - Road Layout

Planning Objectives

- a. To provide a distinctive hierarchical network of roads with clear distinctions between each type of road, based on function, capacity, vehicle speed and public safety;
- b. To provide a road network that achieves;
 - The basis for cost effective-design and construction of roads;
 - Efficient access to public transport; and
 - Safe and efficient pedestrian access and mobility.

Development Controls

- i. New roads are to be designed to:
 - Provide a clear and legible hierarchy for traffic movements;
 - Provide a road network based on a grid pattern where practicable ;
 - Minimise the use of cul-de-sacs;
 - Facilitate the use of public transport;
 - Enable convenient pedestrian and cycle movements;
 - Provide for perimeter roads adjacent to high conservation lands; and
 - To provide legal and practical access to lots.
- ii. Where land slopes at a grade of 6% or greater, the predominant road alignment is to be perpendicular to the slope; and
- iii. All new roads shall be designed in accordance with the *Northern Rivers Design Manual*.



Note:

It may be necessary for Crown Roads required for access to be transferred to Council's control under the *Roads Act 1993*



**Note:**

The design and orientation of residential lots should be undertaken in accordance with SEDA's *Solar Access for Lots – Guidelines for Residential Subdivision in NSW*.

D. Element - Engineering Design and Construction Requirements

Planning Objectives

- a. Provide uniform and consistent standards for engineering design and construction.

Development Controls

- i. Development must meet the requirements of the *Northern Rivers Local Government Design and Development Manual* and the *Northern Rivers Local Government Construction Manual*.

**Note:**

Unless otherwise stated in this DCP, the *Northern Rivers Local Government Design and Development Manual* and the *Northern Rivers Local Government Construction Manual* document the engineering design and construction requirements applied to subdivision applications.

E. Element - Services and Infrastructure

Planning Objectives

- a. Ensure development is provided with appropriate utility services and infrastructure; and
- b. Ensure development does not unreasonably overload the capacity of utility services and infrastructure.

Control - Service Infrastructure Internal to the Development Site

- i. Subdivisions shall be fully serviced with water, sewer, roads, drainage, underground electricity and communication services;
- ii. Where lots are proposed having frontage only to a lane, adequate infrastructure servicing, including formalised vehicular access, waste collection and postal delivery, must be available to the lane frontage, except where the requirements of (iii) are met.
- iii. Where waste collection or postal delivery services are not provided to a lane, lots must be provided with a paved pedestrian access way having minimum 1.2m width to enable each future dwelling or occupancy direct access to the street frontage.
- iv. All service infrastructure is to be designed and constructed in accordance with the *Northern Rivers Local Government Development and Design Manual*; and
- v. Service infrastructure internal to the development site shall be provided by the developer at no cost to Council.





Control - Dual Reticulation Water Supply

- vi. A dual-reticulation water supply for non-potable water is to be provided in accordance with the Ballina Council's Recycled Water Scheme; and



Note:

Council has identified certain areas for the installation and function of a dual reticulation water supply. The location of such areas is identified in infrastructure planning documents maintained by Council's Civil Services Group.

- vii. The developer shall incorporate on the Certificate of Title for all allotments Restrictions as to User which require all dwellings and buildings with plumbing (including schools, commercial buildings and the like) to make provision for non-potable water service plumbing and facilities to the approval of Council.

Control - Service Infrastructure External to the Development Site

- viii. Sewerage mains and pump stations are to be constructed so as to convey sewage from the site to Council's reticulation network, in a manner generally consistent within Council's Development Servicing Plans, or as otherwise approved by Council.
- ix. Development is to provide connecting infrastructure to Council's drinking water distribution network, in a manner generally consistent with Council's Development Servicing Plan, or as otherwise approved by Council. Recycled water supply mains infrastructure will be provided to the site in accordance with Council's Development Servicing Plans.



Note:

The proposed development may trigger the upgrade of water and sewerage service infrastructure by Council, in accordance with Council's Development Servicing Plan and funded through Council's contributions plans. Timing of such works is the responsibility of Council. Provision of services to the site will be reliant on this infrastructure upgrade. The developer will, therefore, need to co-ordinate the development of the subject site with the water service infrastructure upgrades by Council, to ensure provision of services to the site.

F. Element – Retention of Significant Vegetation

Planning Objectives

- Retain trees which that have high ecological value or contribute to the amenity of the locality wherever practicable;
- Ensure that construction works protect significant trees;
- Ensure retained vegetation will not pose a risk to future dwellings; and
- Ensure that subdivisions are designed having regard for site vegetation.





Control

- i. Environmentally & culturally significant vegetation is to be retained where practicable; and
- ii. Lots on which trees are to be retained are to nominate a “no build zone” around the trees proposed for retention. These lots are also required to nominate a building envelope measuring no less than 10m x 15m at the subdivision stage to demonstrate that a dwelling can be suitably accommodated on that lot, whilst retaining the nominated trees. A Safe Useful Life Expectancy (SULE) assessment undertaken by an arborist that nominates the drip line and root spread of the relevant tree may be required.



Note:

Further information relating to vegetation of significance is contained in Chapter 2a - Vegetation Management.

G. Element - Minimum Lot Size and Shape

Planning Objectives

- a. Encourage a range of housing and lot sizes; and
- b. Provide for lots of a shape and size which so as to be suited to their future intended use.

Control - Lot Size and Shape

- i. Subdivision of land is to meet the minimum lot sizes and specifications outlined in Table 3.1; and
- ii. Subdivision of land involving the creation of 300m² - 450m² lots must include details of the future dwelling houses as part of the Development Application (refer to Chapter 4, Section 3.2 - Small Lot Integrated Housing).

Table 3.1 – Lot Size Requirements			
Built form	Min Lot Size	Min Lot Width	Requirements
Detached Dwelling Houses	450m ² 550m ² - per corner lot	12m	- Irregular shaped lots to contain a building envelope nominating rectangle with minimum dimensions of 10m x 15m -
Dual Occupancies	450m ² - per attached dual occupancy 600m ² - per detached dual occupancy	12m	- Must be capable of containing a building envelope nominating rectangle with minimum dimensions of 10m x 15m
Semi-Detached Dwellings	300m ² per dwelling	10m	- Integrated development requirements (Chapter 4 Section 3.2)
Attached Dwellings	300m ² per dwelling	10m	- Integrated development requirements (Chapter 4, Section 3.2) - Parent lot to be nominated at the





Table 3.1 – Lot Size Requirements

Built form	Min Lot Size	Min Lot Width	Requirements
			subdivision stage - Dwellings to be accessed via rear lane way
<i>Multi Dwelling Housing</i>	1000m ²	10m	- Density provisions regarding site area per unit are provided in Chapter 4.
<i>Residential Flat Buildings</i>	1000m ²	On merit	- Density provisions regarding site area per unit are provided in Chapter 4.



Note:

Lots between 300m² and 450m² in area are required to satisfy the Integrated development requirements (Chapter 4, Section 3.2).

Control - Battle-axe lots

- The minimum width of an access corridor for a battle-axe lot is 4m with a minimum carriageway width of 3m;
- No more than two Torrens Title battle-axe lots are to be served by an access corridor;
- The maximum length of the access corridor for a battle-axe lot is 50m with passing bays provided in accordance with Australian Standards; and
- Battle-axe lots must be designed so that a vehicle can enter and exit the site in a forward direction. This may require a building envelope to be nominated at the subdivision stage to demonstrate this provision.

3.2 Major Subdivision Requirements

3.2.1 Application

Applies to:	
Location/s:	Urban zones
Development Type/s:	Applications for major subdivision for sites with the potential of accommodating more than 10 lots (based on the minimum lot sizes specified in the BLEP 2012).

3.2.2 Background

Council considers that subdivisions of this scale require a more detailed level of design consideration, and that general prescriptive development controls may not deliver the best development outcomes for specific sites.

Accordingly, sites suitable for large scale subdivision comprising more than 10 lots shall be designed in consultation with relevant Council staff. Generally, major subdivisions will be developed in accordance with a Master Plan.





Council recognises that the complexity of issues relating to major subdivisions will differ on a site by site basis. Additionally, the size and scale of the subdivision will also impact the level of detail required by Council in association with the master planning process.

A master plan provides for an appropriate and considered physical planning framework or blueprint to guide the future development in that area. The master plan will usually be prepared on behalf of the proponents for the development of the area in consultation with Council. The master plan is to be consistent with the provisions of the BLEP 2012 and any other relevant strategic plans.

3.2.3 Major Subdivision Control Elements

A. Element – Master Plan Preparation

Planning Objectives

- a. Achieve high quality and best practice of subdivision development;
- b. Ensure Council's strategic planning objectives are achieved for subdivision developments;
- c. Ensure subdivision outcomes are responsive to contemporary planning and design practice; and
- d. Ensure subdivision outcomes are responsive to the physical and environmental attributes of land.

Development Controls

- i. A master plan must be prepared in accordance with the provisions of the consultation and pre-lodgement process as detailed in Element B of this section (for all subdivisions and stages of subdivision where the ultimate lot yield will be greater than 10 lots;
- ii. The master plan and associated development application must demonstrate compliance with the provisions of Section 3.1 of this chapter, or must clearly justify any proposed variations to the provisions therein; and
- iii. A proponent may request Council to waive the requirement to prepare a master plan under (i) for less complex subdivision proposals. Where Council has agreed to a waiver, the provisions of Section 3.1 still apply.



Note:

Where a subdivision is supported by a master plan, Council may require the incorporation of the master plan specifications into its DCP.

A request for a waiver of the requirements for the preparation of a master plan must be in writing. Similarly, Council agreement to such a request will be provided in writing.

B. Element – Consultation and Pre-Lodgement Process

Planning Objectives

- a. Provide a process for the early identification of key issues relating to a particular site locality and subdivision proposal;
- b. Provide the opportunity for proponents to obtain integrated and considered advice to assist in the preparation of concept plans and development application material; and





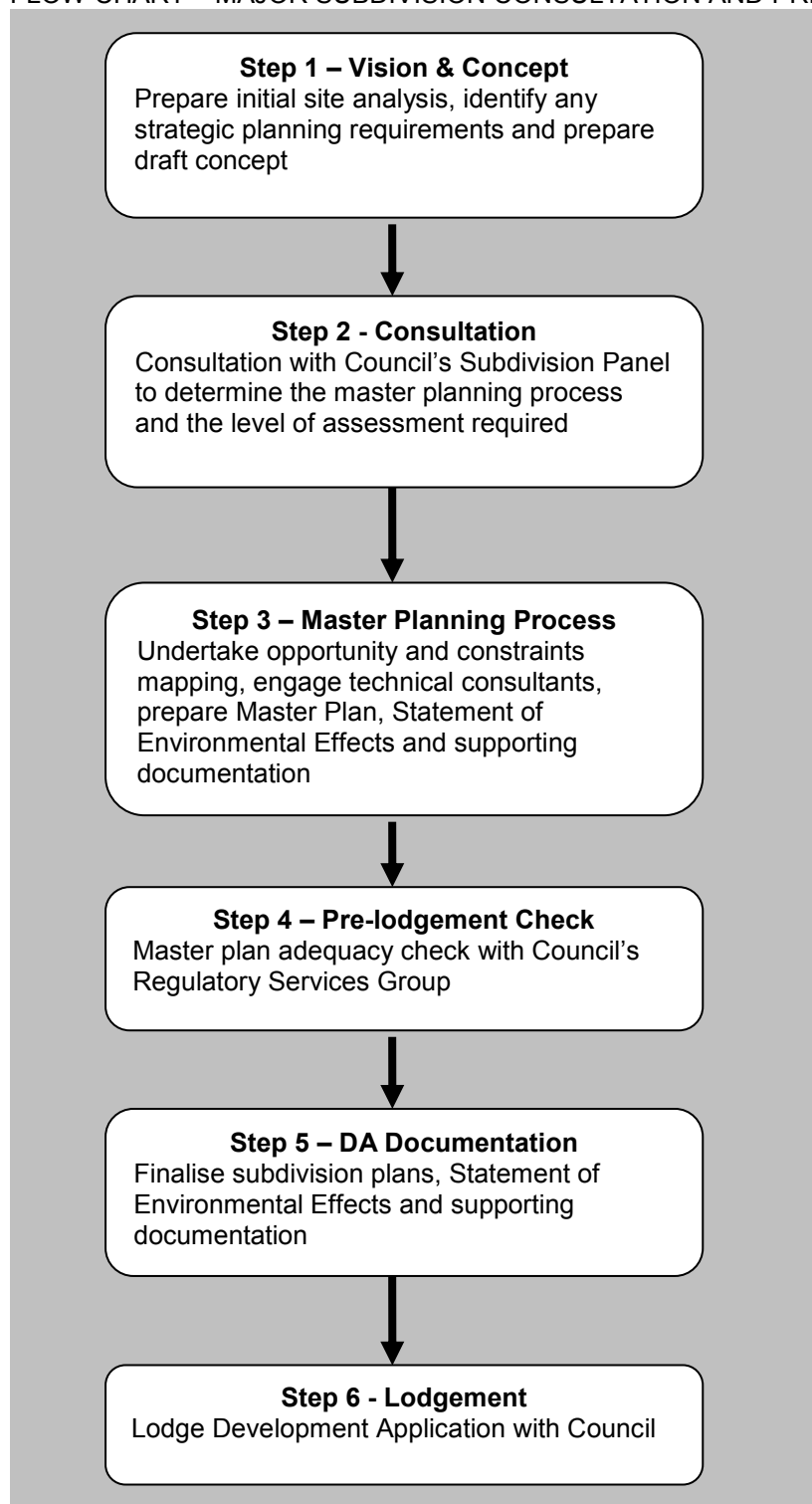
- c. Reduce potential delays in the development application assessment process resulting from issues being identified post development application lodgement.

Development Controls

- i. Development Applications must be based on the consultation and development application pre-lodgement process required to be undertaken for major subdivisions as shown in Figure 3.2.

Figure. 3.2

FLOW CHART – MAJOR SUBDIVISION CONSULTATION AND PRE-LODGEEMENT PROCESS



**Note:**

The consultation requirements are mandatory steps in this process. The statement of Environmental Effects is to contain the minutes from **Step 2** and the Council prepared check list from **Step 4** below.



Note: Council fees apply for Step 2 of the process. In some cases, particularly for more complex applications, it may be necessary to repeat Step 2 prior to the submission of the development application.

The purpose of the pre-lodgement check for the adequacy of the master plan is to ensure that the information requested at Step 2 has been provided. It does not provide an assessment of the merits of the proposal or determine whether the responses to particular issues are appropriate – this is part of the development application assessment process following the formal lodgement of the application.

Council will determine whether a master plan will be required during the initial consultation process. Should the nature and scale of the subdivision not warrant a master plan, the proponent will be advised in writing and the provisions outlined in Section 3.1 only apply.

C. Element – Vision, Concept and Master Plan Content

Planning Objectives

- a. Recognise and respond to innovative urban design outcomes that are responsive to the characteristics of areas proposed for subdivision.
- b. Provide guidance in relation to the form and content of initial subdivision visions and concepts presented to Council at the Subdivision Panel Consultation; and
- c. Outline the issues to be considered in the preparation of the master plan.

Development Controls

- i. The vision and concept presented to Council's Subdivision Panel (Step 2 of the Consultation and Pre-lodgement Process) should include, but not be limited to, the following elements:
 - A Vision Statement – identifying of the aims and objectives of the development proposal.
 - Site Analysis – identifying the opportunities and constraints that will guide development outcomes.
 - Concept Plans – designed to address of the following elements:
 - Local strategic planning framework
 - Environmental attributes and characteristics of the land
 - Relationship to surrounding land uses
 - Spatial arrangement of land uses
 - Type and form of residential development (or other urban land uses)





- Distribution and function of open space including consistency with the 2008 Ballina Open Space Study and relevant Contribution Plan or Voluntary Planning Agreement requirements.
- Movement networks and road hierarchy
- Landscaping and street treatments
- Staging and delivery of key infrastructure
- Provision for community infrastructure
- Options Analysis – that outlines other conceptual subdivision layouts and alternatives investigated.



Note:

The concept plans should be at a relatively broad scale for the Subdivision Panel Meeting. General themes and concepts should be presented rather than detailed design plans as the consultation process with Council may result in substantial changes from the initial concept presented as the proposal progresses through to the master plan stage.

- ii. In addition to the elements identified in the vision and concept plan, the master plan shall include the matters identified in the consultation with Council's Subdivision Panel (Step 2 of the Consultation and Pre-lodgement Process); and



Note:

A meeting with the Subdivision Panel may be requested by a proponent for a subdivision involving 10 or more lots. The panel will be chaired by the Manager of Development Services or representative and will include relevant engineering, strategic planning and environmental staff.

The Subdivision Panel meeting is a mandatory consultation step in cases where a Subdivision Master Plan is proposed.

Minutes of the Subdivision Panel meeting will be provided to the proponent identifying the particular issues relevant to the proposed subdivision.


- iii. In the preparation of the master plan for major subdivision comprising new neighbourhoods consideration should also be given to the principles of the *NSW Coastal Design Guidelines* (Coastal Council of NSW 2003) and the following **which incorporates the** *Neighbourhood Design Standards* produced by the Queensland Government Urban Land Development Authority (November 2011) which provide contemporary design standards for neighbourhood design:

Table 3.2 – Subdivision Design Standards	
	Design standards
Access	<ul style="list-style-type: none">• Maximum 400 metres walk from dwellings to neighbourhood recreation park or equivalent.• Clear, direct walk or cycle access from subdivision to neighbourhood centre.• 90% of all dwellings are within 400 metres of an existing or planned public transport stop.
Dwelling density	<ul style="list-style-type: none">• Suburban neighbourhood – average net residential density of at least 15 dwellings per hectare (unless prevented by topography or other constraints).





Table 3.2 – Subdivision Design Standards

	Design standards
	<ul style="list-style-type: none"> Higher density residential development is located in and around neighbourhood centres, along connector streets and within 400 metres of transit nodes. <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Note: Net residential density means the total number of dwellings divided by the combined area of residential lots, local parks, internal local roads and half the width of local roads bordering the site. Average net residential density means net residential density calculated for a whole neighbourhood.</p> </div> </div>
Land use	<ul style="list-style-type: none"> Neighbourhood centres serve a catchment of several neighbourhoods and should be located on major connector or arterial roads for exposure and access. Land intensive uses such as district and major parks should be located at the periphery of neighbourhoods. Where provided, local parks must provide shade cover over all play equipment where there is not adequate shade cover provided by trees.
Street network	<ul style="list-style-type: none"> Grid pattern or modified grid responsive to site characteristics. Where slope allows, orientation within 15 degrees of north-south or east-west.
Street network (cont.)	<ul style="list-style-type: none"> Connector and main streets of centres are orientated to landmarks. To minimise cut and fill, streets follow ridges, gullies, and/or are perpendicular to slope.
Streets	<p>The street network includes:</p> <ul style="list-style-type: none"> neighbourhood streets within neighbourhoods; neighbourhood connector streets (approx. 800 metre grid) linking neighbourhoods; major connector streets linking groups of neighbourhoods; neighbourhood main streets in centres; and rear lanes.
Block sizes	<ul style="list-style-type: none"> Length 100-200 metres. Mid-block providing a pedestrian link when blocks are over 130 metres. Depth 40-80 metres.
Urban neighbourhood lot layout	<ul style="list-style-type: none"> Lots intended for mixed use or multiple residential uses take up entire street block or are located on highly accessible block ends, corner lots and lots with dual road frontage. One lot type is not to dominate a street block.



Note:

Where at variance to the *Northern Rivers Local Government Design and Development Manual* and the *Northern Rivers Local Government Construction Manual*, master plans should demonstrate conformity to the principles of the *NSW Coastal Design Guidelines* and the design standards identified in the *QLD Urban Land Development Authority Guidelines* or other contemporary published design guidelines, except as otherwise addressed by NSW State planning or Council policy.





Part 4 Special Area Controls - Commercial and Industrial Subdivision

4.1.1 Application

Applies to:	
Location/s:	Zones B1, B2, B3, B4, B6, & IN1
Development Type/s	Subdivision

Except where site specific, precinct based or zoned based provisions are otherwise provided in this DCP, commercial and industrial subdivision will generally be considered on merit. When undertaken as part of a new neighbourhood or in association with residential subdivision, the general minor subdivision control elements provided in Section 3.1 of this Chapter will be taken into consideration where relevant.

4.1.2 Industrial Subdivision Control Elements

A. Element – Lot Size and Configuration IN1 General Industrial Zone

Planning Objectives

- a. Ensure that lots created in industrial zones are of an appropriate size and configuration to facilitate a variety of industrial activities.

Development Controls

- i. Lot size and configuration must be suitable for the scale and type of industrial land use proposed. Any new lots created are to be sized in accordance with the following:
 - General Industrial Zone (IN1) – Minimum lot size of 1,000m². An average lot size of 2,000m² is achieved across new subdivisions creating 10 or more lots to facilitate larger scale industrial activities;
- ii. The layout of new subdivisions which create 10 or more lots are to:
 - Result in a predominance of created lots that facilitate solar access and energy efficiency;
 - Allow for the provision and connection to a dual reticulated network;
 - Incorporate cycle and pedestrian pathways to promote non-vehicular transport modes and facilitates access to the external network;
 - Provides for the operation of public transport;
- iii. Lots must have a frontage to depth ratio between 1:2 and 1:3 with lots being regularly shaped and rectangular where practicable;
- iv. Direct lot access to adjoining arterial roads must not be provided; and
- v. Where a new subdivision creating 10 or more lots does not meet the minimum and/or average lot sizes, a market assessment is to be provided to support the proposal.





B. Element – Industrial Precinct Specific Controls

Planning Objectives

- a. To provide specific controls to respond to the particular characteristics of individual industrial estates.

Development Controls

- i. Southern Cross Industrial Estate, Ballina – Smaller lots between 1,000m² and 2,000m² are encouraged for industrial allotments adjoining or opposite land zoned for residential uses; and
- ii. Smith Drive Industrial Estate, West Ballina. Development must demonstrate that adequate access to sewerage infrastructure is, or will be, provided.



Note:

Industrial allotments in the Smith Drive Industrial Estate are serviced by low pressure sewer rising main and individual pumps on each allotment

Part 5 Precinct Specific Controls

5.1 Aspects Estate & Elevation Estate, Lennox Head

5.1.1 Application

Applies to:	
Location/s:	Aspects Estate & Elevation Estate (as shown on the Special Area Controls Map - Subdivision).
Development Type/s:	Subdivision.

5.1.2 Planning Objectives

- a. Provide for the integrated development of the Skennars Ridge residential area;
- b. Provide for subdivision of land in a manner which recognises and protects **biodiversity** values of the land and locality, including the Ballina Nature Reserve.
- c. Minimise visual and environmental impacts associated with **earthworks**;
- d. Minimise adverse impacts associated with excessive **excavation** and/or **filling** and vegetation removal;
- e. Provide useable and well landscaped public and private open spaces to enhance aesthetics and residential amenity;
- f. Provide services and facilities to meet the needs of the future residents of the site; and
- g. Provide for energy efficient subdivision layout that is responsive to site opportunities and constraints including solar access, topography and prevailing winds.

5.1.3 Development Controls

A. Element - Lot Design

- i. Where the slope of the land is greater than 25%, concept details of proposed lots are to be provided detailing the extent of **earthworks**, and the location of roads and accesses. Larger sized lots are to





be provided where the slope is greater than 25% and building envelopes must be identified. This may be controlled by restrictions on the titles of individual lots.

B. Element - Environmental and Management Buffers

- i. The following provisions relating to the provision of buffers and environmental corridors apply to the subdivision of lots:

Environmental Buffers:

- A vegetated buffer is to be established adjacent to the Ballina Nature Reserve and SEPP 14 wetland area. The buffer is to have the following characteristics:
 - an average depth of 50 metres (and not less than 45 metres at any given point) and be designed and planted so as to ensure that the tree canopy does not extend beyond the agreed depth of the environmental buffer. Figure 3.2 illustrates the effect that this arrangement will have;
 - will be established as part of, or prior to, the construction of the Hutley Drive Link Road. Where the Hutley Drive Link Road is to be constructed on a staged basis, the portion of the buffer located between that stage of the road and the Ballina Nature Reserve and/or SEPP14 wetland is to be established as part of, or prior to, the construction of the road;
- All vegetation planted is to be of species endemic to the site or local area;
- An outline of a Bushland Rehabilitation and Management Plan for the land within Environmental Zones must be prepared and submitted with the relevant development application. Planting and maintenance details are to be submitted as part of this material;
- Protective fencing is to be erected around individual and vegetation clusters to limit disturbance caused by earthworks. The protective fencing is to be installed to a minimum distance of the 'drip line' and maintained for the duration of the civil works;
- Installation and maintenance of erosion and sedimentation controls;
- Weed eradication and control; and
- Revegetation and stabilisation of disturbed areas (vegetation of existing erosion prone areas) with native endemic species.



Notes:

Prior to issuing approval for subdivision of the land, Council requires that arrangements are in place for the rehabilitation of the buffer area to the satisfaction of Council. This may involve the payment of a monetary bond to Council to be held in trust until such time as the rehabilitation works are carried out concurrent with the construction of the road.

Mosquito Buffer

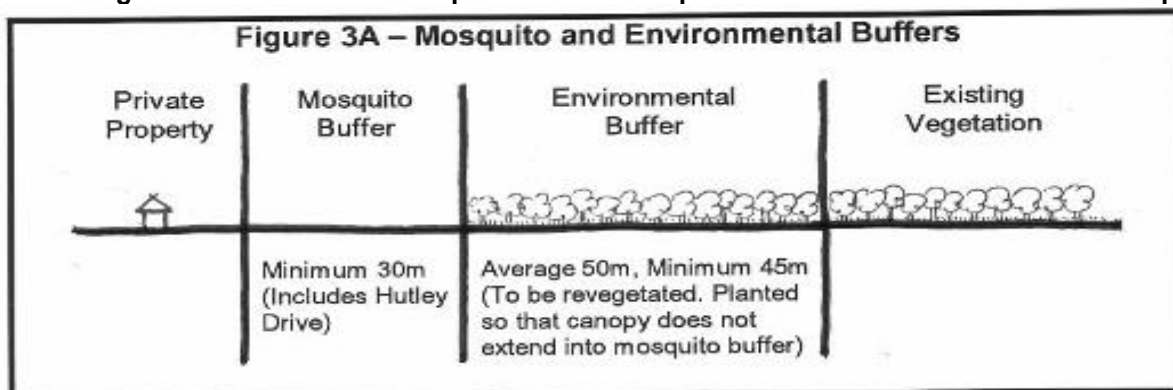
- A minimum 30m wide buffer must be provided, formed by roadways and footpath reserve around allotments adjacent to the Ballina Nature Reserve. Figure 3.2 illustrates the effect that this arrangement will have; and





- The minimum 30m buffer must be clear of any significant vegetation likely to afford harbourage to mosquitoes dispersing from the wetland margin vegetation.

Figure 3.2 Elevation/ Aspects Estate Mosquito and Environmental Buffers Example



Revegetation of Buffers and Corridors

- The revegetation of buffers and corridors is to occur as an integral part of the development of land adjoining the areas identified above and is to occur at no cost to Council. A monetary bond may be required to ensure appropriate maintenance of these areas for a predetermined period.

C. Element - External Road Works

- Subdivision proposals must have regard to “Design Note – Intersection Access To North Creek Road” by Newton Denny Chapelle, dated January 2006; and
- The North Creek Road roundabout intersection is to be (at a minimum) a single lane construction with an internal landscaped median diameter of 25m. The centre median must be planted with suitable low maintenance species of plants.



Notes:

It is noted that the roundabout arrangement is likely to impact on a nearby dry stone wall, listed on Council's LEP as an item of environmental heritage. A heritage assessment undertaken by a professional heritage consultant will be required to address the impact of this intersection on the dry stone wall. The assessment will need to demonstrate:

- a thorough understanding of the heritage significance of the item in its local, regional and/or other historical context;
- the impact the road works will have on each of the heritage values of the dry stone wall; and
- make recommendations with respect to ways of minimising impacts on the dry stone wall where a heritage assessment concludes the item may be altered. Where a heritage assessment determines any alteration to the item significantly undermines its heritage values this may necessitate an amendment to the design of the intersection.



D. Element - Internal Road Works

- i. The design and hierarchy of internal roads is to be in accordance with the requirements set out in the *Northern Rivers Local Government Development and Design Manual* unless other details are specified below;
- ii. The full width of Hutley Drive is to be dedicated to Council as subdivision occurs on the adjacent land gaining access to that road;
- iii. The design of Hutley Drive is to incorporate;
 - 5 metre wide central median. This may be reduced to 2 metres provided that satisfactory turning areas are incorporated at intersections. Indented right turn bays will normally be required at intersections;
 - Two carriage ways separated by the median with each consisting of a 3.5 metre through lane, 2.5 metre wide parking lane and a 1.5 metre wide cycle lane (total of 7.5 metres);
 - A verge each side of 3.5 metres where the road fronts residential lots.
- iv. For subdivisions with residential lots on both sides of Hutley Drive, this road is to be provided in accordance with the above details. For subdivisions with residential lots one side only of Hutley Drive, this road is to be provided to a standard suitable for use as a local road with the provision for later construction by Council to the standard necessary as a collector road. This is to include a pavement 9 metres wide to cater for two lane traffic and a parking lane and to accord with the ultimate design requirements for lots fronting Hutley Drive;
- v. Constructed designated on-street car parking is to be provided within the head of each cul-de-sac that services more than 20 dwellings at a rate of 1 parking space per 5 dwellings serviced by the cul-de-sac;
- vi. Bus stops (inclusive of “hail and ride” J poles) are to be provided along nominated bus routes at intervals of 400m. Bus stops are to be provided with constructed bus shelters that are no greater than 800m apart and are to be located in positions that will service the maximum number of dwellings;
- vii. The proposed access road off North Creek Road, which enables vehicular access through to Hutley Drive, must be a minimum of 7 metres wide and designed with traffic management facilities to minimise through traffic movements between Hutley Drive and North Creek Road; and
- viii. Direct access from future residential lots to North Creek Road is not permitted. Allowance is to be made in the design of subdivisions to provide for future development of existing lots such that access to these lots is to an internal road.

E. Element - Pedestrian/bicycle networks

- i. An integrated network of pedestrian/cycle paths must be provided such that it provides safe, convenient and direct access to, from and within the residential areas. The internal pathway network must be linked to the adjacent external network (if available) in Lennox Head and through to Skennars Head. As a minimum, pathways are to be constructed in the following locations:
 - Hutley Drive – A pedestrian path is to be provided on each side of the road where there are residential lots fronting the road;
 - Pedestrian paths are to be provided at or near the head of any cul-de-sac that is adjacent to open space (active or passive) or any other constructed pathway/cycleway;





- A pedestrian path is to be provided at or near the head of any cul-de-sac so as to connect adjacent cul-de-sacs and enable pedestrians and/or cyclists to have direct access from one cul-de-sac to the other without having to travel a longer distance by road;
 - A shared path is to be provided from Hutley Drive to North Creek Road;
 - Pedestrian paths are to be provided generally along the western side of North Creek Road north of Skennars Head Road;
 - Pedestrian pathways are to be provided to connect residential area to public transport infrastructure and parkland.
- ii. Pathways within road reserves and at the end of cul-de-sacs must be of concrete construction; and
- iii. Pedestrian pathways are to be provided and integrated throughout the passive open space areas. They must be designed such that grades permit walking for the majority of the expected population.

F. Element - Stormwater Management

- i. Any development proposal is to have regard to “Design Note – Stormwater Management Concepts and Outputs” by Newton Denny Chapelle Dated January 2006. Alternative stormwater systems may be used provided that details are provided with any application demonstrating that the system will achieve the required criteria for stormwater management;
- ii. Stormwater treatment and disposal must not rely solely on any end of line facility. A treatment train must be proposed that incorporates a range of facilities, inclusive of measures, where appropriate, within the road system. Best management practices include dispersion techniques such as dissipaters, litter and debris control traps and associated trunk line drainage structures in controlling sediment and reducing phosphate/nitrate levels. Where possible and practicable, these structures are to be designed sympathetic to the surrounding environment and constructed of natural materials such as boulders and rock features and landscaped;
- iii. Any detention areas for stormwater should be designed so as to detain water for less than 3 days to minimise the potential for mosquito habitat and facilitate maintenance;
- iv. To minimise the potential breeding of mosquitoes, constructed wetlands are not encouraged; However, the retention of existing ponds and dams is permissible subject to incorporating the following attributes:
- The batter around the dam/pond should be as steep as practical (within the design standards for public safety) to minimise shallow water (< 600mm) suited to mosquito breeding. If fencing is not used for public safety, a batter not less than 1:6 is recommended;
 - Normal water levels within the dam/pond should maintain at a minimum of 600mm water depth except for the margins;
 - Improve opportunities for wind action to keep the water surface disturbed to reduce availability to mosquito larvae (this requires contact with a stable surface film for respiration). Therefore basin margins should not be planted with shrubs or trees; and
 - Aquatic macrophytes should not be planted in more than 60% of shallow water around the margin. They should be clumped with separations of open water allowing wind disturbance on the water surface.





G. Element - Landscaping

- i. A conceptual landscaping plan is to be prepared and lodged with any development application for subdivision within Skennars Ridge;
- ii. Landscape treatments must:
 - Create a strong overall landscape character to the entire site;
 - Provide for a bushland regeneration buffer along the eastern side of the riparian vegetation to North Creek;
 - Reinforce the wildlife corridor along the northern boundary of the land;
 - Define individual precincts relative to the their natural surrounds e.g. riparian species near North Creek;
 - Create an appealing visual quality to streetscapes and parklands;
 - Define key vehicular routes within the land;
 - Enhance pathways and cycleways;
 - Define key vehicular and pedestrian nodes and locations;
 - Be incorporated as part of an integrated approach to WSUD;
 - Be consistent with adopted mosquito management practises for Skennars Ridge;
 - Provide for user comfort of public spaces e.g. with shade trees;
 - Provide for the safe use of public spaces e.g. maintaining surveillance of parks;
 - Improve opportunities for wildlife habitat and movement corridors;
 - Conserve and enhance riparian corridors; and
 - Provide buffers to vulnerable bushland edges.

H. Element - Fencing to Public Places

- i. Fencing of the environmental protection zones along residential boundaries is to be such that it minimises impacts on natural habitats; and
- ii. Appropriate silt/sediment and barrier fencing must be erected around the environmental protection zones and significant vegetation during civil and construction works such that the vegetation is not impacted upon by silt/sediment and is protected from physical damage.

I. Element - Retention of Native Vegetation

- i. Buffers must be established to protect existing mature fig trees. Such buffers should extend 20m beyond the edge of each fig tree's canopy. All lots containing or adjacent to such trees must be designed such that there is a reasonable building envelope for the erection of a dwelling outside of the buffer.

J. Element - Open Space Requirements

- i. Local parks are to be provided in accordance with the following criteria:
 - be situated so that each dwelling is within a 400m radius of a local park;
 - be situated on land that is readily accessible to the surrounding dwellings and be physically connected to the pathway network;
 - contain a minimum usable park area of 2000m²;





- be designed and located so as to maximise street frontage and encourage natural surveillance from surrounding residents;
- be equipped with play equipment and/or park furniture;
- provide shade cover over all play equipment; and
- include soft-fall under all play equipment in accordance with the relevant Australian Standards.

K. Element - Mosquito Management

- i. Street-lighting within the development should be shielded to minimise visibility of intensive light sources from the direction of the Ballina Nature Reserve.

L. Element - Covenants

- i. An outline of proposed covenants is to be submitted with any development applications for subdivision of the subject land. The outline must identify the “planning purpose” or community benefit that is to be achieved by imposition of the covenants, particularly as they relate to built form; and
- ii. Covenants applicable to the construction of dwellings in the Skennars Ridge Residential Area must allow for a reasonable variety of housing forms and materials.

5.2 Ferngrove Estate & Riveroaks Estate, Ballina

5.2.1 Application

Applies to:	
Location/s:	Ferngrove Estate & Riveroaks Estate (as shown on the Special Area Controls Map - Subdivision).
Development Type/s:	Subdivision.

5.2.2 Planning Objectives

- a. Provide for the integrated development of the Ferngrove & Riveroaks residential area;
- b. Provide for subdivision of land in a manner which recognises and protects biodiversity values of the land; and
- c. Provide useable and well landscaped public and private open spaces to enhance aesthetics and residential amenity.

5.2.3 Development Controls

- i. Open space areas are to be embellished with playground equipment and landscaping in suitable locations;
- ii. Land within an environmental zone is to be embellished in order to establish a conservation area on the land; and
- iii. Mangroves lost during the development of the site are to be replaced on a two to one basis adjacent to the northern boundary of the Ballina Wastewater Treatment Plant or other location acceptable to Council.





5.3 Wollongbar Urban Expansion Area, Wollongbar

5.3.1 Application

Applies to:	
Location/s:	Wollongbar Urban Expansion Area (WUEA) (as shown on the Special Area Controls Map - Subdivision).
Development Type/s:	Subdivision.

5.3.2 Planning Objectives

- Provide flexibility in the development of the WUEA and to facilitate integrated outcomes in relation to subdivision and building form;
- Ensure that the natural features, attributes and environmentally sensitive areas of the site and locality are not adversely affected by future development;
- Minimise visual and environmental impacts of cut and fill and avoid potential stability and drainage implications associated with excessive excavation and/or filling and vegetation removal;
- Provide a mix of low to medium density housing that will not detract from the amenity of the urban environment or from the scenic quality of the locality, while promoting an efficient use of the land;
- Require energy efficient subdivision layout and dwelling design that responds to the site constraints, solar access, climate, prevailing winds, topography etc;
- Provide useable and well landscaped public and private open spaces to enhance the aesthetics and improve the residential amenity of the locality;
- Provide suitable buffers between dwellings and adjoining agricultural land, major roads and active open space facilities;
- Provide transport corridors (roads, pathways, cycleways) that are efficient, safe and convenient for all users (including public transport providers);
- Ensure that the proposed development is consistent and compatible with the existing character of Wollongbar.

5.3.3 Development Controls

A. Element - Density and lot size provisions

- Residential development is to achieve the following density:
 - Land with slope less than or equal to 20% – between 12-15 dwellings/ha;
 - Land with slope greater than 20% - between 8-10 dwellings/ha;
- Land identified as being of low to medium likelihood of slope instability (slope less than or equal to 20%) is to be characterised by smaller residential lots; and
- Land identified as being of medium to high likelihood of slope instability (slope greater than 20%) is to be characterised by larger lots.



Notes:

Neighbourhood dwelling density is defined as "... the number of dwelling units per hectare, including residential lots, local open space, local roads, neighbourhood shopping centres and primary schools, but excluding regional facilities." (North Coast





Urban Planning Strategy - NCUPS).

For the purposes of this Plan, the en globo area of land used to determine density relates only to the residential and open space zoned land. Further, density calculations do not relate to the area of land that is the Plateau Drive corridor.

B. Element - Lot design

- i. A minimum building area of 180m² must be available on each proposed residential lot. The building area must be wholly located on land that is identified as being of low or medium risk of slope instability.

C. Element - Buffers

- i. Appropriate buffers are to be provided between residential lots and adjacent uses that may be a source of conflict with the residential occupation of those lots. Such uses may include major roads, agricultural land uses, active open space facilities and significant native vegetation where appropriate;
- ii. Where required, buffers are to comprise an appropriate setback distance within which intensive landscaping and/or physical structures (eg earthen mounds, fences, walls etc) can be constructed. The setback distance and appropriate structure treatment will be determined pending detailed investigations at the development application stage for subdivision (excluding Strata Title subdivision) of any land within the WUEA;
- iii. A buffer (with the preferred form being a constructed road) is to be provided around the full perimeter of any major open space facility;
- iv. Buffers of at least 5m width are to be provided between residential development and existing significant native vegetation (measured from the outer edge of the canopy) on the subject land. Buffers must be clearly identified on the subdivision plan accompanying the development application for urban subdivision; and
- v. Where a development application for urban subdivision (excluding Strata Title subdivision) proposes the removal of significant native vegetation, a detailed flora and fauna impact assessment report is to be prepared and submitted with the development application.

D. Element - Pedestrian/ Bicycle Network

- i. An integrated network of pedestrian/cycle paths shall be provided throughout the WUEA such that it provides safe, convenient and direct access to and within the residential areas;
- ii. The internal pathway network shall be linked to the existing pathway network in Wollongbar, adjacent external networks (if available), passive open space areas and environmental management areas;
- iii. Pathways within road reserves and at the end of cul-de-sacs shall be of concrete construction;
- iv. Pathways within open space and/or environmental protection areas shall be sealed;
- v. Pathway/cycleway linkages are to be provided to existing networks servicing the TAFE Campus, the Wollongbar Shopping Centre, Wollongbar Primary School and Hill Park Oval. The internal pathway network must connect with the external network at the intersections of Plateau Drive with Sneaths Road and Rifle Range Road;
- vi. Pathways must be provided in the following locations:
 - on both sides of Plateau Drive;





- between cul-de-sacs and open space and/or or any other constructed pathway/cycleway;
 - between two cul-de-sacs to have direct access from one cul-de-sac to the other without having to travel a longer distance by road;
 - along the northern side of Rifle Range Road from its intersection with Plateau Drive to the constructed pedestrian refuge in Rifle Range Road;
- vii. Pedestrian pathways are to be provided and integrated throughout the casual open space areas. They shall be designed such that grades permit walking for the majority of the expected population; and
- viii. A concrete pathway/cycleway is to be provided to connect the WUEA to the Wollongbar commercial area and primary school. Options for the route of the cycleway include Wollongbar Drive, Bertram Place, Robindale Drive and Simpson Avenue.

E. Element - Fencing to public places

- i. Highly visible fencing along main roads and public places must be uniform in terms of design, height, materials and colours so that it presents attractively and consistently in the streetscape. Such fencing must be erected as part of the subdivision development of the land; and
- ii. Fencing of the environmental protection zones along residential boundaries is to be provided that is consistent with the theme of the subdivision. Such fencing must be erected as part of the subdivision development of the land.

F. Element - Environmental protection zones

- i. Development in or adjacent to areas zoned for environmental protection purposes must incorporate the following:
 - Erection of protective fencing around individual and vegetation clusters to limit disturbance caused by earthworks. The protective fencing is to be installed to a minimum distance of the 'drip line' and maintained for the duration of the civil works;
 - Installation and maintenance of erosion and sedimentation controls;
 - Weed eradication and control;
 - Revegetation and stabilisation of disturbed areas (vegetation of existing erosion prone areas) with native endemic species;
- ii. All environmental protection zoned land must be rehabilitated and embellished. Development applications must be accompanied by a rehabilitation plan that includes staging (relative to time and lot release) and costings; and
- iii. Proposals that involve the dedication of land to Council must include details of the condition of the subject land and when it is proposed that the land will be dedicated.



Notes:

Council will require a bond for rehabilitation and embellishment works which will be refundable upon completion of the required works.

Council may accept dedication of environmental protection zoned land subject to completion of rehabilitation works, provision of pedestrian paths and minimisation of cleared bushfire buffers by the provision of perimeter roads.





G. Element - Internal road design

- i. The design and hierarchy of internal roads must be in accordance with the requirements set out in the *Northern Rivers Local Government Development and Design Manual* unless other details are specified below;
- ii. Formal concrete footpaths are to be constructed as part of the local road network;
- iii. Constructed designated on-street car parking is to be provided within the head of each cul-de-sac that services more than 20 dwellings at a rate of 1 parking space per 5 dwellings serviced by the cul-de-sac. The location of parking shall be provided in the carriageway leading to the cul-de-sac or the cul-de-sac is to be designed with car parking in the centre;
- iv. Collector roads are to be of sufficient construction standard, alignment and geometry to provide for bus routes;
- v. At least 80% of all lots must be within 400m walking distance of a street that will be used as a bus route and that no dwelling is to be located further than 500m from a bus route;
- vi. Bus stops (inclusive of “hail and ride” J poles) are to be provided along nominated bus routes at intervals of 400m; and
- vii. Bus stops are to be provided with constructed bus shelters no greater than 800m apart and are to be located in positions that will service the maximum number of dwellings.

H. Element - External road works

- i. Works are to be provided comprising the installation of 4 entrance statements at each end of Ramses St – Rubiton St and Wollongbar Dr – Robindale Dr routes with the implementation of 2 traffic calming devices along each route; and
- ii. Rifle Range Road is to be upgraded, including realignment to a 13 metre wide carriageway with suitable clearance from adjoining residential properties. Barrier kerb and guttering shall be provided at the edge of the seal. Acoustic barriers and/or sound mounds (planted out with native plants) shall be provided as part of the development of the adjoining land.

I. Element - Open space requirements

- i. Local parks are to be provided in accordance with the following criteria:
 - be situated so that each dwelling is within a 400m radius of a local park;
 - be situated on land that is readily accessible to the surrounding dwellings and be physically connected to the pathway network;
 - contain a minimum usable park area of 2000m²;
 - be designed and located so as to maximise street frontage and encourage natural surveillance from surrounding residents;
 - be equipped with play equipment and/or park furniture;
 - provide shade cover over all play equipment; and
 - include soft-fall under all play equipment in accordance with the relevant Australian Standards.





Notes:

For the purpose of this section the proposed district park will serve as a local park.

5.4 Ballina Heights Estate, Cumbalum

5.4.1 Application

Applies to:	
Location/s:	Ballina Heights Estate (as shown on Special Area Controls Map - Subdivision).
Development Type/s:	Subdivision.

5.4.2 Planning Objectives

- provide for the integrated development of Ballina Heights Estate;
- provide reasonable certainty for developers and residents regarding the broad subdivision layout;
- provide flexibility with respect to the detailed configuration of roads and allotments;
- ensure that adequate land is set aside in appropriate locations for the range of land uses required in the estate;
- ensure that infrastructure is designed and provided on an integrated basis having regard for the likely future stages of development;
- ensure that service infrastructure and open space & community infrastructure is provided in an orderly and economically feasible manner;
- ensure that infrastructure is constructed in accordance with adopted Council policy;
- provide for a range of residential forms;
- encourage higher densities in locations accessible to facilities and services; and
- ensure that residential allotments are of a suitable size and shape to accommodate the anticipated housing densities.

5.4.3 Development Controls

A. Element - Layout of the Estate

- Applications for subdivision of land are to be consistent with the various "Aspects" listed in Development Consent 2001/128 (as amended);



Note: DA 2001/128 involved approval for the conceptual or "master plan" layout of the estate comprising a maximum of 753 allotments plus the approval of stages 1 - 4 which contained 219 lots. This consent required further development consents to be obtained for the remaining stages 5 - 16 with each application to contain no more than 200 allotments. All subsequent stages of development must be consistent with the terms of that consent relating to the master plan approval (or "Aspects"). The consent has been amended on a number of occasions.





- ii. Applications for the subdivision of land are to be generally consistent with the following (attached in Appendix B):
 - the Ballina Heights Structure Plan;
 - the Concept Landscaping and Feature Plans;
- iii. Applications for the subdivision of land are to be accompanied by information demonstrating how the proposed subdivision stage integrates with both the Structure Plan for the estate (Figure 3 – see Appendix B) and the likely subdivision pattern of land adjoining the specific stage and utilities and infrastructure servicing the development;



Note: When Council adopted this Policy Statement in July 2010 it also resolved "that prior to taking any action [on the possible closure of] Deadmans Creek Road, Council receive a further report which examines the feasibility of maintaining the access via lowering the road as close as possible to natural surface level".

- iv. The lowland rainforest and Bangalow Palm forest located in the northeast portion of the site must be adequately buffered and protected from residential development. This will be achieved by way of the physical separation of the forest from residential development. In this regard, a minimum of a 30m buffer and 20m wide road reserve will separate the western edge of the forest from residential development. A minimum of 10m wide planted buffer and 7m wide access route for vehicles will also be provided between the Bangalow Palms and the water quality control pond;
- v. With respect to mosquito management, the subdivision shall be designed in accordance with the recommendations of the James Warren and Associates Report "Mosquito and Biting Midge Management Plan - Ballina Heights Estate, Ballina" (March 2001);



Note: One recommendation of the James Warren report related to the type of street lighting to be used in Ballina Heights Estate. Negotiations are underway between Council and the developers of the estate with respect to improving the energy efficiency of the street light network. This may lead to changes to the street lights provided in some future stages of the estate from that recommended in the James Warren report.

- vi. No buildings or structures are permitted over the Rous Water 300mm water main. To achieve this, either a 6.0 metre wide easement is to be created above the main or alternatively the main is to be relocated so that it is situated in future road reserves; and
- vii. No buildings or structures are permitted within an electricity transmission line corridor without prior consultation with the relevant energy service provider.

B. Element - Infrastructure Provision

Infrastructure Internal to the Development Site

- i. The subdivision shall be fully serviced with water, sewer, roads, drainage and underground electricity and telecommunications. This service infrastructure may be constructed on a staged basis to accommodate the staged release of the estate;





- ii. All service infrastructure is to be designed and constructed in accordance with the *Northern Rivers Local Government Development and Design Manual*;
- iii. Service infrastructure internal to the development site shall be provided by the developer at no cost to Council (other than matters documented in item "iv" below); and

Dual Reticulation Water Supply

- i. A dual-reticulation water supply for non-potable water is to be provided throughout the estate; and
- ii. The developer shall incorporate on the Certificate of Title for all allotments Restrictions as to User which require all dwellings and buildings with plumbing (including schools, commercial buildings and the like) to make provision for recycled water service plumbing and facilities to the approval of Council.

Roads and Access

- i. The road identified as Cumbalum Way on the Ballina Heights Structure Plan (Appendix B) is to be designed as a limited access road. No direct vehicular access is to be provided to properties within residential precincts fronting the road. Access to non-residential precincts fronting this limited access road is to be provided on an integrated basis, with no vehicular access to individual tenancies provided;
- ii. Safe pedestrian access is to be provided across the road identified as Cumbalum Way on the Ballina Heights Structure Plan (Appendix B) linking residential precincts with one another and with the village centre, open space and community infrastructure. Grade separated access is to be provided linking the sporting field and school precincts with the land identified as precinct W1 on the Ballina Heights Structure Plan (Appendix B);
- iii. The road network is to be designed to provide for designated bus routes and bus stops in locations which provide safe and convenient access for residents; and
- iv. A pedestrian / cycle path network is to be provided generally in accordance with the Ballina Heights Concept Landscaping and Feature Plan (Appendix B). The pedestrian / cycle path may, in some cases, perform a drainage function and/or provide access for servicing authorities.

Stormwater

- i. All stormwater infrastructure is to be designed to achieve no net increases in pollutant or sediment load leaving the site. This will include compliance with recommendations of Gilbert and Sutherland Soil and Water Assessment and Management Plan (March 1999); and



Note:

It is noted that the stormwater management plan will require changes due to the implications arising from modification to the Ballina Bypass. These changes will be assessed and approved via the development application process.

- ii. The developer shall incorporate on the Certificate of Title for all allotments Restrictions as to User which identifies installation and maintenance obligations for stormwater treatment devices.





Active Open Space and Sports Club House

- i. The developer shall provide a minimum of 8.6 hectares of embellished active open space within the sporting field precinct. The construction and embellishment of the active open space is to be in accordance with conditions of consent documented in DA No. 2003/413 and 2001/128; and
- ii. The developer shall provide sports club house facilities in lieu of the "Sports Club" previously proposed and agreed to by Council. These facilities are to include meeting space, kitchen, change rooms, toilets, storage, canteen facilities and covered outside areas (such as verandas). Pre-lodgement discussions are to be held with Council's Manager Open Space and Reserves prior to the lodgement of any development application for the sports club house.



Note: Under early stages of the estate, the developers constructed a sewerage rising main to Council's nominated disposal point as well as a cycleway linking the estate to Ballina.

C. Element - Residential Precincts

- i. Subdivision layouts are to provide for a range of housing types including *dwelling houses, dual occupancies* and medium density housing;
- ii. Precincts nominated in the Structure Plan for residential purposes are to achieve the target densities nominated in Table 3.3;

Table 3.3 - Ballina Heights Target Subdivision Densities		
Precinct	Average Slope	Density
C1 - C8, S1, S2 & W1	Slopes 20% and greater	8 - 10 dwellings / ha
	Slopes less than 20%	12 -15 dwellings / ha
MU	-	15+ dwellings / ha (Excluding areas set aside for commercial, community and other non-residential uses)

- iii. Any development application for subdivision is to provide a subdivision plan identifying the size and shape of the proposed lots and road network;
- iv. Allotments designed to accommodate medium density development are preferred locations which adjoin open space and which have convenient access to services and amenities. Such allotments should also meet the following criteria:
 - not have an average slope greater than 20%;
 - not be of a battle-axe configuration;
 - not be located in a cul-de-sac, unless it can be demonstrated that the subsequent development of the site will not unreasonably impact on the traffic capacity of the road network and the on-street parking provided;
 - preferably be a corner allotment;
- v. Residential lots less than 600m² must be located in order to achieve the following:





- safe pedestrian access (including grade separated access across the road identified as Cumbalum Way on the Structure Plan) from the subject allotment(s) to the Village Centre (Mixed use precinct);
- vi. Residential areas within the Precincts will be protected from road traffic noise associated with the Pacific Highway to a design sound level of satisfactory as per *AS/NZS 2107:2000 Acoustics - Recommended Design Sound Level and Reverberation Times for Building Interiors*; and
- vii. Allotments identified at subdivision stage as requiring specific residential design requirements associated with mitigation of road traffic noise shall have relevant restrictions on title applied.

5.5 Cumbalum Precinct B

5.5.1 Application

Applies to:	
Location/s:	Cumbalum Precinct B (as shown on Special Area Controls Map - Subdivision).
Development Type/s:	Subdivision.

5.5.2 Planning Objectives

- a. Provide for the integrated development of the new residential area of Cumbalum Precinct B;
- b. Provide reasonable certainty for developers and residents regarding the broad subdivision layout while providing flexibility with respect to the detailed configuration of roads and allotments;
- c. Provide for subdivision of land in a manner which recognises and protects biodiversity values of the land and locality, including the Ballina Nature Reserve;
- d. Provide useable and well landscaped public and private open spaces to enhance aesthetics and residential amenity;
- e. Provide for a energy efficient subdivision layout that is responsive to site opportunities and constraints including solar access, topography and prevailing winds;
- f. Provide suitable buffers between dwellings and adjoining agricultural land, major roads and environmental attributes;
- g. Provide transport corridors (roads, pathways, cycleways) that are efficient, safe and convenient for all users (including public transport providers);
- h. Ensure that adequate land is set aside in appropriate locations for the range of land uses required in the village;
- i. Provide for a range of residential forms and in particular encourage higher densities in locations accessible to facilities and services;
- j. Ensure that service infrastructure and open space and community infrastructure is provided in an orderly and economically feasible manner; and
- k. Recognise and protect the environmental values of the land.





5.5.3 Development Controls

For the purpose of this Section **Final Lot** means:

A lot to be created in the development for separate occupation not being:

- (a) A lot created by subdivision of the land that is to be dedicated or otherwise transferred to Council,
or
- (b) A lot created by a subdivision of the land which may be further subdivided.

A. Element - Layout of the Village

- i. Applications for subdivision of land are to be generally consistent with the following Figures (attached in Appendix C):
 - Figure 1: Cumbalum Precinct B Structure Plan;
 - Figure 2: Cumbalum Precinct B Mobility Plan;
 - Figure 3: Cumbalum Precinct B Staging Plan;
 - Figure 4: Cumbalum Precinct B Landscaping Principles and Character;
 - Figure 5: Cumbalum Precinct B Open Space Ownership; and
 - Figure 6: Precinct B – Development Contribution Obligations dated 30 August 2012.



Note:

The Structure Plan shows the ultimate development of Cumbalum Precinct B. The zoning will be achieved via a number of rezonings. This includes the subsequent inclusion of the E Zones in Ballina LEP 2012 and adjustments to the Zone B2 boundary shown on the Structure Plan.

- ii. Applications for the subdivision of land are to be accompanied by information demonstrating how the proposed subdivision integrates with both the *Cumbalum Precinct B Structure Plan* (Figure 1 – Appendix C) and the likely subdivision pattern of land adjoining the specific stage and utilities and infrastructure servicing the development;
- iii. The new Village Centre is to be developed with the following characteristics:
 - a. Relate strongly to the new residential area while servicing the wider catchment that uses Ross Lane on a regular basis;
 - b. Be located adjacent to Ross Lane with access provided via the internal sub-arterial and local roads;
 - c. Fully service the everyday retail needs that contribute to the establishment of a viable community, with a tenancy mix designed to cater for drop-in, passing and top up shopping trips and service local convenience shopping needs for food services and professional/personal services;
 - d. Provide for 3000 m² of gross commercial space; consisting of a convenience supermarket of approximately 1400 m² and approximately 1600 m² of specialty retail (convenience, impulse, food services and professional/ personal services);
 - e. Provide for two child-care centres (to allow for staging) with a potential total capacity of 175 children;





- f. Provide for a service station on a site of approximately 4000 m², with access from internal sub-arterial and local roads;
 - g. Provide for SOHO (small office home office) dwellings – on the fringe of the centre and each offering about 150 m² to 180 m² of built area; and
 - h. Provide a gateway to the residential estate that is not dominated by a commercial built form but rather provides an intermediate transition from the rural/environmental to the built environment, through a mixture of building and landscaping elements.
- iv. The Aboriginal Cultural Site shown on the *Cumbalum Precinct B Structure Plan* (Figure 1 – see Appendix C) is to be embellished and managed as part of Stage 1 in accordance with an approved Cultural Management Plan for the land;
- v. Open buffer mosquito zones along the eastern edge of the Village must be located as shown on the *Cumbalum Precinct B Structure Plan* (Figure 1 – Appendix C). These buffers must be free of thick shady vegetation to inhibit mosquito dispersal. Otherwise the development must occur in accordance with *Chapter 2 Section 3.6 – Mosquito Management*; and
- vi. The development of smaller landholdings (< 10 hectares), that are not subject to the Precinct B Voluntary Planning Agreement must, achieve integration with adjoining development land, with respect to subdivision layout, access and the provision of other urban services. Conversely, larger development parcels adjacent to smaller landholdings must seek to facilitate such integration, where appropriate.

B. Element - Infrastructure Provision

Voluntary Planning Agreement

- i. Infrastructure delivery is to be provided in accordance with the Cumbalum Precinct B Voluntary Planning Agreement (VPA). Key summary provisions of the VPA are reproduced below. For further detail relating to the following, refer to the VPA.
- ii. The staging, sizing and construction of infrastructure provided under the VPA is to be sufficient to accommodate the projected total development yield of the precinct, including those properties that are not subject to the VPA. The development of land not subject to the Cumbalum Precinct B VPA is to be undertaken in a manner consistent with the staging, location and timing of infrastructure provided under the VPA and otherwise as outlined below.



Note:

Council has signed a Voluntary Planning Agreement with the principal landowners of the Cumbalum Precinct B development. This agreement sets out the infrastructure required for the development of the Cumbalum Precinct B development and the funding and timing of that infrastructure.

The Precinct B VPA takes precedence to the extent of any consistency between this DCP and the VPA





Infrastructure External to the Development Site

- iii. The developer must construct sewerage mains and pump stations so as to convey sewage to Sewerage Pump Station No.2402. The sewerage mains and pump stations must be generally located as shown on the map entitled “Precinct B – Development Contribution Obligations” dated 30 August 2012 or as otherwise approved; and
- iv. The developer must construct drinking water distribution mains from the future Ross Lane Water Reservoir to the development as shown on the map entitled “Precinct B – Development Contribution Obligations” dated 30 August 2012 or as otherwise approved;

Infrastructure Internal to the Development Site

- v. The subdivision must be fully serviced with water, sewer, roads, drainage and underground electricity and telecommunications;
- vi. This service infrastructure is to be constructed on a staged basis to accommodate the staged release of the Village in accordance with *Cumalum Precinct B Staging Plan* (Figure 3 – Appendix C) or as otherwise approved by Council;
- vii. All service infrastructure is to be designed and constructed in accordance with the *Northern Rivers Local Government Development and Design Manual*; and
- viii. Service infrastructure internal to the development site must be provided by the developer at no cost to Council.

Dual Reticulation Water Supply

- ix. A dual-reticulation water supply for recycled water is to be provided throughout the development in accordance with Council’s Recycle Water Scheme; and
- x. The developer must incorporate on the Certificate of Title for all allotments Restrictions as to User which requires all dwellings and buildings with plumbing (including commercial buildings and the like) to make provision for recycled water service plumbing and facilities to the approval of Council.

Roads and Access

- xi. The intersection of the eastern access road onto Ross Lane, as shown on the *Cumalum Precinct B Structure Plan* (Figure 1 - Appendix C), is to be constructed as a two lane arterial road roundabout;
- xii. The intersection off Duffcys Lane onto Ross Lane, as shown on the *Cumalum Precinct B Structure Plan* (Figure 1 - Appendix C), is to be constructed as a signalised intersection to arterial road standard;
- xiii. The eastern *Proposed Sub Arterial*, as shown on the *Cumalum Precinct B Structure Plan* (Figure 1 - Appendix C), is to be constructed from Ross Lane to the southern extent shown on the Structure Plan by the developer, prior to the creation of the 600th Final Lot;
- xiv. Ross Lane is to be maintained as a limited access road, with no direct vehicular access provided to adjacent residential and non-residential properties;
- xv. The roads identified as *Proposed Sub Arterial* on the *Cumalum Precinct B Structure Plan* (Figure 1 - Appendix C) are to be designed as limited access roads. Generally, no direct vehicular access is to be provided to properties within residential precincts fronting the road. Access to non-residential precincts fronting this road is to be provided on an integrated basis, with no vehicular access to





- individual tenancies provided. Notwithstanding, direct access may be provided within residential precincts, in some cases, having regard for projected traffic volumes, design speed, topography and amenity;
- xvi. Safe pedestrian access is to be provided across the roads identified as *Proposed Sub Arterial* on the *Cumbalum Precinct B Structure Plan* (Figure 1 - Appendix C) linking residential precincts with one another and with the Village Centre, open space and community infrastructure;
 - xvii. The road network is to be designed to provide for designated bus routes and bus stops in locations which provide safe and convenient access for residents generally as shown on the *Cumbalum Precinct B Mobility Plan* (Figure 2 - Appendix C). Bus stops are to be provide with “hail and ride” J poles and constructed bus shelters; and
 - xviii. A pedestrian / cycle path network is to be provided generally in accordance with the *Cumbalum Precinct B Mobility Plan* (Figure 2 - Appendix C). Pedestrian footpaths will generally be required on local and collector roads. A pedestrian path is to be provided at or near the head of any cul-de-sac so as to connect adjacent cul-de-sacs and enable pedestrians and/or cyclists to have direct access from one cul-de-sac to the other without having to travel a longer distance by road. Pedestrian / cycle paths may, in some cases, perform a drainage function and/or provide access for servicing authorities.

Stormwater

- xix. Development is to address the development standards relating to stormwater management set out in Chapter 2. Additionally, proposals must demonstrate that development will not adversely impact on the downstream natural environment or on adjacent private property due to increased stormwater volume;
- xx. Development proposals are to be accompanied by an integrated Stormwater Management Plan that considers the cumulative impacts associated with the development of the village as a whole;
- xxi. Stormwater treatment and disposal are not to rely solely on end of line facilities. A treatment train must be provided that incorporates a range of facilities, inclusive of measures, where appropriate, within the road system;



Note:

Best stormwater management practices include dispersion techniques such as dissipaters, litter and debris control traps and associated trunk line drainage structures in controlling sediment and reducing phosphate/nitrate levels. Where possible and practicable, these structures are to be designed sympathetically with the surrounding environment and constructed of natural materials such as boulders and rock features and landscaped.

- xxii. Any detention areas for stormwater are to be designed so as to detain water for no more than 3 days to minimise the potential for mosquito habitat and facilitate maintenance;
- xxiii. Development proposals must include details of maintenance requirements associated with proposed stormwater management devices;





- xxiv. To minimise the potential breeding of mosquitoes ponds and dams must incorporate the following attributes:
- The batter around the dam/pond is to be as steep as practical (within the design standards for public safety) to minimise shallow water (< 600mm) suited to mosquito breeding. If fencing is not used for public safety, a batter not less than 1:6 is recommended;
 - Normal water levels within the pond must maintain at a minimum of 600mm water depth except for the margins;
 - Design to facilitate wind action over the waterbody to keep the water surface disturbed to reduce availability to mosquito larvae (this requires contact with a stable surface film for respiration). Basin margins should not be planted with shrubs or trees; and
 - Aquatic macrophytes should not be planted in more than 60% of shallow water around the margin. Where planted, macrophytes must be clumped with separations of open water allowing wind disturbance on the water surface.
- xxv. Stormwater management design is to consider opportunities to protect and enhance the foraging habitat of the Brolga (*Grus rubicunda*);



Note:

During the rezoning of the land, the presence of a nesting pair of Brolga was identified on land adjacent to the development site. Preliminary investigations have suggested that the design of stormwater management devices may be designed in such a manner as to preserve or enhance foraging habitat for the species

- xxvi. Development proposals are to incorporate environmental monitoring measures, to enable staged post-development monitoring of downstream stormwater impacts at key stages in the development process. This is to include pre-development monitoring to allow benchmarking of the pre-development environmental characteristics. The location of water quality monitoring points is to be determined in consultation with the Council, prior to the placement of monitoring equipment



Note:

A suitably qualified ecologist must be retained and consulted in the preparation of the stormwater management strategy (eg. Science degree). The name and experience of the author(s) must be clearly stated.

Development proposals are to have regard to Cumalum Precinct B - Additional Investigations - Additional Stormwater Investigations, by Australian Wetlands Consulting Pty Ltd dated 13 September 2012 and to Cumalum Ridge: Inundation Investigation for Ballina Nature Reserve and Adjacent Properties, by BMT WBM dated December 2012. Alternative stormwater systems may be considered provided that it is demonstrated that the system will achieve the required criteria for stormwater management.



Earthworks and Filling

- xxii. Development applications for creation of residential lots over areas shown on the *Cumbalum Precinct B Structure Plan* (Figure 1 - Appendix C) as “Potential soft soils” or “Fill required to above flood levels” must be accompanied by information (including plans and sections) to show works required to address geotechnical and flooding issues as applicable.

C. Element - Open Space and Community Facilities

Sporting Fields

- i. Sporting Fields are to be provided by the developer in the location shown on the *Cumbalum Precinct B Structure Plan* (Figure 1 - Appendix C). The following sporting facilities are to be provided for every 300 Final Lots:
 - a. 1 Playing Field;
 - b. 1 Court;
 - c. Clubhouse and amenities;
 - d. Public (road) access; and
 - e. Car parking.
- ii. The sporting fields are to be initially established prior to the creation of the 300th Final Lot that creates the need for the sporting fields;
- iii. The sporting fields are to be designed and located to make efficient use of the site and so as to be capable of being expanded through future stages of the development such that each open space area will comprise a minimum area of 4 hectares; and
- iv. Playing fields are to be constructed and maintained, to a standard acceptable to the Council, for a minimum of two years prior to the creation of the Final Lots to which facility relates. The type of court to be provided must be that specified in writing by the Council.

District Parks

- v. District Parks, for passive recreation, are to be provided by the developer in the locations shown on the *Cumbalum Precinct B Staging Plan* (Figure 3 - Appendix C). District parks with a minimum area of 4050 m² are to be provided for every 300 Final Lots;
- vi. District Parks are to be embellished, to Council's satisfaction, and may include walking paths, picnic shelters, BBQ facilities and play equipment; and
- vii. District Parks are to be provided prior to the creation of the 300th Final Lot that creates the need for the District Park.

Local Parks

- viii. Local Parks are to be provided by the developer in the location shown on the *Cumbalum Precinct B Structure Plan* (Figure 1 - Appendix C). Local Parks with a minimum area of 2100 m² are to be provided for every 240 Final Lots;
- ix. The Local Parks are to be provided prior to the creation of the 240th Final Lot that creates the need for the Local Parks; and





- x. The Local Parks are to be embellished with play equipment, landscaping, seating and shelter.

Community Halls

- xi. Community Halls are to be provided by the developer in the location shown on the *Cumbalum Precinct B Structure Plan* (Figure 1 - Appendix C). One Community Hall is to be provided for every 880 Final Lots;
- xii. Community Halls are to be provided comprising a minimum gross floor area of 250 m². Each Community Hall is to include an auditorium comprising a minimum of 170 m² and is to include required car parking and landscaping; and
- xiii. The Community Halls are to be provided prior to the creation of the 880th Final Lot that creates the need for the Community Hall.



Note:

It is anticipated that, based on an expected yield of 2,486 lots, two community halls will be required to be provided under the terms of the VPA. The locations of these two community halls are shown on the attached plans with red asterisks. If the development yield exceeds 2,640 lots (being a third multiple of 880 lots), an additional community hall is to be provided in the location shown on the attached plans by an orange asterisk.

D. Element - Residential Precincts

- i. Subdivision layouts are to provide for a range of housing types including dwelling houses, dual occupancies and medium density housing;
- ii. Each stage nominated on the *Cumbalum Precinct B Structure Plan* (Figure 1 - Appendix C) is to achieve the target dwelling yields nominated in the Table below;

Target Stage Dwelling Yield

Stage	Total dwellings	Percentage yield	Total Area	Net Residential Density
Stage 1	801	32%	69.7	11.5 dw/ha
Stage 2	1069	43%	73.0	14.6 dw/ha
Stage 3	360	14%	24.3	14.8 dw/ha
Stage 4	256	10%	41.1	6.2 dw/ha
TOTAL	2486	100%	208.2	11.9 dw/ha

Net Residential Density is measured over the net developable area being the total area of residential allotments, local roads and local parks, and excluding all other land uses.

- iii. To reduce the impact of residential land on adjacent agricultural land, a *Land Use Conflict Risk Assessment* must be carried out prior to the subdivision of land adjacent to any agricultural land. The





subdivision design must incorporate any buffers, vegetated/earth screens, perimeter roads or other measures recommended as a result of the *Land Use Conflict Risk Assessment*;

- iv. Residential areas must be protected from road traffic noise associated with the Pacific Highway and Ross Lane in accordance with the NSW Road Noise Policy; and
- v. Allotments identified at subdivision stage as requiring specific residential design requirements associated with mitigation of road traffic noise must have relevant restrictions on title applied.

E. Element - Environmental protection areas

- i. Areas identified as Environmental Conservation or Environmental Management on the Cumbalum Precinct B Structure plan (Figure 1 – Appendix C) must be rehabilitated and embellished in accordance with the requirements set out below.
 - Development applications must be accompanied by a Vegetation Management Plan (VMP) that applies to all Environmental Conservation and Environmental Management land within the stage, other than the Aboriginal Cultural Site;
 - Cleared buffers are to be provided, for bushfire and mosquito management purposes (combined), on land of no more than 15° grade, on land adjacent to rehabilitated environmental areas. Access and grade must be such that cleared buffers can be easily maintained. Buffers may be incorporated into roadways, environmental areas (if clear of vegetation) or on private allotments. Where buffers are provided on private lots, appropriate Asset Protection Zones must be provided in accordance with the requirements of the NSW Rural Fire Service.



Note:

Provision for bushfire and mosquito management buffers was incorporated into the zoning of the land where possible. Space for cleared buffers has been provided within some of the environmental rehabilitation areas. Notwithstanding, the requirements for cleared buffers on land adjacent to (rehabilitated) environmental areas are to conform with Council's open space maintenance requirements and/or the Bushfire Protection requirements of the NSW Rural Fire Service.

- Proposals that involve the dedication of land to Council, as marked *Dedicated to Local Council* on the *Cumbalum Precinct B Open Space Ownership* plan (Figure 5 - Appendix C), must include details of the proposed condition of the subject land upon dedication and when it is proposed that the land will be dedicated. The rehabilitation condition of the land must be to Council's satisfaction prior to dedication. A minimum of eighty percent canopy cover (as per Walker and Hopkins 1990) is to be achieved over areas that are to be fully revegetated prior to dedication to Council;
- Proposals that involve land marked *Land to be rehabilitated and held in a single holding or Community Title* or marked as *Land to be rehabilitated and become part of the adjoining lots* on the *Cumbalum Precinct B Open Space Ownership* plan (Figure 5 - Appendix C) must show how the land will be effectively managed in private ownership;





- Restoration plantings must use locally sourced stock and reflect locally occurring species within swamp sclerophyll, rainforest and wetland communities. All plants must be at least 200mm in height when planted;



Note:

Any Vegetation Management Plans prepared must be completed by suitably qualified personnel (eg. Bush Regeneration Certificate II, Science degree).

Minimum prescriptions for Vegetation Management Plans are as follows:

1. The structure of the plan must be as follows:
 - (a) Introduction
 - (b) Aims and objectives
 - (c) Site description
 - (d) Relevant legislation
 - (e) Methodology
 - (f) Results of site assessment
 - (g) Management recommendations
 - (h) Key performance criteria
 - (i) Monitoring and reporting
 - (j) Conclusion
 - (k) References
 - (l) Appendices (where relevant)
2. The content must include:
 - A. Property descriptions and plans,
 - B. Zoning descriptions and plans,
 - C. Relevant legislation and/or policies/guidelines,
 - D. Detailed description of methods to be employed and rationale,
 - E. Vegetation description, classification and mapping using a standardised current system (eg. BioMetric, VIS 2.0),
 - F. Details on any threatened flora, fauna or communities listed under the TSC Act 1995 or EPBC Act 1999,
 - G. Specific prescriptions for the management of Hairy Jointgrass (*Arthraxon hispidus*) consistent with the recommendations in a specific (separate) Hairy Jointgrass Management Plan,
 - H. Description of vegetation condition, specifically with regard to weed species,
 - I. Inventory of flora at the site (both native and introduced), detailed description of restoration or weed control methods, using maps where relevant,
 - K. Detailed descriptions of measures to re-instate vegetation within remnant linkages on steep slopes or land prone to





flooding,

- L. Detailed descriptions (and maps) showing the relationship between vegetation management and infrastructure services (utilities, stormwater etc),
- M. Details (and plans) regarding the construction of any structures, boardwalks, pathways or fences within or adjacent areas,
- N. Details concerning any integration of hard or soft landscaping with areas of vegetation subject to management,
- O. Detailed description of any other relevant management strategies (eg. seed collection, translocation),
- P. Incorporation of Asset Protection Zones (APZs) for bushfire protection,
- Q. Examination of any limiting measures which may reduce the implementation of prescribed works,
- R. Detailed description of Key Performance Indicators (KPIs) to achieve the objectives,
- S. Prescribed monitoring program (linked to KPIs),
- T. Timetable of works including all management strategies, timing of works, monitoring schedules and estimated costings for nominated works,
- U. Recommendations for any other works which are worthy of consideration,
- V. Methodology must be consistent with current best practice and contain the following information:
 - a. Measures to treat/control weeds at the site using approved herbicides,
 - b. Detailed planting prescriptions including: plant provenance, species selection, planting densities, planting methods, aftercare, mulching, plant protection, wallaby protection (if required), watering and fertilizing,
 - c. Protocols to reduce potential for introduction and/or management of plant pathogens, and
 - d. Details on any stabilisation /erosion/control measures where relevant.
- W. Maps and plans must be clear and easily understood and clearly show the extent of works. All maps must have a legend, north point and scale bar
- X. The name and qualifications of the Author/s must be clearly stated.





Rainforest restoration on steep slopes

- ii. For proposals involving the restoration of steep slopes (greater than 18°), Vegetation Management Plan/s must have specific details on how restoration works on steep slopes are to be managed, in particular:
 - A. Access details across steep slopes with regard to weed control, planting and maintenance for personnel, vehicles and/or machinery,
 - B. Details regarding the need for any specialised stabilisation or erosion controls, and
 - C. Details regarding the use of any machinery for earthworks (benching, cut etc) and provision of detailed design(s).



Note:

Steep slopes require special consideration as the safe operation of vehicles, plant or machinery is difficult. Additionally safety hazards may also exist for personnel working in these areas. These areas should be reforested with rainforest vegetation so that (in the long term) they become self-sustaining.

Retention of mature paddock trees

- iii. The retention of native paddock trees must be incorporated into the preliminary subdivision design process. These trees must be retained wherever possible and disturbance prevented to the root zones. Specific survey of isolated trees must be completed and included in any civil designs. Where isolated trees are threatened species listed in the TSC Act 1995 or EPBC Act 1999 specific protection measures must apply and buffer zones of a minimum of 12 times the diameter at breast height (dbh) of the tree must apply (ie. in accordance with AS 4970-2009). Where threatened trees are 'absorbed' within restoration areas, no buffers apply.



Note:

Mature paddock trees have a range of benefits including fauna habitat, sources of seed/fruit, shade, wind protection and aesthetic values.

Retention provisions apply only to native trees or mature non-native trees of aesthetic or other values (eg. Norfolk Pine, ornamental figs). Mature exotic trees (namely Camphor Laurel) are not bound by these prescriptions and may be removed where required

Removal of Rough-shelled Bush-nut

- iv. Proposals involving the removal of immature stems of the threatened species Rough-shelled Bush-nut (*Macadamia tetraphylla*) must incorporate the following into a Vegetation Management Plan for the land:





- A. Prior to the removal of any Rough-shelled Bush-nut, seed from other mature Rough-shelled Bush-nut at the site must be collected and struck so that 'replacement' trees are available for restoration plantings, and
- B. For every seedling/sapling of Rough-shelled Bush-nut removed, compensation must be achieved by the planting of ten (10) 'replacement' trees propagated from local seed (as described above) within subtropical rainforest communities.

Hairy Jointgrass

- v. A specific Hairy Jointgrass Management Plan (HJMP) must be developed to achieve a strategic approach for the species and to ensure long-term conservation outcomes are achieved. The HJMP must be integrated with the VMP such that both plans are aligned in their objectives and methods whereby outcomes are not contradictory. Where practical one integrated HJMP is to be prepared for Cumbalum Precinct B in its entirety. It is recognised that due to tenure and development timeframes, more than one HJMP may be need to be prepared.



Note:

Listed Threatened species Hairy Jointgrass (*Arthraxon hispidius*) has been identified on parts of the site.

Hairy Jointgrass Management Plans are to refer to Ballina Bypass *Arthraxon hispidius* (Hairy Joint Grass) Translocation and Management Project: Final Report prepared for Ballina Bypass Alliance by Dr Andrew Benwell (2012)

In addition to the Structure and Contents specified for VMPs above the HJMPs must include the following:

- A. Detailed mapping and description, including area calculations and occurrences based on Lot/DP,
- B. Specific management prescriptions for Hairy Jointgrass (HJG) at the site,
- C. Detailed information regarding HJG offsetting/compensation/removal etc,
- D. Detailed descriptions of measures to re-instate HJG such as direct seeding, translocation, planting out of propagated plants (etc), and
- E. Detailed descriptions (and maps) showing the relationship between HJG management and infrastructure services (utilities, stormwater etc) if relevant.





5.6 Cumbalum Views

5.6.1 Application

Applies to:	
Location/s:	Cumbalum Precinct A, to be known as Cumbalum Views (as shown on Special Area Controls Map – Subdivision)
Development Type/s:	Subdivision

5.6.2 Planning Objectives

- Establish “*Cumbalum Views*” as a distinct residential community reflecting its location, topography and views.
- Provide reasonable certainty for developers and residents regarding the broad subdivision layout while providing flexibility with respect to the detailed configuration of roads and allotments and the built form of Cumbalum Views.
- Ensure that the future urban development of Cumbalum Views integrates with the Ballina Heights Estate (in terms of road and pathway networks, infrastructure servicing, active and passive open space etc) and allows the creation of a unique character which differentiates it from Ballina Heights.
- Ensure that the future urban development of Cumbalum Views complements the urban development to the north and east in terms of access, facilities and infrastructure.
- Ensure that infrastructure is designed and provided on a co-ordinated basis having regard for the likely future staging of the urban area.
- Ensure that infrastructure services, open space and community infrastructure is provided in an orderly and economically feasible manner, sufficient to service the needs of future residents.
- Provide for a range of residential densities and built forms.
- Encourage higher density residential development in locations that are well situated in respect of facilities and services.
- Ensure that residential allotments are of a sufficient size and shape to accommodate anticipated diversity of housing densities/uses.
- Create a functional, attractive and pleasant place to live with a central public open space that forms the community hub.
- Provide a balanced outcome of respecting and linking environmental qualities, topography and efficient development of built form while protecting the environmental values of the land.

5.6.3 Development Controls

A. Element - Layout of the Village

- Development applications for the urban subdivision of the land are to be generally consistent with the following plans (refer Appendix D):
 - Figure 1: Structure Plan – Cumbalum Views
 - Figure 2: Mobility Plan – Cumbalum Views
 - Figure 3: Open Space Plan – Cumbalum Views





Figure 4: Landscape and Special Places Plan – Cumbalum Views

Figure 5: Staging Plan – Cumbalum Views

Figure 6: Context Plan – Cumbalum Views

- ii. Applications for the subdivision of land (not involving Strata subdivision) are to be accompanied by information that demonstrates how the proposed subdivision stage integrates with:
 - The plans contained in Appendix D, referred to above;
 - The existing or likely subdivision pattern (particularly roads, pedestrian pathways, open space, ecologically significant land) of the land adjoining the specific stage (including land in the Ballina Heights Estate to the south, the proposed new urban area to the north and any future urban areas to the east); and
 - The utilities and infrastructure servicing of the subdivision (including existing infrastructure services).
- iii. Cumbalum Views is to be developed with the following characteristics:
 - A residential character with smaller lots that respond to the topography along the local connector and bus route, and a diversity of housing types and lot sizes across the remaining land;
 - A public realm which strengthens its residential character and includes a central community hub and open space adjacent to the water reservoirs, and an entry statement at the southern entrance to the precinct;
 - A predominantly local traffic environment with minimal through traffic from urban development to the north and Ross Lane;
 - A diversity of housing that is orientated to public roads and open space to enhance surveillance of the public areas;
 - The creation of sport fields in the north-eastern area of the precinct that links to the recreational area of the urban area to the north; and
- iv. An integrated network of pedestrian/cycle paths is to be provided throughout Cumbalum Views to provide safe, convenient and direct access to and within the residential precincts.
- v. A child care centre (or pre-school) site is to be provided within 400m of the central district park.

B. Element – Infrastructure Provision

- i. Service infrastructure is to be constructed on a staged basis to accommodate staged land release in accordance with – *Cumbalum Views Staging Plan* - Figure 5.

Roads and access

- ii. The road hierarchy through Cumbalum Views is to be based on major access/egress road connections from the south, via Ballina Heights Drive (BHD), and from the north via connection to Sandy Flat Road and future link road connection to Cumbalum Precinct B. Internal roads are to be designed to reflect current engineering standards and the amenity of the residents, and take into account the topography and drainage characteristics of the land.



**Note:**

Variations from engineering standards, where specific uses and conditions may warrant a departure from those standards, will be considered on merit.

- iii. Safe pedestrian access is to be provided across Cumbalum Views precinct, as shown in *Cumbalum Views Mobility Plan* – Figure 2 so that residential areas can link with one another, the shopping centre in Ballina Heights, open space, sports fields and community infrastructure.
- iv. Traffic calming measures are to be implemented at the northern entrance to Cumbalum Views, as shown on the *Cumbalum Views Mobility Plan* – Figure 2, to encourage south-bound through-traffic (from the north) to travel via Sandy Flat Road and Tamarind Drive rather than passing through Cumbalum Views. These traffic calming measures are to be implemented while maintaining reasonably convenient and direct connections between Cumbalum Views and Cumbalum Precinct B, in both directions.
- v. The road network is to be designed to provide for designated bus routes and bus stops in locations which provide safe and convenient access for residents.

Pedestrian/cycle network

- vi. An integrated pedestrian/cycle path network is to be provided as shown on *Cumbalum Views Mobility Plan* – Figure 2. The pedestrian/cycle path may, in some cases, perform a drainage function and/or provide access for servicing authorities.
- vii. A pedestrian path is to be provided at or near the head of any cul-de-sac so as to connect adjacent cul-de-sacs and enable pedestrians and/or cyclists to have direct access from one cul-de-sac to the other without having to travel a longer distance by road.
- viii. One primary off road pedestrian/cycle path (minimum 2m width) is to be provided to link Ballina Heights with Cumbalum Views (as shown on *Cumbalum Views Mobility Plan* Figure 2).

Traffic management facilities

- ix. At the southern and northern entrances to Cumbalum Views, the road treatment should change to encourage a slowing of traffic movement but also to assist with the creation of a transition into Cumbalum Views.

Public transport movement

- x. The main local collector road is to be constructed as generally shown on the *Cumbalum Views Structure Plan and Mobility Plan*– Figure 1 and 2, and function as the primary public transport route through Cumbalum Views.
- xi. The main local collector is to be designed to accommodate designated bus routes and bus stops in locations which provide safe and convenient access to residents.
- xii. The public transport route is to provide a turn around loop on the northern end of each stage of Cumbalum Views while it is under construction to ensure efficient public transport services from Cumbalum Views to Ballina Heights and to Ballina town can occur easily in both directions.





Stormwater

- xiii. Development proposals are to demonstrate that development will not adversely impact on the downstream natural environment or on adjacent private property due to increased stormwater volume.
- xiv. The developer is to incorporate on the Certificate of Title for all allotments Restrictions as to User which identifies installation and maintenance obligations for stormwater treatment devices (where required).
- xv. Development applications for subdivision are to be accompanied by an integrated Stormwater Management Plan for each stage in order that the cumulative impacts associated with the development of Cumalum Views as a whole are considered. Major stormwater detention/treatment areas are identified on *Cumalum Views Structure Plan* – Figure 1.
- xvi. Stormwater detention areas are to achieve a flood immunity for the Q100 flood event and are to be designed and located so as to be free-draining.
- xvii. Stormwater treatment and disposal are not to rely solely on end of line facilities. A treatment train is to be provided that incorporates a range of facilities, inclusive of measures, where appropriate, within the subdivision. To limit the impact of the increased volume of surface run-off from urbanisation on downstream hydrology, consideration is to be given to the infiltration of runoff from minor storms in the design of the stormwater management system.



Note:

Best stormwater management practices include dispersion techniques such as dissipaters, litter and debris control traps and associated trunk line drainage structures in controlling sediment and reducing phosphate/nitrate levels. Where possible and practicable, these structures are to be designed sympathetically with the surrounding environment and constructed of natural materials such as boulders and rock features and landscaped.

- xviii. Stormwater detention areas are to be designed so as to minimise the potential for mosquito habitat and facilitate easy maintenance. To achieve this, stormwater design is to:
 - Detain water for no more than 3 days;
 - Be developed in consultation with a qualified mosquito consultant;
 - Consider and avoid the potential for weed proliferation;
 - Be developed in consultation with Council, to ensure the design facilitates easy maintenance; and.
 - Include details of maintenance requirements.



Note:

In order to minimise the potential for stormwater ponds and dams to harbour mosquitoes, stormwater detention areas should incorporate the following attributes:

- i. The batter around the dam/pond is to be as steep as practical (within the design standards for public safety) to minimise shallow water (< 600mm) suited to mosquito



breeding. If fencing is not used for public safety, a batter not less than 1:6 is recommended;

- ii. Normal water levels within the pond must maintain at a minimum of 600mm water depth except for the margins;
- iii. Design to facilitate wind action over the waterbody to keep the water surface disturbed to reduce availability to mosquito larvae (this requires contact with a stable surface film for respiration). Basin margins should not be planted with shrubs or trees;
- iv. Aquatic macrophytes should not be planted in more than 60% of shallow water around the margin. Where planted, macrophytes must be clumped with separations of open water allowing wind disturbance on the water surface; and
- v. Be designed in consultation with a qualified mosquito consultant/entomologist.

- xix. Development proposals are to incorporate environmental monitoring measures to enable staged post-development monitoring of downstream stormwater impacts at key stages in the development process. This is to include pre-development monitoring to allow benchmarking of the pre-development environmental characteristics. The location of water quality monitoring points is to be determined in consultation with the Council, prior to the placement of monitoring equipment.



Note:

A suitably qualified ecologist (eg. Science degree) must be retained and consulted in the preparation of the stormwater management strategy. The name and experience of the author(s) must be clearly stated.

Development proposals are to have regard to *Cumbalum Ridge: Inundation Investigation for Ballina Nature Reserve and Adjacent Properties*, by BMT WBM dated December 2012. Alternative stormwater systems may be considered provided that it is demonstrated that the system will achieve the required criteria for stormwater management.

- xx. On completion of each stage stormwater management and devices to be located on public land are to be handed over to Council.

Earthworks and filling

- i. Broad scale re-contouring (cut and fill) of the land surface is to occur only where it forms part of, and is integrated into, the lot and road layout for a “greenfield subdivision” and where it is undertaken by the developers of the subdivision during the subdivisional works.
- ii. Any development application for residential subdivision is to be accompanied by preliminary engineering plans that detail the proposed extent and method of re-contouring at subdivision and individual lot scales (including details of all cut and fill and any retaining structures).





- iii. Where retaining structures are proposed/required, they are to be of a uniform and integrated type and appearance so that there is consistency in their design/construction and so that they present well in the local landscape and streetscape.

C. Element – Open Space and Community Facilities

- xiv. Open space and community facility infrastructure is to be provided in accordance with the Cumbalum Urban Release Area Precinct A s.94 Developer Contributions Plan, and otherwise as outlined below.

Sporting fields

- xv. District sporting fields are to be provided for by the developer in the location shown on the *Structure Plan Cumbalum Views* - Figure 1. The following sporting facilities are to be provided:
 - a. 1.2 full size playing fields/1000 head of population (two required);
 - b. 1.0 court/1000 head of population (two required);
 - c. Clubhouse and amenities;
 - d. Public (road) access; and
 - e. Car parking as per Council standards.
- xvi. The sporting fields and amenities are to be fully established prior to the linen release of the 450th lot at Cumbalum Views, if provided by the developer as works-in-kind.
- xvii. The sporting fields are to be designed and located to comprise a minimum area of 4 hectares of usable space (not including access ways or battle axe handle areas).

District parks

- xviii. A district park for passive recreation, comprising a 10000m² site, is to be provided and located as depicted on the *Structure Plan Cumbalum Views* - Figure 1. Native vegetation areas are not to be counted in the calculation of the area of district park to be provided.
- xix. The embellishment of the district park is to be provided prior to the linen plan release of the 250th residential lot, if provided by the developer as works-in-kind. Embellishment may include walking paths, picnic shelters, BBQ facilities and play equipment, in accordance with the s.94 plan that applies to the land.

Local Parks

- xx. Local parks, comprising a minimum usable park area of 2000m², are to service a walkability catchment of 400m and are to be provided consistent with the *Structure Plan Cumbalum Views* - Figure 1.
- xxi. The local park is to be provided prior to the linen release of the 250th residential lot, the second local park is to be provided prior to the linen release of the 500th lot, and the third local park is to be provided prior to the linen release of the 700th lot.
- xxii. The local parks are to be embellished with play equipment, landscaping, seating and shelter.





Community building

- xxiii. A community building (eg hall) is to be provided for by the developer in the location shown on the *Structure Plan Cumbalum Views* - Figure 1.
- xxiv. The community building is to comprise a minimum gross floor area of 250m² inclusive of an auditorium comprising a minimum of 170m², and is to be supported with required car parking and landscaping. The site on which the community hall is to be located is to comprise a minimum of 1000m², calculated separately to the district park.
- xxv. The community building is to be provided prior to the linen release of the 450th residential lot at Cumbalum Views, if provided by the developer as works-in-kind.
- xxvi. The community building is to be designed with articulation and roof forms that create an iconic structure for the new community.

D. Element – Special Places

- i. The district passive open space area (District Park) with a minimum area of 10000m² is to be developed in close proximity to the water reservoir, as the key “special place” for the community, as shown on the *Landscape and Places Plan Cumbalum Views* – Figure 4.
- ii. A local urban community garden in Cumbalum Views is to be provided in association with the district park.
- iii. The “special place” district park should align with the collector road to facilitate view sharing down the road that links the site with the coast and hinterland views.
- iv. Within 200m of entering Cumbalum Views from the north and south an entry feature is to be provided with landscaping, public art and a change of road materials/treatment.
- v. The entry road from Ballina Heights into Cumbalum Views is to align with the “special place” district park and be planted to create an avenue of trees as shown in *Landscape and Special Places Plan Cumbalum Views* – Figure 4.
- vii. The subdivision is to incorporate the site features and infrastructure shown on the *Landscape and Special Places Plan Cumbalum Views* – Figure 4 into the subdivision design and layout for Cumbalum Views to create visual interest and place making elements in the community.

E. Element – Residential Precincts

- i. Subdivision layouts are to provide for a range of housing types including dwelling houses, dual occupancies, residential flat buildings and multi dwelling housing.
- ii. Smaller lots or higher density residential development shall generally be located within 200m of the district or local parks or along the dedicated bus route.
- iii. Cumbalum Views is to rely on the commercial and retail centre that will be contained in the Ballina Heights Estate to the south.
- iv. Residential areas and broad staging nominated in the *Staging Plan Cumbalum Views* – Figure 5 is (as far as practicable), to achieve the net residential density contained in the table below.



Note:

Net residential density is the number of dwellings per hectare measured over the net developable area being the total area (in





hectares) of residential allotments, local roads and local parks, and excluding all other land uses and environmental lands.

Stage	Anticipated Yield (dwellings)	Percentage Yield	Net Developable Area (ha)	Net Residential Density (dw/ha)
1	455	55%	40.30	11.3
2	245	27%	20.53	11.9
3	120	18%	15.95	7.5
Total	820	100%	76.78	10.7

- v. Allotments that are designed to accommodate residential flat buildings and multi dwelling housing should preferably be situated in locations which adjoin open space and which have convenient access to services and amenities. Such allotments should also satisfy the following:
- not have an average slope of greater than 20%;
 - not be of a battle-axe shape/configuration; and
 - preferably be a corner lot.
- vi. Residential lots that are identified at the subdivision stage as requiring specific residential design requirements to mitigate road traffic noise shall have relevant restrictions applied on the title of the lot.



Note:

Contemporary noise standards are to be met in accordance with criteria in the NSW Road Noise Policy.

- vii. Residential lots which are larger than 800m² and within 200m convenient access to public open space, community facilities and/or the village centre site of the Ballina Heights Estate, are to locate the primary dwelling on the lots in such a way as to have the ability at some future stage, to have a second detached dwelling erected on the lot.



Note:

The purpose of the “flexible lot” is to provide for situations where a young family builds/occupies a dwelling house with a large yard (providing children with a safe and secure yard for recreation/play) and then when the children grow up and leave, enables the parents to continue to live in their original house with reduced land area and management/maintenance obligations as a consequence of a second dwelling being built on the lot (facilitates aging-in-place).

- viii. Subdivision plans are to include proposed building envelopes and nominate front, side and rear building setbacks. Proposed building setbacks are to have regard to the topography of the land, access and parking arrangements, built form and residential amenity.





F. Element – Landscaping

- i. Roads that have a collector function, namely the major bus route, are to be provided with kerb-side tree planting so that such roads comprise tree lined boulevards or avenues as outlined on *Landscape and Special Places Plan Cumbalum Views* – Figure 4.
- ii. Landscaping treatments in the public realm are to:
 - a. Provide for tree lined public streets planted in a manner consistent with best practice in landscape design;
 - b. Comply with the Ballina Shire native endemic plant palette;
 - c. Create a strong overall landscape character to the Precinct; and
 - d. Be integrated with the WSUD approach for the Precinct.
- iii. Key vegetation/trees as identified in the *Landscape and Special Place Plan* - Figure 4 is to be retained as key features and landscaping of the site. These trees are to be retained wherever possible and disturbance prevented to the root zones. Specific survey of isolated trees must be completed and included in any civil designs.

G. Element – Environmental Aspects

Environmental restoration and management

- vi. Areas identified as Environmental Land on the *Cumbalum Views Structure Plan* – Figure 1 are to be rehabilitated and embellished in accordance with the requirements set out below.
 - Development applications are to be accompanied by a Vegetation Management Plan (VMP) that applies to all environmental management land within the stage, other than the Aboriginal Cultural Site.
 - Cleared buffers are to be provided, for bushfire and mosquito management purposes (combined), on land of no more than 15° grade, on land adjacent to rehabilitated environmental areas. Access and grade are to be such that cleared buffers can be easily maintained. Buffers may be incorporated into roadways, environmental areas (if clear of vegetation) or on private allotments. Where buffers are provided on private lots, appropriate Asset Protection Zones are to be provided in accordance with the requirements of the NSW Rural Fire Service.



Note:

Provision for bushfire and mosquito management buffers was incorporated into the zoning of the land where possible. Space for cleared buffers has been provided within some of the environmental rehabilitation areas. Notwithstanding, the requirements for cleared buffers on land adjacent to (rehabilitated) environmental areas are to conform with Council's open space maintenance requirements and/or the Bushfire Protection requirements of the NSW Rural Fire Service.

- Proposals that involve the dedication of land to Council, as marked on *Open Space Plan Cumbalum Views* - Figure 3, are to include details of the proposed condition of the subject land





upon dedication and when it is proposed that the land will be dedicated. The rehabilitation condition of the land is to be to Council's satisfaction prior to dedication. A minimum of eighty percent canopy cover (as per Walker and Hopkins 1990) is to be achieved over areas that are to be fully revegetated prior to dedication to Council.

- The majority of environmental lands will be retained in private ownership unless agreed otherwise by Council at the subdivision stage. If large lots are to be situated so to retain significant vegetation, then a feasible dwelling site is to be nominated for each such lot.
- Proposals that involve land marked on *Open Space Plan Cumbalum Views* - Figure 3 as *land to be rehabilitated and held in a single holding or Community Title* are to show how the land will be effectively managed in private ownership.
- Restoration plantings must use locally sourced stock and reflect locally occurring species within swamp sclerophyll, rainforest and wetland communities. All plants must be at least 200mm in height when planted.
- Fencing suitable to restrict the movement of domestic and feral animals between the urban area and adjacent natural areas is to be provided.



Note:

Any Vegetation Management Plans prepared must be completed by suitably qualified personnel (eg. Bush Regeneration Certificate II, Science degree).

Minimum prescriptions for Vegetation Management Plans are as follows:

1. The structure of the plan must be as follows:
 - (a) Introduction
 - (b) Aims and objectives
 - (c) Site description
 - (d) Relevant legislation
 - (e) Methodology
 - (f) Results of site assessment
 - (g) Management recommendations
 - (h) Key performance criteria
 - (i) Monitoring and reporting
 - (j) Conclusion
 - (k) References
 - (l) Appendices (where relevant)
2. The content must include:
 - A. Property descriptions and plans,
 - B. Zoning descriptions and plans,
 - C. Relevant legislation and/or policies/guidelines,
 - D. Detailed description of methods to be employed and rationale,
 - E. Vegetation description, classification and mapping using a standardised current system (eg. BioMetric, VIS 2.0),
 - F. Details on any threatened flora, fauna or communities listed under the TSC Act 1995 or EPBC Act 1999,
 - G. Specific prescriptions for the management of Hairy Jointgrass (*Arthraxon hispidus*) consistent with the recommendations in a specific (separate) Hairy Jointgrass Management Plan,
 - H. Description of vegetation condition, specifically with





- regard to weed species,
- I. Inventory of flora at the site (both native and introduced), detailed description of restoration or weed control methods, using maps where relevant,
 - K. Detailed descriptions of measures to re-instate vegetation within remnant linkages on steep slopes or land prone to flooding,
 - L. Detailed descriptions (and maps) showing the relationship between vegetation management and infrastructure services (utilities, stormwater etc),
 - M. Details (and plans) regarding the construction of any structures, boardwalks, pathways or fences within or adjacent areas,
 - N. Details concerning any integration of hard or soft landscaping with areas of vegetation subject to management,
 - O. Detailed description of any other relevant management strategies (eg. seed collection, translocation),
 - P. Incorporation of Asset Protection Zones (APZs) for bushfire protection,
 - Q. Examination of any limiting measures which may reduce the implementation of prescribed works,
 - R. Detailed description of Key Performance Indicators (KPIs) to achieve the objectives,
 - S. Prescribed monitoring program (linked to KPIs),
 - T. Timetable of works including all management strategies, timing of works, monitoring schedules and estimated costings for nominated works,
 - U. Recommendations for any other works which are worthy of consideration,
 - V. Methodology must be consistent with current best practice and contain the following information:
 - a. Measures to treat/control weeds at the site using approved herbicides,
 - b. Detailed planting prescriptions including: plant provenance, species selection, planting densities, planting methods, aftercare, mulching, plant protection, wallaby protection (if required), watering and fertilizing,
 - c. Protocols to reduce potential for introduction and/or management of plant pathogens, and
 - d. Details on any stabilisation /erosion/control measures where relevant.
 - W. Maps and plans must be clear and easily understood and clearly show the extent of works. All maps must have a legend, north point and scale bar
 - X. The name and qualifications of the Author/s must be clearly stated.

Rainforest restoration on steep slopes

- vii. For proposals involving the restoration of steep slopes (greater than 18°), Vegetation Management Plan/s are to provide specific details on how restoration works on steep slopes are to be managed, in particular:
 - Access details across steep slopes with regard to weed control, planting and maintenance for personnel, vehicles and/or machinery;





- Details regarding the need for any specialised stabilisation or erosion controls; and
- Details regarding the use of any machinery for earthworks (benching, cut etc) and provision of detailed design(s).

Retention of mature paddock trees

- viii. Areas of significant trees are to be retained as identified in the *Landscape and Special Places Plan* – Figure 4.
- ix. The retention of native paddock trees is to be incorporated into the preliminary subdivision design process, having regard for the following:
- a. Trees must be retained wherever possible and disturbance prevented to the root zones;
 - b. Specific survey of isolated trees must be completed and included in any civil designs;
 - c. A buffer is to be established to protect any existing mature fig trees. Such buffer will extend a minimum of 20m beyond the edge of the fig tree's canopy; and
 - d. Where isolated trees are threatened species listed in the TSC Act 1995 or EPBC Act 1999 specific protection measures are to apply and buffer zones of a minimum of 12 times the diameter at breast height (dbh) of the tree are to apply (ie. in accordance with AS 4970-2009). Where threatened species are 'absorbed' within restoration areas, buffering requirements do not apply.



Note:

Mature paddock trees have a range of benefits including fauna habitat, sources of seed/fruit, shade, wind protection and aesthetic values.

Retention provisions apply only to native trees or mature non-native trees of aesthetic or other values (eg. Norfolk Pine, ornamental figs). Mature exotic trees (namely Camphor Laurel) are not bound by these prescriptions.

Hairy joint grass

- x. A specific Hairy Joint Grass Management Plan (HJMP) is to be developed where appropriate, to achieve a strategic approach for the species and to ensure long-term conservation outcomes are achieved. The HJMP must be integrated with the VMP such that both plans are aligned in their objectives and methods whereby outcomes are not contradictory. Where practical, one integrated HJMP is to be prepared for Cumbalum Views in its entirety.



Note:

It is recognised that due to tenure and development timeframes, more than one HJMP may be need to be prepared.





H. Element – Staging

- i. Staging of development and servicing shall generally be in accordance with *Cumbalum Views Staging Plan – Figure 5*.



Note:

Staging of Cumbalum Views is based on the efficient servicing of urban development lands for the precinct, and is linked to construction of roads and stormwater, water and sewerage infrastructure.

5.7 Skennars Head Expansion Area

5.7.1 Application

Applies to:	
Location/s:	Skennars Head Expansion Area (as shown on Special Area Control Map)
Development Type/s:	Subdivision

5.7.2 Desired Future Character

The Skennars Head Expansion Area will expand the existing residential area at Skennars Head and create a contemporary coastal residential village located between the coast and wetland.

Existing natural assets and biodiversity located along the southern and western edges of the urban area will be protected, and the urban/rural interface and coastal reserve will be respected as valuable landscape features.

The subdivision of the site will provide a variety of lot sizes and forms which are suitable for contemporary dwelling houses. The street pattern will maximise physical and visual connections, encourage priority for pedestrians, cyclists and public transport users, and provide residential lots orientated to the street frontage and open space areas.

Streets will be well connected with green corridors linking them to open space areas and a neighbourhood centre. Streets will form a view corridor to the ocean and a streetscape softened by the inclusion of street trees, hardy native shrubs and groundcovers which are suitable for the seaside location.

A neighbourhood centre and large area of public coastal parkland will maintain panoramic views towards Sharpes Beach and be embellished to function as focal point for community activity and social interaction, for local residents and visitors.

5.7.3 Planning Objectives

5.7.3.1 General

- Provide for the integrated development of the Skennars Head locality.
- Facilitate the development of the Skennars Head Expansion Area for the purpose of residential development, open space and neighbourhood shopping facilities, and associated environmental works, public amenities and infrastructure.





- c. Provide for the subdivision of land in a manner which recognises, protects and enhances the environmental and cultural values of the site within the area defined under this Section (5.7) as the Skennars Head Expansion Area.
- d. Deliver useable and well landscaped public open spaces to provide local recreation opportunities, facilitate sustainable urban drainage and complement residential amenity.
- e. Ensure that suitable buffers are provided between dwelling lots, environmentally significant land and agricultural land, for the protection of environmental values and management of hazards (including biodiversity, bushfire and mosquito management).
- f. Provide a range of residential forms and encourage higher densities in proximity to the neighbourhood centre.
- g. Provide a subdivision layout that is responsive to site opportunities and constraints including energy efficiency, solar access, topography and prevailing winds.
- h. Ensure that service infrastructure and open space are provided in an orderly and economically feasible manner, provide for connectivity with existing and planned infrastructure and meet the needs of the future residents of the site.
- i. Provide a street hierarchy that integrates the neighbourhood shopping facilities with the local transport network.
- j. Provide for the clear visual separation of the Skennars Head and East Ballina localities through the provision of an inter-urban break.
- k. Facilitate the layout, design and embellishment of public land that is to be dedicated to Council in association with the development of the land in a manner that minimises the long-term management and maintenance costs for the community.

5.7.4 Development Controls

A. Element – Site Layout

- i. Applications for the subdivision of the land are to be accompanied by information demonstrating how the proposed subdivision responds to the planning objectives under section 5.7.3, the Skennars Head Expansion Area Structure Plan (Appendix E) and integration with utilities and infrastructure to service the development.
- ii. Residential lots are to not back directly onto environmental areas or their buffers, the coastal parkland, the northern adjoining parkland within the existing Headlands Estate or adjacent rural and agricultural land, except as provided for under 5.7.4.A.ix.
- iii. A perimeter road is to be provided to separate residential development from the wetland at the western edge of the development.
- iv. Development is to be located above the Q100 flood line. In the case of stormwater management devices, stormwater detention areas are to achieve flood immunity for the Q100 event and are to be designed so as to be free-draining.
- v. Residential lots having double frontage that includes a laneway are to provide for vehicular access via the laneway, with the frontage of residences to address the street.





- vi. The natural scenic values of the coastal parkland adjoining The Coast Road, towards the southern end of the site, are to be preserved generally in accordance with the Skennars Head Expansion Area Structure Plan (Appendix E).
- vii. The development is to provide for an integrated network of pedestrian/cycle paths throughout to provide safe, convenient and direct access to and within the village area.
- viii. The eastern interface of the development, associated with the coastal parkland, is to be provided in a manner generally consistent with the illustration titled '*Skennars Head Intrapac Landscape Framework – Coastal Reserve*' provided in Appendix E, incorporating the following key features:
 - 'Coastal Promenade' (shared pathway) along the western edge of the coastal parkland, and
 - Lineal reserves within the eastern most residential blocks, aligned in a generally east-west direction, provided to facilitate pedestrian permeability through the estate to the coastal parkland, and
 - The incorporation of a covenant on all titles fronting the coastal reserve, and any associated open space, prohibiting the construction of high fences fronting the reserves.
- ix. The southern interface of the development is to be provided in a manner generally consistent with the illustration titled 'Skennars Head Expansion Area Southern Interface Treatment' provided in Appendix E.



Note:

The subdivision layout at the southern interface of the development will be determined having regard for topography, land contamination, cultural heritage, flora and fauna issues and visual amenity (including the visual separation of Skennars Head and East Ballina).

B. Element – Infrastructure Provision

Internal Infrastructure

- i. The subdivision is to be fully serviced with water, sewer, roads, drainage, underground electricity and communications. All service infrastructure is to be provided in accordance with the *Northern Rivers Local Government Development and Design Manual*, or as otherwise approved by Council.
- ii. Applications for development are to be accompanied by an infrastructure servicing plan that provides for infrastructure delivery consistent with the staging identified on the Skennars Head Expansion Area Structure Plan (Appendix E).
- iii. Each development stage is to be fully serviced and provided with connections that are sized for the ultimate yield of the area, and provide associated upstream/downstream/connecting easements where required for crossing intervening land or for stormwater conveyance, discharge, treatment or attenuation.



**Note:**

Development contribution credits may be granted, where the developer directly provides infrastructure that is identified for delivery via Council's Development Servicing Plans (prepared in accordance with s.64 of the *Local Government Act* 1993) and/or Council's Developer Contributions Plan (prepared in accordance with s.94 of the *Environmental Planning and Assessment Act* 1979). Such credits are to be determined by Council in accordance with the relevant provisions of those infrastructure plans. Any such infrastructure is to be designed and constructed in accordance with Council's specifications.

Dual Reticulation Water Supply

- iv. A dual reticulation water supply for recycled water is to be provided throughout the development in accordance with Council's Recycled Water Scheme. This system is to be located alongside the internal water supply infrastructure alignment.
- v. The developer is to connect the Recycled Water mains in the development to the Drinking Water mains at one location to be agreed by Council so that Council can, at a later date, remove the cross connection and supply houses with Recycled Water.

**Note:**

A dual-reticulation water supply for recycled water is required as part of the proposed development. Use of this system within the urban development has potential to reduce the reliability of rainwater tank input within stormwater management assessment calculations for the proposed development. The developer should therefore determine, in consultation with Council, suitable input criteria for supporting stormwater management assessment calculations for the proposed development as it relates to the use of rainwater tanks within the development prior to undertaking a stormwater management assessment.

- vi. The developer is to incorporate on the certificate of title for all allotments, a 'Restrictions as to user' (88E Positive Covenant) which requires all dwellings and buildings with plumbing to make provision for recycled water and facilities to be approved by Council.

Streets and Access

- vii. The street network is to be designed to provide safe and convenient access for residents generally as shown on the Skennars Head Expansion Area Structure Plan (Appendix E).
- viii. The subdivision is to have a clearly defined street hierarchy where lower order streets and lanes are clearly distinguished from higher order streets.
- ix. Application for the first stage of the development (or part thereof) is to be accompanied by a traffic assessment and plan to upgrade the Headlands Drive/The Coast Road intersection to meet the needs





of the development and existing road users by way of an appropriately configured roundabout. The upgrade plan is to provide for the following:

- Consolidated access to the expansion area and Sharpes Beach;
 - Deviation of Headlands Drive as part of the consolidated access; and
 - Closure of any redundant parts of Headlands Drive.
- x. All open space areas and environmental areas and their buffers shall have frontage to an internal public road with on-street car parking provided in conjunction with street trees and landscaping.
- xi. The street network design is to incorporate designated bus routes and bus stop locations to service a walkability catchment of 400m. Bus stops are to be provided with “hail and ride” J poles and constructed bus shelters.



Note:

The Coast Road is a Classified Road under the terms of the *Roads Act 1993*. Consequently, detailed design of intersection arrangements is to be in accordance with Austroads standards, and will be subject to the concurrence of the NSW Roads and Maritime Service.

Pedestrian and cycleway network

- xii. A street and pedestrian/cycleway network is to be provided which integrates the subdivision of the land with the existing Headlands residential area and cycleway networks, generally consistent with the Skennars Head Expansion Area Structure Plan (Appendix E).
- xiii. Safe and accessible pedestrian access is to be provided:
- Within the residential estate and between the estate and the adjacent Skennars Head residential area;
 - Between the Skennars Head Expansion Area and Sharpes Beach, via a new pedestrian underpass and at the new intersection on The Coast Road (if the intersection design enables this without adversely compromising road function);
 - In relation to the road network in the vicinity of the neighbourhood centre and adjoining open space and residential areas; and
 - Through the coastal parkland, at appropriate intervals, to facilitate pedestrian/cycleway access to the coastal cycleway.

C. Element – Open Space

- i. A conceptual landscaping plan (and where applicable, a land dedication plan) for all open space is to accompany any development application for subdivision within the Skennars Head Expansion Area (this may be combined with the requirements of Element D).
- ii. Landscape treatments are to :
- Create and reinforce a strong coastal landscape character for the site;
 - Give preference to the use of local plants and materials;





- Give preference to the use of durable recycled materials that will withstand the coastal conditions;
 - Address the exposed coastal conditions of the site and develop strategies for ensuring healthy and vigorous plant growth;
 - Include street trees or clusters of street trees suitable to the micro-climate and orientation of the street;
 - Provide shade and wind protection within public open space areas;
 - Improve opportunities for wildlife habitat and movement;
 - Require minimal maintenance to preserve their particular landscape function; and
 - Be consistent with environmental, bushfire and mosquito management objectives.
- iii. Local parks, comprising a minimum usable park area of 2000m², are to service a walkability catchment of 400m and be provided generally consistent with the Skennars Head Expansion Area Structure Plan (Appendix E).
- iv. Local parks are to be embellished with shade trees, garden areas and seating in accordance with a design approved by Council.
- v. The coastal parkland is to be embellished as a neighbourhood park by the developer. The coastal parkland is to contain the following facilities as a minimum:
- At least 4000m² of useable park area;
 - Three picnic shelters with picnic table settings;
 - Two electric barbeques under a covered shelter structure, including a water tap;
 - One drinking fountain and tap;
 - A children's playground with impact matting/softfall and multi-play equipment area equivalent to at least 100m² in size;
 - At least 20 large canopy shade trees (with expected mature of size of at least 5m x 5m) within and around the picnic area; and
 - Low maintenance landscaping applied to the balance of the coastal parkland.



Note:

Furniture and equipment that are to be provided within open space areas are to be of a type approved by Council.

- vi. Landscaping embellishment of the balance of the coastal parkland, including weed removal/management is to extend to the edge of the new public coastal shared pathway which is located to the east of the coastal parkland. Such landscaping and embellishment is to be provided in a manner that reflects the coastal character and scenic values of The Coast Road and adjoining Coastal Reserve and be of a type that requires minimal maintenance over the long-term.
- vii. The rural farm fence along the eastern boundary of the expansion area is to be retained along the entire frontage except for a distance of 300m from the Headlands Drive property boundary where a landscaped edge may be provided.



**Note:**

The purpose of the fencing is to assist in defining the development area and controlling pedestrian movement whilst maintaining some element of the sites former rural character. The developer is to replace barbed wire with non-barbed wire or rails.

- viii. Durable public art is to be provided within the coastal parkland and/or neighbourhood centre.
- ix. A non-urban inter-urban break is to be established to provide clear separation of Skennars Head and East Ballina. This is to include provision of a landscaped visual buffer at the southern end of the coastal parkland, in conjunction with an enhanced wildlife corridor, as shown on the Skennars Head Expansion Area Structure Plan (Appendix E).
- x. Landscaped open space areas, including plantings within road reserves, stormwater reserves and environmental management areas, are to be well established and weed-free prior to dedication, to a standard acceptable to the Council. The condition of such areas is to be such that they require minimal maintenance into the future.
- xi. Open space areas and associated landscaping to be dedicated to Council are to be subject to a minimum 5 year maintenance period by the developer to ensure successful plant establishment.
- xii. Land within the coastal reserve is to be dedicated to Council at no cost.

D. Element – Streetscape

- i. A streetscape landscaping strategy is to accompany any development application for subdivision within Skennars Head Expansion Area (this may be combined with the requirements of Element C).

The streetscape landscaping strategy is to:

- Create and reinforce a strong coastal landscape character for the site;
- Give preference to the use of local plants and materials;
- Give preference to the use of durable recycled materials that will withstand the coastal conditions;
- Address the exposed coastal conditions of the site and develop strategies for ensuring healthy and vigorous plant growth;
- Include street trees or clusters of street trees suitable to the micro-climate and orientation of the street;
- Improve opportunities for wildlife habitat and movement;
- Give effect to the principles of Crime Prevention Through Environmental Design (CPTED);
- Be consistent with environmental, bushfire and mosquito management objectives;
- Identify a maintenance and management regime to ensure successful plant establishment for landscaped areas and street trees; and
- Provide details of the following:
 - Street tree plantings and maintenance;
 - Materials and finishes proposed for footpaths and cycleways;
 - Furniture for the public domain;
 - Landscaping treatment of any water sensitive urban design stormwater areas; and
 - Any other special landscape features to be incorporated.



**Note:**

With respect to landscaping and open space areas (as addressed under Elements C & D) to be dedicated (or that otherwise will come into public ownership), Council's expectation is that the land developer will maintain such areas for a minimum period of 5 years.

E. Element – Neighbourhood Centre

- i. The Neighbourhood Centre is to be developed with the following characteristics:
 - Relate strongly to the new residential area while servicing the wider urban catchment including the residents of the existing Headlands Estate and visitors to Sharpes Beach;
 - Be developed using subtropical building design principles and in a manner which is adaptable to a variety of future uses;
 - Enhance the “gateway” into the development;
 - Have a strong coastal character typical of Northern Rivers coastal hamlets and villages; and
 - Be easily accessible via safe public pathways from the coastal parkland, new and existing residential areas and Sharpes Beach.

F. Element – Residential Precincts

Density

- i. The subdivision layout is to provide a variety of lot sizes and arrangements with higher densities close to the neighbourhood centre and open space areas, generally as shown in the Skennars Head Expansion Area Structure Plan (Appendix E).
- ii. The Skennars Head Village Area development is to generally achieve the following:
 - Larger lots will be positioned:
 - along the southern boundary of the development adjacent to the rural lands; and
 - adjacent to the wetland area to the west of the expansion area.
 - Smaller lots will be located:
 - around the neighbourhood activity hub and local park; and
 - in areas of lower visual presence when viewed from The Coast Road.
 - Less than 50% of developable land of the urban release area may be lots with a minimum area of 450m² - 475m².
 - At least 90% of lots with a minimum area of 450m² - 475m² are to be provided within 400m of the neighbourhood.
- iii. Development proposals are to include a schedule of lot yield relating to the above for each stage of the development and for the development of the Skennars Head Expansion Area as a whole (to provide a cumulative total).





Environmental Design

- iv. A contemporary acoustic assessment is to be carried out and submitted as part of the development application for subdivision of the land, specifically to identify traffic noise affected lots impacted by the operation of The Coast Road and determine suitable measures to mitigate such impacts. If required, building shell treatments and/or other required measures are to be applied to all affected lots through Restrictions as to User (88E Positive Covenant) on the certificate of title for all affected allotments.
- v. No acoustic fencing is to be constructed along The Coast Road frontage of the development unless there is no other viable option available to mitigate unacceptable noise impacts.
- vi. Buffers to address land use conflicts and manage potential hazards and the interface between land uses (including urban/environmental and urban/agricultural interfaces) on the basis of specialist technical advice are to be provided on the land subject of development.
- vii. Development proposals are to ensure that environmental management areas are located and designed such that they require minimal maintenance and so that maintenance can be practically carried out to preserve their function.
- viii. A contaminated land assessment is to be completed for the land, in accordance with relevant NSW Environmental Protection Authority and NSW Office of Environment and Heritage guidelines, and submitted as part of development applications relating to the subdivision of the land.



Note:

A mosquito management assessment was undertaken in association with the rezoning of the land (Mosquito Impact Assessment April 2004 - October 2006 and Mosquito Buffer Effectiveness Study, by Darryl McGinn of Mosquito Consulting Services Pty Ltd). The assessment indicated that a cleared mosquito buffer of 25m would be effective in reducing the prevalence of mosquitoes in association with the development of the land.

Environmental protection and hazard management buffers (mosquito & bushfire buffers) may be combined where their characteristics and management arrangements are compatible. These buffer areas may include infrastructure such as roads, pathways and maintained stormwater detention areas, subject to the recommendations of assessments relating to ecology, stormwater, bushfire and mosquito management, which are to be undertaken to support subdivision applications relating to the land.

G. Element – Environmental Protection

- i. Appropriate environmental buffers are to be provided on the site to mitigate potential adverse impacts on native ecology. Buffers are to be provided in a manner such that the land can be practically maintained over the long-term with minimal maintenance.
- ii. Wildlife corridor enhancement is to be undertaken in the south of the site in the vicinity of areas identified as wildlife corridors on the Skennars Head Expansion Area Structure Plan (Appendix E). Development proposals are to demonstrate a long term net benefit to the operation and retention of a wildlife corridor within the site.





- iii. Development proposals are to demonstrate that the existing hydrological regime of the pre-development site will not be altered in a way that will detrimentally impact on downstream wetland areas or other waterways and ecosystems in the long term, or on downstream private landholdings.
- iv. Environmental management areas are to be located, designed and embellished such that they require minimal maintenance to preserve their environmental function.
- v. An Environmental Management Plan for the Skennars Head Expansion Area is to accompany any development application for subdivision. The plan is to address the following matters at a minimum:
 - The avoidance, mitigation and amelioration of environmental impacts associated with the subdivision and development of the land;
 - Arrangements for the long-term management and maintenance of environmental buffers;
 - The long-term management and maintenance of downstream stormwater flow paths that may impact on terrestrial or aquatic ecosystems;
 - The long-term management and maintenance of habitat corridors and compensatory habitat plantings; and
 - Land tenure and resourcing arrangements associated with the long-term management and maintenance of environmental management works provided on, or adjacent to, the development site.





Appendix A - Information to Accompany Development Applications

The *Environmental Planning and Assessment Regulation 2000* specifies the information required to be included in a development application. In addition, development applications must provide the following minimum information to accompany a development application for urban subdivision:

A Completed development application form and landowner authority (all landowners)

B. Site Analysis

All applications for subdivision must submit an analysis of the site and its context. A site analysis should document the key opportunities and constraints of a site and its surroundings and show how these, in conjunction with the provisions of this DCP, have determined the final proposal for the site. The site analysis may include plans, sketches, photographs and supporting written information and should include the following information:

Property details:

- property description (Lot & DP);
- property boundaries and site areas; and
- easements for drainage, services and rights of carriageway.

Site Characteristics:

(i) Landform and vegetation

- topography (contours to Australian Height Datum at 1m intervals or spot levels);
- aspect and prevailing winds;
- soil types;
- flood liable land;
- steep land / land slip;
- bush fire hazard;
- important views - from the site and from adjoining land
- waterways (creeks, rivers, streams);
- drainage systems;
- significant vegetation/habitat/ fauna corridors; and
- soil conditions (acid sulfate, potential contamination).

(ii) Existing improvements

- land uses and buildings on the site, driveways, septic tanks and wastewater disposal areas;
- access points (vehicles, pedestrians, cyclists);
- water, sewer, power and telecommunication services; and
- items and/or places of heritage significance (including Aboriginal and non-aboriginal).





Relationship to surrounding land

- existing land uses and subdivision pattern of surrounding land;
- planned future land uses and subdivision pattern of surrounding land;
- public roads, laneways, pathways within and adjoining the site;
- direction and distances to local shops, schools, public transport, parks, community facilities and local activity centres;
- existing/potential landuse conflicts - noise, odour and light spillage sources (e.g. main roads, sports fields, industrial areas, agricultural activities etc); and
- existing and proposed infrastructure and servicing capacity (e.g. roads, sewer).

C. Opportunities and Constraints Analysis

Information demonstrating how the proposed design responds to the opportunities and constraints identified in the site analysis.

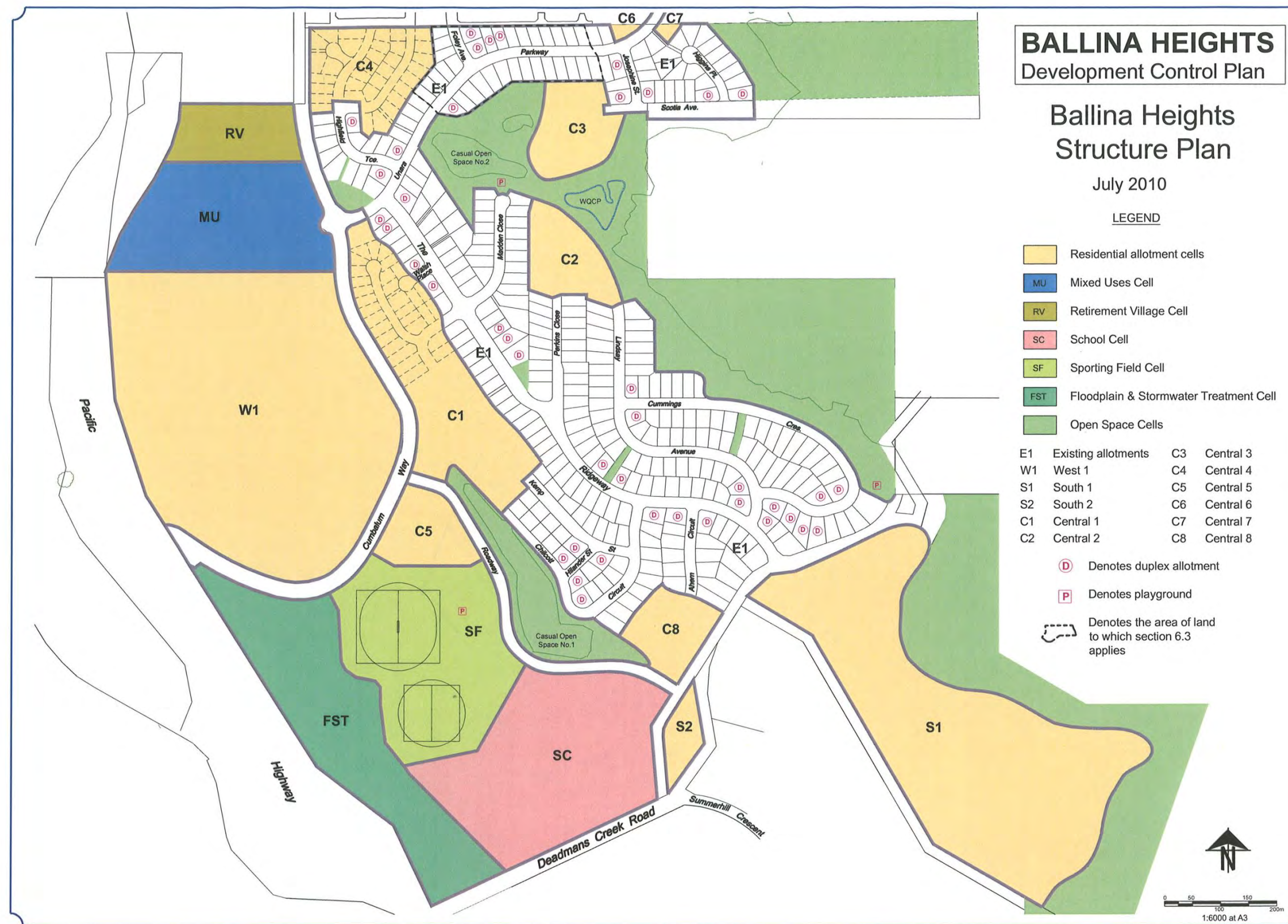
D. Statement of Environmental Effects

Outlining the environmental impacts of the proposed development and any mitigation measures proposed to address those impacts. The Statement of Environmental Effects must also detail conformity with relevant State Government requirements and applicable Council policies (including this Chapter of the DCP). Details of any departures from Council's requirements are required to be noted and justified.





Appendix B - Ballina Heights Estate Structure Plan & Landscaping Plans



© 01 July 2000, 2002, 2009 Ballina Heights Development Corporation. Figures 12 & 13 July 10/0008 DCP Cells July 10/0008, Figure 1, 30/07/2010 12:22:49 PM



LEGEND

- 1 Sporting fields, amenities, playground & parking facilities - active open space
- 2 Entry via Cumbalum Way
- 3 Existing(3) fig trees retained as features
- 4 Avenue of trees mark key streets & entry points
- 5 School site
- 6 Cycleway to Ballina
- 7 Green link and water course - Passive open space
- 8 Shopping Centre/High Density/Mixed uses site (subject to Masterplan approvals)
- 9 Retirement Village
- 10 Water park to detail
- 11 Remnant rainforest vegetation area
- 12 Paving and feature tree planting to define niche neighbourhood area
- 13 Feature tree planting to reinforce pedestrian and cycleway system
- 14 Entry feature with signage and paving treatments with evocative gateway structure
- 15 Walking tracks connecting open space system
- 16 Intersections to be identified by paving treatments reinforcing entry points
- 17 Neighbourhood pocket parkland featured play equipment
- 18 Existing vegetation to be retained
- 19 Village Centre with paving changes to control traffic & identify pedestrian areas. Roundabout to feature paving patterns and bollard system to reinforce entry point to village centre & to create urban environment to contrast with softer avenue plantings of residential areas
- 20 Floodplain & stormwater treatment site - passive open space
- 21 Creek rainforest regenerated & extended
- 22 Bangalow palm forest regenerated
- 23 Pedestrian & cycleway underpass

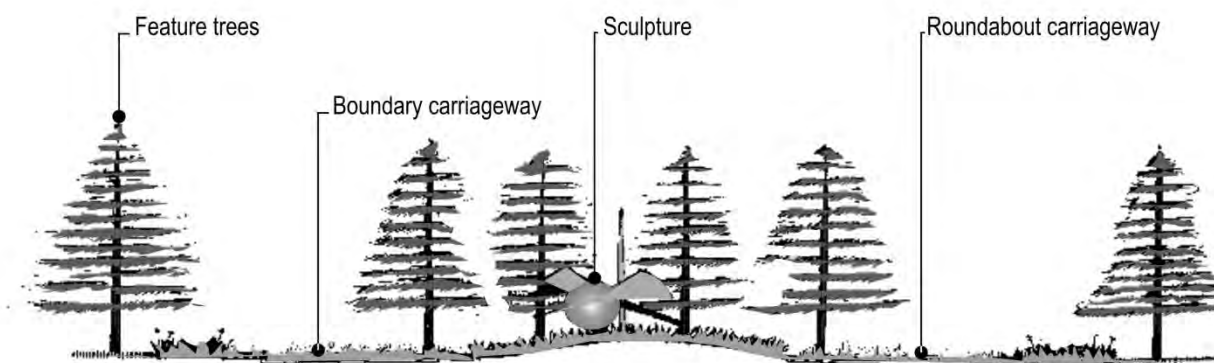
KEY

- Feature Avenue Trees
- Feature Street Trees
- Cycle ways
- Potential Bus Route
- Building (concept)
- Bus Hoop - Hail & Ride
- Path ways
- Play equipment

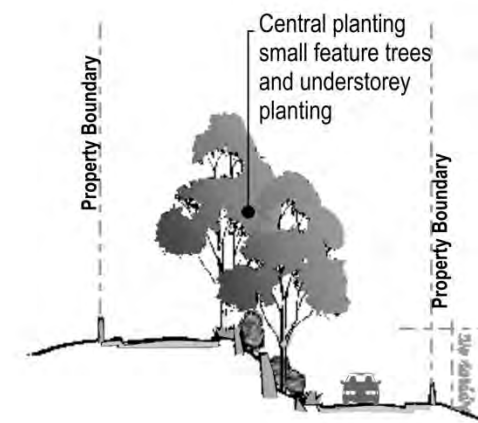
The lot layout & facilities locations shown hereon are subject to change without notice & regulatory planning approval.

April 2010

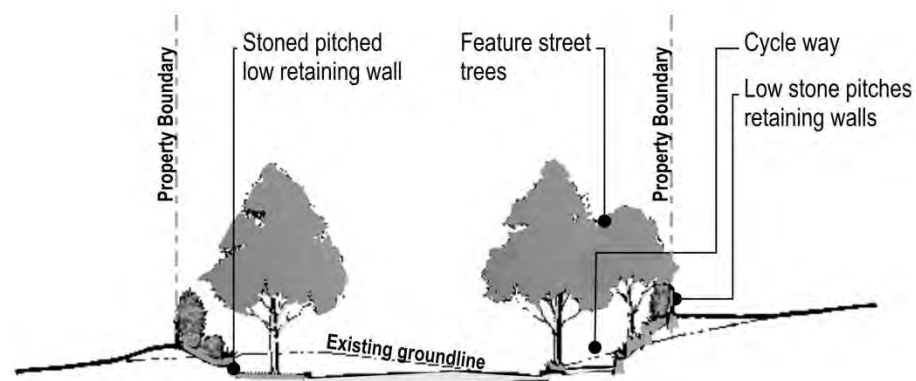
BALLINA HEIGHTS CONCEPT LANDSCAPING & FEATURE PLAN



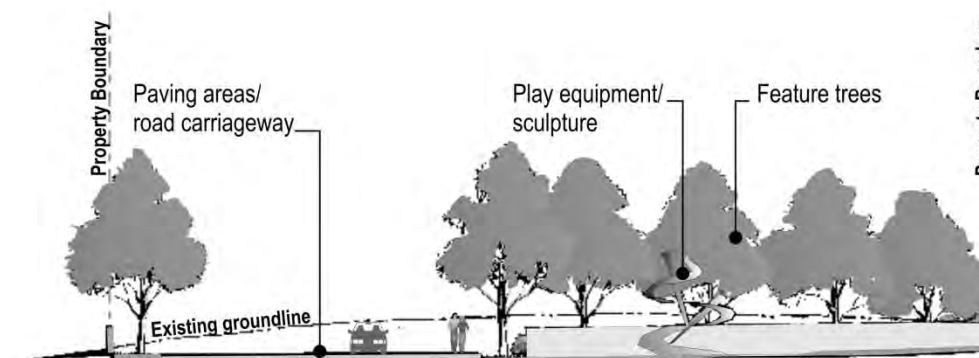
Sketch Elevation - Gateway Structure / Sculpture to Ballina Heights



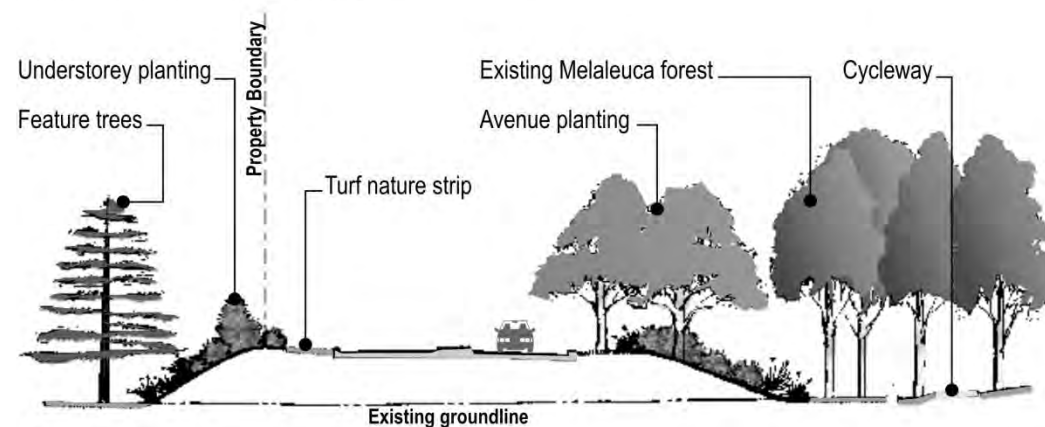
Sketch Section - Neighbourhood Split Roadway



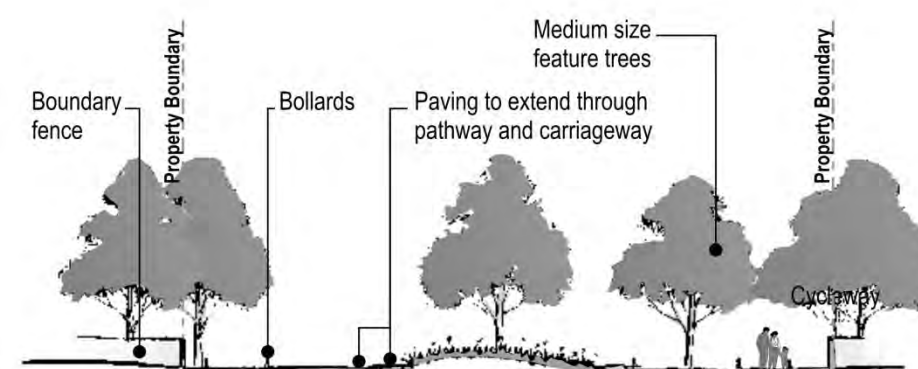
Sketch Section - Cumbalum Way



Sketch Section - Paving / Traffic Calming Area and Neighbourhood Park



Sketch Section - Cumbalum Way



Sketch Elevation - Roundabout to Neighbourhood Area





Appendix C - Cumbalum Precinct B Structure, Mobility, Staging, Landscape, Open Space Ownership & Development Contribution Obligations Plans

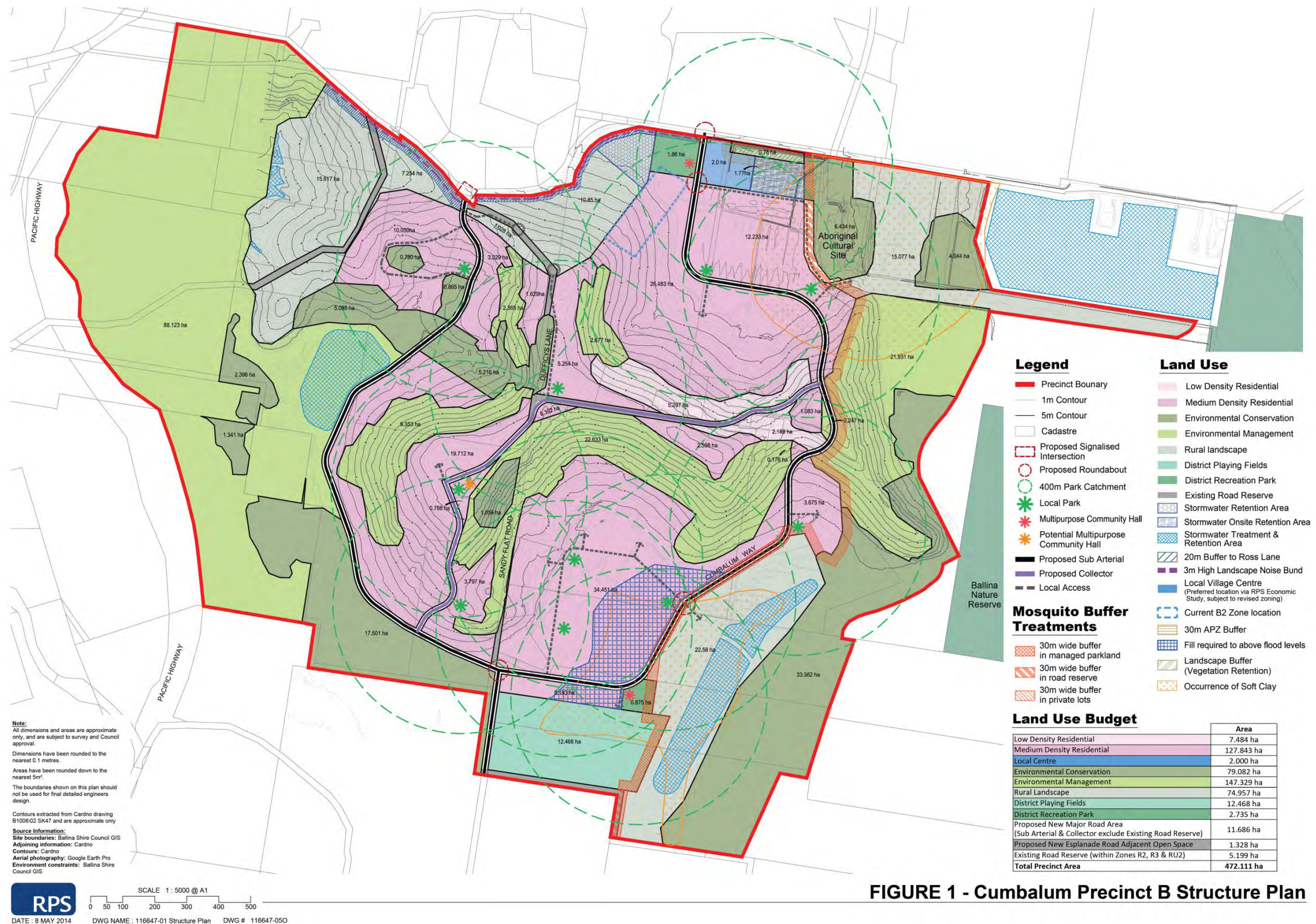


FIGURE 1 - Cumbalum Precinct B Structure Plan



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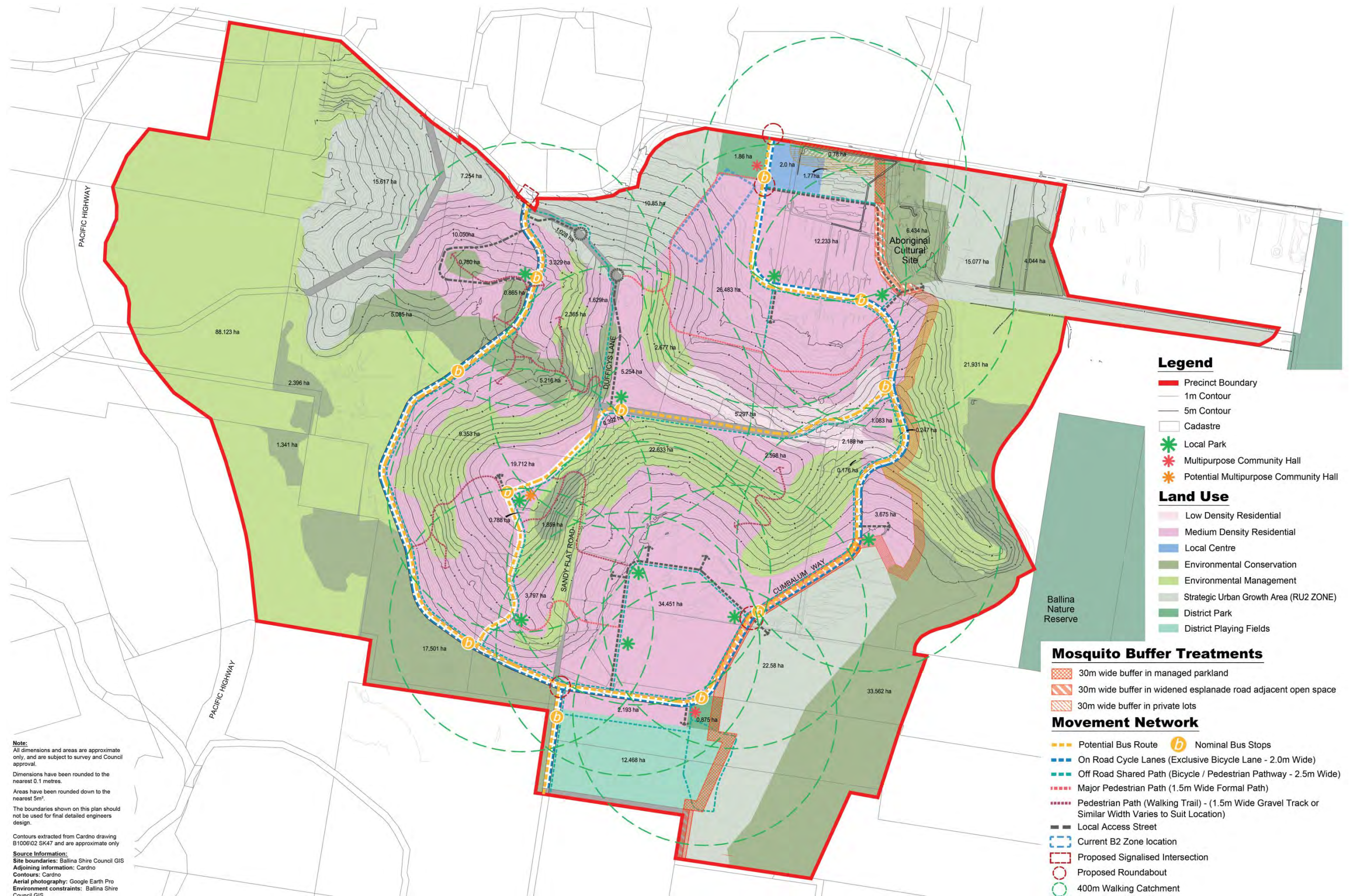


FIGURE 2 - Cumbalum Precinct B Mobility Plan

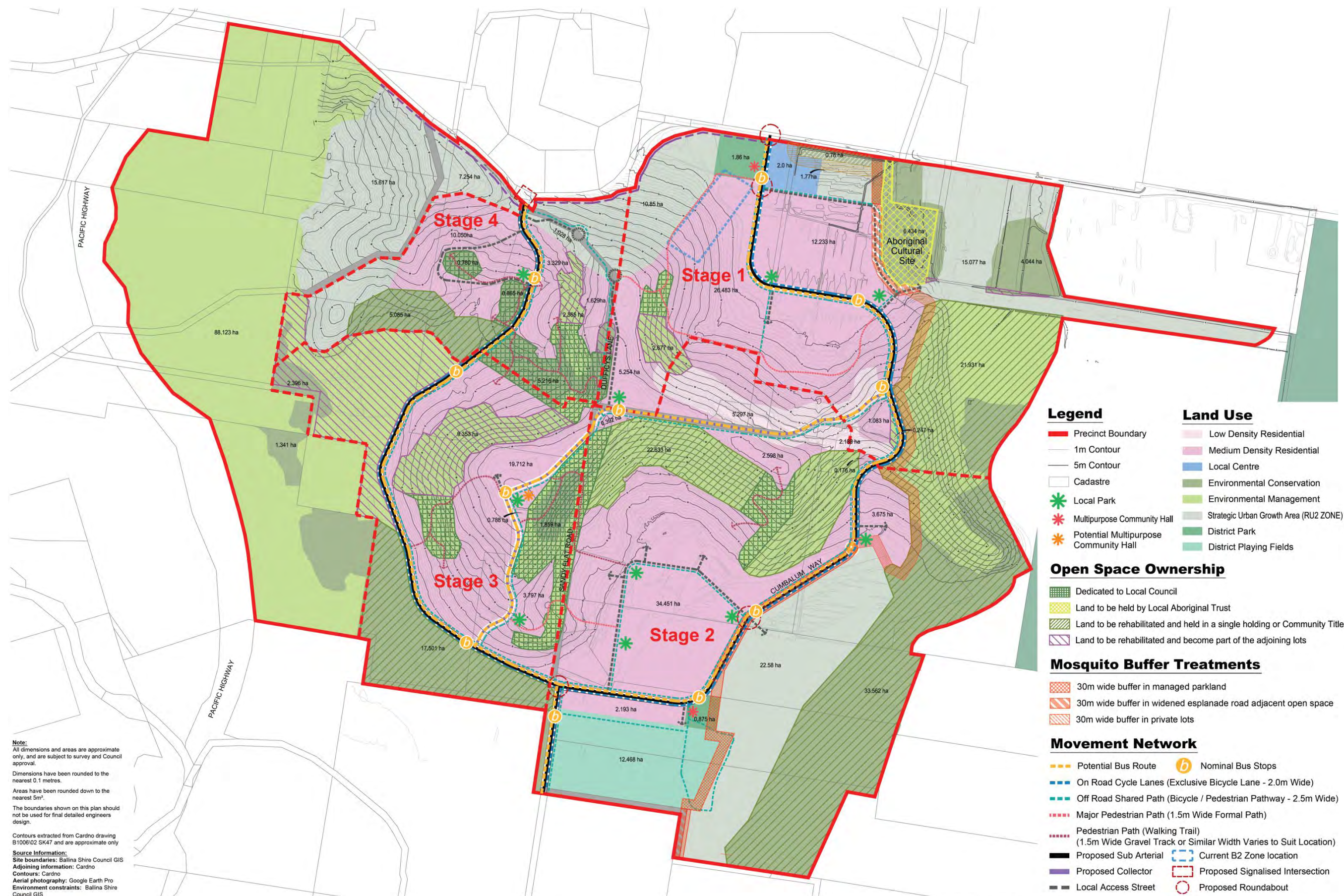
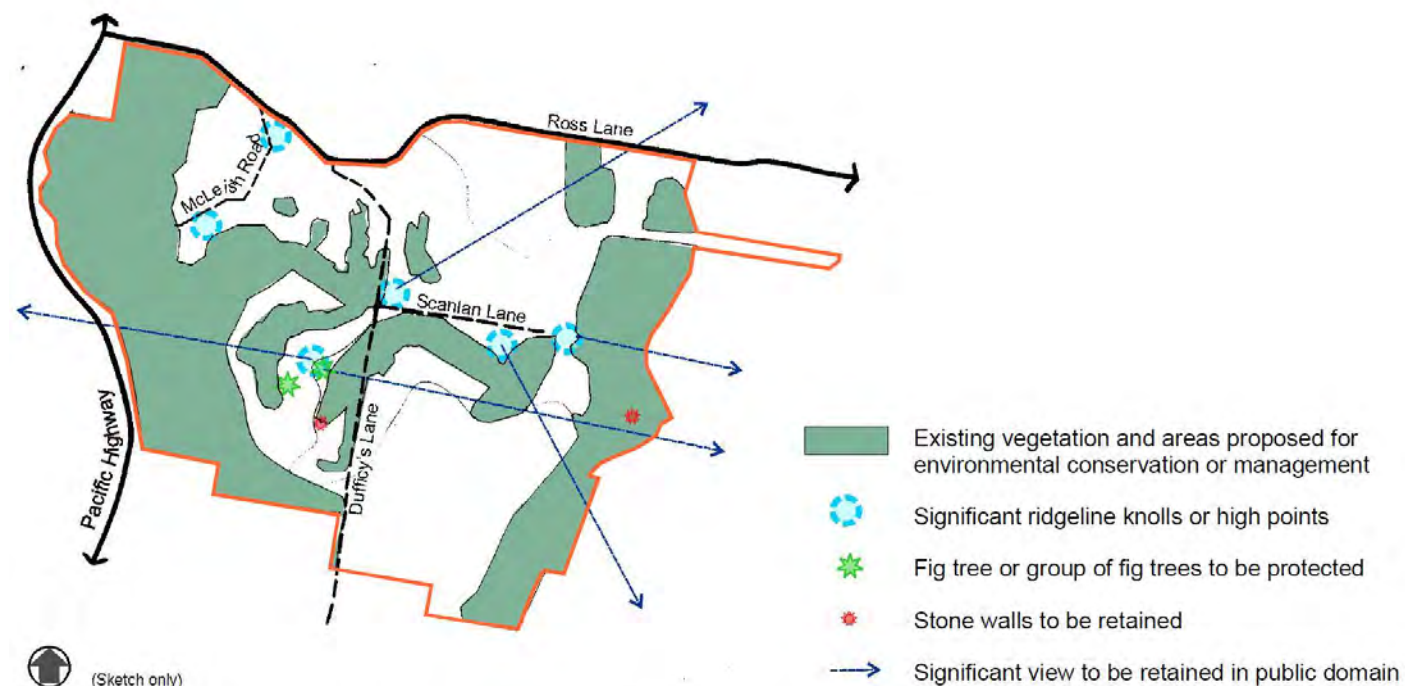
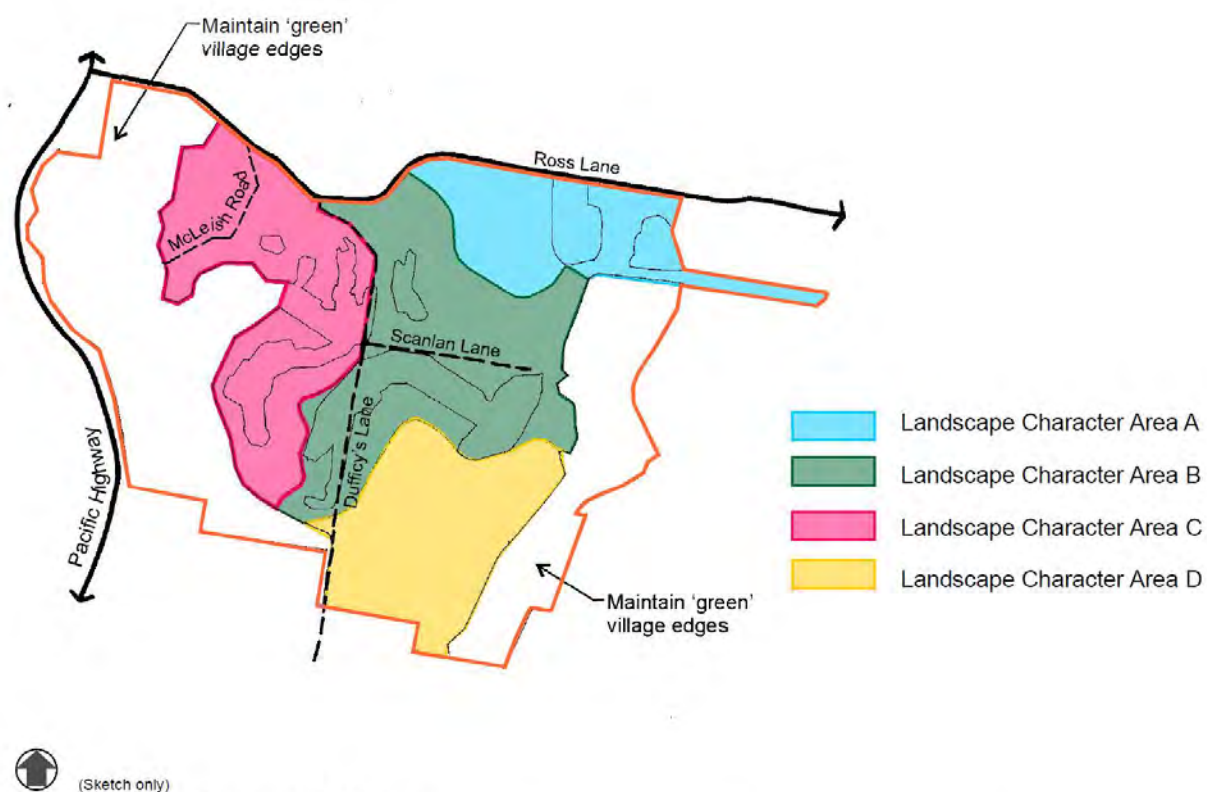


FIGURE 3 - Cumbalum Precinct B Staging Plan



Existing Significant Landscape Features

Existing significant landscape features are elements of the site which should be retained, protected or enhanced and promoted as key visual features of the landscape.



Landscape Character Areas

These areas represent proposed landscape themes for residential and rural land uses.



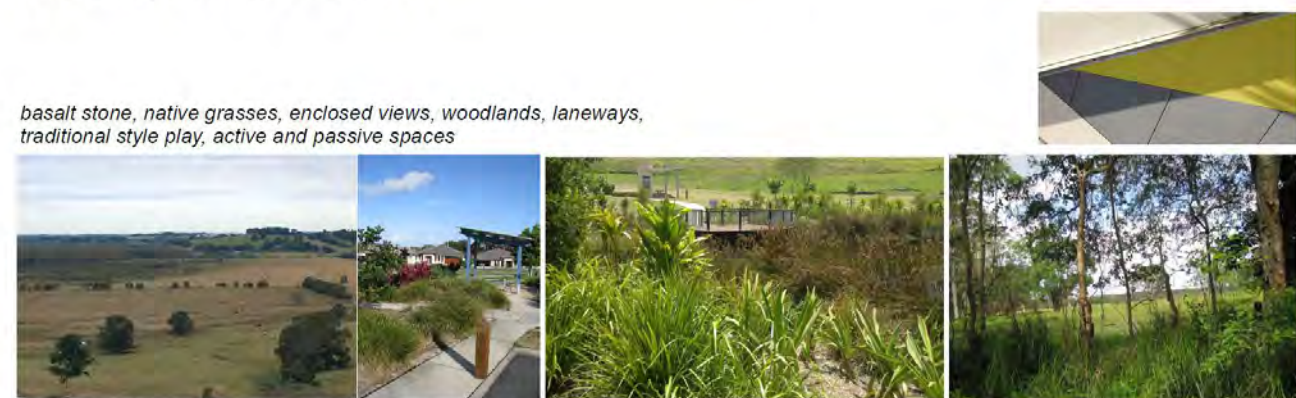
Landscape Character Area A



Landscape Character Area B



Landscape Character Area C



Landscape Character Area D

FIGURE 4 – Cumalum Precinct B Landscaping Principles and Character



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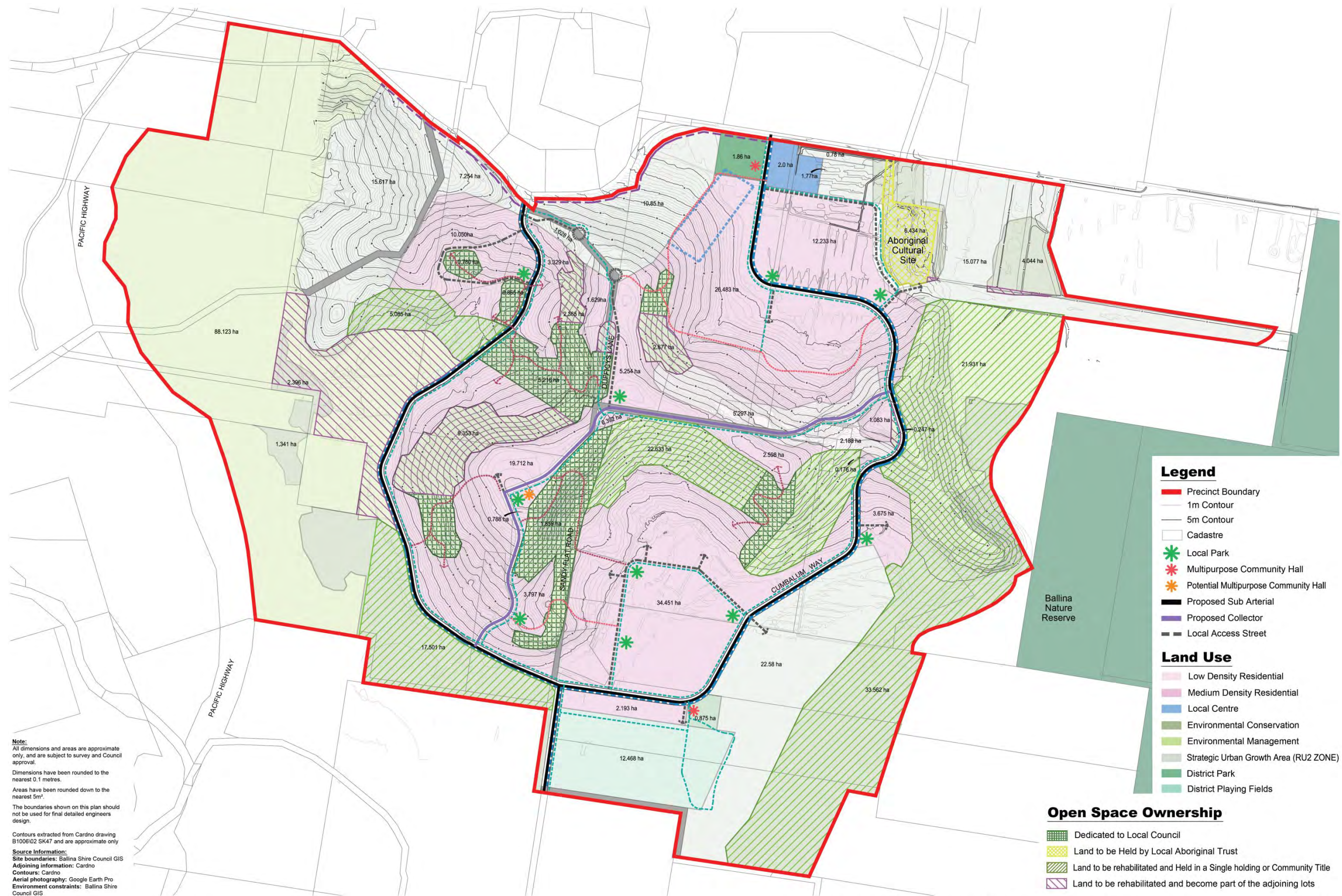


FIGURE 5 - Cumbalum Precinct B Open Space Ownership

RPS

DATE : 8 MAY 2014

SCALE 1 : 5000 @ A1

0 50 100 200 300 400 500

DWG NAME : 116647-01 Structure Plan DWG # 116647-11F

people • place • prosperity

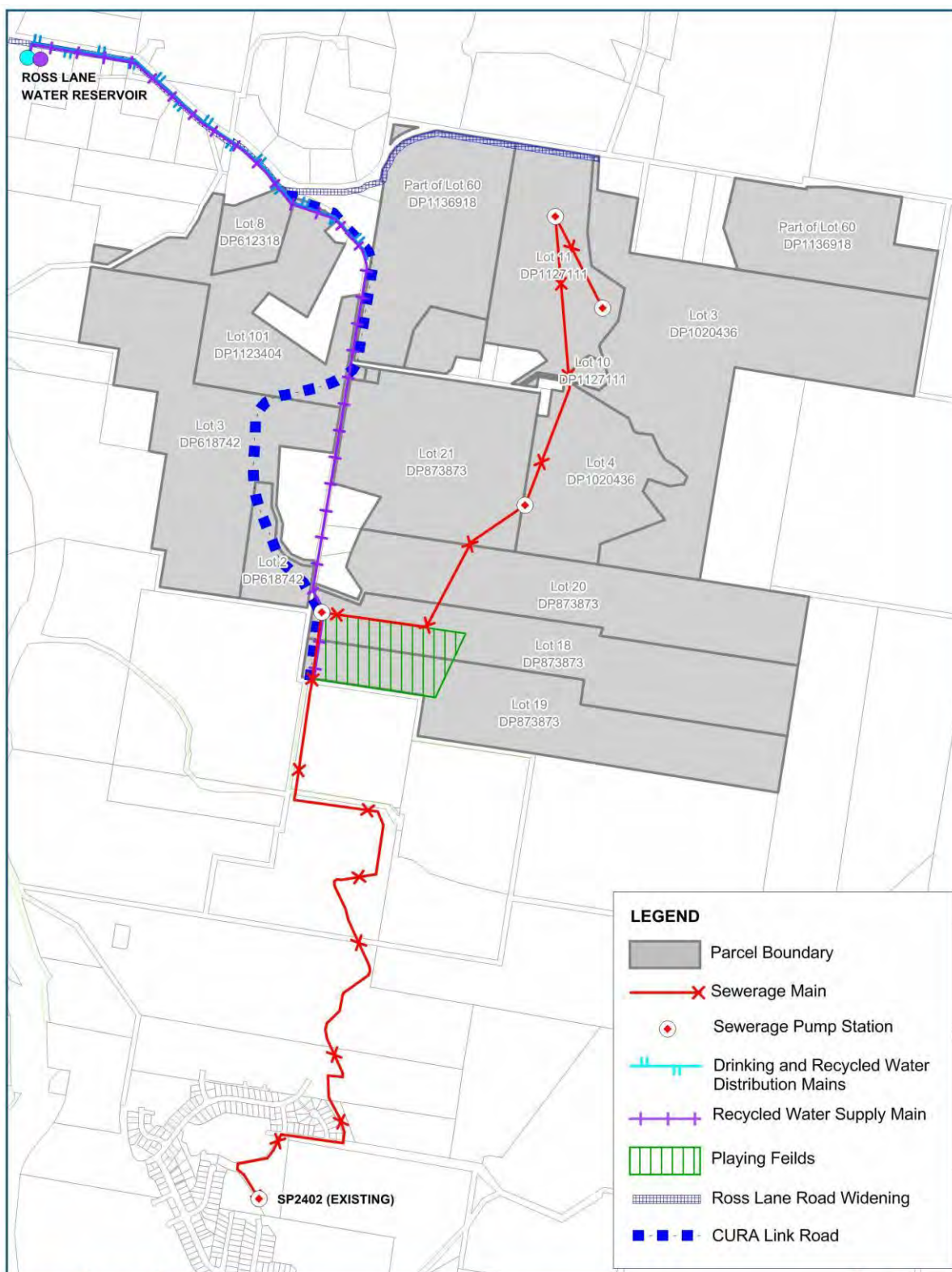
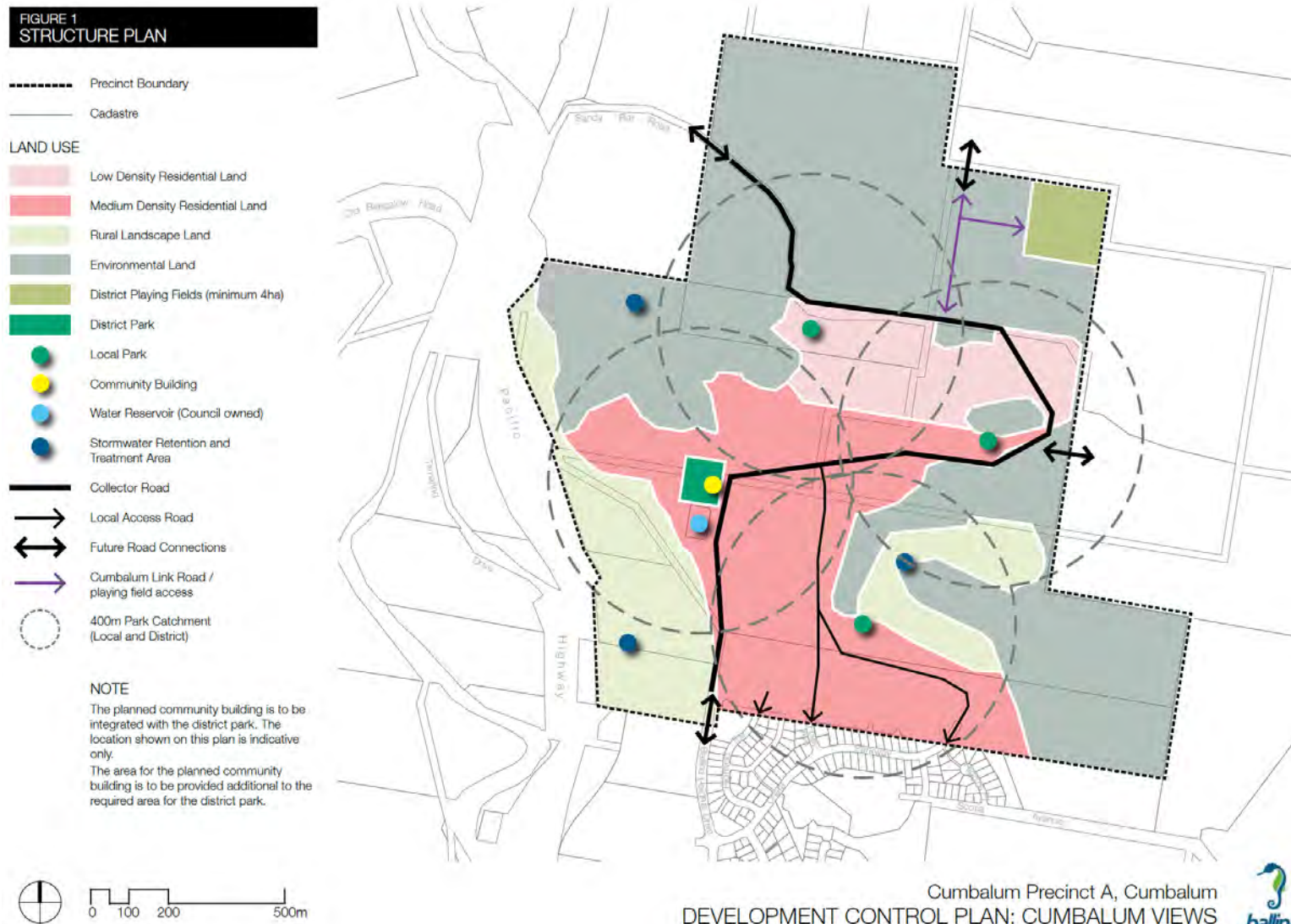


		Figure 6. Precinct B - Development Contribution Obligations	
<small>DISCLAIMER Although all care is taken in the preparation of this plan, Ballina Shire Council accepts no responsibility for any misprints, errors, omissions or inaccuracies. The information contained within this plan is for pictorial representation only. Do not scale. Accurate measurements should be undertaken by survey.</small>		Printed 30/08/2012	



Appendix D - Cumbalum Precinct A Structure, Mobility, Staging, Open Space, Landscape & Special Places, Staging and Context Plans

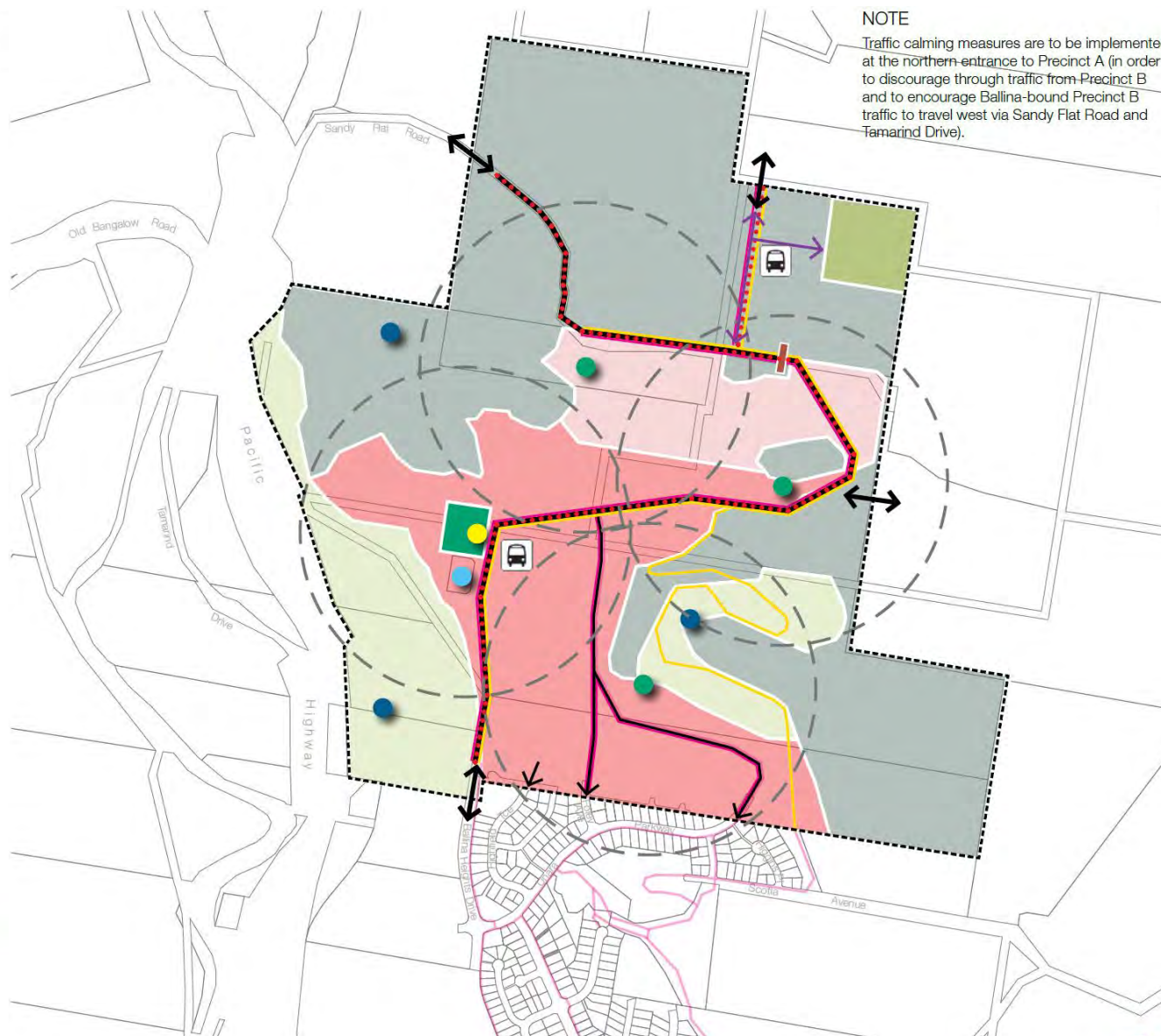




Ballina Development Control Plan 2012

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**FIGURE 2
MOBILITY PLAN**



Cumbalum Precinct A, Cumbalum
DEVELOPMENT CONTROL PLAN: CUMBALUM VIEWS

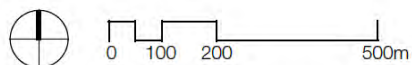




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**FIGURE 3
OPEN SPACE PLAN**

- Precinct Boundary
- Cadastre
- LAND USE**
- Low Density Residential Land
- Medium Density Residential Land
- Rural Landscape Land
- Environmental Land
- District Playing Fields
- District Park
- Local Park (To be dedicated)
- Community Building
- Water Reservoir (Council owned)
- Stormwater Retention and Treatment Area
- Collector Road
- Local Access Road
- Future Road Connections
- Cumbalum Link Road / playing field access
- Land dedicated to Council (boundary to be refined)
- Shared Off-Road Path (to be mostly contained in open space and dedicated to Council)



Cumbalum Precinct A, Cumbalum
DEVELOPMENT CONTROL PLAN: CUMBALUM VIEWS

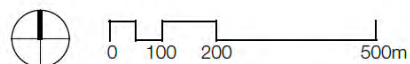




Ballina Development Control Plan 2012 CHAPTER 3 – URBAN SUBDIVISION

**FIGURE 4
LANDSCAPE & SPECIAL PLACES PLAN**

- Precinct Boundary
- Cadastre
- LAND USE**
- Low Density Residential Land
- Medium Density Residential Land
- Rural Landscape Land
- Environmental Land
- Land to be rehabilitated and held in a single title or Community Title
- District Playing Fields
- District Park - Village Green including community garden
- Local Park
- Community Building
- Water Reservoir (Council owned)
- Stormwater Retention and Treatment Area
- Primary Avenue Planting
- Landscaping
- Local Access Road
- Future Road Connections
- Cumbalum Link Road / playing field access
- Trees to be retained
- Key View Corridors
- Cultural Heritage Site
- Entry Feature



Cumbalum Precinct A, Cumbalum
DEVELOPMENT CONTROL PLAN: CUMBALUM VIEWS





Ballina Development Control Plan 2012

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FIGURE 5
STAGING PLAN

- Precinct Boundary
- Cadastre
- == Indicative Staging
- LAND USE**
- Low Density Residential Land
- Medium Density Residential Land
- Rural Landscape Land
- Environmental Land
- District Playing Fields
- District Park
- Local Park
- Community Building
- Water Reservoir (Council owned)
- Stormwater Retention and Treatment Area
- Collector Road
- Local Access Road
- Future Road Connections
- Cumalum Link Road / playing field access



0 100 200 500m

Cumalum Precinct A, Cumalum
DEVELOPMENT CONTROL PLAN: CUMALUM VIEWS

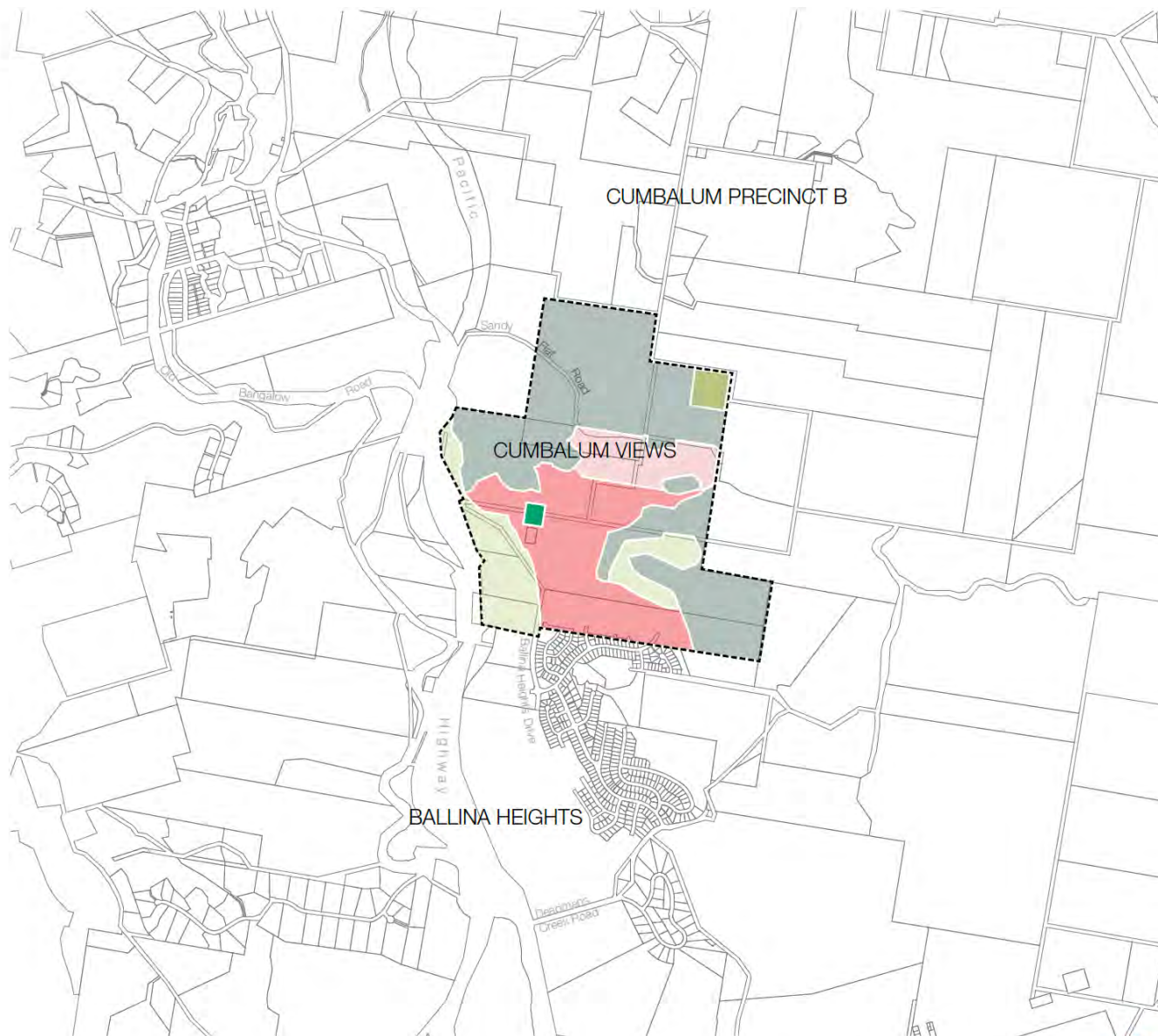
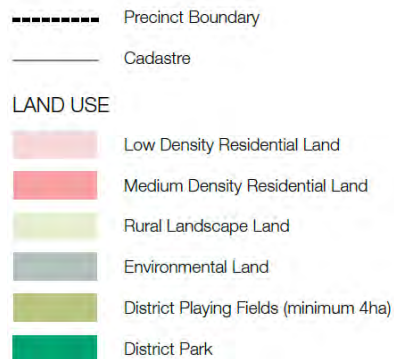


people • place • prosperity



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FIGURE 6
CONTEXT PLAN



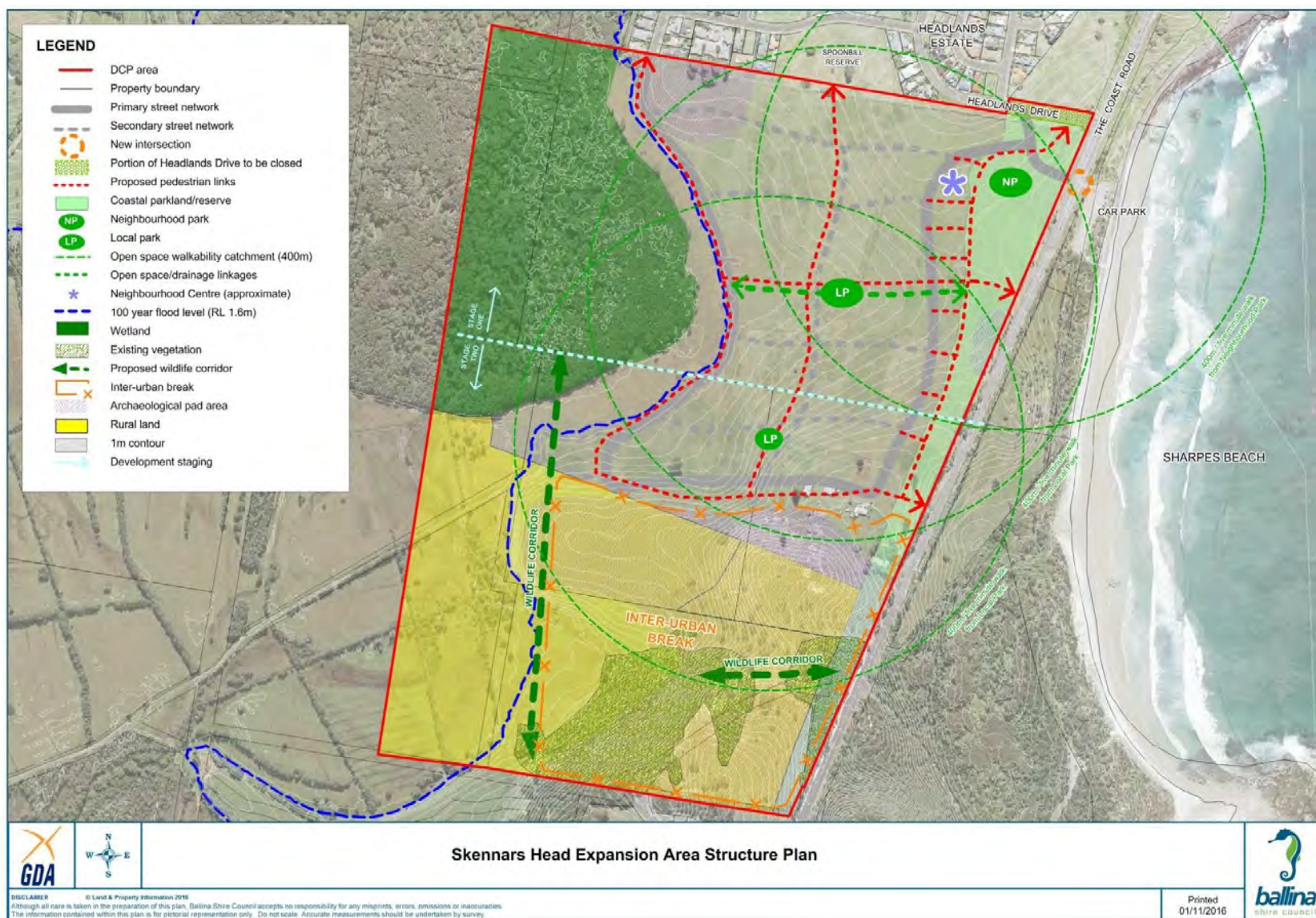
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Cumalum Precinct A, Cumalum
DEVELOPMENT CONTROL PLAN: CUMBALUM VIEWS



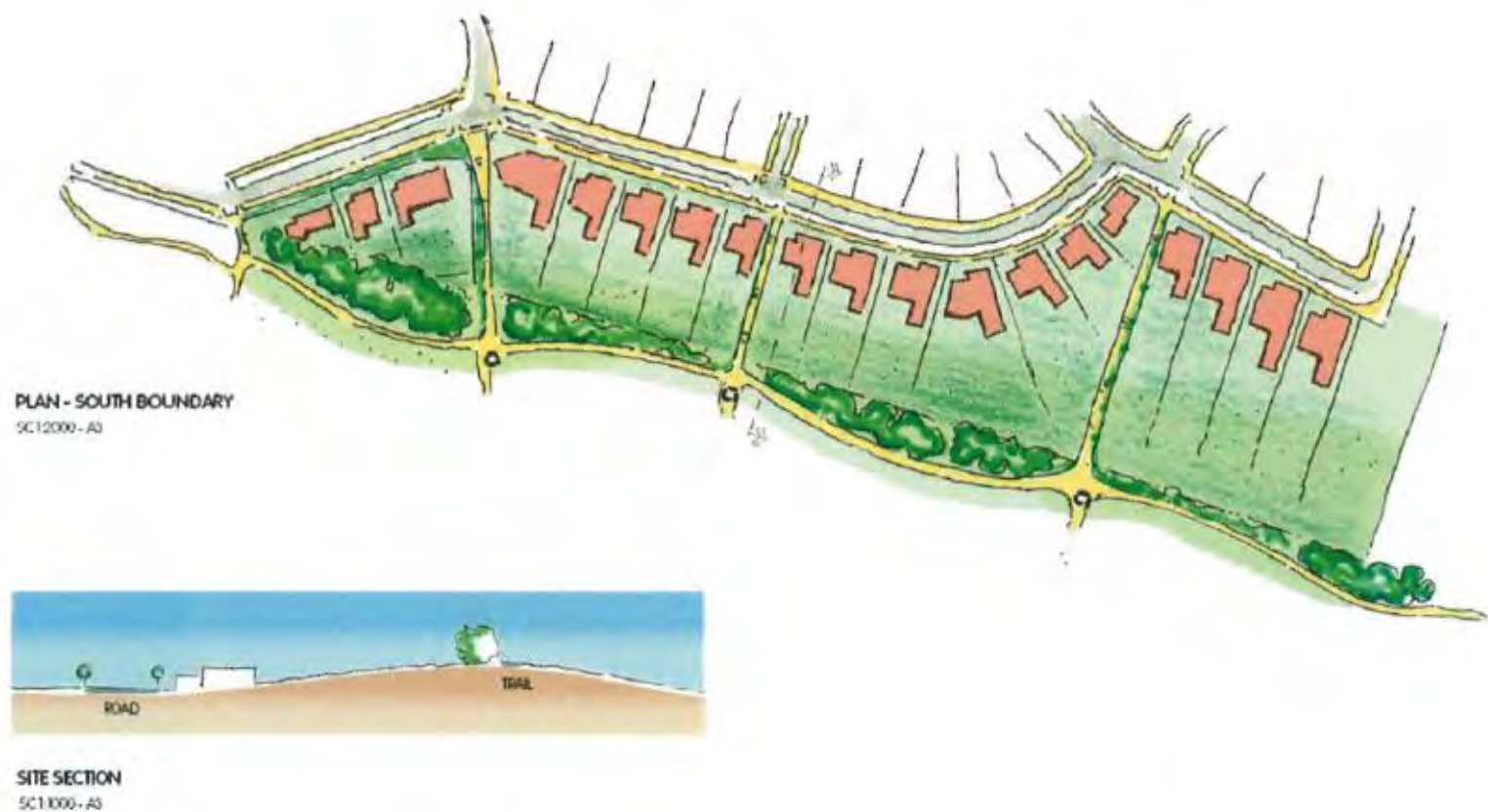


Appendix E – Skennars Head Expansion Area Plans





(Source: Intrapac Property's supplementary submission to public exhibition of draft DCP dated 7 October 2016 refer to Trim: 16/85337)



Skennars Head Expansion Area Southern Interface Treatment

(Source: Intrapac Property's supplementary submission to public exhibition of draft DCP dated 7 October 2016 refer to Trim: 16/85338)