

AMENDED IN RED

13 JUN 2012

By: J.H. Lee (name)
of the ULDA

12.2

Parks and Open Space

The Open Space Strategy for Caloundra South is centred around the creation of an integrated network of linked open space nodes and corridors. The provision of open space is to be generally in accordance with Table 26 ³¹ and the more specific Development Standards for each type of park.

Table 26 Park Provisions

Open Space Type	Park Type	Rate of Provision	Provision of Park	Minimum Size	Flood Immunity	Accessibility Requirements
Sports	Major Sports	0.6 ha per 1,000 persons	As per Part 8 of the Caloundra South Master Plan	1 at 15ha 1 at 10ha	All formal playing surfaces (fields and courts) are above the 20 year Average Recurrence Interval (ARI) flood level.	Consistent with the ULDA Guideline No 12 (November 2011)
	District Sports	1.2ha land per 1,000 persons	As per Part 8 of the Caloundra South Master Plan (including partial contribution of the Golf Course)	7.5ha District Sports Park 4 ha District Sports Park (Neighbourhood level)	Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI	
Recreation	Major Recreation (6)	0.5 ha per 1,000 persons	As per Part 8 of the Caloundra South Master Plan	10 ha	Maximum 30 per cent of any park is below the 5 year ARI flood level. Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.	Consistent with the ULDA Guideline No 12 (November 2011)
	District Recreation (5)	0.5 ha land per 1,000 persons	As per Caloundra South Open Space Strategy	5 ha		
	Major Linear	0.5 ha land per 1,000 persons	To be determined as part of subsequent applications	N/A		
Local Parks	Local Recreation	0.0-0.2 ha per 1,000 persons	To be determined as part of subsequent applications	500m ²	Maximum 30 per cent of any park is below the 5 year ARI flood level.	Consistent with the ULDA Guideline No 12 (November 2011)
	Neighbourhood Recreation (1)	0.5 - 1.1 ha land per 1,000 persons	To be determined as part of subsequent applications	5,000m ²		
	Local Linear (2)	0.0 - 0.8 ha land per 1000 persons	To be determined as part of subsequent applications	N/A		
Total of Parks (4)		4.6ha / 1,000 persons		N/A	N/A	
Community	Community Land	0.2 ha land per 1,000 persons	As per Part 8 of the Caloundra South Master Plan	N/A	N/A	

³¹ Subject to ongoing detailed planning of the Caloundra South Open Space Strategy and the agreement of the ULDA, the actual land requirement for each nominated use may be ~~less~~ *altered* than the stipulated provisions as long as the desired community sporting and recreational outcomes of the relevant ULDA guidelines are achieved.

** To be determined at subsequent stages. Should golf course not be developed, sports park shortfall to be addressed through alternative open space network.*

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INFRASTRUCTURE NETWORKS
AND STANDARDS

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12.2

Parks and Open Space

MAJOR SPORTS PARK

Function

A large park that provides spaces and facilities for practising and playing structured or organised sports, including spectator seating and parking for major sports events. Major sports parks cater to a large catchment and normally accommodate several organisations that share the sports facilities. Major sports parks also provide a range of informal recreation activities and spaces.

Development Standards

Minimum Size 1 at 10 ha, 1 at 15 ha
Minimum Width 25 m

Flood Immunity All formal playing surfaces to be above Q20
Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.

~~Maximum Building / Structure Height 21 m~~

Preferred Embellishments

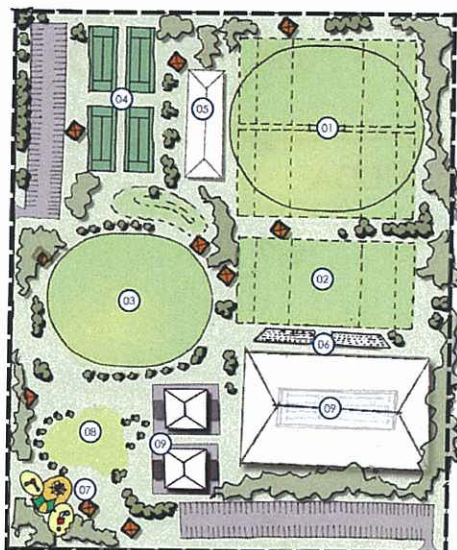
- Shaded spectator seating (trees and/or shade structures) for at least one third of one boundary of all formal sports fields
- Internal access road and car parking
- End of trip cycle facilities
- Outdoor sports fields and hard courts and clubhouse
- Passive recreational areas including tables and chairs and informal recreational spaces
- Lighting for night sport
- Pedestrian pathways and forecourts
- Landscaping and turfing
- Community events space
- Toilets

Other key outcomes

- Highly visible and well signed entrances
- Centrally located, adjacent to the Town Centre or District Centre and linked to the linear open space network
- Accessible via high frequency public transport capable of large capacity crowds
- Excellent connections to active transit network
- Direct access from trunk collector or higher order road with onsite car parking and internal access road
- Design to provide for future flexibility and optimise siting and orientation of sports fields and facilities
- Provision of informal and passive recreational opportunities which complement the sports areas and facilities
- Promote shared use of facilities for different sports and group high maintenance embellishments together to create activity nodes
- Potential Stadium capable of holding large-scale sporting events
- Potential indoor sports centre and aquatic centre

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Typical Concept Plan 01

- 01 Multipurpose Oval with incorporated field for Union, Soccer and League
- 02 Rugby Field
- 03 Cricket Oval
- 04 Tennis Court
- 05 Clubhouse
- 06 Spectacular Seating (100)
- 07 Play Area
- 08 Passive Open Space
- 09 BBQ Facilities
- 10 Indoor 50m Swimming Pool

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Parks and Open Space

DISTRICT SPORTS PARK

Function

A large park that provides spaces and facilities for practising and playing structured or organised sports. District Sports Parks may accommodate organisations that share the sports facilities and will also provide some informal recreation activities and spaces.

Development Standards

Minimum Size	7.5 ha
Minimum Width	25 m

Flood Immunity

All formal playing surfaces above Q20

Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.

Maximum Building / Structure Height 21 m

Preferred Embellishments

- Shaded spectator seating (trees and/or shade structures) for at least one third of one boundary of all formal sports fields
- On-site car parking
- Clubhouse and toilets
- Community meeting rooms
- End of trip cycle facilities
- Outdoor sports fields and hard courts
- Passive recreational areas including tables and chairs and informal recreational spaces
- Play areas/facilities
- Lighting for night sport
- Pedestrian pathways
- Landscaping and turfing
- Recycle Bins

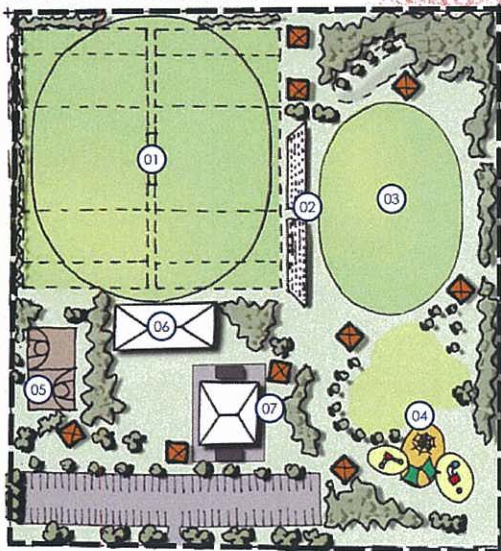
Other key outcomes

- Highly visible and well signed entrances
- Located adjacent to a centre and linked to the linear open space network
- Where possible, located adjacent to educational facilities to allow shared use
- Connected to active transit network
- Design to provide for future flexibility and optimise siting and orientation of sports fields and facilities
- Promote shared use of facilities for different sports and group high maintenance facilities together to create activity nodes within the park
- Provision of informal and passive recreational opportunities which complement the sports areas and facilities
- Potential Golf Course

Direct access from the higher order road network and public transport

12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

Typical Concept Plan 01 District Sports Park



Typical Concept Plan

- 01 Multipurpose Oval with incorporated field for Union, Soccer and League
- 02 Spectator seating (100)
- 03 Practice Oval
- 04 Play Area
- 05 Basketball halfcourts
- 06 Amenities building
- 07 BBQ area

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12.2 Parks and Open Space

DISTRICT SPORTS PARK: NEIGHBOURHOOD LEVEL

Function	A park that provides spaces to facilitate practising and playing structured or organised sports with the opportunity for organisations to share the sports facilities. These parks also provide some informal recreation activities and spaces for the immediate area and visitors to the park.
Development Standards	
Minimum Size	4 ha
Minimum Width	25 m
Flood Immunity	All formal playing surfaces to be above Q20 Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.
Maximum Building / Structure Height	21 m
Preferred Embellishments	- Shaded spectator seating (trees and/or shade structures) for at least one third of one boundary of all formal sports fields - Car parking on site or adjacent streets - Small clubhouse and toilets - Community meeting room - Cycle parking - Outdoor sports fields and hard courts - Passive recreational areas including tables and chairs and informal recreational spaces - Simple play area - Pedestrian pathways - Landscaping and turfing.
Other key outcomes	- Highly visible and well signed entrances - Located adjacent to or near Neighbourhoods or District Centres and linked to the linear open space network - Where possible, located adjacent to educational facilities to allow shared use - Connected to active transit network - Direct access from local public transport - Design to provide future flexibility and optimise siting and orientation of sports fields and facilities - Promote shared use of facilities for different sports and group high maintenance facilities together to create activity nodes within the park - Provision of informal and passive recreational opportunities which complement the sports facilities <i>Road frontage to 25% of park</i>

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Parks and Open Space

MAJOR RECREATIONAL PARK

Function

A large park with extensive facilities and settings to cater for the varied recreation demands of a large population catchment. Major recreation parks provide a range of active and passive recreation opportunities to cater for the whole community, and should be capable of supporting a large community event and multiple activities undertaken simultaneously.

Central park: A large-scale parkland space providing passive recreation, relaxation and escape from urban life and designed to showcase the natural environment and maximise environmental integrity and stewardship.

People's Place: A captivating and engaging place for leisure, culture and creativity.

Eco Sanctuary: An educational and interpretive centre designed to showcase the natural environment and maximise environmental integrity and stewardship.

Development Standards

Minimum Size	10 ha
Minimum Width	10 m

Flood Immunity	Maximum 30% of park below the 5 year ARI flood level
	Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.

~~Maximum Building / Structure Height~~ 21 m

Preferred Embellishments

- Regional play facility
- Community events/performance spaces
- BBQ, seating and toilet facilities
- End of trip cycle facilities
- Passive recreational areas and informal recreational spaces
- Lighting to allow safe night time use
- Pedestrian pathways, board walks and interpretive trails
- Landscaping and turfing
- Integrated public art
- Recycling Bins

Other key outcomes

- Locate built facilities and high use facilities adjacent to the town centre and major sports facilities
- Maximise opportunities for users to connect with water and nature
- Network of pedestrian and cycle routes to provide access throughout the entire park which are connected to the broader active transit network
- Access from trunk collector or higher order road and by frequent public transport
- Provide a multitude of passive recreational spaces of varying scale, form and function
- Wetland and water treatment devices

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INFRASTRUCTURE NETWORKS
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Typical Concept Plan 03 District Recreational Park



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12.2

Parks and Open Space

DISTRICT RECREATIONAL PARK (including major linear open space)

Function

A large park that caters for the varied active and passive recreational needs and community activities. District recreation parks should provide a variety of settings, spaces and facilities to cater for all age groups and levels of ability in the community.

Development Standards

Minimum Size
Minimum Width

5 ha (District Recreational)
10 m (Major Linear)

Flood Immunity

Maximum 30% of park below the 5 year ARI flood level
Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.

Maximum Building / Structure
Height

9 m

Preferred Embellishments

- Play facilities at nodal points along the corridor for a range of ages
- Car parking at nodal points
- Smaller scale active recreational facilities (eg bowls clubs, tennis courts) at nodal points
- Network of cycle ways and pathways along and across corridor
- Kick about spaces and BBQ and seating facilities
- Lighting to key pathways and linkages
- Landscaping and turfing
- Integrated public art
- Access from local public transport network and connector or higher order road network
- Toilets

Other key outcomes

- Located adjacent to the waterway corridors and providing informal recreational opportunities
- Network of pedestrian and cycle routes to provide access along and across the park which are connected to the broader active transit network
- Provide for a multitude of passive recreational spaces and smaller scale active recreational functions of varying scale, form and function
- Create nodal points of activity by grouping high use activities (e.g. play facilities, BBQs etc.) together at key locations along the corridor
- Potential lakes
- Integrated wetland and water treatment facilities
- Ability to host community events

• *Road frontage to minimum 25% of park*

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Typical Concept Plan 04 Neighbourhood Recreational Park



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Parks and Open Space

NEIGHBOURHOOD RECREATIONAL PARK

Function A moderately sized park that provides a focal point for a neighbourhood. Provision of places and facilities for passive and active recreation activities and a range of local community activities and events.

Development Standards

Minimum Size 0.5 ha
Minimum Width 10 m

Flood Immunity Maximum 30% of park area below 5 year ARI flood level
 Clubhouses, toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.

Maximum Building / Structure Height 9 m

Preferred Embellishments

- A kick about space minimum dimensions 50 m x 30 m
- Play space
- Bicycle parking
- On street car parking
- Lighting
- Table and chairs, seating and shade structure
- Half court or similar active function
- Landscaping and turfing
- Pedestrian and cycle paths
- Recycling Bins

Other key outcomes

- 90% of dwellings within 400 m of a neighbourhood recreational park or other park providing equivalent informal recreational opportunities
- Central accessible location within neighbourhood
- Linked to the linear open space network via boulevard linkages or linear parklands

• *Minimum 50% of park perimeter to have road frontage*

12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

Typical Concept Plan 05 Local Linear Park



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12.2 Parks and Open Space

LOCAL LINEAR PARK

Function A long, relatively narrow Park providing informal recreational opportunities and utilised as a linking element in the overall parks and open space network. Also used to link neighbourhoods or destinations such as schools or centres.

Development Standards

Minimum Width

~~10 m~~
15 (10m for short distances to respond to physical constraints)

Flood Immunity

Maximum 30% of park below 5 year ARI flood level

Toilet and amenities blocks and other buildings (and areas designated for these facilities) are above the 100 year ARI.

Maximum Building / Structure Height

9 m

Preferred Embellishments

- Cycle and walking paths
- Landscaping and turfing
- Passive recreational kick about spaces
- Tables and seating (uncovered)
- Fencing/bollards

Other key outcomes

- Provision of off road cycle and pedestrian pathways to allow seamless access to district and regional active and passive open space hubs
- Integrated storm water management and treatment system (if required)
- Paths located and designed to maximise passive surveillance opportunities

Typical Concept Plan 06 Local Recreational Park



12.2 Parks and Open Space

LOCAL RECREATIONAL PARK

Function A small park that provides visual amenity and passive recreation opportunities and may provide seating, a small grassed area, play equipment for young children and a meeting point for nearby residents.

Development Standards

Minimum Size 500 m²

Flood Immunity Max 30% below 5 year ARI Flood Level
Amenities and other buildings (including areas designated for these facilities) are above the 100 year ARI.

Maximum Building / Structure Height 9 m

Preferred Embellishments

- Landscaping and turfing
- Pathways and seating
- Small grassed area.
- Recycling Bins

Other key outcomes

- Provides respite from urban form
- Provides a meeting point for nearby residents
- Facilitates the retention of pockets of existing vegetation
- Where possible link into the linear open space network
- Minimum 50% of park area to have road frontage
- Optional: simple play equipment

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INFRASTRUCTURE NETWORKS
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Concept Plan 07 Bruce Highway Buffer



12.3

Bruce Highway Buffer

The buffer to the Bruce Highway will provide an acoustic, aesthetic and open space function for the Caloundra South community. ~~This buffer will comprise a mix of passive recreation, pedestrian and cycle trails, intensive landscaping, formal sports fields and informal play spaces, and therefore will play an important role in the overall open space network.~~ Sections of the buffer may also be widened to accommodate ~~district scale parks~~ *open space*.

The buffer will also include required acoustic treatments, water sensitive urban design improvements and signage.

BRUCE HIGHWAY BUFFER

As per Section 13.3.9 of the Development Scheme (Oct 2011)
~~Function A linear park space provided as part of the Bruce Highway buffer corridor that caters for the varied active and passive recreational needs and community activities of a group of neighbourhoods. Provides informal recreation opportunities particularly for walking and cycling and is used as a linking element in the overall parks network.~~

Development Standards

Minimum size	N/A
Maximum Building / Structure Height	N/A
Maximum width	80 metres. Widths of less than 80 m may be acceptable where it can be demonstrated that acoustic and visual amenity is achieved (i.e. adjoining business and industry areas), development is screened from the Bruce Highway, and sports and recreation is co-located.
Flood Immunity	N/A
Preferred Embellishments	Vegetation and mounding buffer that when established ensures buildings are not visible from the Bruce Highway.
Other key outcomes	Co-location of recreation and sporting land uses within or adjoining the Bruce Highway buffer to maximise opportunities for the buffer area.

12.4

Roads and Active Transport

The Integrated transport strategy is centred around promoting the use of more sustainable options. Roads and active transport networks are to be developed generally in accordance with the following standards. In considering these standards the following is to be recognised:

- Slope varies, including allowance for shaping for WSUD drainage management solutions
- Profiles may be 2-way or 1-way cross fall
- Shoulder may be widened to 2.0 m for interim 2-way traffic function
- Earthwork to finish 0.5 m below design pavement levels
- Possible WSUD treatment in median and/or verge

A traffic assessment report is to be submitted with subsequent applications (in each Context Plan Area Strategy) in order that the appropriate road network hierarchy can be determined.

12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.4

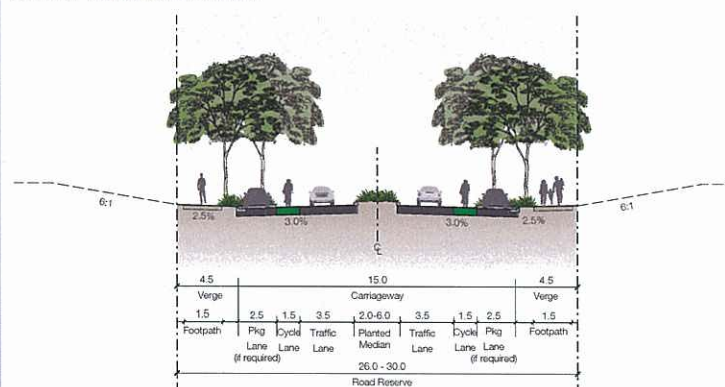
Roads and Active Transport

Roads and active transport networks are to be developed generally in accordance with the following standards and provisions in Table 27:

Table 27 Road Provisions

TRUNK CONNECTOR	
Function	Distributes traffic volumes from the arterial network to the connector network. Pedestrian, cycle and bus transport modes are supported.
Development Standards	
Minimum road reserve width	26.0 - 30.0 m (depending on median section)
Typical features	• Minimum intersection spacing 300 m • Limited property access • Designed to accommodate bus routes (stops allowed for in parking lane, separate lane marking or alternatively in off road bays) • On-road dedicated bicycle lanes both sides • 1 general traffic lane in each direction • Minimum 1.5 m footpaths both sides • 60-70 km/h design speed and posting • Refer indicative Section No. 01 • 2-6 m wide planted median • 2.5 m minimum parking to one or both sides if required • Minimum 15 m carriageway width • Upright kerbs • Opportunities for WSUD including biopods and linear treatment trains
Provision	For roads that generate less than 10,000 vehicles per day.

Section 01 Trunk Collector (minimum)



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Roads and Active Transport

NEIGHBOURHOOD STREET NETWORK

Neighbourhood Connector Street

Function Neighbourhood Connector Streets connect neighbourhood destinations including shops and parks, provide access to the surrounding road network and can include a bus and cycling route.

Development Standards

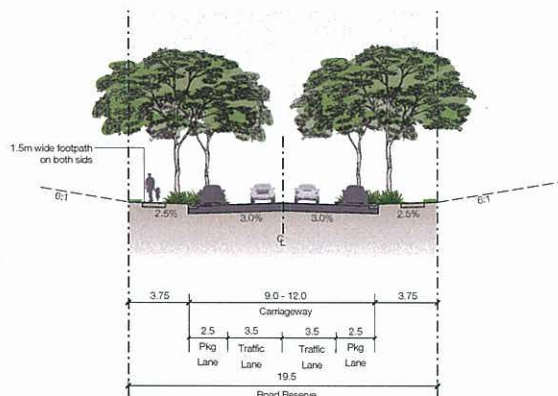
Minimum road reserve width 20 m - where no bicycle lanes
23 m - where bicycle lanes required as part of a cycle network

Typical features

- ~~Minimum 18 m reserve width~~
- Minimum intersection spacing 120 m
- Minimum 2.5 m parking lanes parallel both sides of street
- Designed to accommodate bus routes through increased lane widths where required as part of the overall network
- 1 general traffic lane in each direction (3.5 m wide)
- 1.5 m wide footpaths on both sides
- 50 kmh design speed unless sign posted otherwise
- Refer indicative Section No. 02
- Direct property access
- Roll-over kerb and channel
- Opportunities for WSUD including biopods and linear treatment trains

Provision For roads that generate less than 7,500 vehicles per day, or up to 10,000 vehicles per day subject to traffic assessment

Section 02 Neighbourhood Connector Street



12.0

INFRASTRUCTURE NETWORKS AND STANDARDS

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Roads and Active Transport

Neighbourhood Access Street (7.5 m)

Function Provide direct residential property access. Also allow for vehicle, pedestrian and cyclist connectivity.

Development Standards

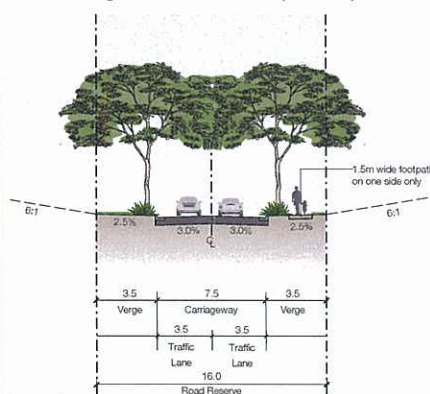
Minimum road reserve width ~~16.0~~ ¹⁵ m

Typical features

- Direct property access (vehicle access may be via rear lane)
- Minimum 7.5 m carriageway width
- 1.5 m footpath on one ~~side only~~ *or both sides*
- On-street parking (not marked)
- Minimum 1 traffic lane with passing opportunities
- Posted speed 50 km/h, unless sign posted otherwise
- Refer indicative Section No. 03
- Roll-over kerb and channel
- Maximum length of Block is 150 m
- Opportunities for WSUD including biopods and linear treatment trains

Provision For roads that generate less than 5,000 vehicles per day

Section 03 Neighbourhood Access Street (7.5 metres)



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Roads and Active Transport

Neighbourhood Access Street (5.5 m)

Function Provide direct access to residential property. Also allow for vehicle, pedestrian and cyclist connectivity.

Development Standards

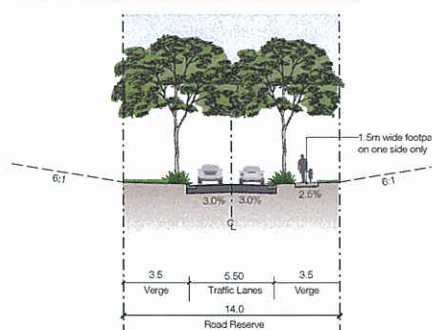
Minimum road reserve width ~~14.0~~ ¹³ m

Typical features

- Direct property access (vehicle access may be via rear lane)
- 5.5 m carriageway width
- 1.5 m footpath on one side only *side only or both sides*
- On-street parking (not marked)
- Minimum 1 traffic lane with passing opportunities
- Posted speed 50 km/h, unless sign-posted otherwise
- Refer indicative Section No. 04
- Roll-over kerb and channel
- Maximum length of Block is 150 m
- Opportunities for WSUD including biopods and linear treatment trains

Provision For roads that generate less than 2,500 vehicles per day

Section 04 Neighbourhood Access Street (5.5 metres)



12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.4

Roads and Active Transport

Neighbourhood Lane

Function

Lanes provide direct access to properties including for refuse collection and other service vehicles. Lanes typically provide rear access to garages but can also provide "front door" access to loft apartments and other small dwellings.

Development Standards

Road reserve width

6.5-7.5 m

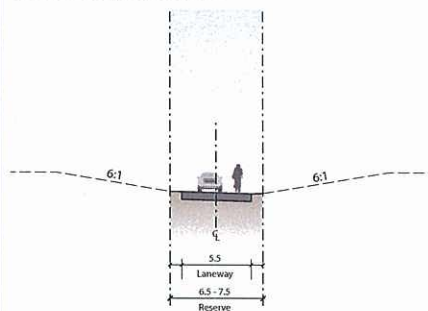
Typical features

- 5.5 m carriageway width
- 2 traffic lanes (1 each direction)
- Refer indicative Section No. 05
- No parking or footpaths
- Posted speed 50 km/h, unless sign posted otherwise
- Opportunities for WSUD including biopods and linear treatment trains
- Flush kerb type

Provision

For roads that generate less than 500 vehicles per day.

Section 05 Neighbourhood Lane



12.4 Roads and Active Transport

CENTRE STREET NETWORK

Centre Connector Street

Function Centre connector streets provide limited property access and provide routes via access streets to centre destinations. They also accommodate a high level of pedestrian and cycle activity.

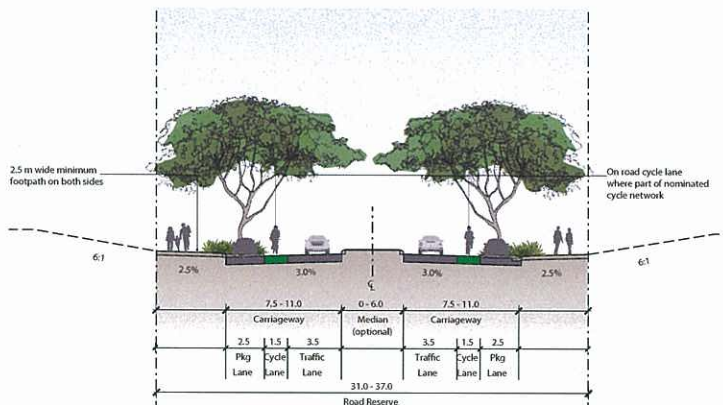
Development Standards

Road reserve width 31–37 m

- Typical features**
- Designed to accommodate bus routes in the parking lane, with separate marking
 - 1.5 m wide on-road dedicated bicycle lanes both sides
 - 2.5 m footpaths on both sides
 - 2.5 m on-street parking both sides
 - 2 traffic lanes in each direction (3.5 m wide each)
 - Carriageway width 15–22 metres (excluding median)
 - Optional median (0–6 m)
 - Limited property access
 - No traffic calming
 - Posted speed of 60 km/h
 - Refer indicative Section No. 06
 - Minimum 100 m intersection spacing
 - Opportunities for WSUD including biopods and linear treatment trains
 - Upright kerb type

Provision For roads that generate less than 10,000 vehicles per day.

Section 06 Connector Street



12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.4

Roads and Active Transport

Centre Access Street

Function Centre Access Streets provide direct property access to commercial centre activities, and support a high level of pedestrian and cycle activity.

Development Standards

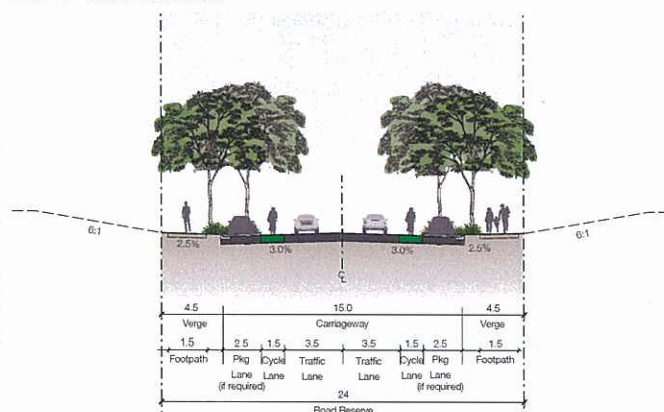
Road reserve width 24 m

Typical features

- 2 traffic lanes (1 each direction)
- Minimum 1.5 m wide footpaths both sides
- 2.5m on-street parking both sides
- 1.5 m cycle lane both sides
- 15 m carriageway width (including parking)
- No median
- Direct property access
- Posted speed 50 km/h unless sign posted otherwise
- Refer indicative Section No. 07
- Minimum intersection spacing 100 m
- Opportunities for WSUD including biopods and linear treatment trains
- Upright kerb type

Provision For roads that generate less than 5,000 vehicles per day.

Section 07 Centres Access Street



12.4

Roads and Active Transport

Centre Lane

Function Centre lanes provide access to the rear of buildings, including access for loading and delivery vehicles. Centre lands are not intended as an alternative route option for through traffic and should not be designed as such.

Development Standards

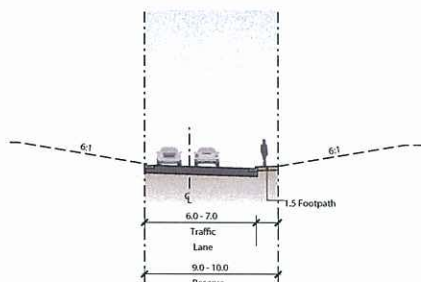
Road reserve width 9-10 m

Typical features

- 2 traffic lanes (3-3.5 m), one in each direction
- Not on bus routes
- No provision for cycleway
- Minimum 1.5m footpath - may be shared surface and may be on one side only
- No on-street parking - short-term loading/unloading excepted
- 6-7m carriageway
- No median
- Direct property access
- No traffic calming
- Posted speed 50 km/h unless sign posted otherwise
- Refer indicative Section No. 08
- Minimum intersection spacing 50 m
- Opportunities for WSUD including biopods and linear treatment trains

Provision For roads that generate less than 1,000 vehicles per day.

Section 08 Centre Lane



12.0

INFRASTRUCTURE NETWORKS AND STANDARDS

12.4

Roads and Active Transport

INDUSTRIAL STREET NETWORK

Industrial Connector Street

Function Provides routes via access streets to industrial destinations. Low requirement for cyclists and pedestrian accessibility.

Development Standards

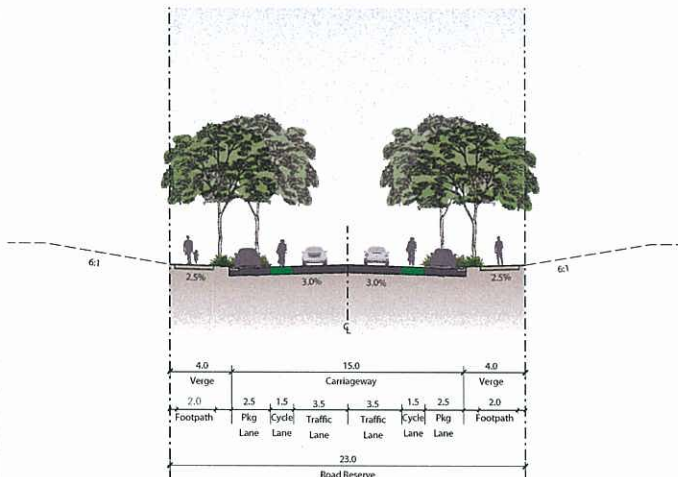
Road reserve width 25 m

Typical features

- 2 traffic lanes (1 each direction)
- 1.5 m wide cycle lane both sides
- 1.5 m wide footpaths, minimum 1 side
- 2.5 m on-street parking both sides
- 1.5 m cycle lane both sides
- 15 m carriageway width
- No median
- Limited direct property access
- Posted speed 60 km/h
- Refer indicative Section No. 09
- Minimum intersection spacing 150 m
- Opportunities for WSUD including biopods and linear treatment trains

Provision For roads that generate less than 7,500 vehicles per day.

Section 09: Industrial Connector Street



12.4

Roads and Active Transport

Industrial Access Street

Function Industrial Access Streets provide direct access to properties. Parking lanes on both sides to cater for employees and a footpath on one side of the street.

Development Standards

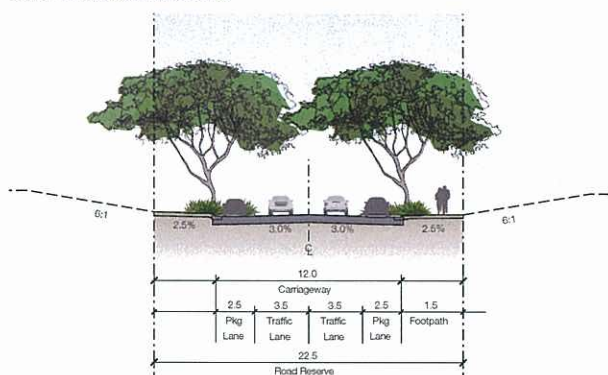
Road reserve width 22.5 m

Typical features

- 2 traffic lanes (1 each direction)
- No priority bus routes
- No provision for cycle way
- 1.5 m footpath on one side
- 2.5 m on-street parking on both sides
- 12 m carriageway width (including parking)
- No median
- Direct property access
- No traffic calming
- Posted speed 50 km/h unless sign posted otherwise
- Refer indicative Section No. 10
- Minimum intersection spacing 100 m
- Roll-over kerb
- Opportunities for WSUD including biopods and linear treatment trains

Provision For roads that generate less than 5,000 vehicles per day.

Section 10 Industrial Access Street



12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.4

Roads and Active Transport

Minimum Widths of Infrastructure Elements within Road Corridors

Infrastructure Element	Width (Metres)
Road (general traffic lane)	3 - 3.5
Parking Lanes	2.1 - 2.5
Parking Lanes (where shared with cycle lanes)	4.0 - 4.5
Parking Lanes (where shared with bus bays)	3.5
Dual use paths	2 - 3.5
Footpaths	1.5 - 4.5
Recreation paths	1.5 - 3.5
Cycle Commuter paths	3
Cycle lanes	1.5
Bus lanes	3.5 - 4.0
Median	2 - 6
Verge	0 - 6
Laneways 2-way shared	4.5

12.5

Water Quality Management and Compliance Regime

This section of the Master Plan further outlines the commitment to protecting the health of Pumicestone Passage.

Local waterways and Pumicestone Passage will be protected through the adoption and mandatory implementation of the following Water Quality strategy.

This Master Plan requires subsequent development applications to detail (for the purpose of demonstrating compliance) the appropriate best practice environmental controls. This is to be relevant to the specific design detail of each development proposal, including achieving water quality objectives.

12.5.1

Objectives

There is a number of government standards which set the framework for water quality management and compliance at Caloundra South (refer to Table 28).

Table 28 Water Quality Management Standards

AUTHORITY	OBJECTIVES / STANDARDS
Development Scheme	Development protecting downstream receiving waters by demonstrating that stormwater discharges from the site do not contribute to change in receiving water quality as it relates to: - the water quality objectives specified in the Pumicestone Passage Environmental Values and Water Quality Objectives set in the Environmental Protection (Water) Policy 1999, in particular the area within Basin No. 141 designated as area PLE - Pumicestone Passage North (Enclosed Coastal/Lower Estuary); - the water discharge requirements specified in the State Planning Policy 4/10 Guideline Healthy Waters and its supporting document 'Urban Stormwater Quality Planning Guidelines 2010'.
DEHP	DEHP has defined adjacent sections of Pumicestone Passage as having High Ecological Value (HEV) status in the Environmental Protection Policy (EPP) – Water (2009). The commensurate Water Quality Objective (WQO) which accompanies this designation is of the nature of 'no change', but more specifically is quantified as: "maintain existing water quality (20th, 50th and 80th percentiles)".
SEWPaC	The Federal Department of Sustainability, Environment, Water, Population and Communities (SEWPaC), with others, has defined sections of Pumicestone Passage and associated waterways as having RAMSAR wetland status. The associated significant criteria which accompany this designation are aimed at: - protecting important wetlands; - achieving a no net worsening in the hydrological regime of the wetland (e.g. volume, timing, duration and frequency of surface and groundwater flows); - protecting the habitat or lifecycle of native species associated with Pumicestone Passage and Bells Creek; - achieving a no net worsening in the water quality of the wetland (e.g. salinity, pollutants, nutrients and water temperature) which may adversely impact on biodiversity, ecological integrity, social amenity or human health.

12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.5

Water Quality Management

12.5.2

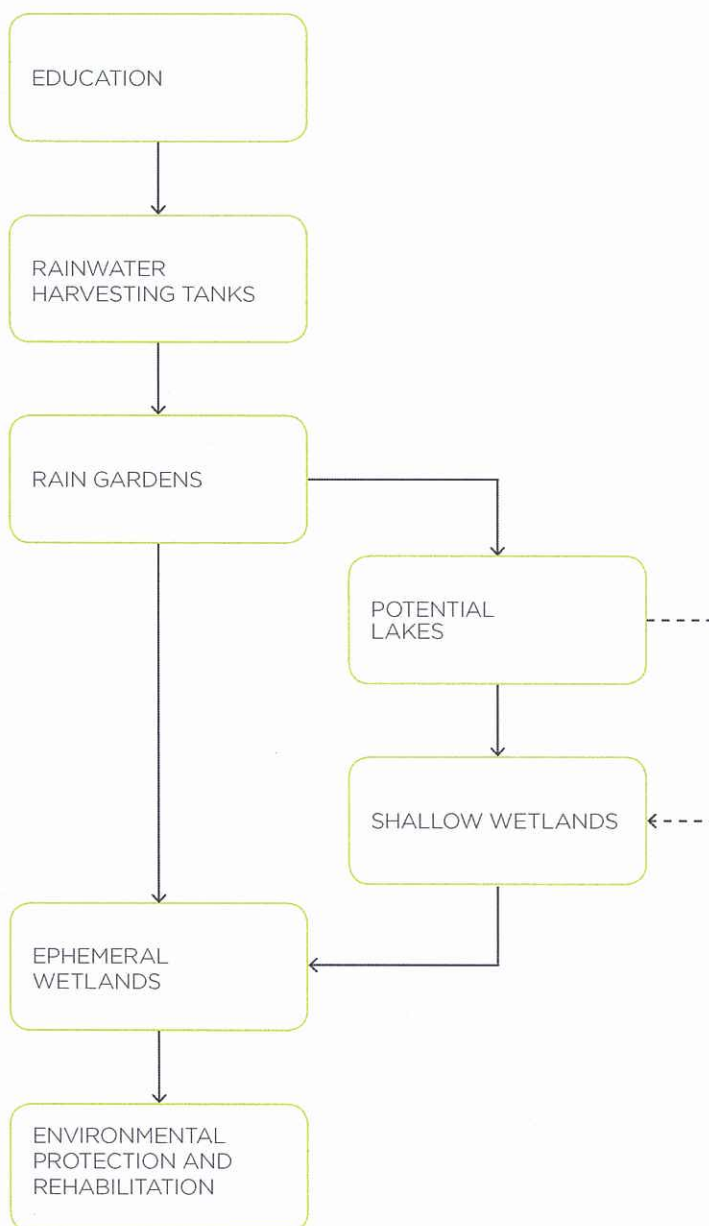
Water Quality Management Approach

All development will be required to implement Water Sensitive Urban Design (WSUD) 'Beyond Current Best Practice' (i.e. achieving a higher level of WSUD than the 'best practice' requirements typically imposed on development projects. This is to achieve no net worsening of the water quality entering the Pumicestone Passage. This will require an integrated and holistic approach to stormwater and water demand management. It is anticipated that the WSUD strategy will include a combination of the following:

- Education;
- Rainwater tanks and demand reduction strategies;
- Rain gardens;
- Potential lakes;
- Shallow wetlands;
- Ephemeral wetlands; and
- Rehabilitation and protection of waterways.

The application of initiatives and other options will be considered in conjunction with subsequent applications, including the need to ensure section 3.3.8 of the Development Scheme is achieved.

Stormwater Treatment Train for Caloundra South



12.5.3

Implementation and Compliance

The following Table 29 provides examples of the water quality management initiatives that could be implemented and at which stage of the development the outcomes may be demonstrated.

Table 29 Examples of Water Quality Management Initiatives

EDUCATION		
Goal	Initiative	Implementation
Community education and support is a key factor in the success of this strategy. An education program is to be implemented to increase residents' understanding and acceptance of water quality objectives and WSUD applications. Through community awareness and leadership, potential pollutant loads can be decreased at source.	An education program is expected to include a combination of: - educational signage installed at appropriate locations (e.g. Village entries and adjacent to WSUD assets, explaining the process for treating and cleaning storm water); - public advertising and displays; - training and educational programs; - modules within school curricula; - WSUD information pack provided to each purchaser of land within Caloundra South.	Outcome to be achieved at all stages of development
RAINWATER TANKS AND DEMAND REDUCTION		
Goal	Initiative	Implementation
Development is to be designed to reduce peak and volumetric stormwater discharges from the site.	Development on each lot is to ensure that: - rainwater tanks are used to capture roof water - minimum 70% of rain water from roofs is captured for reuse; - all buildings use water efficient appliances and products to reduce potable water consumption	Outcome identified in subsequent applications

12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.5

Water Quality Management

RAIN GARDENS

Goal	Initiative	Implementation
Rain Gardens (bioretention system) are to be designed and located to maximise the treatment of urban storm water prior to the discharge of urban storm water to down stream lakes, shallow wetlands and ephemeral wetlands ³²	Development is to ensure that: - rain gardens are integrated into the streetscapes urban open space and linear corridors to maximise receipt of stormwater - they are designed to have a filter depth of approximately 0.6m and estimated definition depth of 0.2m	Outcome identified in subsequent applications

LAKES

Goal	Initiative	Implementation
Lakes are to be designed and maintained to protect the water quality outcomes of the site and enhance the community's understanding and engagement with the water cycle.	Lakes will be designed and operated with careful consideration to best practice design guidelines and experience to maximise their sustainability and minimise any risk of operational problems. It is anticipated that 'polishing' of lake waters will be provided by recirculation of lake waters through 'shallow wetlands'. Development is to establish shallow wetlands integrated within or adjacent to the proposed lakes. These shallow wetlands will be densely vegetated and provide treatment to incoming stormwater flows and recirculated lake waters.	Outcome identified in subsequent applications

Example of Rain Gardens



Example of Lakes



³² Alternate Strategies may be implemented with highly urbanised areas (i.e. Town Centre) and could include the use of Tree Pits and Rain Vaults.

AMENDED IN RED
13 JUN 2012
 By: [Signature] (name)
 of the ULDA

12.5

Water Quality Management

EPHEMERAL WETLANDS

Goal	Initiative	Implementation
Development is to establish ephemeral wetlands that are integrated within the open space network, provide treatment of urban storm water and maximise infiltration into the in-situ soil.	Ephemeral Wetlands within the open space network; - provide additional stormwater treatment prior to discharge to Bells Creek (North & South) and Lamerough Creek; - are densely vegetated; - are designed to allow infiltration of the stormwater inflows into the in-situ soil; - are designed to achieve flood immunity from a 2 year ARI flood event in Bells Creek (North & South) and Lamerough Creek; - are located a minimum of 50 metres from the centre line <i>on the water edges</i> of Bells Creek (North & South) and Lamerough Creek.	Outcome identified with Reconfiguration of a Lot application

REHABILITATION AND PROTECTION OF WATERWAYS

Goal	Initiative	Implementation
Rehabilitation of the environmental protection zone and riparian corridor improves the health of the waterway areas through improved catchment hydrology, reduced pollutant loads and provides additional stormwater treatment	The creation of a 100m wide rehabilitated ecological corridor along each creek line to improve water quality and waterway ecosystem health.	Rehabilitation to commence with the first stage of development

Examples of ephemeral wetlands



12.0 INFRASTRUCTURE NETWORKS AND STANDARDS

12.5

Water Quality Management

CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN ³³

Goal	Initiative	Implementation
A detailed Construction Environment Management Plan (CEMP) must be prepared for each phase of construction, detailing how relevant water quality objectives will be achieved.	Consistent with industry best practice, the Construction and Environmental Management Plan (CEMP) is expected, as a minimum, to include the following requirements: • construction works will be staged in manageable parcels so that the construction area at any one time will be minimised; • soil erosion risk mapping will be undertaken to identify those areas of the development footprint which may be more at risk of generating unacceptable levels of sediment during the construction stage. Special care and additional measures will be applied to this area during works; • all erosion and sediment controls (such as shake down pads, sediment fences, sediment basins etc) are to be installed prior to any soil disturbance and will remain in place until the area of disturbance is fully stabilised; • all exposed areas will be stabilised in a timely manner and their extent minimised via the use of appropriate techniques such as mulching, temporary turfing etc.; • rainfall forecasts will be reviewed on a daily basis and where predictions are for heavy rains, precautionary measures will be put in place (eg. emptying of sediment basins); • all 'clean' water above the works areas will be diverted around areas of disturbance via stabilised flow paths; • work in wet weather that could impact water quality will be minimised; • appropriate erosion and sediment control measures will be implemented along construction haul roads; • sediment basins will be installed to capture runoff from disturbed areas; basins will be of appropriate size so that suspended solids can be held and treated prior to discharge (at a level greater than that required under current state and local government guidance);	To be prepared and lodged with the Operational Works Certification

³³ It is acknowledged that environmental management is a dynamic and evolving field and there is likely to be innovation across such a long-term project. Continued research, applied expert guidance and consultation with the community and regulators will occur over time and associated improvements and amendments made, as required, to construction and management practices.

12.5

Water Quality Management

CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN - Cont.

Goal	Initiative	Implementation
	- sediment fences will be installed to provide further protection and retention of runoff from disturbed areas. They will be placed along contours and will include overflow weirs to prevent scour and failure of devices; - all construction staff are to be trained by a suitably qualified person in the requirements of the CEMP; - at all times, a vegetated or grassed buffer will be preserved between those parcels of land being developed and those waterway corridors passing through the site; - the principal contractor will be required to implement and report on an erosion and sediment control monitoring regime that will be regularly audited by an independent third party; - ensure that when contracting site earthworks and building works, there are appropriate contractual penalties applied to site contractors in the event of unacceptable runoff contamination in order to encourage greater diligence; - detailed Erosion and Sediment Control Plans will be developed for each phase of construction works and submitted in subsequent applications for review and approval prior to any development commencing; - robust event-based monitoring campaigns will also be initiated downstream of those areas being developed using telemetered turbidity sensors. Should these sensors detect turbidity levels in site runoff which exceed predefined threshold levels, alarm signals will be sent to Master Developer/site construction personnel so that they can investigate the cause and urgently undertake appropriate corrective actions; - ambient monitoring programs in site waterways will also be conducted as a further quality control mechanism for site sediment and erosion control.	

12.0

INFRASTRUCTURE NETWORKS
AND STANDARDS

12.5

Water Quality Management

MONITORING OPERATIONAL PHASE

Goal	Initiative	Implementation
Establish a best practice water quality management program and reporting framework during the operational phase of the project.	Water quality monitoring of the site is to include the use of the following: • telemetered monitoring with turbidity sensors to be located down stream of development; • event-based and ambient water quality monitoring within Bells Creek North, Bells Creek South and Lamerough Creek; • lake water (and sediment) quality monitoring; • ecosystem health monitoring of Bells Creek.	Annual reporting following commencement of activities on site



13.0 ADMINISTRATION

AMENDED IN RED
13 JUN 2012
 By: J.H. Lee (name)
 of the ULDA

13.1 Currency and amendments particulars

In accordance with Section 76(4)(b) of the Urban Land Development Authority Act 2007, an alternative currency period is able to be granted for the development approval.

The development will be carried out over a number of stages and will take place over an extended timeframe. Therefore, a currency period of forty (40) years is requested in this instance.

13.2 Definitions

Unless otherwise defined by this Master Plan, the definitions of the Caloundra South Urban Development Area Development Scheme October 2011 apply. In addition to those terms defined in the Development Scheme, the following definitions apply to the Caloundra South Master Plan. Where there is a conflict between these definitions and others, these definitions prevail.

Term	Definition
Act	The <i>Urban Land Development Authority Act 2007</i> .
Adjacent	Situated near; very close; proximal
Active Street / Uses	Contiguous string of business or retail land uses that open directly to, or addressed to the street, footpath or other public open space to the effect of creating active, people-orientated street frontages.
Arts Strategy	A policy and action plan developed in accordance with <i>Artbeat</i> to support the planning and delivery of arts and cultural infrastructure.
Associated Activity	An activity that is: (a) allied to the main activity on the same site; (b) compatible with the main activity on the same site; and (c) subordinate to the main activity on the same site.
Best Practice	A method or technique that can be substantiated as producing results superior to those achieved by other conventional or outdated means, such as to be recognised as achieving an agreed benchmark capable of evolving as improved methods become available.
Caloundra South Development Scheme	The Caloundra South Urban Development Area Development Scheme (as approved October 2011)
CAMCOS	Proposed rail line connecting the Brisbane suburban network at Beerwah with Maroochydore (as identified by the 'Caloundra and Maroochydore Corridor Study').
Central Park	A major sport and recreation space located proximal and to the south of the Town Centre, providing a regional hub for major sports, passive, recreation and environmental protection/amenity purposes.
Coast Connect	A bus corridor from Caloundra to Maroochydore including bus priority lanes, bus stations in key activity areas, bus stop upgrades, and bus queue bypasses.
Cycle End of Trip Facility	Dedicated amenities that are publicly accessible for bike storage area, lockers and change facilities
Dedicated high frequency bus corridor	A high frequency "Urbanlink" bus service identified for strategic corridors as defined by the Queensland Department of Transport and Main Roads publication <i>Connecting SEQ 2031 - An Integrated Regional Transport Plan for SEQ</i> .
Display Home (or Display Unit)	Means the temporary use of premises for the promotion and/or sale of land and/or houses ^{units} within an estate, where such premises are located within the estate which is proposed to be promoted or sold.
Eco sanctuary	The natural value area which is the target of land rehabilitation east of the Town Centre and within the Environmental Protection Zone, for the purpose of delivering an interpretive experience trail through the conservation areas connecting the northern Community Hub to the Town Centre.
Enabling infrastructure and works	Infrastructure and works essential to prepare a precinct for building work.
Explanatory Content	Content that is not intended to be used to assess subsequent applications.

Term	Definition
Infrastructure Lot	Any lot created to coincide with and to accommodate an item of infrastructure required for development within the Master Plan Area.
Main Street	"The Main Street" is located in the Town Centre Core with high levels of pedestrian use and amenity, connecting the plaza of the People's Place to the Transit Centre and Central Park.
Master Developer	Is reference to Stockland Development Pty Ltd (ACN 000064835)
Master Plan	The approved Caloundra South Master Plan for the site.
Master Plan Area	The Area shown on Master Plan Map 2 - Environmental Connectivity Plan being: • Lot 22 SP190373 (part) • Lot 505 RP884348 (part) • Lot 3 RP910849 (part)
Minister	The Minister responsible for implementing the Act.
Mixed Use Centre	A balanced mix of different but co-dependent land uses including and not limited to a range or retail, commercial, residential, short-term accommodation and entertainment venues, etc. which promote efficient access for users.
MMTC	Abbreviation of the Multi-Modal Transport Corridor as required and defined by the Queensland Department of Transport and Main Roads.
Nominated Assessing Authority	Pursuant to Section 58 of the <i>Urban Land Development Authority Act 2007</i> (the Act) means: (i) for operational works:- a. the Chief Executive Officer of the Urban Land Development Authority (ULDA) or their delegate; b. a Certifier as agreed to by the ULDA; or c. if the site is no longer within a declared Urban Development Area under the Act, the local government or entity responsible for assessing and deciding planning and/or development applications in the area. (ii) for other matters:- a. the Chief Executive Officer of the Urban Land Development Authority (ULDA) or their delegate; or b. if the site is no longer within a declared Urban Development Area under the Act, the local government or entity responsible for assessing and deciding planning and/or development applications in the area.
Now, New and Next Sustainability Approach	Now: the existing or current standard approach for technologies or best practice implementation. New: the emerging opportunities for piloting of technologies or implementation approaches. Next: over the horizon opportunities that might be suitable for further investigation and research.
Peoples Place	An area of public space located within the Town Centre, adjoining the northern boundary of the Town Centre Core, for the provision of a mixture of passive and active recreational opportunities including formal gardens, major community facilities, aquatic facilities and events spaces. Refer Part 11.3.

Term	Definition
Plan of Development (PoD)	A PoD may accompany an application for a Material Change of Use or Reconfiguration a Lot and may deal with residential or non-residential uses as well as operational work. A PoD is prepared by an applicant and may include maps, graphics and text. A PoD cannot include land beyond the boundary of land the subject of the Application.
Planning Content	Content that is to be used to inform subsequent applications to the extent outlined in the relevant Part of the Master Plan.
Precinct	Provides a spatial reference to the appropriate allocation of land uses throughout each of the Localities. Refer Part 8.
Road	A local government road or a State-controlled road.
Shopfront	The ground level façade for the display and retailing of goods and personal services with a pedestrian entry point to the premises.
Super Lot	A lot created from a parent lot or lots, with the intention of being further subdivided at a point in the future and for the purpose of accommodating particular development facilitated by the Master Plan, but to also be the subject of further development applications.
Temporary or Interim Land Uses	Uses that operate for not more than 10 years, and are directly associated with an approved and complementary land use or are directly related to the construction within the Master Plan Area (such as borrow pits, stockpiles, crushing and screening plants, storage yards).
Transit Centre	Accommodates the major passenger terminal within the Town Centre Core, for servicing by a dedicated high frequency bus corridor connected to the Kawana Arterial road, together with the CAMCOS transit corridor and local and sub-regional transport services.
Waterway	A passage for water or a body of water, including all orders of perennial and ephemeral streams (lined or unlined), rivers and other wetlands, and bays.