

**COMMUNITY MANAGEMENT PLAN  
FOR PUBLIC LANDS ON LOTS 46/47 DP751395  
(No's 52/54) MILES STREET, YAMBA**

## **Introduction**

The subdivision of the subject land involves the dedication of the following to Clarence Valley Council as public land:

- Lot 901: Western detention basin
- Lot 902: Eastern detention basin
- Lot 903: Floodway
- Lot 904: Second Order Stream
- All road reserves

Dedications will take place at the appropriate times as determined by Council. Prior to dedication the owners will be responsible for management of the lands; upon dedication this responsibility passes to Council.

## **Management Regimes**

1. Western and Eastern Detention Basins

These will be turfed and mown by owner until dedication and then by Council.

2. Second Order Stream

The Vegetation Management Plan – Lot 46 DP751395 (Geolink 19 August 2022). The Vegetated Riparian Zone within this area requires revegetation to meet the requirements of the Controlled Activity Approval issued by the Department of Water. On-going maintenance of the whole area is restricted to weed control.

## **Floodway**

The Vegetation Management Plan – Lot 47 DP751395 (Geolink 22 August 2022) at Section 4 addresses vegetation management in the floodway. Existing pasture land will require tractor slashing 3 times annually (December, February, April) when conditions are suitable and ongoing weed control. The forested areas require weed control. Maintenance is the responsibility of the owner until such time as the floodway is dedicated to Council.

## **Road Reserves**

These will be dedicated to Council in stages upon construction.

Roads 1 and 11 include sections which act as Asset Protection Zones. These include batters and verges which will be planted and maintained to meet the Inner Protection Areas (IPA) as specified in the Bushfire Risk Management Plan (Bushfire Safe Aust, December 2022).

This is addressed in Section 3.10 Bushfire Asset Protection Zones, Landscape Strategy (Zone Landscape Architecture, Revision E 23 November 2023). This includes planting Grade 'A' turf in the APZ sections of the Road 1 and 11 road reserves and street native tree plantings that meet the maximum 15% mature tree canopy coverage and 2-5m canopy separation as specified in the IPA standards.

Turf areas within the APZ road reserves will be maintained to a height less than 100mm as specified. This maintenance will be by Council in respect of batters and verges adjacent to retained vegetation and individual landowners in front of their properties.

**Public Parks**

The major and minor parks will be dedicated to Council upon release of the subdivision stages in which they are located and Council will maintain them in accordance with its standard procedures for suburban parks.

# Landscape Strategy

# **Yamba Gardens**

## Miles Street, Yamba

**Project Reference:** L22133

**Author:** Jon Brooksby | Zac Petersen

**Revision:** E | 23.11.23

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# Document Control

## Document Revisions

Rev.	Comments	Date	Initial
A	Preliminary Issue	18.08.2022	ZP
B	Amended Issue	14.12.2022	ZP
C	RFI Issue	16.12.2022	ZP
D	RFI 2 Issue	18.04.2023	ZP
E	Bushfire Amendments	22.11.2023	ZP

## Document Sources

Rev.	Base Information	Issued By	Issued
A	Engineering Bases	Mortons	02.08.22
A	Engineering Bases	Mortons	05.08.22
A	Engineering Bases	Mortons	08.08.22
A	Engineering Bases	Mortons	12.08.22
A	Engineering Stormwater Bases	Mortons	11.08.22
A	Vegetation Management Zone Lot 47	GeoLINK	8.08.22
A	Vegetation Management Plan Lot 46	GeoLINK	11.08.22
A	Vegetation Plan Lot 47	GeoLINK	18.08.22
C	Engineering Bases	Mortons	14.12.22
D	Engineering Bases	Mortons	04.04.23

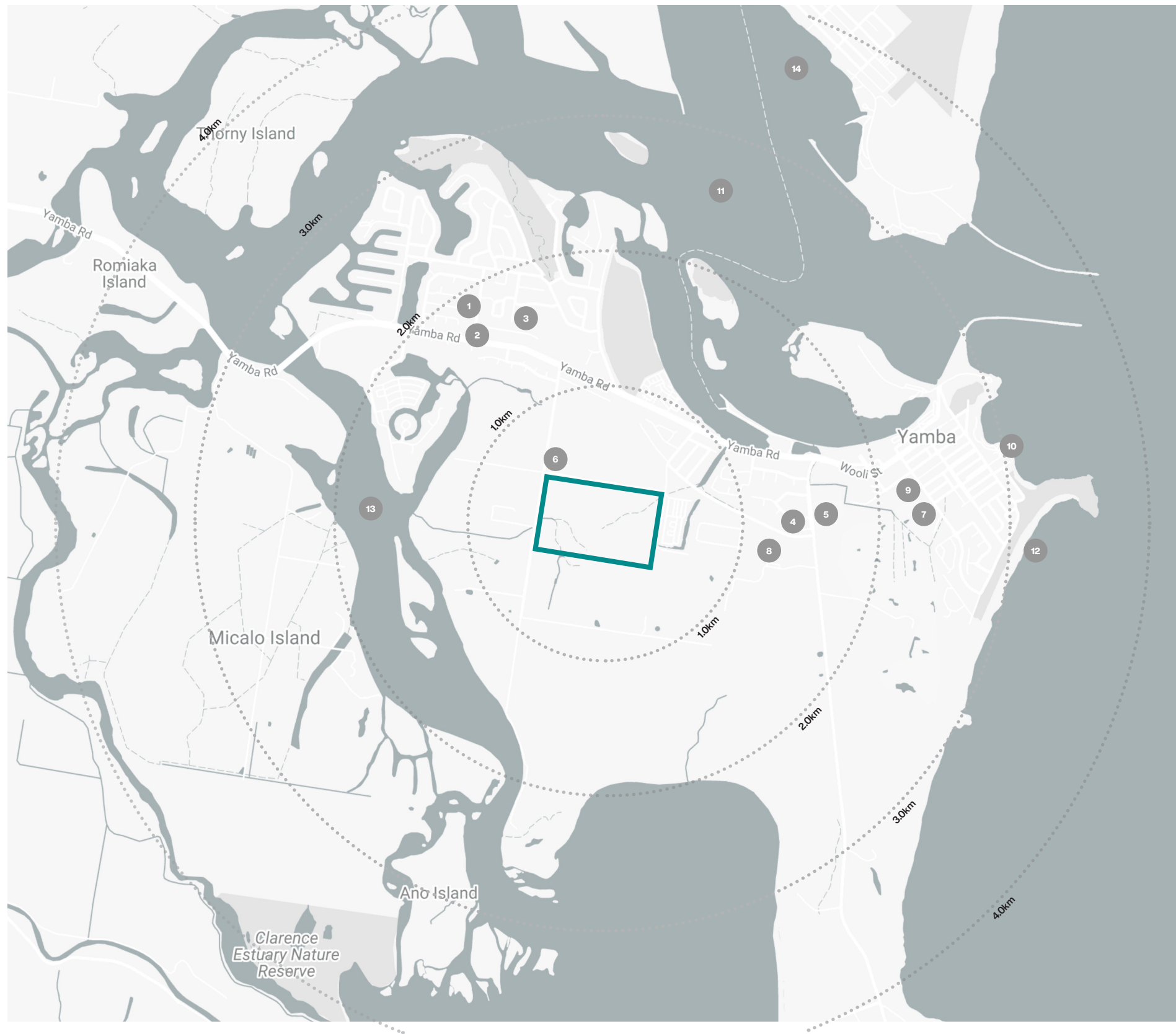


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# 1.0 Site Locality.





- Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395
- 1 Yamba Fair Shopping Mall
  - 2 Shell Service Station
  - 3 Yamba Community Gardens
  - 4 Yamba Mitre 10
  - 5 Yamba Public School
  - 6 St James Catholic Primary School
  - 7 Yamba Golf & Country Club
  - 8 Raymond Laurie Sports Centre
  - 9 Lions Park
  - 10 Yamba Beach
  - 11 Clarence River
  - 12 Woolli Bay
  - 13 Oyster Channel
  - 14 Illuka Bay

Site Locality

## 1.1 Locality Plan Surrounding Features

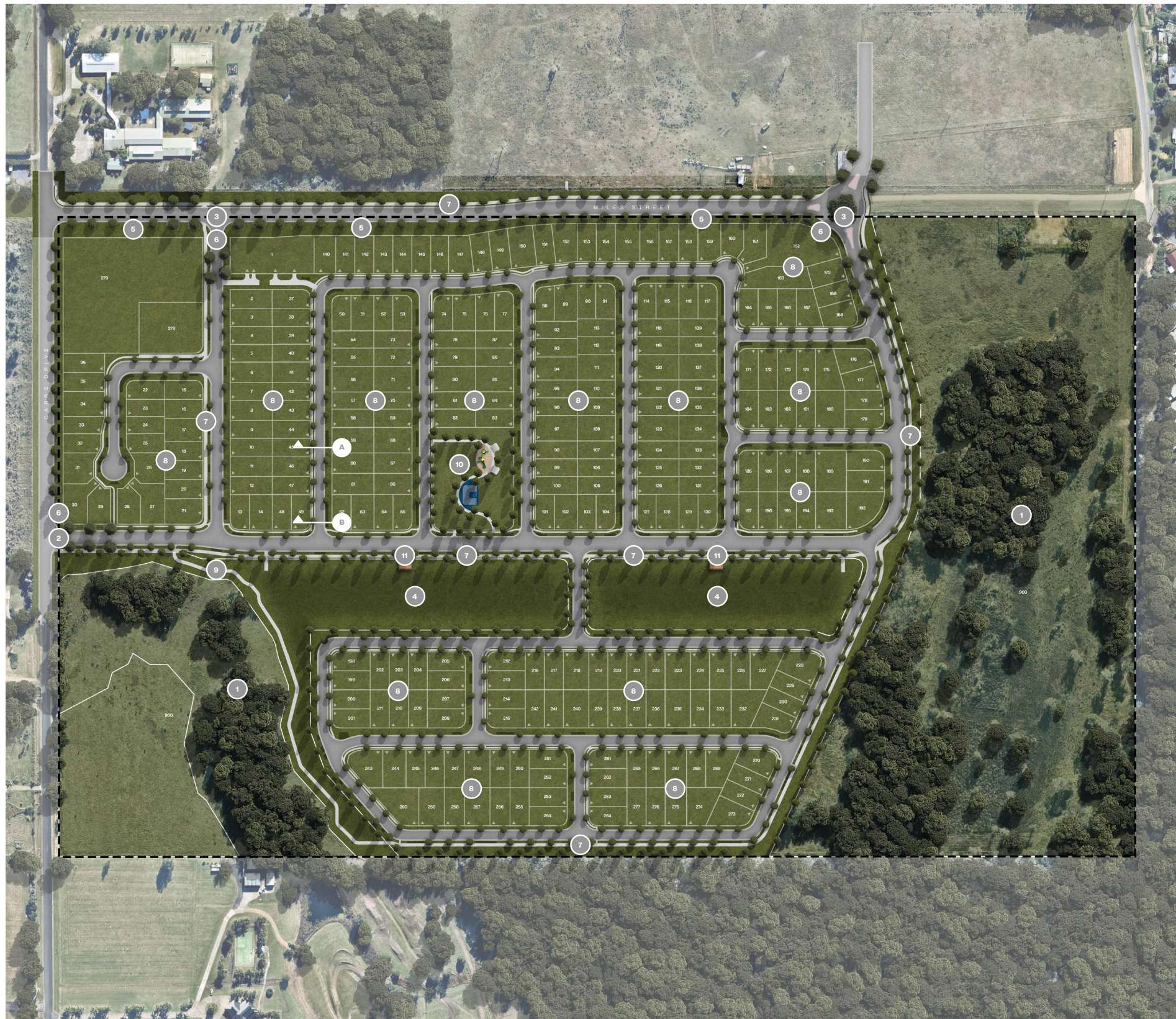




# 2.0 The Proposal.







## Yamba Gardens Miles Street Yamba













### Landscape Strategy

The proposed development is for a 277 lot subdivision located on lots 45//751395 & 47//751395, **Miles Street, Yamba**. The subject site is located within R1 - General Residential zoned land and is located in proximity to Yamba Road.

The subdivision incorporates a public road network (with connectivity to Miles Road), stormwater management systems, passive open space and active open space located throughout the development to promote walkability.

This Landscape Strategy document conceptually details all proposed landscape treatments within the streetscape, park and stormwater areas of the estate ensuring a consistent and coherent design character is achieved within the estate as well as compliance with the **Clarence Valley Urban Tree Management Strategy** and the **Yamaba Street Tree Masterplan**.

The primary features of the development are summarised below, detail is provided within the subsequent plans included in this report.

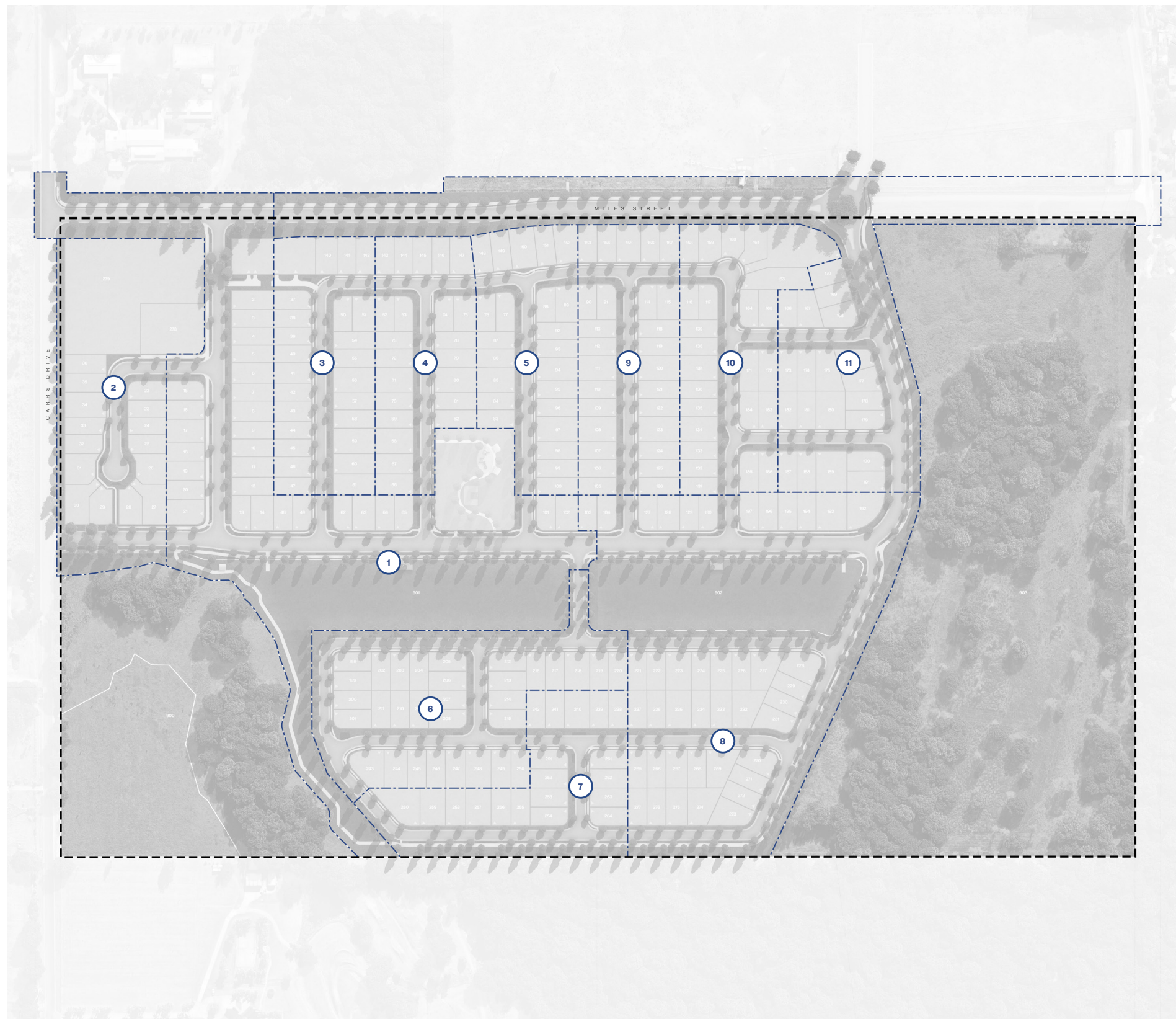
-  **Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395
-  **Existing Retained Vegetation**
-  **Development Entry**
-  **Secondary Development Entry**
-  **Stormwater Treatment Areas & Passive Open Space**
-  **Frontage Swale**
-  **Entry Statement**
-  **Pedestrian Pathway**
-  **Dwelling Lots**
-  **Public Open Space**
-  **Local Park**
-  **Pedestrian Viewing Platforms**

The Proposal

## 2.1 Masterplan Development Overview






**Subject Site**

Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395


**Stage Boundaries**

Yamba Gardens proposed staging. Stages 1 to 11.

The Proposal

## 2.2 Masterplan Staging



# 3.0 Landscape Design.







Landscape Design

# 3.1 Primary Landscape Areas

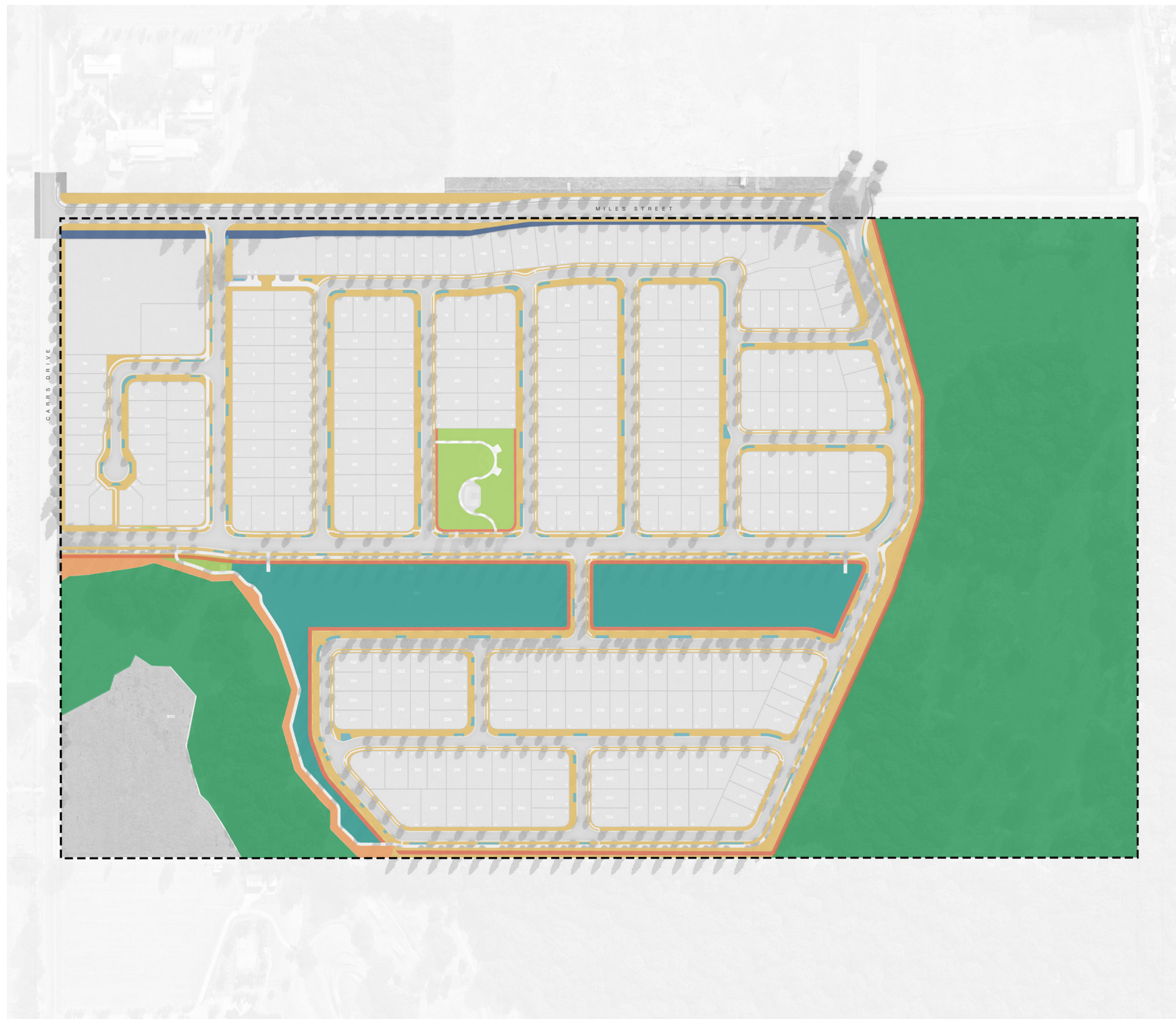


## Subject Site

Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395

- 1
- Existing Retained Vegetation**  
Areas of retained vegetation are proposed throughout the development. Refer to **Section 3.7 Vegetation Management Zones** for vegetation management areas. Refer to **Vegetation Management Plans** prepared by GeoLINK Environmental Management & Design for further details on treatments proposed maintenance/management of these areas.
- 2
- Primary Estate Entry**  
Primary development entry off Carrs Drive. Primary entry to feature estate entry statement for the development. Entry Statement to future design.
- 3
- Secondary Estate Entry**  
Secondary development entry off Miles Street. Secondary entry to feature minor entry statement (estate signage). Entry Statement to future design.
- 4
- Detention Basins**  
Stormwater detention basins to be turfed to increase the area of passive recreation available throughout the development. Refer to civil engineering plans prepared by Mortons Urban Solutions and Biome for all stormwater treatment device details.
- 5
- Bio Pods**  
Stormwater treatment pods located throughout the development streetscape are to be planted with appropriate WSUD plantings. Refer to **Section 5.0 Planting Palettes** for species listings. Refer to civil engineering plans prepared by Mortons Urban Solutions and Biome for all stormwater treatment device details.
- 6
- Frontage Swale & Retaining Wall**  
Swale located to the frontage of the development to be planted with low, WSUD ground cover species (Refer **Section 5.6 Planting Palette: Stormwater**) where function and flow of the swale is not affected. Refer to civil engineering plans prepared by Mortons Urban Solutions and Biome for all stormwater treatment device details. Larger tree species to be incorporated where possible to soften the proposed retaining walls to Miles Road. Retaining wall to incorporate planting to steps, and include a range of cascading species, ground covers, and smaller broadleaved tree specimens. Refer **Section 5.0 Planting Palettes**.
- 7
- Entry Statement**  
Potential entry statement located on boundary of Lot 30 at Primary Estate Entry. Entry statement to future design.
- 8
- Streetscape**  
Streetscape plantings are to be achieved through traditional street tree planting within the verge. Tree species selected in accordance with the **'Yamba Street Tree Master Plan'** documentation produced by Clarence Valley Council. Selected tree species have been extracted from Zone 3 Floodplain species selections within the *Secondary Street - Residential, Minor Street (Residential) & Park Edge Floodplain (Residential)* planting selections. Tree plantings to be located to avoid all services ex. street lights, driveways, stormwater pits and bio pods. Refer to **Section 3.3 Landscape Design - Streetscape Planting & Planting Palettes Section 5.0 Planting Palettes** for species listings and locations. Grade 'A' turf is to be planted throughout the verges to the property frontage boundary. Street trees to be located 1.0m from rear of nominal kerb line to accommodate footpath located 1.5m from Nominal Kerb Line. Root guard to be installed to all trees adjacent to services.
- 9
- Local Park**  
Large formal area of open space is located to the center of the development. Central Park is classified as a Local park. Park to contain basic play equipment, shade, seating, informal active recreation (half basketball court ex.) and drinking fountain. Vehicular access is to be restricted with bollards placed along the boundary at 1.5m spacings. Secondary open space areas to include meandering footpath, and informal seating areas only.
- 10
- Public Open Space**  
Informal POS areas. New footpath proposed to meander through the POS, with potential to incorporate seating elements.
- 11
- Public Open Space - Rest Node**  
Rest node within POS area, seating and shade structure to be incorporated.





Landscape Design

## 3.2 Landscape Design Treatment Zones

2023 Nov



### Subject Site

Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395



### Streetscape

Streetscape plantings are to be achieved through traditional street tree planting within the verge. Tree species selected in accordance with the 'Yamba Street Tree Master Plan' documentation produced by Clarence Valley Council. Selected tree species have been extracted from Zone 3 Floodplain species selections within the *Secondary Street - Residential, Minor Street (Residential) & Park Edge Floodplain (Residential)* planting selections. Tree plantings to be located to avoid all services ex. street lights, driveways, stormwater pits and bio pods. Refer to **Section 3.3 Landscape Design - Streetscape Planting & Planting Palettes Section 5.0 Planting Palettes** for species listings and locations. Grade 'A' turf is to be planted throughout the verges to the property frontage boundary. Street trees to be located 1.0m from rear of nominal kerb line to accommodate footpath located 1.5m from Nominal Kerb Line. Root guard to be installed to all trees adjacent to services.



### Batter Planting

Batters throughout the development are proposed to be planted to achieve stabilisation of the batters. Tree, shrub and groundcover planting is proposed throughout these areas to strengthen the batters through the plant root matrix. Batter planting is proposed to be revegetated to match adjacent Vegetation Management Area planting species and densities. Refer to **Vegetation Management Plans** prepared by GeoLINK Environmental Management & Design for further details on treatments and species proposed to these areas.



### Living Bollard Line (Park Interfaces)

Living bollard line is proposed to all park / street interfaces throughout the development. Bollards are proposed at 1.5m spacings. Replas 'Brolga Bollard' are proposed for all interfaces in a black colour finish. Living bollard line to incorporate a tree, replacing every 7th bollard to achieve a tree spacing of approx 10.5m. Refer to **Section 3.3 Landscape Design - Streetscape Planting & Planting Palettes Section 5.0 Planting Palettes** for species listings and locations.



### Detention Basins

Detention basins located within the center of the development are proposed to be turfed to allow the basins to be used as passive open space recreation areas. Large 10x8m viewing platforms have been added to both central basins. Vehicular access is to be restricted with bollards placed along the boundary at 1.5m spacings.



### Bio Pods (Stormwater Treatment)

Bio pods are proposed for treatment of stormwater on site. Bio pods are to be planted in accordance with Water by Design Guideline species listings. Refer to **Section 5.0 Planting Palettes** for species listings.



### Frontage Swale & Retaining Wall

Swale located to the frontage of the development to be planted with low, WSUD ground cover species (Refer **Section 5.6 Planting Palette: Stormwater**) where function and flow of the swale is not affected. Refer to civil engineering plans prepared by Mortons Urban Solutions and Biome for all stormwater treatment device details. Larger tree species to be incorporated where possible to soften the proposed retaining walls to Miles Road. Retaining wall to incorporate planting to steps, and include a range of cascading species, ground covers, and smaller broadleaved tree specimens. Refer **Section 3.9 Frontage Landscape & Fencing & Section 5.0 Planting Palettes**.



### Public Open Space

Formal and informal public open space areas are located throughout the development. Large formal area of open space is located to the center of the development. Central Park is classified as a Local park. Park to contain basic play equipment, shade, seating, informal active recreation (half basketball court ex.) and drinking fountain. Vehicular access is to be restricted with bollards placed along the boundary at 1.5m spacings. Secondary open space areas to include meandering footpath, and informal seating areas only.



### Retained Vegetation

Areas of retained vegetation are proposed throughout the development. Refer to **Section 3.7 Vegetation Management Zones** for vegetation management areas. Refer to **Vegetation Management Plans** prepared by GeoLINK Environmental Management & Design for further details on treatments proposed maintenance/management of these areas.



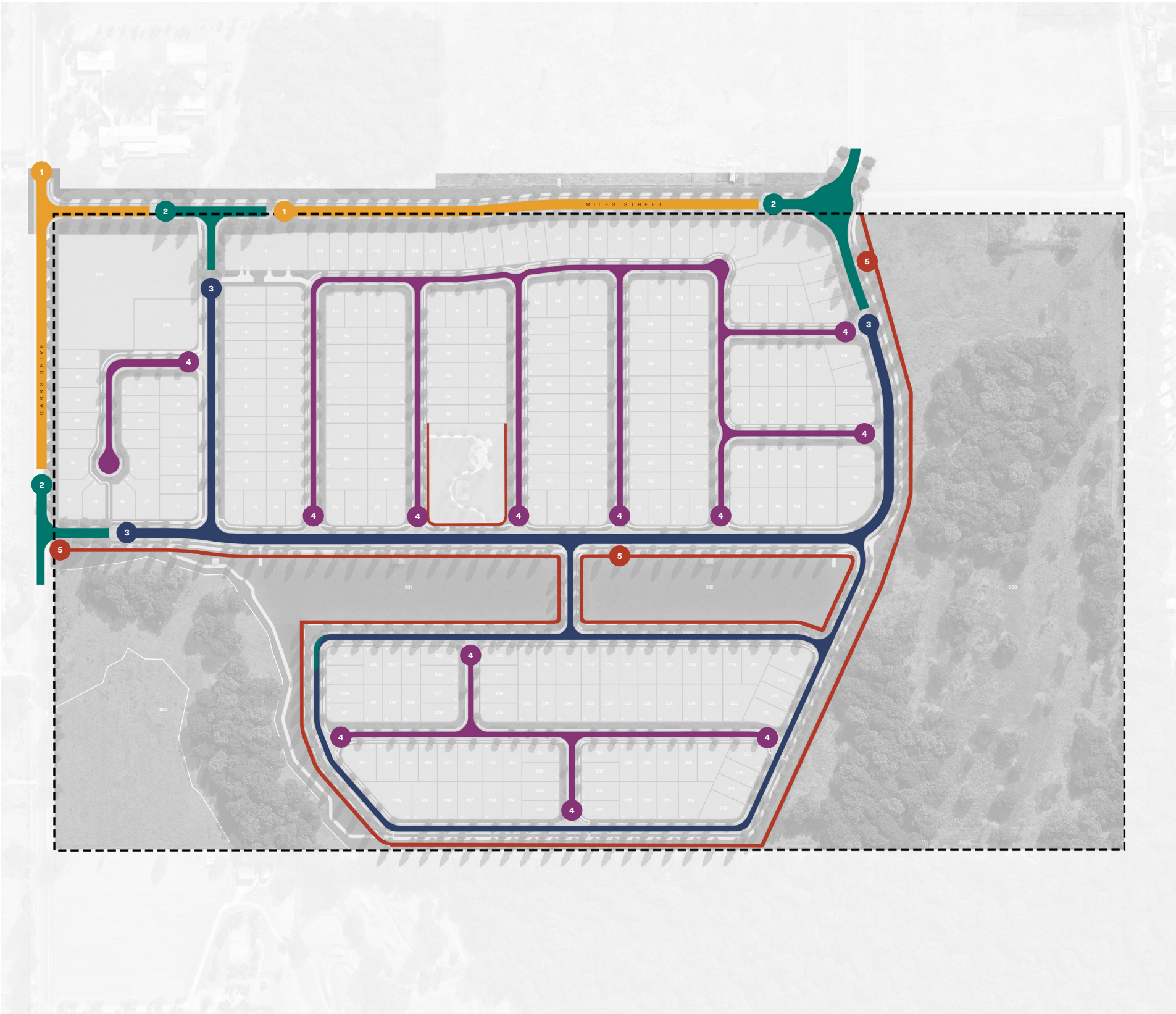
### APZ Batters

Batters located within the APZ area to be turfed. Turf areas to be maintained by CVC.

0m 50m 100m







**Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395

**Streetscape Planting**  
Tree species outlined below have been selected in accordance with the 'Yamba Street Tree Master Plan' documentation produced by Clarence Valley Council. Selected tree species have been extracted from Zone 3 Floodplain species selections within the *Secondary Street - Residential, Minor Street (Residential) & Park Edge Floodplain (Residential)* planting selections. Tree plantings to be located to avoid all services ex. street lights, driveways, stormwater pits and bio pods.

All tree stock to be supplied and installed in accordance with NATSPEC guidelines. All trees to be planted at a minimum size of 45ltr. Planting sizes specified in the table below.

- 1 Street Tree Type 1** External Streets
- 2 Street Tree Type 2** Development Entry Points
- 3 Street Tree Type 3** Primary Residential Streets
- 4 Street Tree Type 4** Minor Residential Streets
- 5 POS Interface Tree** Park Edge Living Bollard Line.

Acmena smithii	Lilly Pilly	45ltr	3
Araucaria heterophylla	Norfolk Pine	75ltr	2 5
Backhousia citriodora	Lemon Myrtle	45ltr	3 4
Corymbia gummifera	Bloodwood	45ltr	5
Cupaniopsis anacardiodes	Tuckeroo	45ltr	1 3 4
Elaeocarpus reticulatus	Blueberry Ash	45ltr	1 4
Flindersia australis	Crow's Ash	45ltr	5
Flindersia schottiana	Bumpy Ash	45ltr	3 5
Flindersia xanthoxylum	Yellowwood	45ltr	5
Glochidion ferdinandi	Cheese Tree	45ltr	4
Lophostemon confertus	Brush Box	45ltr	3
Syzygium australe	Brush Cherry	45ltr	3 4
Tristaniopsis laurina	Water Gum	45ltr	1 3 4
Waterhousea floribunda	Weeping Lilly Pilly	45ltr	1 3 5

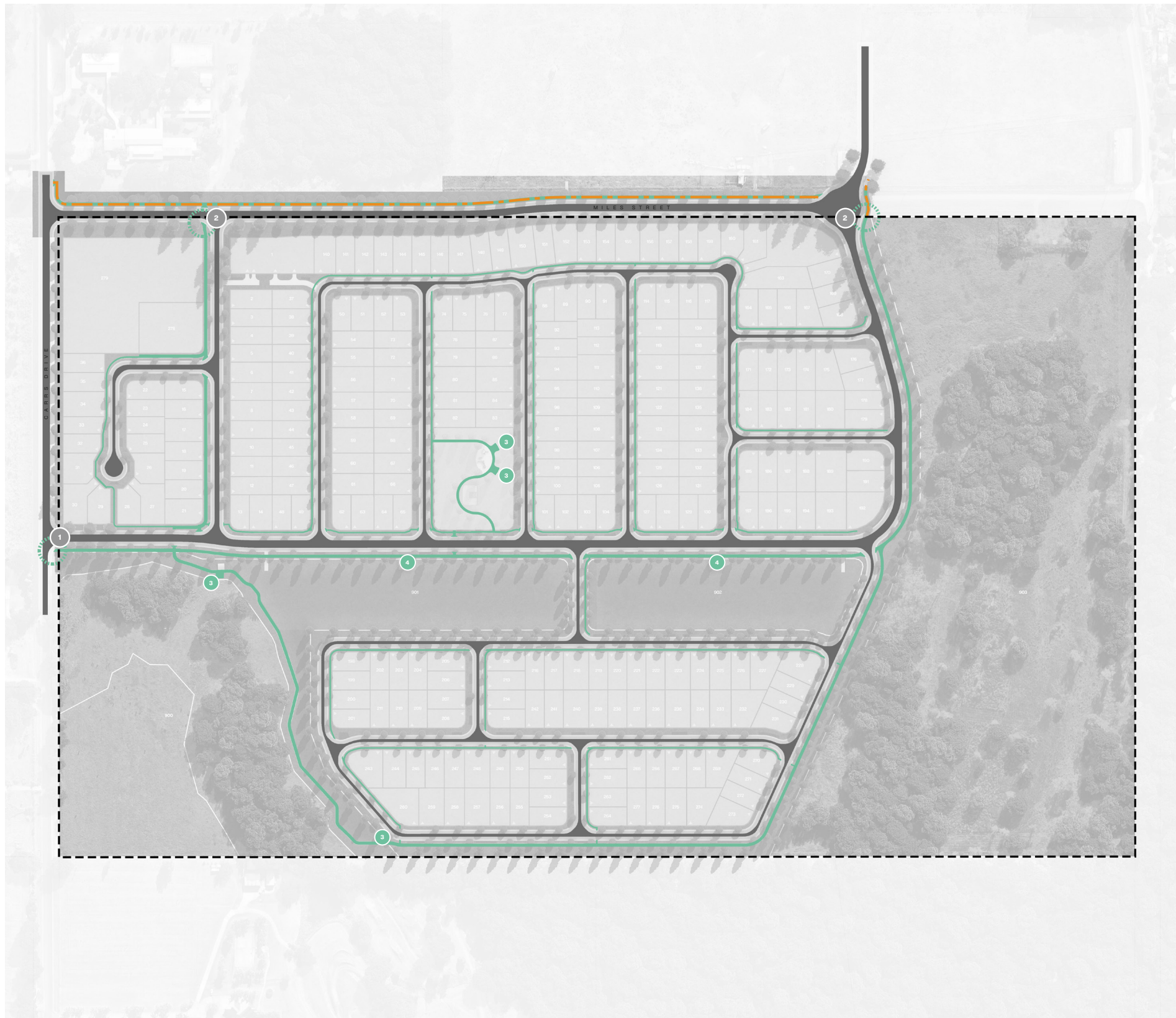
Refer to Section 5.0 Planting Palettes for further details.

Landscape Design

3.3 Landscape Design Streetscape Planting







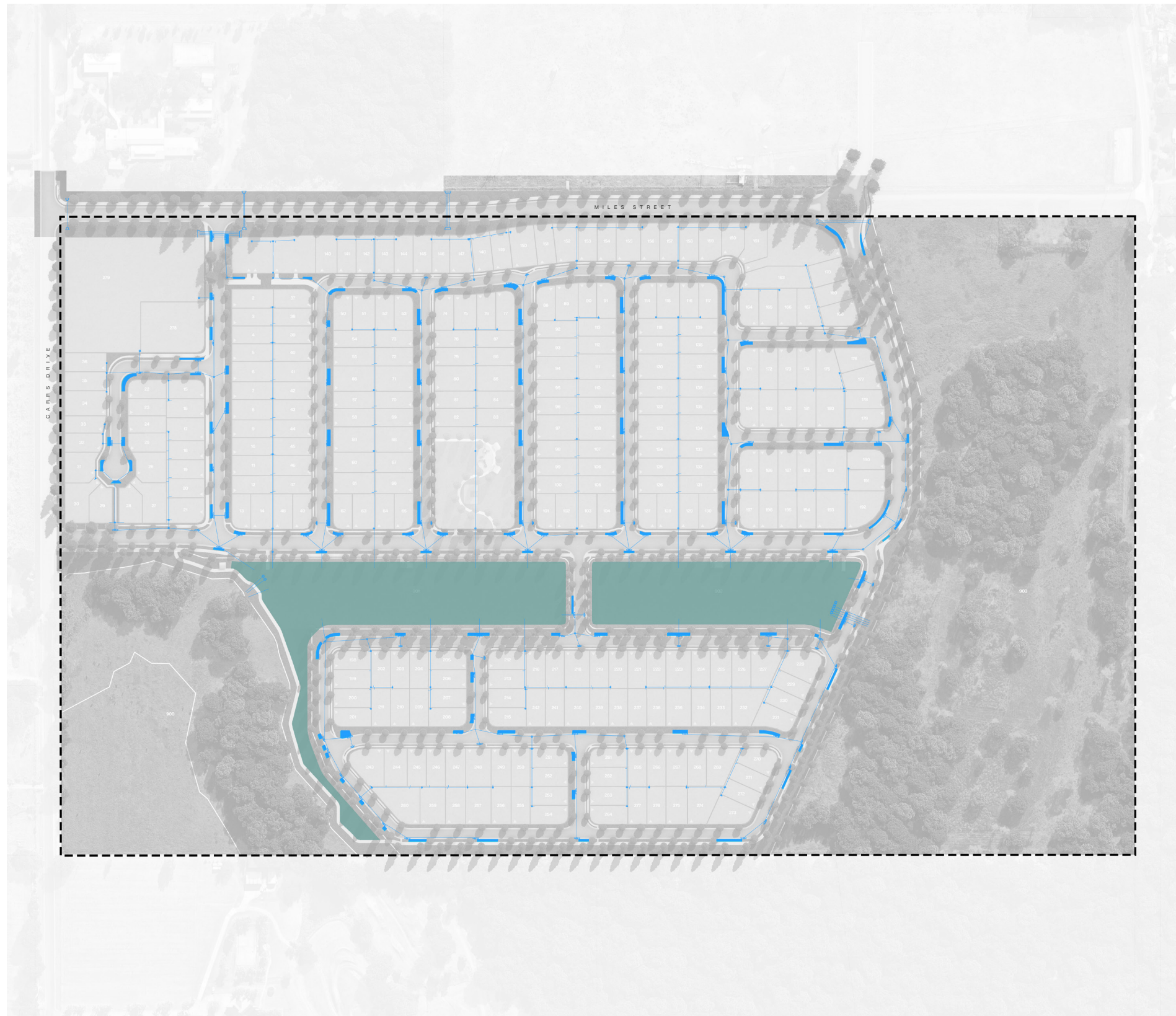
- Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395
- 1 Primary Estate Entry**  
Primary development entry off Carrs Drive. Primary entry to feature estate entry statement for the development. Refer to **Section 3.8 Entry Statement Locations** for further details.
- 2 Secondary Estate Entry**  
Secondary development entry off Miles Street. Secondary entry to feature minor entry statement (estate signage). Refer to **Section 3.8 Entry Statement Locations** for further details.
- Pedestrian Circulation**  
Pedestrian pathway provides connectivity throughout the development. Connections are provided to development frontages on Carrs Drive and the proposed external footpath network located on Miles Street.
- 3 Public Open Space - Rest Node**  
Rest node within POS / Pedestrian Connection network, seating and shade structure incorporated.
- 4 Viewing Platforms**  
10 x 8m viewing platforms are proposed to both central stormwater basins.
- Pedestrian Connection**  
Pedestrian pathway connection to the broader pedestrian network external to the development site.
- Pedestrian Circulation External**  
Pedestrian circulation external to the development site.
- Vehicular Circulation**  
Road profile varies from 11m to 7.5m sealed surface. Road reserve of primary/central circulation road is 22.6m.

Landscape Design

## 3.4 Landscape Design Circulation







#### Subject Site

Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395



#### Detention Basins

Detention basins located within the center of the development are proposed to be turfed to allow the basins to be used as passive open space recreation areas. Large 10x8m viewing platforms have been added to both central basins. Vehicular access is to be restricted with bollards placed along the boundary at 1.5m spacings.



#### Bio Pods (Stormwater Treatment)

Bio pods are proposed for treatment of stormwater on site. Bio pods are to be planted in accordance with Water by Design species listings. Refer to **Section 5.0 Planting Palettes** for species listings. For further technical information on design and sections through the Bio Pods, refer to engineering plans prepared by Mortons Urban Solutions.



#### Services Stormwater

Proposed alignment of stormwater network. Refer to Civil Engineering plans Mortons Urban Solutions

#### Note:

- Refer to Biome consultants stormwater report for details of stormwater quantity, quality and detention basin outlet configurations.
- Bio filtration basin to be excavated to level below filtration media.
- Unsuitable material to be removed off site and basin trimmed to final profile prior to placement of filter media at 80% completion of housing.

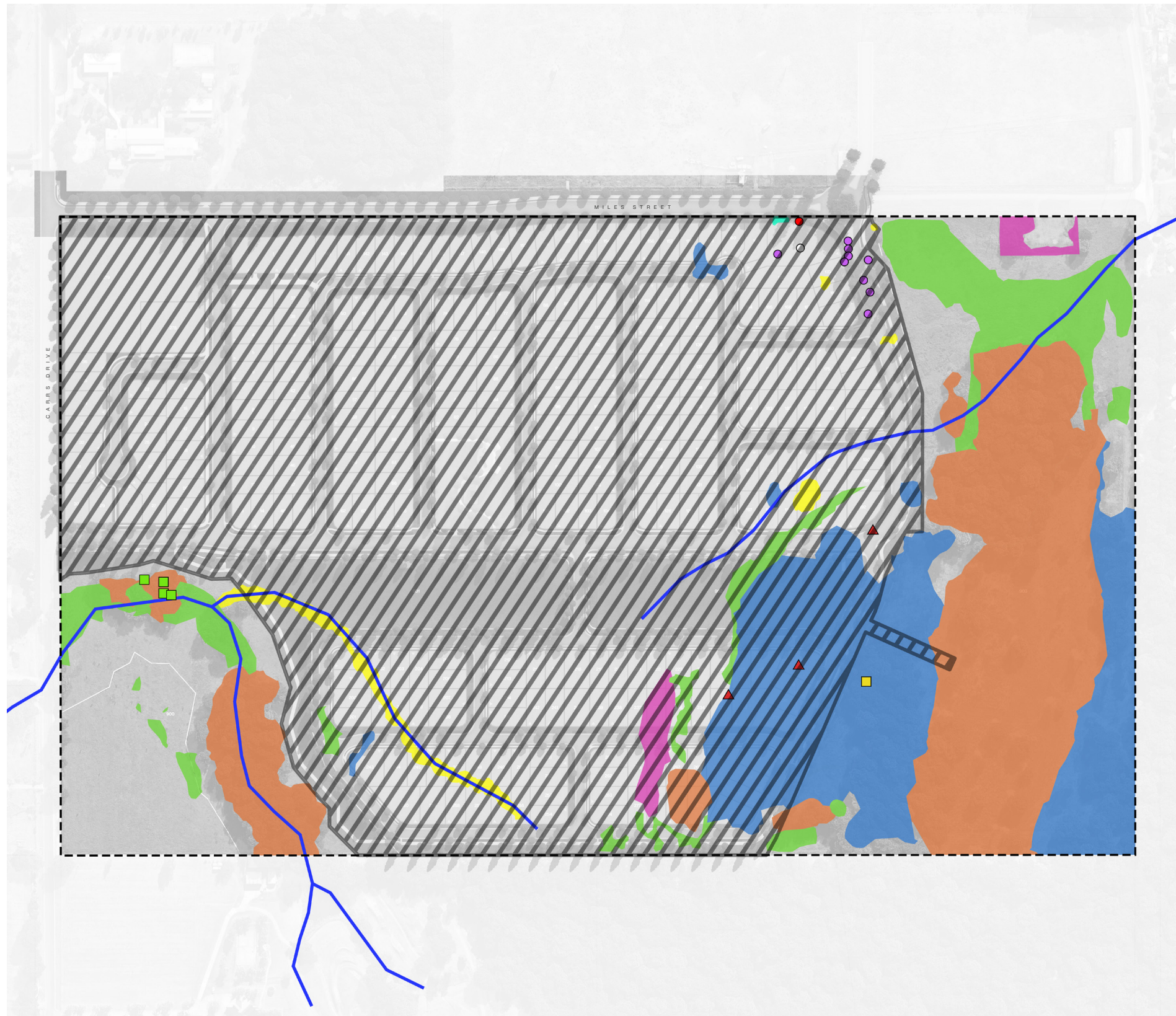
*Note: Services illustrated are for reference only and are detailed and approved under civil scope. Refer to civil engineering plans for all details.*

Landscape Design

## 3.5 Civil Engineering Design Stormwater Devices







- Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395
- Development Footprint**  
Area proposed for clearing to facilitate construction of development

- 1 Non Native Vegetation**  
Planted landscape areas
- 2 PCT 780**  
Coastal floodplain sedgelands and rushlands of the North Coast
- 3 PCT 837**  
Forest Red Gum, Swamp Box of the Clarence Valley lowlands of the NSW North Coast Bioregion
- 4 PCT 1064**  
Paperbark swamp forest of the coastal lowlands of the NSW North Coast Bioregion and Sydney Basin Bioregion
- 5 PCT 1227**  
Swamp Box swamp forest of the coastal lowlands of the NSW North Coast Bioregion
- 6 PCT 1235**  
Swamp Oak swamp forest of the coastal lowlands of the NSW North Coast Bioregion
- Waterway**
- Koala Habitat Trees**
- Hollow Bearing Tree**
- Non-Native Tree (Mango)**
- Planted Native Vegetation (Flame Tree)**
- Planted Native Vegetation (Plum Tree)**
- Raptor Nest**
- Stag (No Hollows)**

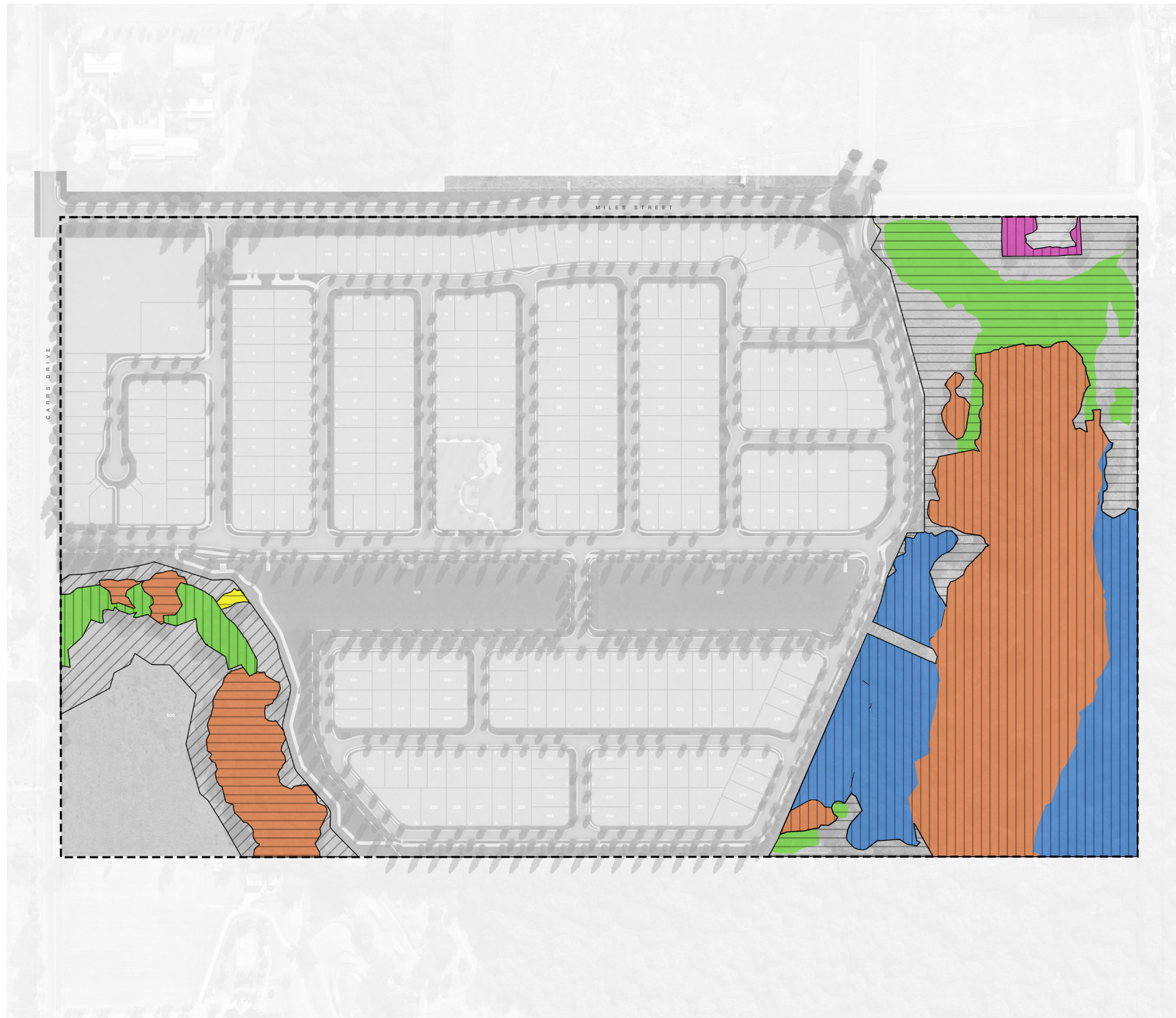
Refer to **Vegetation Management Plan** prepared by GeoLINK Environmental Management & Design for further details on treatments proposed on these areas.












Landscape Design

## 3.6 Existing Vegetation Plan







-  **Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395
  -  **Vegetation Management Zone 1**
  -  **Vegetation Management Zone 2**
  -  **Vegetation Management Zone 3**
  -  **Non Native Vegetation**  
Planted landscape areas
  -  **PCT 780**  
Coastal floodplain sedgelands and rushlands of the North Coast
  -  **PCT 837**  
Forest Red Gum, Swamp Box of the Clarence Valley lowlands of the NSW North Coast Bioregion
  -  **PCT 1064**  
Paperbark swamp forest of the coastal lowlands of the NSW North Coast Bioregion and Sydney Basin Bioregion
  -  **PCT 1227**  
Swamp Box swape forest of the coastal lowlands of the NSW North Coast Bioregion
  -  **PCT 1235**  
Swamp Oak swamp forest of the coastal lowlands of the NSW North Coast Bioregion
  -  **Waterway**
- Refer to **Vegetation Management Plans** prepared by GeoLINK Environmental Management & Design for further details on treatments proposed maintenance/management of these areas.

Landscape Design

## 3.7 Vegetation Management Zones







#### Subject Site

Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395

1

#### Primary Estate Entry

Primary development entry off Carrs Drive. Primary entry to feature estate entry statement for the development.

2

#### Secondary Estate Entry

Secondary development entry off Miles Street. Secondary entry to feature minor entry statement (estate signage).



#### Entry Statement Locations

Approximate locations of development entry statements. Entry statements to be setback 1m within the private property boundaries and will be generally wall based entry statements with landscape below. All elements to be contained within private property. Entry Statements not to exceed a max. height of 2m. Design of Entry Statements to future detail.

Landscape Design

## 3.8 Entry Statement Locations







- 1 Private Lot Fencing**  
Private lot fencing is proposed to the top of the Retaining wall proposed along Miles Street. Fencing to meet a transparency requirement of 50-70% (to be agreed with by CVC). Fencing to be constructed with a pier and post fencing solution due to its locations on top of the retaining wall and the inability to contain a trench footing to the top of this wall. Polytek Rendersmart fencing shown within the example. Fencing solution allows for a traditional look rendered fence, constructed with hollow panels, pier and post footings, and slats. Alternatives to this fencing solution could include a Stratco horizontal slat of batten solution. Refer example imagery below.

Fencing to be neutral in colour and provide a backdrop to the lush green plantings to the foreground. Suitable colour such as Dulux 'Monument Grey' (shown).

- 2 Rock Retaining Wall**  
Proposed retaining wall structure to the Miles Street interface. Proposed rock wall construction. Refer to **Engineering documentation prepared by Morton Urban Solutions** for further information.

- 3 Cascading Planting**  
Cascading planting proposed to the tier of proposed retaining wall. Cascading species to provide a softened edge to the retaining wall as well as visually reduce the height of the retaining wall by cascading down and covering parts of the wall. Species to include Myoporum sp, Dichondra sp. and or Bower Wattle plantings.

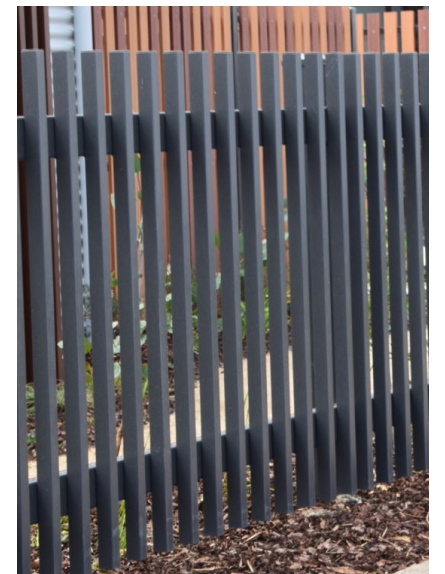
- 4 Lower Landscaping**  
Ground landscaping to include groundcover plantings of hardy local species, tolerant to wet feet due to their location within the swale. Species to include Lomandra sp. and or Liriope sp.

- 5 Screening Hedging**  
Screening hedging to provide visual height and screening to fencing located along Miles Street. Planting to be placed at 1m centers and achieve a height of 4-5m. Hedge planting in conjunction with larger tree species to the front of the retaining wall provide articulated variation within the streetscape, and help to provide a visual breakup of the fencing placed directly behind on the lot boundaries.

- 6 Frontage Tree Plantings**  
Large broad leaf plantings proposed to the frontage of the Development, located along the rock retaining wall edge. Trees to provide a visual height and form that will articulate the frontage of the boundary by providing a delineation of both depth and height.



Stratco | Horizontal Slat Fencing



Stratco | Batten Fencing

Landscape Design

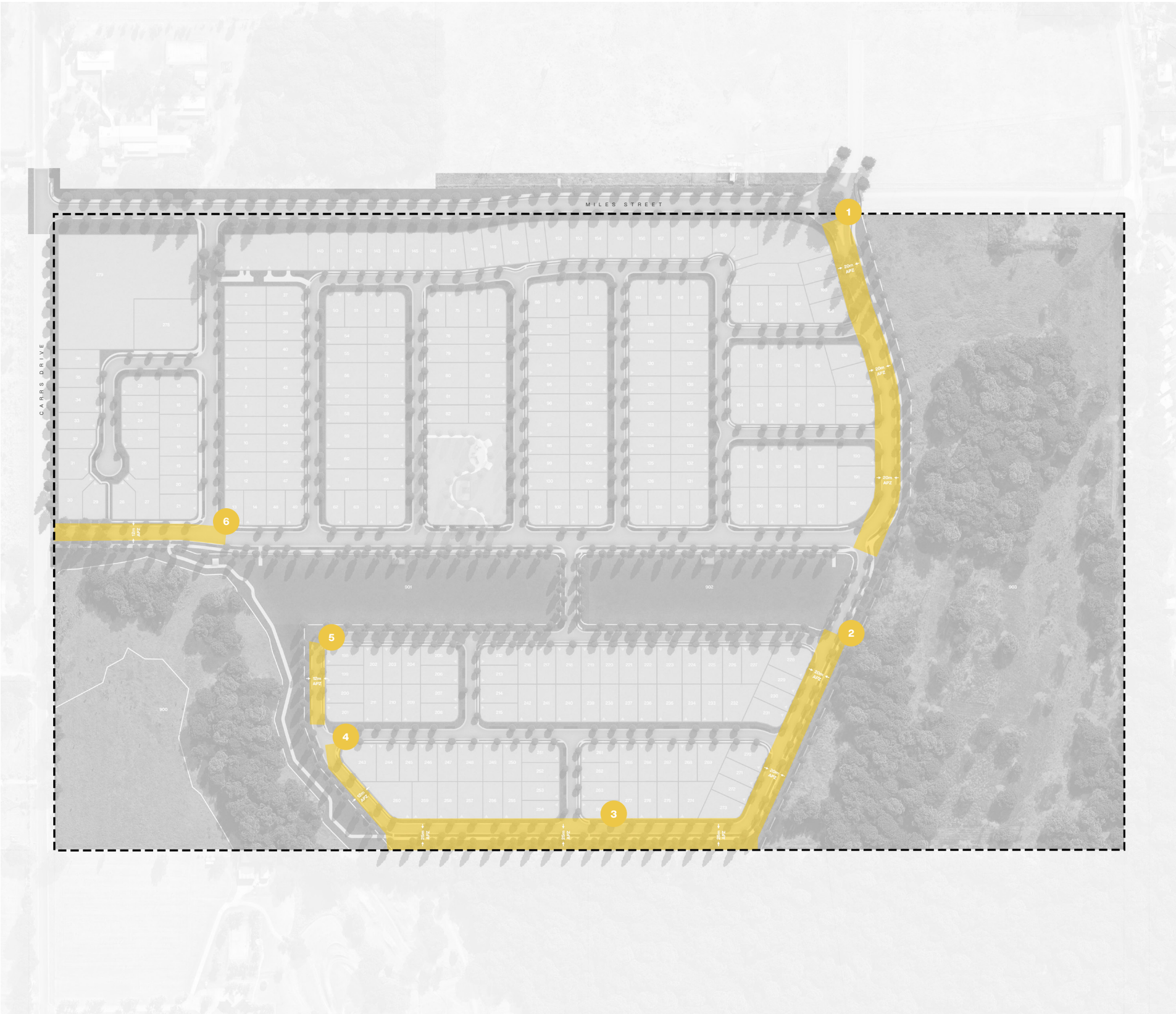
## 3.9 Frontage Landscape & Fencing



**Zone Landscape Architecture** | Yamba Gardens - Miles Street, Yamba

Nov **2023**





Asset Protection Zones

Inner Protection Areas (IPA) shall be maintained in such a manner that:

- Minimal fire fuel that could be set alight by bushfire (e.g. long grass, leaves, tree branches etc.) is present at ground level.
- Grass is maintained to a height less than 100mm.
- Shrubs are not located directly under trees, clumps of shrubs are not located directly under windows or near doors, and shrubs do not form more than 10% ground cover.
- Vegetation does not provide a path for the transfer of fire to the building.
- Mature trees do not overhang or touch any building.
- Tree canopies are a minimum of 2 - 5 metres away from any building and balconies.
- Bark chips and the like are not present within 2 metres of any building.
- Any trees present have a minimum canopy separation of 2 to 5 metres.
- Any trees present are not species that retain dead material or deposit excessive amounts of ground fuel in a short time.
- Mature tree canopy cover is less than 15% in total area.

Asset Protection Zones outlined below have been reviewed and calculated against the above criteria. Canopy coverage calculations outlined below have been assessed based on a standardised canopy diameter of 5m. All trees shown within the plans achieve a distance of 2-5m canopy to canopy separation within the shown APZ areas.

For further information on Asset Protection Zones, refer to Bushfire Risk Management Plan Prepared by Bushfire Safe (Aust) Pty Ltd dated December 2022 (Rev 2).

1	<b>APZ Area 1</b>	APZ Total Area: 5459m <sup>2</sup> @ 15%	818.85m <sup>2</sup>
		25 Trees (5m Dia (19.635m <sup>2</sup> ))	490.875m <sup>2</sup>
		Total Tree Coverage	8.99%
2	<b>APZ Area 2</b>	APZ Total Area: 3375m <sup>2</sup> @ 15%	506.25m <sup>2</sup>
		14 Trees (5m Dia (19.635m <sup>2</sup> ))	274.89m <sup>2</sup>
		Total Tree Coverage	8.14%
3	<b>APZ Area 3</b>	APZ Total Area: 7160m <sup>2</sup> @ 15%	1074m <sup>2</sup>
		48 Trees (5m Dia (19.635m <sup>2</sup> ))	942.48m <sup>2</sup>
		Total Tree Coverage	13.16%
4	<b>APZ Area 4</b>	APZ Total Area: 1016m <sup>2</sup> @ 15%	152.4m <sup>2</sup>
		5 Trees (5m Dia (19.635m <sup>2</sup> ))	97.175m <sup>2</sup>
		5 Trees (5m Dia @ 50% (9.8175m <sup>2</sup> ))	49.0875m <sup>2</sup>
		Total Tree Coverage	14.49%
5	<b>APZ Area 5</b>	APZ Total Area: 776m <sup>2</sup> @ 15%	116.4m <sup>2</sup>
		4 Trees (5m Dia (19.635m <sup>2</sup> ))	78.54m <sup>2</sup>
		3 Trees (5m Dia @ 50% (9.8175m <sup>2</sup> ))	29.4525m <sup>2</sup>
		Total Tree Coverage	13.91%
6	<b>APZ Area 6</b>	APZ Total Area: 1630m <sup>2</sup> @ 15%	244.5m <sup>2</sup>
		14 Trees (5m Dia @ 50% (9.8175m <sup>2</sup> ))	137.445m <sup>2</sup>
		Total Tree Coverage	8.4%

Landscape Design

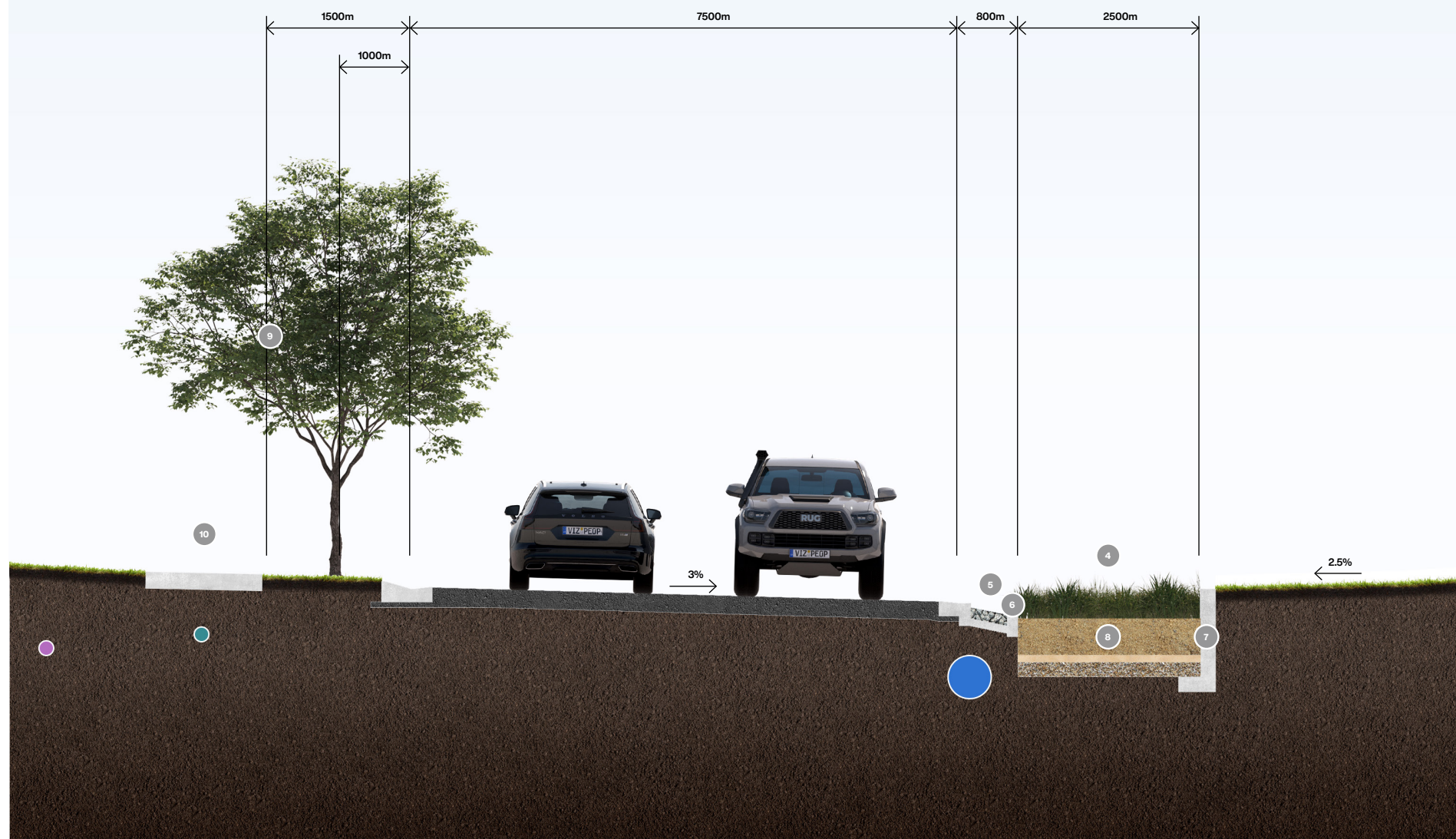
3.10 Bushfire Asset Protection Zones



# 4.0 Site Sections.







#### Subject Site

Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395



#### Sewer Main

Located 1.5m into private lot boundaries.



#### Water Main

Located 1m to rear of nominal kerb line.



#### Stormwater Pipe

Located directly below kerb.



#### Bio Pods (Stormwater Treatment)

Bio pods are proposed for treatment of stormwater on site. Bio pods are to be planted in accordance with Water by Design species listings. Refer to **Section 5.0 Planting Palettes** for species listings



#### Sediment Forebay

Typical rock lined sediment forebay on 100mm concrete bed.



#### Concrete Edge Restraint

150mm wide concrete edge restraint with 50mm wide (200mm deep) slots @ 500mm spacings.



#### Retaining Wall

Block work or concrete retaining wall is proposed to containerise the Biopod where battering is not achievable or volumes are required to be increased.



#### Bio Pod Filter Media

Filter media as per engineering specifications. Filter media to consist of 3 layers including filter media, transition layer, and drainage layer. Geo-fabric ex. Terrafix 360R geotextile is proposed to the outer perimeter and base of the bio pod.



#### Street Tree Plantings

Streetscape plantings are to be achieved through traditional street tree planting within the verge. Tree species selected in accordance with the 'Yamba Street Tree Master Plan' documentation produced by Clarence Valley Council. Selected tree species have been extracted from Zone 3 Floodplain species selections within the *Secondary Street - Residential, Minor Street (Residential) & Park Edge Floodplain (Residential)* planting selections. Tree plantings to be located to avoid all services ex. street lights, driveways, stormwater pits and bio pods. Refer to **Section 3.3 Landscape Design - Streetscape Planting & Planting Palettes Section 5.0 Planting Palettes** for species listings and locations. Grade 'A' turf is to be planted throughout the verges to the property frontage boundary. Street trees to be located 10m from rear of nominal kerb line to accommodate footpath located 1.5m from Nominal Kerb Line. Root guard to be installed to all trees adjacent to services.



#### Pedestrian Footpath

1.2m wide concrete pedestrian footpath. Footpath to be positioned 1.5m to rear of nominal kerb line. Services proposed to be located underneath footpath. Refer engineering drawings for exact service locations.

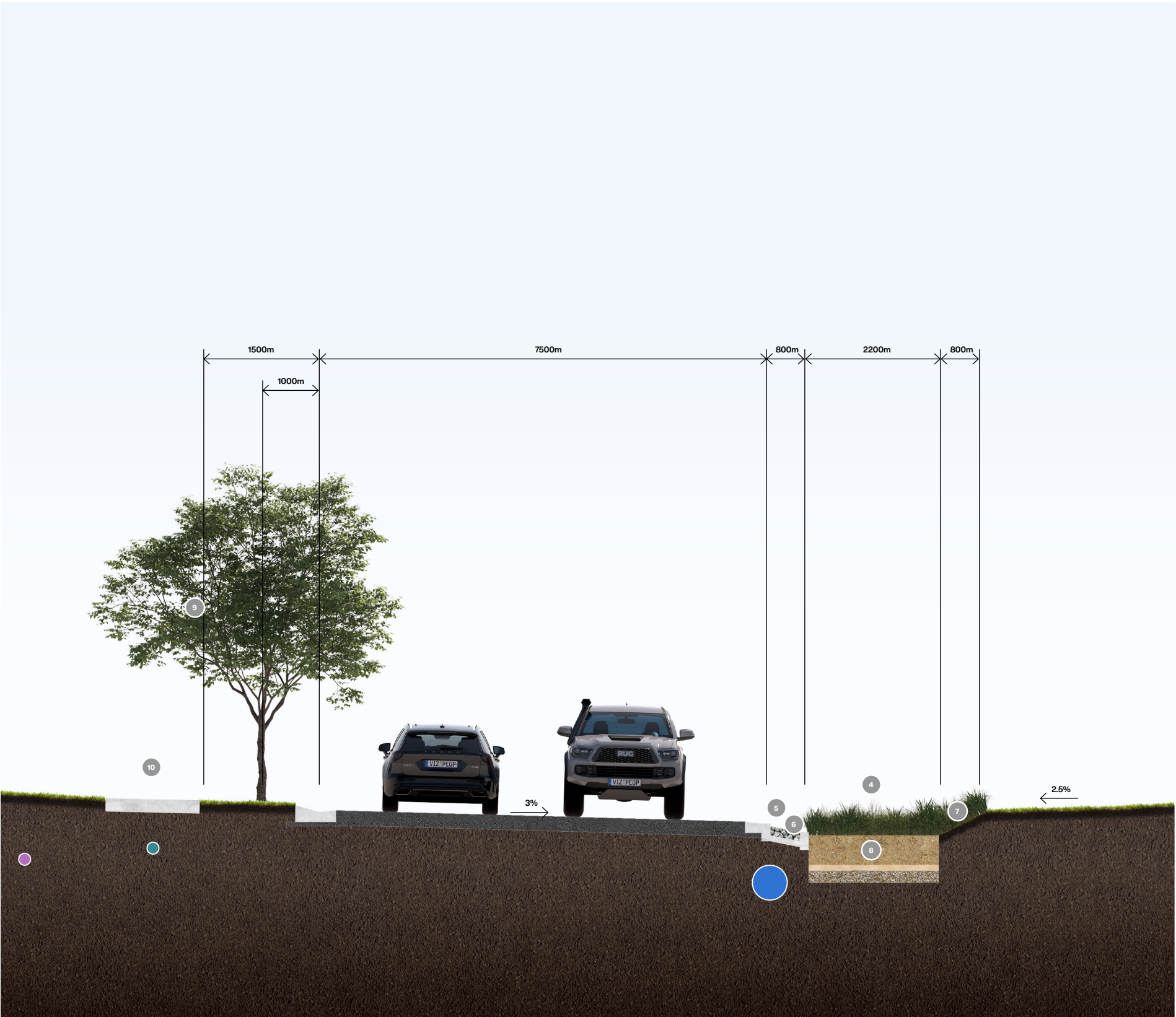
For further technical information on design and sections through the Bio Pods, refer to engineering plans prepared by Mortons Urban Solutions. Refer to Biome consultants stormwater report for details of stormwater quantity, quality and detention basin outlet configurations.

Site Sections

## 4.1 Street Sections Sections A







- Subject Site**  
Yamba Gardens  
Corner of Carrs Drive & Miles Street  
Lots 45 & 47 on 751395
- 1 Sewer Main**  
Located 1.5m into private lot boundaries.
- 2 Water Main**  
Located 1m to rear of nominal kerb line.
- 3 Stormwater Pipe**  
Located directly below kerb.
- 4 Bio Pods (Stormwater Treatment)**  
Bio pods are proposed for treatment of stormwater on site. Bio pods are to be planted in accordance with Water by Design species listings. Refer to **Section 5.0 Planting Palettes** for species listings
- 5 Sediment Forebay**  
Typical rock lined sediment forebay on 100mm concrete bed.
- 6 Concrete Edge Restraint**  
150mm wide concrete edge restraint with 50mm wide (200mm deep) slots @ 500mm spacings.
- 7 Batter Planting**  
Heavily planted 1:2 maximum grade batter to be planted with large stabilisation groundcover plantings. Refer to **Section 5.0 Planting Palettes** for stormwater species listings.
- 8 Bio Pod Filter Media**  
Filter media as per engineering specifications. Filter media to consist of 3 layers including filter media, transition layer, and drainage layer. Geo-fabric ex. Terrafix 360R geotextile is proposed to the outer perimeter and base of the bio pod.
- 9 Street Tree Plantings**  
Streetscape plantings are to be achieved through traditional street tree planting within the verge. Tree species selected in accordance with the 'Yamba Street Tree Master Plan' documentation produced by Clarence Valley Council. Selected tree species have been extracted from Zone 3 Floodplain species selections within the *Secondary Street - Residential, Minor Street (Residential) & Park Edge Floodplain (Residential)* planting selections. Tree plantings to be located to avoid all services ex. street lights, driveways, stormwater pits and bio pods. Refer to **Section 3.3 Landscape Design - Streetscape Planting & Planting Palettes Section 5.0 Planting Palettes** for species listings and locations. Grade 'A' turf is to be planted throughout the verges to the property frontage boundary. Street trees to be located 1.0m from rear of nominal kerb line to accomodate footpath located 1.5m from Nominal Kerb Line. Root guard to be installed to all trees adjacent to services.
- 10 Pedestrian Footpath**  
1.2m wide concrete pedestrian footpath. Footpath to be positioned 1.5m to rear of nominal kerb line. Services proposed to be located underneath footpath. Refer engineering drawings for exact service locations.
- For further technical information on design and sections through the Bio Pods, refer to engineering plans prepared by Mortons Urban Solutions. Refer to Biome consultants stormwater report for details of stormwater quantity, quality and detention basin outlet configurations.

Site Sections

# 4.2 Street Sections Section B



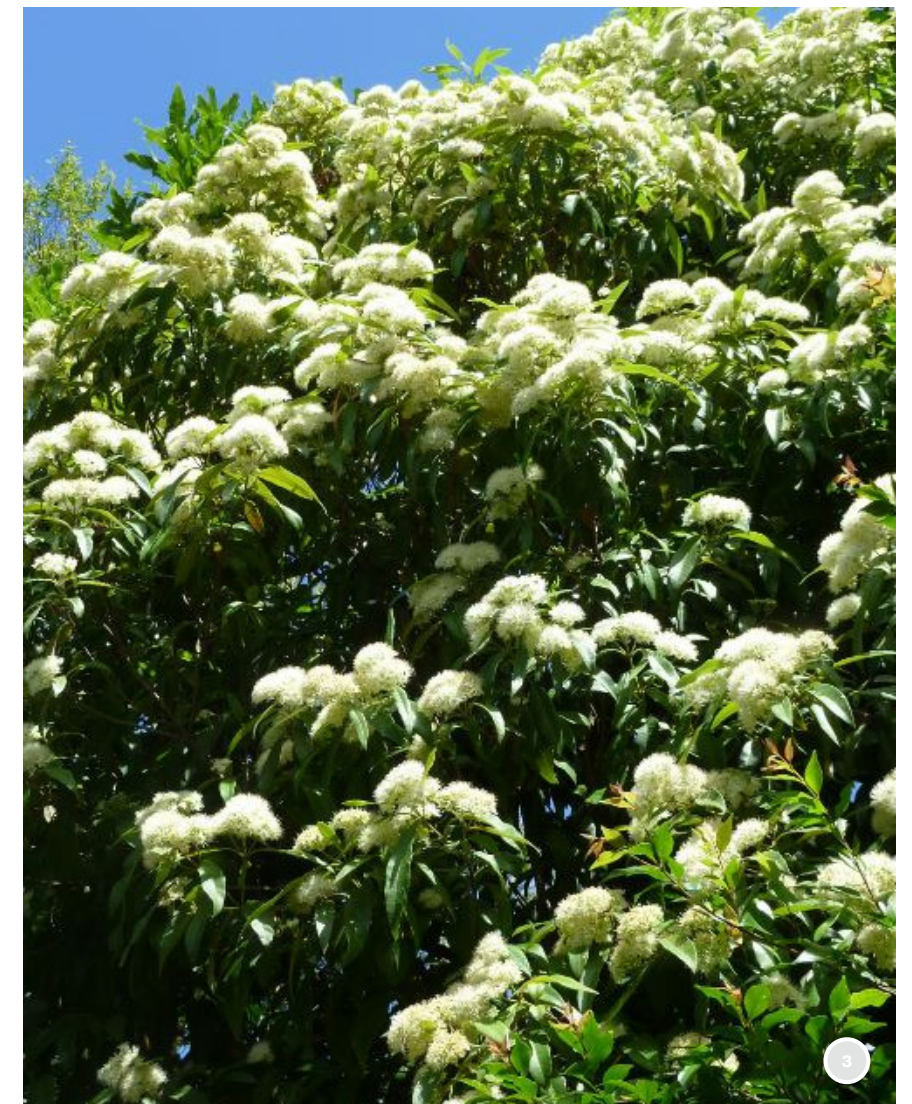
# 5.0 Planting Palettes.

2023 Nov

Yamba Gardens - Miles Street, Yamba | **Zone Landscape Architecture**







Planting Palettes

## 5.1 Planting Palette Streetscape



**Zone Landscape Architecture** | Yamba Gardens - Miles Street, Yamba

Nov 2023





Planting Palettes

## 5.2 Planting Palette Streetscape

2023 Nov

Yamba Gardens - Miles Street, Yamba | **Zone Landscape Architecture**







Planting Palettes

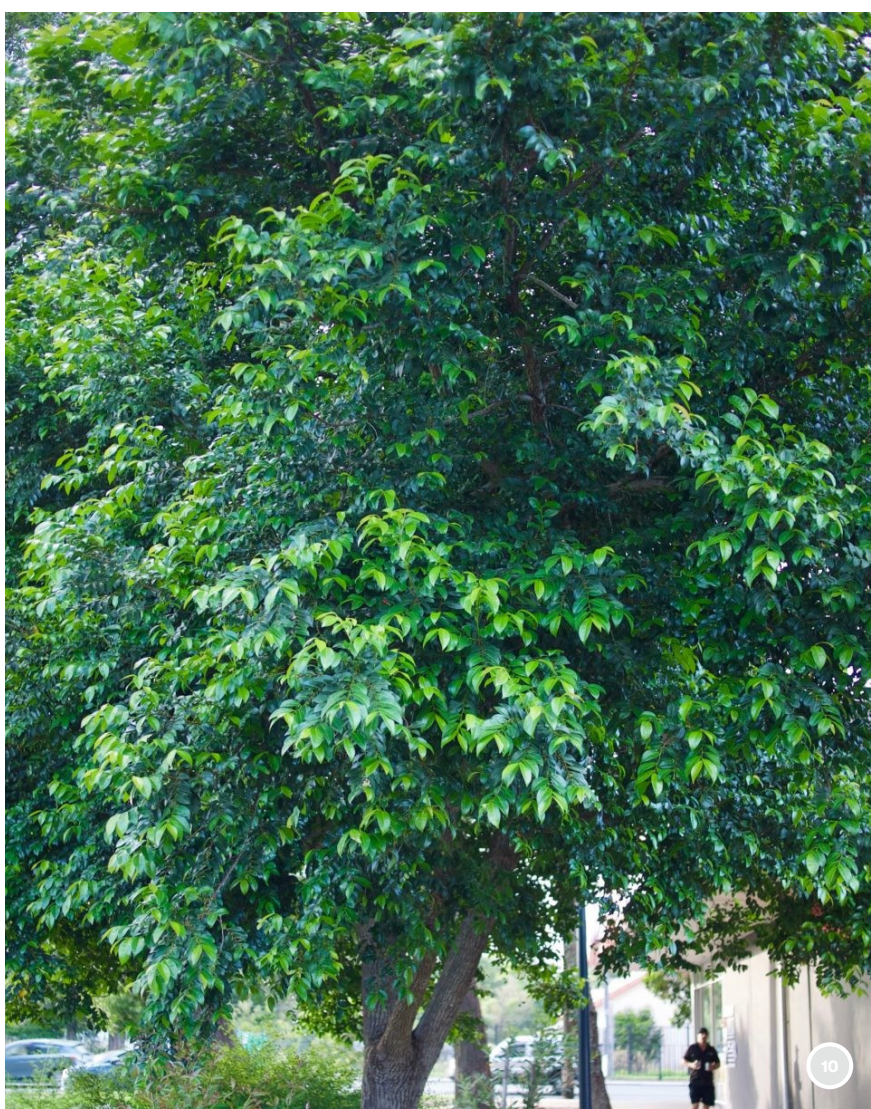
## 5.3 Planting Palette Streetscape



**Zone Landscape Architecture** | Yamba Gardens - Miles Street, Yamba

Nov 2023





Planting Palettes

## 5.4 Planting Palette Streetscape

2023 Nov

Yamba Gardens - Miles Street, Yamba | **Zone Landscape Architecture**







Streetscape Species

1.	Acmena smithii	Lilly Pilly	3
2.	Araucaria heterophylla	Norfolk Pine	25
3.	Backhousia citriodora	Lemon Myrtle	34
4.	Corymbia gummifera	Bloodwood	5
5.	Cupaniopsis anacardiodes	Tuckeroo	134
6.	Elaeocarpus reticulatus	Blueberry Ash	14
7.	Flindersia australis	Crow's Ash	5
8.	Flindersia schottiana	Bumpy Ash	35
9.	Flindersia xanthoxylum	Yellow Wood	5
10.	Glochidion ferdinandi	Cheese Tree	4
11.	Lophostemon confertus	Brush Box	3
12.	Syzygium australe	Brush Cherry	34
13.	Tristaniaopsis laurina	Water Gum	134
14.	Waterhousea floribunda	Weeping Lilly Pilly	135

Refer to **Section 3.3 Landscape Design - Streetscape Planting** for planting locations.

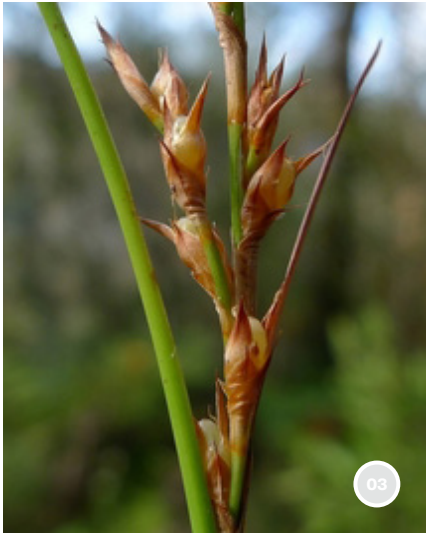
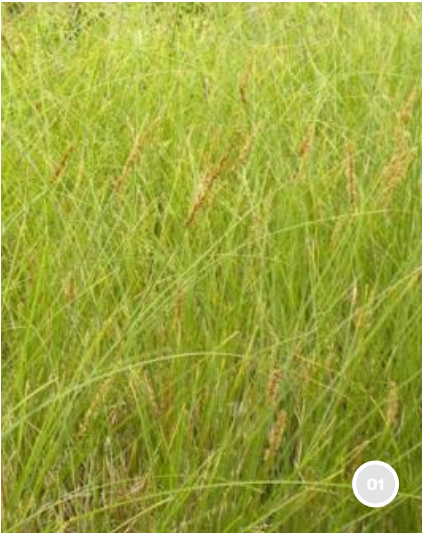
Tree species have been selected in accordance with the ‘**Yamba Street Tree Master Plan**’ documentation produced by Clarence Valley Council. Selected tree species have been extracted from Zone 3 Floodplain species selections within the *Secondary Street - Residential, Minor Street (Residential) & Park Edge Floodplain (Residential)* planting selections. Tree plantings to be located to avoid all services eg. street lights, driveways, stormwater pits and bio pods.

All tree stock to be supplied and installed in accordance with NATSPEC guidelines.

Planting Palettes

5.5 Planting Palette Streetscape





Groundcover

1.	Carex appressa	Tall Sedge
2.	Ficinia nodosa	Knobby Club Rush
3.	Lepidosperma laterale	Variable sword-sedge
4.	Lomandra hystrix	A Mat-rush
5.	Lomandra longifolia	Spiny-headed Mat-rush

Shrubs & Accents

6.	Leptospermum liversidgei	Olive tea-tree
7.	Melaleuca (Callistemon) sieberi	River bottlebrush
8.	Melaleuca thymifolia	Thyme honey myrtle
9.	Banksia robur	Swamp banksia

Trees & Palms

10.	Casuarina cunninghamiana	River sheoak
11.	Casuarina glauca	Swamp Oak
	Lophostemon suaveolens	Swamp Mahogany
	Melaleuca bracteata	Black tea-tree
12.	Melaleuca quinquenervia	Broad-leaved Paperbark

Species have been selected in accordance with Water Sensitive Urban Design plant selections by Water by Deisgn Guidelines.

All tree stock to be supplied and installed in accordance with NATSPEC guidelines.





## 6.0

# Maintenance.



Typical Establishment & Maintenance Schedule & Requirements for **Streetscape, Batter Planting** and typical detention basins. Refer to **Stormwater Report** prepared by Biome for details of stormwater quantity, quality and detention basin outlet configurations and for any specific maintenance requirements for Biopods.

Refer to **Vegetation Management Plan** prepared by GeoLINK Environmental Management & Design for further details regarding maintenance requirements for Retained Vegetation Areas.

Streetscape

Streetscape plantings (**Street Trees**) are to be achieved through traditional street tree planting within the verge. **Turf** is to be planted throughout the verges to the property frontage boundary. Typical maintenance of Biopods (these are located within streetscape) including weeding / replacement of failed plants / removal of litter / monitoring of sediment control measures) is generally covered under standard stormwater maintenance regime included in schedules this sheet. Specific / technical maintenance and/or monitoring requirements for these are included within specialist reports.

Detention Basins

Detention basins to be turfed and maintained by CVC.

For further technical information on stormwater infrastructure, refer to engineering plans prepared by Mortons Urban Solutions. Refer to Biome consultants stormwater report for details of stormwater quantity, quality and detention basin outlet configurations.

Establishment

This phase is typically scheduled in below table as 3 months however will extend as required (to achieve adequate establishment of all softscape works) or as conditioned by council.

ESTABLISHMENT OF SOFTSCAPE (INITIAL 3 MONTHS)	✓	ESTABLISHMENT											
ROUTINE INSPECTION & REACTIVE MAINTENANCE	X	1				2				3			
Activity Descriptions		1	2	3	4	1	2	3	4	1	2	3	4
Cleaning Operations													
Graffiti Removal	CGR				X				X				X
Litter Collection	CLC				✓				✓				✓
Horticultural Environment													
Replacement As req - Planting of Shrubs and Trees	HAT				X				X				X
Care of Trees and Shrubs	HCT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Care of Grass and Turf	HGT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mowing of Grass and Turf	HMO			✓		✓		✓		✓		✓	
Weed Treatment	HWS	✓		✓		✓		✓		✓		✓	
Building Environment													
Fence / Bollards / Embellishments Maintenance	BFH				X				X				X
Horticultural Environment													

General Maintenance

This phase is typically scheduled in below table as a 12 month cycle. This will extend as required / conditioned by council and associated inspections.

ROUTINE MAINTENANCE	√	ANNUAL TIMELINE																																															
ROUTINE INSPECTION & REACTIVE MAINTENANCE	X	JAN				FEB				MAR				APR				MAY				JUN				JUL				AUG				SEP				OCT				NOV				DEC			
Activity Descriptions	Activity Codes	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Cleaning Operations																																																	
Graffiti Removal	CGR	X				X				X				X				X				X				X				X				X				X				X							
Litter Collection	CLC	√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√			
Horticultural Environment																																																	
Replacement As req - Planting of Shrubs and Trees	HAT	X				X				X				X				X				X				X				X				X				X				X							
Care of Trees and Shrubs	HCT	√				√				√				√				√				√				√				√				√				√				√							
Care of Grass and Turf	HGT	√				√				√				√				√				√				√				√				√				√				√							
Mowing of Grass and Turf	HMO	√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√			
Weed Treatment	HWS	√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√		√			
Building Environment																																																	
Fence / Bollards / Embellishments Maintenance	BFH	X				X				X				X				X				X				X				X				X				X				X							

Landscape Treatment

6.1 Maintenance General Requirements Schedule



