

ISSUES AND OPPORTUNITIES

ISSUES

ACTIVE RIVER FORESHORE PRECINCT

Public Domain and Open Space

- The public domain is currently characterised by dull or no street frontages, poor pedestrian amenities and a lack of linkages between the Town Centre and the open spaces. The public domain is informal with pedestrians able to traverse open parking lots, pathways adjacent to storm water drainage channels and the like.
- The foreshore is characterised by limited parallel parking, an unformed pedestrian access way shared by River Road with limited signage and poor vehicle visibility. The western end of the Precinct has access to associated bush.

Social and Recreational

- A significant number of Foreshore uses with different values and requirements occupying a relatively small stretch of land
- The impact of large events on the Foreshore Reserve such as damage to grassed areas, garbage collection and inadequate location of amenities
- No existing commercial enterprises on site such as a kiosk or cafe
- Improve poor visual connection from Active River Foreshore precinct to Public Transport including Wyong Station
- Limited passive surveillance to Foreshore Areas

- Lack of adequate lighting to walkways and gathering areas along Foreshore Reserve

Access and Circulation

- Concentration of car parking in open space adjacent to Rankens Court at River Road intersection which could be used as more highly valued public open space and landscape leading down to the river foreshore
- Existing pedestrian cycleway access is not readily identifiable and is too narrow which creates confusion and danger amongst users
- Inadequate infrastructure for loading and unloading vehicles for utilising and areas along the river's edge for significant events
- Disabled access will be an issue in areas where the gradient is greater than 1:14

Environmental

- Lack of established tree stands in certain zones of River Foreshore Reserve exacerbating wind
- Lack of depth in recreational areas taken up by road reserve, which has a detrimental effect on potential flexible use of open space

Landscape

- Views to landscape features are obstructed by poor quality development in middle distance.
- Screen of Canary Island palms to Pacific Highway – poor pruning and palms that are interspered with other species has detracted from the character of the species.

BAKER PARK PRECINCT

Social and Recreational

- A significant number of uses with different values and requirements occupying a relatively small stretch of land
- The impact of large events on the Baker Park Precinct such as damage to grassed areas, garbage collection and inadequate location of amenities. This is of particular concern in relation to proposed application for increased number of Netball Courts from 24 to 30 to enable the Wyong Netball Association and Wyong Shire to attract State competition rounds
- No existing commercial enterprises on site such as a kiosks or cafes within the precinct
- Lack of a high quality pedestrian link to/ from Wyong Train Station that is a significant public transport system
- An emphasis on vehicle use to access The Baker Park Precinct. Poor amenity to existing Car parking Facilities and limited access in getting in and out of Precinct to surrounds

- Lack of adequate lighting to existing walkways for activities to occur at different times of the day including at end of working day

Access and Circulation

- Interface between car park entries and pedestrian/ cycleway currently confusing where vehicles have right of way

Environmental

- Lack of established tree stands in certain zones of Baker Park area exacerbates wind and glare on fields

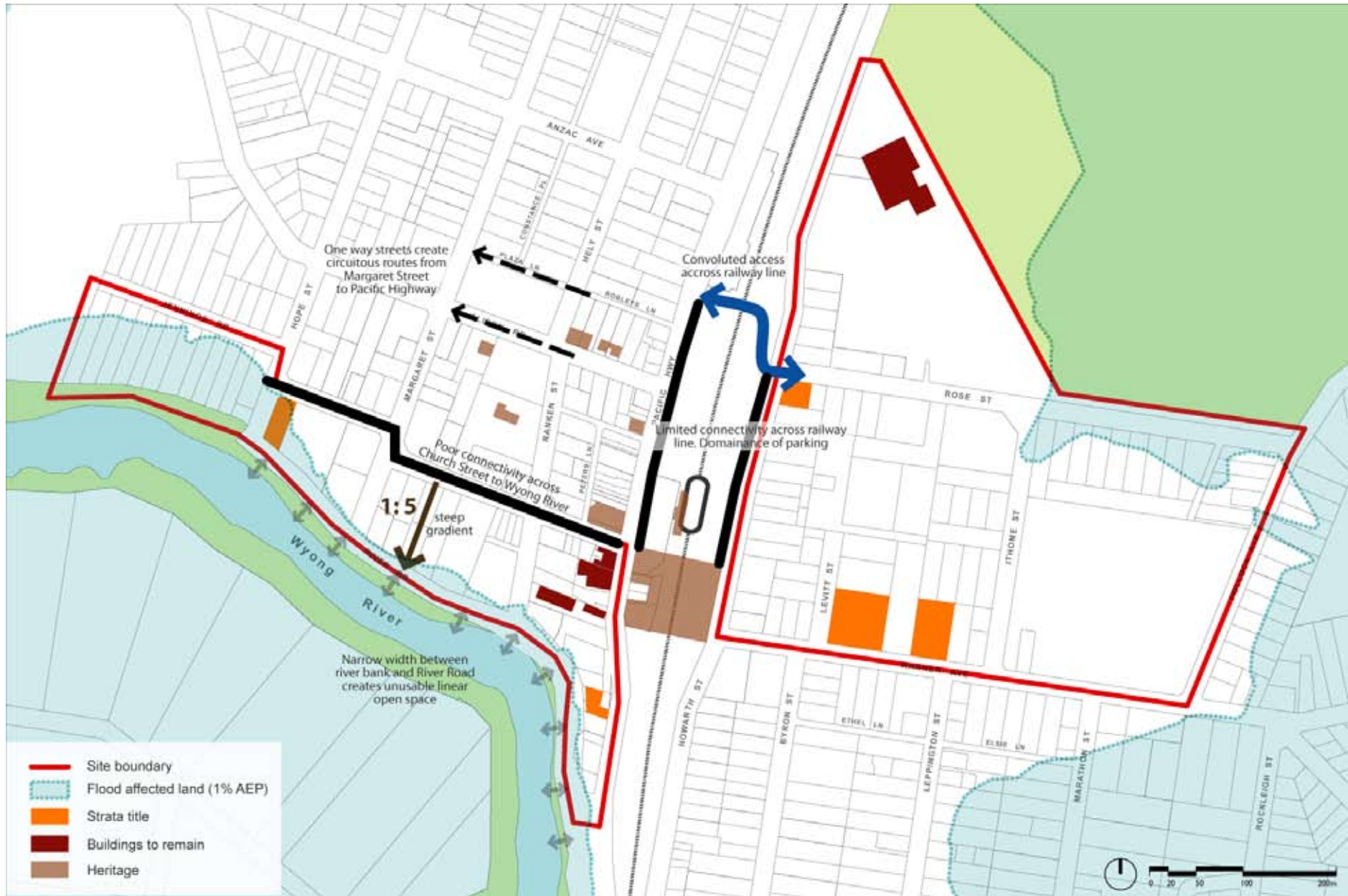


Figure 14: Issues

OPPORTUNITIES

ACTIVE RIVER FORESHORE PRECINCT

- Create strong interaction between Wyong River and the Town Centre through physical and visual linkages
- Provide for retail and commercial functions to address the River
- Open space focus along the riverfront creating a linear parkland
- Linkages focus with emphasis on connectivity to Town Centre
- Residential component with emphasis on open space predominantly public owned land
- Improve Town Centre approach along Pacific Highway northbound
- Encourage new developments in proximity to Wyong River that enhance the civic and cultural focus of the precinct

Public Domain and Open Space

- A quality public domain would increase the range of activities and other uses within and around the edges of the key open spaces including a proposed open space terminating Rankens Court and at the entry of River Road from Pacific Highway
- Enhance the use of the public domain promoting social interaction for all members of society
- Reduce the dominance of vehicles and encourage pedestrian activity, treatment of traffic along River Road is a precursor to a

viable commercial environment adjacent to River Road.

- Provide appropriate pedestrian crossings along pathways to align with existing town road form
- Encourage ground floor activities in particular along River Road at eastern end where Flood Management is not a limiting factor. This will contribute to vitality and vibrancy of the streets
- Consider solar access to key areas within the public domain during mid winter that will promote higher use of the street daytime activities such as outdoor eating
- Improve surveillance of the street and fringe areas such as the western end of the precinct (this would be partially facilitated by the increase in residential use)
- Retain significant view corridors along key north south streets such as Rankens Court, Margaret Street and Hope Street
- The introduction of a family of durable neutrally designed street furniture should be

used in the precinct

BAKER PARK PRECINCT

- Create strong interaction between Baker Park and the Town Centre through physical and visual linkages
- Open space focus
- Linkages focus with emphasis on connectivity to Town Centre
- Concentration of higher density Residential component with emphasis on open space predominantly public owned land
- Improve Town Centre connectivity especially across Pacific Highway and the Railway to key recreational areas such as the Baker Park and Wyong Race Club
- Examine future use and adaptation of Wyong Pool in consideration of proposed Warnervale Aquatic Centre
- Establish uniform tree plantings along either (or on one side where both sides of street is difficult in short term) and along the median strip where applicable to improve the streetscape and soften the hard expanses of bitumen and future urban forms. (Street trees also have the functional benefits of providing shelter and slow the speed of passing traffic because the repeating vertical forms make drivers more aware of the speed at which they are travelling)
- The introduction of durable neutrally designed street furniture should be used

in the precinct, this furniture should be consistent with the rest of Street Furniture selections for Wyong Township.

- Promote gateway building typologies at intersection of Rose Street and Howarth Street as well as Warner Avenue and Ithome Street. Examples of these are indicated in the illustrations of potential building

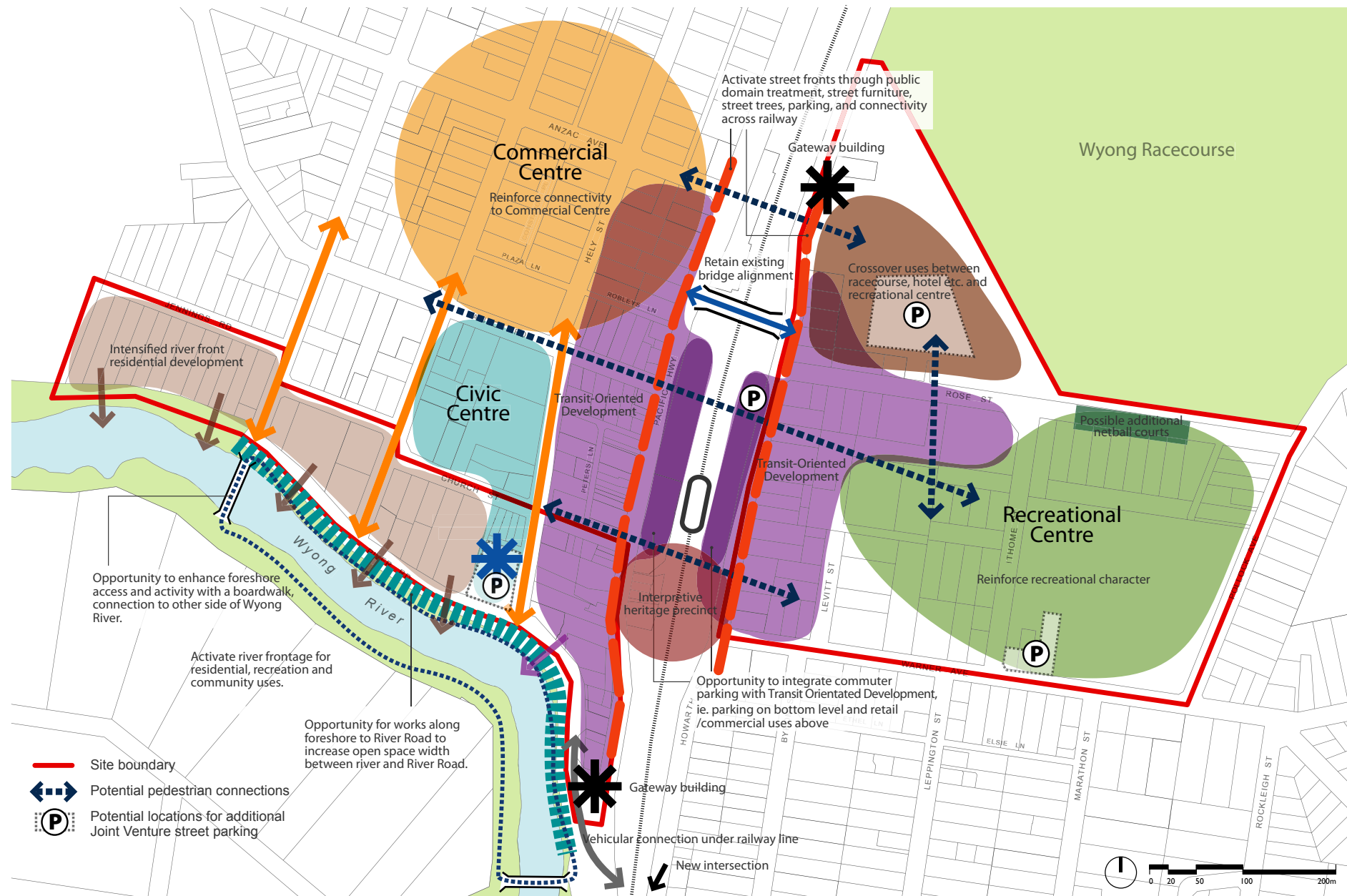


Figure 15: Opportunities

OVERALL DESIGN OBJECTIVES

typologies within the report

- To provide for the provision of a friendly, inviting and safe recreation area for the Wyong Community

The objectives of the Active River Foreshore and Baker Park Precinct Master Plan are the following:

- To ensure block and building orientation maximise solar access and prevailing breezes whilst responding to the natural and topographical features of both sites
- To create strong connections with Wyong Town Centre and surrounding precincts
- To create the opportunities for the development of a variety of residential living types and densities as well as providing for vibrant civic and cultural functions in a mixed use typology
- To create a distinctive character for each precinct
- To provide economically viable development options
- To maximise development opportunities within Council owned land
- To respond to the natural and localised topographical features, such as the natural amphitheatre alongside Rankens Court
- To ensure any buildings on the site are integrated and respond to the natural characteristics of the landform as well as respecting the existing commercial and business activities of the Wyong Town Centre
- Concentrate activity zones and gathering spaces within easy walking distance of the Town Centre and existing car parking facilities
- To retain existing tree stands along the Wyong River Foreshore Reserve to establish and emphasise 'upfront' character that make the overall landscaping treatment to the Reserve more attractive
- To provide clearly defined pedestrian and cycle routes that meander through the existing landscape and links to gathering places along the Wyong River Foreshore Reserve
- To promote the creation of an identifiable southern gateway into the Active River Precinct and Wyong Town Centre
- To provide a clear entry over the Railway overpass into Rose and Howarth Street in the Baker Park Precinct
- To create landmark open spaces and key buildings

VISION AND DESIRED FUTURE CHARACTER

ACTIVE RIVER FORESHORE PRECINCT

Land Uses

The Active Rivers Foreshore Precinct will accommodate a diverse range of uses including:

- Local level community facilities, with the potential for development of local arts, increased participation by Wyong residents in the arts and an adjacent area for local market stalls
- District level kiosk and amenities facilities
- Local level community facilities such as barbeques, shelters, walking paths, benches, exercise facilities and children's play areas
- New residential development is proposed along the river foreshore

Accessibility

The Active River Foreshore Precinct will improve links between the Foreshore reserve and the Town Centre Core to promote connectivity and activity in the central zone of the Foreshore Reserve.

The implementation of a formal pedestrian walkway and cycleway to link Active River Precinct to Wyong Town Centre and surrounds will be a significant contribution to the common user infrastructure and alternative means of circulation throughout the Township.

Public Transport

The presence of a good transport network provides opportunity for a less car reliant precinct.

Increased residential and retail uses will increase patronage and demand for bus services.

Public Domain

Public Spaces in the Active River Foreshore will :

- create spaces that engage with its context and offer new ways of experiencing water and the waters edge
- integrate with the surrounding area and be an integral component of the wider Wyong Region
- allow the location of buildings within the public domain so that they enrich public infrastructure and enhance the public domain
- express community pride, values and aspirations so that they are and leave positive, long lasting impressions
- maximise casual surveillance at all times of the day, increasing perceived safety for users and integrate the key principles of Crime Prevention Through Environmental Design (CPTED)
- encourage an active public domain along River Road through the provision of access to public transport, retail and commercial facilities



Top right: Apartments with undercroft spaces to activate river front. Top left: Landscape terraces for accessibility down steep slopes. Bottom right: Active water front Bottom right: Cycle access on boardwalk.

Landscape Character

The landscape character for the Active River Foreshore will include:

- A formal walkway along Wyong River
- High quality hard paved surfaces to Jogging Cycleway Track connected to Wyong Town Centre
- Clusters of Trees set back from River Front to provide more contemplative spaces for reflection
- Opportunities for public art and interpretive sculptural walks along the foreshore
- Formalise tree planting along River Road and to Church Street and Hargrave Street
- Primary landscaped links from the Town Centre to the Riverfront along - Rankens Court and Margaret Street and a secondary link along Hope Street

BAKER PARK PRECINCT

Land Uses

The Baker Park Precinct will accommodate a diverse range of potential uses including:

- Regional level community recreational facilities, such as increased numbers of netball courts and a recreational pool
- District level amenities facilities
- Local level community facilities such as shelters, benches, exercise facilities and an all abilities children's play area
- Increased residential uses along the southern portion of Howarth Street, along Warner Avenue, Ithome Street and along Rose Street

Accessibility

The Baker Park Precinct will:

- Improve connectivity between the Town Centre and the Precinct
- Implement the use of Rose Street in a part two way/ one way arrangement with the two way segment at the western end of Rose Street and the one way segment midway down Rose Street leading into Ithome Street
- Implement the use of Ithome Street as a one way street southbound to Warner Avenue to promote improved access and circulation during race day events and sporting events
- Provide carparking facilities to cater for the planned upgrade of existing netball facilities and ongoing park and ride facilities at Wyong Station

Public Domain

The Public Spaces in the Baker Park precinct should generally encapsulate the same principles as listed for the Active Foreshore Precinct.

Landscape Character

Baker Park improvements will include:

- Asymmetrical street tree planting to Howarth Street
- Symmetrical planting features along Rose Street and Ithome Street
- Increased planting to Warner Avenue and Pollock Avenue provide pedestrian shade and amenity and streetscape value



Above: Game of netball Below: Apartment heights stepping down.

PRECINCT DESIGN OBJECTIVES

ACTIVE RIVER FORESHORE PRECINCT

- To encourage amalgamation of smaller sites while retaining and promoting fine grain frontage to Hargrave Street and River Road as well as encouraging address to side access down to riverfront areas
- To activate a retail precinct to Church Street and Hargrave Street
- To allow an increase in residential uses and height in key sites where additional height can be demonstrated to have an overall positive effect upon the built form of the Precinct
- To ensure a consistent contemporary and modern architectural form and treatment
- To encourage a degree of unity in the built form through adherence to a typology that encourages a cohesive pattern with which buildings occupy the block and address the street
- Create an active frontage and definition of public domain

BAKER PARK PRECINCT

- To create improved carparking opportunities that do not detract from the streetscape and quality of built form in the Precinct
- To promote the integration of basement carparking for all developable sites in particular residential apartment buildings
- To strengthen open space linkages to Wyong Town Centre by integration of open corridor extension from Alison Road over Railway Corridor through existing Tennis Courts and Wyong Pool
- To improve connectivity to Wyong Race Course at intersection with Rose Street and south to Warner Avenue
- To provide improved Open Space recreational facilities to Baker Park
- To increase recreational open space to Baker Park
- To promote the acquisition of private lots along Pollock Avenue
- To create a stronger identity through built form differentiation and diversity
- To create residential opportunities through the provision of more floor space with higher density residential development ranging between 4 and 6 storeys

MASTER PLAN

Two concept master plans have been prepared to incorporate the objectives, vision and desired character, outlined above, for the two precincts. Option 1 takes a broad approach towards the design of buildings to maximise views and solar access to apartments. Option 2 considers the design of building following the land ownership pattern.

CONCEPT MASTER PLAN OPTION 1

This concept master plan responds to the issues and opportunities of the site regardless of the current land ownership pattern, thus maximising the sites' potential (particularly from an architectural perspective).

ACTIVE RIVER FORESHORE PRECINCT

The key design features of this option include:

- Adopts the existing street layout as an extension of Wyong Town Centre.
- Medium to High Density Residential development is proposed along Church and Hargrave Street.
- Lower density residential development is proposed along Jennings Street.
- The apartment buildings will be raised above natural ground level with some stepping down to River Road.
- They are all modulated and shaped in order to take best advantage of views to the south overlooking Wyong River.

The proposed plan does not integrate the existing land ownership structure as an investigation into ideal building typology for the site.

BAKER PARK PRECINCT

The key design feature of this option includes:

- Adopts the existing street layout within the Baker Park Precinct.
- Medium to High Density Residential

development is proposed along Howarth Street and Rose Street including an area along Warner Avenue terminating at Levitt Street.

- The apartment buildings have been oriented to maximise northern aspect for sunlight into living areas.
- View corridors are maintained through to Baker Park Sports Fields and Wyong Pool.
- Continuous ground floor podium is proposed along Howarth Street and Rose Street to reinforce existing urban block form.
- Building forms are proposed to be integrated with Wyong Race Club lands as well as land at the northern corner of Rose Street and Howarth Street to reinforce street edge to both sides of Rose Street.
- A transit oriented development building that incorporates commercial, retail and parking is along Howarth Street.
- Ithome Street to be one-way with angle parking to provide more parking availability for events in Baker Park as well as assisting with large traffic flows during race days.
- The proposed plan does not integrate the existing land ownership structure as an investigation into ideal building typology for the site.

CONCEPT MASTER PLAN 2

This concept master plan incorporates the key elements of the concept master plan, observing existing lot boundaries and the current land ownership pattern.



Figure 16: Master plan Option 1

ACTIVE RIVER FORESHORE PRECINCT

The key design feature of this option includes:

- This option also adopts the existing street layout as an extension of Wyong Town Centre.
- Medium to High Density Residential development is proposed along Church Street and Hargrave Street.
- A continuous podium extends along Church Street from Pacific Highway to Rankens Court.
- Lower density residential development is proposed along Jennings Street.
- The apartment buildings will be raised above natural ground level with some stepping down to River Road.
- Overland flow paths have been allocated within the scheme at four different points across the site, adjacent to Hope Street, Margaret Street, mid way between Margaret Street and Rankens Court and at the end of Ranken Street leading down to the River Foreshore.
- All residential flat buildings are shaped in order to take advantage of views to the south overlooking Wyong River whilst accommodating the existing land ownership structure.
- The entry to River Road from Pacific Highway is proposed to be realigned to provide more open space and potential for a significant

gateway building form at the junction of these two important roadways.

- River Road is proposed to be realigned retaining two way access leading from Pacific Highway around to Hope Street providing greater scope for Open Space along the river front.

BAKER PARK PRECINCT

The Preferred Option adopts the existing street layout within the Baker Park Precinct as well as considering the existing Land Ownership structure in the Precinct.

The key design feature of this option includes:

- Medium to High Density Residential development is proposed along Howarth Street and Rose Street including an area along Warner Avenue terminating at Levitt Street.
- The apartment buildings have been oriented to maximise northern aspect for sunlight into living areas but respect existing urban block form.
- View corridors are maintained through to Baker Park Sports Fields and Wyong Pool.
- A broken ground floor podium is proposed along Howarth Street and Rose Street to provide integration of north south axis into Wyong Race Course from Levitt Street and adjacent to Wyong Tennis Club.
- Building forms are proposed to be integrated with Wyong Race Club and is informed by

the early sketch proposals provided by the owners of the Club.

- Ithome Street to become a one-way with angle parking to provide more parking availability for events in Baker Park as well as assisting with large traffic flows during race days.
- A transit oriented development building that incorporates commercial, retail and parking is proposed along Howarth Street.



Above: Gateway building with active uses on ground floor. Below: Community building/library with plaza forecourt.



Figure 17: Preferred Master Plan Option



Figure 18: Building Uses



Figure 19: Section Plan

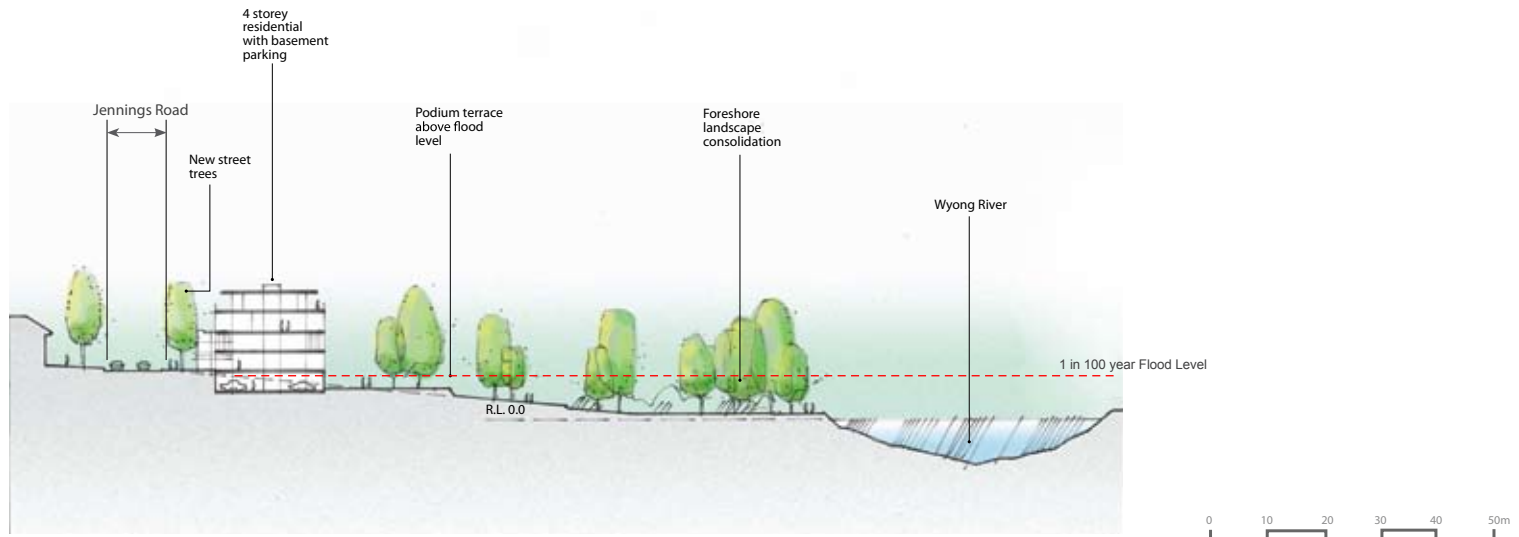


Figure 20: Section 1, Active River Foreshore Precinct

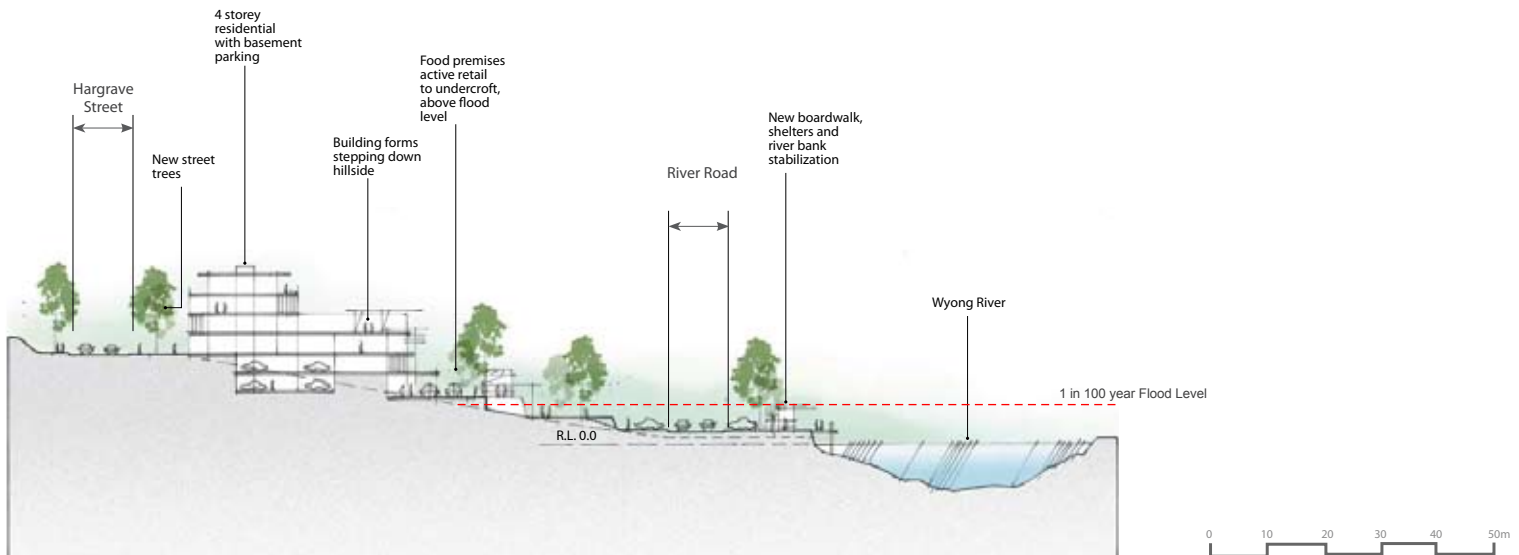


Figure 21: Section 2, Active River Foreshore Precinct

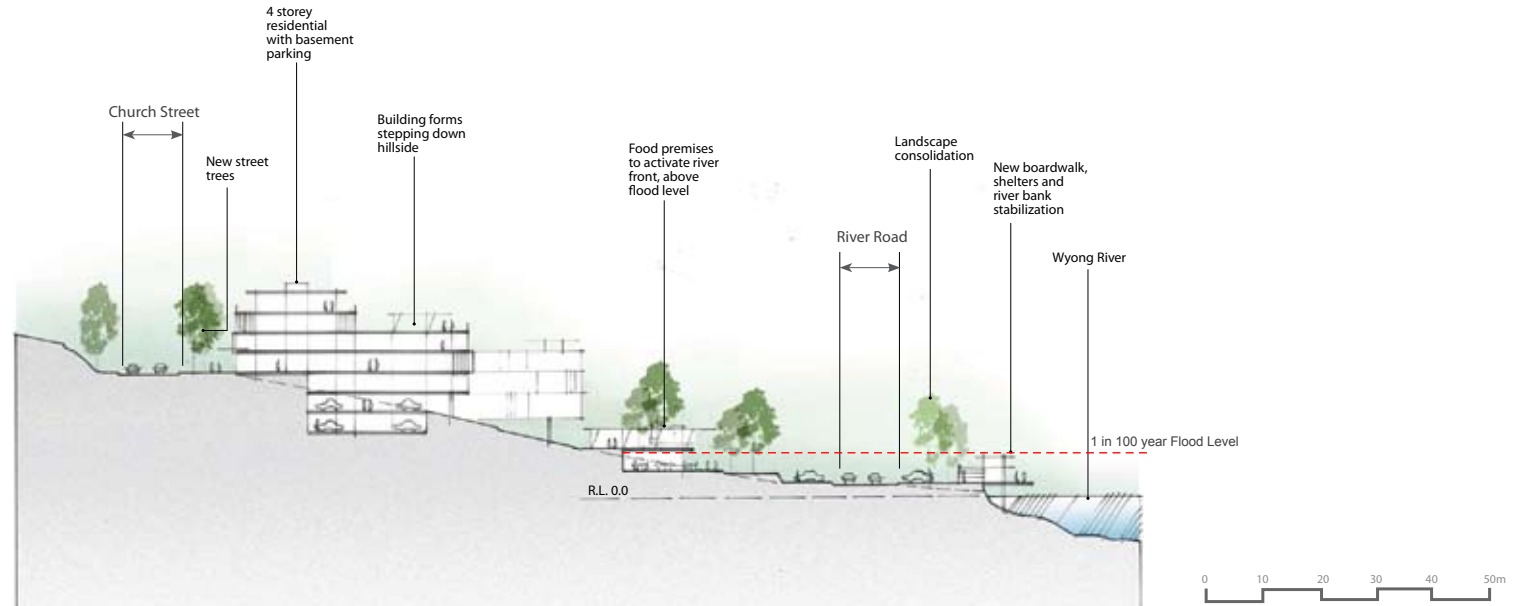


Figure 22: Section 3, Active River Foreshore Precinct

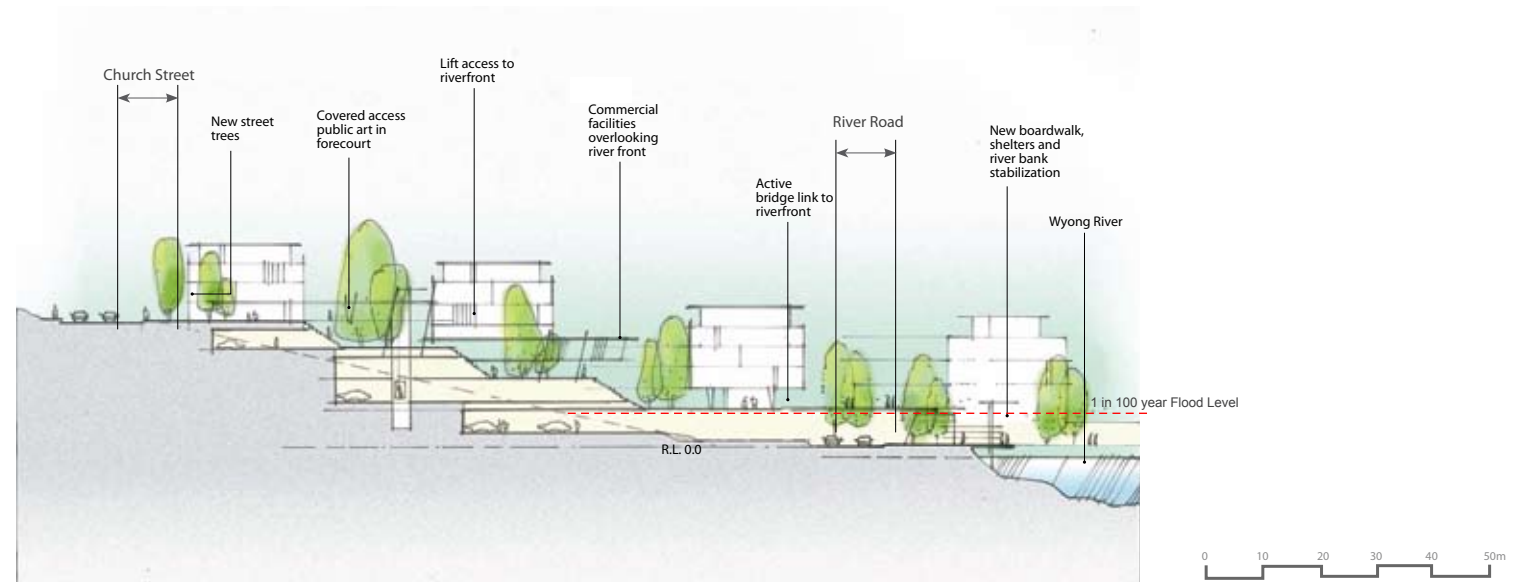


Figure 23: Section 4, Active River Foreshore Precinct

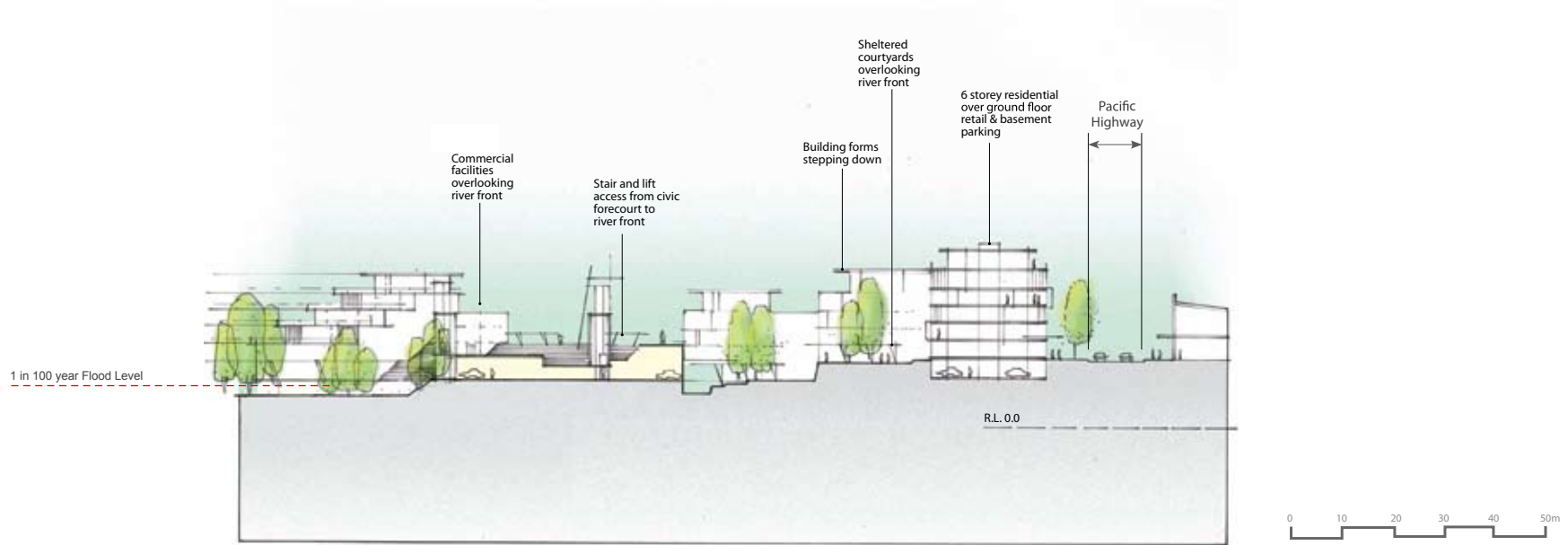


Figure 25: Section 5, Active River Foreshore Precinct

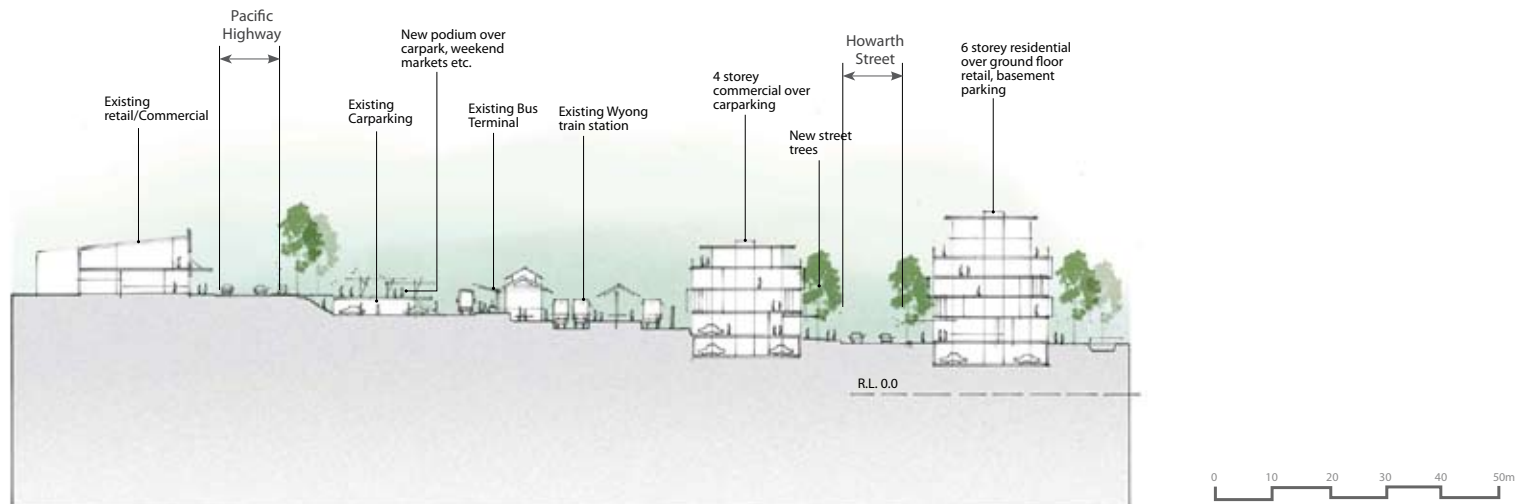


Figure 26: Section 6, Active River Foreshore Precinct

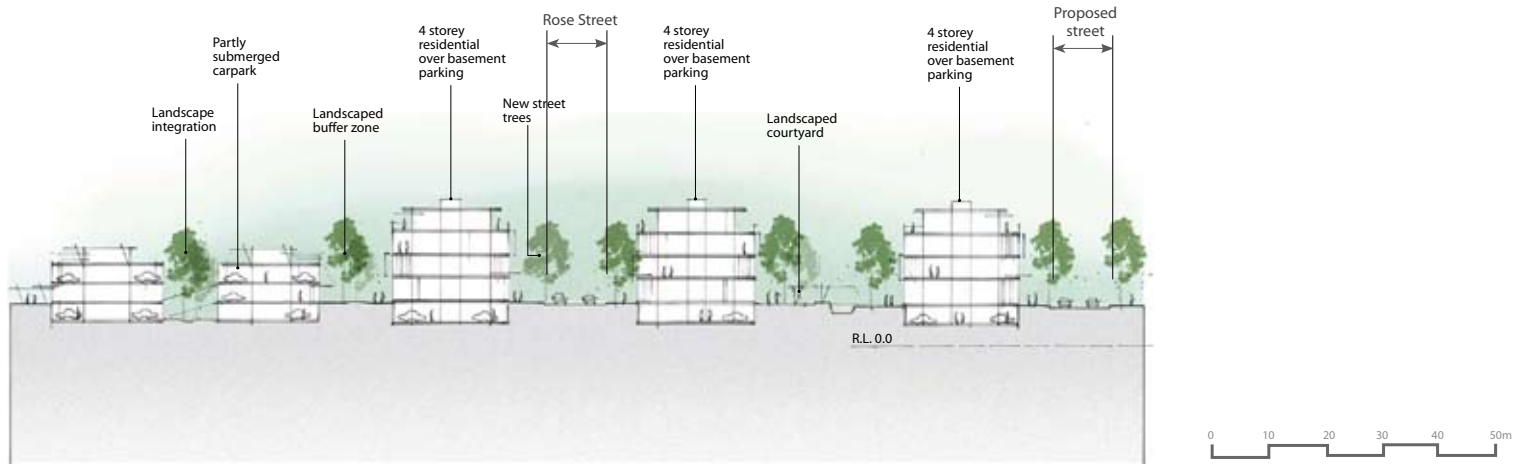
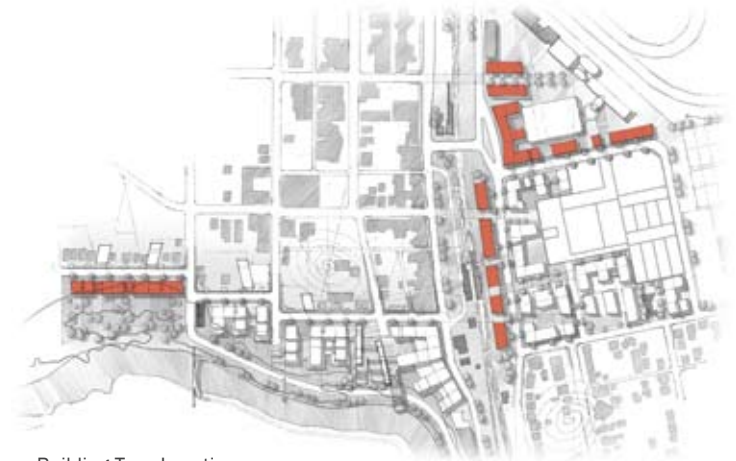
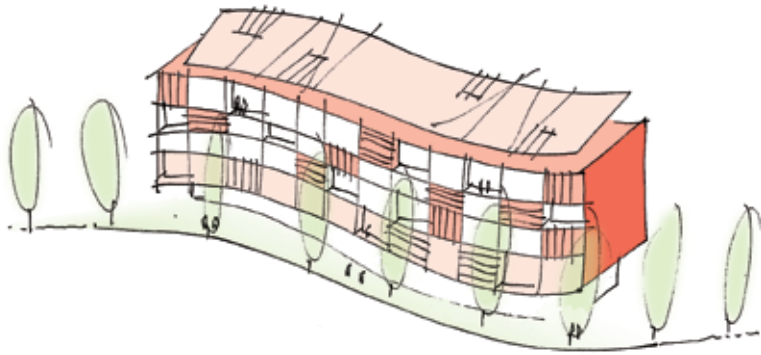


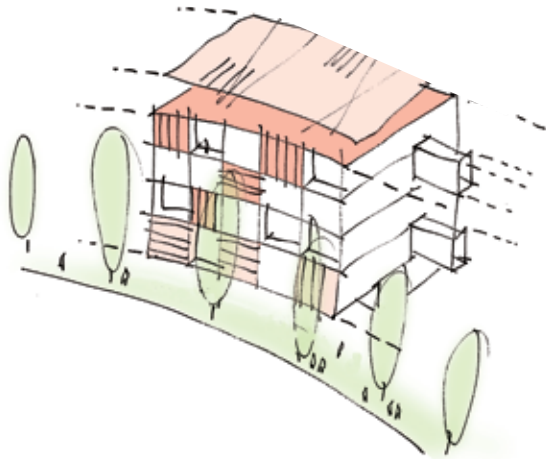
Figure 27: Section 7, Baker Park Precinct

BUILDING TYPES

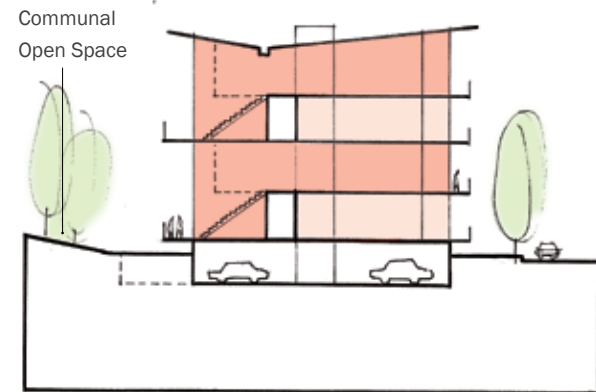
MEDIUM DENSITY APARTMENTS



Building Type Location



Perspective

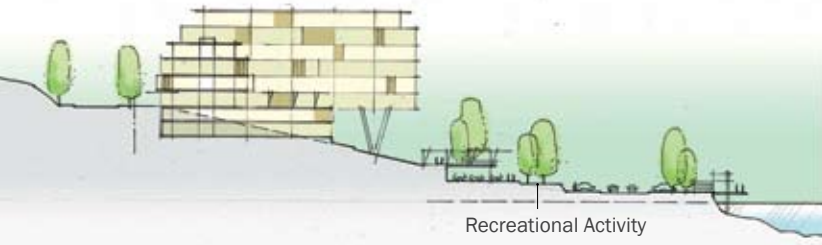
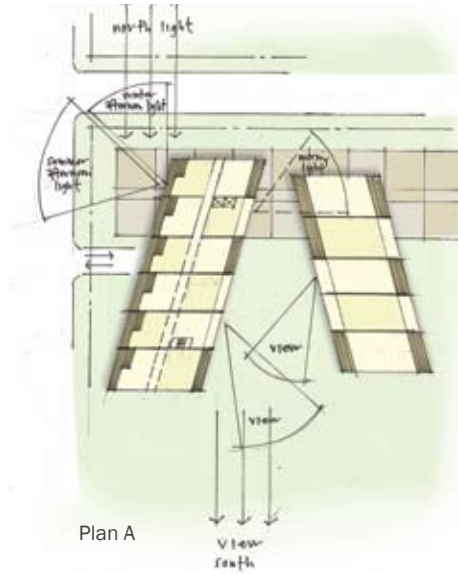


Section

WATERFRONT APARTMENTS

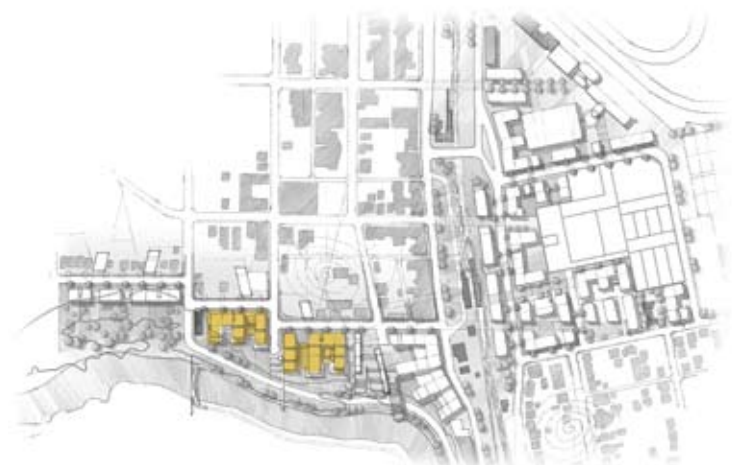
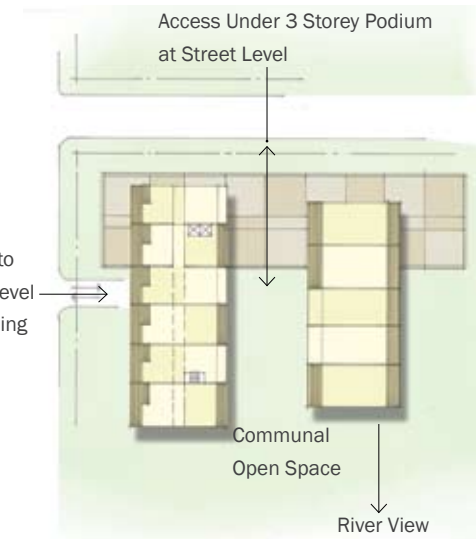


Perspective



Section

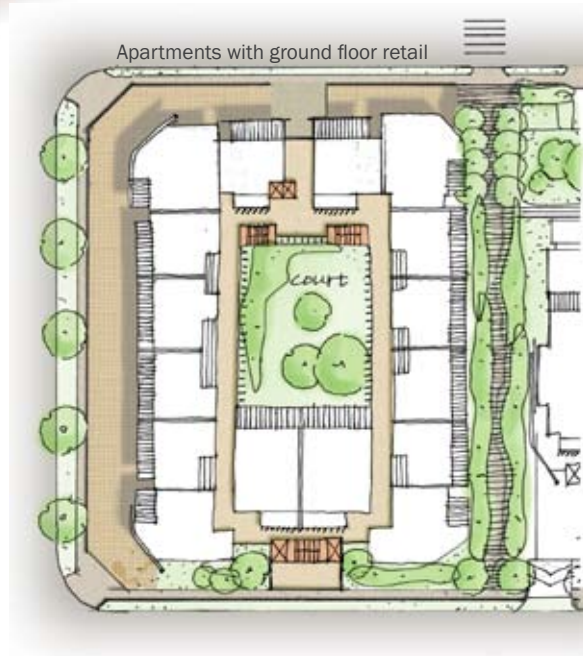
Recreational Activity to Both Sides of River Road East



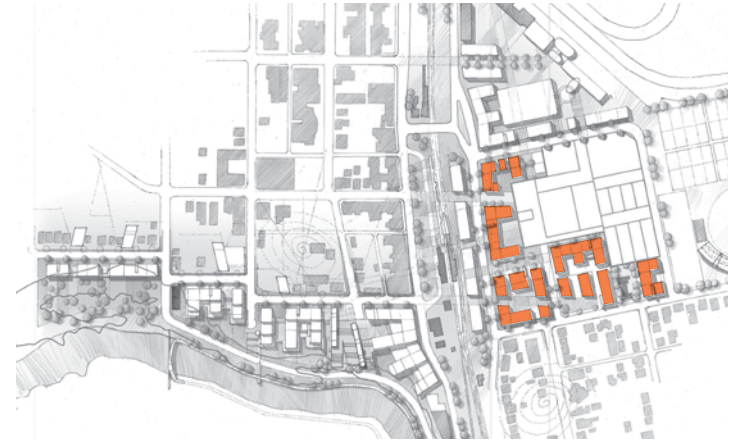
COURTYARD APARTMENTS



Perspective

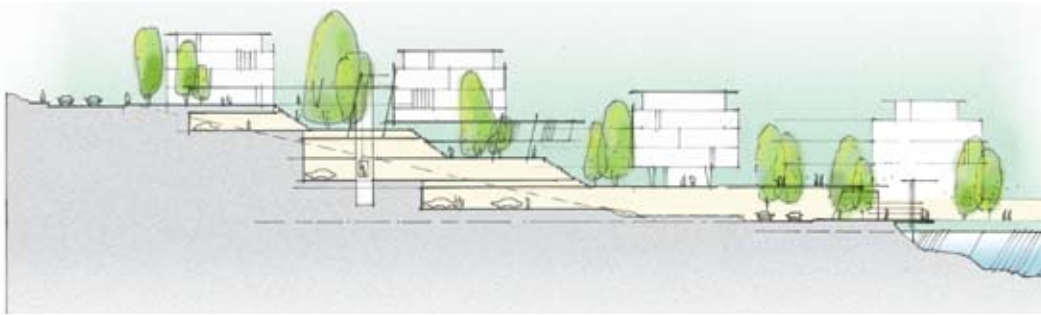


Plan

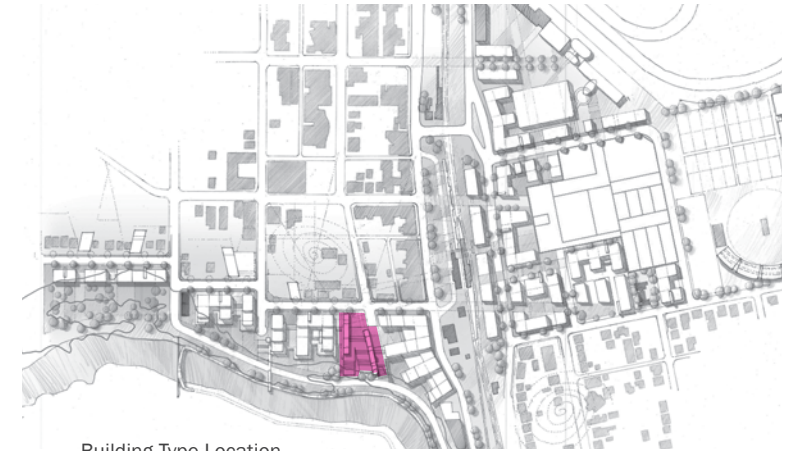


Building Type Location

TERRACED CIVIC SPACE



Section



Building Type Location



Perspective

LANDSCAPE ELEMENTS AND MANAGEMENT

VEGETATION MANAGEMENT

Values of vegetation

Trees are a vital component of rural and recreation areas. The benefits of trees include:

- Regulating the micro-climate - trees moderate wind and urban heat mass through shade and windbreaks
- Reducing water run-off + stabilising embankments - trees protect topsoil and bind soil to avoid erosion. Trees also allow greater stormwater infiltration, allow stormwater to be cleaned and replenish subsurface water reserves allowing plants to survive during extensive periods of without rain or during drought
- Improving air quality – by removing pollutants from the air
- Carbon storage – by removing carbon dioxide from the air
- Property values – properties surrounded by substantial landscaping have been shown to increase in value and their attractiveness to consumers
- Traffic control - trees can make a street appear smaller therefore encourage drivers to reduce speed. This is a major passive traffic calming design treatment

Protection of existing vegetation

The protection of existing vegetation and endemic trees is essential for the following reasons:

- Indigenous vegetation provides a sense of place. Within the subject site two vegetation communities exist
- Coastal Foothills Spotted Gum - Ironbark Forest (Foreshore)
- Wyong Paperbark Forest (Baker Park)
- The protection of the existing vegetation on the river bank is essential for stream health. Riparian zones require soft planted edges for bank stabilisation and healthy habitat. Indigenous terrestrial plants, aquatic plants and native fauna are dependent on each other, where one fails all others are likely to be heavily affected
- The proposed urban character can be enhanced by managing existing trees and ameliorating with others.
- Steps for protection of existing trees include;
 - Where development occurs, trees should be fenced as recommended by a qualified arborist (minimum certificate 5 in arboriculture) and the root zone protected.
 - Trees must be reviewed regularly by an arborist (minimum certificate 5 in arboriculture). Establishing a risk management plan should determine the interval of review (ie annual, biannual,

every 5 years or after major storms).

- Planning should consider connected stands of indigenous vegetation for habitat.
- In the event of major works occurring within areas of the site including large stands of native vegetation a Vegetation Management Plan may be required (deemed by WSC) as noted in section 5 of WSC DCP 14.

Proposed tree species

Tree species have been selected to:

- Reinforce the existing character of three different zones identified in the master plan
- Reinforce the natural landscape character and provide benefits to native fauna (through the inclusion of a proportion of locally-native tree species)

Any trees selected must reflect Wyong Shire Council guidelines for selection and planting of trees.

Note: E.Pilularis or E.Saligna to substitute C.Maculata Species indicated on Schedule Alternative Species scheduled by Council's Landscape Architect:

Eucalyptus umbra

Eucalyptus propinqua

Syncarpia glomulifera subsp.glomulifera

Eucalyptus acmenoides

Eucalyptus paniculata subsp. paniculata

Note: Line of trees indicated on Figure 28. to the eastern side of the Pacific Highway in blue dashes will have different soil conditions to trees along the foreshore. Council's landscape architect to consider selection of species to suit soil conditions.

Refer to Table 2 and Figure 28.






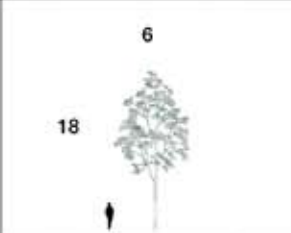
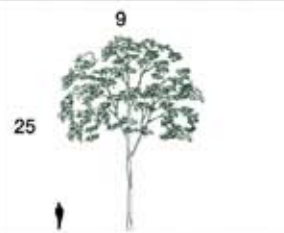
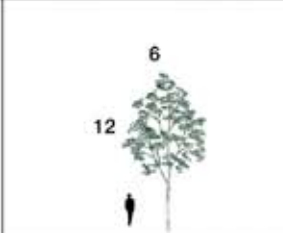
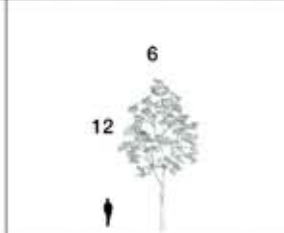
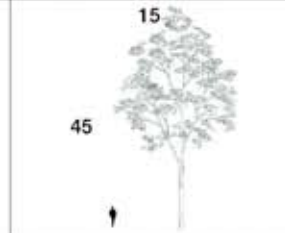





					
Size + Habit height x spread	6 18 	9 25 	6 12 	6 12 	15 45 
Botanical Name	Casuarina glauca	Lophostemon confertus	Eucalyptus haemastoma	Melaleuca quinquinervia	Corymbia maculata
Common Name	She Oak	Brush Box	Scribly Gum	Paperbark	Spotted Gum
Features	Hardy, tolerates periods of drought and extended water logged soils. Fast growing	Tall, extremely hardy tree with an balanced canopy. Tolerates some frost and extended periods without rain.	Low to medium gum tree featuring interesting bark and highly suitable as a street tree. While not indigenous to the site it exists endemic to the region.	A medium sized indigenous tree found growing in swamps a wetlands and commonly used as a hardy street tree in urban areas.	A large indigenous tree suitable for parklands. The tree is symbolic of this region with mature specimens located beside the river.
Zone	Active foreshore; - River edge - Vegetation buffer	Baker Park, oval boundary.	Roads connecting to the river edge.	Roads adjoining Baker Park.	Active foreshore.
Code					

Table 2: Street tree schedule.

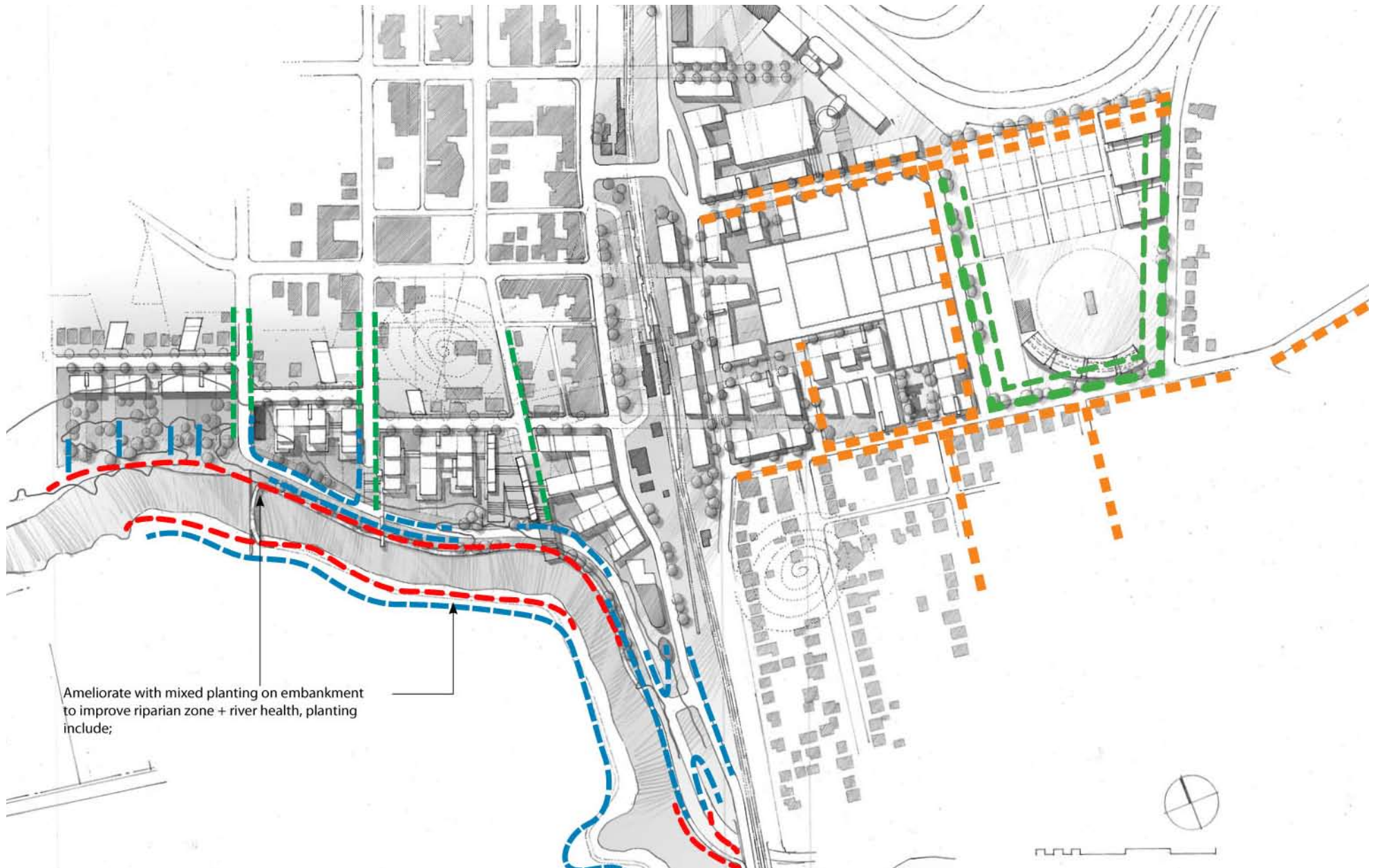


Figure 28: Street tree plan

LANDSCAPE TREATMENTS

Foreshore River Edge Treatment

The foreshore areas consist of three interface zones:

- Hard – where the road reserve and/or river erosion issues shall deem necessary a hard river edge to provide access and minimise further erosion. The edge may be an extension of the existing sandstone wall, rock gabions or informal boulders.
- Integrated – Where pedestrian access has been provided adjoining the river edge however the river contains a soft planted edge. While this zone has natural qualities, planting has been selected to allow for maximum embankment stabilisation, visual access and low maintenance qualities.
- Riparian – Where pedestrians pathways are located away from the revegetated indigenous riparian zone.

While the foreshore’s main focus is recreation; social, aesthetic, security, tourism and ecological consideration must be accounted for within a detailed design. Sites containing high levels of existing use may not be suitable for future revegetation. However through an integrated zone, both recreation and ecological functions can be combined.

Active recreational uses must also be considered. The foreshore is not suitable for active open space. The area is most suited to passive spaces including shelters, seating and

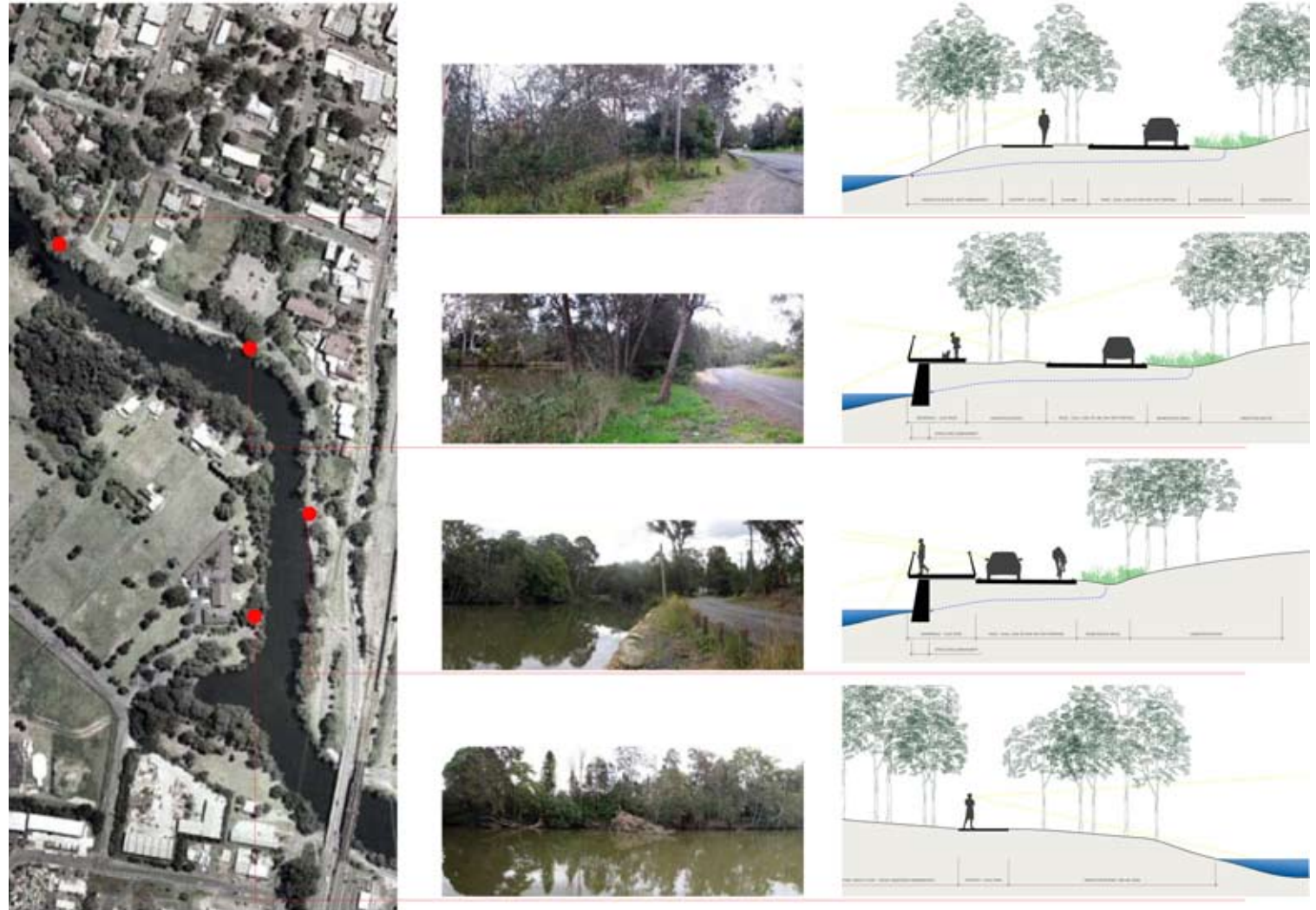


Figure 29: Active Foreshore landscape sections

meandering paths. Active uses may consist of jogging, bike riding and walking with possible installation of public exercise facilities.

Access to a launching point for canoes should be encouraged as River Foreshore provides excellent potential for viewing boat and canoe racing.

Long term maintenance must be considered for native revegetation areas. Areas for revegetation should be focused on large connected stands that may fall into local Landcare maintenance programs. Stormwater must also be treated prior to reaching the creek system and these treatment systems can be integrated into the revegetation.

Pedestrian & Cycleway Network

An integrated pedestrian and cycleway network has been planned along the foreshore consisting of a shared recreational pathway and a commuter/fitness pathway. Considerations include:

- Sufficient width for passing and stopping, refer to the RTA's NSW Bicycle Guidelines and Austroads – Section 14
- A legible path with clearly defined destination points at suitable intervals
- Regular rest spaces adjoining the main pathway
- Convenient connections that allow users to choose alternative routes and where possible pathways designed for non-discriminatory access

- Safe access points across busy streets (either by signalised crossings or non-signalised marked pedestrian crossings, with roundabouts not suitable where other treatments are not included to greatly slow or stop traffic)

The conceptual design of the pathway system presented in the Master Plan has been based on these principles. Generally, paths must provide non-discriminatory access. Path design must comply with Austroads Part 14 and AS 1428 Parts 1, 2, 3 and 4 – Design for Access and Mobility.

Facilities to support bicycle riding shall be integrated into greater civic design. Considerations include:

- Areas of high use along the shared pathways should be provided with bike racks (particularly near children's playgrounds, picnic and rest areas)
- Bubblers located near seating or stopping areas
- Bicycle facilities designed and constructed in accordance with the RTA's NSW Bicycle Guidelines and Austroads – Section 14 Bicycle Standards
- Regular tree planting for continuous shading

Lighting

Main pathways and night-time thoroughfares should be defined and may require lighting relative to nocturnal use levels and requirement



Top left: Timber boardwalk, handrails only where necessary. Top right: Information signage inserts into boardwalk. Bottom left: Timber boardwalk over water, architectural handrail. Bottom right: Preserving soft edges to the water in key locations.

for greater levels of safety. Generally, public open space should not be lit at night, to minimise anti-social activities.

Park furniture

Park furniture is one of the most visible and identifiable aspects of a typical urban park. Qualities for furniture within the subject site include

- Selection from one consistent suite with a standard form and finish:
 - Baker Park – Timber and weathered steel with select paint finish
 - Active Foreshore – Timber and weathered steel
- Must demonstrate robust, easily maintained and fixed and require little ongoing maintenance
- Incorporate anti-skateboard features in units such as park seats

Consider anti-social behaviour as a result of incorrectly located seating areas.

The use of furniture installed elsewhere by Wyong Shire Council may be appropriate, to build upon an established suite for the local

government area. It may be possible to modify such styles to include a motif or other aspect of the design reflective of the river and/or bushland.

Paving + Surfaces

Paving and surfaces shall be selected from the standard palette of materials.

- Feature paving – Exposed aggregate (white – mixed ag sizes) and with coloured oxide (white)
- General paving – Plain concrete with feature panels including colour inserts, rock salt finish
- General access + seating areas – Concrete



Active River Foreshore materials, finishes and park furniture

Baker Park materials, finishes and park furniture

stabilised gravel fines. Not to be used on steep grades (over 1 in 20) and not to be used in major thoroughfares

Picnic areas

The existing Picnic Area located at Centennial Park adjacent to the Bridge leading south to Tuggerah Straight to be retained and enhanced. New planned picnic areas should include some sheltered and non-sheltered tables, BBQs and shade tree planting. Amenities to be close to car parking areas and other facilities such as children's play areas.

Children's play facilities

A number of children's play facilities are proposed, such as playground areas and a children's bike path to the Baker Park Precinct. These facilities have been designed to be located close to other complimentary activity centres such as picnic areas.

The central zone at the termination of Rankens Court includes a play/sculpture feature. This feature has been designed to become a signature focal point that draws visitors



Top: Baker Park shade structures on periphery with seating setting. Top right: Baker Park climbing playground structure to view across the park. Right: Playground setting with integrated edges

to Wyong Town Centre and is an identifiable feature of it. Where such facilities exist they can become popular drawcards to tourists and local residents.

Car Parks and existing parking arrangements

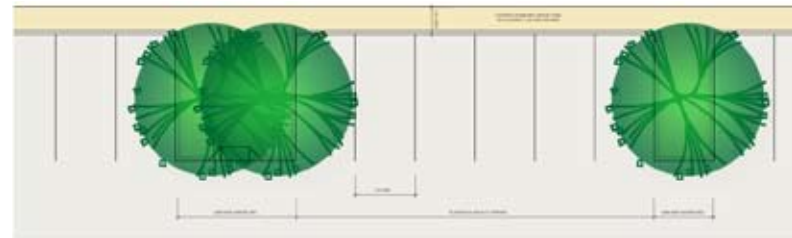
Minimum car parking requirements shall be defined by the WSC DCP 61 and designed to accommodate extensive canopy cover and planting as noted within this document. Car parks shall include regular planting and access bays.

Where possible car parks and stormwater treatments shall be integrated using swales, detention basins and/or permeable paving. Refer to stormwater treatments.

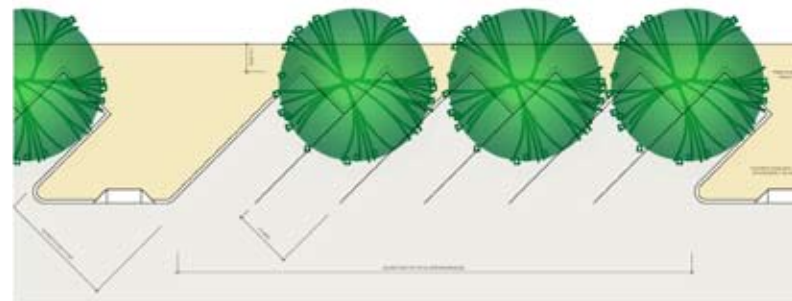
General plant management

All public open space should be designed to minimise landscape maintenance. Design measures include:

- Planted areas to be well prepared prior to planting. Soil to be free draining, uncompacted, well mixed with suitable levels of organic matter and contain an approved soil conditioner.
- Trees planted in turf areas must contain a minimum 1m wide mulch barrier, no machine maintenance (mowers + whipper snippers) should encroach into mulch area. Mulch to be replenished regularly.
- Provide hard mowing edges to define garden beds. Hard edges may include concrete edge strips, steel edges and/or hardwood timber edges.



perpendicular parking with tree planting.



angled parking (45 degree) with tree planting.



parallel parking (45 degree) with tree planting.



Asymmetrical tree planting for areas with overhead powerlines.

Figure 30: Baker Park car parking landscape details

- Plants must be hardy, where possible native and where suitable indigenous.
- Regular spacing for tap and/or quick coupling valve.

Turf areas

Turf is relatively high maintenance requiring a regular mowing and maintenance program. Costs of turf can be far greater than planting beds considering long term maintenance requirements. Turf also has very low ecological benefits and can increase pollution levels. Therefore, the use of turf must relate to the anticipated function.

Regular turf maintenance treatment programs should be considered to improve drought resistance, grass cover and reduce compaction of heavily used areas. Turf varieties should be selected for drought resistance and low maintenance (fertilising). Turf such as Zoysia may be a more effective alternative to traditional Couch.

Weed management

A weed maintenance regime should be considered to minimise weed cover relative to stands of indigenous bushland and relative to public exposure. Generally, weeds must be removed and safely discarded prior to soft landscape works. Where appropriate, weed clearing may be undertaken using chemical means, however, where there is a risk to existing native site vegetation or vegetation adjacent to the site, weed removal must be undertaken by hand. A bush regeneration program should be

considered for areas intended to be returned to indigenous plant communities and/or the managing stands of indigenous vegetation.

Species selection for future planting areas should be considered based on ability to out compete major weed species.

Soil management

The site's soils are generally altered and the result of extensive filling. Existing soil, particularly within the Baker Park precinct, should be tested by an approved soil laboratory and treated as necessary. Samples should be taken from a variety of locations and treatments specific to those locations rather than a single predefined treatment solution.

Trees

The following guidelines should apply to tree selection and placement:

- All trees are to be sourced from accredited Natspec suppliers accompanied by written Certification that the trees are true to type and grown to Natspec standards.
- Trees must be planted in accordance within an approved root control device or structural soil vault where trees are designed within



Retaining character of the Spotted Gum Forest along the river



Custom tree guards on highly visible trees

paving to avoid pavement damage.

- Location to comply with RTA clear zones.

Stormwater Management

Stormwater management systems and Water Sensitive Urban Design (WSUD) should be integrated into all future development concepts to improve water quality and river health. WSUD water treatments should be integrated into a network of treatment systems, known as a 'Treatment Train'. No single stormwater treatment can treat all pollutants. A treatment train may include:

- Absorption and bio-retention swales - to remove fines and gross pollutants.
- Permeable paving – to increase subsurface penetration and minimise run-off.
- Retention basin – to remove suspended solid.
- Gross Pollutant Trap – to remove gross pollutants.
- Shallow detention basin – to remove suspended solids and heavy metals.



Top: Gravel parking areas with swales for level parking areas. Top middle: Swale in median strip, rock spalling used to manage erosion and reduce compaction through vehicle access. Top right: Permeable pavers with gravel infill for areas with greater fall and likelihood of erosion. Bottom left: Artificial creek system with varying sized rocks and macrophyte. Bottom right: Cement stabilised gravel fines with drainage swale adjoining, is a cheap material, allows permeability.

RECOMMENDATIONS

DEVELOPMENT ADJOINING WYONG STATION

The master plan options identify development opportunities in the land adjacent to the rail line which will promote a transit orientated development building as it will significantly increase uses in the vicinity of the transit hub.

Wyong Shire Council should undertake discussions with Railcorp, Roads and Traffic Authority and other tiers of Government to investigate development opportunities close to the Northern Rail Line and Wyong Station.

CAR PARKING FACILITIES

Council should investigate Joint Venture Development to improve public car parking in a number of key locations including options with Wyong Race Club to have a joint use carpark on the Race Club's land adjacent to Rose Street and opposite Wyong Sports and Tennis Club.

It is noted that the Race Club mainly have week-day meetings with the occasional races on Sundays, no races are held on Saturdays. The netball courts are used on Saturdays between April and August which present few conflicts.

IMPLEMENTATION

The full implementation of the Active River Foreshore and Baker Park Precinct Master Plans will be dependent on a number of factors:

- Availability of capital works budget to realise key infrastructure works and detailed staging to meet specific financial streams available to Council.
- Detailed Staging requirements relating to major proposed infrastructure works such as:
 - The Performing Arts Centre or Multi-Function Community Centre
 - The Active River Promenade
 - Bridge link to Wyong River South Bank
 - Upgrade to Railway Overpass to Pacific Highway
 - Implementation of integrated car parking Strategy to Baker Park Precinct including Wyong Race Course
- The tendering and take up of key development nodes and associated public realm improvements.
- The commencement of the next stage of consultant studies to further test, resolve and document each of the Master Plan key features.
- Finite staging/ costing cannot be determined until each of the above are further resolved.

Any preferred staging of the Wyong Active River Foreshore and Baker Park Precincts would therefore be indicative and is necessarily flexible with each element able to be staged into a sequence of component parts.

FUNDING OF PUBLIC INFRASTRUCTURE

Council should seek to engage other government and private sector entities to offset costs and mitigate some of the risks involved in the project and to assist in providing funding for common user infrastructure associated with the development, such as the realignment of roads, bridge links, pedestrian walkways and the like.

At this stage, the scale of the Active River and Baker Park precincts should be investigated for potential to generate a Public Private Partnership (PPP). In this instance, private sector involvement is more likely to involve property developer providing some economic infrastructure and community facilities and part of a residential and commercial development adjacent to the riverfront. Projects that could be developed through a PPP include: the Performing Art Centre, the Aquatic Centre, the 3000 seat stadium to Baker Park and potentially the multi-storey parking structures to Baker Park and the Rankens Court.

Wyong Shire Council will likely need to fund common-user infrastructure through the S94 Plan for public domain areas including Children's play areas to Baker Park, boardwalk along Wyong River and connection to Wyong Town Centre at least in the first instance.

The best outcome for Wyong Shire Council would be to secure some seed funding under

State Major Projects and/ or Commonwealth programmes such as the Commonwealth Regional Assistance Programme. In this case, the risk and costs are shared by multiple sectors.

Council should consider the preparation of an Economic Assessment Study to ascertain delivery strategy of public infrastructure .

RIVERFRONT DEVELOPMENT KEY SUCCESS FACTORS

Common factors that assist in successful outcomes in development sites of the scale proposed within Active River and Baker Park Precincts are listed below:

- The staging of developable areas that establish essential infrastructure with the aid of government seed capital funding from at least two tiers of government.
- Necessary common-user infrastructure should be in place in order for the precincts to attract private sector development including residential interests. It is a common outcome within similar types of projects that the private sector will be attracted following public domain infrastructure being implemented.
- Easy pedestrian access and ample car parking are important, in particular to both precincts in a Region that is significantly car dependent.

Provision of LEP controls that provide incentives for redevelopment of site, such as Increased Height and FSR and bonuses for minimum lot size or a desired land use.

DCP guidelines that are both robust and flexible and promote innovative building design.

DCP RECOMMENDATIONS

The following recommendations address key planning and design considerations that could be incorporated into a Development Control Plan (DCP) for the Active River Foreshore and Baker Park precincts.

The aim of the DCP is to allow robust and flexible controls that promote viable developments, as envisioned in the Master Plan options, in both precincts.

ACTIVE RIVER FORESHORE DCP

Public Open Space Provision

Local open space should be considered at a broader context level:

- Riverfront walkway, jogging track that crosses Wyong River should be regarded as local open space.
- Walkways that step down from Church Street and Hargrave Street in particular along Rankens Court are to be regarded as local open space.

- Provision of clear public domain areas to Rankens Court and Margaret Street and view corridors to south looking over Wyong River.

Built Form

The built form is integral to shaping the size and nature of the public domain to the Active River Foreshore Precinct. The proposed height and built form recommendations in this Master Plan report should inform any amendments to the current planning instruments.

In particular the following built form controls should be incorporated in the DCP:

- Provision of more floor space with higher density residential development ranging between 4 and 6 storeys.
- Encourage a continuous podium along Church Street and Hargrave Street to define street frontage.
- Maintain lower scaled development west of Hope Street along Jennings Road that is more consistent with existing character of area.
- Differentiate and emphasise Gateway Sites through use of landmark buildings in particular at the Junction of River Road and Pacific Highway and at Rankens Court.
- Corners should be addressed
- Continuous awnings along Church Street and Hargrave Street should be provided.
- Building form and location should minimise overshadowing of public open space in

particular along River Road. Promote demonstration of impacts of overshadowing on open space through different times of the year.

Protection of view corridors

- View corridors along Rankens Court and Margaret Street are to be promoted as a significant component of Active River Precinct Master Plan. Building Forms are to respond to view corridor vantage points.
- Promote building forms that also respond to provision of views between built forms and sharing of viewing lines to the South.

Housing Types and Mix

- Housing choice and mix should refer to the whole precinct not only particular lots or street frontages.
- There should be provisions for a mix of apartments, attached and semi-detached dwellings across the site.
- The housing mix should also relate to the topography of the site.

Sustainability - Energy Efficiency and Conservation

- The controls should promote the location of the living areas towards the north while having bedroom areas towards the south.
- Incorporate energy efficiency in the design, construction and use of buildings.

- Use alternate power sources such as solar energy where appropriate.
- Encourage recycling of stormwater for irrigation.

BAKER PARK DCP

Built Form

The proposed height and built form recommendations in this Master Plan report should inform any amendments to the current planning instruments.

In particular the following built form controls should be incorporated in the DCP:

- Provision of Medium Density Residential Buildings with low level retail space at ground floor along Howarth Street on east and western sides close to the rail.
- Reinforce the existing urban grid and block structure between Warner Avenue and Rose Street.

Protection of view corridors

- View corridors to recreational open space at Baker Park Sporting Fields to the east of the site should be promoted.
- Views looking north over Wyong Race Club should also be promoted.
- A view corridor from Alison Road looking east across Wyong Station to the Baker Park Precinct should also be integrated as part of any DCP control.

Housing Types and Mix

- Housing choice and mix should refer to the whole precinct not only particular lots or street frontages.
- There should be provisions for a mix of apartments, and attached dwellings across the site.
- The housing mix should generally be promoted as having a high quality urban character.

Sustainability - Energy Efficiency and Conservation

- The controls should promote the location of the living areas towards the north while having bedroom areas towards the south.
- Incorporate energy efficiency in the design, construction and use of buildings.
- Use alternate power sources such as solar energy where appropriate.
- Encourage recycling of stormwater for irrigation.

- Encourage collection of rainwater for use in building amenities.

Car parking

- Ensure all future residential developments provide for 100% of their own parking requirements including visitor and service vehicle requirements.
- Retail and special use developments to provide 90% of their parking requirements on site within basement car parking.