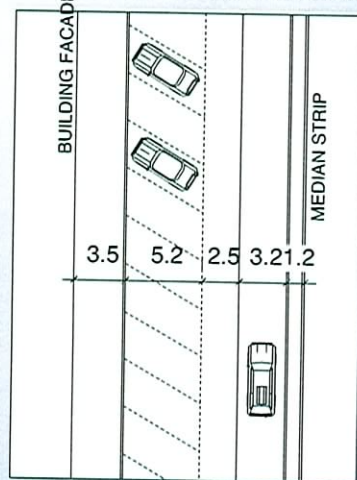


5 design options

5.1 Design Options

The following options relate to achieving a balance between pedestrian and vehicular shared traffic zones within the River Street Town Centre precinct. Each option can be undertaken in a number of different combinations within the Town Centre. These options shown include a median strip, however it may be desirable to consider deletion of the median strip layout subject to the type of boulevard tree planting selection - refer Masterplan options.



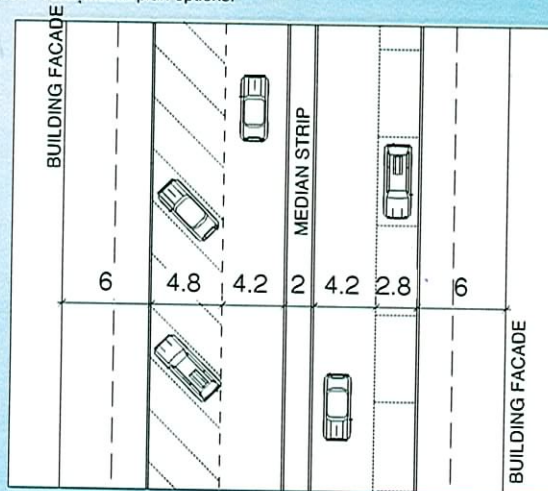
OPTION NO. 1
EXISTING (TEMPORARY LAYOUT)
60° ANGLE / ANGLE PARKING

Advantages

- Easy parking with accommodation for through traffic
- Maximum parking on-street
- Can accommodate limited tree planting to the centre of the road - median plantings & in car parking spaces
- Maximum through traffic speed - pedestrians have to wait at intersections - high speed environment
- Cheapest option - does not require alteration of the existing road surface

Disadvantages

- Need to remove car parking bays to achieve shade for cars - only
- No increase in footpath width for pedestrian use - cafe space etc.
- No decrease in traffic speed
- No increase in pedestrian safety or amenity



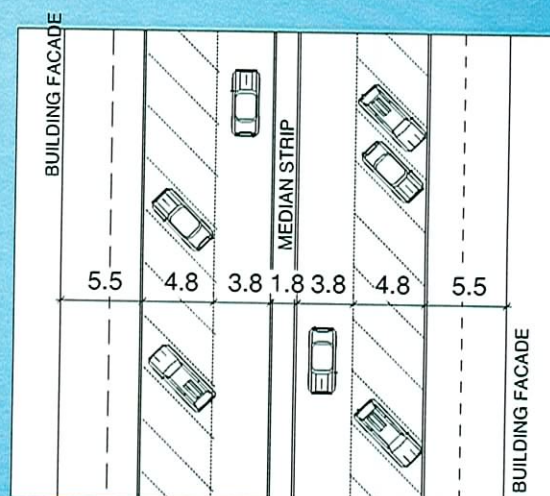
OPTION NO. 2
45° ANGLE / PARALLEL PARKING

Advantages

- Provides maximum pedestrian pavement
- Retains median strip planting which reduces traffic speed
- Increased boulevard tree planting with shade for pedestrians and cars
- Adequate pavement space for cafe/restaurant areas

Disadvantages

- Requires new kerb and gutter and changes to road surface to accommodate underground drainage
- Reduced traffic speed due to parking configuration
- Reduced traffic speed within the C.B.D.



OPTION NO. 3
45° ANGLE PARKING TO BOTH SIDES OF THE STREET

Advantages

- Provides maximum balance between cars and pedestrian pavements
- Increased boulevard tree planting with shade for pedestrians and cars
- Adequate pavement space for cafe/restaurant areas
- Maximum on-street parking

Disadvantages

- Requires new kerb and gutter and changes to road surface to accommodate underground drainage
- Reduced traffic speed due to parking configuration

Ballina

BUILDING FACADE

BUILDING FACADE

A perspective diagram of a street layout with various elements and dimensions. The elements and their dimensions from left to right are:

- Group of people: 5.5
- Large tree: 4.8
- White station wagon: 3.8
- Person walking: 1.8
- Palm tree: 3.8
- White sedan: 4.8
- White pickup truck: 5.5
- Group of people under a red umbrella: 5.5

The total length of the street segment shown is 38.2 units.

Bohros

6 preferred masterplan

6.1 Masterplan

The preferred Masterplan provides for the upgrade of the environment and pedestrian amenity throughout the Town Centre. Proposed works include the following:

1. Traffic Access & Parking

New directional signage at major vehicular approach roads - identification of the highway bypass system and key locations for long and short-term parking within the Town Centre.

- Note:
- Short-term parking - slow traffic movement to River Street
 - Long-term parking to the Tamar Street precinct
 - Local C.B.D. through traffic route to follow Bentnick Street

Refer section 4.1 Vehicular Traffic & Directional Signage

2. River Street Streetscape/Parking

Nose-in 45° angle parking is proposed to River Street (short-term parking only). The Masterplan proposes widened footpaths with avenue tree planting, new pedestrian pavements, street lighting and quality outdoor furniture.

3. Outdoor Dining

The widened footpath areas provide for outdoor dining to various restaurants and fast food outlets throughout the Town Centre. This type of dining has become extremely popular in recent years, and will extend throughout River Street once the environmental improvements have been completed.

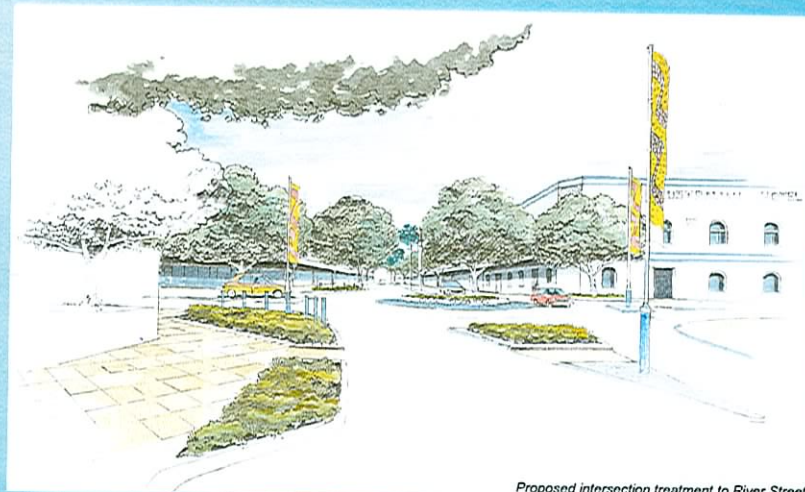
4. Landscape

The avenue tree planting includes shade trees along the boulevard footpath area with Fig trees used as accent plantings at traffic roundabouts and central pedestrian crossings. Median strip plantings to the two (Eastern & Western) C.B.D. blocks will include mature palm trees. The central block including the Riverwalk Arcade has been upgraded to include cloth shade canopies and flag/banner artwork displays.

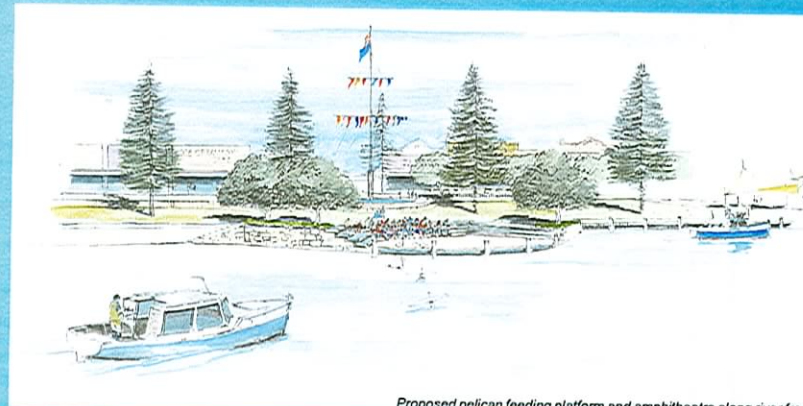
5. River Frontage

The river front area including Fawcett Street through to the Richmond River proposals include:

- Existing wharf deck - mooring of prawn/fishing trawlers as working tourist displays adjoining the wharf structure
- Provision of a market area, including fresh fish & chip stores / cafes / kiosks with weekend markets facilities for fresh local produce and special events markets
- Picnic and playground facilities
- Artwork sculptures (marine theme)
- Pelican feeding platform and amphitheatre
- Interactive toddler playground and water display area
- Decking and shade sail structures
- Car parking and cycleway
- Riverside pedestrian promenade

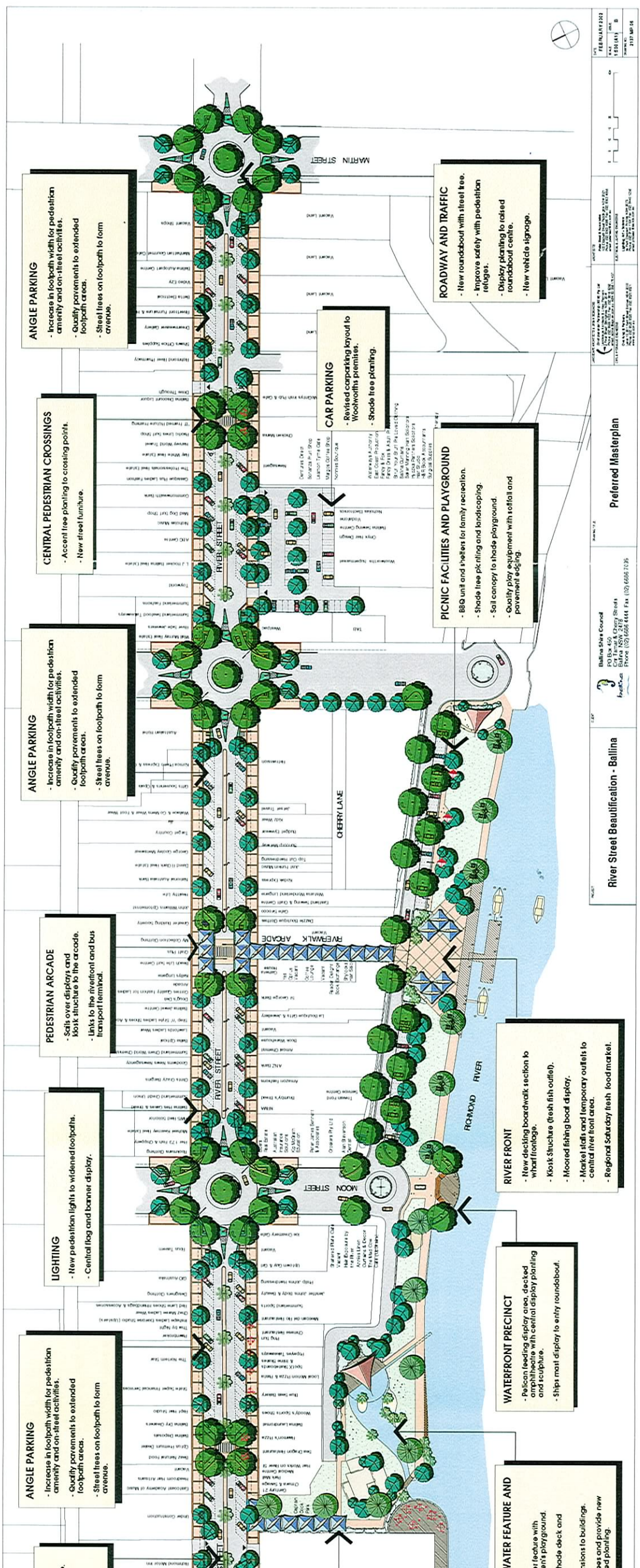


Proposed intersection treatment to River Street



Proposed pelican feeding platform and amphitheatre along river front

Ballina



ANGLE PARKING

- Increase in footpath width for pedestrian amenity and on-street activities.
- Quality pavements to extended footpath areas.
- Steel trees on footpath to form avenue.

CENTRAL PEDESTRIAN CROSSINGS

- Accent tree planting to crossing points.
- New street furniture.

ANGLE PARKING

- Increase in footpath width for pedestrian amenity and on-street activities.
- Quality pavements to extended footpath areas.
- Steel trees on footpath to form avenue.

PEDESTRIAN ARCADE

- Sits over displays and kiosk structure to the arcade.
- Links to the riverfront and bus transport terminal.

LIGHTING

- New pedestrian lights to widened footpaths.
- Central flag and banner display.

ANGLE PARKING

- Increase in footpath width for pedestrian amenity and on-street activities.
- Quality pavements to extended footpath areas.
- Steel trees on footpath to form avenue.

CAR PARKING

- Revised compacting layout to Woolworths premises.
- Shade tree planting.

ROADWAY AND TRAFFIC

- New roundabout with steel tree.
- Improve safety with pedestrian refuges.
- Display planting to raised roundabout centre.
- New vehicle signage.

PICNIC FACILITIES AND PLAYGROUND

- BBQ unit and shelters for family recreation.
- Shade tree planting and landscaping.
- Soft canopy to shade playground.
- Quality play equipment with softfall and pavement edging.

RIVER FRONT

- New decking boardwalk section to wharf frontage.
- Kiosk structure (fresh fish outlet).
- Moored fishing boat display.
- Market stalls and temporary outlets to central river front area.
- Regional Saturday fish food market.

WATERFRONT PRECINCT

- Pelican feeding display area, decked amphitheatre with central display planting and sculpture.
- Ships mast display to entry roundabout.

WATER FEATURE AND

- Feature with children's playground.
- Shade deck and
- Access to buildings.
- Trees and provide new
- ed planting.

6 preferred masterplan

river street precincts

6.2 PRECINCT ONE: The Central Block - Moon Street to Cherry Street

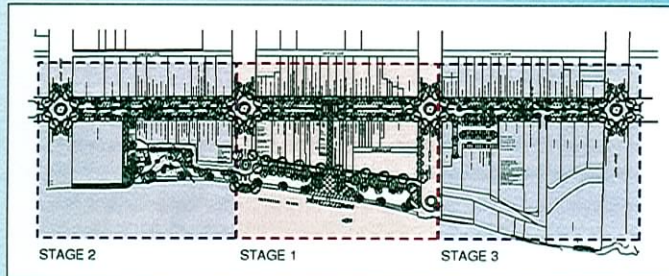
The central precinct is located on River Street between Moon and Cherry Streets, and is recommended as the first stage of the Town Centre beautification programme. This precinct has been selected as it provides a North/South pedestrian link from the Bus/Transport terminal and long-term parking located in Tamar Street through to the river front public open space in Fawcett Street. Proposals include a sail covered walkway through to the river, flag and banner displays, two street kiosks, table seating units, shade avenue trees and display gardens. It is proposed to extend the existing footpaths to provide new pedestrian lighting and quality pavements along the pedestrian boulevard of River Street. The central pedestrian crossing shall be paved to provide a pedestrian priority safety crossing in the centre of the C.B.D. area.

6.3 PRECINCT TWO: The Western Block - Grant Street to Moon Street

This precinct includes landscaped roundabouts with new traffic street lighting, flag/banner displays, and display gardens to the vehicular entry points with easy access to off street parking - R.S.L. underground car park. Other key features of the proposed improvements for this precinct include: avenue tree planting, new street furniture, pedestrian lighting, widened footpaths with quality pavements, and outdoor mobile furniture to cafes and restaurants. Sail structures will denote the entrance of Captain Cook Park, and will continue through the park to link with the river frontage. There is also the provision of disabled and motorcycle parking at the central pedestrian crossing point.

6.4 PRECINCT THREE: The Eastern Block - Cherry Street to Martin Street

This precinct includes redesign and landscaping to the off-street parking area in front of the Woolworths Supermarket. Provision of mature Palm tree planting to the central traffic island and display landscaping to the entrance roundabout are part of the proposed beautification works. It is also proposed to extend the footpath area and improve infrastructure services such as power, water, phone lines and sewers. Street lighting is to be upgraded with the provision of pedestrian lights and new traffic lighting structures at both the central pedestrian crossing and roundabout. This precinct will also include quality pavements, street furniture and shade avenue tree planting.



Proposed Construction Stages

Stage 1
Works to include River Street through to Fawcett Street and the river frontage.

Stage 2
Works to include interactive playground and Captain Cook Park through to the river frontage water sculpture.

Stage 3
Works to include changes to off-street parking in front of the Woolworths Supermarket.



Pedestrian pavements to be widened and resurfaced, new quality street furniture and avenue shade tree planting.



Pedestrian priority mid-block crossings with new garden beds and accent plantings, new median in central block with flag/banner displays



New medians to the Eastern and Western blocks with accent plantings

Ballina

ENTRANCE ROUNDABOUT

- Major tree planting at entrance roundabouts.
- Flag and banner displays.
- Display planting to centre of roundabouts.
- Pedestrian crossing points located adjacent to roundabouts.
- Feature floodlighting.

PEDESTRIAN CROSSING POINTS

- Access crossing points at intersections.
- Central pedestrian crossings.
- Quality garden displays.
- Shade trees with public table seating units.
- Median strip pedestrian safety refuge.

STREETSCAPE WORKS

- Shade avenue tree planting to footpath areas.
- Colourful display planting at all pedestrian crossing points.
- Flag and banner displays to traffic medians.
- New quality pavements to extended footpaths.

ARCADE LINKS

- Central arcade with sail canopy cloth cover linking River Street to the parkland market area adjoining the Richmond River.
- Kiosk at entrance: florist, coffee/ice cream/newsagency outlets under entrance sail covers.
- Raised central pedestrian crossing.

STREET FURNITURE

- New table seating units at intersections and the central pedestrian crossing.
- Mobile cafe furniture and colourful umbrella units to cafe/restaurant areas.
- New pedestrian street lighting to footpath areas.
- Public seating under shade trees.
- New litter bins and flag displays.

PROJECT

**River Street Beautification
Ballina**

CLIENT



Ballina Shire Council
PO Box 450
Cnr Tamar & Cherry Streets
Ballina NSW 2478
Phone: (02) 6686 4444 Fax: (02) 6686 7035

DRAWING TITLE

**Precinct 1
Moon Street to Cherry Street**

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DATE

FEBRUARY 2002

SCALE

NTS

ISSUE

B

DRAWING NO

2137.P.01

6 preferred masterplan



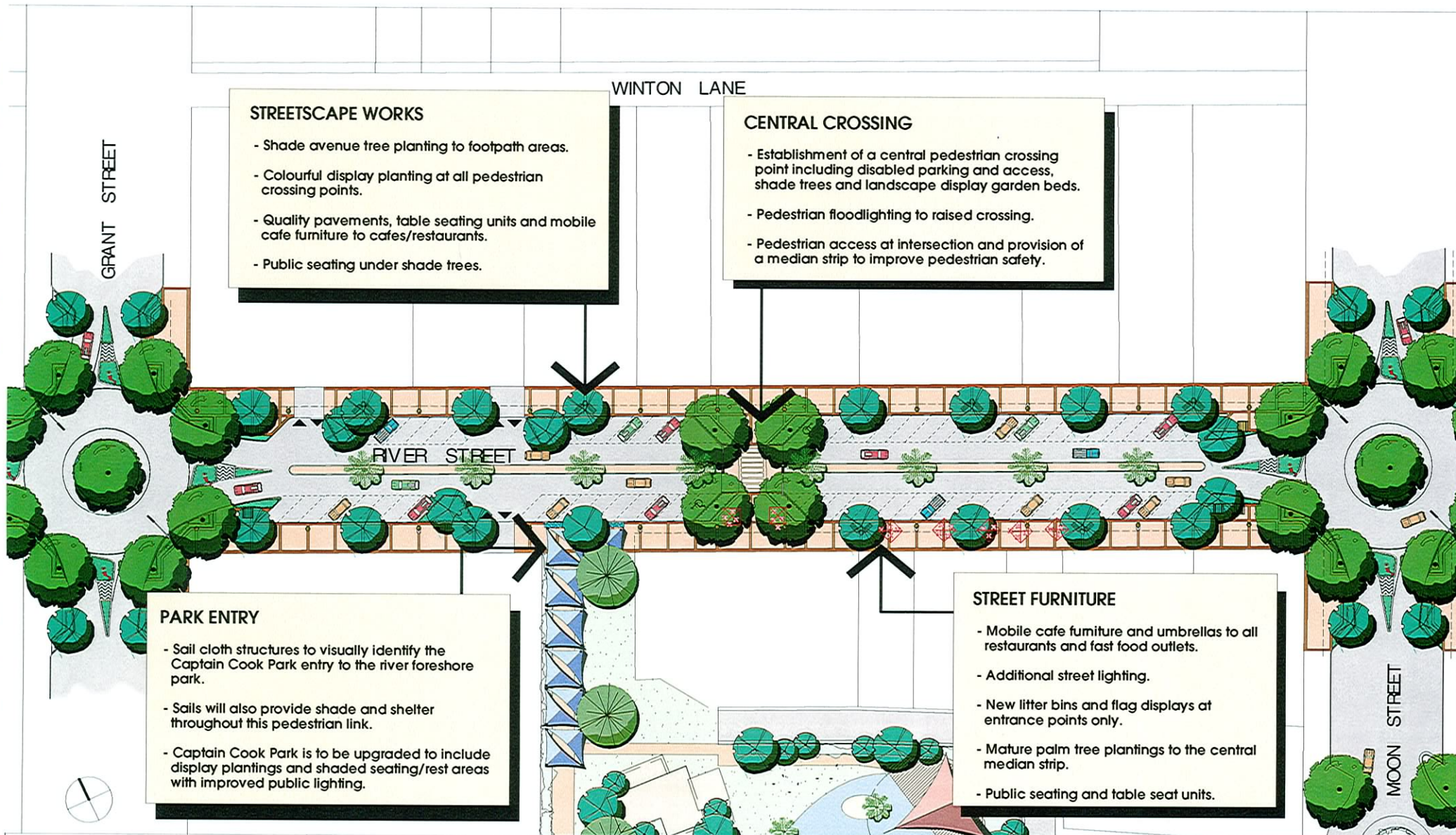
precinct 1: view of mid-block pedestrian crossing

ballina river street beautification

Ballina

Page 15

Prepared by Environmental Partnership



STREETSCAPE WORKS

- Shade avenue tree planting to footpath areas.
- Colourful display planting at all pedestrian crossing points.
- Quality pavements, table seating units and mobile cafe furniture to cafes/restaurants.
- Public seating under shade trees.

CENTRAL CROSSING

- Establishment of a central pedestrian crossing point including disabled parking and access, shade trees and landscape display garden beds.
- Pedestrian floodlighting to raised crossing.
- Pedestrian access at intersection and provision of a median strip to improve pedestrian safety.

PARK ENTRY

- Sail cloth structures to visually identify the Captain Cook Park entry to the river foreshore park.
- Sails will also provide shade and shelter throughout this pedestrian link.
- Captain Cook Park is to be upgraded to include display plantings and shaded seating/rest areas with improved public lighting.

STREET FURNITURE

- Mobile cafe furniture and umbrellas to all restaurants and fast food outlets.
- Additional street lighting.
- New litter bins and flag displays at entrance points only.
- Mature palm tree plantings to the central median strip.
- Public seating and table seat units.

PROJECT

River Street Beautification Ballina

CLIENT



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DRAWING TITLE

Precinct 2 Grant Street to Moon Street

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DATE

FEBRUARY 2002

SCALE

NTS

ISSUE

B

DRAWING NO

2137.P.02

6 preferred masterplan



precinct 2: view of outdoor dining area

ballina river street beautification

Ballina

Page 16

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STREET FURNITURE

- Mobile cafe furniture and umbrellas to all restaurants and fast food outlets.
- Additional street lighting (pedestrian level).
- New litter bins and flag displays at entrance points only.
- Mature palm tree plantings to the central median strip.
- Public seating and table seat units.
- Central pedestrian crossing point with disabled parking/access.

STREETScape WORKS

- Shade avenue tree planting to extended footpath areas.
- Quality pavements and table seating furniture.
- Accent shade trees at pedestrian crossing points.
- Display garden beds at all pedestrian crossing points.
- Angle parking with reduced traffic speed.

RIVER STREET

SHADE TREES TO
CAR PARK AREA

OFF-STREET PARKING

- New hedge planting to Woolworths Supermarket car park street frontage.
- Re-alignment of off-street parking and provision of shade trees to car park area (subject to private funding).
- Quality pavements and defined vehicular access points.
- Landscaping and new street lighting to roundabouts.

CHERRY STREET

MARTIN STREET

River Street Beautification Ballina



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Precinct 3 Cherry Street to Martin Street

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