
MOAMA^{NSW}

BRIDGE ARTS PRECINCT MENINYA STREET

MASTERPLAN

TERROIR | HIRST PROJECTS | LMIA | MCA | HARLOCK CONSULTING

FINAL REPORT - Revision 4

03 September, 2019



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EXECUTIVE SUMMARY

The Bridge Art Project (BAP) is recognised as being on the traditional lands of the Yorta Yorta Peoples, represented by the Yorta Yorta Nation Aboriginal Corporation (YYNAC).

Any use of the land as a cultural attraction, as advised by the Bridge Art Project Committee and proposed in this Masterplan, will be undertaken with YYNAC so that the traditional laws, customs, beliefs and sovereignty can be recognised appropriately. The Masterplan identifies the site and nature of infrastructure that may be developed to realise the BAP Vision. It is not a statement of content about Aboriginal culture.

The Bridge Art Project and Meninya Street Masterplan Report documents and illustrates the key components leading to the final Masterplan design. The report consists of a number of sections that introduces the project scope, the Strategic Framework of the Masterplan, the project vision, and finally leading into a breakdown of the Masterplan in detail from an urban, architectural and landscape perspective.

SCOPE

The study area for the Masterplan exists over three scales, that is Echuca-Moama, Moama and Meninya Street. The Echuca-Moama scale captures the future Echuca Moama Road Bridge, the existing bridge and the Echuca Port Precinct. The Moama scale interrogates the key attractions and destinations, such as the Moama Bowling Club, the Kerrabee Sound Shell, the Skate Park, Horseshoe Lagoon and the surrounding walking and cycling trails. Finally, Meninya Street scale considers the commercial operators and businesses. Understanding these three scales for the masterplan is very key to understanding the key strategic directions, the experience objectives and principles required for the masterplan to be successful.

THE STRATEGIC FRAMEWORK

The Strategic Framework of the project was derived through an intensive analysis of the site and through the community consultation process, which included workshops and community surveys. These assisted in defining the key values and experience strategies for the Masterplan. The values nominated as being crucial for the successful future and character of Moama and were incorporated in the development of the Masterplan include:

- A genuine experience through arts and culture
- To rejuvenate Meninya Street streetscape
- To be accessible for pedestrians and cyclists
- Efficient use of car parking

- Showcasing the towns identity from brand and market
- A safe precinct at night
- Be inclusive of the community
- To integrate with technology

The Masterplan recognises that residents and visitors have different requirements. These requirements drive where they go, what they do and how they experience the same place. They also have different aspirations and would like to have experiences that enrich their lives and are more enjoyable. Thus, the Strategic Framework embraces a number of key aspects, the experience, the encounters, the journey, the destination and the memories.

VISION

The Bridge Arts and Meninya Street Masterplan Vision reflects the unique aspects of Moama, its identifying characteristics and unique spirit. The vision captures key components that are important to the development of Moama, such as, placemaking, nature, entertainment, Meninya Street and the Bridge Art Project. The Bridge Art Project has four key elements the Gateway, the Showcase, the Platform and the Pathway, which form the final concept. Each element has a night and day function that embraces nature and entertainment in Moama. The vision is key to initiate the masterplanning process.

MASTERPLAN

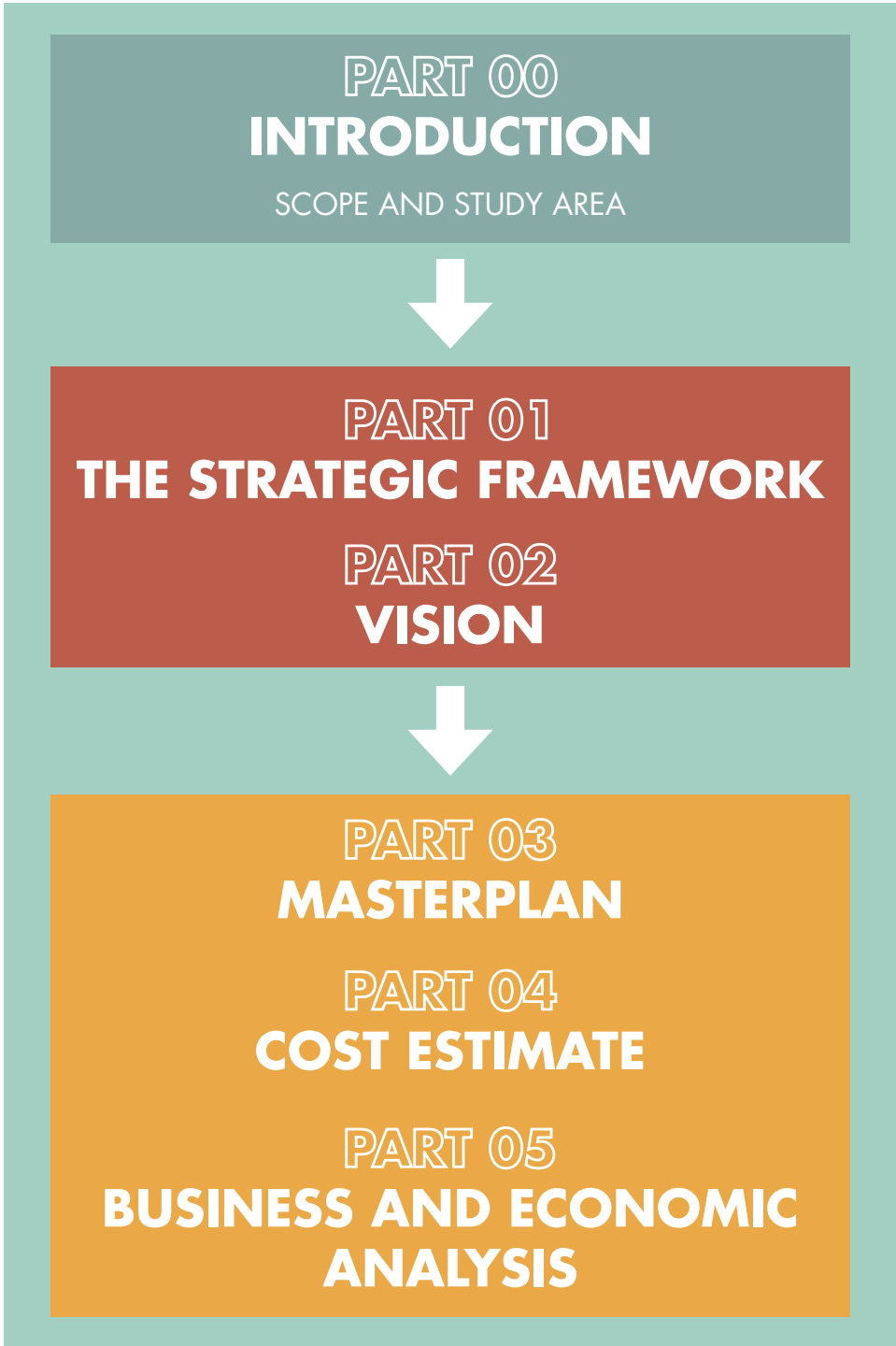
The report outlines the physical masterplan and explains the principles that underpin the Masterplan, the opportunities and constraints, and the potential projects that add value to the experience of the Bridge Art Project and Meninya Street. The Masterplan details the urban influences, the architectural additions and the landscape strategies to further enhance the experience of the journey to multiple destinations existing and proposed on the Masterplan.

COST ESTIMATE

A cost estimate is provided in the report, outlining the cost of a number of potential projects that have been proposed by the masterplan.

BUSINESS AND ECONOMIC ANALYSIS

A business and economic analysis of the masterplan begins to analyse the business and economic impact of the Masterplan on Meninya Street and Moama.



INTRODUCTION

00.01 SCOPE AND STUDY AREA

The Study area for the Bridge Art Project and Meninya Street Masterplan exists at three scales, the Echuca-Moama scale, which captures the future Echuca Moama Road Bridge, the Moama scale and the Bridge Art Project and Meninya Street scale. Understanding these three scales for the masterplan is very key to understanding the key strategic directions, the experience objectives and urban principles required for the masterplan to be successful. The Bridge Art Project precinct and Meninya Street cannot be considered in isolation from each other and its greater surrounds. The significance of broadening the investigation allows for a better understanding of connections to existing attractors and points of interest, such as recreational, cultural, artistic and natural destinations. These destinations are necessary to envision how residents and visitors will experience Meninya Street and the Bridge Art Project when they arrive at the precinct.

ECHUCA-MOAMA

Rejuvenating Moama is key to strengthening the Echuca Moama Arts Initiative (EMAI), to allow a better connection between Echuca and Moama through the arts and culture precincts. The historical connection between Echuca and Moama are also significant to the identity of the twin towns. Split by the Murray River, this Masterplan also aims to identify Moama's individuality and identity.

MOAMA

Understanding the Moama area allowed patterns related to use and spatial types to be reviewed, in relation to the Bridge Art Precinct. With the Future Echuca Moama Road Bridge underway, realising the impacts and opportunities this may bring is essential. Moama is a small town with a population of 6,165 people in 2016. It has a main central local centre which is located along Meninya Street. This main thoroughfare connects to the Cobbs Highway and into Echuca, towards the south, and into regional Victoria.

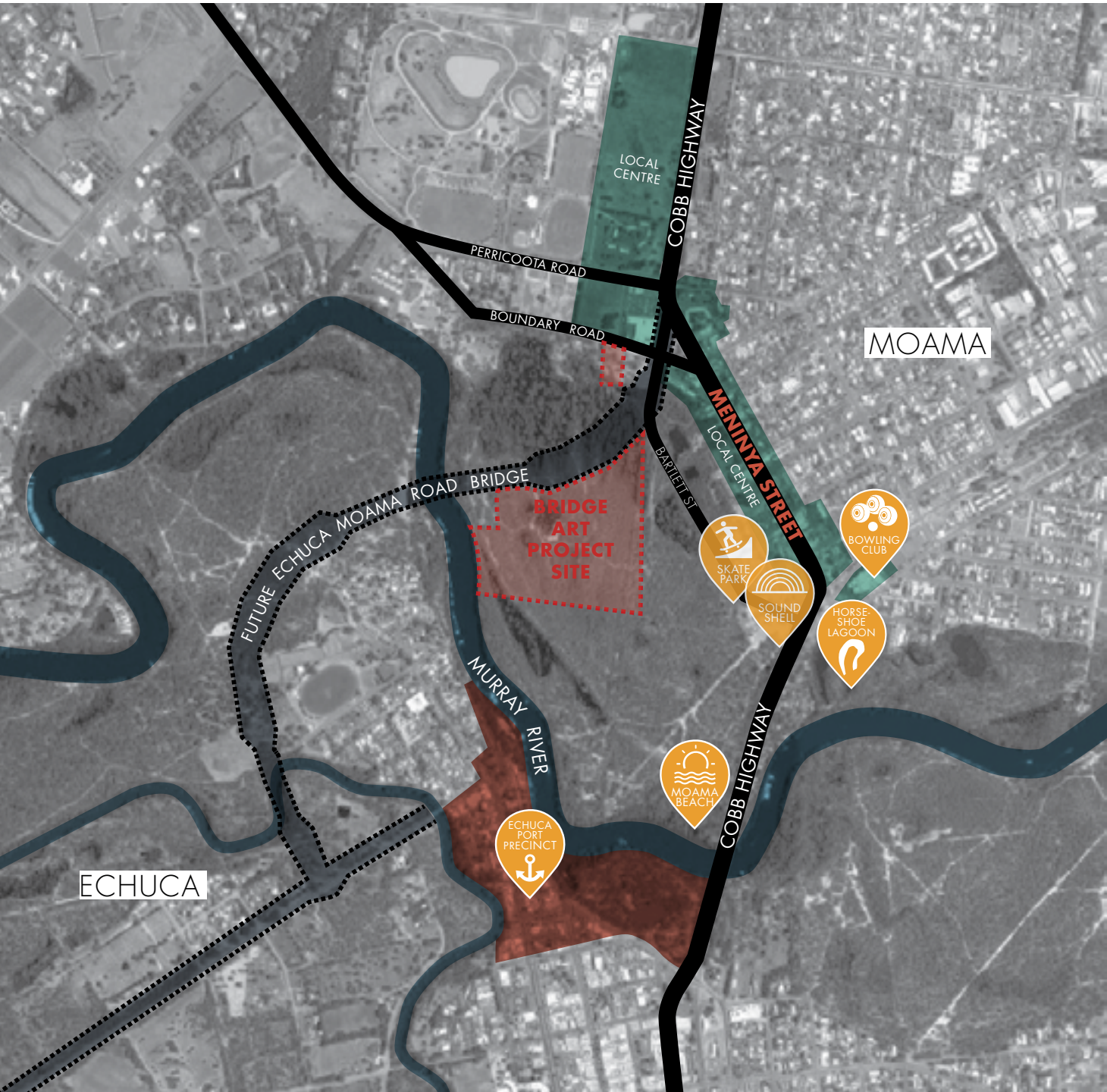
BRIDGE ART PROJECT AND MENINYA STREET

Meninya Street is a main thoroughfare of the local centre and connects directly to Echuca. Understanding its importance in an urban context and the strategic measures that will be needed, are key to allowing a fluid connection with the Bridge Art Project, the existing attractors and Echuca. The street contains commercial and retail businesses, though there are some empty lots along the street, the masterplan hopes to rejuvenate and revitalise the street, and utilise the opportunities it encompasses.

While, the Bridge Art Project site is split into two sites by the Future Echuca and Moama Road Bridge. The land to the south is located within a flood and fire prone area, while the site to the north is located behind a loading area to a shopping centre across the road. Within and surrounding the Bridge Art Project site is a lush bush landscape, with a number of walking and cycling trails that must be considered to improve connectivity between bush and street.

The brief also states the connections to Meninya Street and surrounding areas must be considered, such as:

- To Echuca via the Echuca-Moama bridge and second Murray River crossing
- The Moama Skate Park
- The Kerrabee Sound Shell
- Moama Beach
- To Perricoota Road
- The Cobb Highway
- Residential estates
- Commercial operators



PART 01

THE STRATEGIC FRAMEWORK

SECTION 01: THE STRATEGIC FRAMEWORK

01.01 CONSULTATION PROCESS

01.02 CONSULTATION PROCESS - VALUES

01.03 KEY VISIONS

01.04 THE BRIDGE ART PROJECT AND MENINYA STREET: AN EXPERIENTIAL JOURNEY

01.05 THE EXPERIENCE JOURNEY

01.06 BRIDGE ART PROJECT AND MENINYA STREET: EXPERIENCE OBJECTIVES

01 THE STRATEGIC FRAMEWORK

01.01 CONSULTATION PROCESS

A COLLABORATIVE EFFORT

A large number of stakeholders have an interest in and will contribute in the consultation process in order to achieve a successful delivery of the Bridge Art Project and Meninya Street Masterplan. These stakeholders include business owners along Meninya Street, residents, the Murray River Council and the Bridge Art Project Committee.

WORKSHOP

A platform that provided input for the Masterplan was the workshop held on the 27th to 28th November, 2018. The first workshop was attended by community members with businesses along Meninya Street, managers of park and recreation assets in the defined precinct and managers of experience providers associated with Meninya Street. While the second workshop was attended by Council Members and the Bridge Art Project Committee.

Through a round table set up, each project team member discussed the opportunities and dilemmas that stakeholders have envisioned and experienced.

COMMUNITY SURVEY

A community survey was also available for residents who were keen to have their thoughts heard. The survey asked the following questions:

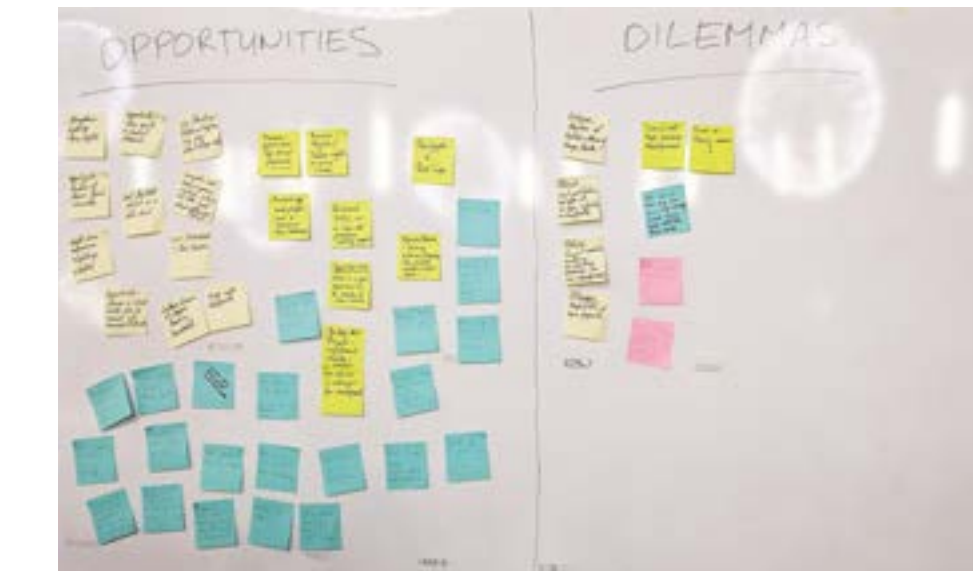
- What do you like about Moama?
- What is your current experience on Meninya Street? Are there any issues?
- What improvements are required on Meninya Street?
- How are the current businesses on the street performing?
- Are there any gaps in the type of businesses located on the street?
- How can we improve the tourist experience in Moama?
- What other businesses would you like to see operating on Meninya Street in the future?
- How would you like your experience of Meninya Street to be in the future?
- Would you like to see an Arts Precinct developed in Moama? What should its focus be?

THE VALUES

From the community survey and the workshop, the opportunities and dilemmas were analysed, categorised and summarised, which led to the extraction of common key words from each category. These common words were then summarised further and eight key values were proposed.

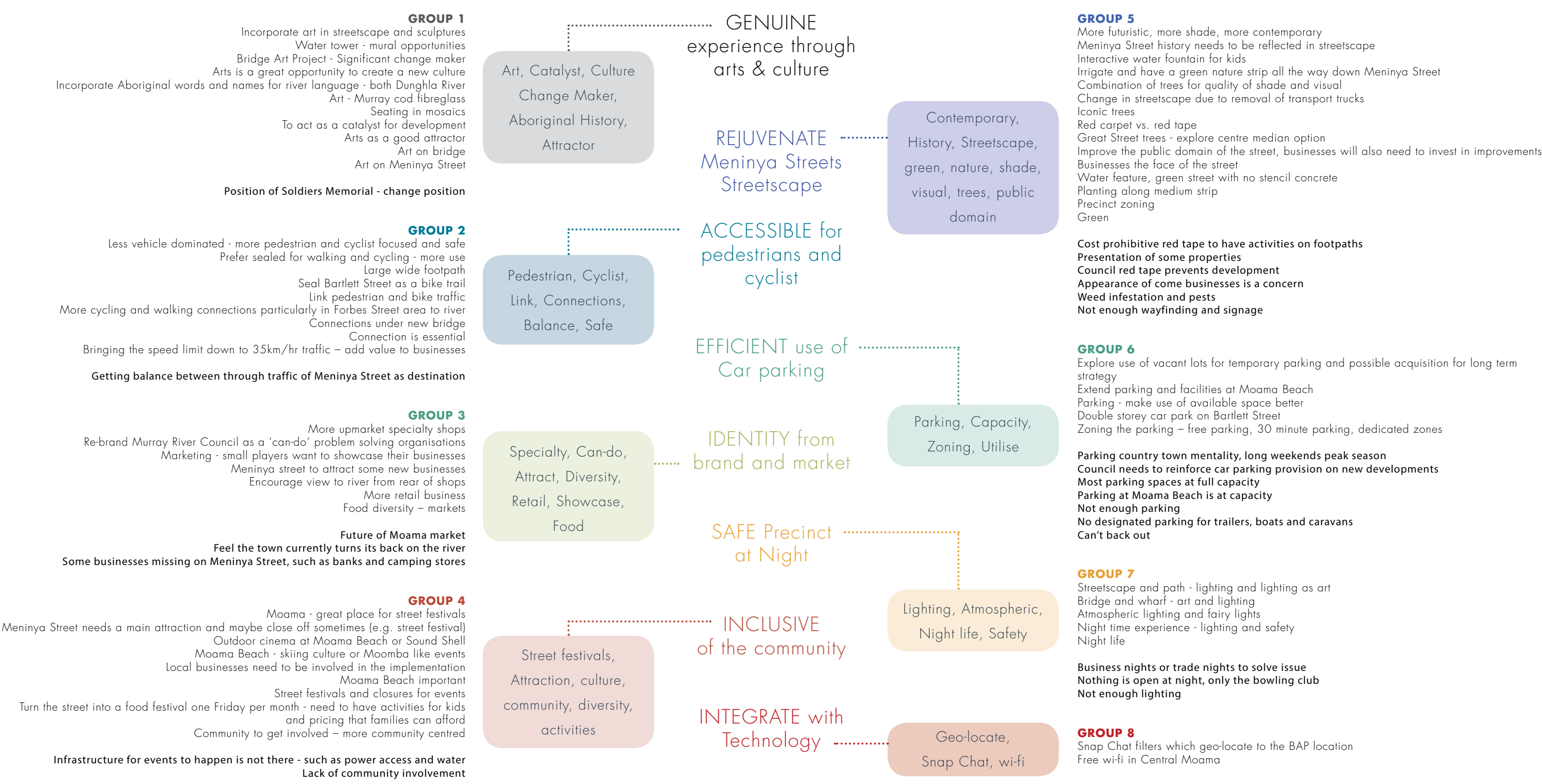
The Values nominated as being crucial to the successful future character and place of Moama and to be incorporated in the development of Meninya Street and the Bridge Art Project include:

- Genuine
- Rejuvenate
- Accessible
- Efficient
- Identity
- Safe
- Inclusive
- Integrate



01 THE STRATEGIC FRAMEWORK

01.02 CONSULTATION PROCESS - VALUES



01 THE STRATEGIC FRAMEWORK

01.02 CONSULTATION PROCESS - VALUES



01 THE STRATEGIC FRAMEWORK

01.03 KEY VISIONS

Vision drives the Masterplan.

Vision already drives the development of the region. These visions have captured the community views and the desire for growth and improvement.



The Regional Vision

Drawn from the Riverina Murray Regional Plan 2036.

The Bridge Arts and Meninya Street Masterplan supports the achievement of that long term vision:
A diversified economy founded on Australia's food bowl, iconic waterways and a network of vibrant, connected communities.

This is also reinforced by its recognition of the need to acknowledge, protect and celebrate Aboriginal cultural heritage and historic heritage, which reinforces the character of the region and consolidates a sense of identity and belonging.



The Community Vision

Drawn from Murray River Council Strategic Plan 2018-2028

The Bridge Arts and Meninya Street Masterplan supports the community's vision for the area:
*Vibrant, diverse and cohesive communities
Supported by strong local business and primary industries
Valuing the beautiful waterways and natural surrounds*

It is also critical that the Masterplan reflects the Murray River Council's commitment to working with its neighbouring Council across the River, Campaspe Shire Council and its plans for development and growth.



The Tourism Vision

Drawn from the Murray River Destination Management Plan

The Bridge Arts and Meninya Street Masterplan supports the tourism destination vision
The vision is expressed as a series of outcomes and key themes that will drive growth in the visitor economy.

For the Central Murray region, the River is the key tourism asset, as is its early European heritage. Pubs, clubs and dining are also significant tourist attractors.

The Bridge Art Project is seen as a major emerging visual arts initiative and a significant opportunity to raise the profile of Aboriginal culture specific to the area.

01 THE STRATEGIC FRAMEWORK

01.04 THE BRIDGE ART PROJECT AND MENINYA STREET: AN EXPERIENTIAL JOURNEY

Experience drives the Bridge Art and Meninya Street Masterplan.

The Masterplan recognises that residents and visitors have different requirements. These requirements drive where they go, what they do and how they experience the same place. They also have different aspirations. They would like to have experiences that enrich their lives and make them more enjoyable.

The Masterplan is designed to both provide for the requirements of residents and visitors, but also for their aspirations.



Experiences, Encounters and Memories

Residents and visitors come into Moama, to Meninya Street, and their engagement with the place will be understood through a series of experiences, and within these, encounters.

- Experiences are longer, people interact with and in the place and it leaves an impression.
- Encounters happen within the experience, on coming into contact with it. Encounters can be chance or planned.
- Memories are made through experience and encounter. Experiences and encounters may be good or bad, they may be with the physical place or with people. The experiences and encounters are multi-sensory and they often elicit an emotional response that creates memories for each individual.

To ensure that Moama is recognized as a unique place, different from others, the Masterplan is designed to address uniqueness in planning and designing the infrastructure and landscape that will deliver experiences and encounters that leave good memories.



Destinations

Destinations are specific places that are the platform for experience, encounter and memory. These may be owned and operated by a range of stakeholders, for example, the Council, by community organisations or by private individuals and companies. Many people have to take responsibility for delivering great destinations and supporting experiences, encounters that leave good memories.

The Masterplan is designed to bring all the stakeholders together to develop and improve a place of which everyone can be proud.

01 THE STRATEGIC FRAMEWORK

01.05 THE EXPERIENCE STRATEGY

The Masterplan is a strategic document and therefore our categorization of experience is at a high level. There are two aspects to the Strategy:

- The Journey Experience
- The Destination Experience

Encounters may be had on the journey or at the destination.



The Journey Experience

This describes the way people travel to and move through the precinct. It comprises the following experiences:

- Drive
- Park
- Walk
- Cycle
- Sit

It is important that these experiences suit everyone. They must take account of age and ability.



The Destination Experience

These describe the experiences that people will choose when in the precinct. They comprise:

- Accommodation: hotels and motels as well as residences
- Basics Shopping: the everyday retail e.g. food store and newsagent
- Specialist Shopping: retail for goods that might attract a visitor as well as locals e.g. gift store or bookstore
- Services: providers of services such as banks, accountants and real estate agents
- Food and Wine: cafes, restaurants, wine bars – sit down and take-away
- Entertainment: Clubs and cinemas
- Sport and Recreation: parks and playgrounds, gyms and sports grounds
- Culture: galleries, museums and theatres

The mix and spread of the destination experiences play a part in defining brand.

Experiences and encounters will be influenced by the time of day and season.

Different market segments will prioritise different experiences. It is likely that none fall into categories that are not used by all segments at some point.

01 THE STRATEGIC FRAMEWORK

01.06 BRIDGE ART PROJECT AND MENINYA STREET: EXPERIENCE OBJECTIVES

These objectives are drawn from the Visions and from the Consultation Process



Place and Brand

- Strengthen identity through a strong focus on culture, heritage and nature



Access

- Encourage walking to get to, and around, the area
- Create an appropriately diverse mix of uses and activities to meet the needs of locals and visitors



Liveability

- Make town more inviting, vibrant and interesting, attracting people to visit and live in the area
- Create new or improved places for the community and visitors to gather, meet and interact that are safe, enjoyable and equitable



Economic Growth

- Attract businesses and visitation to boost economic activity

PART 02 VISION

SECTION 02: VISION 02.01 KEY VISIONS

02 VISION

02.01 KEY VISION

INTRODUCTION

The Bridge Art Project (BAP) aims to tell the story of man in Australia through contemporary art, with a strong focus on Aboriginal history and culture. The site is on Yorta Yorta land, where Indigenous history is part of the landscape, and has been since time immemorial. Essential to the Project is its partnership with the Yorta Yorta Nation, the people and their storytelling.

The BAP committee was formed in 2012. Eight hectares of land in Moama adjacent to the new bridge alignment, has been donated for the Project.

The Bridge Arts Project and Meninya Street Masterplan Vision reflects the unique aspects of Moama, its identifying characteristics and unique spirit.

The Masterplan vision actively retains and enhances these qualities that contribute to the experience of the place. It ensures that the communities' values, memories and their stories are embodied in the new experiences, enhance a feeling of belonging and can evolve over time.

Change will be delivered through short-term, low cost and scalable interventions and medium-term investment in significant elements.

The Bridge Art Project however will be a single transformative project that deserves major investment to deliver significant social and economic benefits.

The BAP Committee is working with Murray River Council to revitalise Meninya Street (Moama's main street) and integrate it with the new arts precinct - to create a visionary project that is innovative, cost effective, collaborative, and meets the expectations of the community.

CREATIVE PLACEMAKING

Places are physical locations where people come together. They must be attractive and welcoming for all, appropriate in scale, appearance and environmental fit and be able to create positive memories for those who visit once or regularly.

Places are also conceptual. The concept helps define the community's identity. They must be barrier-free with no obvious physical, social, economic or historic impediments to enjoyment.

They are a container for events. They must be vibrant centres where attractive things always, or regularly, happen and as such must be crucibles for relationship building within and between local communities.

The arts and culture play a special role in driving these outcomes.



02 VISION

02.01 KEY VISION

MOAMA

Echuca, in Victoria, and Moama, in New South Wales, are twin towns. They share the Murray, Australia’s iconic river that is part of a major system of waterways that run through three States - Victoria, New South Wales and South Australia. The Murray River is a defining element of the towns’ success. Moama and Echuca are inextricably intertwined as residents live, go to school, work and recreate across State borders and use the existing bridge as merely a road that they use every day.

The new Bridge will cement this relationship and, in taking much of the traffic that passes through the region away from the existing bridge, will

enable Moama to be re-imagined as a destination that can further develop to complement Echuca and yet continue to be a distinct destination in its own right.

Echuca at present is largely understood, from a visitor perspective, as ‘the paddle steamer capital’ and celebrates its post settlement history especially around the historic Wharf.

Moama’s character is derived from its Murray River location – the natural attraction of the riverbanks and the riverine bushland and from the recreational assets that have been developed around this – the beach and

lagoon, the Sound Shell and the play areas and the entertainment and accommodation offer. The Moama Bowling Club, the campgrounds, motels, hotels and resorts combined with the public spaces are Moama’s current signature.

The Masterplan Vision is built on a celebration of the existing assets – natural, recreational and entertainment based. These are the foundation. They have been amplified to emphasise their importance and to showcase the real strengths of the town.

THE VISION

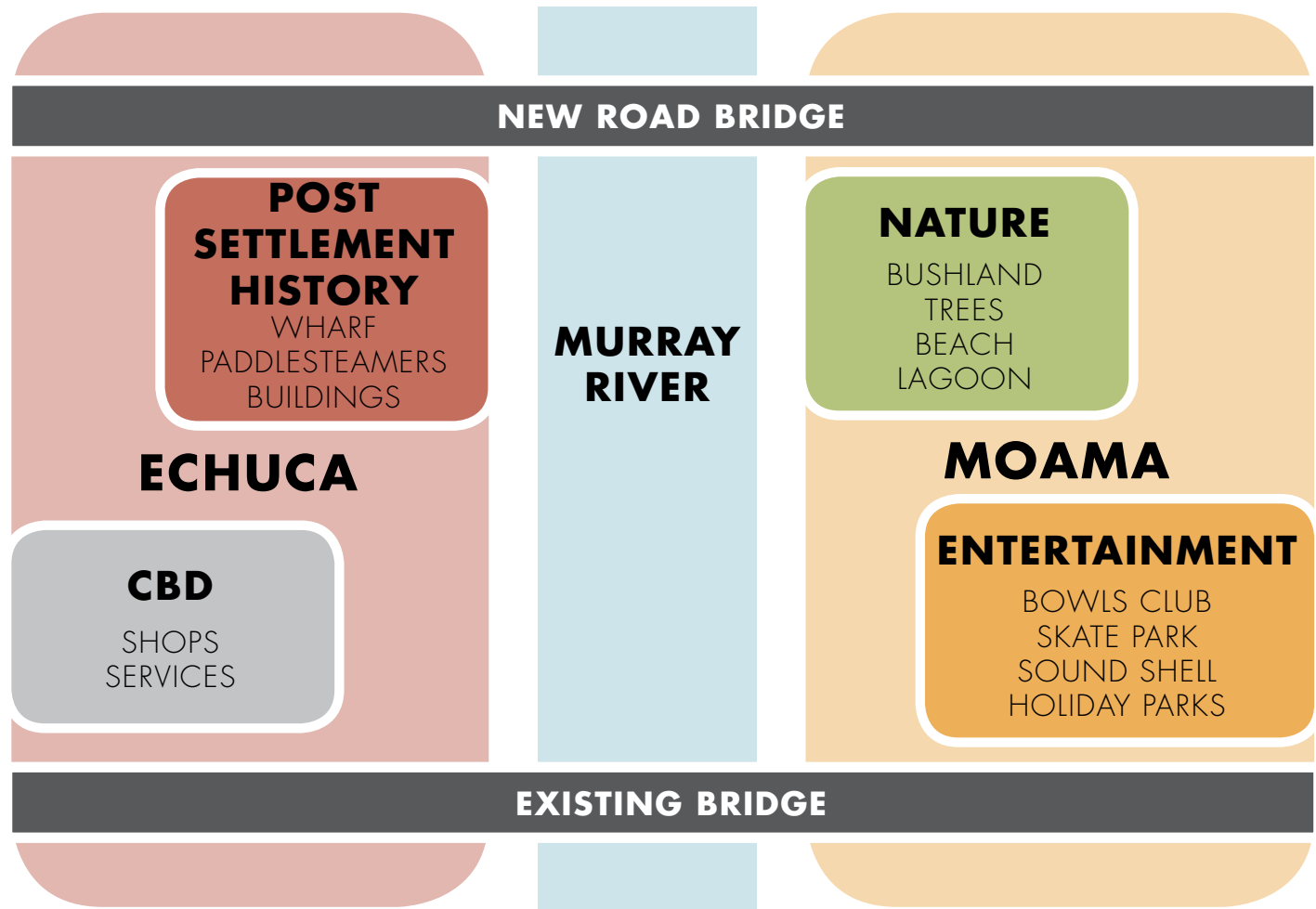


Diagram: Echuca-Moama Relationship

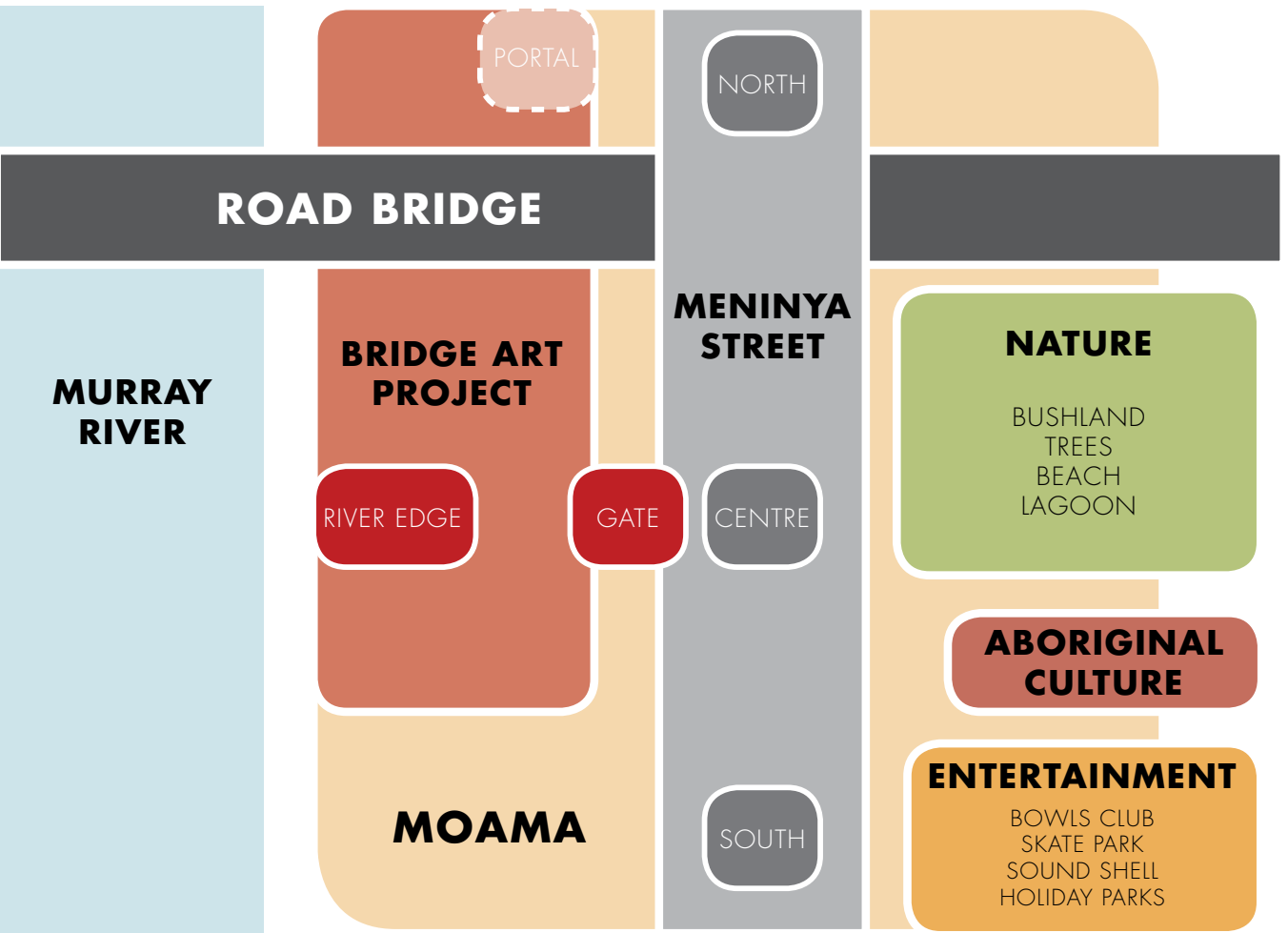


Diagram: Moama Characteristic

02 VISION

02.01 KEY VISION

Nature

In Moama, nature is the hero. It will be a town where nature permeates through into its heart, uniquely celebrating the fact that the Murray is not only a river but a whole environment and eco system.

This ecosystem has been home to the Yorta Yorta people, and provided a source of food, fibre, medicinal plants and materials since time immemorial. The area has been significantly impacted upon during in the past 100 plus years. The BAP along with the Yorta Yorta seeks to tell the stories of this land, through nature and the arts, interpreting the people’s connection to and care for country.

Entertainment

At the same time Moama will be a place where you really come to have fun – dining, drinking, seeing new things, meeting friends and family, making new friends and being entertained.

Nature and entertainment will meet and coalesce in Moama.

Meninya Street

Meninya Street will bring the town’s residents and visitors together to stay, dine, shop and be entertained in a delightful setting where urban pleasures are surrounded by the calming, health-giving benefits of the natural environment.

Trees, shrubs, grasses and rock will create the setting for pleasure, leisure and a vibrant business strip. The road and paths will be redefined to reflect the new traffic conditions and support the new activity. Seating and gathering spaces will be placed strategically to encourage new social experiences and a new prosperity.

During the evening, playful lighting will be used to focus on the elements of the street where nightlife can be encouraged.

This street will become the strollable heart of Moama.

The real transformation will come in the form of a new cultural space, connecting the street to the river and bringing nature and entertainment together into a remarkable cultural venue which will tell a deep and rich story of this place in Australia.



02 VISION

02.01 KEY VISION

The Bridge Art Project
The BAP will be a structure that newly defines Meninya Street epitomizing the merging of nature, culture and entertainment.

It will be a gateway to the main BAP site and the riverine bush, wildlife, artworks and cultural experiences. It will be a showcase for the creativity of the region. It will be a platform for contemporary appreciation of local and national Aboriginal culture. It will be a pathway through history, to the earliest times. It will reveal the bush and the Murray as never seen before. The gateway, the showcase, the platform and the pathway will be a remarkable structure which is in itself an architectural icon.

Visitors will be drawn to this place during the day and in the evening.

Daytime:
The Gateway: Visitors will walk through and transition from the street, through the backroads to the bush. There they can walk through large and small scale works of art, seeing them up close. Tour guides – digital and personal, will be available to inform and enthuse.

The Showcase: They may enter the building and experience major artworks, conceived and created by local and nationally significant artists, inspired by nature.

The Platform: They ascend to the roof – and the view changes. Here a new journey starts with a large event and activity platform – music, film, art and other gatherings will be held here.

The Pathway: They finally take journey back in time, since time immemorial, walking towards the Murray and seeing the artworks revealed below, taking in the landscape, learning, hearing the language and stories of the past. The tree tops, the art seen from above, the birdlife will captivate and give those visitors many reasons to take photos to share with the world.

Night time:
The Gateway: As visitors approach the building they will be entranced by a fascinating ‘story’, told through digital projection and lighting.

The Showcase: They will enter the building and marvel at the story that unfolds on the giant screen as they look upwards.

The Platform: They will make their way to the roof platform for a show or a feast or just to see Moama at night and look across into the bush.

The Pathway: They will take that journey towards the river, looking down on the bush at dusk, looking up at the stars as night falls. Feeling the magic, safely making their way to the river’s edge.

This will be an unforgettable experience, driven by a nationally significant story, true to its locality, inspiring contemporary creativity and making sure that Moama is recognized as a major new, future focused natural, cultural and entertaining destination.



PART 03

MASTERPLAN

SECTION 03 KEY PRINCIPLES

03.01 PRINCIPLES

SECTION 04 CONSTRAINTS AND OPPORTUNITIES

04.01 OVERALL MASTERPLAN CONSTRAINTS AND OPPORTUNITIES

04.02 BRIDGE ART PROJECT SITE CONSTRAINTS

04.03 BRIDGE ART PROJECT SITE OPPORTUNITIES

SECTION 05 MASTERPLAN

05.01 MASTERPLAN - LOCAL FEATURES

05.02 MASTERPLAN - KEY FACTORS

05.03 MASTERPLAN

05.04 MASTERPLAN STAGING AND RECOMMENDATIONS

05.05 MASTERPLAN - POTENTIAL ROUTES

05.06 MOAMA SOUTH

05.07 BRIDGE ART PROJECT

05.08 BRIDGE ART CENTRE

05.09 BRIDGE ART CENTRE - VISUALISATION

05.10 BRIDGE ART PRECINCT - LANDSCAPE CONCEPT

05.11 MENINYA STREET - LANDSCAPE CONCEPT

03 KEY PRINCIPLES

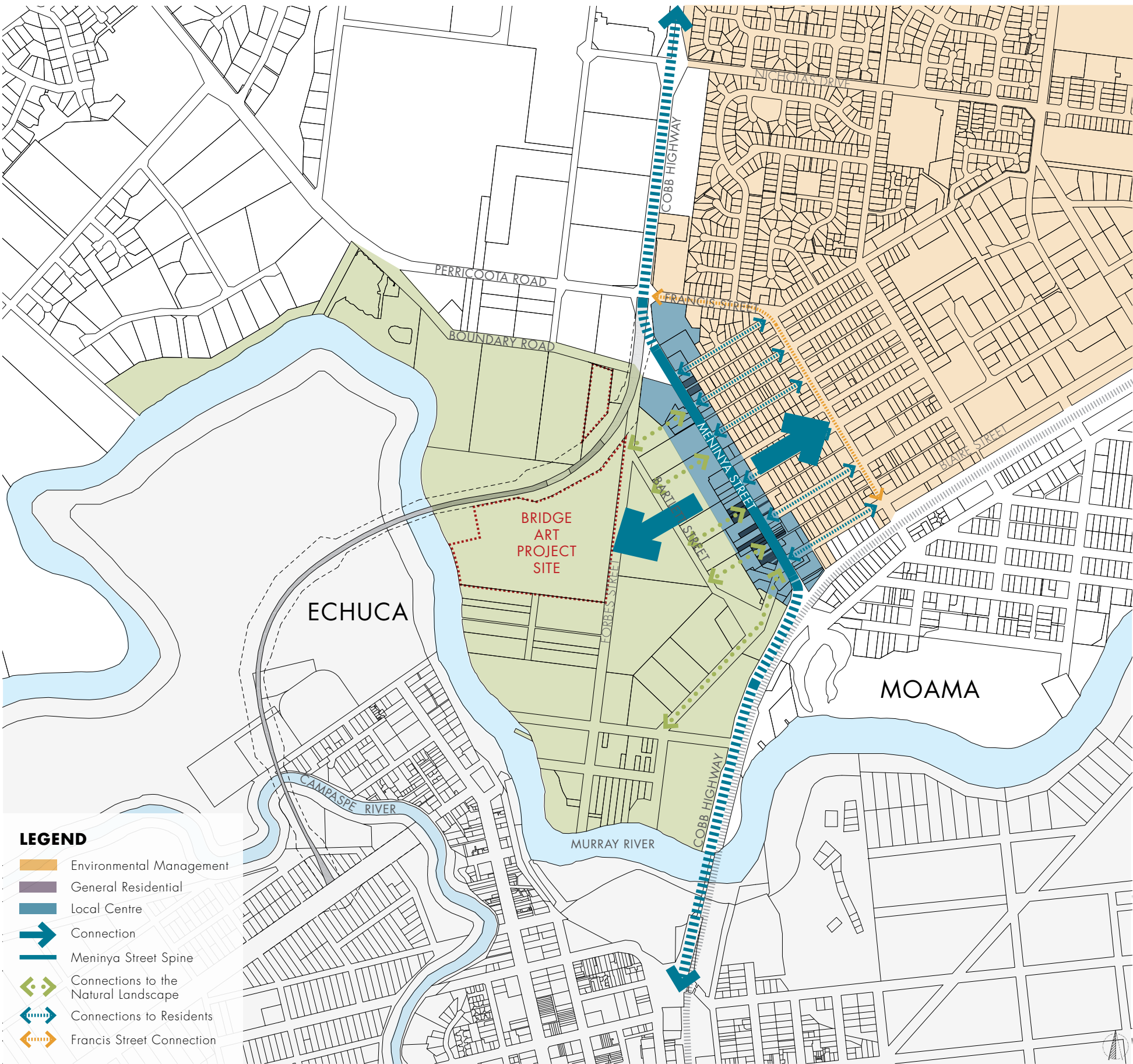
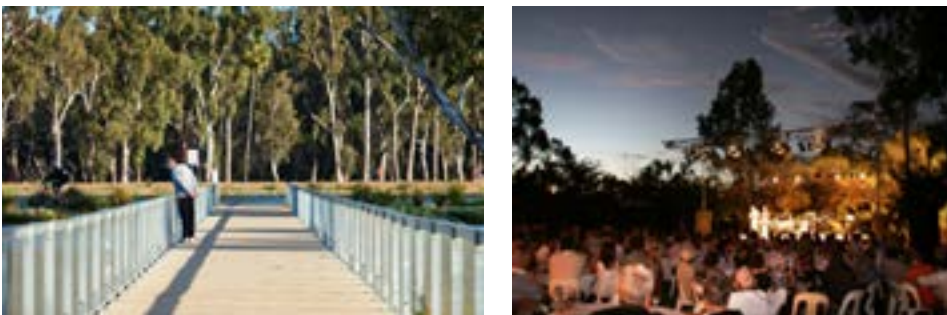
03.01 PRINCIPLES

1. UTILISE EXISTING CONDITIONS OF THE LOCAL CENTRAL SPINE, ENCOURAGING CONNECTIONS FROM MENINYA STREET (SPINE) TO RESIDENTIAL AND NATURAL SHOULDERS

Meninya Street is seen as a key thoroughfare, with traffic traveling to and from Echuca and Moama. Meninya Street is where the local centre is located with a number of retail and accommodation businesses located along either side of the street.

On the left shoulder of the spine, Moama's river bushland setting exists and is an important part of the town's character, where the riverine themes are integrated into the urban areas. Moama has retained a lot of its natural bushland.

There are opportunities to encourage activities along the spine through the development of adjacent streets, encouraging a better connection to the bush and upgrading existing public spaces. The town will begin to face the river rather than turning its back from it.



03 KEY PRINCIPLES

03.01 PRINCIPLES

2. UTILISE EXISTING CYCLE AND WALKING TRAILS TO ENCOURAGE PEDESTRIAN ACCESS TO KEY ATTRACTORS, ARTS AND CULTURE SITES IN A SAFE MANNER

There are existing cycling and walking trails which residents and visitors visit. Understanding the links to existing attractors through these trails can allow a better, safe and accessible connection between existing destinations and also add value to the experience of the journey to each point of interest.

This will be a great experience for users, where walk, cycle and 'scoot' are core to the design. Infrastructure to support the users include shade, drinking water, rest stops, bike parking, mobility scooter parking and charging stations.

Meninya Street currently has a speed limit of 50km/hr, with small and heavy vehicles traveling through this street on a daily basis. Calming the traffic and making the street safe, redressing the balance between vehicles, bikes and pedestrians to improve the experience and journey along Meninya Street.

Meninya Street will be a great place for people. It will:

Be green

- A cool green space, where pedestrians feel safe.
- Trees line the whole street

Be contemporary

- A modern streetscape - a dining/entertainment precinct
- Builds on the existing successful businesses
- Supports the needs of both local and visitors
- Art and culture showcased in the street

Have great access

- Easy parking on and off street
- Cycle, walk and 'scoot' links integrated into the streetscape

Incorporate the impact of new traffic conditions

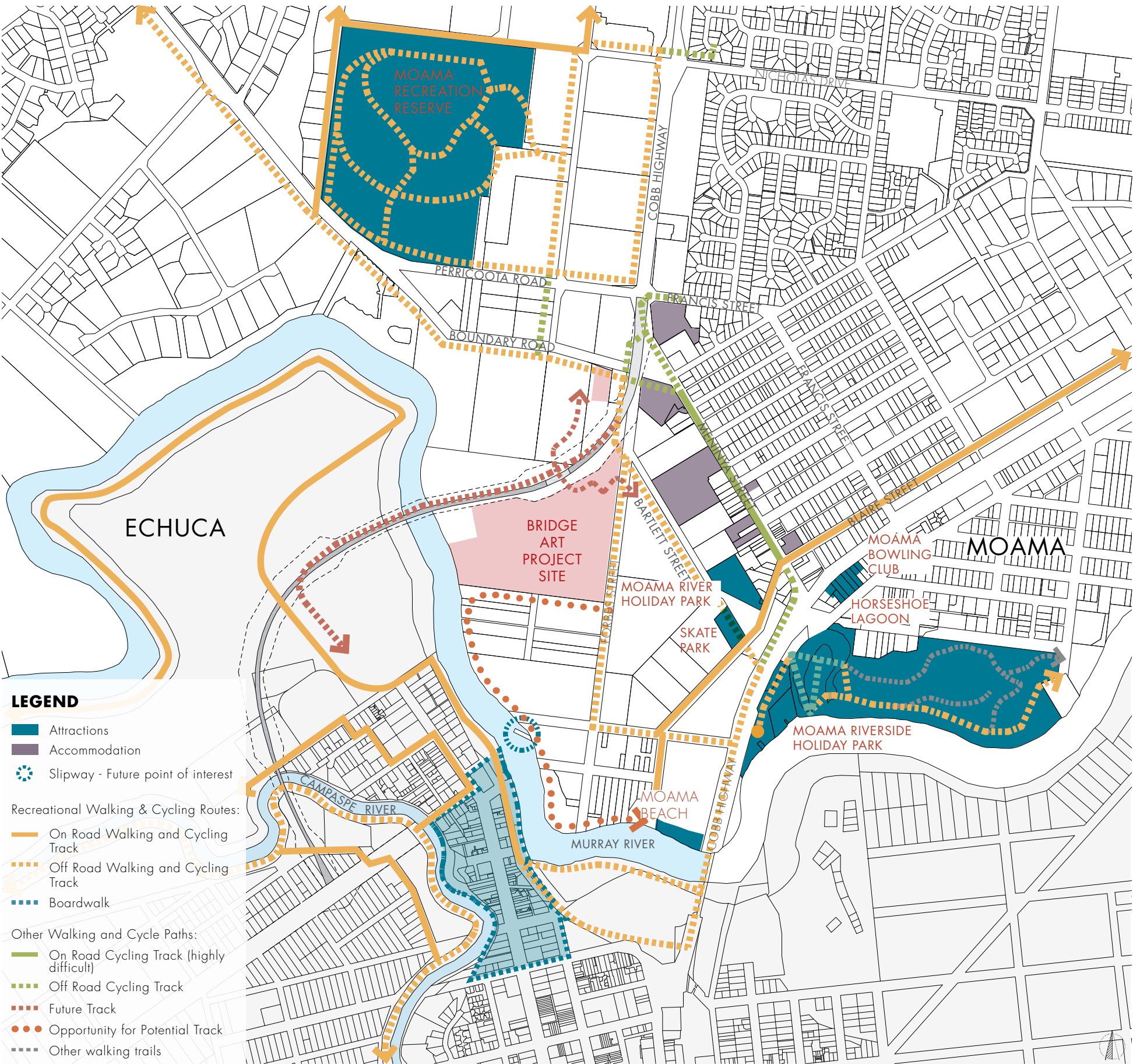
- Embrace the change to position Meninya Street as an attractor

Have spaces for people to catch up

- A street where people meet up with friends and family

Be a targeted development

- Work with the existing structure of development in Meninya Street - retain precincts within the design



03 KEY PRINCIPLES

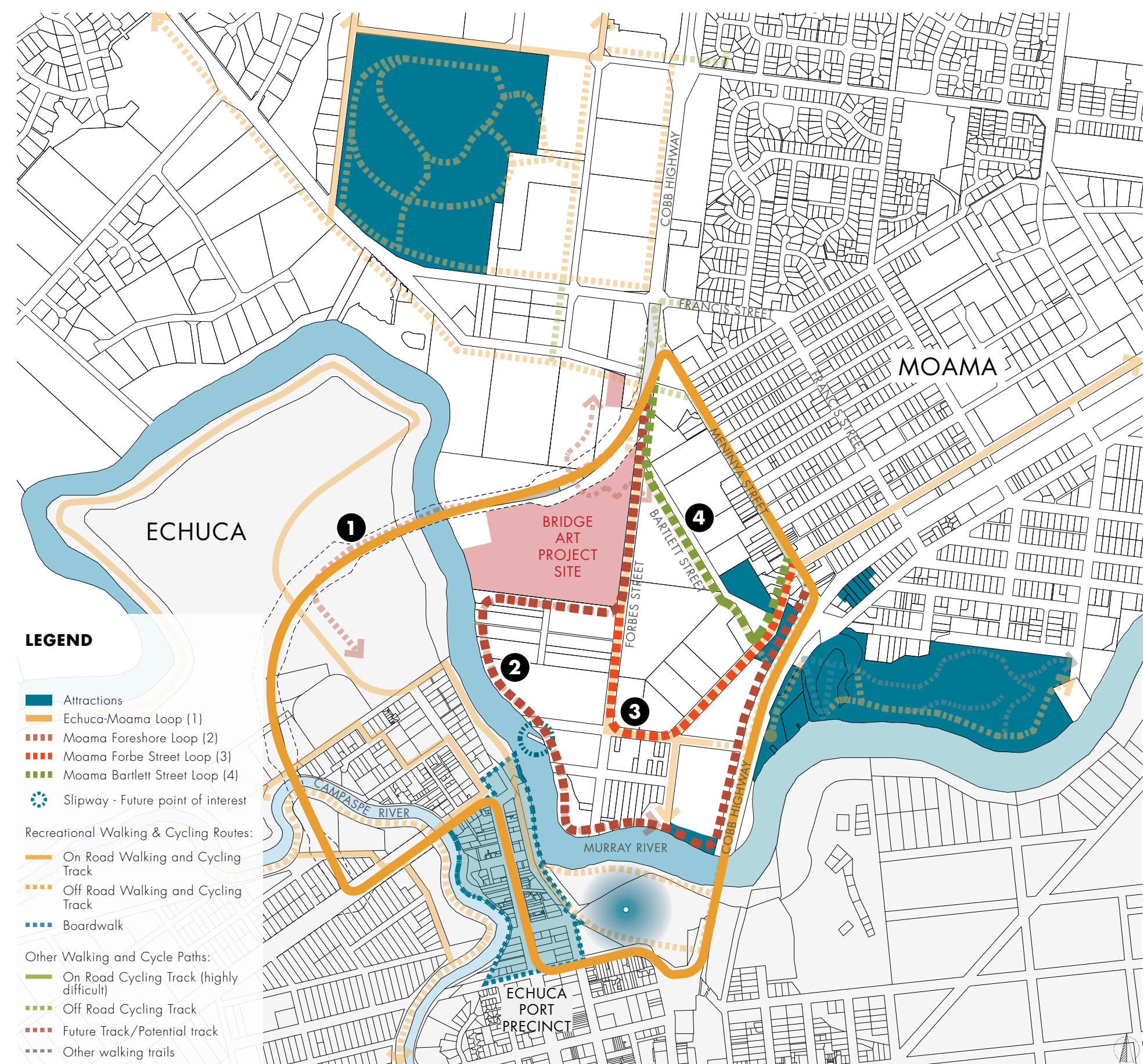
03.01 PRINCIPLES

3. STRENGTHEN THE CONNECTION BETWEEN THE ART AND CULTURE PRECINCTS IN ECHUCA AND MOAMA

Echuca and Moama are twin towns. With the proposed Echuca Moama Road Bridge to be constructed, the connection between these two towns have been strengthened and complete. The loop around Echuca and Moama is seen as a cultural heart and the Murray River, a cultural icon, the spine. The loop is a key artery in connecting existing and future cultural and arts attractors. The Murray River should not be seen as an entity that is separating the two towns, but should be seen as the glue of Echuca and Moama, a shared attraction with a shared history. There are also multiple loops or routes in the heart of Moama, which takes advantage of the Murray River foreshore, beach, Sound Shell, Horseshoe Lagoon and Meninya Street.

Echuca-Moama have a number of arts and culture attractors and points of interest. It is important to enhance these connections and to allow a fluid connection between attractors. This will, again, add value to the experience and journey through Moama and, also, Echuca.

Moama is a contemporary town which values and acknowledges local history and culture. The arts and culture will be integral to Moama. The art will be fabulous, authentic and will incorporate Aboriginal culture, respecting the past, present and future.



04 CONSTRAINTS AND OPPORTUNITIES

04.01 OVERALL MASTERPLAN CONSTRAINTS AND OPPORTUNITIES

Below is a list of constraints and opportunities that have been observed during earlier investigations of the Bridge Arts and Meninya Street Masterplan.

CONSTRAINTS

VISIBILITY

- Poor visibility from Meninya Street to Bridge Art Project site due to topographic landscape
- Town currently turns its back from the river

TOPOGRAPHY

- Sites Located in a flood plain and fire prone area
- Main Bridge Art Project site elevation below Meninya Street due to topographic landscape
- Currently there is a disconnect between Meninya Street and the natural environment

BUSINESSES

- Business types scattered - not activating street
- Services, such as two petrol stations and car repair businesses located on Meninya street
- Lack of hub
- Lack of brand and identity
- Vacant private land
- Economic value of businesses
- Lack of sites/spaces to increase supporting businesses, jobs and employment
- Some businesses missing on Meninya Street, such as banks and camping stores

IDENTITY

- Echuca-Moama tourism
- Lack of brand and identity
- Disconnect between existing tourist sites in Echuca and Moama

TRAFFIC AND PARKING

- Currently large flow of traffic passing through Meninya Street, including large trucks
- Difficulty with parking, particularly leaving a parking spot
- Angled parking allow Meninya Street
- Bicycle lane along Meninya Street classified as highly difficult from the RMS due to large trucks and high flows of traffic through street
- Speed limit on Meninya Street is 50km/h
- Congestion due to high traffic flows and during school peak hour drop-off and pick-ups
- Current parking situation is at capacity
- Traffic impacts during construction of future bridge
- Enough parking for Bridge Art Project entry
- Noise from new bridge to the Bridge Art Project site

PUBLIC DOMAIN

- Poor quality public domain
- Lack of landscaping on Meninya Street
- Pedestrian approaches not addressed
- Only one pedestrian crossing along Meninya Street, located to the south of the street
- Lack of public spaces on Meninya Street. All open and public spaces located on either ends of Meninya street
- Lack of public seating
- Lack of street activation, character and vibrancy
- Appearance of businesses in streetscape is lacking
- Councils red tape restrictions limits the activation of the footpath

OPPORTUNITIES

VISIBILITY

- Opening up Meninya Street to the natural landscape, connecting to the Bridge Art Project site
- Signage and wayfinding to assist with leading people towards Bridge Art Project site and other significant sites along Meninya Street and Moama
- Use art to create a trail towards the Bridge Art Project site and existing significant sites, such as the Sound Shell and Horseshoe Lagoon
- Encourage views to the river from the rear of shops

TOPOGRAPHY

- Utilise flood waters in the design, such as art pieces that responds to the flood waters
- Flood to be seen as an opportunity for events
- Flooding as a destination
- Connecting the natural environment with Meninya Street

BUSINESSES

- Introduce more upmarket specialty shops
- Involve the business owners to showcase their businesses
- Introduce other retail business that are missing along Meninya Street, such as banks
- Advertise the towns diversity, such as through food markets
- Utilise the vacant land, set up new business or use it for temporary activities, such as markets

TRAFFIC AND PARKING

- Future Echuca Moama Road Bridge predicted to ease traffic on Meninya Street
- Use vacant lots for temporary parking and possible acquisition for long term strategy
- Utilise existing space
- Multi-storey parking on available sites
- Zoning the parking, such as free parking, 30 minute parking, dedicated zones
- Remove angle parking and replace with parallel parking
- Utilise strategies to slow down traffic include narrow lanes, speed humps and raised pedestrian crosswalks
- Introduction of bike lanes to allow safe travel for cyclists

PUBLIC DOMAIN

- Incorporate Meninya Street's history into the streetscape
- Irrigate and have a green nature strip all the way down Meninya Street
- Planting new trees for quality of shade and visual
- Businesses to invest in improvements as businesses are the face of the street
- Green street
- Precinct zoning
- Seating

IDENTITY

- Re-brand Murray River Council
- Advertise Moama's diversity
- Moama to rediscover an identity different to Echuca

04 CONSTRAINTS AND OPPORTUNITIES

04.02 BRIDGE ART PROJECT SITE CONSTRAINTS

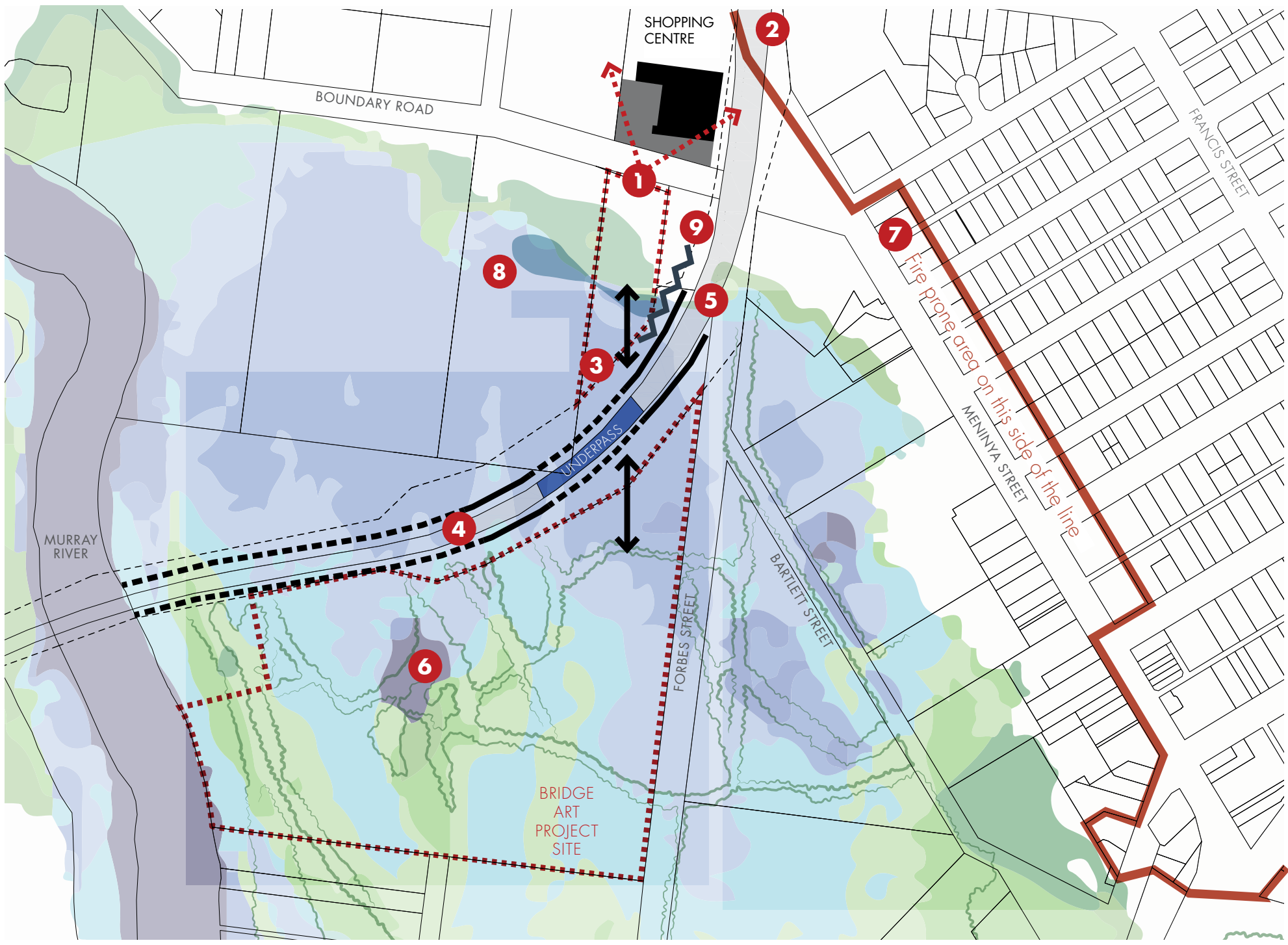
The Bridge Art Project site contains a number of constraints, such as:

- 1 Bridge Art Project site facing back of house area/loading dock area of shopping centre
- 2 Busy intersection north of Bridge Art Project site
- 3 New bridge cutting in between Bridge Art Project sites, which becomes a barrier within the Bridge Art Project site
- 4 Scale of the new bridge in relation to the Bridge Art Project site
- 5 Northern end of new bridge sitting 0.5m above Bartlett Street
- 6 Bridge Art Project site sits on a floodplain
- 7 Bridge Art Project site is on a fire prone area
- 8 Billabong located behind the northern Bridge Art Project site
- 9 Noise issues due to new bridge to the northern Bridge Art Project site

Walking trail indicated is indicative and will require further analysis of site.

LEGEND

- Site
 - Proposed Underpass
 - Existing Tracks
 - Fire Prone Area Boundary
 - Noise Issues
 - Billabong
- | Flood Plains - 20yr Event max. Depth (m) | |
|--|----------|
| > 4.5 | 2 to 2.5 |
| 4 to 4.5 | 1.5 to 2 |
| 3.5 to 4 | 1 to 1.5 |
| 3 to 3.5 | 0.5 to 1 |
| 2.5 to 3 | 0 to 0.5 |



04 CONSTRAINTS AND OPPORTUNITIES

04.03 BRIDGE ART PROJECT SITE OPPORTUNITIES

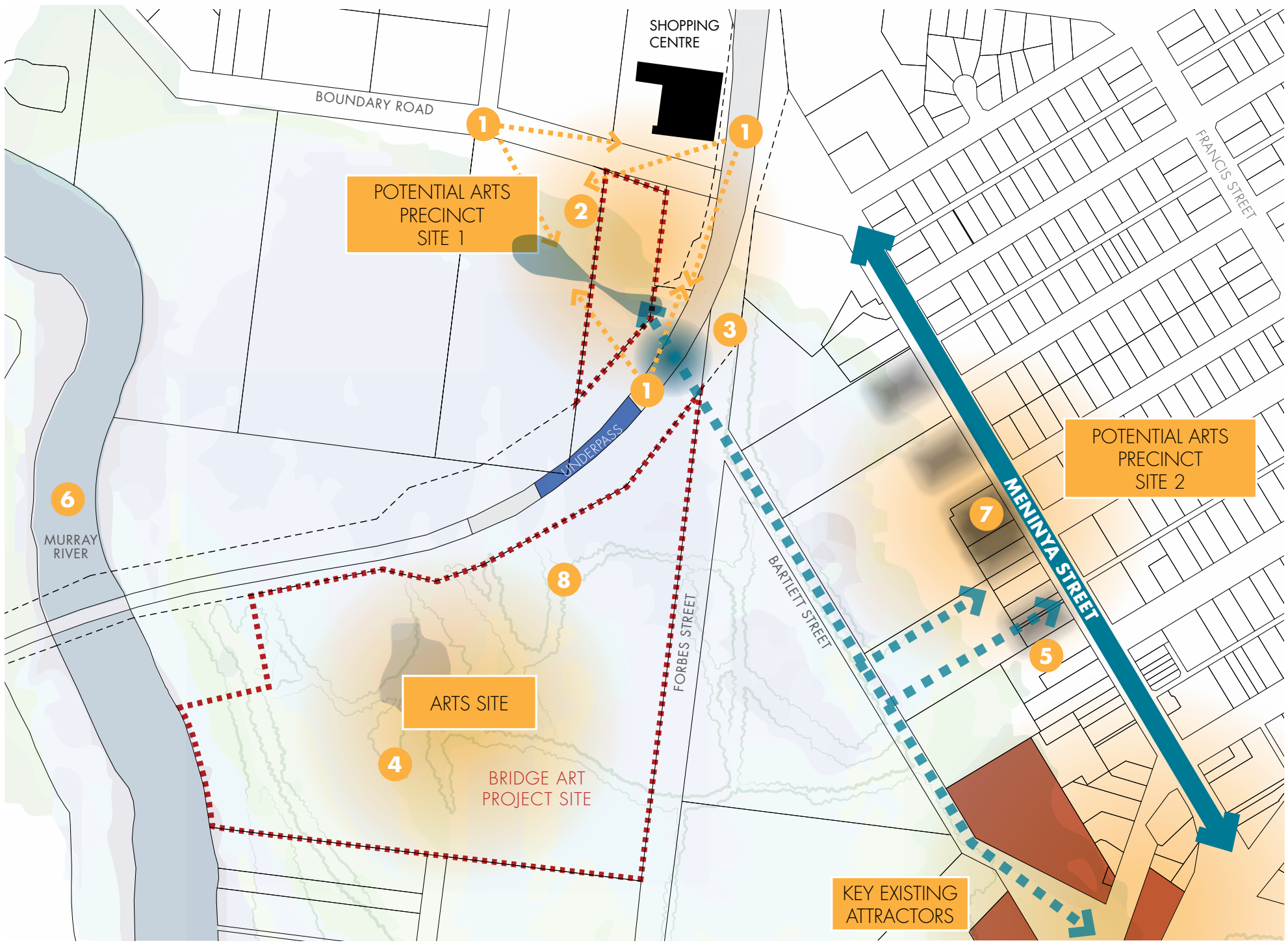
The list of opportunities surrounding the Bridge Art Project site include:

- 1 Visitor centre as gateway and marker to site
- 2 Potential for a stacked built form
- 3 Underpass to align with Bartlett Street
- 4 Utilise existing trails within Bridge Art Project site for an art trail with Aboriginal influences
- 5 Connecting Meninya Street to the natural through the Bridge Art Project
- 6 The Bridge Art Project connecting to the Murray River, an icon of Moama
- 7 Utilise vacant or underdeveloped lots fronting Meninya Street to provide a threshold to the natural setting behind and connecting to the Bridge Art Project
- 8 Utilise existing walking and cycling trails to potentially connect to the proposed arts precincts and sites

Walking trail indicated is indicative and will require further analysis of site.

LEGEND

- Site
- Proposed Underpass
- Key Attractions
- Existing Tracks
- Primary Street
- Secondary Street
- Billabong
- Potential Locations for Art



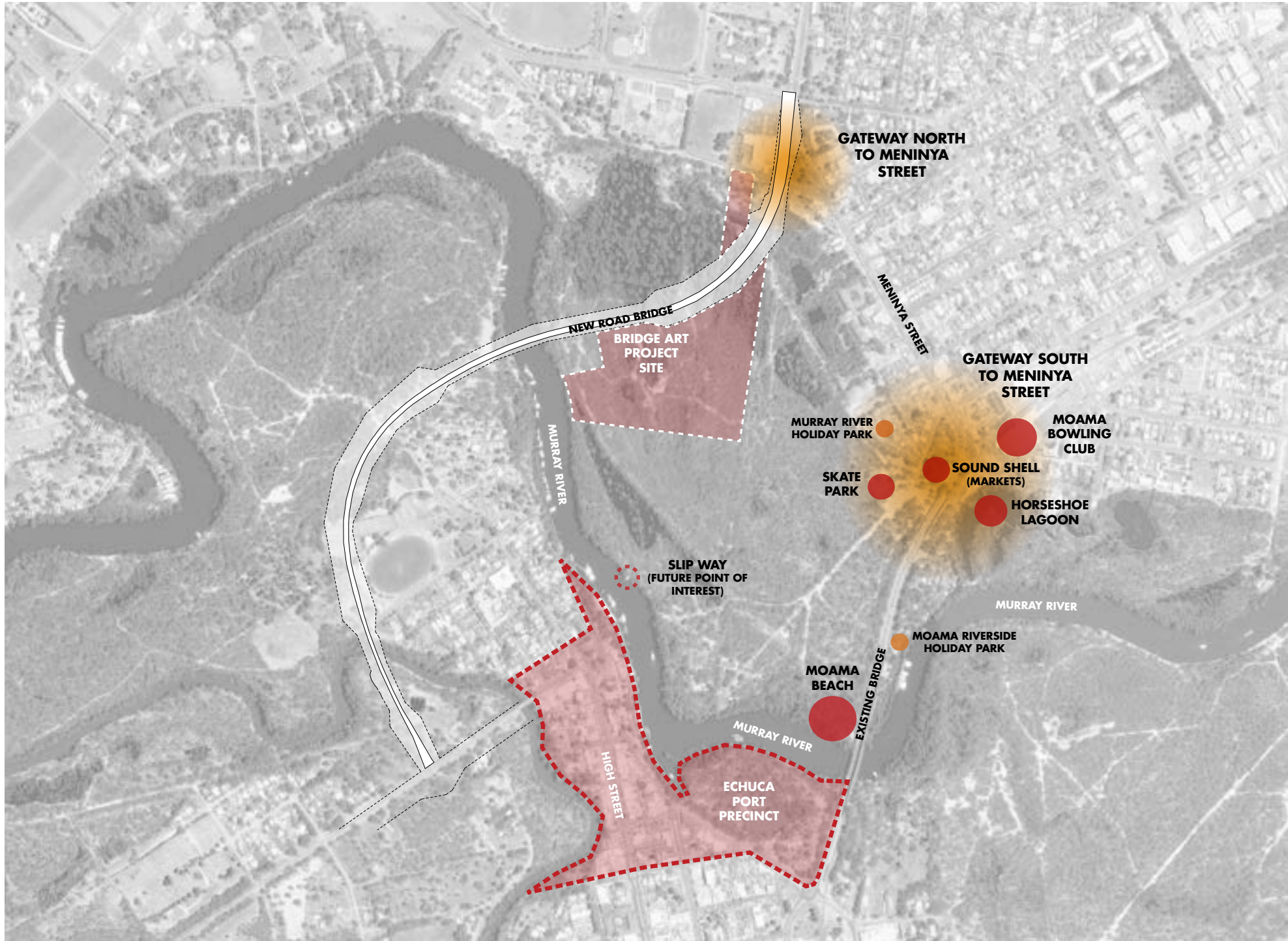
05 MASTERPLAN

05.01 MASTERPLAN - LOCAL FEATURES

LOCAL FEATURES

A number of key sites and local features are acknowledged and emphasised in the development of the Bridge Art Project and Meninya Street Masterplan. These local features have been the key drivers in developing a well connected, genuine, integrated, efficient, accessible, safe and rejuvenated Moama. These sites include:

- Gateway north to Meninya Street
- Gateway South to Meninya Street
- Moama Bowling Club
- The Skate Park
- The Sound Shell
- Horseshoe Lagoon
- Moama Beach
- The Slipway
- The holiday parks
- The new road bridge
- The existing Echuc-Moama Bridge
- Echuca Port Precinct



05 MASTERPLAN

05.02 MASTERPLAN - KEY FACTORS

ECHUCA - MOAMA

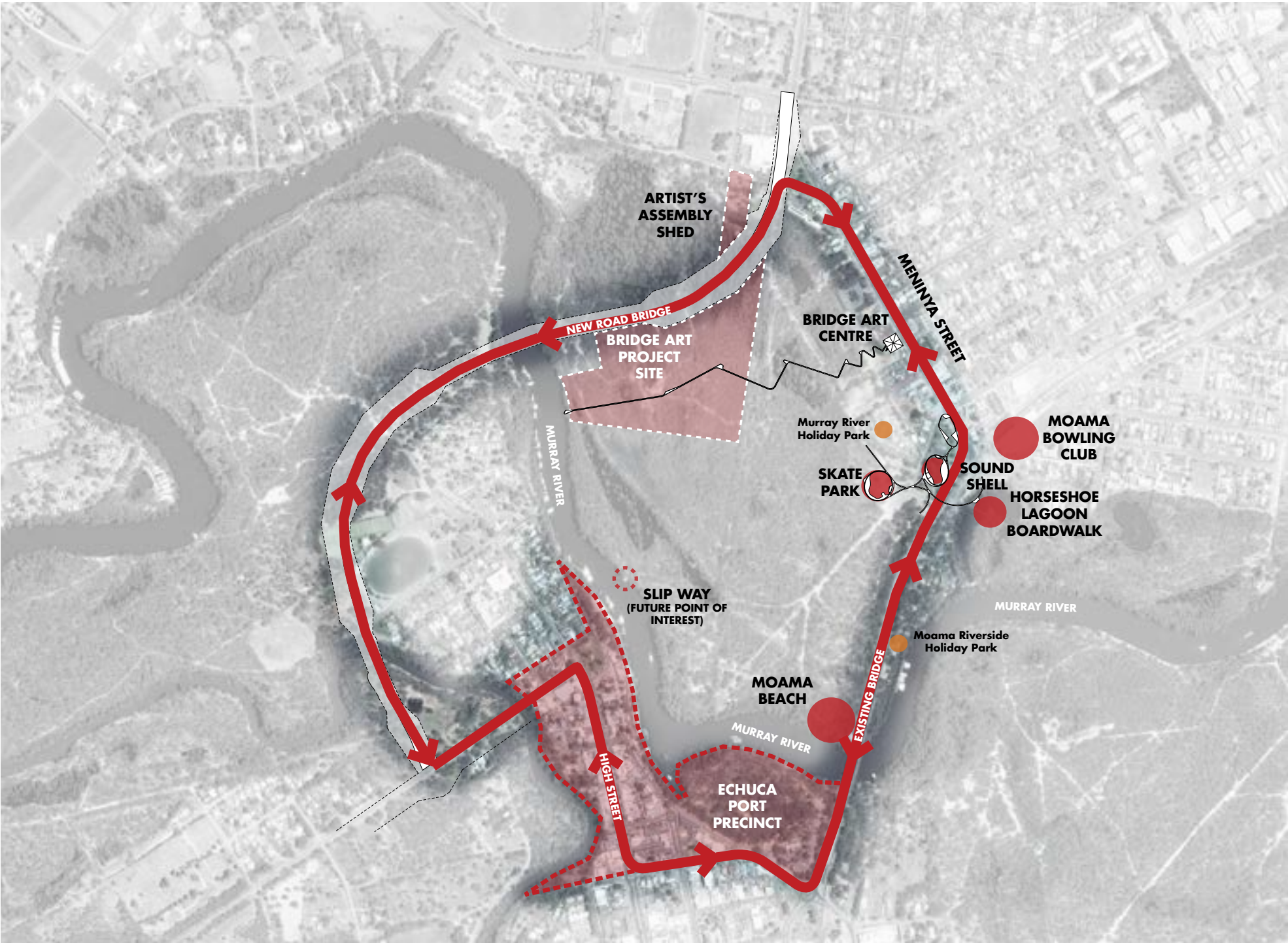
Echuca and Moama are twin towns. With the proposed Echuca Moama Road Bridge to be constructed, the connection between these two towns have been strengthened and complete. The Murray River, that runs through Echuca and Moama should not be seen as an entity that is separating the two towns, but should be seen as the glue of Echuca and Moama, as a shared attraction.

The loop around Echuca and Moama is seen as a cultural heart and the Murray River, a cultural icon. The loop is a key artery in connecting existing and future cultural and arts attractors. This major loop connection begins to connect key nodes, from the Echuca Port Precinct, to the beach, Sound Shell, Horseshoe Lagoon and Meninya Street. It is important to enhance these connections and to allow a fluid connection between attractors. This will, again, add value to the experience and journey through Moama and, also, Echuca.

LEGEND

Echuca-Moama

- Loop Connection
- Primary Destination Nodes
- Potential Destination Nodes
- Caravan Parks and Camping Grounds



05 MASTERPLAN

05.02 MASTERPLAN - KEY FACTORS

NATURE

The Murray River is a boundary between New South Wales and Victoria, but it is also a shared asset and attractor to the region. The Riverina landscape in the town areas is highly modified to control water. The Riverina typically has towering River Red Gums with some undergrowth, swamplands and billabongs, smaller patches of grasslands. It is home to a rich diversity of fauna and flora.

The Cadell Fault Line is visible from south of Echuca to near Deniliquin. North of Moama, and near the Murray Valley National Park, is a 12-15m high cliff. The uplift of the Cadell Fault altered the river paths in the region since time immemorial. The floodplain has been lifted and creates the start of the flattest terrestrial plains on earth. Moama is a gateway to the Long Paddock Touring Route that explores the plains landscape and features artwork that celebrates local history.

The nature and the bush are the heroes for this Masterplan. The river, the natural environment and the stories it holds are central to the experience of Moama. Nature and the arts are not just backdrops to activities, they are the stars. When people visit Moama they are immersed in nature. The aim of the Bridge Art Centre and the Artist's Assembly Shed is to experience nature through the eyes of artists – visual, performing artists, writers and sculptors – and they can participate in nature and the arts.

LEGEND

Nature

■ ■ ■ Site Landscape Boundary



05 MASTERPLAN

05.02 MASTERPLAN - KEY FACTORS

NATURE - EXISTING WALKING AND CYCLING TRAILS

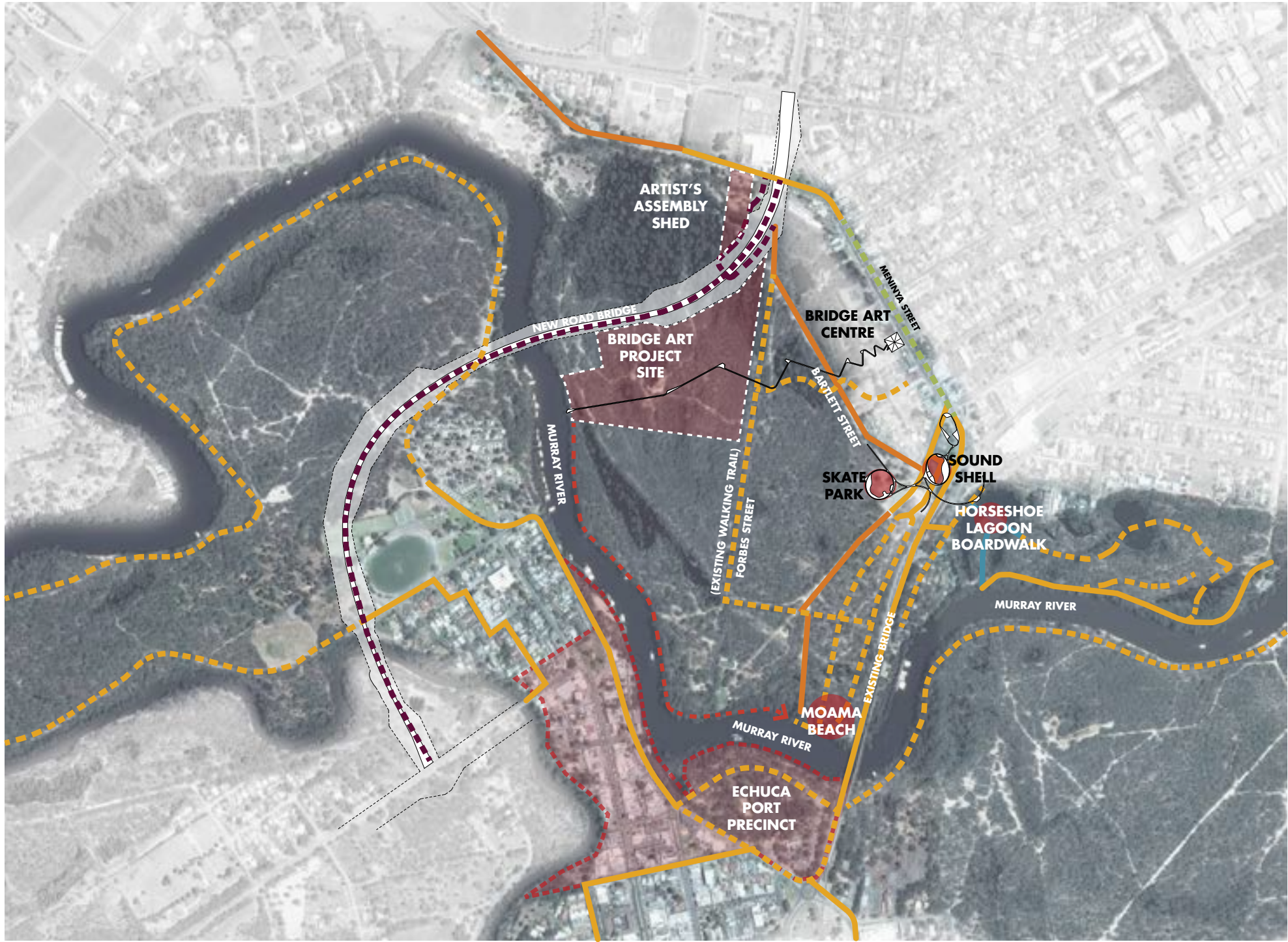
There are a number of existing walking and cycling trails, that weave in and out of the bush and natural landscape, connecting Echuca and Moama. These trails pass through key destination nodes, such as Moama Beach, Horseshoe Lagoon, the Sound Shell, Skate Park, Echuca Port Precinct and Meninya Street.

The Bridge Art Project site sits within existing walking trails, with a potential to integrate these tracks to the Masterplan to allow a strengthened and completed connection to multiple destinations, connecting to the Bridge Art Project Site and the Bridge Art Centre.

LEGEND

Nature and Existing Trails

- Pedestrian Path
- - - Walking / Cycling Track
- On-road Track (Pedestrian and cyclist)
- Boardwalk
- - - New Bridge Proposed pedestrian and cycling path
- - - Potential Walking Trail



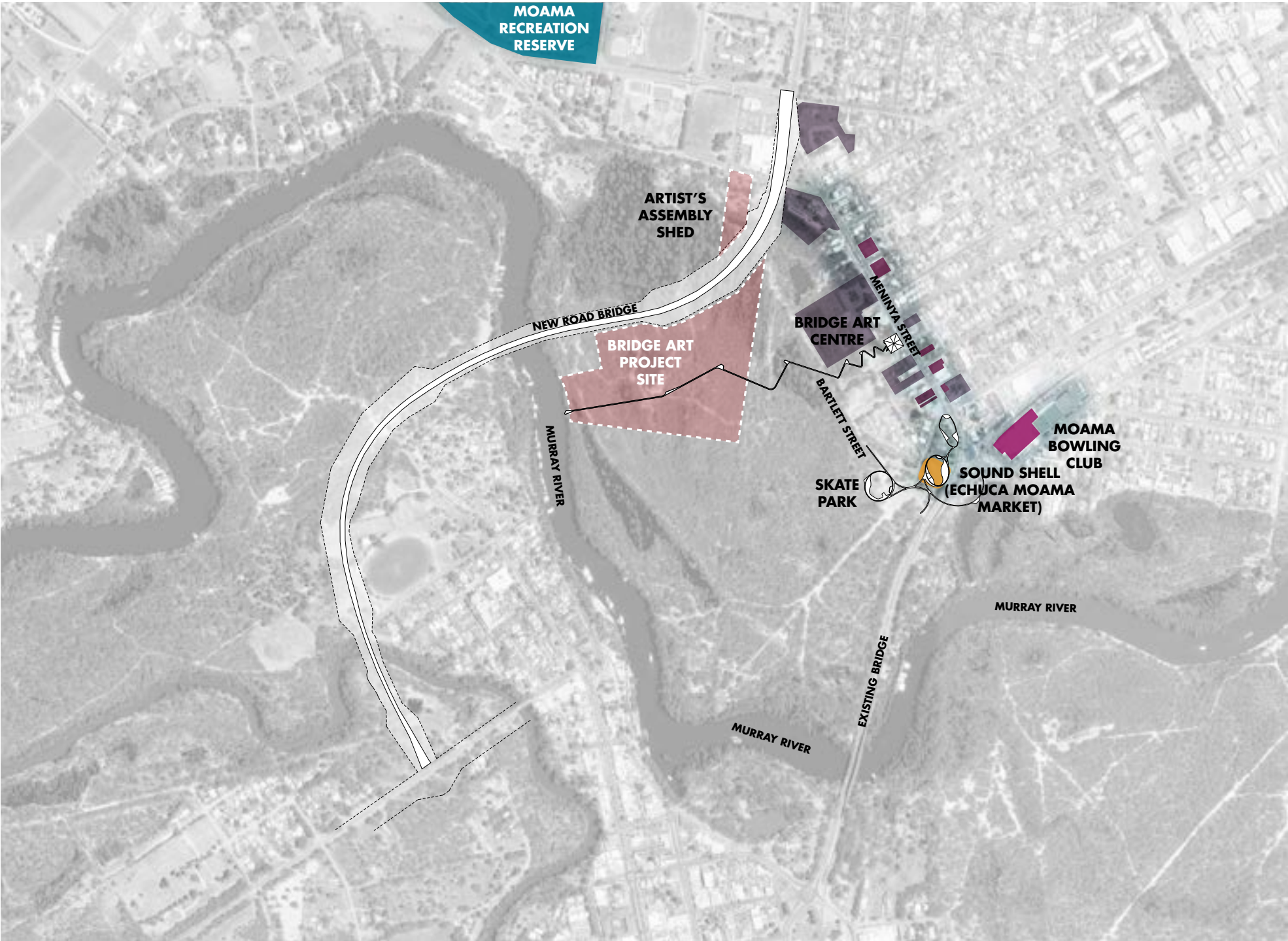
05 MASTERPLAN

05.02 MASTERPLAN - KEY FACTORS

ENTERTAINMENT AND MENINYA STREET

Current tourism attractions and points of interest are located to the south of Meninya Street. These attractions consists of recreational activities, markets, caravan parks and camping grounds. Moama is also currently connected to an already vibrant Port Precinct in Echuca. The slipway is also seen as a future point of interest as it faces the Murray River and paddlesteamers.

The entertainment aspect is to create experiences that are designed to give pleasure and lift the spirits. Contemporary creativity is on show through arts presentation and performance. In the day and the evening, the sense of place is enhanced through lights, music and playful areas that invite interaction and participation.



LEGEND

Entertainment and Meninya Street

Accommodation

Moama Bowling Club

Restaurants

Markets

Moama Recreational Reserve

05 MASTERPLAN

05.02 MASTERPLAN - KEY FACTORS

BRIDGE ART PROJECT SITES AND MENINYA STREET SOUTH LOOP WALK

The proposed Bridge Art Centre is located on Meninya Street, the current location of the site is indicative. The aim of placing the Bridge Art Centre on Meninya Street is to open up the street to the bush, connecting to the Bridge Art Project Site, which will contain contemporary art and sculptures. An elevated pathway will weave through the trees and will lead down towards the Murray River. A dashed line looping around the elevated pathway is an indicative line to highlight the potential for the elevated pathway to loop around its landscape relating back to the land and its stories.

The location and design of the Bridge Art Centre, the elevated pathway and the potential loop are currently indicative elements and will need to respond to site conditions and Aboriginal influences in later stages.

The Meninya Street South Loop Walk encompasses the Sound Shell, Skate Park, current MRC Office and Horseshoe Lagoon. The intent for this proposal is to allow a better connection between these key sites, to rejuvenate the sites surrounding the southern gateway to Moama and establishing it as a key precinct.

Refer to section 05.06 Meninya Street South and section 05.08 Bridge Art Centre for more details on the concept design of these two precincts.

LEGEND

Bridge Art Project

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Bridge Art Project Centre site can exist anywhere along Meninya Street, current location indicative

<-->

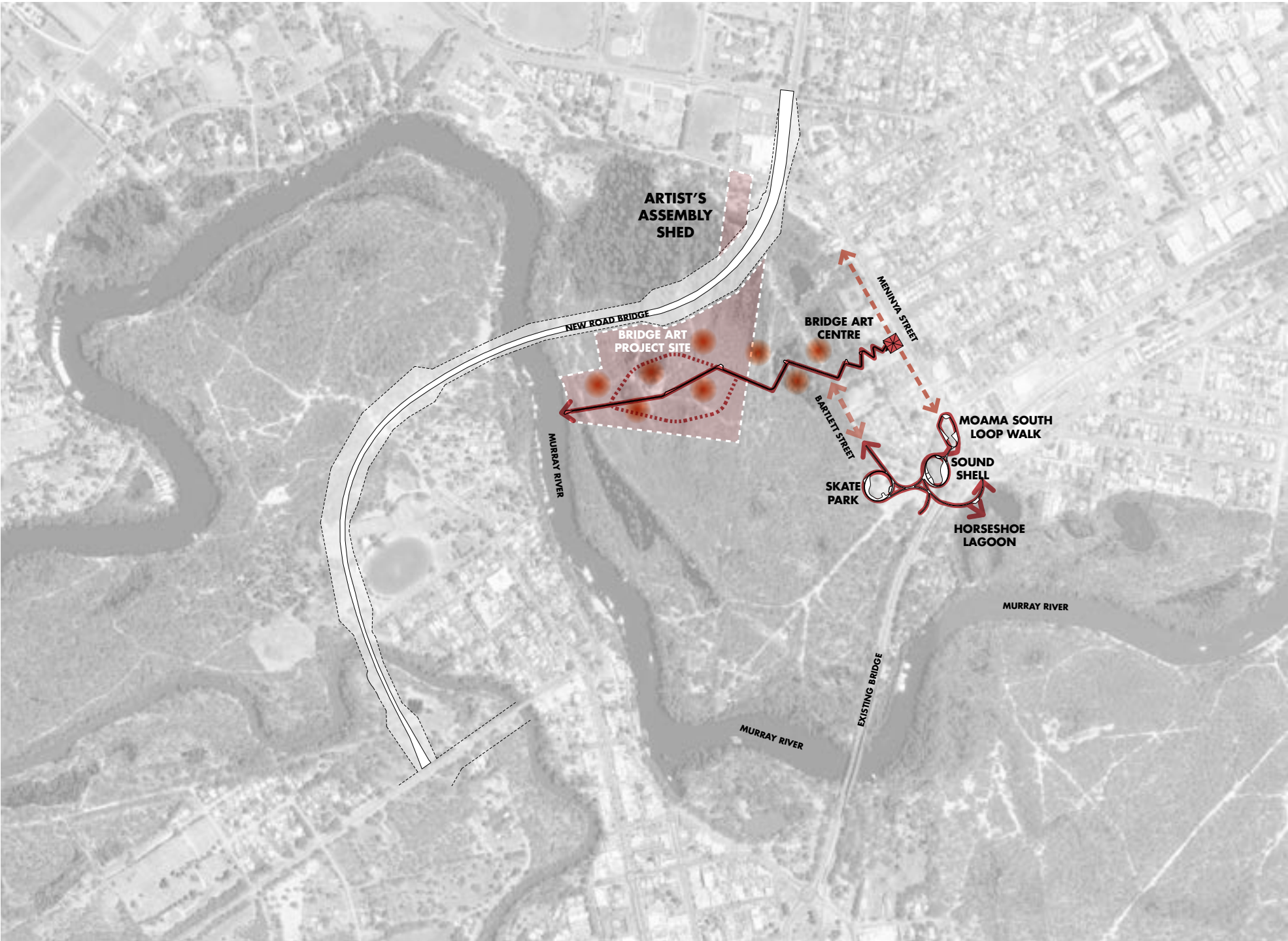
Bartlett Street connection

.....

Indicative elevated loop pathway

●

Art in Bridge Art Project Site



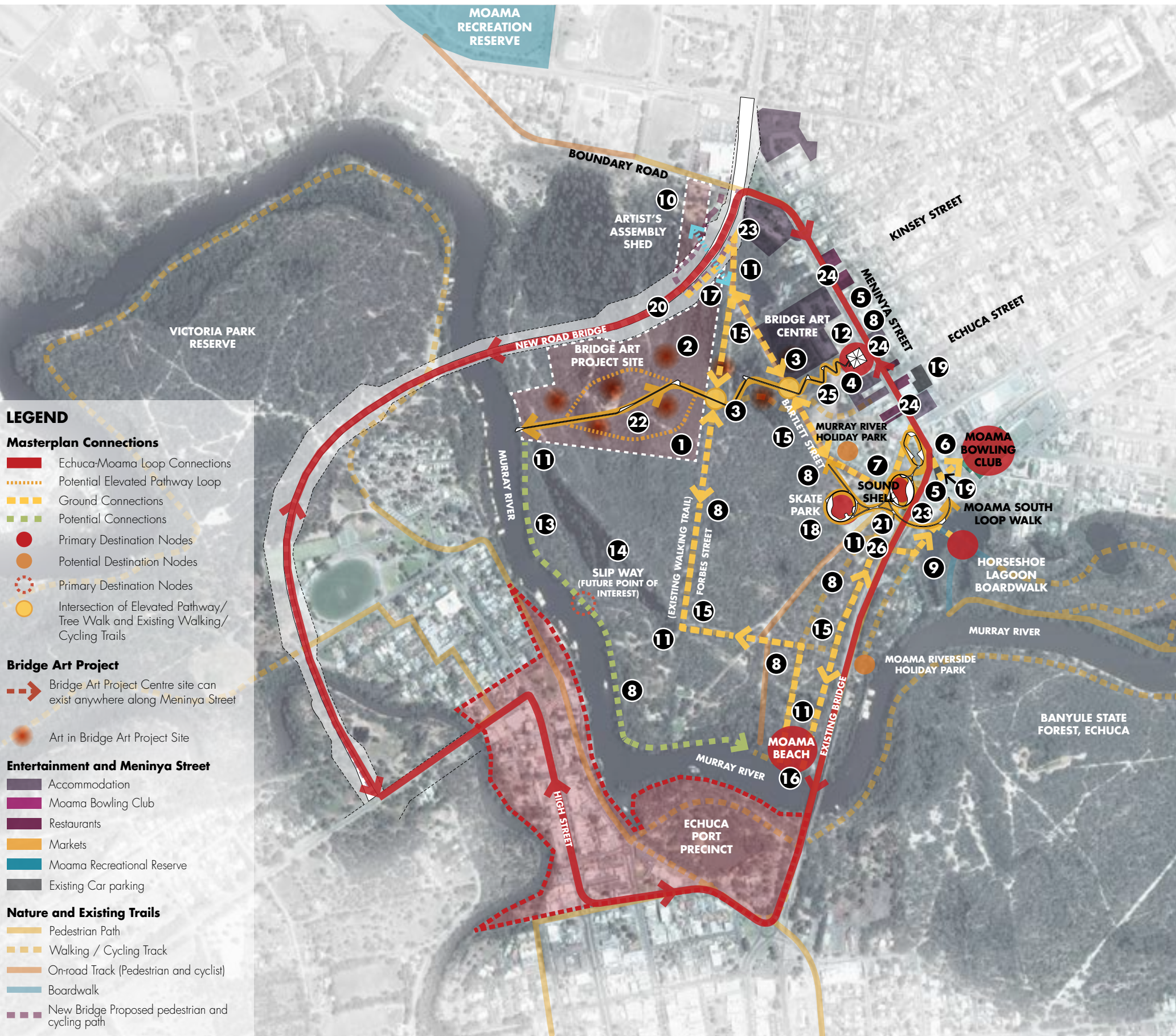
05 MASTERPLAN

05.03 MASTERPLAN

MASTERPLAN

The Masterplan utilises the existing walking and cycling trails, attractions, such as Moama Beach, the Sound Shell, Skate Park, Horseshoe Lagoon, Meninya Street and the Bridge Art Project site. The routes indicate the potential connections between the different attractions in Moama, linked by the existing walking and cycling trails, with the Bridge Art Project Site located within these trails. The Masterplan has a number of potential projects that exists on and around the site:

1. Proposed Bridge Art Project Site to contain contemporary art installations and gathering spaces on the ground.
2. Proposed elevated pathway/tree walk with viewing platforms and gathering spaces. Ground path to follow elevated pathway.
3. Point of intersection between elevated pathway/tree walk and existing walking and cycling trails.
4. Proposed Bridge Art Project Centre to be located on Meninya Street (current location is indicative).
5. Rejuvenation and upgrade of Meninya Street and adjacent streets for day and night activities.
6. Better pedestrian access on Meninya Street.
7. Upgrades to the Kerrabee Sound Shell.
8. Potential for public art to be placed along existing walking and cycling trails and Meninya Street.
9. Upgrades to Horseshoe Lagoon boardwalk
10. Artist's Assembly Shed located on higher area of Bridge Art Project site. It is an art storage shed/depot with workshop and studio spaces.
11. Potential for signage to be located at key points - a sculptural piece to relate with the potential art placed along trail.
12. Potential location for car park to be located on Meninya Street (current location is indicative).
13. Potential connection/trail from the Bridge Art Project Site and Moama Beach.
14. Activation of slip way, connecting to potential trail from Bridge Art Project Site and Moama Beach.
15. Upgrade existing trails.
16. Amenity upgrades or additions to Moama Beach.
17. Underpass potential location to align with Bartlett Street and connecting to site on higher ground.
18. Skate Park Upgrades.
19. Upgrades to existing car parks.
20. Opportunity for art inside proposed underpass.
21. Loop walk around Sound Shell, Skate Park and Civic Centre, connecting to Horseshoe Lagoon
22. Bridge Arts precinct land management works including weed control, erosion control, re-vegetation, bank shaping, wetlands works and other remediation works
23. Northern & Southern Gateway Artwork
24. Meninya Street Public Realm areas
25. BAC sculpture garden
26. Playground upgrade in Sound Shell precinct



05 MASTERPLAN

05.03 MASTERPLAN

MASTERPLAN - POTENTIAL PROJECTS

Each of these potential projects adds value. Moama's experience of the Bridge Art Project and Meninya Street Masterplan and aims to create a genuine, accessible, efficient, safe, inclusive and integrated experience, by establishing Moamas identity and rejuvenating Moama.

1

Proposed Bridge Art Project Site to contain contemporary art installations and gathering spaces on the ground

2

Proposed elevated pathway / tree walk with viewing platforms and gathering spaces

3

Point of intersection between elevated pathway/tree walk and existing walking and cycling trails

4

Proposed Bridge Art Project Centre to be located on Meninya Street (current location is indicative)

5

Rejuvenation of Meninya Street for day and night activities

6

Better pedestrian access from Meninya Street to Moama Bowling Club

7

Upgrades to the Kerrabee Sound Shell

8

Public art to be placed along existing walking and cycling trails

9

Upgrade to Horseshoe Lagoon boardwalk

05 MASTERPLAN

05.03 MASTERPLAN

MASTERPLAN - POTENTIAL PROJECTS

10 Artist's Assembly Shed located on higher area of Bridge Art Project site. It is an art storage shed/depot for art site and artists



11 Signage to be located at key points - a sculptural piece to relate with the potential art placed along trail



12 Location for car park to be located on Meninya Street (current location is indicative)



13 Connection / trail from the Bridge Art Project Site and Moama Beach



14 Activation of slip way, connecting to potential trail from Bridge Art Project Site and Moama Beach



15 Upgrade existing trails



16 Amenity upgrades or additions to Moama Beach



17 Underpass potential location to align with Bartlett Street and connecting to site on higher ground



18 Skate Park Upgrades



19 Upgrades to existing car parks



20 Opportunity for art inside proposed underpass



21 Loop walk around Sound Shell, Skate Park and Civic Centre, connecting to Horseshoe Lagoon



05 MASTERPLAN

05.03 MASTERPLAN

MASTERPLAN - POTENTIAL PROJECTS

22 Bridge Arts precinct land management works including weed control, erosion control, re-vegetation, bank shaping, wetlands works and other remediation works



23 Northern & Southern Gateway Artwork



24 Meninya Street Public Realm areas



25 BAC sculpture garden



26 Playground upgrade in Soundshell precinct



05 MASTERPLAN

05.04 MASTERPLAN STAGING AND RECOMMENDATIONS

MASTERPLAN STAGING

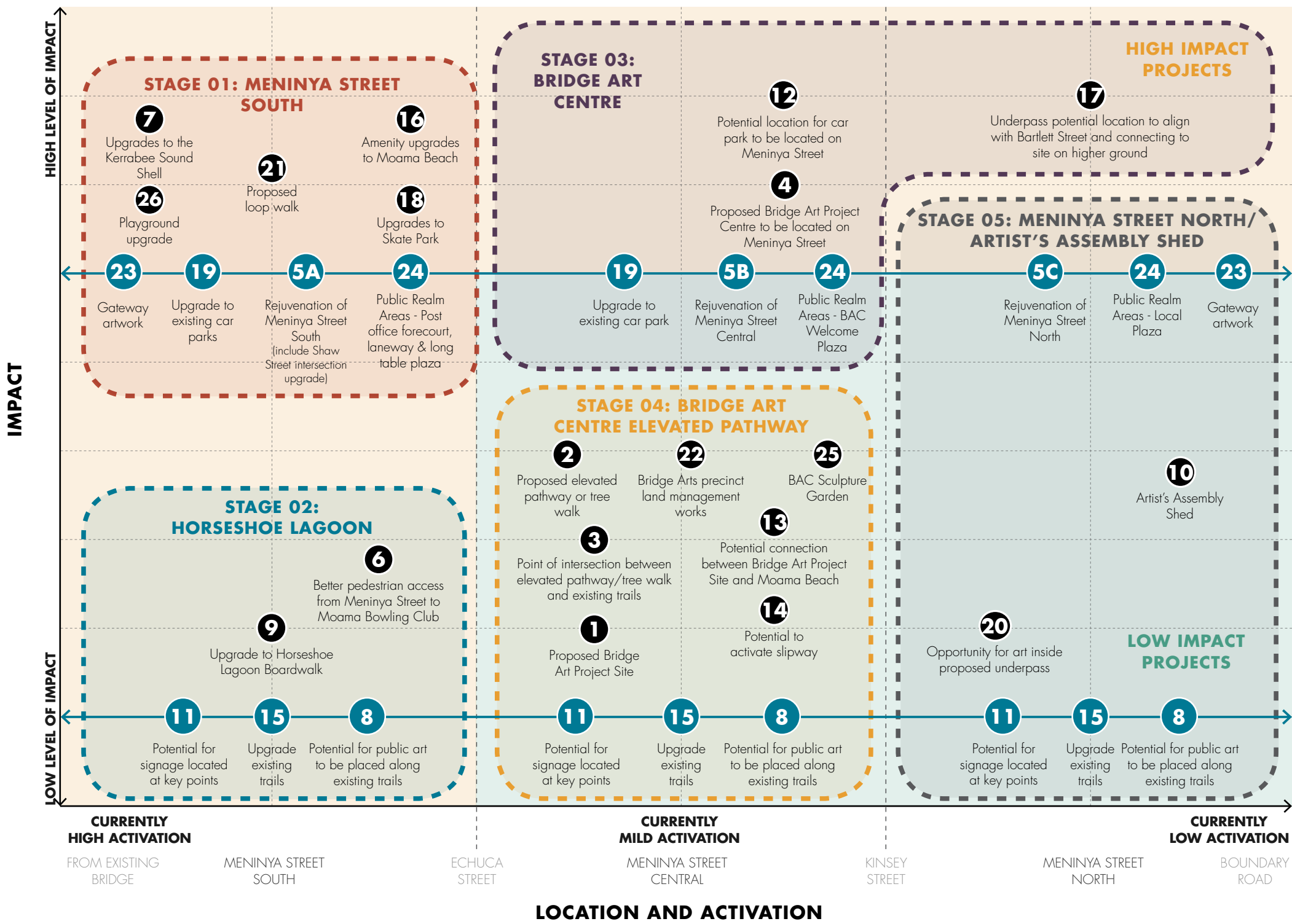
This diagram details the staging of potential projects depending on the level of impact to the Masterplan, and current activation levels. The projects are separated into high impact projects and low impact projects. High impact projects have a high level of activation and has existing activities. Whereas, low impact projects have low levels of activation and minimal activities at locations.

Through prior analysis, it was determined that Meninya Street South (between Echuca Street and the existing bridge) had the highest activation levels due to existing active sites, such as the Sound Shell, Skate Park, Horseshoe Lagoon and Moama Bowling Club. While the north had low levels of activation, due to the lack of retail business in that precinct.

The recommended staged development will take into consideration the development period of the new future bridge, particularly for projects that will require the completion of the bridge.

LEGEND

- Ongoing projects throughout the Masterplan
- Key Projects



05 MASTERPLAN

05.04 MASTERPLAN STAGING AND RECOMMENDATIONS

MASTERPLAN RECOMMENDATIONS

There are 5 stages in this Masterplan, the project list below are the recommended projects:

Stage 01: Meninya Street South

- A - Upgrades to Kerrabee Sound Shell (7)
- B - Playground upgrade (26)
- C - Proposed loop walk (21)
- D - Amenity upgrades to Moama Beach (16)
- E - Upgrades to Skate Park (18)
- F - Gateway Artwork (23)
- G - Upgrade to existing car parks (19)
- H - Rejuvenation of Meninya Street South (5a)
- I - Public realm areas (24)

Stage 02: Horseshoe Lagoon

- A - Better pedestrian access from Meninya Street to Moama Bowling Club (6)
- B - Emphasise connection to existing Horseshoe Lagoon Boardwalk (9)

Stage 03: Bridge Art Centre

- A - Potential location for car park to be located on Meninya Street (current location is indicative) (12)
- B - Proposed Bridge Art Project Centre to be located on Meninya Street (current location is indicative) (4)
- C - Rejuvenation of Meninya Street Central (5b)
- D - Upgrade to existing car parks (19)
- E - Public realm areas (24)
- F - Underpass potential location to align with Bartlett Street and connecting to site on higher ground

Stage 04: Bridge Art Centre Elevated Pathway

- A - Proposed elevated pathway/tree walk with viewing platforms and gathering spaces (2)
- B - Bridge Arts precinct land management works (22)
- C - Proposed Bridge Art Project Site to contain contemporary art installations and gathering spaces on the ground (1)
- D - BAC Sculpture Garden (25)
- E - Point of intersection between elevated pathway/tree walk and existing walking and cycling trails (3)
- F - Potential to activate slipway (14)

Stage 05: Meninya Street North / Artist's Assembly Shed

- A - Potential use of higher area Bridge Art Project Site (10)
- B - Opportunity for art inside proposed underpass (20)

Each of these stages also includes potential signage to be located at key points (11), upgrade of existing trails (15) and the placement of public art along existing trails and Meninya Street (8).

The recommendations for this project are listed in the table in relation to the project brief outcomes and are detailed further in the following chapters. For more details on the cost estimate breakdown please refer to **Section 04: Cost Estimate**.

Stage 1: Meninya Street South				
	Scope/Location	Outcome	Recommendation	Estimate Price
5A	South Meninya street	Design development, detailed plans, costings and action plan	Prepare professional plans, project brief and works package/s	\$1,350,000
		Streetscape works to improve pedestrian and cyclist access, parking and local traffic	Upgrade road surface as required	
			Realign kerbs to reduce roadway, increase naturestrip and public realm areas with improved crossing points	
			Create designated cycle lane line marking/surface treatment to create a safer, continuous area for cyclists	
			Upgrade existing footpaths	
			Install parallel parking and signage including DDA requirements	
			Install 4m wide centre median including kerb with grass surface	
		Streetscape works to create green, welcoming streetscape with improved microclimate	Move Meninya Street overhead powerlines underground between Porter Street and Shaw Street	
			Plant street trees along centre median	
			Plant street trees along naturestrip medians (N/E and S/W sides of street)	
5	Crossing point at existing crossing location	Overhead street lighting to meet Authority requirements	Plant understorey planting under naturestrip median trees	
			Install raingardens including kerb work, pits and understorey plants	
			Supply and install street lighting in accordance with Authority requirements	
		Pedestrian crossing lighting to provide a safe crossing environment	Supply and install pedestrian lighting at pedestrian crossings	
			Install pedestrian lighting in Public Realm areas	
		Pedestrian lighting in Public Realm areas to create a welcoming outdoor area at night	Install new raised wombat crossing with zebra crossing to Australian Standards	
			Install shared path (approx. 170m)	
	5 \ 23	Meninya Street/Blair Street Roundabout	Improve safety for cyclists using Blair Street roundabout. Enhance gateway entry to Meninya Street shopping precinct	
			Upgrade roundabout including kerb alignment and pedestrian crossings, apron upgrade, cyclist lane, landscaping and entry feature artwork	
	5 \ 23	Meninya Street/Shaw Street Intersection	Improve safety, local traffic connections, cyclist and pedestrian access. Enhance southern gateway approach to Moama	Install new roundabout including kerb alignment, upgrade, landscaping, pedestrian crossing and entry feature artwork
5	Crossing point at Meninya St Pharmacy (existing crossing location)	Support existing businesses by addressing current pedestrian safety and parking issues	Install new raised wombat crossing with zebra crossing to Australian Standards	
24	Public Realm space in front of Moama Post Office	Upgrade area to create community hub area for local residents	Supply and install feature paving, furniture, public art, shade pergola, trees with tree cells, understorey planting, Water Sensitive Urban design, feature lighting and community notice board in public realm area	
24	Public Realm space in front of laundrette, hairdresser, chicken take-away and hearing services etc.	Upgrade area to create communal seating and outdoor dining area with access for all abilities provision to all shops	Supply and install feature paving with improved access to existing shops, furniture, public art, shade pergola, trees with tree cells, understorey planting, Water Sensitive Urban design and feature lighting in public realm area	
24	Laneway between Meninya St and Echuca st carpark	Upgrade laneway to improve pedestrian connection between Meninya Street and off-street carpark	Supply and install feature paving, furniture, public art, shade pergola, trees with tree cells, understorey planting and feature lighting in laneway	
19	Carpark on east side of Meninya Street near Shaw Street and Railway line	Enhance southern gateway approach to Moama and improve parking facilities	Upgrade carpark (approx. 1,000m ²) including surface treatment, kerb alignment, line marking, and tree planting in tree cells	
19	Echuca Street Carpark	Provide an off-street car park to service Moama CBD. Ensure carpark is welcoming and visually interesting both, internally and externally	Upgrade existing carpark to a multi-storey (3) open carpark (approx. 170 spaces) with feature cladding and some internal artwork	

05 MASTERPLAN

05.04 MASTERPLAN STAGING AND RECOMMENDATIONS

MASTERPLAN RECOMMENDATIONS

7	Kerrabee Sound Shell	Upgrade soundshell, stage and amphitheatre area, including provision of additional infrastructure and services, to cater for a wide range of events of different scales	Upgrade existing Sound Shell with a proposed ring enclosure which can expand to form a stage, back-of-house areas, amenities and signage. New walking paths and lighting upgrades to work with proposed design.	\$4,800,000
18	Skate Park	Upgrade Skate Park to provide improve recreation, social interaction and community development opportunities	Upgrade existing Skate Park to include a ring enclosure with new walking paths and lighting upgrades	
26	Soundshell Playground	Replace playground with a new playground aimed at ages 3 - 7	Upgrade existing playground with new pathways and lighting upgrades	
24	Public Realm space in front current MRC offices	Upgrade area to create community plaza area including shade, planting, communal seating areas, surface treatments etc. Develop design to support future re-use of MRC building	Upgrade existing to exiting MRC building with proposed landscaping upgrades, lighting upgrades and installations.	

Stage 2: Horseshoe Lagoon				
	Scope/Location	Outcome	Recommendation	Estimate Price
9	Horseshoe Lagoon	Refurbish the existing boardwalks, upgrade interpretation to meet the expectations of a contemporary audience. Address low hanging branches and aging infrastructure	Upgrade Horseshoe Lagoon boardwalk	\$225,000

Stage 3: Bridge Art Centre				
	Scope/Location	Outcome	Recommendation	Estimate Price
5B	Central Meninya street	Design development, detailed plans, costings and action plan	Prepare professional plans, project brief and works package/s	\$9,325,000
			Upgrade road surface as required	
			Realign kerbs to reduce roadway, increase naturestrip and public realm areas with improved crossing points	
			Create designated cycle lane line marking/surface treatment to create a safer, continuous area for cyclists	
			Upgrade existing footpaths	
		Streetscape works to improve pedestrian and cyclist access, parking and local traffic	Install 1 No. large raising crossing at Bridge Arts Centre	
			Install parallel parking and signage including DDA requirements	
			Install 4m wide centre median including kerb with grass surface	
		Move Meninya Street overhead powerlines underground between Porter Street and Shaw Street	Plant street trees along centre median	
			Plant street trees along naturestrip medians (N/E and S/W sides of street)	
			Plant understorey planting under naturestrip median trees	
			Install raingardens including kerb work, pits and understorey plants	
		Overhead street lighting to meet Authority requirements	Supply and install street lighting in accordance with Authority requirements	
			Supply and install pedestrian lighting at pedestrian crossings	
		Pedestrian crossing lighting to provide a safe crossing environment	Install pedestrian lighting in Public Realm areas	
			Supply and install feature paving, furniture, public art, trees with tree cells, understorey planting and feature lighting in public realm area	
	24	Public Realm space in front of BAC Gateway	Upgrade area to create welcoming plaza to the BAC	\$2,500,000
	12	BAC Carpark (Existing disused light industrial building and yard)	Create a welcoming carparking area for visitors to the BAC	
		Arts precinct development opportunity (existing disused light industrial building and yard)	Create development opportunity which supports BAC, provides an active streetscape frontage and fosters local community initiatives	\$15,650,000
	17	Pedestrian underpass under new Bridge	Create welcoming and safe underpass for pedestrians, cyclist and maintenance vehicles incorporating some art elements	\$1,150,000
	17	Pedestrian underpass under new Bridge	Create welcoming and safe underpass for pedestrians, cyclist and maintenance vehicles incorporating some art elements	
	3	Pathway node 1 (point where The Pathway crosses over trail)	Incorporate art elements on the underside of The pathway to create a feature point for pedestrians and cyclists using on-ground trails	
	3	Pathway node 2 (point where The Pathway crosses over trail)	Incorporate art elements on the underside of The pathway to create a feature point for pedestrians and cyclists using on-ground trails	

05 MASTERPLAN

05.04 MASTERPLAN STAGING AND RECOMMENDATIONS

MASTERPLAN RECOMMENDATIONS

Stage 4: Bridge Art Centre Elevated Pathway				
	Scope/Location	Outcome	Recommendation	Estimate Price
25	BAC Sculpture Garden	Create large landscaped garden incorporating understorey planting, trees, screening planting, paved areas and seating areas as a outdoor exhibition space for the BAC artwork and events	Prepare professional plans, project brief and works package/s	\$2,300,000
25	BAC Sculpture Garden	Create large landscaped garden incorporating understorey planting, trees, screening planting, paved areas and seating areas as a outdoor exhibition space for the BAC artwork and events	Supply and install landscape works	
22	BAP Site overall	Design development, detailed plans, costings and action plan	Prepare professional plans, project brief and works package/s	\$1,000,000
22	Bushland below The Pathway (approx 60km²)	Create a healthy bushland environment that provides a setting for The Pathway and backdrop for the BAP artwork. Improve ecological and habitat value	Undertake weed control, erosion control and revegetation	
15	BAP Site overall	Formalise and upgrade key existing tracks and trails to improve pedestrian, cyclist and maintenance access	Install unsealed, compacted paths with improved drainage, trimming and some clearing of trees (as needed)	
15	BAP Site overall	Rationalise number of tracks and trails to limit vehicular access and minimise damage to BAP	Install logs, bollards and signage as needed to manage vehicle access to the site	
15	BAP Site overall	Facilitate pedestrian, cyclist, artist and maintenance team access to site	Design and install site signage - directional, wayfinding, interpretation and regulatory	
15	Bartlett Street	Limit vehicular access and minimise damage to BAP	Install fencing and signage as needed	
	River edge at end of The Pathway	Provide short term river access connecting The Pathway and Murray River	Install small tie up facilities for boats with pedestrian access	
22	River edge at end of The Pathway	Provide clear views to river from The Pathway with enhanced river bank setting	Undertake weed control, erosion control and revegetation	
22	Ephemeral wetland/billabong below The Pathway	Create a healthy wetland environment that provides a setting for The Pathway and backdrop for the BAP artwork. Improve ecological and habitat value	Undertake weed control, bank shaping, erosion control, revegetation and any other wetland remediation work required	

Stage 5: Meninya Street North / Artists Assembly Shed				
	Scope/Location	Outcome	Recommendation	Estimate Price
5C	North Meninya street	Design development, detailed plans, costings and action plan	Prepare professional plans, project brief and works package/s	\$750,000
			Upgrade road surface as required	
			Realign kerbs to reduce roadway, increase naturestrip and public realm areas with improved crossing points	
			Create designated cycle lane line marking/surface treatment to create a safer, continuous area for cyclists	
			Upgrade existing footpaths	
		Streetscape works to improve pedestrian and cyclist access, parking and local traffic	Install parallel parking and signage including DDA requirements	
			Install 4m wide centre median including kerb with grass surface	
			Move Meninya Street overhead powerlines underground between Porter Street and Shaw Street	
			Plant street trees along centre median	
			Plant street trees along naturestrip medians (N/E and S/W sides of street)	
		Streetscape works to create green, welcoming streetscape with improved microclimate	Plant understorey planting under naturestrip median trees	
			Install raingardens including kerb work, pits and understorey plants	
			Supply and install street lighting in accordance with Authority requirements	
			Supply and install pedestrian lighting at pedestrian crossings	
		Overhead street lighting to meet Authority requirements	Install pedestrian lighting in Public Realm areas	
			Enhance northern gateway approach to Moama	\$75,000
			Support existing businesses by addressing current pedestrian safety and parking issues	
			Install new raised wombat crossing with zebra crossing to Australian Standards	
	24	Public Realm space in front of Moama Bakery and adjacent food outlets	Upgrade area to create welcoming, shady space with multiple seating options to provide a space for outdoor dining	\$350,000
	10	Artist's Assembly Shed	Create development opportunity which supports the Bridge Arts Project	\$3,100,000

05 MASTERPLAN

05.05 MASTERPLAN - POTENTIAL ROUTES

MASTERPLAN - POTENTIAL WALKING/CYCLING ROUTES

There are currently multiple routes existing in Moama. With the addition of the Bridge Art Project elevated walk/tree walk with a walking trail on the ground that follows it, and the proposal of a potential walking trail along the foreshore that overlooks the Murray River and towards Echuca, it has allowed a better connection and the introduction of new potential routes. There are four key routes that have been extracted from the Masterplan. These routes are:

Route 01: The Echuca-Moama Loop
This loop travels through Echuca's Port Precinct and Moama via the existing bridge, Meninya Street and the new road bridge

Route 02: The Bridge Art Project to Moama Beach via the proposed Moama Foreshore Loop
This loop begins at the Bridge Art Centre, visitors have a choice of going through the ticketed elevated pathway/tree walk or free access on the ground through the Bridge Art Project Site. It then continues to the potential foreshore walk, which overlooks the Murray River and Echuca.

Route 03: The Forbes Street to Moama Beach Loop
This loop starts on either Meninya Street or Boundary Road, heading through Forbes Street towards Moama Beach.

Route 04: The Bartlett Street to Meninya Street Loop
The shortest loop in the Masterplan, this loop begins on either end of Meninya Street and continues through Bartlett Street.

Route 05: The Skate Park and Sound Shell Loop Walk
This Loop Walk located in Meninya Street South connects and loops around three key destinations, the Skate Park, Sound Shell and the existing MRC Offices. This walk intersects with the four other routes listed above.

Each of these routes connects back to Meninya Street and emphasises the importance to rejuvenate the street and encourage a better connection with the bush. Each of these loops intersect with each other to allow a fluid and unrestricted experience to key destinations.

LEGEND
Masterplan Connections
Route 01: Echuca-Moama Loop
Route 02
Route 03
Route 04
Route 05

Primary Destination Nodes

Potential Destination Nodes

Primary Destination Nodes

Bridge Art Project Centre site can exist anywhere along Meninya Street

Art in Bridge Art Project Site



05 MASTERPLAN

05.06 MENINYA STREET SOUTH

MENINYA STREET SOUTH PRECINCT - LOOP WALK

The Meninya Street South precinct contains the Skate Park, Sound Shell, Horseshoe Lagoon and the existing MRC Offices. The ring enclosures and proposed pathways connects these key destinations and adjacent sites, allowing a strengthened and connected experience that intersects with existing walking trails. These new pathways will extend to Bartlett Street towards the proposed Bridge Art Centre elevated pathway, to the existing Horseshoe Lagoon Boardwalk and to the existing trail to Moama Beach. These ring enclosures are able to expand to form stages, spaces for amenities, shading, and can be billboards to display signage or objects. Each destination or island has their own characteristics through the differing choices of paving material and planting. Each island will be surrounded by new landscaping (refer to 05.11 Meninya Street South - Landscape Concept from pages 58-61 for more landscape details) and lighting strategies to further enhance the experience.

- NOTE FOR FUTURE DEVELOPMENT:**
This is currently a schematic concept that will need to be further investigated to better relate to its surrounding site conditions and will require further consultations with key members to develop the design and future connections. Further investigation and correspondences will be needed to resolve a number of issues presented in this schematic concept, such as:
- Existing levels will need to be considered, especially to allow the proposed pathways to connect to existing pathways and all areas.
 - Further studies of existing significant trees will need to be investigated.
 - Requirements for the community market are important to consider in future developments.
 - Like all riverside areas, flood risks need considering in future development of the site.
 - Potential landscaping upgrade to be low maintenance materials, finishes and landscaping to be further investigated.
 - Lighting strategies to require further consultation with client and community members



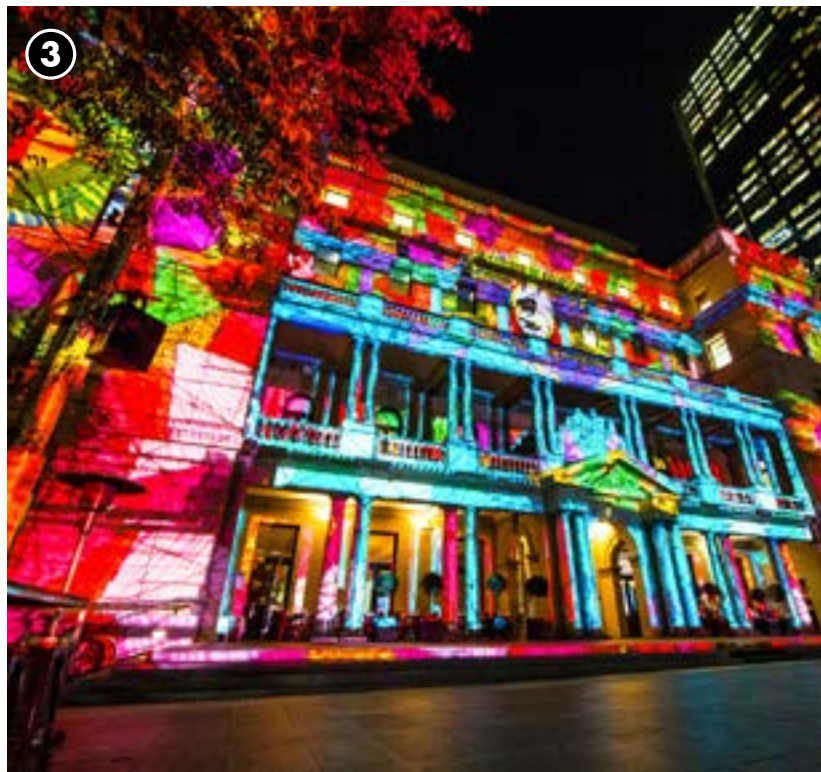
05 MASTERPLAN

05.06 MENINYA STREET SOUTH

MENINYA STREET SOUTH PRECINCT - LIGHTING POTENTIALS

This precinct has the potential to introduce practical lighting solutions and lighting installations, such as:

- 1. A precinct scale approach to 'pools' of function lighting, linked by well lit lighting. Each 'island' to be lit for multiple events and functions.
- 2. Attracting youths to the Skate Park with functional lighting, but suitable for skating at night
- 3. Colourful light projections on the Civic Centre at night, linking to the field of colour from the bed of flowers used around the 'island'
- 4. Well lit pathways connecting the 'islands', which loop around the different attractions and destinations
- 5. Lighting will provide a signature for places within the precinct.



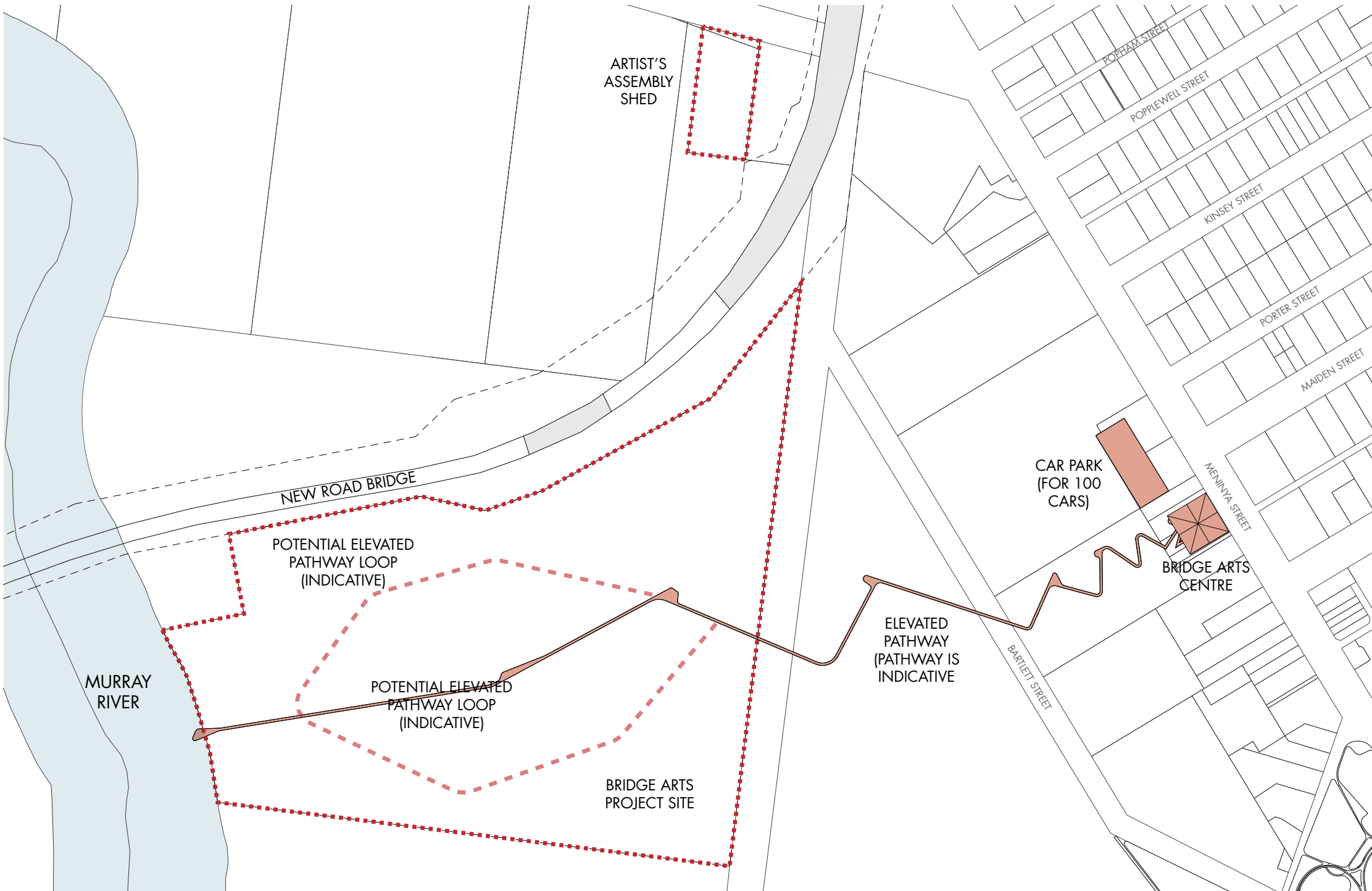
05 MASTERPLAN

05.07 BRIDGE ART PROJECT

CONCEPT DESIGN

The Bridge Art Project consists of a number of components, such as the Bridge Art Centre, the Bridge Art Project Site, the elevated pathway, the Artist's Assembly Shed and the Bridge Art Centre car park.

The elevated pathway illustrated is currently indicative and will need further discussions and consultations in later stages to determine the exact extent and design of the pathway.



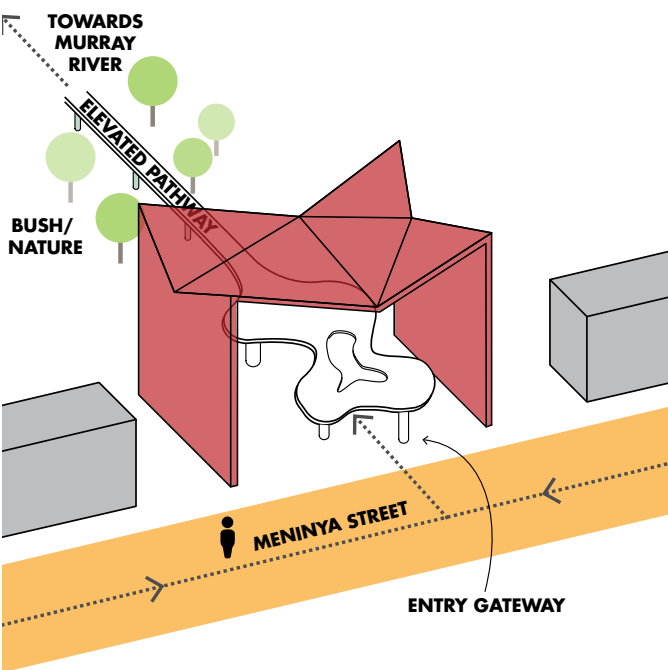
05 MASTERPLAN

05.08 BRIDGE ART CENTRE

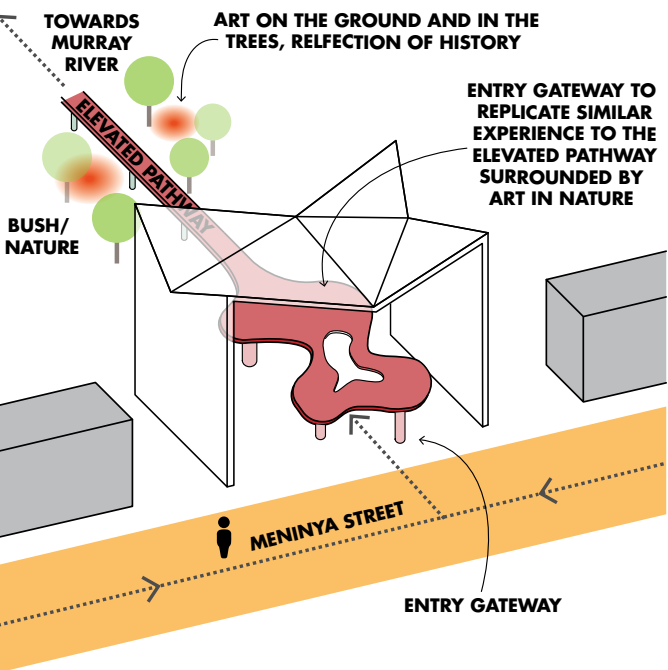
DESIGN COMPONENTS

The Bridge Art Centre has four key components, the Gateway, the Platform, the Pathway and the Showcase. The combination of these components aim is to relate to the bush, enhance the experience and rejuvenate Meninya Street and allow a ticketed experience. It will be a gateway to the main Bridge Art Project Site and bush. It will be a showcase for the creativity of the region. It will be a platform for contemporary appreciation of local and national Aboriginal culture. It will be a pathway through history, to the earliest times.

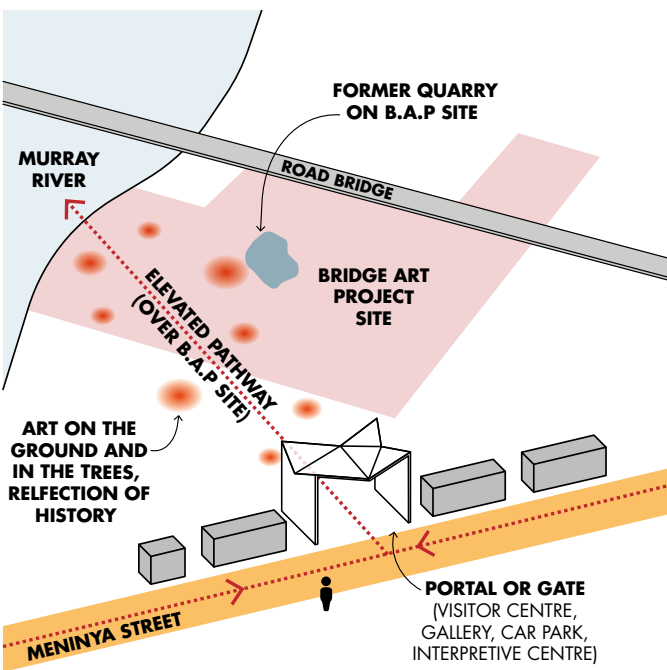
A **GATEWAY** or portal to transition visitors from the streets to the bush.



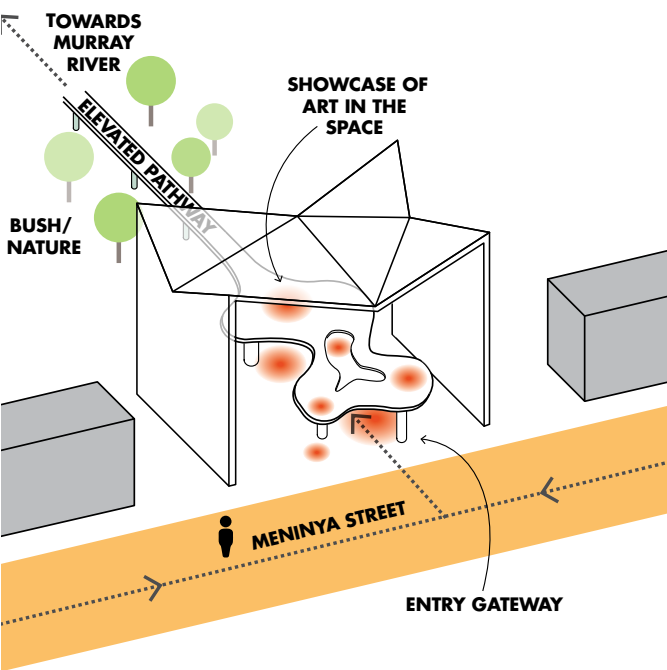
A **PLATFORM** to connect to the pathway with space for performance, film and community gathering.



An elevated **PATHWAY**, a tree walk, from Meninya Street to connect with the Art Project site and the Murray River, taking visitors back since time immemorial.



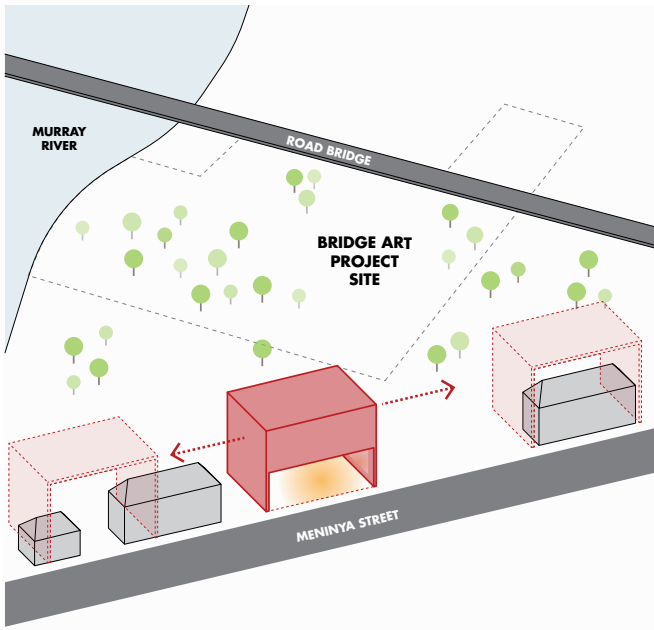
A **SHOWCASE** for major artworks, conceived and created by local and nationally significant artists, inspired by nature.



05 MASTERPLAN

05.08 BRIDGE ART CENTRE

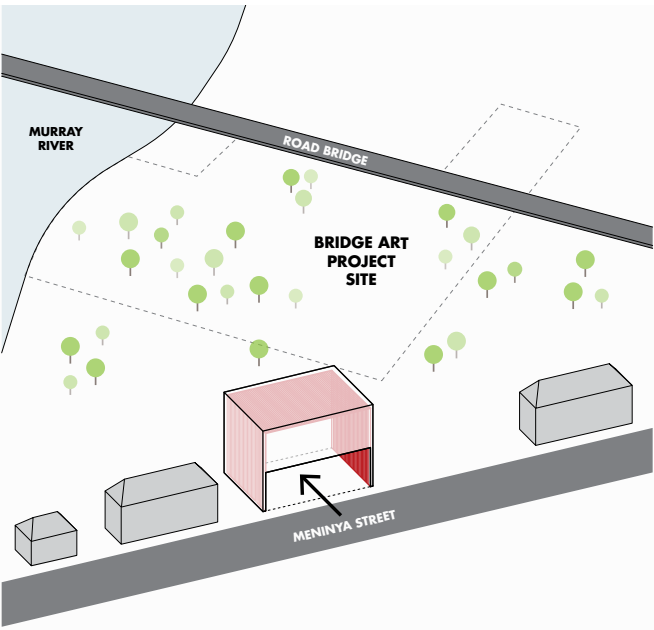
DESIGN SEQUENCE



1. THE GATEWAY located to connect Meninya Street with the natural landscape hidden behind.

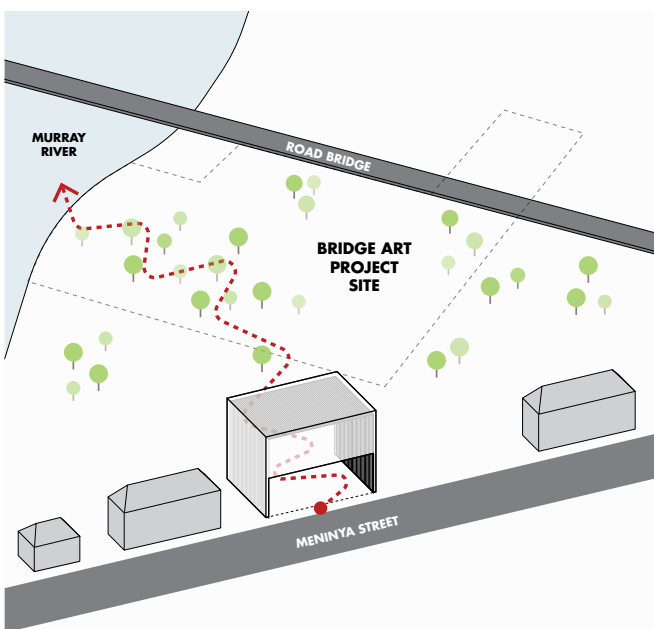
Visitors can enter the building and experience **THE SHOWCASE** of major artworks, conceived and created by local and nationally significant artists, inspired by nature.

As visitors approach the building they will be entranced by a fascinating 'story', told through digital projection and lighting.

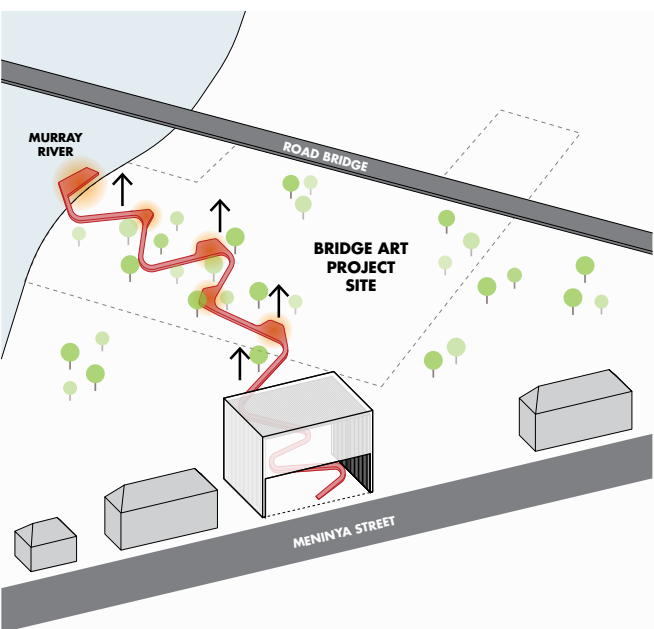


2. Visitors will walk through and transition from the street, through the back roads to the bush.

The inner lining of the portal will have recycled timber, and is a gesture to invite the riverine landscape up in to Meninya Street.



3. A path that flows and weaves through the trees connects between Meninya Street, the Bridge Art Project site and the Murray River.



4. THE PATHWAY raised over the landscape and the bridge art project site, like a 'tree walk'.

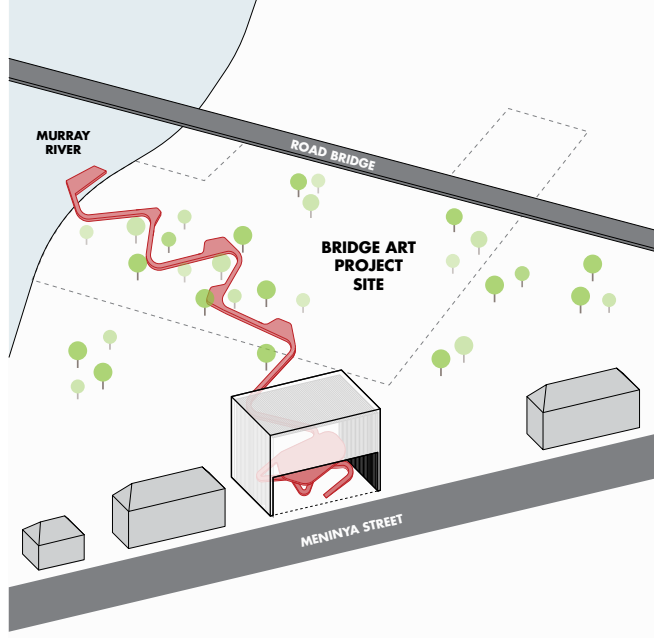
Day and evening, the path takes visitors towards the Murray and seeing the artworks revealed below, taking in the landscape, learning, hearing the language and stories of the past. The tree tops, the art seen from above, the bird life will captivate and give those visitors many reasons to take photos to share with the world.



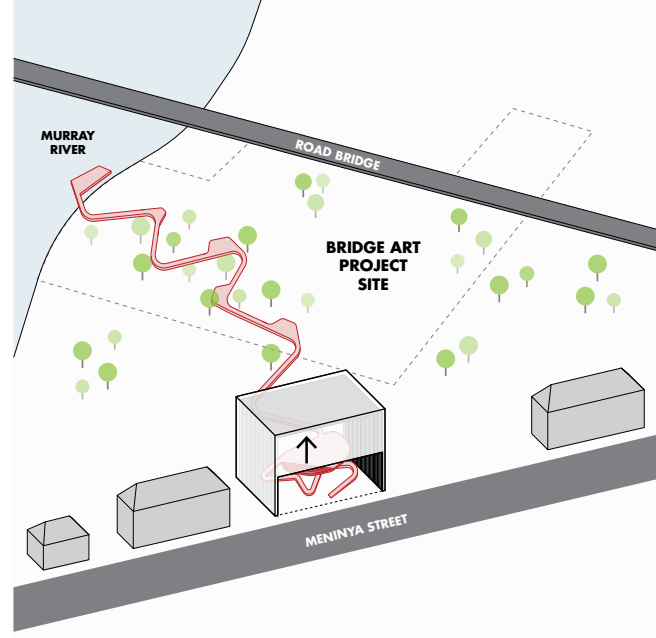
05 MASTERPLAN

05.08 BRIDGE ART CENTRE

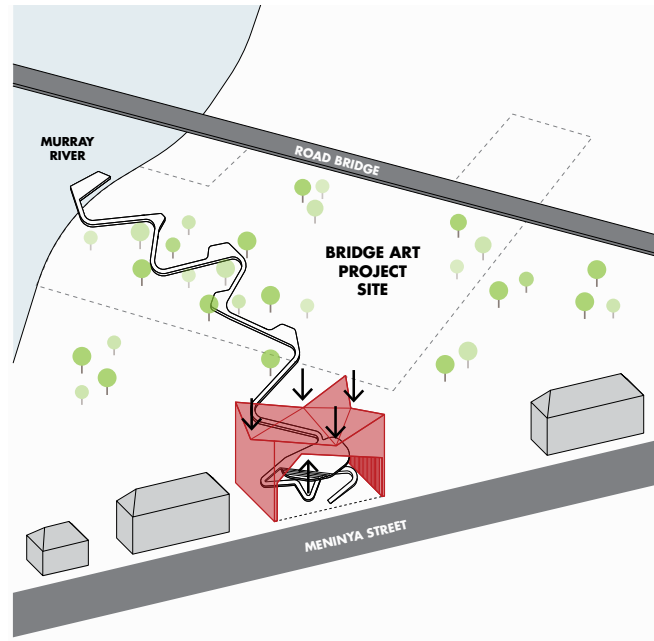
DESIGN SEQUENCE



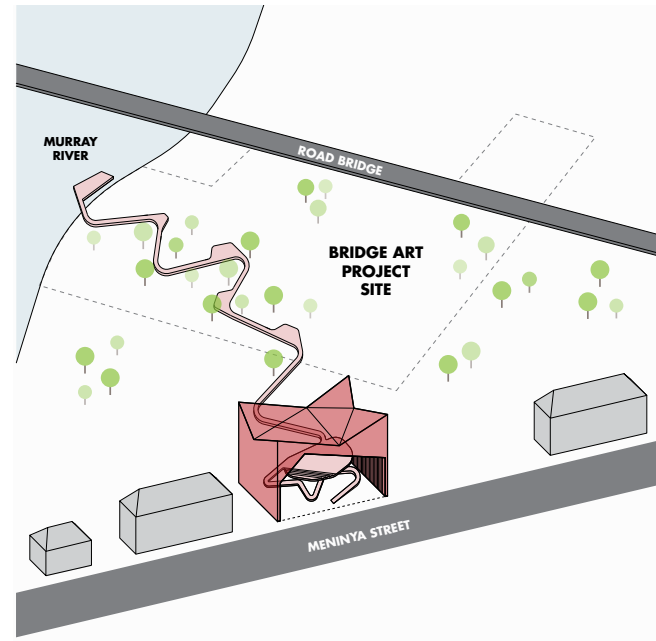
5. THE PLATFORM space inserted in the portal, connected to the elevated path. Visitors will begin to ascend to the roof – and the view changes. Here a new journey starts with a large event and activity platform – music, film, art and other gatherings will be held here.



6. A corner of the platform is pulled up to form a tiered seating area facing the natural landscape.



7. The roof is shaped to direct attention to Meninya Street and the riverine bushland. It suggests the letter M for Moama and will engage this idea from drone footage and photography. The platform also forms an opening in the perimeter enclosure for views between street and inner activity.



8. The pathway meanders across the land, creating a viewing platform below and across to the bridge and the river. The pathway tells the story of mankind on this land.

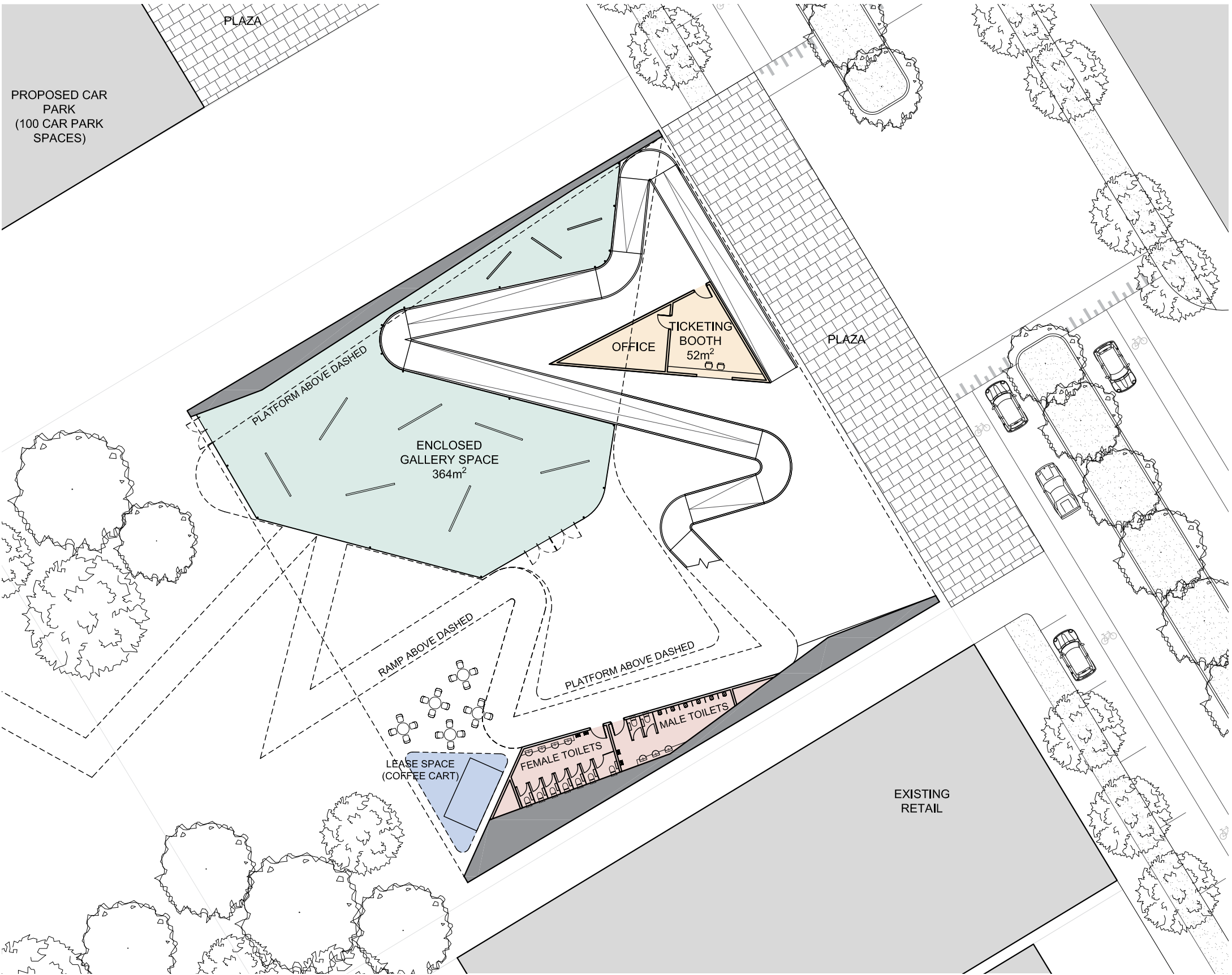


05 MASTERPLAN

05.08 BRIDGE ART CENTRE

CONCEPT DESIGN

- The first floor will contain:
- A ticketing booth at the entrance of the ramp;
 - An enclosed gallery space for art, protected from the harsh Moama environment and weather;
 - Amenities
 - Lease space for coffee carts or cafe kiosks



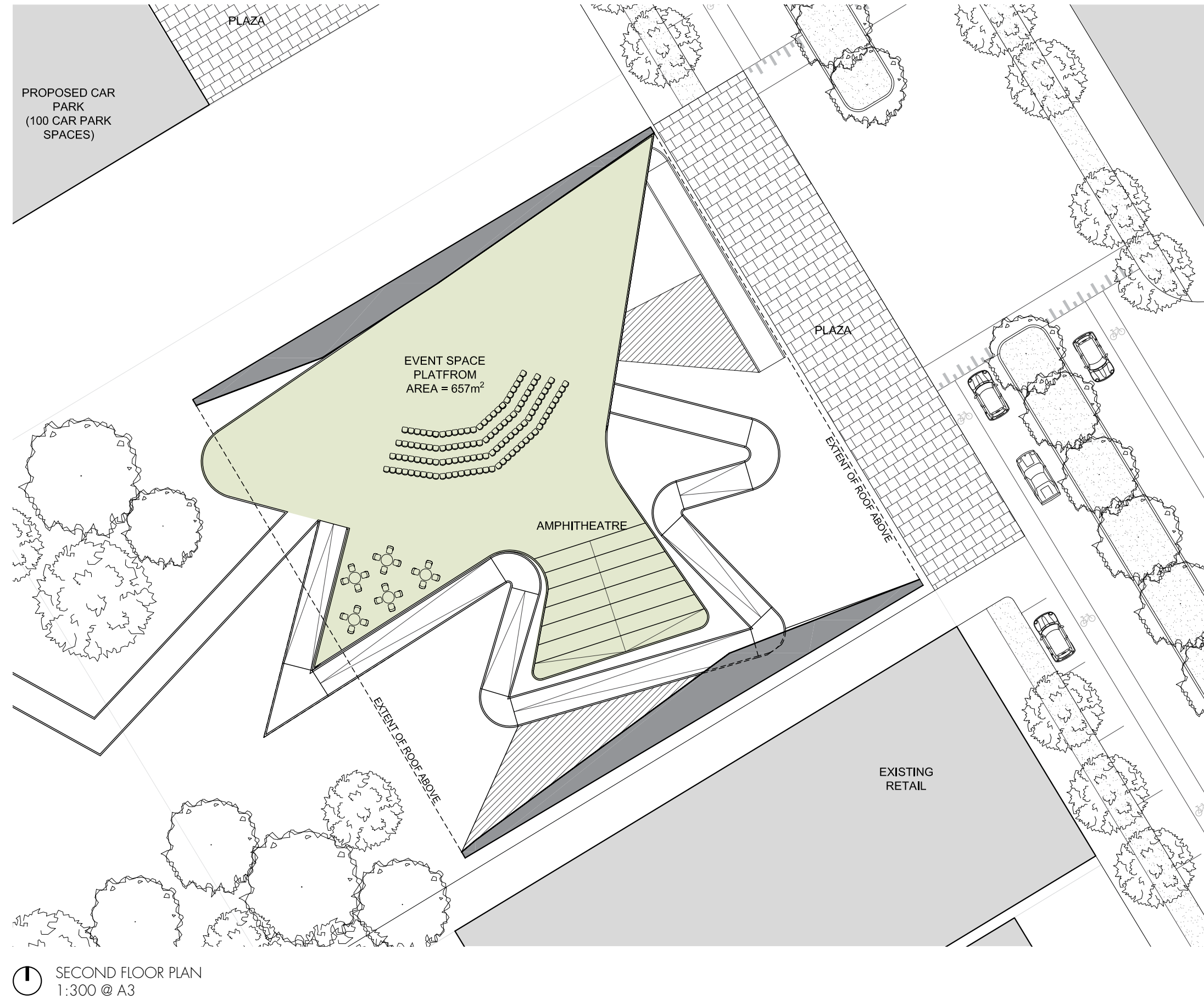
1 FIRST FLOOR PLAN
1:300 @ A3

05 MASTERPLAN

05.08 BRIDGE ART CENTRE

CONCEPT DESIGN

An event space with an amphitheatre is located on the second level. The event space then connects to the elevated pathway that weaves through the bush and leads down to a viewing platform over the Murray River.

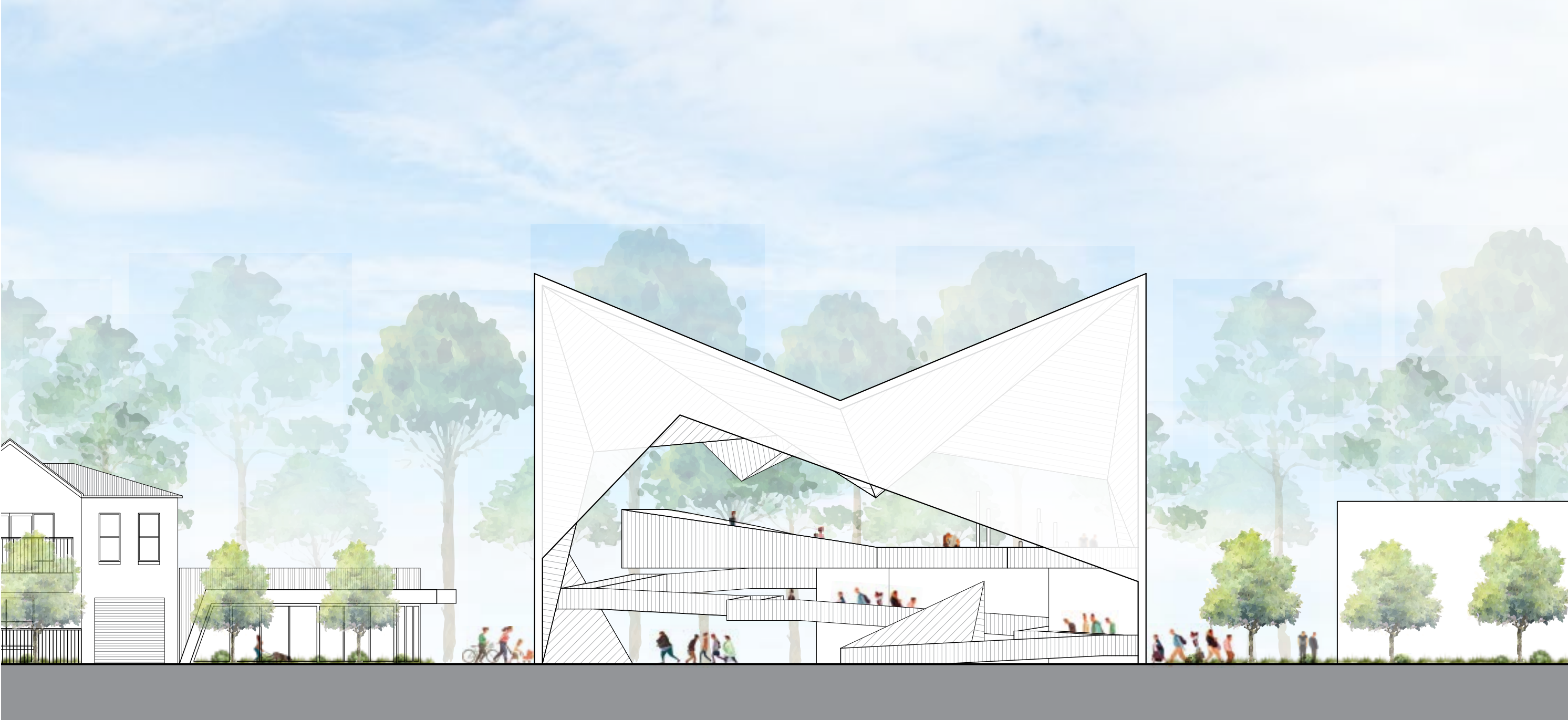


1 SECOND FLOOR PLAN
1:300 @ A3

05 MASTERPLAN

05.08 BRIDGE ART CENTRE

CONCEPT DESIGN



FRONT ELEVATION
1:250 @ A3

05 MASTERPLAN

05.09 BRIDGE ART CENTRE - VISUALISATION



05 MASTERPLAN

05.09 BRIDGE ART CENTRE - VISUALISATION



05 MASTERPLAN

05.10 BRIDGE ARTS PRECINCT - LANDSCAPE CONCEPT

A JOURNEY THROUGH MANY LANDSCAPES

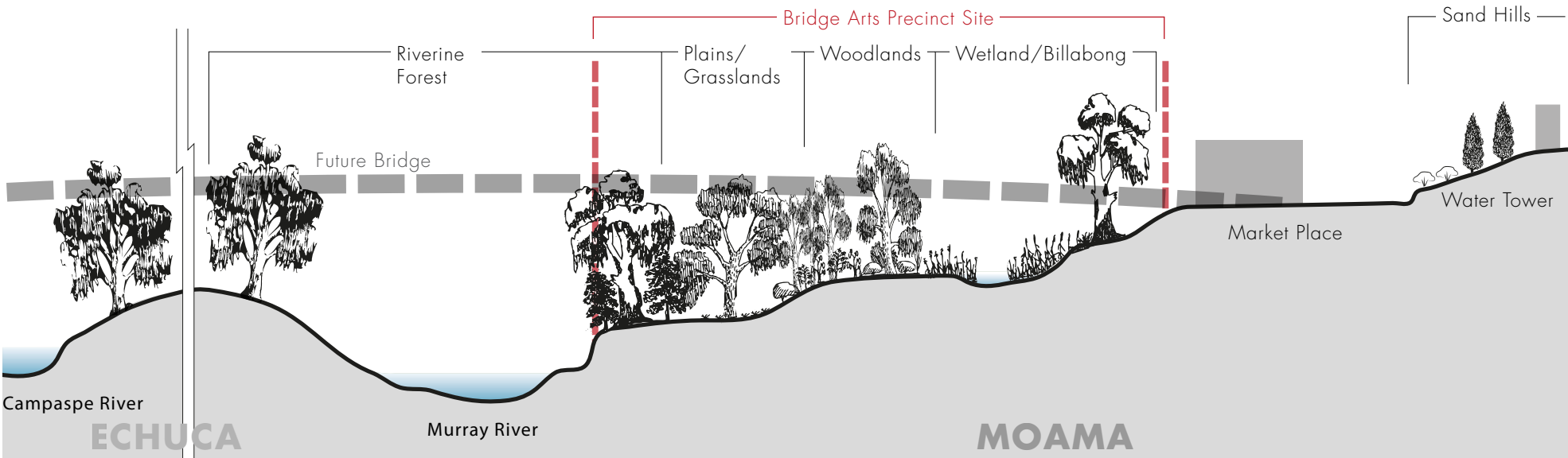
The Moama region encompasses multiple landscape types - each with a variety of indigenous plant and animal species. Remnants of these landscape types are evident in the Bridge Arts Precinct site, between the town centre and the river bank. The design concept has been drawn from detailed analysis of the existing landscape qualities. It combines healing this ancient landscape with a curated experience of human interaction with the land.

The design concept aims to showcase a range of landscape experiences, using an elevated walkway journey - set in the tree canopy and looking down to the land below. The Pathway is designed to traverse the BAP from the Bridge Art Centre at the heart of Meninya Street, through to the banks of the Murray River.

By caring for, and managing, the landscape as a series of distinct units, each is celebrated and gradually improved. Future management of the landscape will incorporate weed removal, revegetation, erosion control, soil improvement and habitat conservation.



Bridge Art Precinct Landscape Zones



Conceptual section
Note: exaggerated vertical scale

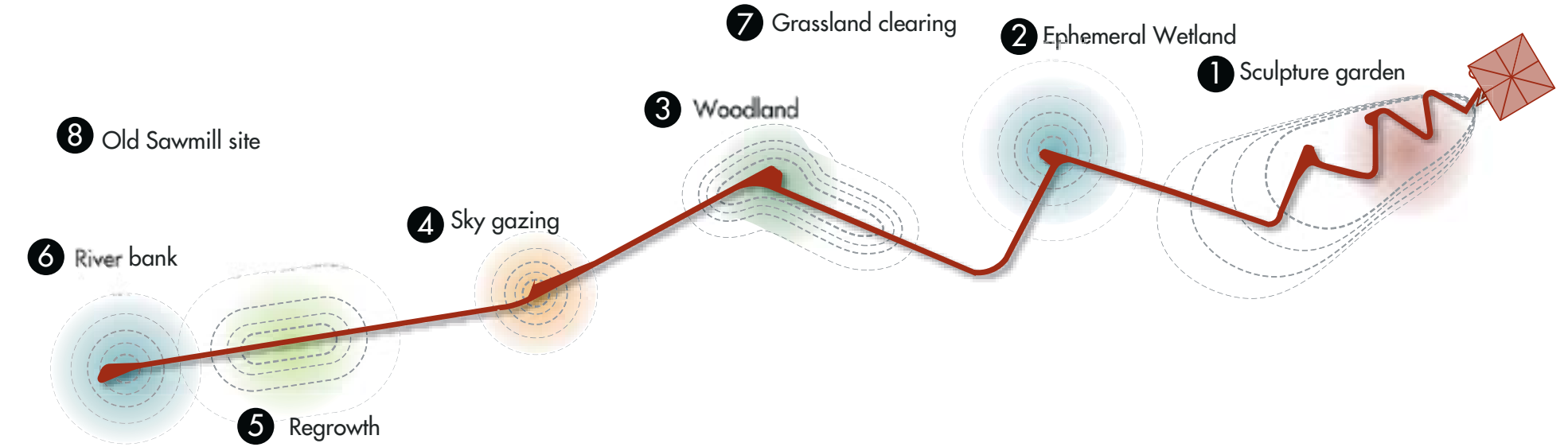
The journey provides an opportunity to showcase the vegetation communities of the area. Set amongst the trees, with framed views of a curated natural landscape, visitors to The Pathway will experience the landscape from different vantage points.

Rather than attempting to return the landscape to any particular era, the design concept aims to acknowledge our shared history, to celebrate resilience and to provide an opportunity to reconnect with nature.

The final location of The Pathway will be determined in collaboration with the Yorta Yorta and local community members. The design will be adjusted to reflect cultural heritage sensitivities and to ensure a respectful final siting.

05 MASTERPLAN

05.10 BRIDGE ARTS PRECINCT - LANDSCAPE CONCEPT



2 Ephemeral Wetland
Analysis - billabong/ wetland water bodies. Very green, Red Gums and variety of grass species, high weed

4 Skygazing
Analysis - steep banks into large sand quarry, tree top views, some grass species

3 Woodland area
Analysis - medium and older trees, more understorey and mid level species with a number of fallen branches

5 Regrowth
Analysis - dense natural revegetation of Box & Red Gum trees, approx. 20 years since the area was cropped

SHOWCASING EACH LANDSCAPE EXPERIENCE

A Landscape Management Plan will be needed for the site overall. By gradually enhancing the individual qualities of each landscape type, the experience of The Pathway Journey will support and integrate with the long term vision for the Bridge Arts Precinct, and Moama more broadly.

6 River bank
Analysis - steep banks, old, large trees, fallen branches, more wattle trees and weed species

7 Grassland clearings
Analysis - land subject to inundation, diversity of grass species, some areas with younger Red Gums

8 Old Sawmill site
Analysis - degraded & compacted soil, left over debris, cleared area with little vegetation, some remnant trees

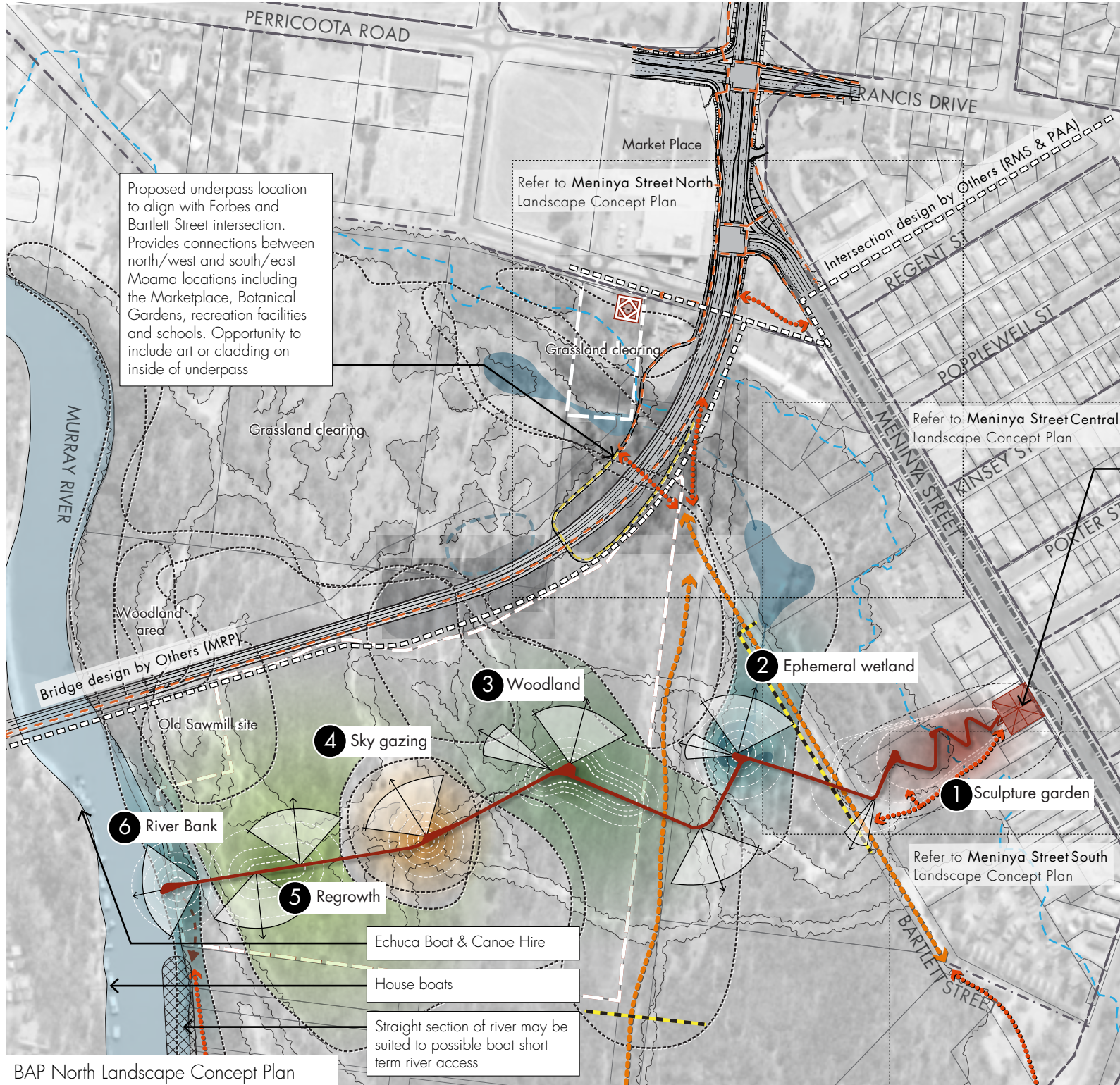
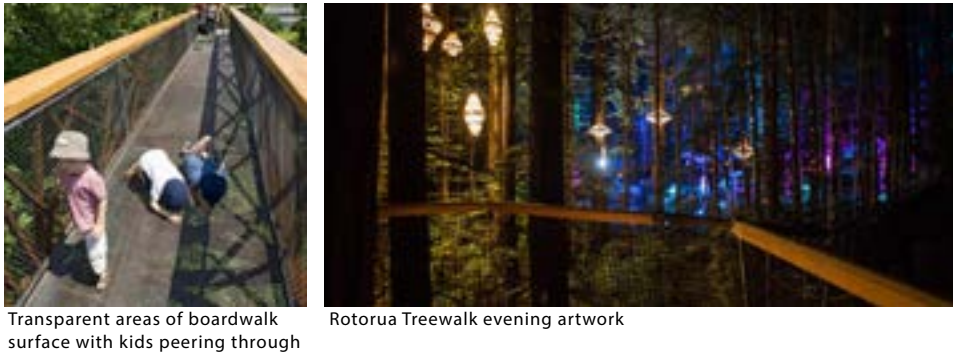
05 MASTERPLAN

05.10 BRIDGE ARTS PRECINCT - LANDSCAPE CONCEPT

LANDSCAPE JOURNEY THROUGHOUT THE BAP

The Pathway above the BAP will provide a journey with expansive views to the landscapes below. The Pathway will be for people visiting the BAP to view the art and experience the landscape. It will also be a great trail for those with limited mobility.

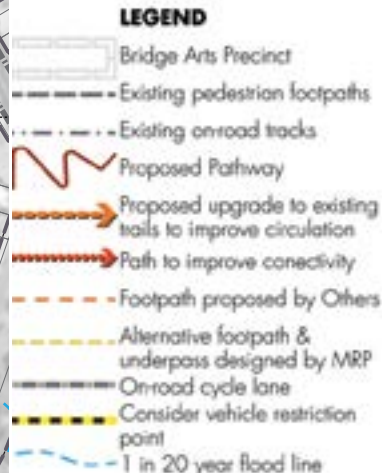
- As the visitor exits the BAC on the elevated Pathway they arrive in the **Sculpture Garden**. It is a formalised landscape with feature sculptures including an event space and areas for sitting and gathering. The elevated view will let the visitor experience the artwork from a different angle. Landscape elements, such as paving, gravel, textural plants and trees, are geometrically curated as an overall art piece to be seen from above. The Pathway exits the seemingly enclosed sculpture garden and emerges into the Moama bushland.
- Passing over the Bartlett Street trail, the Pathway journeys over the **Ephemeral Wetland** landscape zone. Large trees of Red Gums rise through the billabong. The area is very green and there is an increase in birdcalls. Depending on the season, there may be bodies of water with dense, vegetated edges.
- Moving over the Forbes Street trail, the visitor will journey into the **Woodland**. The Box and Red Gum trees are older, and there are more mid-level understorey species. Here, visitors may be able to see wallabies and other native wildlife.
- In the **Skygazing** area, the canopy will lessen and views to the sky will open up. At night time, there is limited light spill from the surroundings and, on clear nights, there will be uninterrupted views to the stars. Below, the old sand quarry remains. After flood events, it may hold water and provide an ephemeral experience of the original billabongs which were once more common in this landscape.
- The **Regrowth** area showcases the natural revegetation of Box and Red Gum trees. Growing in dense patches of young trees, now approximately 20 years old, they each fight to reach the sky first.
- At the end of The Pathway, elevated over the **River Bank**, there will be views to the Murray and across to the Victoria. More mid-level species, such as sheoaks and wattles, grow here. The tree canopy of the Red Gums reaches overhead again to frame the view.



The Gateway, the Showcase & the Platform (BAC)

Current alignment of The Pathway is a concept only. The suggested alignment is based on a series of landscape experiences. Further development will be required in collaboration with community members and Yorta Yorta representatives to ensure a sensitive and respectful final design.

Refer 05.04 Masterplan Staging for more information on staging breakdown



05 MASTERPLAN

05.10 BRIDGE ARTS PRECINCT - LANDSCAPE CONCEPT

Walking & Cycling

Beneath The Pathway, trails will run through the bushland for walkers and cyclists. Designated paths at ground level will provide an immersive and more tactile experience with the surrounding flora and fauna. Formalised paths will connect to the pedestrian and cyclist network in the Echuca - Moama region.



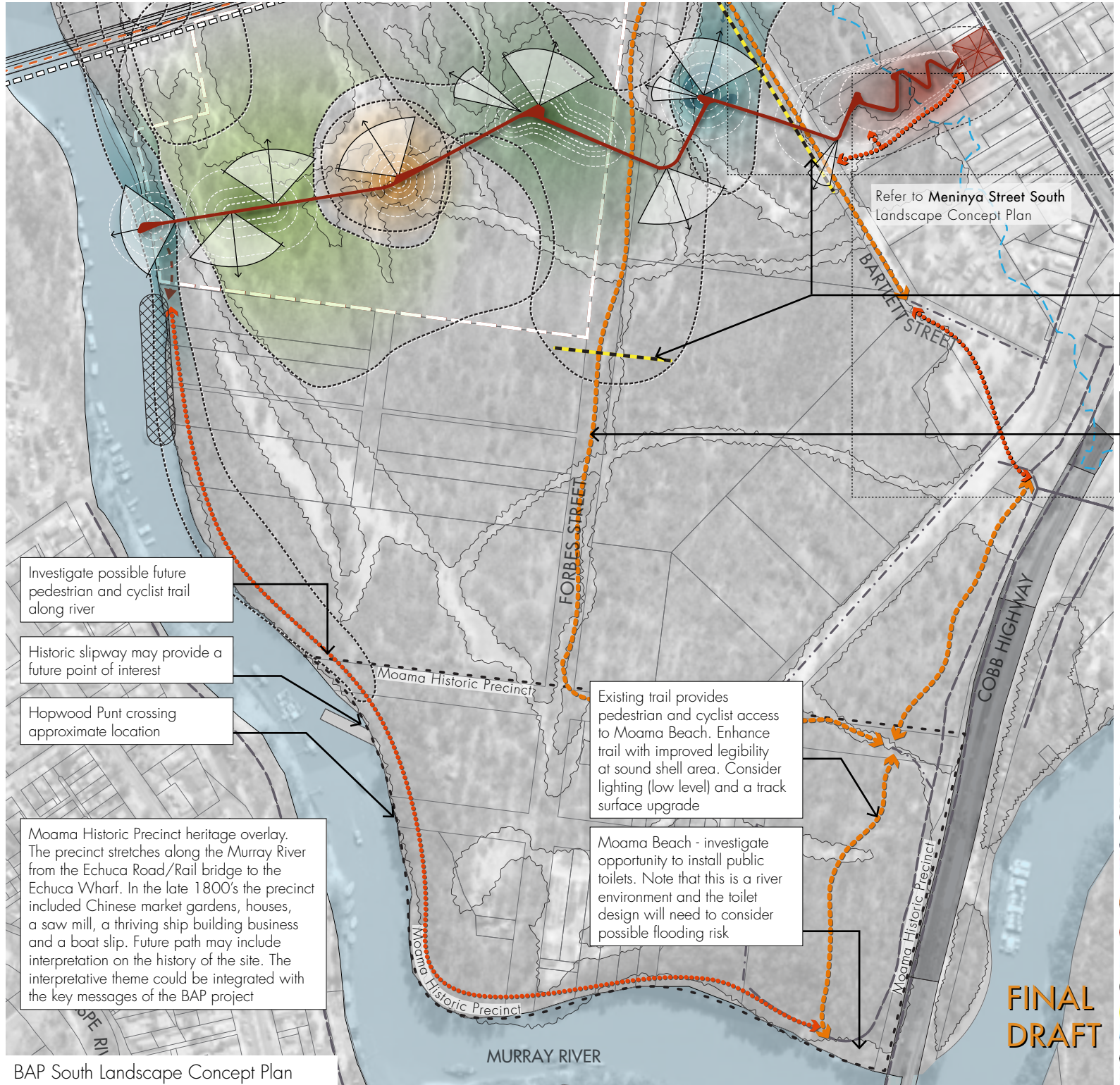
Walking and cycling experience

Pathway crossing over trails

At various moments in the BAP, The Pathway will cross over the on-ground trails below. These points provide opportunities to showcase local art and create individual moments specifically for pedestrians and cyclists on the ground, immersed in the bushland environment.



Artwork on underside of bridge - designed to be viewed from below

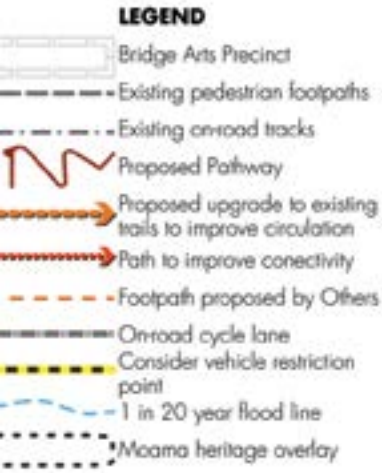


Investigate restriction of vehicle access to limit off-road drivers damaging bushland asset and future artwork

Existing trail is degraded however provides good bushland experience. Consider upgrading to improve daytime access

Current alignment of The Pathway is a concept only. The suggested alignment is based on a series of landscape experiences. Further development will be required in collaboration with community members and Yorta Yorta representatives to ensure a sensitive and respectful final design.

Refer 05.04 Masterplan Staging for more information on staging breakdown



05 MASTERPLAN

05.11 MENINYA STREET - LANDSCAPE CONCEPT



Better Walking

- Continuous, shaded footpaths
- Seats, drinking fountains and wayfinding
- Upgraded pedestrian crossings
- Connections to the wider walking and cycling network



Addressing Cyclist Safety

- Continuous on road bike lane
- Upgrade to roundabout
- Angled parking replaced with parallel parking
- Buffer zone between parked cars and bike lane
- Connected to wider network



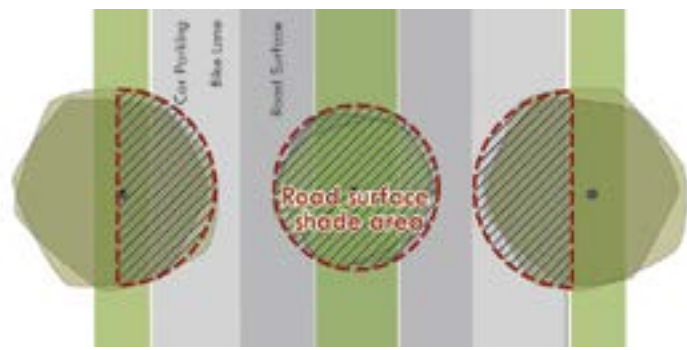
Safe & Easy Parking

- All angled parking replaced with parallel parking in Meninya Street
- Upgrade Echuca Street car park to multi storey (3) level car park with approximately 162 car parks
- Upgrade car park on East side of Meninya Street near Shaw Street and Railway line. One additional parking space with improved circulation and around 15 new trees
- Between Echuca Street and Shaw Street, Meninya Street South will have approximately 95 new car parking spaces
- Dedicated BAP site parking for approximately 100 cars



Greener Meninya Street

- 48 street trees currently. 240 new street trees in Meninya Street, increase of 192 trees
- Over 2,000m² more green surface space in the centre median
- 4x more green surface space achieved in centre median
- Almost 6x more shaded road surface (at mature tree sizes)



Environmentally Sustainable Design

- Material selection chosen for longevity, lasting design and to minimise wastage - local materials sourced wherever possible
- No unnecessary materials or cladding
- Careful consideration during material selection of both capital costs and long term maintenance costs
- Low energy use by improving micro-climate in streetscape to reduce need for air-conditioning in surrounding buildings
- Increased porous surface to allow water to enter water table
- More trees to create cooler micro-climates, mitigate urban heat island effect and increase habitat opportunities



Water Sensitive Urban Design

- Incorporation of new technology, including Tree Cells to improve water filtration and increase storage options
- Re-use of overland storm water flows to irrigate planted areas
- Recharging water in the soil by creating infiltration opportunities, rather than piping all water away from the street
- Less hard surface, more green space, to improve infiltration and stormwater quality



Lighting & Shade

- Streetscape lighting contributes to economic prosperity and social wellbeing by supporting evening outdoor dining
- Low energy use LED lighting
- Lighting to improve the safety at night
- Lighting with shades or diffusers to reduce light pollution
- Shade to improve the micro-climate
- Shade to cool the urban environment
- Combination of shelters and trees for shade - gradually tree canopy will grow and the number of shelters may be reduced

05 MASTERPLAN

05.11 MENINYA STREET NORTH - LANDSCAPE CONCEPT

MENINYA STREET NORTH VISION

The Northern Gateway welcomes travellers from the open plains landscape into Moama through the new signalised intersections at the start of the new bridge. Large gateway artwork in prominent locations with key view lines from the Cobb Highway will promote the left turn into Meninya Street. The green and welcoming park (once known as Lions Park) and boulevard of shady trees creates an attractive backdrop that will appeal to locals and visitors.

Northern Gateway Art
A large sculptural feature, seen from the Cobb Highway, greets residents arriving home and welcomes travellers to Moama. The sculpture is part of a suite of gateway art in Moama. It is unique and memorable, enticing visitors into the town of Moama, rather than continuing straight over the new bridge.



Bunjil the Eagle - Melbourne Entry gateway sculpture - Polestar Helmet - Gateway Heide Melbourne

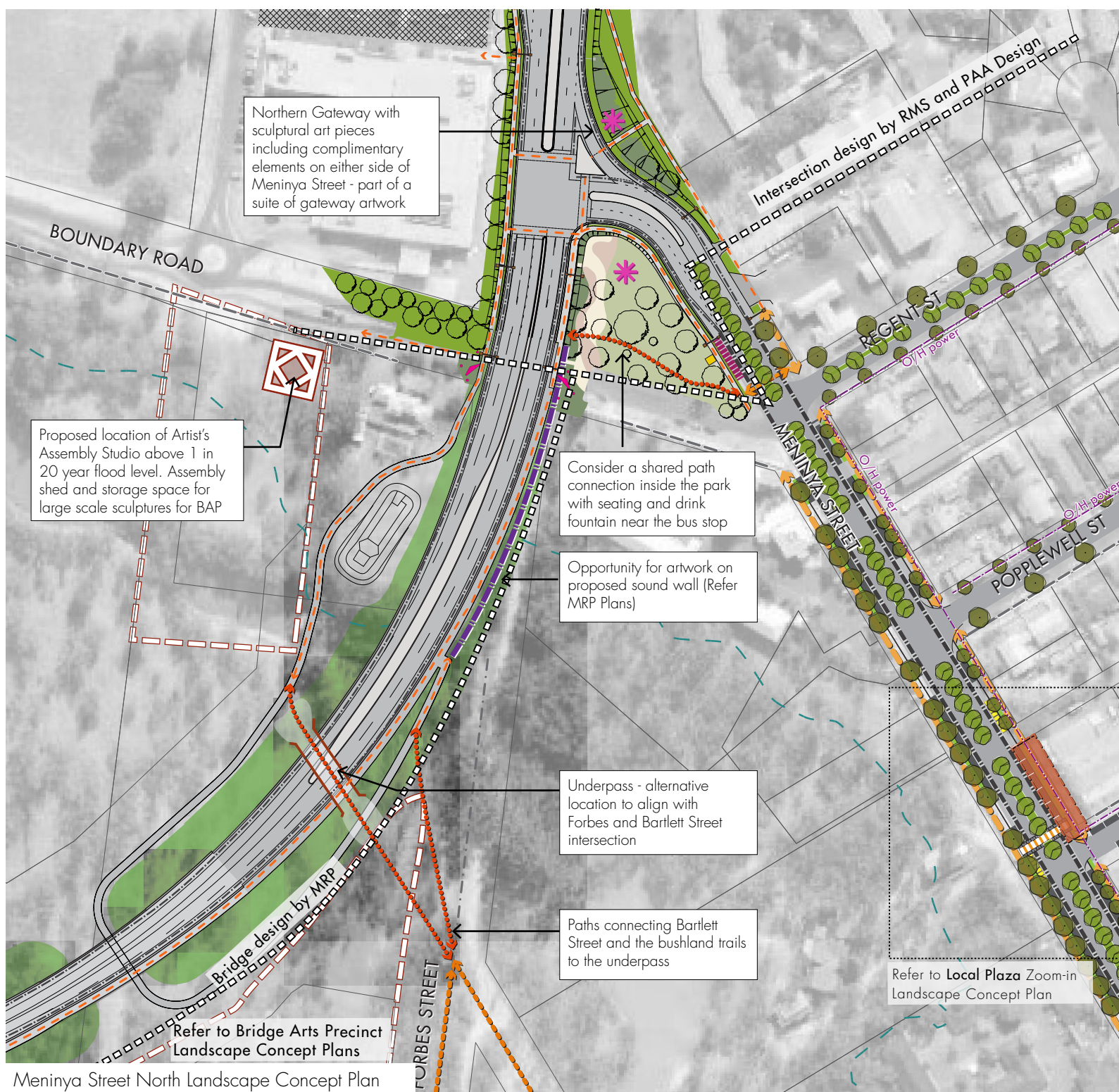


Gold Coast Gateway Griffith

Pedestrian Underpass
The underpass below the new bridge reinforces pedestrian and cyclist connectivity through the BAP and surrounding Moama region. The underpass also provides vehicular access between the Artist's Assembly Studio and the BAP outdoor art for delivery and installation of land-art pieces. To create a welcoming and safe experience, the inside of the underpass includes an art feature such as a mural, cladding or a lighting installation.



Underpass lighting Cardinia Road station underpass artwork & cladding - Lump Studio Bowen Place Crossing - Kings Avenue Bridge Canberra Lahznimmo Architects



Refer 05.04 Masterplan Staging for more information on staging breakdown

LEGEND

- Existing pedestrian footpaths
- Existing on-road tracks
- Proposed upgrade to existing footpaths
- Proposed upgrade to existing trails to improve circulation
- Proposed linking path
- Footpath proposed by Others
- Proposed on-road cycle lane
- On-road cycle lane by Others
- Proposed raised pedestrian crossing with zebra marking
- Proposed pedestrian crossing
- Overhead powerlines
- Public realm area
- Proposed parallel car parking
- Proposed alternate car parking
- Bus stop proposed by others
- Proposed 4m wide centre median
- Noise wall proposed by others
- Proposed entry feature artwork
- Entry feature wall & flags proposed by others (PAA)

05 MASTERPLAN

05.11 MENINYA STREET NORTH - LANDSCAPE CONCEPT

Local Plaza Vision
The Northern Meninya street food precinct supports and enhances existing businesses. During the day the outdoor dining space provides a communal space for lunch in an inviting and shady plaza area. In the evening, the area includes welcoming lighting, feature trees and a generous shelter for outdoor dining. It is a space for residents and visitors, young and old and everyone in between.



Raised Pedestrian Crossing Vision
Pedestrian access and safety has been improved, especially during the lunch rush. The new raised crossing incorporates tree planting, lighting and signage. Parking includes short term spaces and provision for long vehicles, travelling either north or south. The crossing eases congestion and minimises public safety risks.



Raised wombat crossing examples



Local Plaza Zoom-in Landscape Concept Plan

05 MASTERPLAN

05.11 MENINYA STREET CENTRAL - LANDSCAPE CONCEPT

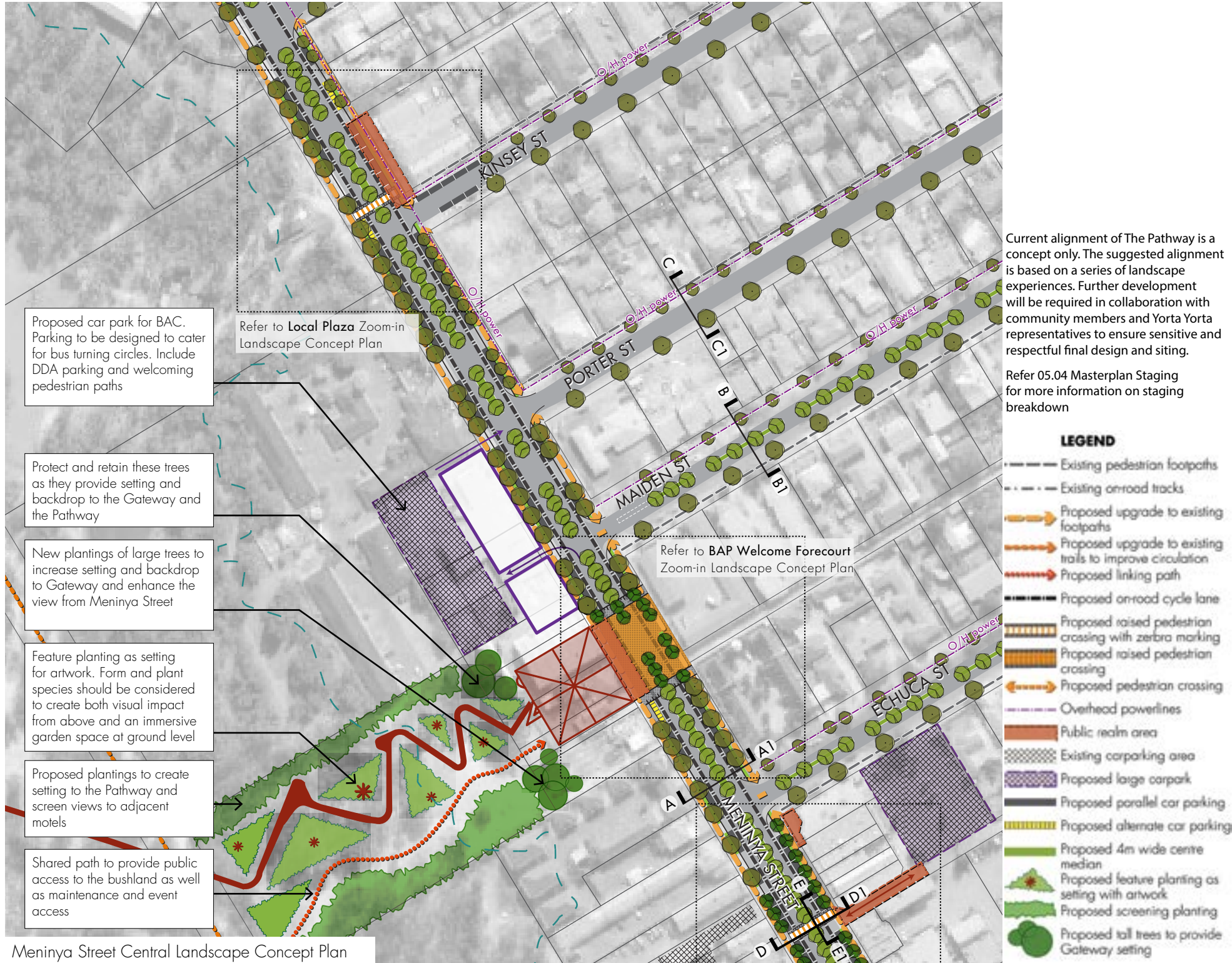
BAC Sculpture Garden Vision
The sculpture garden is the backdrop for The Gateway and an outdoor exhibition space for artwork and events. The sculpture garden can be viewed from The Pathway above, and experienced at ground level in the garden itself. The layout is geometrically interesting, particularly as a viewed landscape from above. Some locations feature significant land-art pieces. Others are hidden, providing delightful moments of discovery. Materials such as feature paving and compacted surfaces create contrast, as well as a traversable space for **all abilities access**. Planting showcases textural contrast, feature foliage and a landscape experience through the seasons and to complement the BAC building. Trees are scattered throughout the garden to create rest areas and cool the space. Shady communal seating areas provide views to the artworks. A large space for events, such as outdoor exhibition openings and weddings, is central to the garden. The edges of the garden space incorporate large trees and screening plants to create a sense of quiet solitude, away from the surrounding buildings, before the visitor moves out along The Pathway to explore the BAP bushland.



Geometrical shapes with contrasting materials and textures as a base for the sculptures

BAP Car park Vision
The local climate remains hot in summer. The car park offers shaded parking spaces with only limited areas of exposed asphalt. Traffic and infrastructure needs have been successfully combined with significant tree planting by incorporating new technology such as tree cells and water sensitive urban design.

Future Development Opportunity
Creative ventures support the BAC, provide an active streetscape front and foster local community initiatives. Refer to Business Case for further information.



Meninya Street Central Landscape Concept Plan

05 MASTERPLAN

05.08 MENINYA STREET - LANDSCAPE CONCEPT

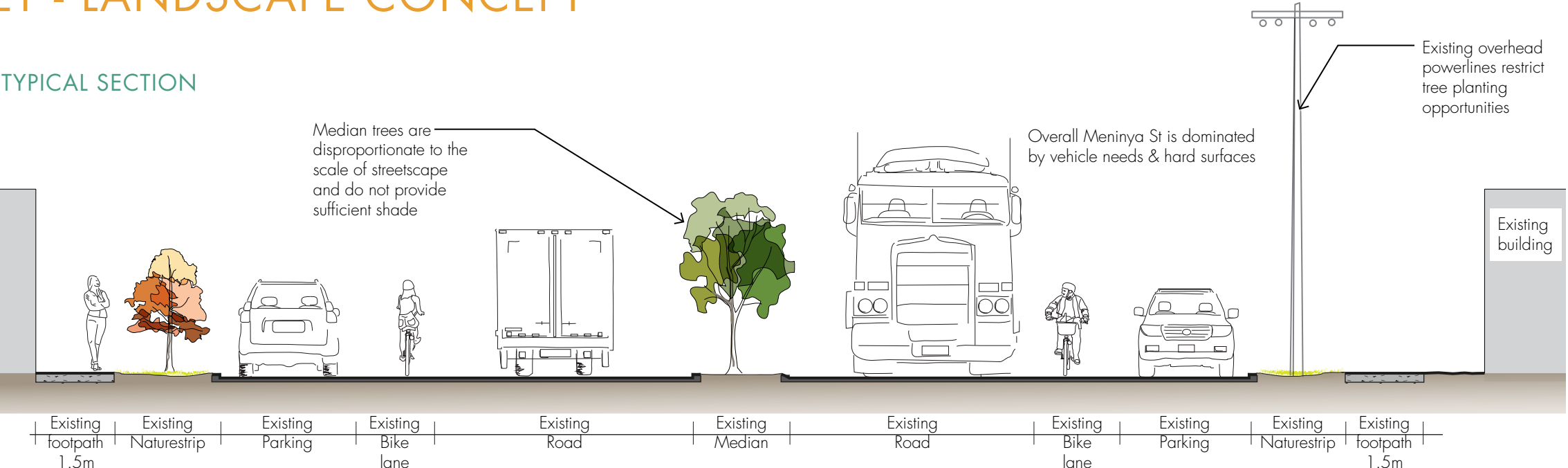
Greening Meninya Street Vision
Meninya Street balances the needs of vehicles, pedestrians, cyclists and mobility scooter users. It is currently a wide streetscape with very few trees. Introducing a wider centre median and planting out the naturestrips will transform the whole street to a lush, green boulevard. Planting large trees and introducing understorey planting and raingardens will also help to create a welcoming and cool streetscape.



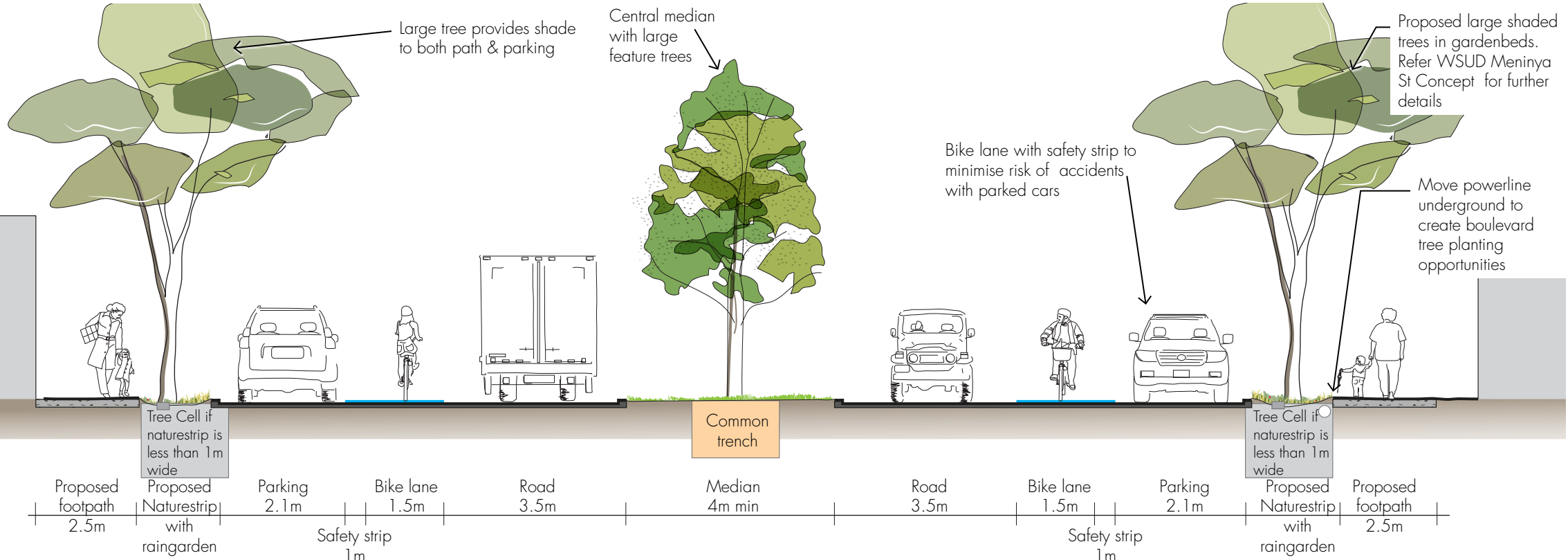
Undergrounding Power
To achieve the green vision, undergrounding the powerlines on the N/E side of Meninya street will provide more space to plant large trees. This will help to achieve a consistent boulevard feeling.



TYPICAL SECTION



Section AA1 Meninya St - existing (typical)
Scale 1:100



Section AA1 Meninya St - Proposed (typical)
Scale 1:100

05 MASTERPLAN

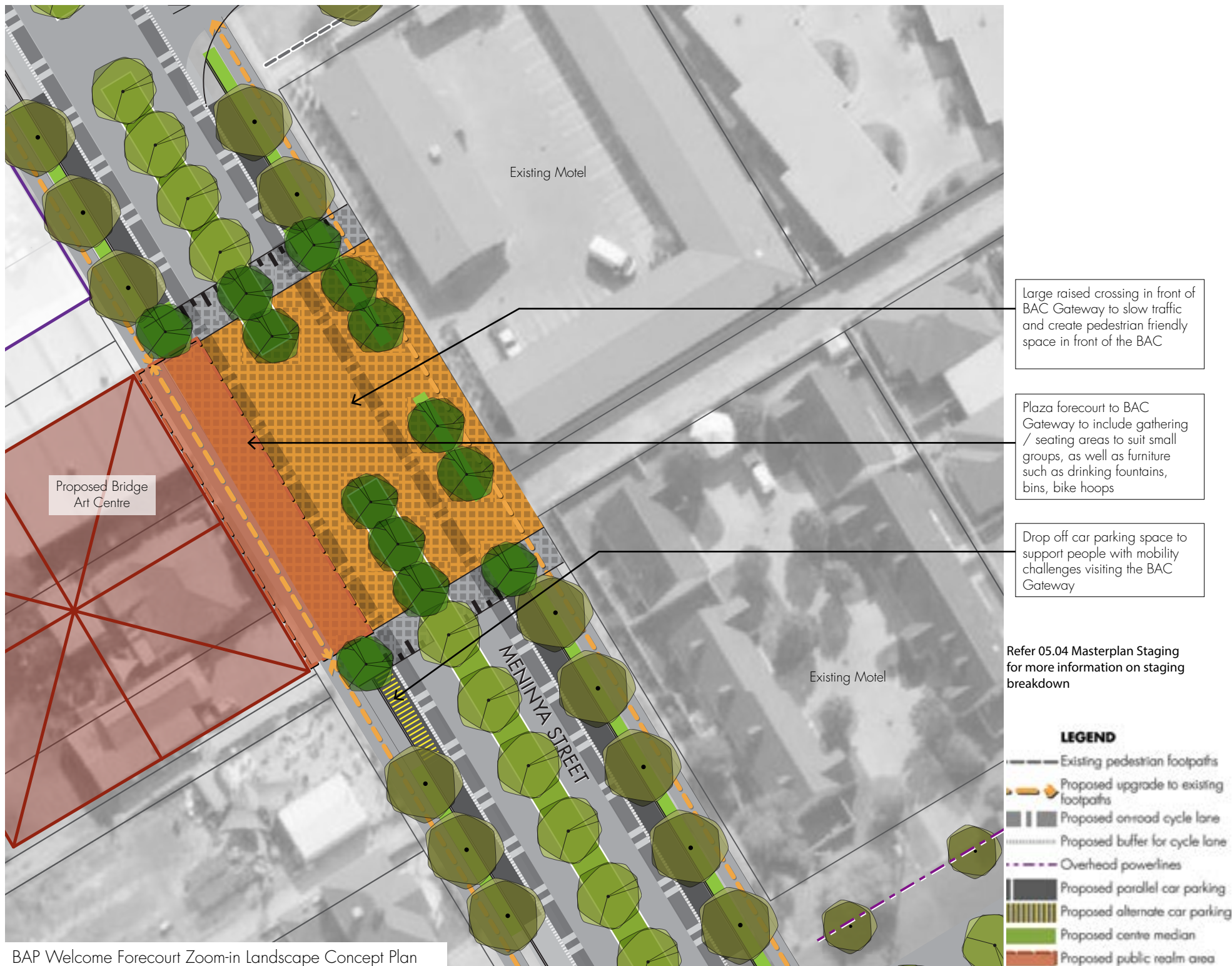
05.11 MENINYA STREET CENTRAL - LANDSCAPE CONCEPT

Raised Crossing Vision
The streetscape will draw visitors into the BAC Gateway. To highlight the Gateway on Meninya Street there will be a large raised pedestrian crossing. The crossing will slow vehicles down while passing the BAC and improve safety for pedestrians, especially during well-attended events such as exhibition openings. At night the crossing will be well lit and support will evening events. Tree planting continues the boulevard. A contrasting tree species will be planted to further emphasise the BAC feature in the centre of Meninya Street.

BAC Welcome Forecourt Vision
The raised crossing leads to the welcome forecourt/plaza at the entry to the BAC. The plaza will reflect the entry to an art gallery experience, while still incorporating the natural setting and the boulevard of trees along Meninya Street. This will be a meeting point and seating, shade and bike hoops will be included. Feature lighting and public art will hint at the artwork and experience to be encountered inside the BAC and on the Pathway.



Kiss & drop off point
Providing a dedicated short term car park, with one level access to the footpath, near the Bridge Art Centre entry, will ensure people with limited mobility will be able to enjoy the experience of the BAC.



05 MASTERPLAN

05.11 MENINYA STREET SOUTH - LANDSCAPE CONCEPT

MENINYA STREET SOUTH VISION

Meninya Street South will be developed into a vibrant business and entertainment strip. New wide paved areas with shady street trees create a place people want to stroll along. The upgraded crossing improves the connection for **all abilities access**. Community hub areas with seating spaces encourage a social streetscape for locals and visitors. On road bike lanes connect the street to the extensive cycling network. Parallel parking improves road safety for all.

Multi-Storey Car park

To increase the number of car parks available in central Moama, the existing Echuca Street car park will be upgraded to a multi-storey car park. This will complement on-street parking as well as providing an overflow car park for large events in the BAC. The new structure will be a pleasant space to enter with good lighting and air flow. The exterior should be welcoming and beautiful and will fit with the surrounding buildings. Opportunities to incorporate green infrastructure, such as green walls, should be investigated.



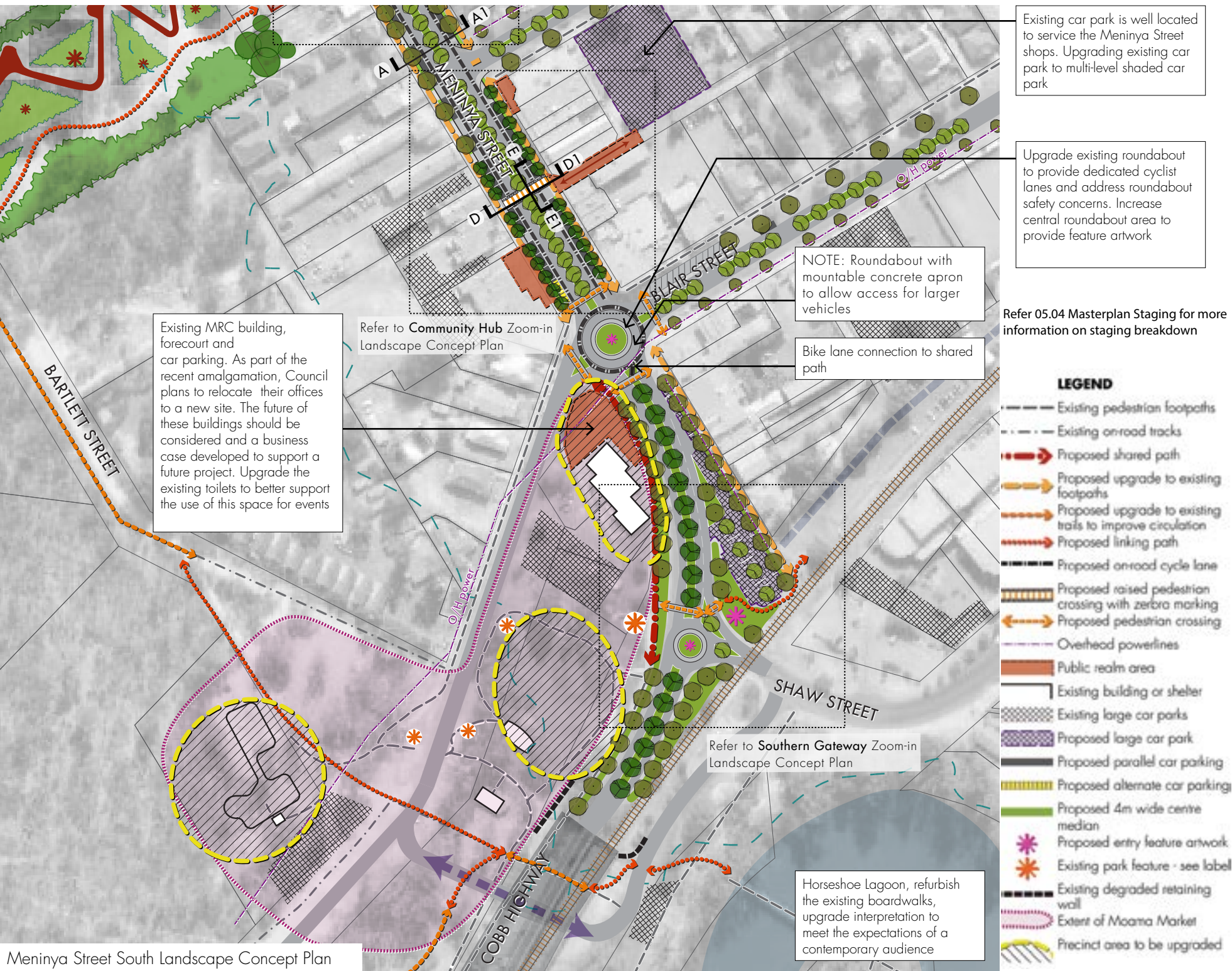
Precedent example - multi-storey car park with pattern cladding
Multi-storey car park with vines

Meninya Street/Blair Street Roundabout

The upgraded roundabout will provide a key entry feature to the main shopping strip of Moama. The roundabout will be upgraded to improve safety for both vehicles and cyclists by implementing a cyclist lane and including a roundabout apron that larger vehicles can drive over if required. The entry feature and landscaping will complement the other gateway entry artworks and setting.



Roundabout feature with tree, landscaping and feature timber sculpture
Roundabout entry sculpture - Kings Beach



Meninya Street South Landscape Concept Plan

05 MASTERPLAN

05.11 MENINYA STREET SOUTH - LANDSCAPE CONCEPT

Post Office Forecourt Vision

The area in front of the Post Office is a thoroughfare of locals. The upgraded area will create a community hub area for local residents of Moama. The space will feature new paving, furniture, public art opportunities, a shade pergola, trees planted in tree cells, understorey planting, Water Sensitive Urban Design and feature lighting to create an inviting space to catch up with friends. A new community notice board for local event advertising and information sharing will encourage social interaction.

Laneway Vision

This laneway provides an important connection to the Echuca Street car park. Upgrades will include feature paving incorporating pattern, a shade pergola with climbing vines and feature lighting to improve the pedestrian connections and atmosphere during the day and night. The walls in the laneway will provide an ideal canvas for public art such as murals to establish Moama as an arts town.



Feature community notice board
Goodie laneway art in Benalla's Wall to Wall festival. Pergola with Climbing vine

Long Table Plaza Vision

This area provides a great community asset in the main street. The upgraded area introduces more shade and seating opportunities. The surface will include feature paving ensuring each shop has consistent and level entries for **all abilities access**. Long tables provide event opportunities as well as places for informal social interaction. A large feature shade structure integrates with trees planted in tree cells to provide a shady and cool space in summer. Public art, understorey planting, Water Sensitive Urban Design and feature lighting will make the area popular with both locals and visitors to Moama.



Long table at Riverside Quay Place Renewal - McGregor Coxall
Langtree Mall, Mildura VIC



Community Hub Zoom-in Landscape Concept Plan

05 MASTERPLAN

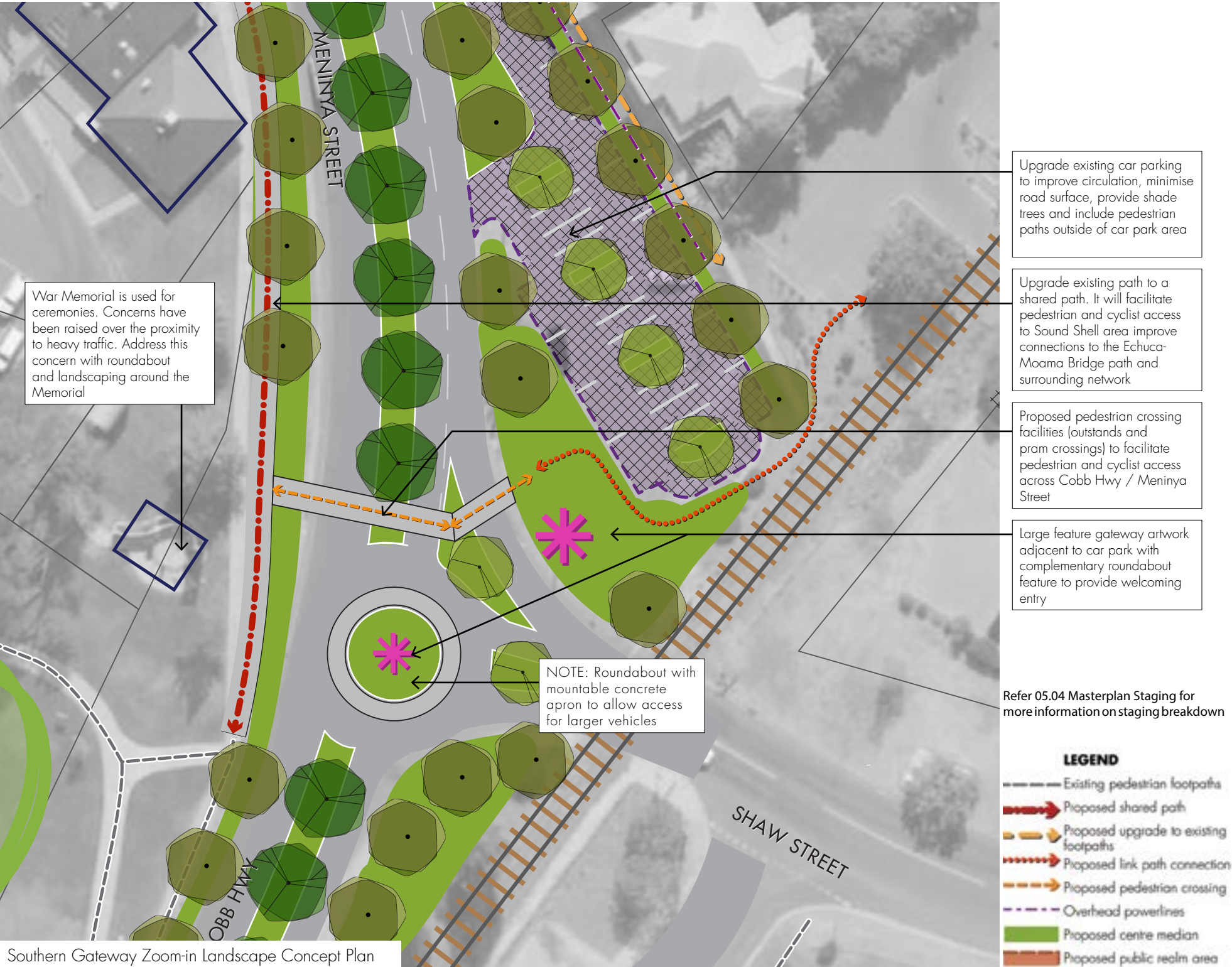
05.11 MENINYA STREET SOUTH - LANDSCAPE CONCEPT

Southern Gateway Vision
A boulevard of large trees welcomes travellers as they arrive through the river environment from the south. The Gateway opens up to views of the green Sound Shell area and the artwork with feature landscaping. The Gateway features a suite of artwork at the new Shaw Street intersection, directing traffic along the boulevard planting in Meninya Street, and into the vibrant, central shopping area.

Car park Vision
The upgrade to this car park formalises this space and creates a welcoming backdrop to the gateway art. The layout is simple and spacious with generous car parks and plenty of circulation room. The car park has a shady, green feel. Trees are planted in **tree cells** to maximise parking numbers. Footpath connections provide easy access to the main shopping area, the Sound Shell Precinct and other surrounding locations.



New Roundabout & Gateway Art Vision
To improve safety and navigation, the new Shaw Street intersection includes a roundabout. Feature artwork has been carefully sited to provide clear view lines for drivers, while also welcoming locals and visitors to Moama. A large sculptural art piece in front of the car park is complemented by a smaller sculptural feature in the new roundabout. Both sculptures are set in well-presented understorey planting, up to a maximum of 1m high. A pram crossing point facilitates connections between the car park and the Sound Shell area. It is part of improving the path network throughout in Moama. Tree planting reinforces the entry boulevard to a green and welcoming streetscape.



05 MASTERPLAN

05.11 MENINYA STREET - LANDSCAPE CONCEPT

KERRABEE SOUND SHELL PRECINCT VISION
The Kerrabee Sound Shell precinct will be a versatile space for a wide range of user groups and events. The space will be designed to transition from a large market space with appropriate services and space, to a evening event space. It will be a welcoming public park in between events. Overall, a unified identity for the park will reinforce this site as a gateway to Moama Beach and the bushland area.

The design concept for the site will incorporate unobtrusive infrastructure to support events, promote the site as an entertainment asset and facilitate maintenance. Improved **access for all abilities** will be a core design consideration. Play opportunities for all ages and abilities will be integrated in the new site design. The landscape and site access design around the existing War Memorial will improve safety and facilitate events. Further design development will consider the existing trees as a key part of the landscape setting. Path connections between the precinct, Meninya Street, Horseshoe Lagoon, Moama Beach, surrounding car parks and the wider Moama network will be consolidated and easy to navigate.

Kerrabee Sound Shell
The upgraded Sound Shell will support larger productions and community events. The design will integrate with the surrounding landform and provide a grassed amphitheatre sitting area. The stage has a backdrop of existing large Eucalypt trees which can be lit during events. A covered backstage area for props or costumes will extend the range of events held on the site. Parking and access to the area will be easy and safe.



Skate Park & Youth Zone
The existing skate park will be complemented with a youth space including a performance space with possible audio options.



Playground
The upgraded playground will provide a space for younger kids to play. It will be a small to medium playground with high play value and integrated nature-play, including swings, tall climbing elements and slides.



MRC Building Plaza
As part of the recent amalgamation, MRC offices will be relocated from this site. Consider opportunities to upgrade the existing outdoor plaza and toilets to support future use of the site.



05 MASTERPLAN

05.11 MENINYA STREET - LANDSCAPE CONCEPT

SURFACES

A standard suite of finished surfaces in Meninya Street will integrate materials such as; asphalt, concrete and grass, to ensure ease of maintenance and longevity. Contrasting surfaces, such as paving, will reinforce crossings, plaza spaces and rest stops as areas of high pedestrian activity. Hard surface paving will be complemented by tree and understorey planting, as well as lawn grass areas to achieve the WSUD and ESD principles which are integral to the green vision for Meninya Street.

Asphalt & Line marking



Concrete Footpath



Grass Median & Naturestrip



Painted Cyclist Lane



Feature Paving



Opportunity for colour or textural contrast to complement concrete footpath in feature areas such as plaza, forecourt and raised crossings

Feature tree grates



Opportunity to introduce contrasting surface feature such as artwork or colour

Mass understorey planting in mulch



Understorey planting will be limited to raingardens and under trees in naturestrip tree planting

TREE CELLS

The installation of a soil structural system to provide a healthy growing environment for trees under hard surfaces will be required to ensure a green and lush streetscape in Meninya Street. New technology, like the incorporation of **Tree cells**, protects both trees and infrastructure in urban environments. **Tree cells** provide roots with the space required to establish a healthy growing environment. This reduces the risk of damage to services and infrastructure because trees have access to their two key requirements - water and air. It also protects the trees from compaction damage and can incorporate stormwater filtration and storage. Capital costs are offset In the long-term by reducing conflict with infrastructure, providing passive irrigation and improving tree growth. Citygreen StrataFlow™ technology Integrating soil structural system with bio-retention and WSUD for passive watering and stormwater treatment



Diagram of StrataFlow™ process - Citygreen

Tree cell installation



During installation

Trees planted in tree cells in a plaza



Eaton Mall, Oakleigh

For further information see Appendix for Strataflow™ Infrastructure - Citygreen **WSUD Guide** or visit: <https://citygreen.com/>

05 MASTERPLAN

05.11 MENINYA STREET - LANDSCAPE CONCEPT

FURNITURE

The furniture in Meninya street will be robust, easy to maintain and cohesive. A mix of standard products and custom design elements will create a unique and cost effective streetscape. Opportunities to include artwork and lighting into furniture elements will reinforce Moama as an arts focused town. Materials will reflect the natural bush environment by including timber and mild steel. Galvanised steel for structural frames and key elements will ensure ease of maintenance and cost effective fabrication. A feature colour, used sporadically as a highlight, will complement the muted palette and unify the whole streetscape. Locally sourced materials will be used where possible.

Seating



Custom seating with feature colour - Morgan Court, Glenroy - Enlocus



Timber and mild steel seat with raised planting



Timber and brick custom bench seat - Shepparton Law Courts



Communal seating with inset tree planting



Standard bench seat with arm rests

Bike Rack



Standard or custom bike rake both provide a repetitive streetscape element

Arbours & Shelters



Simple steel frame structure with timber slats - opportunity to grow climbing vine to further cool space



Drinking Fountain



Upright structure with drink bottle filling tap and dog bowl - provide access for all abilities



Bollards



Simple bollard using materials reflecting the local environment



Standard bollard



Bollard for lighting

Rubbish & Recycling Bins



Standard receptacle with colour and timber cladding to reflect the overall furniture material palette

LIGHTING

Meninya Street will be a welllit and welcoming place to be during the evening and at night. Lighting at various scales - street lighting for vehicles, pedestrian scale lighting and custom lighting elements - will provide a safe and warm environment for all users. Street lighting to meet Australian Standards will be complemented by feature lighting of the public realm areas and crossing points to ensure Meninya Street is a vibrant and unique streetscape. Custom feature lighting, such as strip lighting, bollards and other furniture, will use low energy fittings and fixtures in warm tones.

Pedestrian scale streetscape lighting



Custom furniture with artwork lighting elements



Bench seat with colour, lighting and area with arm rests Windsor, Melbourne - Hansen Partnership



Custom bench seat with lighting feature. Bright - Alpine Shire



Uplighting trees



Lighting across path surface

05 MASTERPLAN

05.11 MENINYA STREET - LANDSCAPE CONCEPT

GREEN VISION FOR MOAMA

The new bridge crossing will cater for most of the large vehicles travelling through Moama. This creates a significant opportunity to redevelop Meninya Street as a green and welcoming streetscape focused on local, rather than regional transport needs. Moving the powerlines underground will provide space for a consistent boulevard planting of trees along the naturestrips. This will be complemented by centre median tree planting. The following tree species have been selected for their form, foliage and flowers, as well as suitability for the local climate. Feature trees, at crossing points and in public realm areas, will highlight the pedestrian focus of these areas.

TREE SPECIES LIST

Centre Median Tree Species Options



Eucalyptus melliodora
Yellow Box



Hymenosporum flavum
Native Frangipani



Agathis robusta
Queensland Kauri



Corymbia citriodora
Lemon Scented Gum

Naturestrip Tree Species Options (No overhead powerlines)



Pistacia chinensis
Chinese Pistachio



Acer rubrum 'October Glory'
October Glory Maple



Pyrus calleryana 'Bradford'
Ornamental Pear



Corymbia maculata
Spotted Gum



Eucalyptus microcarpa
Grey Box



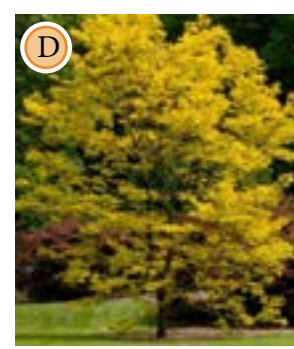
Zelkova serrata 'Green Vase'
Green Vase



Eucalyptus leucoxylon
Yellow Gum



Ulmus parvifolia 'Todd'
Chinese elm



Gleditsia triacanthos
Golden Honey Locust

Naturestrip Tree Species Options (Under powerlines)



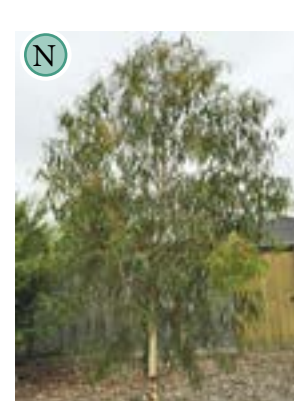
Corymbia eximia 'Nana'
Dwarf Yellow Bloodwood



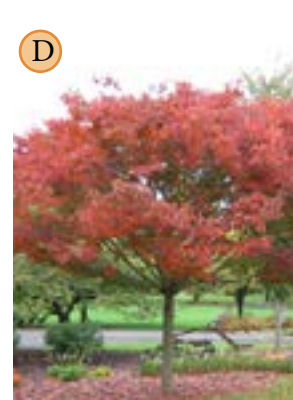
Pyrus spp.
Small Ornamental Pear



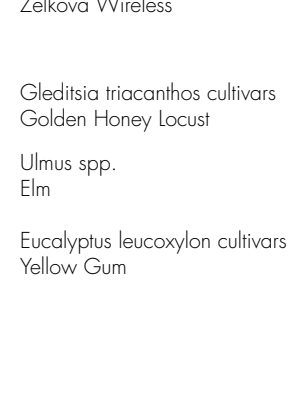
Corymbia ficifolia cultivars
Flowering Gum



Corymbia citriodora 'Scentuous'
Lemon-scented Gum



Zelkova serrata 'Schmidtlow
Wireless'
Zelkova Wireless



Gleditsia triacanthos cultivars
Golden Honey Locust

Ulmus spp.
Elm

Eucalyptus leucoxylon cultivars
Yellow Gum

KEY

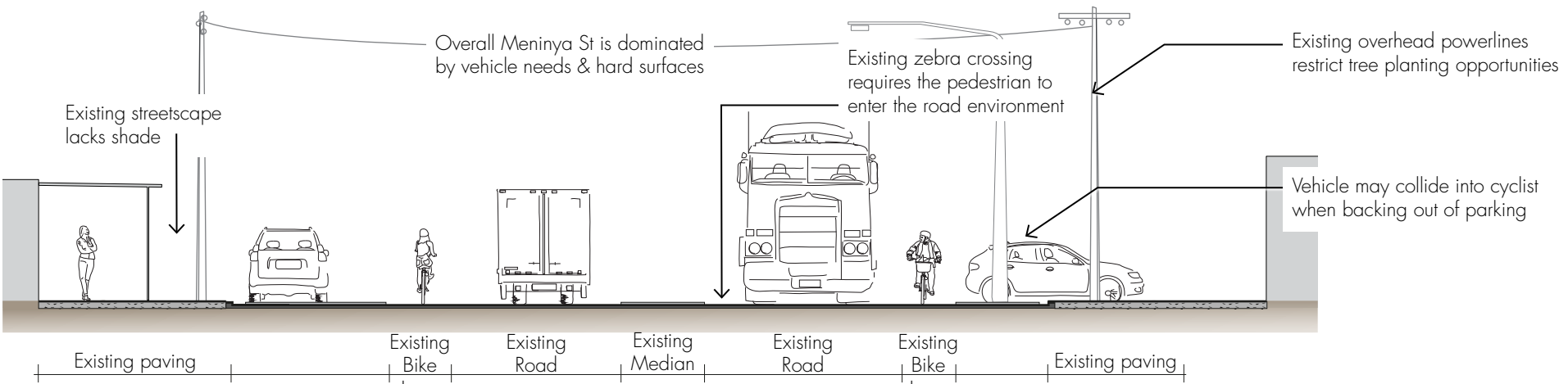
- N Native evergreen tree
- I Evergreen tree Indigenous to the Moama Region
- D Deciduous tree

05 MASTERPLAN

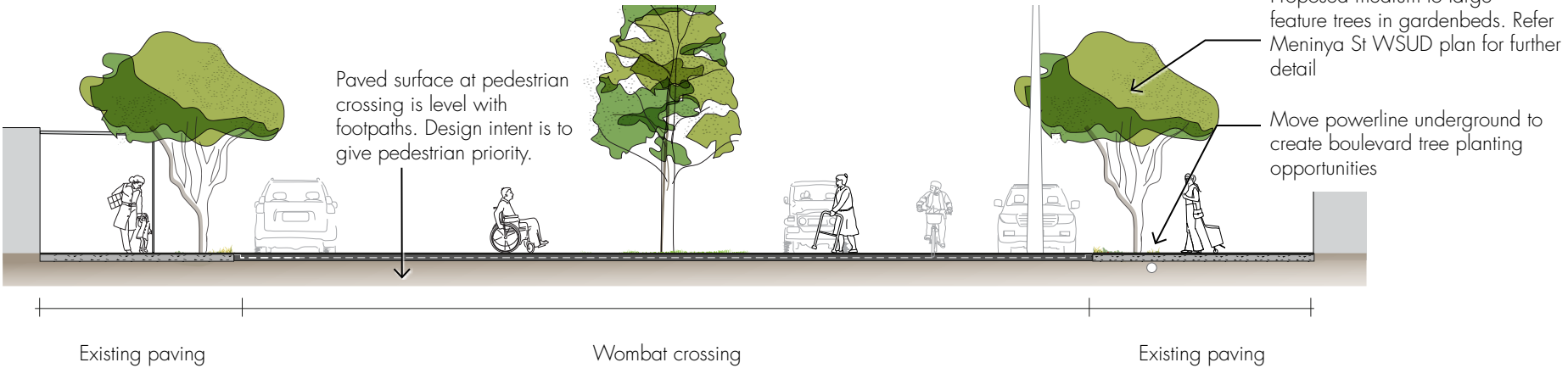
05.11 MENINYA STREET - LANDSCAPE CONCEPT

PEDESTRIAN CROSSING VISION

Meninya Street is safe, easy to navigate and a pleasant environment for pedestrians. Crossing points are conveniently located. Raised crossings, implemented at high pedestrian traffic areas, provide at-grade connections for pedestrians and mobility scooter users, while also contributing to slower vehicle speeds. Centre median pedestrian outstands ensure everyone can traverse the road safely and in their own time. Lighting at night ensures good visibility for both drivers and pedestrians. Tree species are selected for good sight lines and as a contrast to boulevard tree planting to distinguish the crossing point for all road users.



Section DD1 Wombat crossing on Meninya St - existing
Scale 1:150



Section DD1 Wombat crossing on Meninya St - Proposed
Scale 1:150

Crossing Tree Species Options



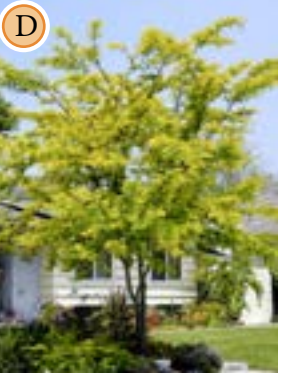
Acacia pendula
Weeping Myall



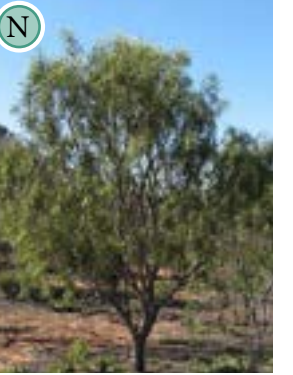
Acacia stenophylla
River Cooba



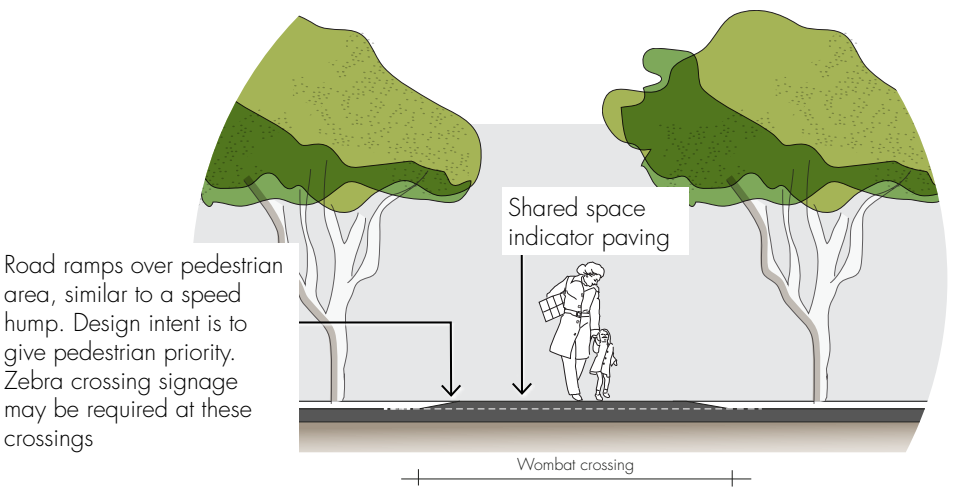
Geijera parviflora
Wilga



Gleditsia triacanthos 'Sunburst'
Golden Honey Locust



Pittosporum angustifolium
Butterbush



Section EE1 Wombat crossing on Meninya St - Proposed
Scale 1:100

05 MASTERPLAN

05.11 MENINYA STREET - LANDSCAPE CONCEPT

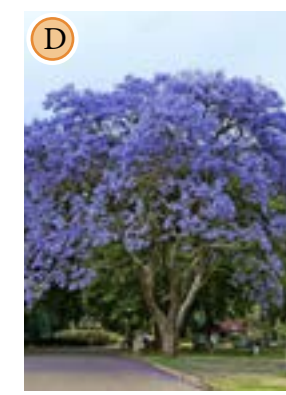
CBD RESIDENTIAL STREETS
Residential streets in Moama CBD which connect to Meninya Street will be welcoming, safe and green streets. Wide streets with centre medians will be planted with trees where possible. Under powerlines there will be smaller trees with complementary large trees on the opposite side. Green streets will create a great town to live in and encourage new residents to move to Moama.



Side Street Tree Species Options



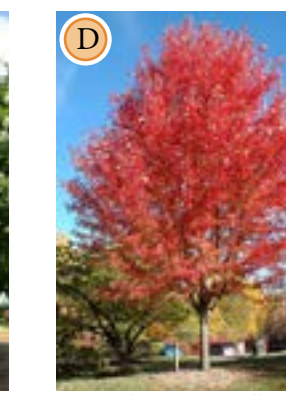
Corymbia citridora 'Scentuious'
Lemon-scented Gum



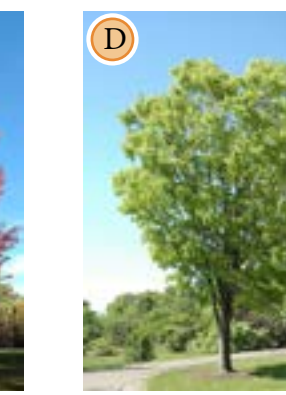
Jacaranda mimosifolia
Jacaranda



Lagerstroemia indica cultivars
Crepe Myrtle

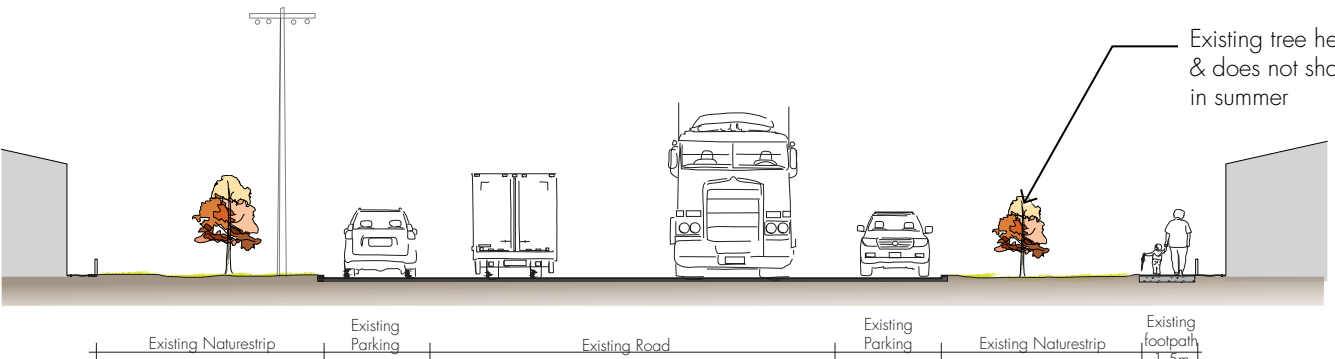


Acer x freemanii 'Jeffersred'
Autumn Blaze Maple

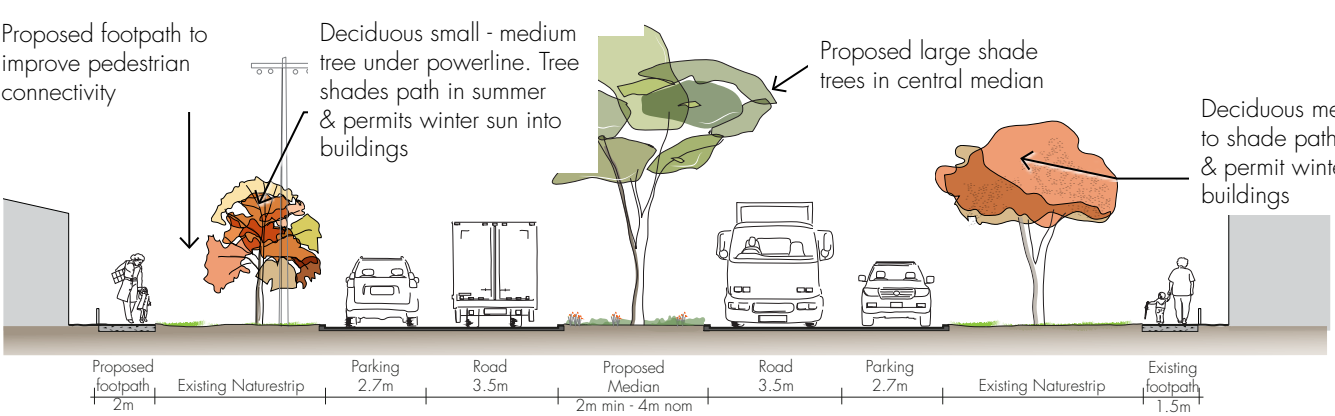


Zelkova serrata 'Green Vase'
Green Vase

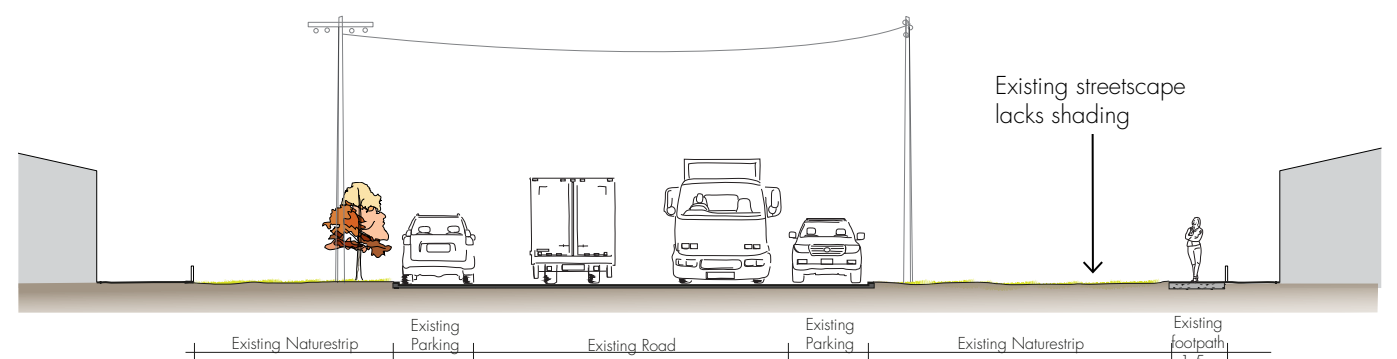
Corymbia maculata
Spotted Gum
Pistacia chinensis
Chinese Pistachio
Ulmus parvifolia 'Todd'
Chinese elm
Dwarf Yellow Bloodwood
Pyrus spp.
Ornamental Pear
Acer rubrum 'October Glory'
October Glory Maple



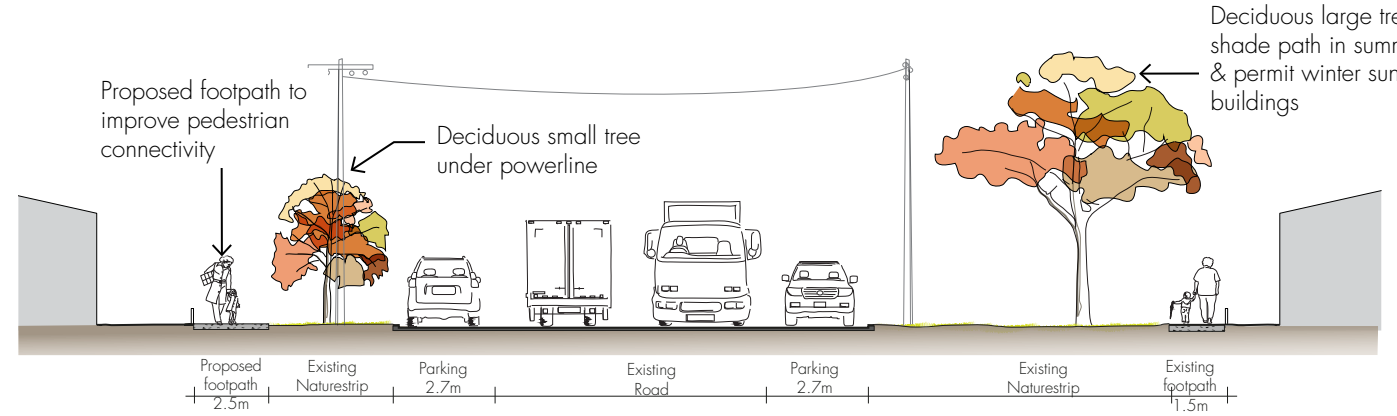
Section BB1 Maiden St/Echuca St - existing (typical)
Scale 1:200



Section BB1 Maiden St/Echuca St - Proposed (typical)
Scale 1:200



Section CC1 Porter St/Kinsey St - existing (typical)
Scale 1:200



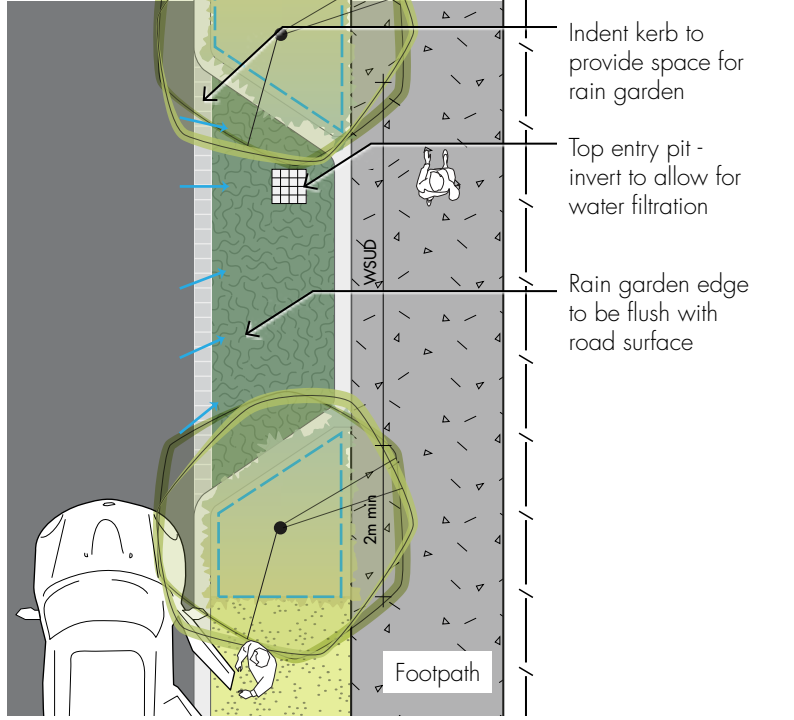
Section CC1 Porter St/Kinsey St - Proposed (typical)
Scale 1:200

05 MASTERPLAN

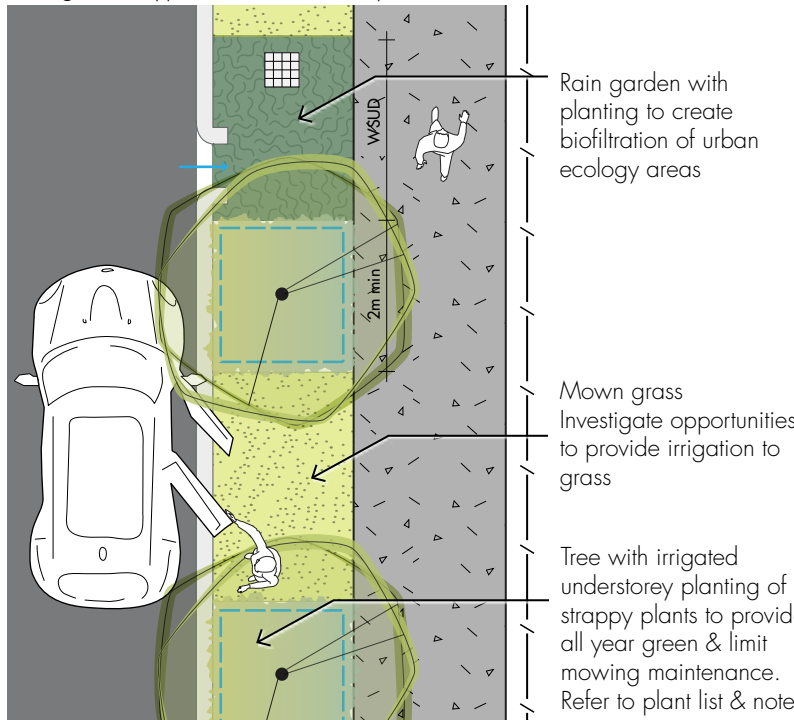
05.11 MENINYA STREET - LANDSCAPE CONCEPT

WATER SENSITIVE URBAN DESIGN

Raingarden type A - Wide entry



Raingarden type B - Narrow entry



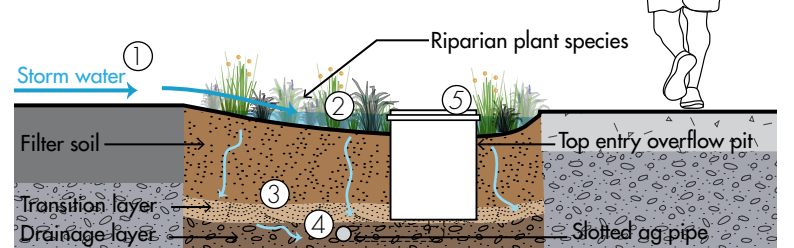
Precedent images for type A



Precedent images for type B

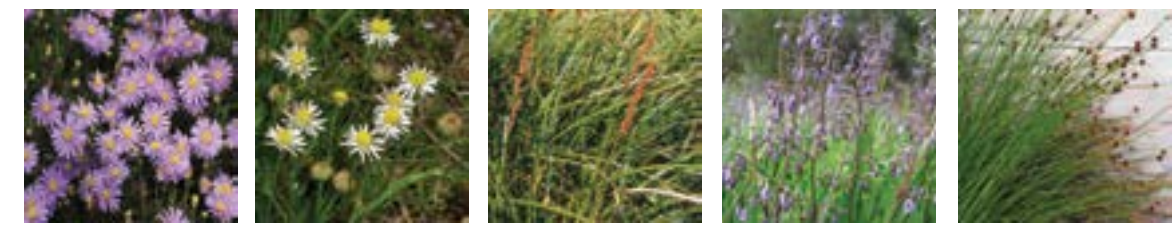


Raingarden Process Diagram

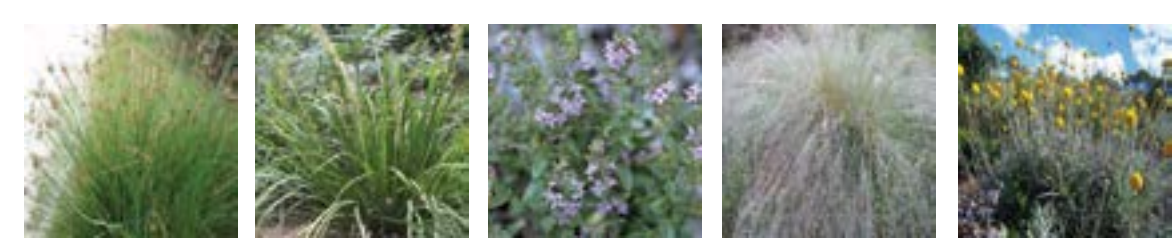


1. Stormwater washes into raingarden from gutter system
2. Raingarden plants & gravel mulch traps litter and coarse sediment
3. Water seeps through soil layers trapping finer sediments and pollutants
4. Cleaned stormwater is collected by pipe and enters stormwater catchment system and water table
5. During high inundation event, raingarden overflows into top entry pit and directly into stormwater catchment

Raingarden Species List



Brachyscome multifida
Cut-leaf Daisy
Calotis scapigera
Calotis
Carex appressa
Tall Sedge
Dianella admixta
Blue Flax Lily
Ficinia nodosa
Knobby Clubrush



Juncus usitatus
Common Rush
Lomandra longifolia
Spiny-head Matrush
Mentha diemenica
Slender Mint
Poa labillardieri
Tussock Grass
Pycnosorus globulus
Billy Buttons

Understorey Species Primary Planting



Chrysocephalum apiculatum
Common Everlasting
Dianella caerulea 'DBB03'
Cassa Blue
Dianella caerulea 'DCMP01'
Little Jess
Lucia Dianella caerulea 'DC101'
Lucia



Westringia fruticosa 'WES04'
Mundi
Lomandra confertifolia ssp.
Fine leaf Mat rush
Lomandra longifolia 'LM300'
Tanika Lomandra
Myoporum parvifolium purpurea
Purple Leaf Creeping Boobialla

Note
Plants have been selected for this site specifically based on the following considerations:

- Low maintenance
- Able to withstand periods of inundation
- Generally low water requirement
- Water filtration function
- Seasonal interest
- Textural contrast
- Colour selection
- Robust & able to withstand urban conditions

PART 04 COST ESTIMATE



MASTERPLAN ESTIMATE

Project: Moama Bridge Arts Precinct and Meninya Street
Issued to: Terroir
Date: 6th May 2019
Revision Number: 1

Contents

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1 Executive Summary

As requested, Harlock Consulting have a prepared an initial Masterplan Estimate in relation to the proposed works for the Moama Bridge Arts Precinct and Meninya Street.

The estimated costs for the various components of the masterplan are as follows:

Bridge Arts Precinct	\$25,700,000
Meninya Street North	\$750,000
Meninya Street Centre	\$9,750,000
Meninya Street South – A	\$1,350,000
Meninya Street South – B	\$4,800,000

These estimates are inclusive of allowances for professional fees and design and construction contingencies.

A breakdown of this estimate is included in Appendix 1.

Various notes and exclusions are set out in Section 4 of this report.

2 Basis of Cost Plan

This Cost Plan has been prepared on the basis of the following information:

- Moama Bridge Arts Precinct and Meninya Street Masterplan report dated May 2019
- Landscape works scope of work spreadsheet
- Discussions with Terroir to define the scope of work

3 Cost Plan

Refer to Appendix 1 for a full breakdown of the full Cost Plan.

4 Notes & Exclusions

It is noted that the masterplan estimate is inclusive of the following provisional allowance:

- \$1,000,000 allowance for Bridge Arts site land management works including weed control, erosion control, re-vegetation, bank shaping, wetlands works and other remediation works
- \$750,000 for Arts Precinct development opportunity works to the existing disused light industrial building site area
- \$100,000 for war memorial landscaping works
- \$100,000 for upgrading of existing bridge lighting
- \$2,000,000 for art acquisition for the Bridge Arts and Meninya Street Precincts – Provisional for commencement however additional funds will be required for ongoing future stages

Please note that any allowance for the following have been excluded from the estimate:

- GST
- Cost escalation beyond May 2019
- Costs associated with adverse ground conditions
- Hazardous material removal and audit costs
- Contaminated soil removal costs
- Further ongoing art acquisitions

Note: Harlock Consulting has no control over, without limitation, cost of labour, cost of materials, cost of equipment, pricing methods used by third parties, availability of competitive bids, economic factors and specific market conditions. Accordingly, Harlock Consulting does not guarantee or warrant that actual costs will not vary from any estimates or forecasts

5 Tendering & Market Assumptions

A traditional lump sum procurement methodology is assumed for this project and it is assumed that it would be tendered to several appropriately sized builders. This estimate reflects the expected preliminaries level and trade pricing associated with this form of procurement.

The estimate assumes that the works would be undertaken in stages.

The rates in this estimate are based on our opinion of current market prices. An escalation allowance of 3.5% per annum is recommended for budgeting purposes up to the anticipated construction commencement date of each element of work.

Appendix 1: Cost Estimate

Elemental Summary

<div>Project: Moama Bridge Arts and Meninya Street</div> <div>Details: Masterplan Estimate</div> <div>Building: Moama Bridge Arts and Meninya Street</div>									
Code	Description	%BC	Cost/m2	Quantity	Unit	Rate	Subtotal	Factor	Total
	Bridge Arts Precinct								
	Bridge Arts Centre	16.30%					6,900,000		6,900,000
	Elevated walkway	13.23%					5,600,000		5,600,000
	Artist Assembly Shed (2,000m2)	7.32%					3,100,000		3,100,000
	Car parking – 100 spaces	5.91%					2,500,000		2,500,000
	BAC Sculpture Garden (12,000m2)	5.44%					2,300,000		2,300,000
	Art acquisition allowance – Bridge Arts Centre and Meninya Street (Provisional for commencement – additional funds will be required for ongoing future stages)	4.73%					2,000,000		2,000,000
	BAC tracks, trails, underpasses, lighting	2.72%					1,150,000		1,150,000
	Arts precinct development opportunity (existing disused light industrial building and yard) – Provisional	2.72%					1,150,000		1,150,000
	Allowance for Bridge Arts site land management (Provisional)	2.37%					1,000,000		1,000,000
	Bridge Arts Precinct – TOTAL	60.69%							25,700,000
	Meninya Street North								
	Meninya Street works	1.78%					750,000		750,000
	Meninya Street North – TOTAL	1.78%							750,000
	Meninya Street Centre								
	Echuca Street Carpark	11.81%					5,000,000		5,000,000
	Meninya Street works	7.92%					3,350,000		3,350,000
	Public Realm space in front of BAC Gateway	1.07%					450,000		450,000
	Public Realm space in front of Moama Bakery and adjacent food outlets	0.83%					350,000		350,000
	Laneway between Meninya St and Echuca St carpark	0.71%					300,000		300,000
	Public Realm space in front of Moama Post Office	0.36%					150,000		150,000
	Crossing point at Moama Bakery	0.18%					75,000		75,000
	Crossing point at Meninya St Pharmacy (existing crossing location)	0.18%					75,000		75,000
	Meninya Street Centre – TOTAL	23.03%							9,750,000
	Meninya Street South (A)								
	Meninya Street/Shaw Street Intersection	0.89%					375,000		375,000

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Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Bridge Arts Centre							
	Preliminaries, overheads and profit (14%)		Item				659,092
	Substructure – Concrete raft slab/paving, footings for portal frame, pads, etc	1,450	m2	250.00	362,500		362,500
	External walls – Steel portal columns, sructure, secondary framing, Danpalon polycarbonate cladding externally and recycled timber cladding internally	1,350	m2	1,000.00	1,350,000		1,350,000
	Roof and roof plumbing – Steel framing, purlins, roofing, roof plumbing, secondary framing, recycled timber cladding to soffit – plan area measured	1,450	m2	700.00	1,015,000		1,015,000
	Ticketing booth	47	m2	2,500.00	117,500		117,500
	Ramping – strcure and timber decking, finishes, tactiles	316	m2	650.00	205,400		205,400
	Balustrading to ramps	318	m	650.00	206,700		206,700
	Event Space Platform including balustrades	657	m2	600.00	394,200		394,200
	Extra over cost for amphitheatre	85	m2	750.00	63,750		63,750
	Toilets	51	m2	3,250.00	165,750		165,750
	Coffee Cart space – service provisions only		Item		10,000		10,000
	Enclosed gallery space	364	m2	500.00	182,000		182,000
	Electrical services / AV	1,450	m2	250.00	362,500		362,500
	Fire Services	1,450	m2	25.00	36,250		36,250
	Hydraulic services	1,450	m2	25.00	36,250		36,250
	Signage		Item		50,000		50,000
	External services/connections – Sewer, water, rainwater harvesting, fire services, electrical, communications, stormwater		Item		150,000		150,000
	Design and construction contingencies (15%)		Item				805,034
	Professional fees (12%)		Item				740,631
	Rounding		Item				-12,557
Bridge Arts Centre					4,707,800		6,900,000
Elevated walkway							
	Preliminaries, overheads and profit (15%)		Item				548,625
	Walkways – approx 2000mm wide average with selected areas of wider viewing platforms including all substructure, columns, bracing, walkway framing, decking, balustrades, stair access, signage, sundries	1,045	m	3,500.00	3,657,500		3,657,500
	Design and construction contingencies (15%)		Item				630,919

Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Elevated walkway							(Continued)
	Professional fees (15%)		Item				725,557
	Rounding		Item				37,400
Elevated walkway					3,657,500		5,600,000
Artist Assembly Shed (2,000m2)							
	Site Area 5,300m2		Note				
	Artist Assembly Shed assumed to occupy half of site area as per discussions with Terroir		Note				
	Preliminaries, overheads and profit		Item				262,800
	Substructure	2,000	m2	150.00	300,000		300,000
	Columns	2,000	m2	40.00	80,000		80,000
	Roof and canopies	2,000	m2	220.00	440,000		440,000
	External walls and doors	2,000	m2	125.00	250,000		250,000
	Internal fitout (assume 50% workshops and 50% storage)	2,000	m2	150.00	300,000		300,000
	Electrical services	2,000	m2	80.00	160,000		160,000
	Fire services	2,000	m2	30.00	60,000		60,000
	Hydraulic services	2,000	m2	20.00	40,000		40,000
	Mechanical services	2,000	m2	20.00	40,000		40,000
	BWIC	2,000	m2	20.00	40,000		40,000
	External works – balance of site	3,300	m2	100.00	330,000		330,000
	External services		Item		150,000		150,000
	Design and construction contingencies (15%)		Item				367,920
	Professional fees (10%)		Item				282,072
	Rounding		Item				~2,792
Artist Assembly Shed (2,000m2)					2,190,000		3,100,000
Car parking – 100 spaces							
	Site Area2,150m2		Note				
	100 parking spaces over two levels		Note				
	Assumed 28m2 per parking space		Note				
	Preliminaries, overheads and profit		Item				257,813
	Demolish existing industrial building and yard	2,150	m2	75.00	161,250		161,250
	Substructure	1,400	m2	200.00	280,000		280,000
	Columns	1,400	m2	70.00	98,000		98,000

Trade Detail

Project: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Building: Moama Bridge Arts and Meninya Street							
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Car parking – 100 spaces (Continued)							
	External facade – Barriers/parapets/green wallls	320	m	500.00	160,000		160,000
	Upper floors and ramps	1,400	m2	375.00	525,000		525,000
	Stairs	6	mrise	4,000.00	24,000		24,000
	Internal walls – Stair shaft walls, bracing walls	96	m2	500.00	48,000		48,000
	Floor sealer and linemarking	2,800	m2	10.00	28,000		28,000
	Signage		Item		5,000		5,000
	Fire services	2,800	m2	20.00	56,000		56,000
	Electrical services	2,800	m2	40.00	112,000		112,000
	Stormwater drainage	2,800	m2	25.00	70,000		70,000
	Hydraulic services	2,800	m2	5.00	14,000		14,000
	Buiders work in connection with services		Item		25,000		25,000
	Mechanical services – Not required – Naturally ventilated		Note				
	External works to balance of site	750	m2	150.00	112,500		112,500
	Design and construction contingencies (15%)		Item				296,484
	Professional fees (10%)		Item				227,305
	Rounding		Item				-352
Car parking – 100 spaces					1,718,750	2,500,000	
BAC Sculpture Garden (12,000m2)							
	Preliminaries, overheads and profit		Item		225,000		225,000
	Sculpture garden – understorey planting, trees, screening planting, paved areas and seating areas	12,000	m2	125.00	1,500,000		1,500,000
	Design and construction contingencies (15%)		Item				258,750
	Professional fees (15%)		Item				297,563
	Rounding		Item				18,687
BAC Sculpture Garden (12,000m2)					1,725,000	2,300,000	
Art acquisition allowance – Bridge Arts Centre and Meninya Street (Provisional for commencement – additional funds will be required for ongoing future stages)							
	Art acquisition allowance (Provisional)		Item		2,000,000		2,000,000
Art acquisition allowance – Bridge Arts Centre and Meninya Street (Provisional for commencement – additional funds will be required for ongoing future stages)					2,000,000	2,000,000	

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Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
BAC tracks, trails, underpasses, lighting (Continued)							
	Preliminaries, overheads and profit		Item		112,500		112,500
	BAC tracks, trails and underpasses		Item		750,000		750,000
	Intall unsealed compacted paths with improved drainage, trimming and some clearing of trees as required						
	Install logs, bollards and signage as required to manage vehicle access to the site						
	Provide short term river access connecting The Pathway and the Murray River						
	Install site signage – directionsal, wayfinding, interpretation and regulatory						
	Create welcoming and safe underpass for pedestrians, cyclists and maintenance vehicles incorporating some art elements						
	Lighting to pathway nodes						
	Design and construction contingencies (15%)		Item				129,375
	Professional fees (15%)		Item				148,781
	Rounding		Item				9,344
BAC tracks, trails, underpasses, lighting					862,500		1,150,000
Arts precinct development opportunity (existing disused light industrial building and yard) – Provisional							
	Preliminaries, overheads and profit		Item		112,500		112,500
	Arts precinct development opportunity (existing disused light industrial building and yard) – Provisional		Item		750,000		750,000
	Design and construction contingencies (15%)		Item				129,375
	Professional fees (15%)		Item				148,781
	Rounding		Item				9,344
Arts precinct development opportunity (existing disused light industrial building and yard) – Provisional					862,500		1,150,000
Allowance for Bridge Arts site land management (Provisional)							
	Allowance for Bridge Arts site land management (Provisional)		Item		1,000,000		1,000,000
	Weed control						

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Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Allowance for Bridge Arts site land management (Provisional) (Continued)							
	Erosion control						
	Re-vegetation						
	Bank shaping						
	Other remediation work						
Allowance for Bridge Arts site land management (Provisional)					1,000,000		1,000,000
Meninya Street works							
	Preliminaries, overheads and profit		Item				73,875
	Upgrade road surface as required	1,600	m2	50.00	80,000		80,000
	Re-align kerbs to reduce roadway, increase nature strip and public realm areas with improved crossing points		Item		80,000		80,000
	Create designated cycle lane line kmarking/surface treatment to create safer, continuous area ofr cyclists	400	m	50.00	20,000		20,000
	Upgrade existing footpaths	400	m	200.00	80,000		80,000
	Install parallel parking and signage including DDA requirements	800	m2	100.00	80,000		80,000
	Install 4m wide centre median including kerb and grass surface	600	m2	125.00	75,000		75,000
	Plant street trees along centre median	20	No	250.00	5,000		5,000
	Plant street trees along nature strips	30	No	250.00	7,500		7,500
	Plant understorey planting under nature strip median trees	100	m2	150.00	15,000		15,000
	Install rain gardens including kerb work, pits and understorey plants	10	No	5,000.00	50,000		50,000
	Design and construction contingencies (15%)		Item				84,956
	Professional fees (15%)		Item				97,700
	Rounding		Item				969
Meninya Street works					492,500		750,000
Echuca Street Carpark							
	Preliminaries, overheads and profit		Item		510,000		510,000
	Provide an off-street car park to service Moama CBD. Ensure carpark is welcoming and visually interesting both, internally and externally						
	Upgrade existing carpark to a multi-storey (3) open carpark (approx. 170 spaces) with feature cladding and some internal artwork	170	space s	20,000.00	3,400,000		3,400,000

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Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Echuca Street Carpark (Continued)							
	Design and construction contingencies (15%)		Item				586,500
	Professional fees (12%)		Item				539,580
	Rounding		Item				-36,080
Echuca Street Carpark					3,910,000		5,000,000
Meninya Street works							
	Preliminaries, overheads and profit		Item				332,025
	Upgrade road surface as required	5,600	m2	50.00	280,000		280,000
	Re-align kerbs to reduce roadway, increase nature strip and public realm areas with improved crossing points		Item		280,000		280,000
	Create designated cycle lane line kmarking/surface treatment to create safer, continuous area ofr cyclists	1,100	m	50.00	55,000		55,000
	Upgrade existing footpaths	1,400	m	200.00	280,000		280,000
	Install raised pedestrian crossings, signage, linemarking	2	No	25,000.00	50,000		50,000
	Install large raised crossing at Bridge Arts Centre	685	m2	200.00	137,000		137,000
	Install parallel parking and signage including DDA requirements	2,800	m2	100.00	280,000		280,000
	Install 4m wide centre median including kerb and grass surface	2,400	m2	125.00	300,000		300,000
	Move Meninya Street overhead powerlines underground between Porter Street and Shaw Street	450	m	750.00	337,500		337,500
	Plant street trees along centre median	70	No	250.00	17,500		17,500
	Plant street trees along nature strips	110	No	250.00	27,500		27,500
	Plant understorey planting under nature strip median trees	460	m2	150.00	69,000		69,000
	Install rain gardens including kerb work, pits and understorey plants	20	No	5,000.00	100,000		100,000
	Design and construction contingencies (15%)		Item				381,814
	Professional fees (15%)		Item				439,050
	Rounding		Item				-16,389
Meninya Street works					2,213,500		3,350,000
Public Realm space in front of BAC Gateway							
	Preliminaries, overheads and profit		Item		45,000		45,000

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Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Public Realm space in front of BAC Gateway							(Continued)
	BAC Forecourt – gathering and seating areas, feature trees, furniture, drinking fountains, bins, bike hoops, mobility scooter charging points	400	m2	750.00	300,000		300,000
	Design and construction contingencies (15%)		Item				51,750
	Professional fees (15%)		Item				59,513
	Rounding		Item				–6,263
Public Realm space in front of BAC Gateway					345,000		450,000
Public Realm space in front of Moama Bakery and adjacent food outlets							
	Preliminaries, overheads and profit		Item		33,750		33,750
	Upgrade area to create welcoming, shady space with multiple seating options to provide a space for outdoor dining						
	Supply and install feature paving, furniture, public art, shade pergola, trees with tree cells, understorey planting, Water Sensitive Urban design and feature lighting in public realm area	300	m2	750.00	225,000		225,000
	Design and construction contingencies (15%)		Item				38,813
	Professional fees (15%)		Item				44,634
	Rounding		Item				7,803
Public Realm space in front of Moama Bakery and adjacent food outlets					258,750		350,000
Laneway between Meninya St and Echuca St carpark							
	Preliminaries, overheads and profit		Item		30,375		30,375
	Supply and install feature paving, furniture, public art, shade pergola, trees with tree cells, understorey planting and feature lighting in laneway	270	m2	750.00	202,500		202,500
	Design and construction contingencies (15%)		Item				34,931
	Professional fees (15%)		Item				40,171

Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Laneway between Meninya St and Echuca St carpark							(Continued)
	Rounding		Item				-7,977
Laneway between Meninya St and Echuca St carpark					232,875		300,000
Public Realm space in front of Moama Post Office							
	Preliminaries, overheads and profit		Item		14,063		14,063
	Supply and install feature paving, furniture, public art, shade pergola, trees with tree cells, understorey planting, Water Sensitive Urban design, feature lighting and community notice board in public realm area	75	m2	1,250.00	93,750		93,750
	Design and construction contingencies (15%)		Item				16,172
	Professional fees (15%)		Item				18,598
	Rounding		Item				7,418
Public Realm space in front of Moama Post Office					107,813		150,000
Crossing point at Moama Bakery							
	Preliminaries, overheads and profit		Item		7,500		7,500
	Install new raised wombat crossing with zebra crossing to Australian Standards		Item		50,000		50,000
	Design and construction contingencies (15%)		Item				8,625
	Professional fees (15%)		Item				9,919
	Rounding		Item				-1,044
Crossing point at Moama Bakery					57,500		75,000
Crossing point at Meninya St Pharmacy (existing crossing location)							
	Preliminaries, overheads and profit		Item		7,500		7,500
	Install new raised wombat crossing with zebra crossing to Australian Standards		Item		50,000		50,000
	Design and construction contingencies (15%)		Item				8,625
	Professional fees (15%)		Item				9,919

Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Crossing point at Meninya St Pharmacy (existing crossing location)							(Continued)
	Rounding		Item				-1,044
Crossing point at Meninya St Pharmacy (existing crossing location)					57,500		75,000
Meninya Street/Shaw Street Intersection							
	Preliminaries, overheads and profit		Item		37,500		37,500
	Install new roundabout including kerb alignment upgrade, landscaping, pedestrian crossing and entry feature artwork		Item		250,000		250,000
	Design and construction contingencies (15%)		Item				43,125
	Professional fees (15%)		Item				49,594
	Rounding		Item				-5,219
Meninya Street/Shaw Street Intersection					287,500		375,000
Public Realm space in front of laundrette, hairdresser, chicken takeaway and hearing services etc. (body corportate area)							
	Preliminaries, overheads and profit		Item		33,750		33,750
	Supply and install feature paving with improved access to existing shops, furniture, public art, shade pergola, trees with tree cells, understorey planting, Water Sensitive Urban design and feature lighting in public realm area	300	m2	750.00	225,000		225,000
	Design and construction contingencies (15%)		Item				38,813
	Professional fees (15%)		Item				44,634
	Rounding		Item				7,803
Public Realm space in front of laundrette, hairdresser, chicken takeaway and hearing services etc. (body corportate area)					258,750		350,000
Meninya Street/Blair Street Roundabout							
	Preliminaries, overheads and profit		Item		30,000		30,000
	Upgrade roundabout including kerb alignment and pedestrian crossings, apron upgrade, cyclist lane, landscaping and entry feature artwork		Item		200,000		200,000
	Design and construction contingencies (15%)		Item				34,500

Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Meninya Street/Blair Street Roundabout							(Continued)
	Rounding		Item				-4,175
Meninya Street/Blair Street Roundabout					230,000		300,000
Carpark on east side of Meninya Street near Shaw Street and Railway line							
	Preliminaries, overheads and profit		Item		22,500		22,500
	Upgrade carpark (approx. 1,000m²) including surface treatment, kerb alignment, line marking, and tree planting in tree cells	1,000	m2	150.00	150,000		150,000
	Design and construction contingencies (15%)		Item				25,875
	Professional fees (15%)		Item				29,756
	Rounding		Item				-3,131
Carpark on east side of Meninya Street near Shaw Street and Railway line					172,500		225,000
South/East of Blair Street Roundabout							
	Preliminaries, overheads and profit		Item		10,200		10,200
	Provide a safe, off road path for pedestrians and cyclists from Blair Street to Echuca-Moama bridge	170	m	400.00	68,000		68,000
	Design and construction contingencies (15%)		Item				11,730
	Professional fees (15%)		Item				13,490
	Rounding		Item				-3,420
South/East of Blair Street Roundabout					78,200		100,000
Landscaping, ring enclosure and pathways to Skate Park							
	Preliminaries, overheads and profit		Item		160,125		160,125
	Landscaping areas	4,900	m2	100.00	490,000		490,000
	Pathways	150	m	350.00	52,500		52,500
	Ring enclosure	300	m	1,800.00	540,000		540,000
	Design and construction contingencies (15%)		Item				184,144
	Professional fees (15%)		Item				211,752

Trade Detail							
Project: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Building: Moama Bridge Arts and Meninya Street							
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Landscaping, ring enclosure and pathways to Skate Park (Continued)							
	Rounding		Item				11,480
Landscaping, ring enclosure and pathways to Skate Park					1,242,625		1,650,000
Landscaping, ring enclosure and pathways to Soundshell area							
	Preliminaries, overheads and profit		Item		120,375		120,375
	Landscaping areas	3,500	m2	100.00	350,000		350,000
	Pathways	150	m	350.00	52,500		52,500
	Ring enclosure	200	m	2,000.00	400,000		400,000
	Lighting		Item		50,000		50,000
	Design and construction contingencies (15%)		Item				138,431
	Professional fees (15%)		Item				159,196
	Rounding		Item				-20,502
Landscaping, ring enclosure and pathways to Soundshell area					972,875		1,250,000
Public Realm Space in front of current MRC offices							
	Preliminaries, overheads and profit		Item		45,000		45,000
	Upgrade area to create community plaza area including shade, planting, communal seating areas, surface treatments, etc	600	m2	500.00	300,000		300,000
	Design and construction contingencies (15%)		Item				36,750
	Professional fees (15%)		Item				57,263
	Rounding		Item				10,987
Public Realm Space in front of current MRC offices					345,000		450,000
Kerrabee Sound Shell upgrade							
	Preliminaries, overheads and profit		Item		37,500		37,500
	Upgrade existing soundshell, stage and ampitheatre area including provision of additional infrastructure and services to cater for a wide range of events of differing scales		Item		250,000		250,000
	Design and construction contingencies (15%)		Item				43,125

Trade Detail							
Project: Moama Bridge Arts and Meninya Street Building: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Kerrabee Sound Shell upgrade (Continued)							
	Professional fees (15%)		Item				49,594
	Rounding		Item				19,781
Kerrabee Sound Shell upgrade					287,500		400,000
Skate Park upgrades							
	Preliminaries, overheads and profit		Item		30,000		30,000
	Skate park lighting upgrades and audio points, performance platform, amenities		Item		200,000		200,000
	Design and construction contingencies (15%)		Item				34,500
	Professional fees (15%)		Item				39,675
	Rounding		Item				-4,175
Skate Park upgrades					230,000		300,000
Sondshell playground replacement							
	Preliminaries, overheads and profit		Item		22,500		22,500
	Replace soundshell payground with a new playground aimed at ages 3 to 7		Item		150,000		150,000
	Design and construction contingencies (15%)		Item				25,875
	Professional fees (15%)		Item				29,756
	Rounding		Item				-3,131
Sondshell playground replacement					172,500		225,000
Horseshoe Lagoon							
	Preliminaries, overheads and profit		Item		22,500		22,500
	Allowance for refurbishing existing boardwalks, upgrading interpretation – Provisional		Item		150,000		150,000
	Design and construction contingencies (15%)		Item				25,875
	Professional fees (15%)		Item				29,756

Trade Detail							
Project: Moama Bridge Arts and Meninya Street				Details: Masterplan Estimate			
Building: Moama Bridge Arts and Meninya Street							
Code	Description	Quantity	Unit	Rate	Subtotal	Factor	Total
Horseshoe Lagoon (Continued)							
	Rounding		Item				-3,131
Horseshoe Lagoon					172,500		225,000
Upgrade lighting to existing bridge							
	Preliminaries, overheads and profit		Item		15,000		15,000
	Upgrade lighting to existing bridge		Item		100,000		100,000
	Design and construction contingencies (15%)		Item				17,250
	Professional fees (15%)		Item				19,838
	Rounding		Item				-2,088
Upgrade lighting to existing bridge					115,000		150,000
War Memorial Landscaping – Provisional							
	Preliminaries, overheads and profit		Item		15,000		15,000
	War Memorial Landscaping – Provisional		Item		100,000		100,000
	Design and construction contingencies (15%)		Item				17,250
	Professional fees (15%)		Item				19,838
	Rounding		Item				-2,088
War Memorial Landscaping – Provisional					115,000		150,000

PART 05

BUSINESS AND
ECONOMIC ANALYSIS

Revision 1: May 10 2019

Bridge Arts Precinct & Meninya Street
Redevelopment

Business & Economic Analysis

MCa <Michael Connell & Assocs.>

May 2019

Revision 1: May 10 2019

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Disclaimer
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The report has been prepared on the basis of information available at the time of writing. While all possible care has been taken by the authors in preparing the report, no responsibility can be undertaken for errors or inaccuracies that may be in the data used.

Executive Summary

This report provides: a high level business analysis of the operations of the proposed Bridge Arts Precinct (BAP); and economic impact assessments of the BAP and the Meninya Street redevelopment.

These are designed to be indicative of the financial requirements for BAP operations and the potential impacts on Moama of increased visitor numbers to Meninya Street under alternative scenarios.

This report is designed to start the detailed thinking on operational and financial issues in relation to the Bridge Arts Precinct.

It should be noted that a full business case analysis (which is beyond the scope of this brief) would model BAP operations over a 10 year period showing annual growth in visitors as the facility is opened and the market is developed. It would also model in detail, events and activities that may utilise the BAP during festivals or other local celebrations. This would be required for seeking external funding.

Financial Analysis

The financial modelling provides estimates of revenue based on visitor scenarios, outlines indicative operating costs for a facility of this type and shows the net operating result (including break even requirements). It should be noted that the indicative financials do not include costs of acquisition of an art collection or related costs associated with maintaining a collection or capital related costs. For the financial analysis two cases are examined to illustrate the sensitivity to the number of visitors to the BAP.

Revenue has been estimated based on the operations model and fees and charges assumptions outlined in table 3. Annual revenue from fees and charges ranges from \$1.708 million (low) to \$2.241 million (high). We have modelled the operation of an onsite café (see Appendix A), but are recommending that this be leased to an experienced operator. A rent figure has been included in the detailed financial modelling.

The financial analysis is indicative and designed to show the sensitivity to visitor numbers using several scenarios. A full business case would provide a detailed 10 year analysis of visitor growth and operations. The sensitivity of financial results is illustrated by a comparison of the cases and the scenarios. Break- even for the operating results (based on the modelling) requires around 50,000 annual paying visitors the BAP.

Comparison of Cases – Summary of Results

Comparison	Visitor Scenarios		
	Low	Medium	High
Annual			
Case 1			
Visitor Numbers	55,200	65,600	72,400
Total Revenue	\$1,453,640	\$1,720,920	\$1,895,680
Total Expenses	\$1,347,373	\$1,353,442	\$1,381,186
Net Operating Result	\$105,347	\$366,558	\$513,574
Case 2			
Visitor Numbers	31,000	48,300	62,100
Total Revenue	\$831,700	\$1,276,310	\$1,404,650
Total Expenses	\$1,248,637	\$1,282,857	\$1,316,041
Net Operating Result	-\$417,856	-\$7,467	\$87,689

Source: MCa modelling & analysis, May 2019

Economic Impact Assessment - BAP & Meninya Street Redevelopment

An economic impact assessment of the Bridge Arts Precinct and the redevelopment of Meninya Street are provided. It examines two phase for each – the Construction Phase and the Operations Phase when the BAP and street redevelopment are completed.

Construction Phase

- For the BAP development a total of 51 jobs (FTE -36.9 direct and 14.1 indirect/induced) would be generated during the construction period. These jobs comprise: 30.8 direct jobs in on-site construction; 11.7 direct jobs in materials and equipment supply; and a total of 8.5 indirect/induced jobs.

- For the full Meninya Street Redevelopment a total of 37.2 jobs (FTE- 26.9 direct and 10.3 indirect/induced) would be generated during the construction period. These jobs comprise: 22.4 direct jobs in on-site construction; 8.5 direct jobs in materials and equipment supply; and a total of 6.2 indirect/induced jobs.
- The onsite jobs are likely to involve builders and tradespersons from the region, while the materials and equipment jobs would be state-wide (New South Wales and Victoria).

Bridge Arts Precinct Operations

BAP Operations were analysed for the 3 visitor scenarios in Case 1.The attraction of visitors and their spending would generate a significant number of jobs.

Employment Impacts

- For the medium scenario, the operations of the Bridge Arts Precinct would generate a total of 30.1 FTE jobs (24.7 direct jobs and 5.4 indirect/induced jobs).
- The BAP will generate 12.1 FTE jobs (9.5 onsite employees and 2.6 indirect/induced jobs generated by these employees' spending in the region).
- Spending by overnight visitors in Moama generates a total of 14.1 FTE jobs (11.8 direct jobs in the businesses they spend in and 2.3 indirect/induced jobs).
- Spending by day visitors in Moama generates a total of 3.9 FTE jobs (3.4 direct jobs in the businesses they spend in and 0.5 indirect/induced jobs).

Meninya Street Redevelopment Operations

A redeveloped street will be an attractive place to stop for visitors to Moama and Echuca. Businesses on the Meninya Street will experience a substantial increase in sales revenue from these visitors. The improvements in the public realm will increase property values, are likely to trigger improvements in current businesses, and would see new businesses being established to capture this larger visitor market.

Three scenarios have been modelled – low, medium and high.

- For the medium scenario, the street redevelopment would attract an additional 225,000 visitors annually for a total of 290,600, when 65,600 BAP visitors are included.
- With the medium scenario the 225,000 visitors to the street would increase annual spending in Meninya Street businesses by \$4.050 million.
- When the BAP visitors spending on the street (\$3.483 million) is included, this takes the total annual spending to \$7.553 million for the medium scenario and \$9.244 million for the high scenario.

Employment Impacts

Jobs will be generated in Moama by the improvements to Meninya Street for each of the visitor scenarios for Case 1.

- For the medium scenario, the operations of the redeveloped street would generate a total of 27.1 FTE jobs (23.2 direct jobs and 3.9 indirect/induced jobs).
- For the high scenario, the operations of operations of the redeveloped street would generate a total of 35.9 FTE jobs (30.9 direct jobs and 5.0 indirect/induced jobs).

Combination - BAP & Meninya Street Economic Impact

The combined economic impacts for Case 1 of the operations of the BAP and the improvements in Meninya Street are significant.

Total Visitors: For the medium scenario, the combination would attract 290,600 additional visitors annually (225,000 street visitors and 65,600 BAP visitors). For the high scenario, the combination would attract another 372,400 visitors annually (300,000 street visitors and 72,400 BAP visitors).

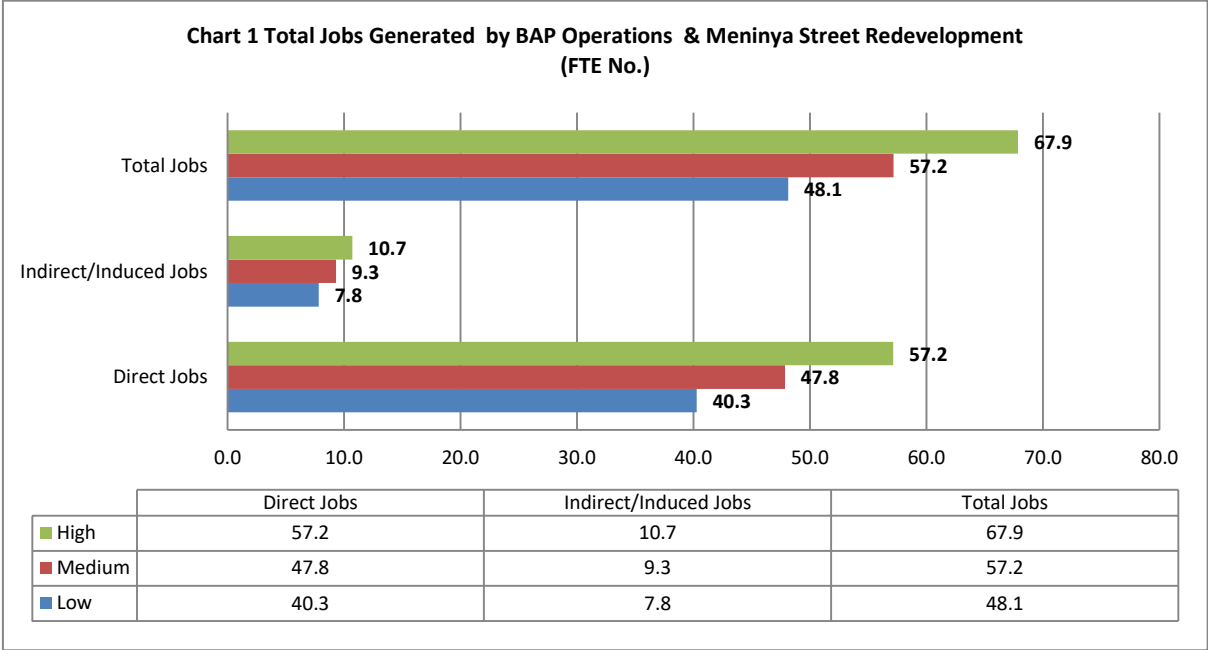
Visitor Spending: For the medium scenario, the combined 290,600 visitors to the street would increase annual spending in Meninya Street businesses by \$7.553 million. For the high scenario, the combined 372,400 visitors and their spending would increase annual spending in Meninya Street businesses by \$9.244 million. There is additional spending by visitors to the BAP and is captured in revenues of the operation (totals: low scenario \$1.708 million; medium scenario \$2.030 million; and high scenario \$2.240 million).

1 There is additional spending by visitors to the BAP and is captured in revenues of the operation. This annual spending totals are: low scenario \$1.708 million; medium scenario \$2.030 million; and high scenario \$2.240 million.

Employment Impacts

Combined employment impacts are significant.

- For the medium scenario, the combined employment impacts total 57.2 FTE jobs (47.8 direct jobs and 9.3 indirect/induced jobs).
- For the high scenario, the combined employment impacts total 67.9 FTE jobs (57.2 direct jobs and 10.7 indirect/induced jobs).



Source: MCa modelling & analysis, May 2019. Note may be some slight differences due to rounding

Most of the direct jobs generated by the increased number of tourist visitors to the BAP and Meninya Street will be in businesses on the street in food and beverage, other retail, recreation services and other services.

- For the medium scenario of the total 57.2 jobs: 21.5 jobs would be in food and beverage, 9.5 BAP staff, 6.2 other retail and 5.4 recreation services.
- For the high scenario of the total 68.0 jobs: 27.1 jobs would be in food and beverage, 9.5 BAP staff, 7.6 other retail and 6.4 recreation services.

The overall boost to visitors and spending will lead to new cafes and restaurants opening up to take advantage of the improved public domain and see improvements in existing businesses.

Further Analysis

This analysis is high level and indicative of visitor numbers required for the Bridge Arts Precinct and the impacts of the BAP and street improvements on business and jobs in Moama.

It should be noted that in seeking funding from external sources (including private philanthropic and government agencies), there would be a need to prepare a full business case showing operations over a 10 year period. Typically funding bodies will finance capital works or may fund special programs, but will not provide recurrent funding for operational losses. Preparation of a full business case is beyond the scope of the brief for this project.

It is recommended that a full business case be prepared as a next stage of developing the BAP concept. This business case would be based on detailed market analysis and financial analysis for a 10 year period of operations. This would be required to ensure that operations would be sustainable and for any capital funding applications.

1. Introduction

This report provides the following: a high level business analysis of the operations of the proposed Bridge Arts Precinct (BAP); an economic impact assessment of visitors to the BAP; and an economic impact assessment of the Meninya Street redevelopment. The analysis is conducted for 3 scenarios in relation to annual visitor numbers – high, medium and low.

The business analysis is high level and is designed to be indicative of the financial requirements to operate the BAP. The economic assessment shows the potential impacts when the BAP is fully operational and the redevelopment of Meninya Street is completed.

The analysis provided is for a year of operations and based on different visitor scenarios. The scenarios show the sensitivity of results to alternative visitor numbers.

This report is designed to start the detailed thinking on operational and financial issues in relation to the Bridge Arts Precinct.

It should be noted that a full analysis (which is beyond the scope of this brief) would model BAP operations over a 10 year period showing annual growth in visitors as the facility is opened and the market is developed. It would also model in detail, events and activities that may utilise the BAP during festivals or other local celebrations.

The analysis has been undertaken by economic consultants, MCa <Michael Connell & Assocs.>

2. Bridge Arts Facility – Financial Analysis

2.1 Overview

This section offers a high level business analysis in relation to the operation of the proposed Bridge Arts Precinct. It is designed to outline a model of operations and some indicative financial requirements for a precinct/gallery of this type.

It should be noted that in seeking funding from external sources (including private philanthropic and government agencies), there would be a need to prepare a full business case showing operations over a 10 year period. Typically funding bodies will finance capital works or may fund special programs, but will not provide recurrent funding for operational losses. Preparation of a full business case is beyond the scope of the brief for this project.

The financial modelling provides estimates of revenue based on visitor scenarios, outlines indicative operating costs for a facility of this type and shows the net operating result. (including break even requirements).

It should be noted that the indicative financials do not include costs of acquisition of an art collection or related costs associated with maintaining a collection, or capital costs associated with maintaining the asset.

2.2 Facilities & Revenue Sources

The BAP would have the following facilities and the types of revenue that could be generated are identified.

Table 1: Facilities & Revenue Sources

Facilities	Description	Revenue Sources
Gallery	Display of collection	Gallery entry charges Hire charges for special events
Platform	External viewing platform and walkway	Free for visitor use Hire charges for events
External walk	External art trails	Charge for use Self-guided tours and tours with Aboriginal guide
Retail	Small space (art works, books and quality souvenirs)	Revenue from sales
café	Small café (eg. 20-30 seats)- attract visitors & extend stays	Could be operated by the facility (sales revenue) or leased to an operator (lease revenue)
Functions space	Internal space for hire for events , including small weddings	Hire charges for events – receptions, weddings etc. Catering externally provided.
Special events (BAP)	During peak seasons, festivals and some off peak – could be a mix of free events and some ticketed events.	Revenue from space hire or ticket sales

2.3 Facility Operations

The basis of the operations will affect potential revenue and operating costs. The following outlines operation details, which underpin the financial analysis.

Hours of Operation

Days/hours of operation would be geared to seasons. Full services would be available in peak periods, and reduced services in quiet periods (eg. self-guided tours only). However as a regional attraction it needs to be open all year round.

Table 2: Hours of Operation

Hours of Operation	Operating Hours
Season	
Peak Season (summer – December/January/February, Easter, School Holidays) <17 weeks>	<ul style="list-style-type: none">Day operations: 7 days per week; 10 am-4 pmEvening operations: 3 evenings (Friday, Saturday, Sunday); 6pm-9.30pmSpecial events : day and evening
Off Season (rest of year) <35 weeks>	<ul style="list-style-type: none">Day operations: 5 days per week; 10 am-4 pm (close Mondays & Tuesday)Evening operations: 1 evening (Saturday)

Fees and Charges

The following are indicative fees and charges for entry or other services. These are used in the financial modelling. It should be noted that we have not modelled function space or special events. This would need to be part of a full business case that examines the events and functions market and the likely use of the BAP for particular types of events.

Table 3: Fees & Charges

Operations	Revenue
Gallery Building	The facility will operate on an entry- fee basis to the gallery building. Example: Adults \$18 (concession/children \$10); Family \$40 (2 adults/2 children) Schools visits/excursions – special rate per student (eg. \$7)
External Walk/Platform	The external walk/platform could be free of charge or based on a combined fee (walk and gallery entry).
Guided Tours	Guided tours – with an Aboriginal guide - fee charged. Example: 8% visitors take tour \$40 per person (eg. 60 minute tour).
Self-guided tours	Charge for use of headsets (\$6) 35% visitors use
Retail space	Sale of aboriginal art works, books and quality souvenirs. 20% of visitors purchase & average spend \$20 per person.
Cafe	20-30 seats. Could be operated by BAP or leased out to external operator. Revenue assumption: 35% of persons visit café with average spend of \$15 per person. Modelling based on leasing to an operator.
Function space	Hired out for events, including small weddings. Catering by café or external caterers
Special events (BAP)	During peak seasons, festivals and some off peak periods – could be a mix of free events and some ticketed events.

2.4 Staffing – Bridge Arts Precinct

The following is an indicative staffing for the operation.

Table 4: BAP Operations Staffing

Position	Positions No. FTE	Salary	Salary Costs
BAP Operations Staff			
Director	1	\$190,000	\$190,000
Collections Curator/ Adviser	1	\$140,000	\$140,000
Visitor Experience Co-ordinator	1	\$90,000	\$90,000
Administration	0.5	\$65,000	\$32,500
Front desk/ticketing & retail sales (May be part time positions to cover week days & week ends)	2	\$55,000	\$110,000
Attendants (May be part-time positions – to cover week days & weekends)	2	\$50,000	\$100,000
Aboriginal tour guides (Paid positions – could comprise a number of guides working part-time)	2	\$60,000	\$120,000
Total	9.5		\$782,500
Volunteer Attendants/Guides (Scheduled for 3 hour shifts. Numbers designed to cover peak holiday periods, schools programs. Will be trained)			
Other			
Café Operations: 20-30 seats would require 5 persons to cover weekday and weekend operations (including some part-time/casuals). May be contracted out rather than BAP operated	5		
Building and site cleaning - contracted out			
Building maintenance – contracted out			
Bush maintenance – Council supervised? - with volunteers & schools			
Content development – digital, video, light show, website etc. contracted out.			

Source: MCA analysis, May 2019. Note: FTE = full time equivalent

2.5 Financial Analysis

For the financial analysis two cases are examined to illustrate the sensitivity to the number of visitors to the BAP. The visitor numbers are summarised in the following table. Case 1 has higher visitor numbers than Case 2.

Table 5: BAP Visitor Numbers (Annual)

Visitor Scenarios	Case 1	Case 2
High	72,400	62,100
Medium:	65,600	48,300
Low:	55,200	31,000

Source: MCA modelling & analysis, May 2019

2.5.1 Financial Analysis – Case 1

This section provides an analysis for Case 1 based on 3 visitor scenarios. Visitor numbers have been based on numbers during peak and off peak period. It should be noted that these are illustrative estimates and are not forecasts. A full business case would need to have a detailed analysis of the market and forecast visitor numbers.

Table 6: Case 1 - BAP Visitor Estimates (Annual)

Case 1 : Visitors	Visitors per week	Weeks	Total visitors	Individuals	Families
High				80%	20%
Peak Season	2200	17	37,400	29,920	7,480
Off Peak	1000	35	35,000	28,000	7,000
Total			72,400	57,920	14,480
Medium:					
Peak Season	1800	17	30,600	24,480	6,120
Off Peak	1000	35	35,000	28,000	7,000
Total			65,600	52,480	13,120
Low:					
Peak Season	1600	17	27,200	21,760	5,440
Off Peak	800	35	28,000	22,400	5,600
Total			55,200	44,160	11,040

Source: MCA modelling & analysis, May 2019

Revenue has been estimated based on the operations model and fees and charges assumptions outlined in table 3. Annual revenue from fees and charges (excluding café operations) range from \$1.419 million (low) to \$1.861 million (high). We have modelled the operation of an onsite café (see Appendix A), but are recommending that this be leased to an experienced operator. A rent figure has been included in the detailed financial modelling.

Table 7: Case 1 - Summary Revenue Estimates (Annual)

Case 1	Scenario		
Summary Operating Revenue	Low	Medium	High
Entrance Fees	\$905,280	\$1,075,840	\$1,187,360
Aboriginal Guided Tours	\$176,640	\$209,920	\$231,680
Self-Guided - Headsets	\$115,920	\$137,760	\$152,040
Gallery Store Sales	\$220,800	\$ 262,400	\$289,600
Total Revenue (entrance, tours, sales)	\$1,418,640	\$1,685,920	\$1,860,680
Café Operations			
Café	\$289,800	\$344,400	\$380,100
Total Revenue (with café)	\$1,708,440	\$2,030,320	\$2,240,780

Source: MCA modelling & analysis, May 2019

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The financial analysis is indicative and designed to show the sensitivity to visitor numbers using several scenarios. A full business case would provide a detailed 10 year analysis of visitor growth and operations.

The following table provides a detailed analysis of revenue and operating expenses for the BAP (Case 1) based on the operating model and assumptions in relation to visitor numbers and fees and charges. There is little variation in operating expense due to most costs being fixed rather than variable costs.²

Revenue comprises admission fees and charges and rent for the café (\$35,000 pa.).

The net operating result ranges from a surplus of \$105,347 (low visitor scenario) to \$513,574 (high scenario). The medium scenario (65,600 visitors) delivers an operating surplus of \$366,558.

Table 8: Case 1 - Operating Revenue and Expenses (Annual)

Scenario			
Case 1 : Financial Analysis	Low	Medium	High
<Based on Visitor numbers>	55,200	65,600	72,400
Revenue	incl GST	incl GST	incl GST
Entrance Fees	\$905,280	\$1,075,840	\$1,187,360
Aboriginal Guided Tours	\$176,640	\$209,920	\$231,680
Self-Guided - Headsets	\$115,920	\$137,760	\$152,040
Gallery Store Sales	\$220,800	\$262,400	\$289,600
Café Rent	\$35,000	\$35,000	\$35,000
Total Revenue	\$1,453,640	\$1,720,920	\$1,895,680
Expenses			
Staff - Wages & Salaries	\$782,500	\$782,500	\$782,500
On costs			
Workers Comp	\$8,608	\$8,608	\$8,608
Super Guarantee	\$74,338	\$74,338	\$74,338
Long Service provision	\$13,891	\$13,891	\$13,891
Leave loading	\$10,564	\$10,564	\$10,564
Total On costs	\$107,399	\$107,399	\$107,399
Staff Training	\$10,000	\$10,000	\$10,000
Staff/volunteer amenities	\$10,000	\$10,000	\$10,000
Total Employee Costs	\$899,899	\$899,899	\$899,899
Sales Related Expenses			
Cost of Goods Gallery Store	\$88,320	\$104,960	\$115,840
Bank charges & merchant fees	\$18,377	\$21,685	\$23,848
Total Sales Expenses	\$106,697	\$126,645	\$139,688
Marketing Expenses			
Marketing & Advertising	\$80,000	\$80,000	\$80,000
Digital content & Website	\$40,000	\$40,000	\$40,000
Total Marketing	\$120,000	\$120,000	\$120,000
Other Operating Costs			
Insurance & Public liability	\$20,000	\$20,000	\$20,000
Electricity & Lighting	\$20,000	\$20,000	\$20,000
Gas	\$1,200	\$1,200	\$1,200
Water	\$2,000	\$2,000	\$2,000
Cleaning - Building	\$6,000	\$6,000	\$6,000
Repairs & Maintenance (Building)- Contracted	\$12,000	\$12,000	\$12,000
Site maintenance (outdoor) - Contracted	\$36,000	\$36,000	\$36,000
Office Expense (incl stationery)	\$2,400	\$2,400	\$2,400
Security	\$10,000	\$10,000	\$10,000
Printing	\$10,000	\$10,000	\$10,000
Total Other Operating Costs	\$119,600	\$119,600	\$119,600
Accounts & Legal Expenses			
Accounting	\$2,000	\$2,000	\$2,000
Legal	\$1,200	\$1,200	\$1,200
Total Accounts & Legal	\$3,200	\$3,200	\$3,200
Miscellaneous Expenses	\$10,000	\$10,000	\$10,000
Total Operations Expenses	\$1,259,397	\$1,239,344	\$1,252,387
GST Payable			
GST payable on Sales	\$131,331	\$155,629	\$171,516
Less GST paid on expenses	\$43,354	\$41,531	\$42,717
GST Payable to ATO	\$87,977	\$114,098	\$128,799
Total Operations Expenses & GST Payable	\$1,347,373	\$1,353,442	\$1,381,186

2 This analysis does not include costs associated with an art collection or maintenance of capital assets.

Revision 1: May 10 2019

Net Operating Result	\$105,347	\$366,558	\$513,574
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Source: MCA modelling & analysis, May 2019

2.5.2 Financial Analysis - Case 2

This section provides an analysis for Case 2 based on 3 visitor scenarios. Visitor numbers have been based on numbers during peak and off peak period. Case 2 has lower numbers than Case 1.

It should be noted that these are illustrative estimates and are not forecasts. A full business case would need to include a detailed analysis of the market and forecast visitor numbers.

Table 9: Case 2 - BAP Visitor Estimates (Annual)

Case 2	Visitors per week	Weeks	Total visitors	Individuals	Families
High				80%	20%
Peak Season	1800	17	30,600	24,480	6,120
Off Peak	900	35	31,500	25,200	6,300
Total			62,100	49,680	12,420
Medium:					
Peak Season	1400	17	23,800	19,040	4,760
Off Peak	700	35	24,500	19,600	4,900
Total			48,300	38,640	9,660
Low:					
Peak Season	1000	17	17,000	13,600	3,400
Off Peak	400	35	14,000	11,200	2,800
Total			31,000	24,800	6,200

Source: MCA modelling & analysis, May 2019

Revenue has been estimated based on the operations model and fees and charges assumptions outlined in table 3. Annual revenue from fees and charges (excluding café operations) range from \$0.797 million (low) to \$1.369 million (high). We have modelled the operation of an onsite café (see Appendix A), but are recommending that this be leased to an experienced operator. A rent figure has been included in the detailed financial modelling.

Table 10: Case 2 - Summary Revenue Estimates (Annual)

Case 2			
Summary Operating Revenue	Low	Medium	High
Entrance Fees	\$508,400	\$792,120	\$792,120
Aboriginal Guided Tours	\$99,200	\$154,560	\$198,720
Self-Guided - Headsets	\$65,100	\$101,430	\$130,410
Gallery Store Sales	\$124,000	\$193,200	\$248,400
Total Revenue (entrance, tours, sales)	\$796,700	\$1,241,310	\$1,369,650
Café	\$162,750	\$253,575	\$326,025
Total (with café)	\$959,450	\$1,494,885	\$1,695,675

Source: MCA modelling & analysis, May 2019

The financial analysis is indicative and designed to show the sensitivity to visitor numbers using several scenarios. A full business case would provide a detailed 10 year analysis of visitor growth and operations.

The following table (provides a detailed analysis of revenue and operating expenses for the BAP (Case 2) based on the operating model and assumptions in relation to visitor numbers and fees and charges. There is little variation in operating expense due to most costs being fixed rather than variable costs.

Revenue comprises admission fees and charges and rent for the café (\$35,000 pa.).

The net operating result ranges from a deficit of **-\$417,856** (low visitor scenario) to a surplus of \$87,689 (high scenario). The medium scenario (48,300 visitors) delivers an operating deficit of **-\$7,467**.

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Table 11: Case 2 - Operating Revenue and Expenses (Annual)

Scenarios			
Case 2 : Financial Analysis	Low	Medium	High
<Based on Visitor numbers>	31,00	48,300	62,100
Revenue	incl GST	incl GST	incl GST
Entrance Fees	\$508,400	\$792,120	\$792,120
Aboriginal Guided Tours	\$99,200	\$154,560	\$198,720
Self-Guided - Headsets	\$65,100	\$101,430	\$130,410
Gallery Store Sales	\$124,000	\$193,200	\$248,400
Café Rent	\$35,000	\$35,000	\$35,000
Total	\$831,700	\$1,276,310	\$1,404,650
Expenses			
Staff - Wages & Salaries	\$782,500	\$782,500	\$782,500
On costs			
Workers Comp	\$8,608	\$8,608	\$8,608
Super Guarantee	\$74,338	\$74,338	\$74,338
Long Service provision	\$13,891	\$13,891	\$13,891
Leave loading	\$10,564	\$10,564	\$10,564
Total On costs	\$107,399	\$107,399	\$107,399
Staff Training	\$10,000	\$10,000	\$10,000
Staff/volunteer amenities	\$10,000	\$10,000	\$10,000
Total Employee Costs	\$899,899	\$899,899	\$899,899
Sales Related Expenses			
Cost of Goods Gallery Store	\$49,600	\$77,280	\$99,360
Bank charges & merchant fees	\$10,681	\$16,183	\$17,771
Total Sales Expenses	\$60,281	\$93,463	\$117,131
Marketing Expenses			
Marketing & Advertising	\$80,000	\$80,000	\$80,000
Digital content & Website	\$40,000	\$40,000	\$40,000
Total Marketing	\$120,000	\$120,000	\$120,000
Other Operating Costs			
Insurance & Public liability	\$20,000	\$20,000	\$20,000
Electricity & Lighting	\$20,000	\$20,000	\$20,000
Gas	\$1,200	\$1,200	\$1,200
Water	\$2,000	\$2,000	\$2,000
Cleaning - Building	\$6,000	\$6,000	\$6,000
Repairs & Maintenance (Building)- Contracted	\$12,000	\$12,000	\$12,000
Site maintenance (outdoor) - Contracted	\$36,000	\$36,000	\$36,000
Office Expense (incl stationery)	\$2,400	\$2,400	\$2,400
Security	\$10,000	\$10,000	\$10,000
Printing	\$10,000	\$10,000	\$10,000
Total Other Operating Costs	\$119,600	\$119,600	\$119,600
Accounts & Legal Expenses			
Accounting	\$2,000	\$2,000	\$2,000
Legal	\$1,200	\$1,200	\$1,200
Total Accounts & Legal	\$3,200	\$3,200	\$3,200
Miscellaneous Expenses	\$10,000	\$10,000	\$10,000
Total Operations Expenses	\$1,212,980	\$1,206,162	\$1,229,830
GST Payable			
GST payable on Sales	\$74,791	\$115,210	\$126,877
Less GST paid on expenses	\$39,135	\$38,515	\$40,666
GST Payable to ATO	\$35,656	\$76,695	\$86,211
Total Operations Expenses & GST Payable	\$1,248,637	\$1,282,857	\$1,316,041
Net Operating Result	-\$417,856	-\$7,467	\$87,689

Source: MCA modelling & analysis, May 2019

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2.5.3 Comparison of Results

The sensitivity of financial results is illustrated by a comparison of the cases and the scenarios. Break- even for the operating results (based on the modelling) requires around 50,000 annual paying visitors to the BAP.

It needs to be noted that these results are indicative only and are based on the operational model outlined in this report, and the assumptions in relation to revenue sources, fees and charges and the operating expenses. It does not take account of costs of acquisition and maintenance of an art collection or costs associated with any special exhibits, any other capital costs and asset maintenance costs.

A full business case would include financials for a 10 year period of operations (showing forecast growth in visitor numbers as BAP is established and modelling local event use) and expenses modelled on a monthly basis to take account of seasonality.

It is recommended that a full business case be prepared as a next stage of developing the BAP concept. This business case would be required for any capital funding applications and to ensuring that operations would be sustainable.

Table 12: Comparison of Cases – Summary of Results

Comparison	Visitor Scenarios		
Annual	Low	Medium	High
Case 1			
Visitor Numbers	55,200	65,600	72,400
Total Revenue	\$1,453,640	\$1,720,920	\$1,895,680
Total Expenses	\$1,347,373	\$1,353,442	\$1,381,186
Net Operating Result	\$105,347	\$366,558	\$513,574
Case 2			
Visitor Numbers	31,000	48,300	62,100
Total Revenue	\$831,700	\$1,276,310	\$1,404,650
Total Expenses	\$1,248,637	\$1,282,857	\$1,316,041
Net Operating Result	-\$417,856	-\$7,467	\$87,689

Source: MCA modelling & analysis, May 2019

3. Economic Impact Assessment - BAP & Meninya Street Redevelopment

This section provides an economic impact assessment of the Bridge Arts Precinct and the redevelopment of Meninya Street. It examines two phases for each – the Construction Phase and the Operations Phase, when the BAP and street redevelopment are completed.

3.1 Construction Phase - Impacts

3.1.1 Bridge Art Precinct

The total cost of the BAP is estimated at \$25,700,000. For estimating the economic impacts the estimated cost of construction was used (\$15,990,000), which represents cost of on-site labour, materials and equipment and builders margins.

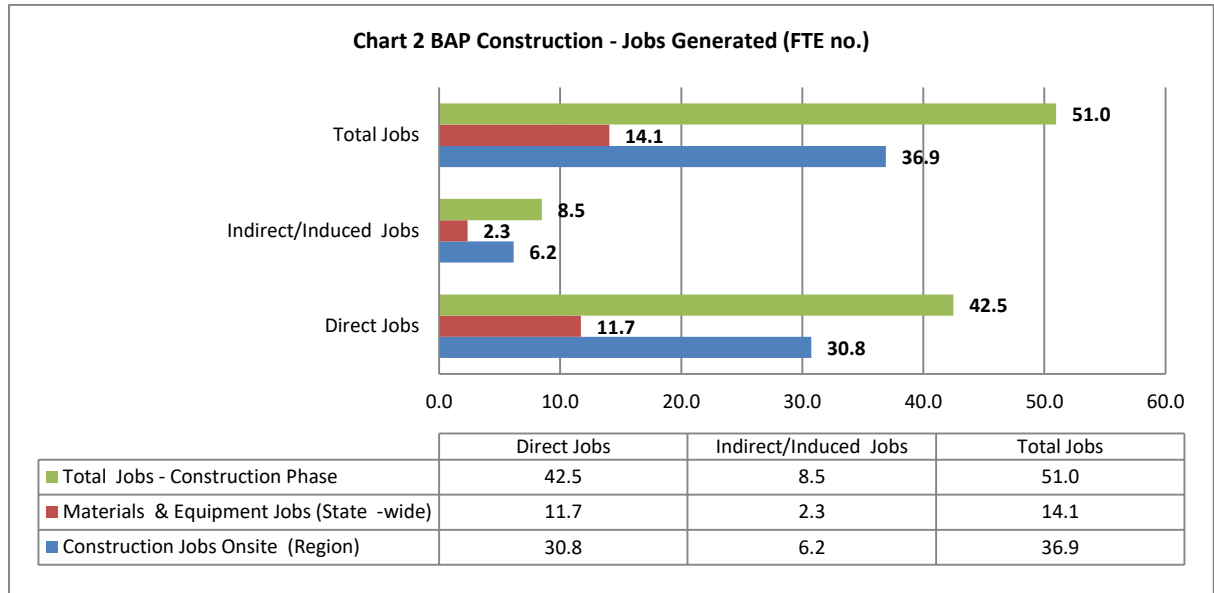
Table 13: BAP Development – Estimated Costs

BAP Development	Cost \$
Total Cost	\$25,700,000
Comprising	
Construction & Site Works	\$15,990,000
Art Acquisition	\$2,000,000
Professional fees (15%)	\$3,855,000
Contingencies – Design & Construction (15%)	\$3,855,000

Source: Masterplan Estimate: Moama BAP & Meninya Street, May 6 2019, Revision No.1, Harlock Consulting.

For the BAP development a total of 51 jobs (FTE -36.9 direct and 14.1 indirect/induced) would be generated during the construction period. These jobs comprise: 30.8 direct jobs in on-site construction; 11.7 direct jobs in materials and equipment supply; and a total of 8.5 indirect/induced jobs.

The onsite jobs are likely to involve builders and tradespersons from the region, while the materials and equipment jobs would be state-wide (New South Wales and Victoria).



Source: MCA Modelling & Analysis, May 2019

3.1.2 Meninya Street Redevelopment

The total cost of Meninya Street Redevelopment is estimated at \$16,650,000. For estimating the regional economic impacts the estimated cost of construction was used (\$11,655,000), which represents cost of on-site labour, materials and equipment and builders margins.

The impact analysis covers the construction of all sections of the street.

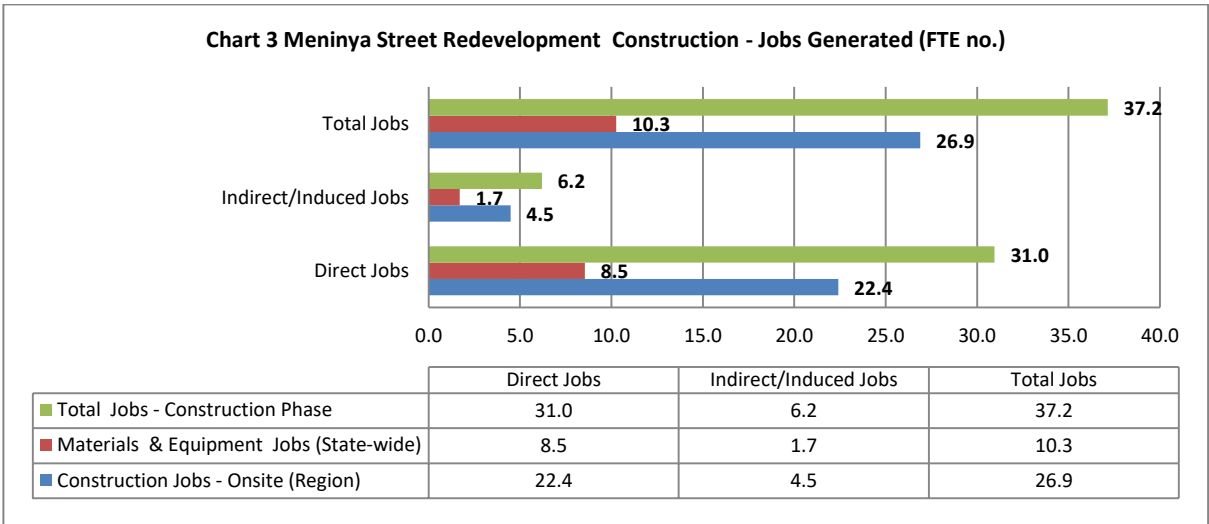
Table 14: Meninya Street Redevelopment – Estimated Costs

Meninya Street	Meninya North	Meninya Central	Meninya South A	Meninya South B	Total Meninya Street
Total Cost	\$750,000	\$9,750,000	\$1,350,000	\$4,800,000	\$16,650,000
Comprising					
Construction & Site Works	\$525,000	\$6,825,000	\$945,000	\$3,360,000	\$11,655,000
Professional fees (15%)	\$112,500	\$1,462,500	\$202,500	\$720,000	\$2,497,500
Contingencies – Design & Construction (15%)	\$112,500	\$1,462,500	\$202,500	\$720,000	\$2,497,500

Source: Masterplan Estimate: Moama BAP & Meninya Street, May 6 2019, Revision No.1, Harlock Consulting.

For the full Meninya Street Redevelopment a total of 37.2 jobs (FTE- 26.9 direct and 10.3 indirect/induced) would be generated during the construction period. These jobs comprise: 22.4 direct jobs in on-site construction; 8.5 direct jobs in materials and equipment supply; and a total of 6.2 indirect/induced jobs.

The onsite jobs are likely to involve builders and tradespersons from the region, while the materials and equipment jobs would be state-wide (New South Wales and Victoria).



Source: MCA Modelling & Analysis, May 2019

3.2 Operations Phase - Impacts

This section provides an economic impact assessment of the Bridge Arts Precinct and the redevelopment of Meninya Street for the operations phase, following the completion of construction. The analysis is undertaken for the Case 1 visitor scenarios.

3.2.1 Bridge Arts Precinct – Economic Impact of Operations

Modelling Assumptions

The economic impact assessment of the facility is based on an analysis of the Case 1 visitor numbers for the low, medium and high visitor scenarios. The following are the modelling assumptions used.

Table 15: Modelling Assumptions – Economic Impact Analysis (Case 1)

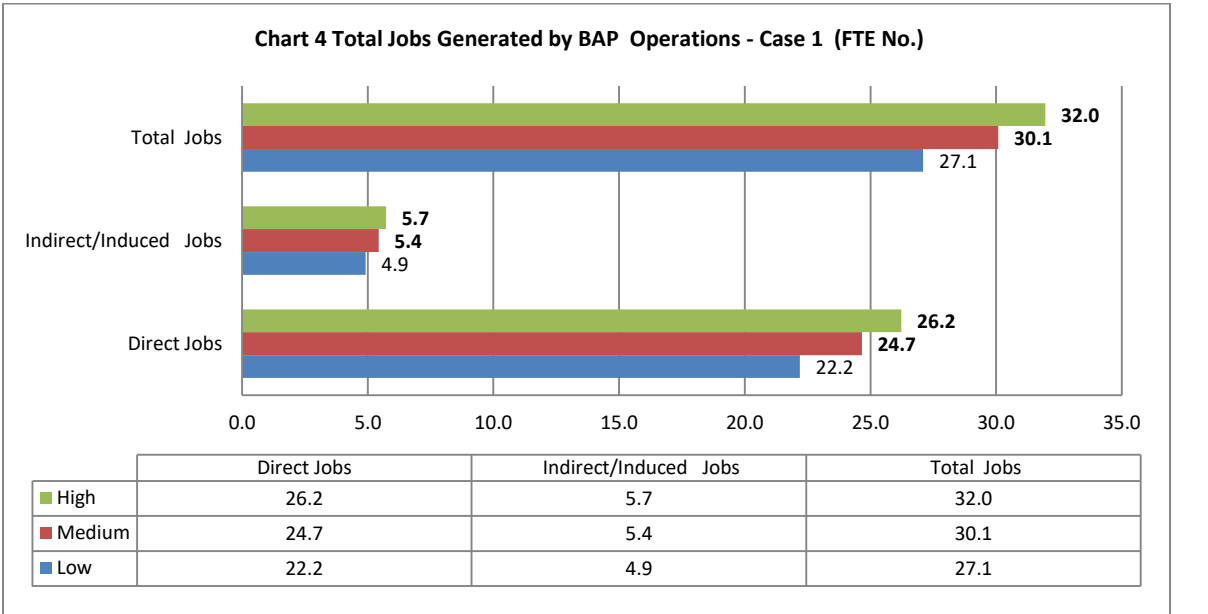
Case 1 : Modelling Assumptions	Scenarios		
BAP Visitors (Annual)	Low	Medium	High
No of Visitors	55,200	65,600	72,400
Overnight Visitors			
Overnight visitors - 30% are new visitors & extend stay by one night	16,560	19,680	21,720
Number of nights (1 night stay)	16,560	19,680	21,720
Spending by Overnight Visitors (in commercial accommodation - av. \$147 per night p/p)	\$2,434,320	\$2,892,960	\$3,192,840
Day Visitors			
Other Visitors spend in Moama (30% of BAP visitors)	16,560	19,680	21,720
Spending in Moama - other visitors to BAP - Day Visitors (ave. = \$30 p/p)	\$496,800	\$590,400	\$651,600
Spending in Moama			
Total Spending by BAP Visitors in Moama	\$2,931,120	\$3,483,360	\$3,844,440
Spending at the BAP (BAP Revenue & Café Revenue)	\$1,708,440	\$2,030,320	\$2,240,780
Total Visitor Spend BAP & Moama Spend	\$4,639,560	\$5,513,680	\$6,085,220

Source: MCA modelling & analysis, May 2019. Overnight visitor spending is TRA 2017 data for Murray River LGA.

Employment Impacts

The following charts and tables show the jobs generated in Moama by the operations of the Bridge Arts Precinct for each of the visitor scenarios in Case 1.

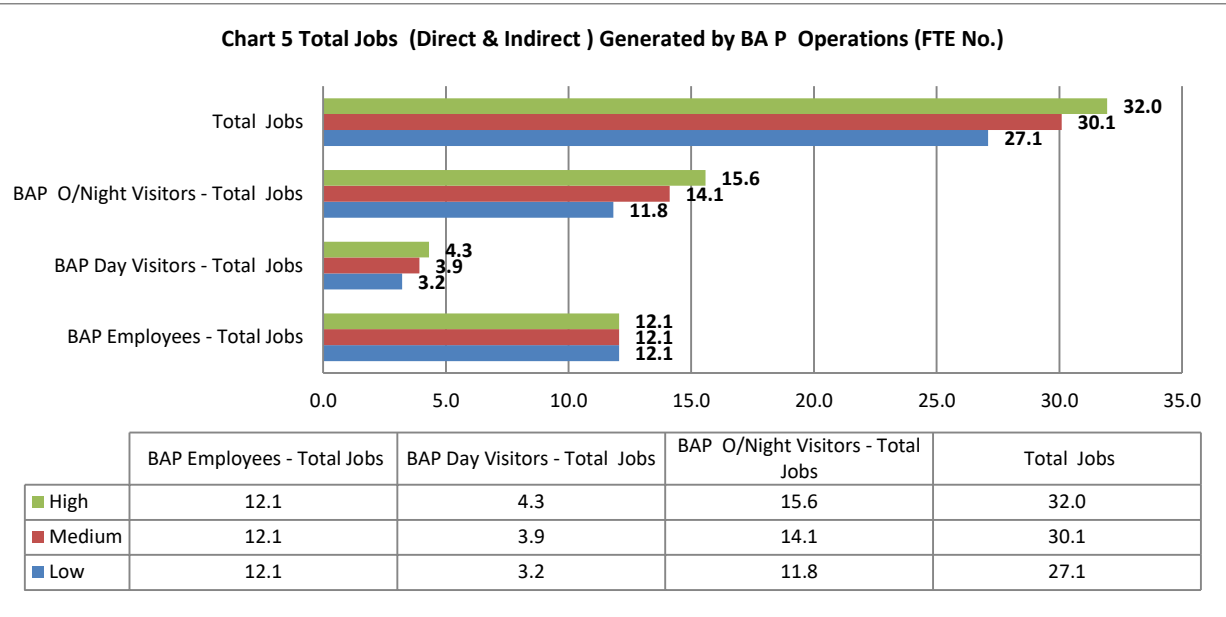
For the medium scenario, the operations of the Bridge Arts Precinct would generate a total of 30.1 FTE jobs (24.7 direct jobs and 5.4 indirect/induced jobs).



Source: MCA modelling & analysis, May 2019. Note may some slight differences due to rounding.

The chart and table below show the composition of the jobs generated in Moama and the region. For the medium visitor scenario:

- The BAP will generate 12.1 FTE jobs (9.5 onsite employees and 2.6 indirect/induced jobs generated by these employees' spending in the region).
- Spending by overnight visitors in Moama generates a total of 14.1 FTE jobs (11.8 direct jobs in the businesses they spend in, and 2.3 indirect/induced jobs).
- Spending by day visitors in Moama generates a total of 3.9 FTE jobs (3.4 direct jobs in the businesses they spend in, and 0.5 indirect/induced jobs).



Source: MCA modelling & analysis, May 2019. Note may some slight differences due to rounding.

Table 16: Jobs Generated in Moama by BAP Operations (Case 1) – (FTE no.)

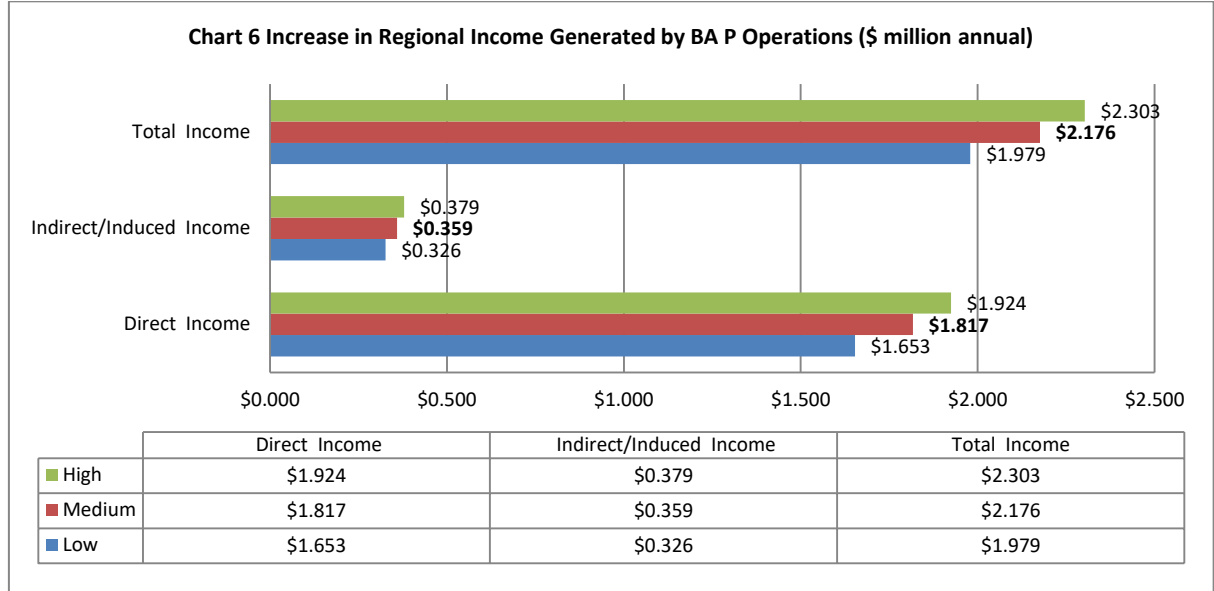
Case 1 – Visitor Scenarios	Visitor Scenarios		
BAP Impacts – Jobs (FTE)	Low	Medium	High
BAP Operations (Jobs Generated)			
BAP Facility Employees - Direct Jobs	9.5	9.5	9.5
BAP Facility Employees - Indirect/Induced Jobs	2.6	2.6	2.6
BAP Employees - Total Jobs	12.1	12.1	12.1
BAP Day Visitors (Jobs Generated)			
BAP Day Visitors - Direct Jobs	2.8	3.4	3.7
BAP Day Visitors - Indirect/Induced Jobs	0.4	0.5	0.6
BAP Day Visitors - Total Jobs	3.2	3.9	4.3
BAP Overnight Visitors (Jobs Generated)			
BAP O/Night Visitors - Direct Jobs	9.9	11.8	13.0
BAP O/Night Visitors - Indirect/Induced Jobs	1.9	2.3	2.6
BAP O/Night Visitors - Total Jobs	11.8	14.1	15.6
Total BAP Operations & Visitors			
Direct Jobs	22.2	24.7	26.2
Indirect/Induced Jobs	4.9	5.4	5.7
Total Jobs	27.1	30.1	32.0

Source: MCA modelling & analysis, May 2019. Note may some slight differences due to rounding.

Regional Income

The following chart shows the increase in regional income generated by the BAP.³

- For the medium scenario, total regional income (annual) would increase by \$2.176 million - \$1.817 million direct and \$0.0.359 million indirect/induced.
- For the high scenario, total regional income (annual) would increase by \$2.303 million - \$1.924 million direct and \$0.0.379 million indirect/induced.



Source: MCa modelling & analysis, May 2019. Note may some slight differences due to rounding.

Table 17: Regional Income Generated in Moama by BAP Operations (Case 1) – (Annual \$)

Case 1 : BAP Impacts – Regional Income (Annual)	Visitor Scenarios		
	Low	Medium	High
BAP Operations(Regional Income)			
BAP Facility Employees - Direct Income	\$782,500	\$782,500	\$782,500
BAP Facility Employees - Indirect/Induced Income	\$161,739	\$161,739	\$161,739
BAP Employees - Total Income	\$944,239	\$944,239	\$944,239
BAP Day Visitors (Regional Income)			
BAP Day Visitors - Direct Income	\$147,550	\$175,349	\$193,525
BAP Day Visitors - Indirect/Induced Income	\$27,693	\$34,043	\$37,121
BAP Day Visitors - Total Income	\$175,242	\$209,392	\$230,646
BAP Day Visitors (Regional Income)			
BAP O/Night Visitors - Direct Income	\$722,993	\$859,209	\$948,273
BAP O/Night Visitors - Indirect/Induced Income	\$136,737	\$163,076	\$179,980
BAP O/Night Visitors - Total Income	\$859,730	\$1,022,285	\$1,128,254
Total BAP Operations & Visitors			
Direct Income	\$1,653,043	\$1,817,058	\$1,924,299
Indirect/Induced Income	\$326,169	\$358,859	\$378,840
BAP Operations & Visitors Total Income	\$1,979,212	\$2,175,917	\$2,303,139

Source: MCa modelling & analysis, May 2019. Note may some slight differences due to rounding.

³ Regional income is the total net income generated from the activity and covers wages and salaries of employees and profits of businesses within the region. It includes income generated directly within the business and indirect income, which is generated in other regional businesses (wages and profits) from the multiplier impacts of employee spending on the region. It is a proxy for the local value added in the region, as significant parts of visitor spending, include the value of inputs (goods and services), which are produced outside the region. In the modelling of regional income generated, income tax and GST on spending, are both treated as leakages from the region (although some may eventually come back in government spending in the region).

3.2.2 Meninya Street Redevelopment – Economic Impact of Operations

Visitors to Street

A redeveloped street will be an attractive place to stop for visitors to Moama and Echuca. Businesses on the Meninya Street will experience a substantial increase in sales revenue from these visitors.

The improvements in the public realm will increase property values and are likely to trigger upgrades in current businesses and would see new businesses being established to capture this larger visitor market.

The assessment Meninya Street Redevelopment has been as modelled based on assumptions in relation to additional visitors attracted to and stopping in the street.⁴ Three scenarios have been modelled – low, medium and high. These assume an increase in average visitors per day over 300 days, with each spending an average of \$18 per person, and this generates estimates of annual spending for each scenario. A full economic impact assessment would do more detailed modelling of weekly visitors to take account of seasonality and would include persons attending special events and other activities during the year.

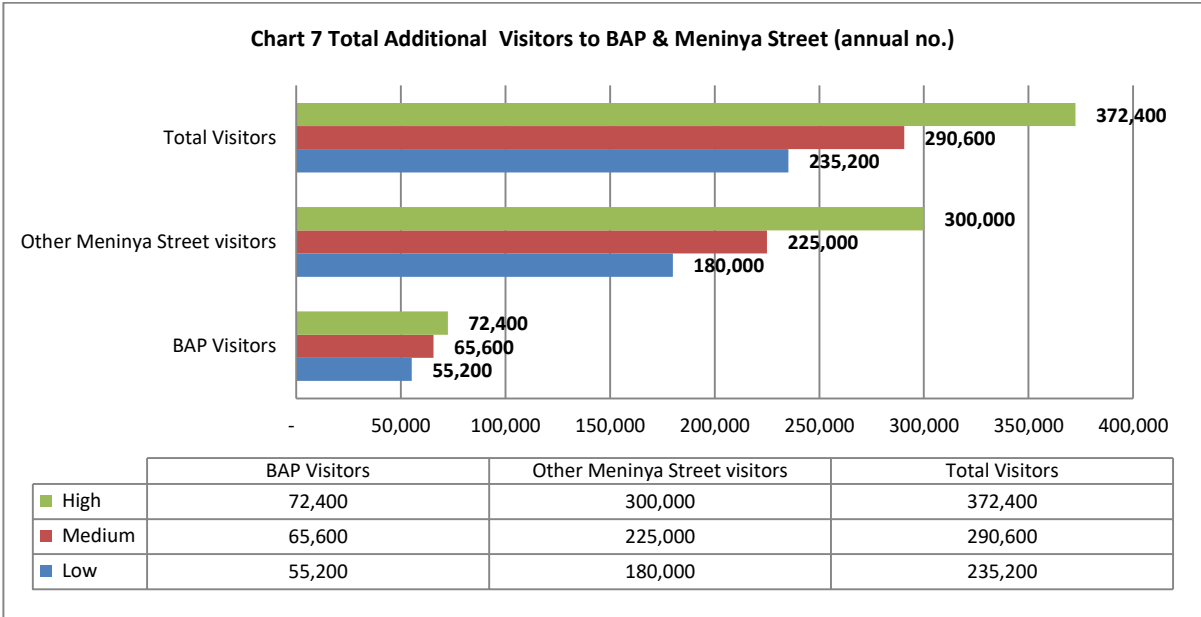
Table 18: Meninya Street Redevelopment – Assumptions - Additional Tourist Visitors to Street (Annual)

Scenario	Increase Tourist Visitors to Street Additional <Average per day>	Total Annual (x 300 days) Tourist Visitors	Ave \$ spend per person	Total Increased Annual Spending \$
Low	600	180,000	\$18	\$3,240,000
Medium	750	225,000	\$18	\$4,050,000
High	1000	300,000	\$18	\$5,400,000

Source: MCa modelling & analysis, May 2019.

For the medium scenario, the street redevelopment would attract another 225,000 visitors annually for a total of 290,600, when 65,600 BAP visitors are included.

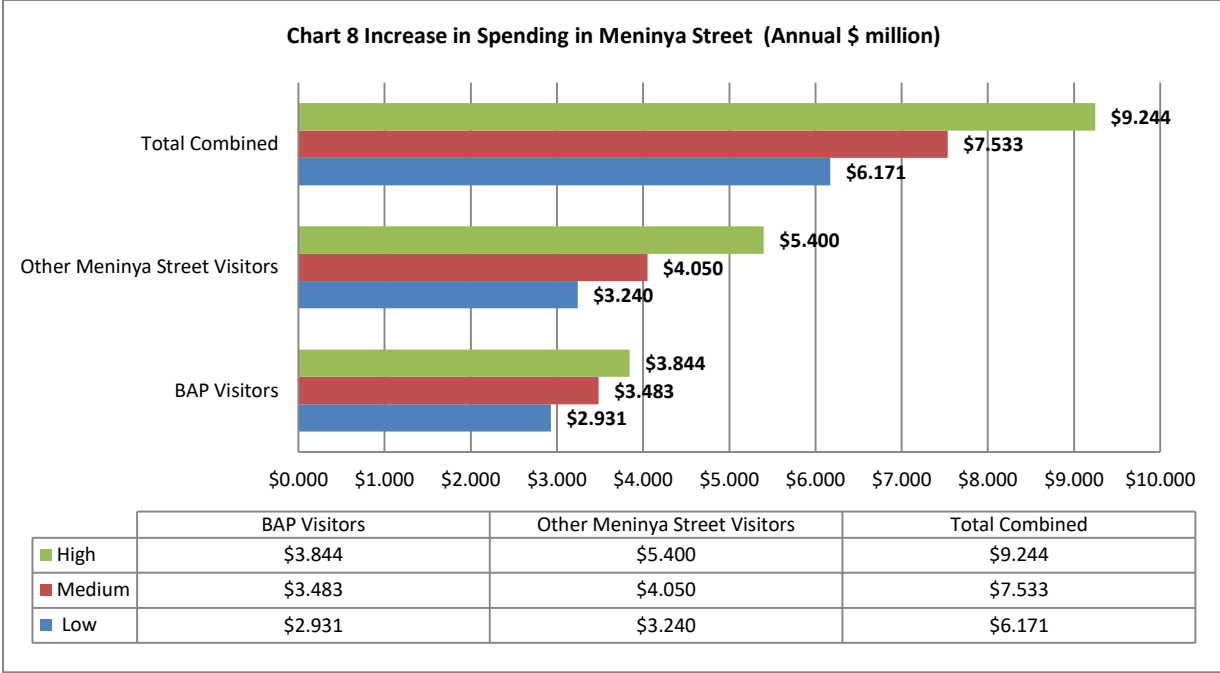
With the medium scenario the 225,000 visitors to the street would increase annual spending in Meninya Street businesses by \$4.050 million. When the BAP visitors spending on the street (\$3.483 million) is included this takes the total annual spending to \$7.553 million for the medium scenario and \$9.244 million for the high scenario.⁵



Source: MCa modelling & analysis, May 2019.

⁴ These are additional to visitors to the Bridge Arts Precinct.

⁵ There is additional spending by visitors to the BAP and is captured in revenues of the operation. This annual spending totals: low scenario \$1.708 million; medium scenario \$2.030 million; and high scenario \$2.240 million.

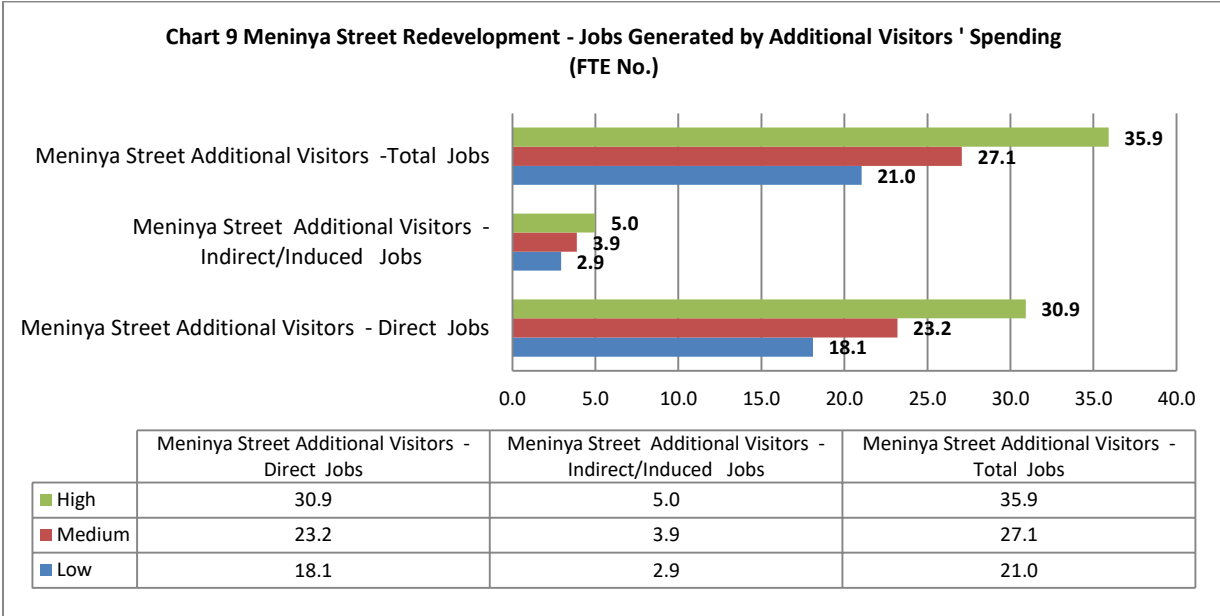


Source: MCa modelling & analysis, May 2019.

Employment Impacts

The following charts and tables show the jobs generated in Moama by the improvements to Meninya Street for each of the visitor scenarios for Case 1.

- For the medium scenario, the operations of the redeveloped street would generate a total of 27.1 FTE jobs (23.2 direct jobs and 3.9 indirect/induced jobs).
- For the high scenario, the operations of operations of the redeveloped street would generate a total of 35.9 FTE jobs (30.9 direct jobs and 5.0 indirect/induced jobs).

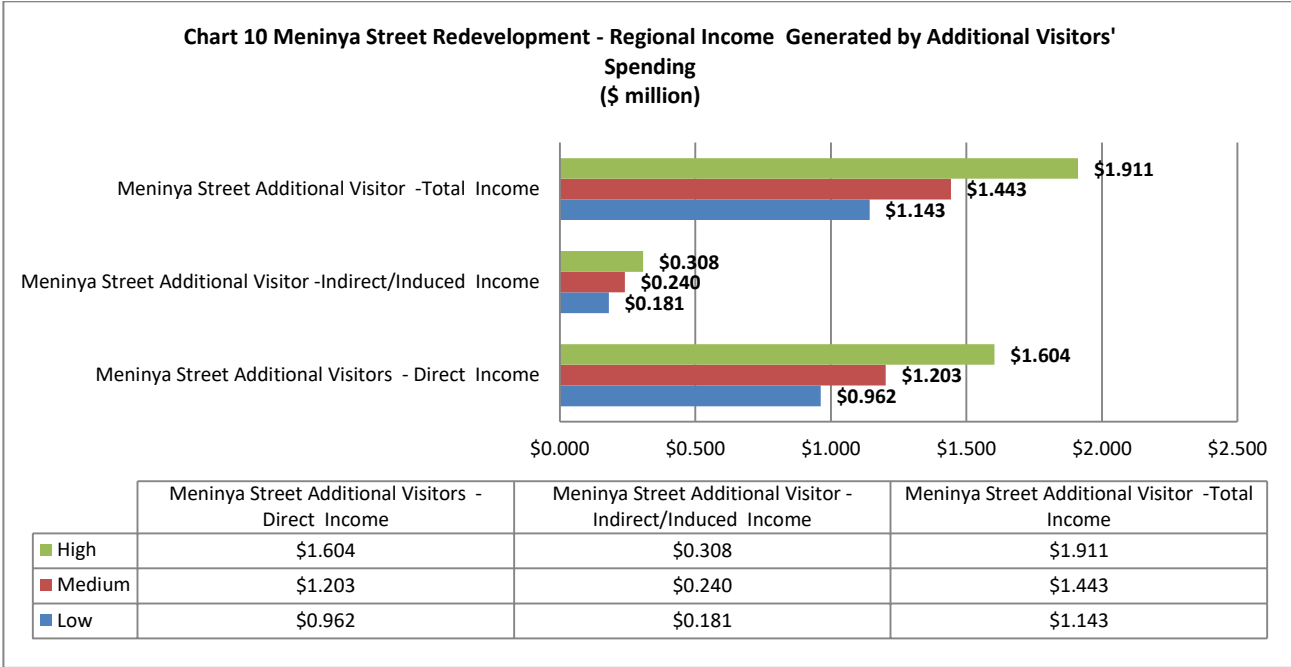


Source: MCa modelling & analysis, May 2019.

Regional Income

The following chart shows the increase in regional income generated by the Meninya Street Redevelopment.

- For the medium scenario, total regional income (annual) would increase by \$1.443 million - \$1.203 million direct and \$0.204 million indirect/induced.
- For the high scenario, total regional income (annual) would increase by \$1.911 million - \$1.604 million direct and \$0.308 million indirect/induced.



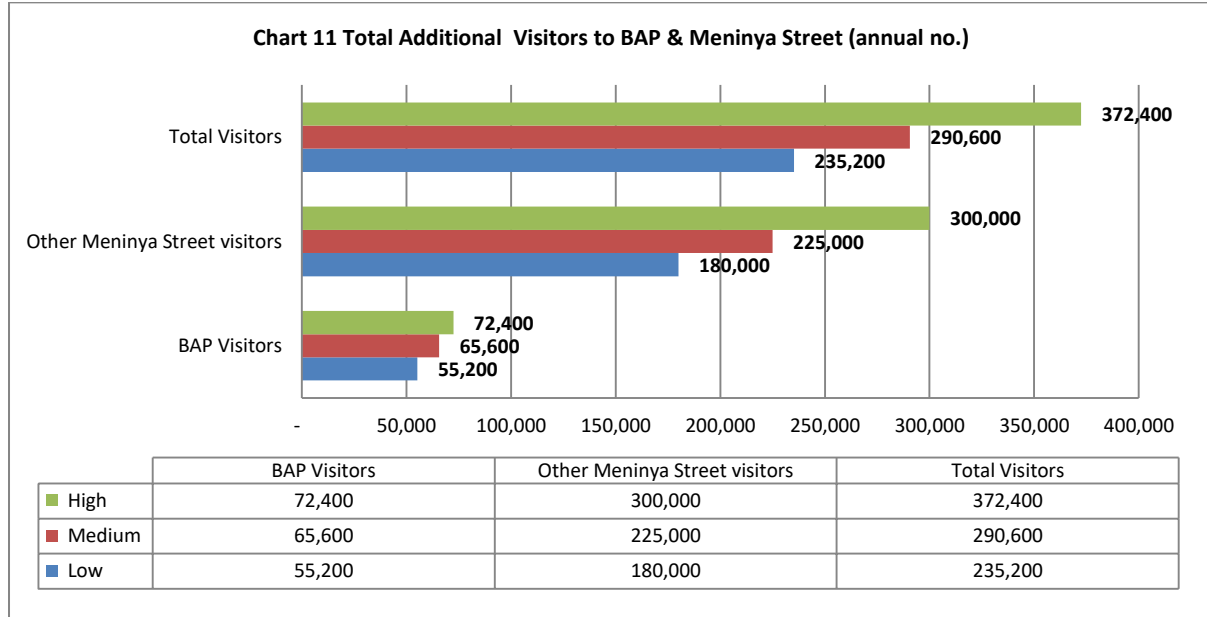
Source: MCa modelling & analysis, May 2019.

3.3.3 Combination - BAP & Meninya Street Economic Impact

This section shows the combined economic impacts for the operations of the BAP (Case 1) and the improvements in Meninya Street.

Total Visitors

For the medium scenario, the combination would attract 290,600 additional visitors annually (225,000 street visitors and 65,600 BAP visitors). For the high scenario, the combination would attract another 372,400 visitors annually (300,000 street visitors and 72,400 BAP visitors).



Source: MCA modelling & analysis, May 2019.

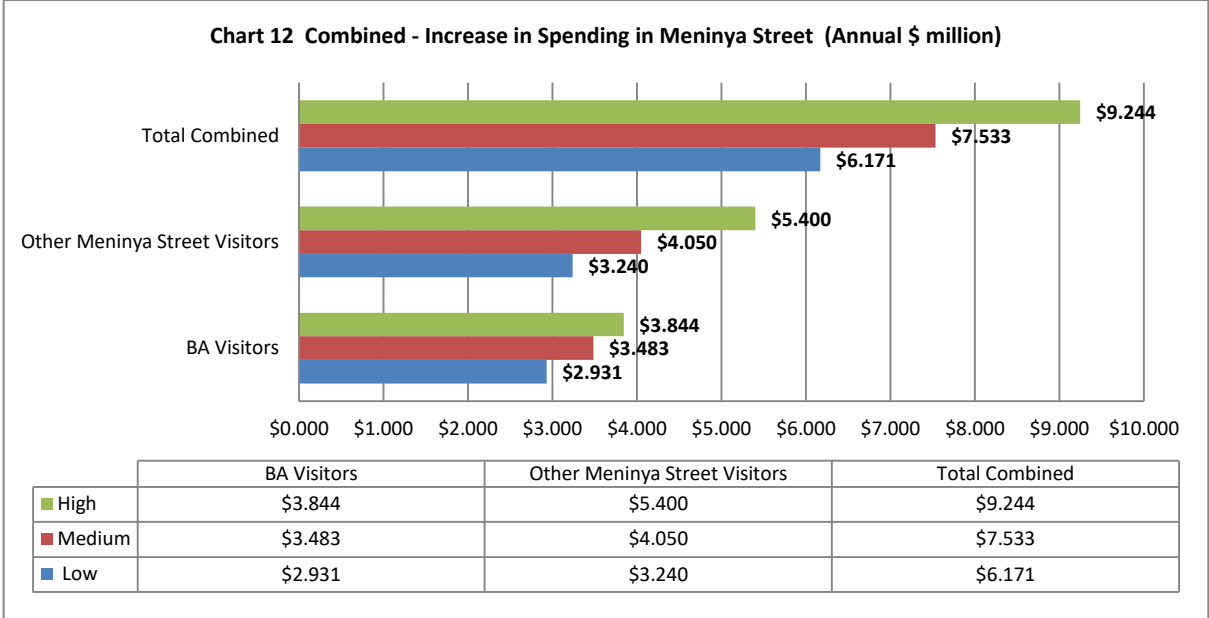
Visitor Spending

For the medium scenario, the combined 290,600 visitors to the street would increase annual spending in Meninya Street businesses by \$7.553 million.

For the high scenario, the combined 372,400 visitors and their spending would increase annual spending in Meninya Street businesses by \$9.254 million.⁶

There is additional spending by visitors to the BAP and this is captured in revenues of the operation. This annual spending totals: low scenario \$1.708 million; medium scenario \$2.030 million; and high scenario \$2.240 million.

⁶ There is additional spending by visitors to the BAP and is captured in revenues of the operation. This annual spending totals: low scenario \$1.708 million; medium scenario \$2.030 million; and high scenario \$2.240 million.

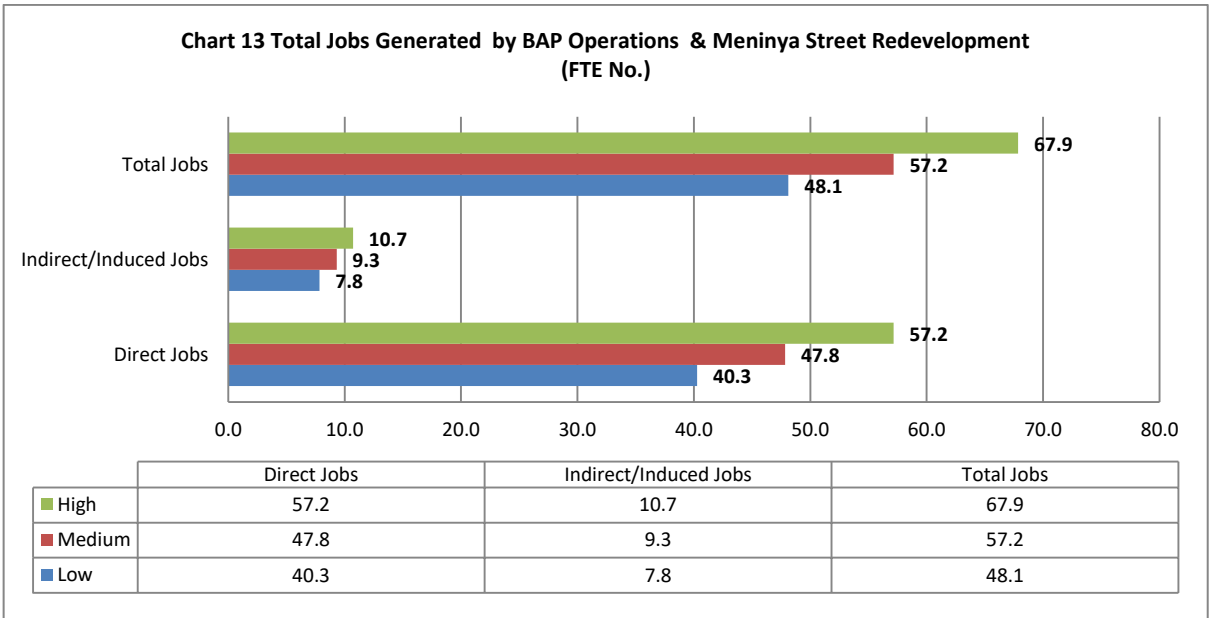


Source: MCA modelling & analysis, May 2019.

Employment Impacts

The following chart shows the total jobs generated in Moama by the operations of the BAP and improvements to Meninya Street for each of the visitor scenarios for Case 1.

- For the medium scenario, the combined employment impacts are a total of 57.2 FTE jobs (47.8 direct jobs and 9.3 indirect/induced jobs).
- For the high scenario, the combined employment impacts are a total a total of 67.9 FTE jobs (57.2 direct jobs and 10.7 indirect/induced jobs).



Source: MCA modelling & analysis, May 2019. Note may be some slight differences due to rounding

Table 19: Combined Economic Impacts Jobs Generated (FTE no.)

BAP & Meninya Street Development Jobs Generated (FTE)	Scenarios		
	Low	Medium	High
BAP Operations			
Direct Jobs	22.2	24.7	26.2
Indirect/Induced Jobs	4.9	5.4	5.7
Total Jobs	27.1	30.1	32.0
Meninya Street Redevelopment			
Direct Jobs	18.1	23.2	30.9
Indirect/Induced Jobs	2.9	3.9	5.0
Total Jobs	21.0	27.1	35.9
Total BAP & Meninya Street Redevelopment			
Direct Jobs	40.3	47.8	57.2
Indirect/Induced Jobs	7.8	9.3	10.7
Total Jobs	48.1	57.2	67.9

Source: MCA modelling & analysis, May 2019. Note may be some slight differences due to rounding

The following table shows the total jobs generated by industry sector. Most of the direct jobs generated by the increased number of tourist visitors to the BAP and Meninya Street will be in businesses on the street in food and beverage, other retail, recreation services and other services.

- For the medium scenario of the total 57.2 jobs: 21.5 jobs would be in food and beverage, 9.5 BAP staff, 6.2 other retail and 5.4 recreation services.
- For the high scenario of the total 68.0 jobs: 27.1 jobs would be in food and beverage, 9.5 BAP staff, 7.6 other retail and 6.4 recreation services.

The overall boost to visitors and spending will lead to new cafes and restaurants opening up to take advantage of the improved public domain.

Table 20: Combined Economic Impacts Total Jobs Generated by Industry Sector (FTE no.)

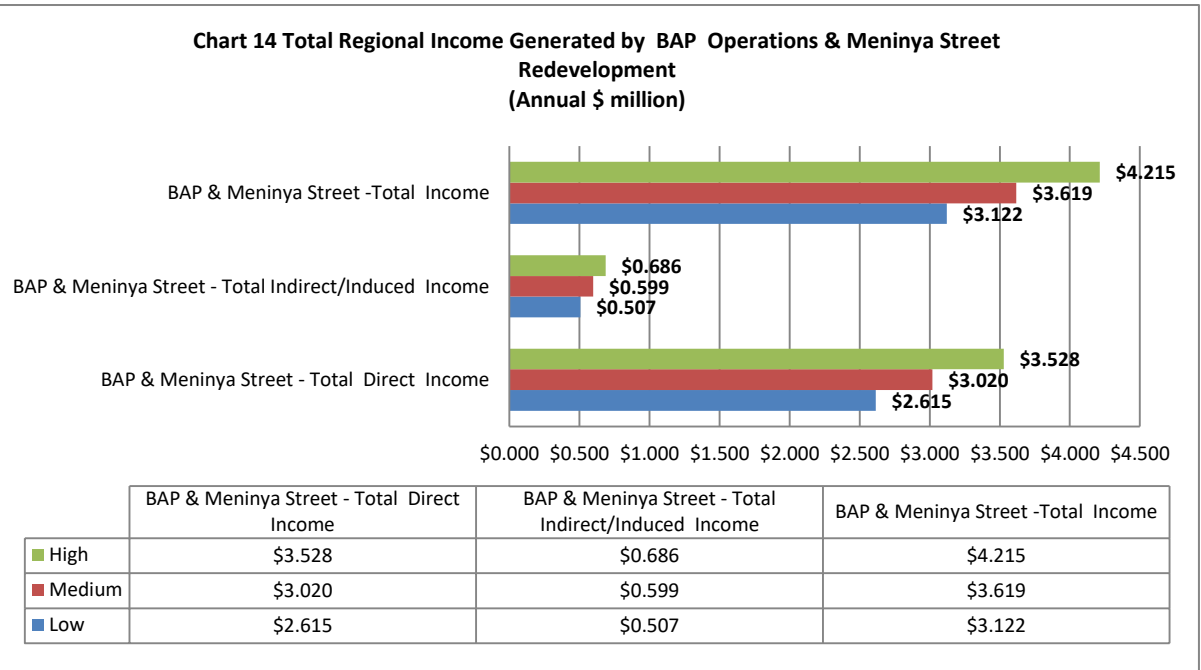
Total Jobs Generated (FTE)	BAP			Meninya Street			Combined		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
BAP On Site	9.5	9.5	9.5	0.0	0.0	0.0	9.5	9.5	9.5
Food & Beverage	5.4	6.4	6.9	11.8	15.2	20.2	17.2	21.5	27.1
Accommodation	3.7	4.4	4.8	0.0	0.0	0.0	3.7	4.4	4.8
Recreation Services	2.6	3.1	3.3	1.8	2.4	3.1	4.5	5.4	6.4
Other Retail	2.7	3.2	3.5	2.4	3.1	4.1	5.1	6.2	7.6
Housing Services	0.5	0.5	0.5	0.2	0.2	0.3	0.6	0.7	0.8
Health	0.5	0.6	0.6	0.3	0.5	0.6	0.9	1.0	1.2
Transportation	0.6	0.7	0.8	1.1	1.4	1.8	1.7	2.1	2.6
Communication	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2
Education	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.5	0.6
Other Services	1.4	1.7	1.8	3.1	4.0	5.4	4.6	5.7	7.2
Total	27.3	30.2	32.1	21.0	27.0	35.8	48.2	57.2	68.0

Source: MCA modelling & analysis, May 2019. Note may be some slight differences due to rounding

Regional Income

The following chart shows the increase in regional income generated by the BAP and street redevelopment.

- For the medium scenario, total regional income (annual) would increase by \$3.619 million - \$3.020 million direct and \$0.599 million indirect/induced.
- For the high scenario, total regional income (annual) would increase by \$4.215 million - \$3.528 million direct and \$0.686 million indirect/induced.



Source: MCA modelling & analysis, May 2019. Note may be some slight differences due to rounding

4. Key Issues & Recommendations

This report provides: a high level business analysis of the operations of the proposed Bridge Arts Precinct (BAP); and economic impact assessments of the BAP and the Meninya Street redevelopment. These are designed to be indicative of the financial requirements for BAP operations and the potential impacts on Moama of increased visitor numbers to Meninya Street under alternative scenarios.

This report is designed to start the detailed thinking on operational and financial issues in relation to the Bridge Arts Precinct.

It should be noted that a full business case analysis (which is beyond the scope of this brief) would model BAP operations over a 10 year period showing annual growth in visitors as the facility is opened and the market is developed. It would also model in detail, events and activities that may utilise the BAP during festivals or other local celebrations. This would be required for seeking external funding.

Financial Analysis

The financial modelling provides estimates of revenue based on visitor scenarios, outlines indicative operating costs for a facility of this type and shows the net operating result. (including break even requirements). It should be noted that the indicative financials do not include costs of acquisition of an art collection or related costs associated with maintaining a collection or capital related costs. For the financial analysis two cases are examined to illustrate the sensitivity to the number of visitors to the BAP. The sensitivity of financial results is illustrated by a comparison of the cases and the scenarios. The financial results vary considerable depending on the number of visitors. Break- even on operating costs (based on the modelling) requires around 50,000 annual paying visitors the BAP.

Economic Impacts

The modelled economic impacts of the BAP and Meninya Street Redevelopment are substantial in both the construction phase and operations phase.

A redeveloped street combined with the BAP will be an attractive place to stop and a major attraction for visitors to Moama and Echuca. Businesses on the Meninya Street will experience a substantial increase in sales revenue from these visitors. The improvements in the public realm will increase property values and are likely to trigger improvements in current businesses and would see new businesses being established to capture this larger visitor market

Combined employment impacts are significant. For the medium scenario, the combined employment impacts total 57.2 FTE jobs (47.8 direct jobs and 9.3 indirect/induced jobs). For the high scenario, the combined employment impacts total 67.9 FTE jobs (57.2 direct jobs and 10.7 indirect/induced jobs). Most of the direct jobs generated by the increased number of tourist visitors to the BAP and Meninya Street will be in businesses on the street in food and beverage, other retail, recreation services and other services.

Recommendations

Further analysis is required to advance the BAP beyond the concept stage. This will be important in seeking funding from external sources (including private philanthropic and government agencies). For this there would be a need to be a full business case showing operations over a 10 year period.

Typically funding bodies will finance capital works or may fund special programs, but will not provide recurrent funding for operational losses. A detailed 10 year economic impact assessment is also required for most funding applications for government infrastructure funding.

A full business case analysis would model BAP operations over a 10 year period, showing annual growth in visitors as the facility is opened and the market is developed. It would also model in detail the visitor market and events and activities that may utilise the BAP during festivals or other local celebrations.

Recommendation 1: It is recommended that a full business case be prepared as a next stage of developing the BAP concept.

This business case would be based on detailed market analysis and financial analysis (including a full analysis of all operating costs – including art acquisition and collection maintenance) all capital costs for a 10 year period of operations (showing start-up and growth over the period). This would be required to ensure that operations would be sustainable and for any capital funding applications.

Recommendation 2: It is recommended that a detailed economic impact assessment follow on the development of the full business case for the BAP.

For Meninya Street redevelopment this analysis should examine the potential staging of the improvements. It should also include a detailed visitor market analysis, including events and festivals and their implications for visitors to the street.

5. Appendix A: BAP Revenue Calculations (Case 1)

This appendix shows how revenue has been calculated in the modelling of the operations of the BAP for Case 1.

						Entrance Fees	<Family 4 persons = \$40>		Aborig. Guided Tours 8%			Tour p/p \$40	Self-Guided Tours 35%			Head sets \$6	Retail 20% buy			Spend per Person \$20
Case 1	Visitors per week	Weeks	Total visitors	Individual 80%	Families 20%	Individuals \$18	Families Rate per person \$10	Entrance Fees Total Revenue	Tours per week	Weeks	Total Tours	Aborig. Tour Revenue	Tours per week	Weeks	Total S-G Tours	S-G Tour Revenue	Buyers per week	Weeks	Total Buyers	Revenue
High				80%	20%	\$18.00	\$10.00													
Peak Season	2200	17	37,400	29,920	7,480	\$538,560	\$74,800	\$613,360	176	17	2992	\$119,680	770	17	13,090	\$78,540	440	17	7,480	\$ 149,600
Off Peak	1000	35	35,000	28,000	7,000	\$504,000	\$70,000	\$574,000	80	35	2800	\$112,000	350	35	12,250	\$73,500	200	35	7,000	\$ 140,000
Total			72,400	57,920	14,480	\$1,042,560	\$144,800	\$1,187,360	Total		5792	\$231,680			25,340	\$152,040			14,480	\$ 289,600
Medium:																				
Peak Season	1800	17	30,600	24,480	6,120	\$440,640	\$61,200	\$501,840	144	17	2448	\$97,920	630	17	10,710	\$64,260	360	17	6,120	\$ 122,400
Off Peak	1000	35	35,000	28,000	7,000	\$504,000	\$70,000	\$574,000	80	35	2800	\$112,000	350	35	12,250	\$73,500	200	35	7,000	\$ 140,000
Total			65,600	52,480	13,120	\$944,640	\$131,200	\$1,075,840	Total		5248	\$209,920			22,960	\$137,760			13,120	\$ 262,400
Low:																				
Peak Season	1600	17	27,200	21,760	5,440	\$391,680	\$54,400	\$446,080	128	17	2176	\$87,040	560	17	9,520	\$57,120	320	17	5,440	\$ 108,800
Off Peak	800	35	28,000	22,400	5,600	\$403,200	\$56,000	\$459,200	64	35	2240	\$89,600	280	35	9,800	\$58,800	160	35	5,600	\$ 112,000
Total			55,200	44,160	11,040	\$794,880	\$110,400	\$905,280	Total		4416	\$176,640			19,320	\$115,920			11,040	\$ 220,800

Source: MCa modelling & analysis, May 2019

Café Operations	Annual Visitors	Purchaser per week 35% of visitors	Weeks	Total Purchasers Annual (35% of visitors spend)	Revenue (Ave Spend \$15 per person)
High					
Peak Season	37,400	770	17	13,090	\$196,350
Off Peak	35,000	350	35	12,250	\$183,750
Total	72,400			25,340	\$380,100
Medium:					
Peak Season	30,600	630	17	10,710	\$160,650
Off Peak	35,000	350	35	12,250	\$183,750
Total	65,600			22,960	\$344,400
Low:					
Peak Season	27,200	560	17	9,520	\$142,800
Off Peak	28,000	280	35	9,800	\$147,000
Total	55,200			19,320	\$289,800

Source: MCa modelling & analysis, May 2019

PART 06

APPENDIX

APPENDIX A - CONTEXT

A.01 APPROACH

A.02 HISTORICAL CONTEXT

A.03 KEY DATA

APPENDIX B - ANALYSIS

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APPENDIX A:

BACKGROUND

APPENDIX A - CONTEXT

A.01 APPROACH

BUILDING ON EXISTING STUDIES

The Moama Bridge Art Project and Meninya Street Masterplan has a direct relevance to consideration and assessment of imminent investments. There has been significant research undertaken in recent years as numerous studies and private proposals have each contributed to a debate about the future of rural regions in New South Wales and Victoria, such as the Murray Region. Our approach is therefore one of learning from what exists now and from prior thinking, and clarifying or expanding on this where necessary to ensure the Masterplan is relevant to its surrounding context.

The team focused on four key areas:

1. Historic and Cultural Research
2. Key Data
3. Urban Analysis and Landscape Qualities
4. Precedents

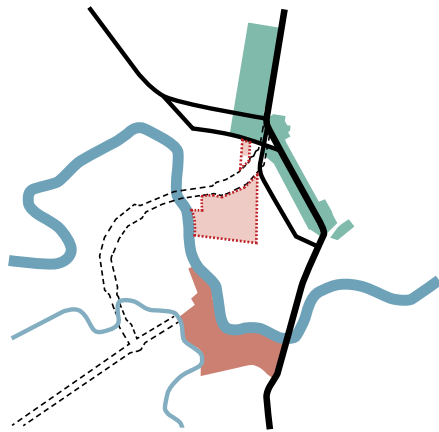
WORKSHOPS

Workshops were also held with key stakeholders and a series of conflicts and challenges were identified and used as a briefing tool for the key areas to focus our attention.



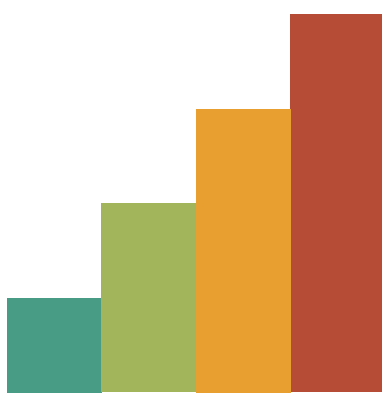
1. HISTORIC AND CULTURAL RESEARCH

Historical research was undertaken on the Masterplan site and Echuca/Moama. The project team studied maps and plans from original settlement up to the present day. Photos of the precinct and research undertaken by others were studied.



3. URBAN ANALYSIS AND LANDSCAPE QUALITIES: ECHUCA/MOAMA, MOAMA, MENINYA STREET

Understanding the urban environment of Moama and the relationship between Echuca and Moama are key in developing the Masterplan. The analysis will look to understand the current conditions of the Moama and to allow a detailed understanding of the site.



2. KEY DATA

A vast array of data was examined. This data exists at multiple scales, providing insights into Moama, how it compares to the whole Murray Region and, at the other scale, about specific projects.



4. PRECEDENTS

In parallel with the other Masterplans and similar projects a precedent study was undertaken. The objective of studying other similar projects and masterplans is not to copy what seemingly “works” but to glean key information about the dynamics of successful (and not successful) masterplans and/or precincts as examples.

APPENDIX A - CONTEXT

A.02 HISTORICAL CONTEXT: EUROPEAN SETTLEMENT



Image: Captain Charles Sturt and the Murray River
<http://www.murrayriver.com.au/about-the-murray/captain-charles-sturt/>

European Settlement & 1830s

In the late 1830s, the area came to the attention of European colonists as pastoralists drove cattle and sheep inland along these major rivers in search of grazing land. In early 1838 Hawdon and Bonney passed through Echuca and provided some of the earliest descriptions of the land and Aboriginal inhabitants of Echuca before crossing the Campaspe south. Charles Sturt followed their route in mid-1838.

1840s - 1850s

During the 1840s and 1850s, the pastoral boom required herds of sheep and cattle to be moved overland to markets. The Moama area was seen as a desirable location to cross the Murray River due to the slopes of the riverbank and that it was the shortest route to Melbourne. In 1842, James Maiden and his wife arrived on the NSW side of the river.



Image: The Punt and the bridge on barges used by sheep and people
<http://www.aussietowns.com.au/town/moama-nsw>

Maiden took advantage of the huge volume of traffic heading to meat and wool markets in Melbourne by establishing a settlement in, what is currently known today, Moama. In 1844, Maiden built a punt across the river and in 1851 Maidens punt became known officially as Moama. During the Bendigo gold rush in the 1850s, increased the demand for meat. Maiden established a slaughter yard, and in 1854 Moama had the largest cattle market outside of Melbourne. However, in the mid 1850s, the cattle market crashed and Maiden was left to sell off all his holdings and leave Moama.



Image: Moama Floor, 1870
<https://lindacairnes2.wordpress.com/2013/08/16/echuca-and-moama-1874-to-1883/>

1860s

While Maiden left Moama, Henry Hopwood, who arrived near Moama in 1849 and who had established a punt himself along with other establishments in Echuca, had a major influence in Victoria. Hopwood built a pontoon bridge and the Grand Bridge Hotel. He remained an influential figure until the development of other transport technologies. The introduction of steamboats in 1853 and the completion of the Melbourne-Echuca railway line in 1864 saw Echuca become a major transport and saw-milling centre. Both steamers and railroads required wood for fuel, thus the logging of red-gum forests surrounding Echuca and Moama became a major source of employment. The 1860s also saw the establishment of market gardening as an industry in the Echuca-Moama area. The first Chinese market gardeners arrived in Echuca in 1865

APPENDIX A - CONTEXT

A.02 HISTORICAL CONTEXT: EUROPEAN SETTLEMENT



Image: Murray River Paddlesteamers
<https://i.pinimg.com/originals/d3/8f/b5/d38fb56017851a50fedda7991b267273.jpg>

1870s - 1940s
During the 1870s, land selectors took up land in Echuca. In Moama, the developments were much slower and was unfortunately inundated by a large flood, with most of its 40 buildings swept away. Due to the flood, Moama's township was moved a little to the west onto higher ground. In 1875, the Deniliquin-Moama railway line was open. A temporary wooden bridge spanning the Murray River was built in 1876 until the Iron Bridge was completed in 1878.

In 1881, the population of Echuca was 4789, and Moama was 700 people. Moama was proclaimed a Municipality with two wards on 30th December 1890. The first Council meeting was held on 16th March, 1891. Known at first as the Council of Municipality of Moama in February 1907 (Moama retained this status until 1953 when the municipality became part of the Shire of Murray). Trades such as blacksmith, wheelwright, coach



Image: The Iron Bridge, 1878
<https://i.pinimg.com/originals/a5/6a/4f/a56a4f5f0da39209f806c5c797583896.jpg>

builder and saddler all declined in importance with increasing popularity of motorised transport after 1910.

Due to the large loss of men to the war, the river transport and saw-milling industries never revived. In the 1920s, Echuca-Moama began to revive economically, due to agriculture and dairying.

World War 2 - 1970s
After WW2, returned soldiers again boosted the economy through house construction, establishing businesses or farms. Agricultural and dairy industries continued to support the flour mill, butter factory and tomato processing plant. In 1944, the Port of Echuca wharf was partly demolished. Plans to restore the Port of Echuca were developed in the 1960s and completed in 1974. From the mid-1970s to the present, tourism has become a major industry in Echuca-Moama.

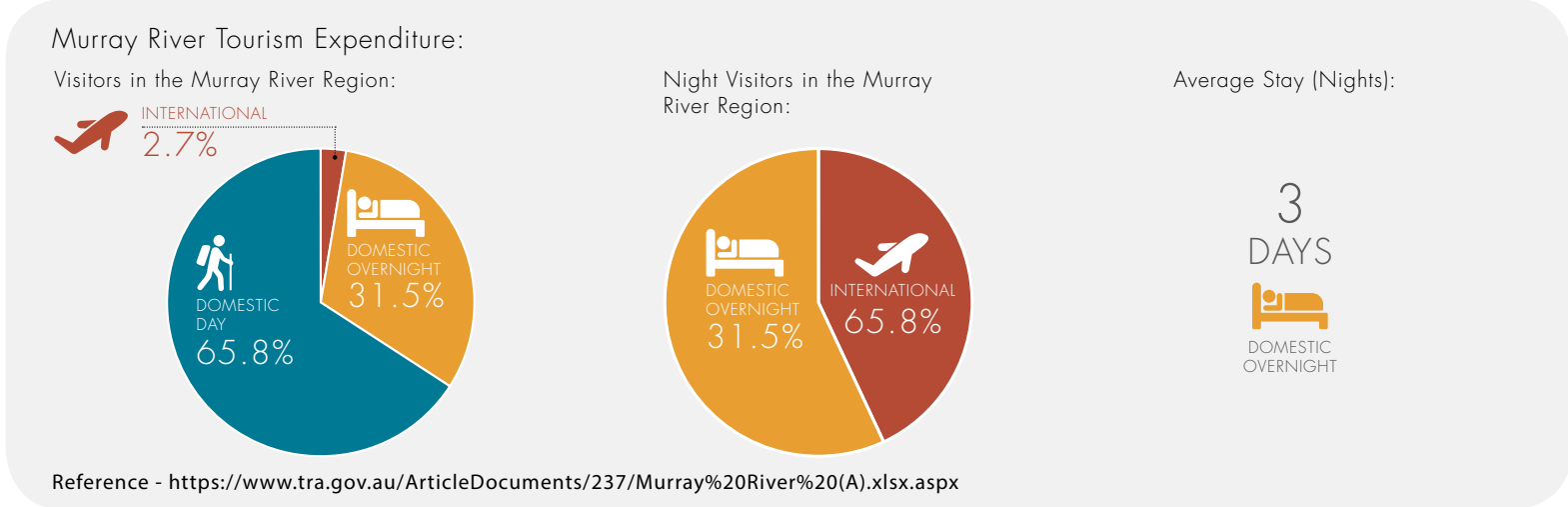
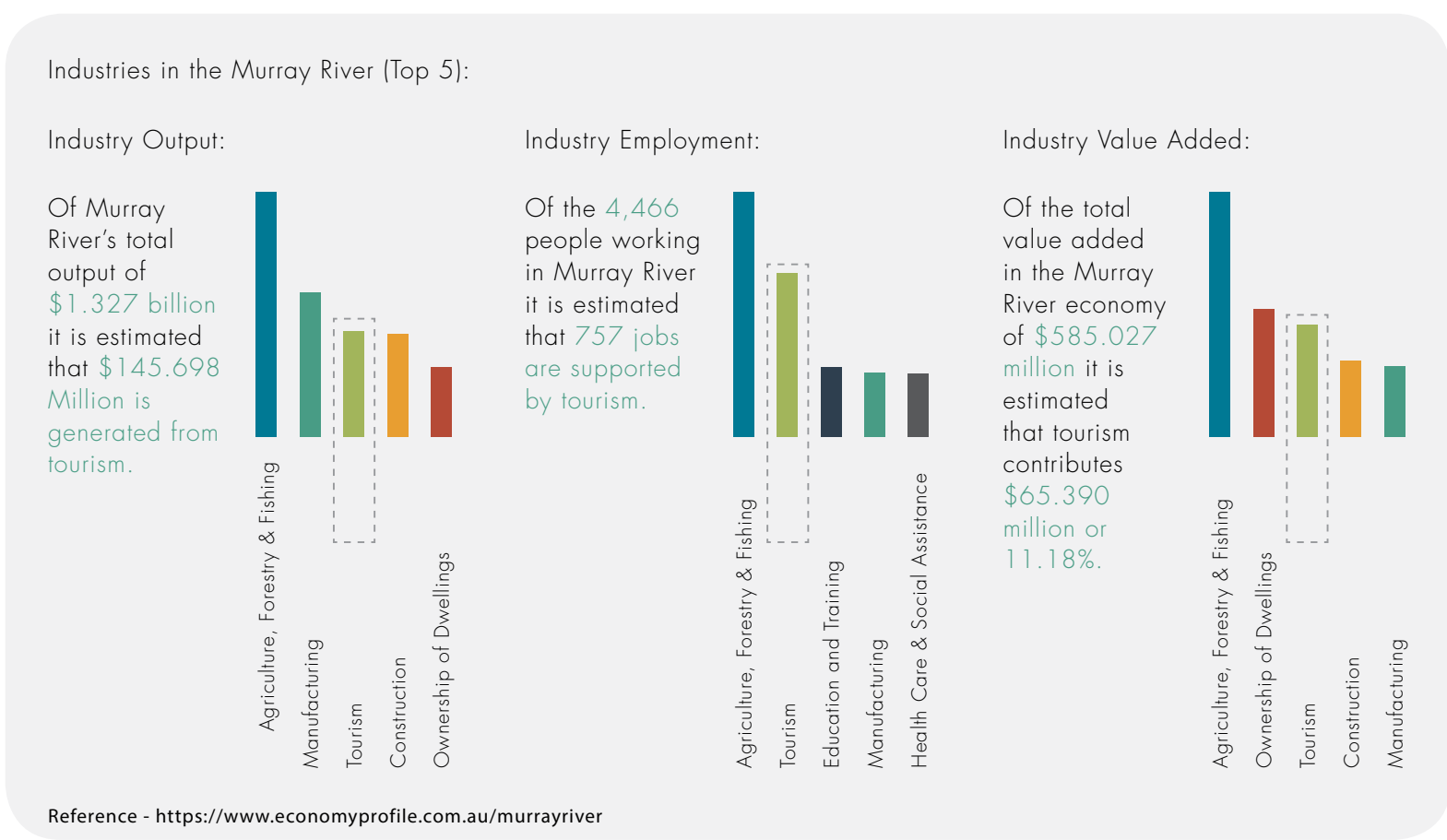
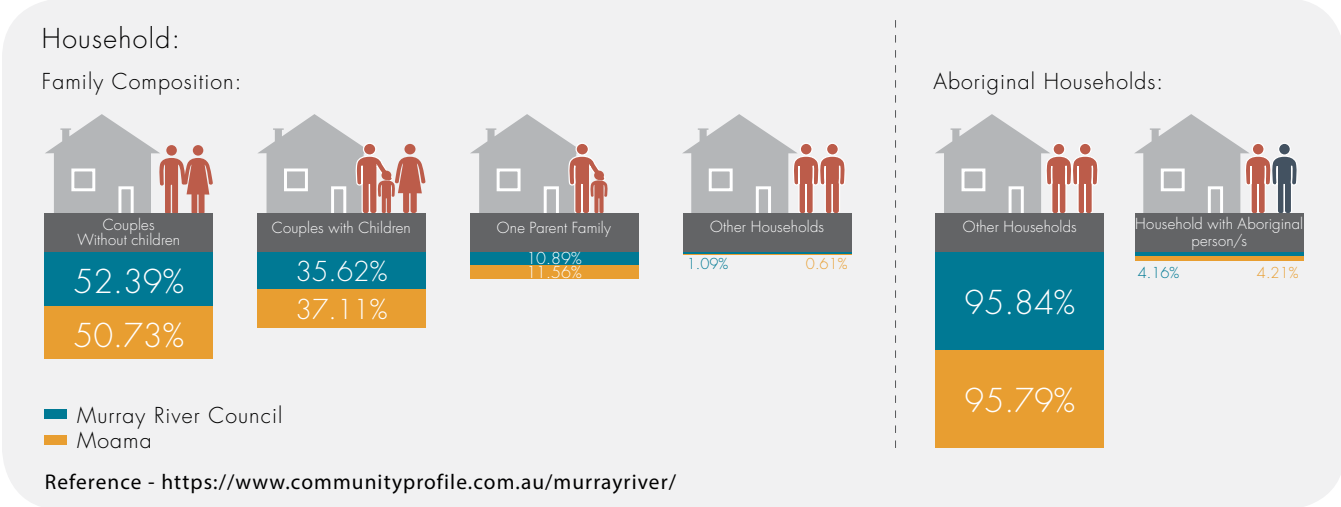
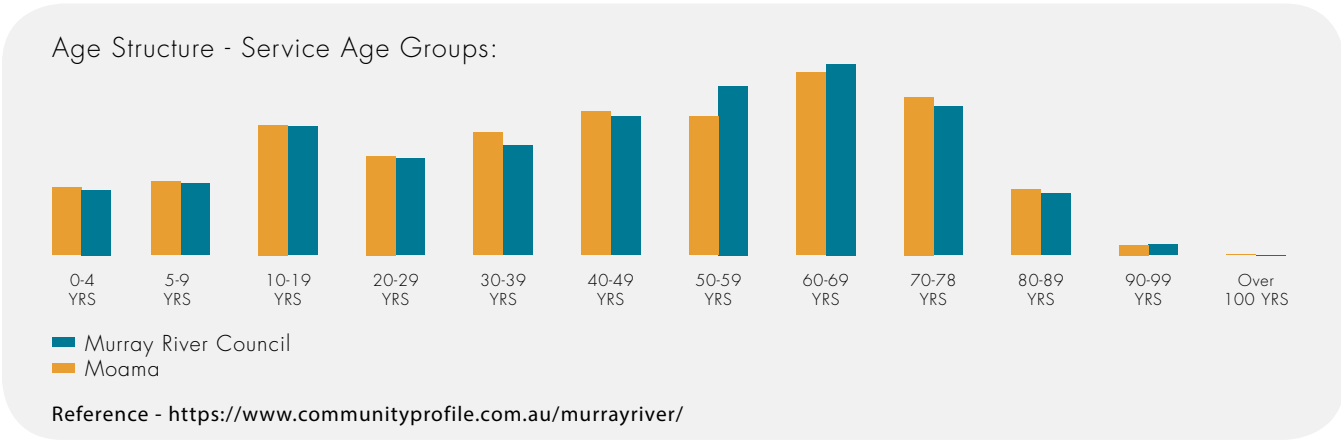
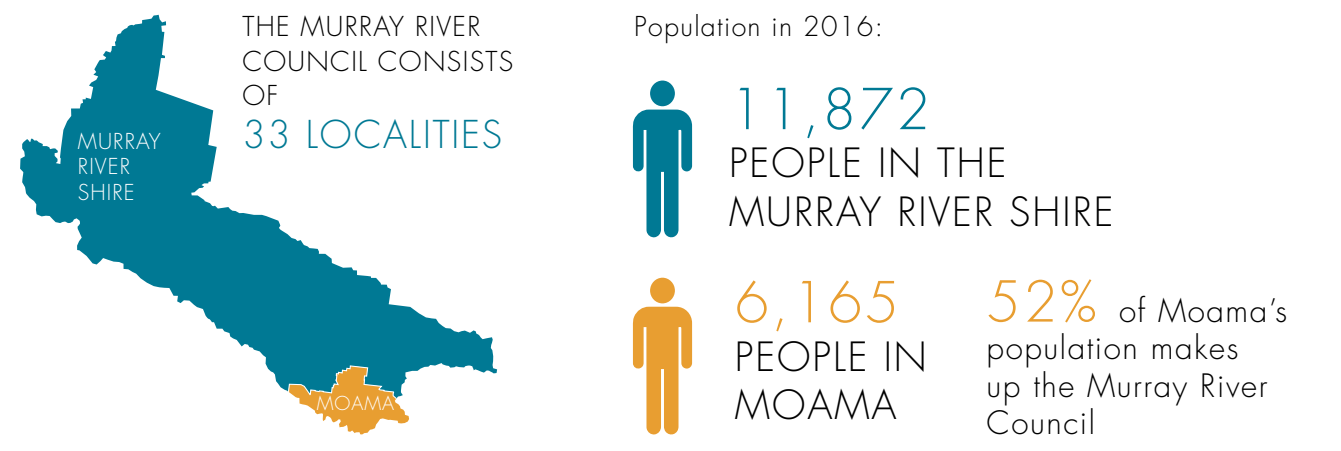


Image: Paddlesteamer
collections.slsa.sa.gov.au

1980s - Current
The restoration of steamboats as part of the tourism industry continued in Echuca, and in Moama landscape and restoration works were undertaken at Horseshoe Lagoon and the wharf. The economic boom of the 1980s saw continued building and commercial developments in both Echuca and Moama until today.

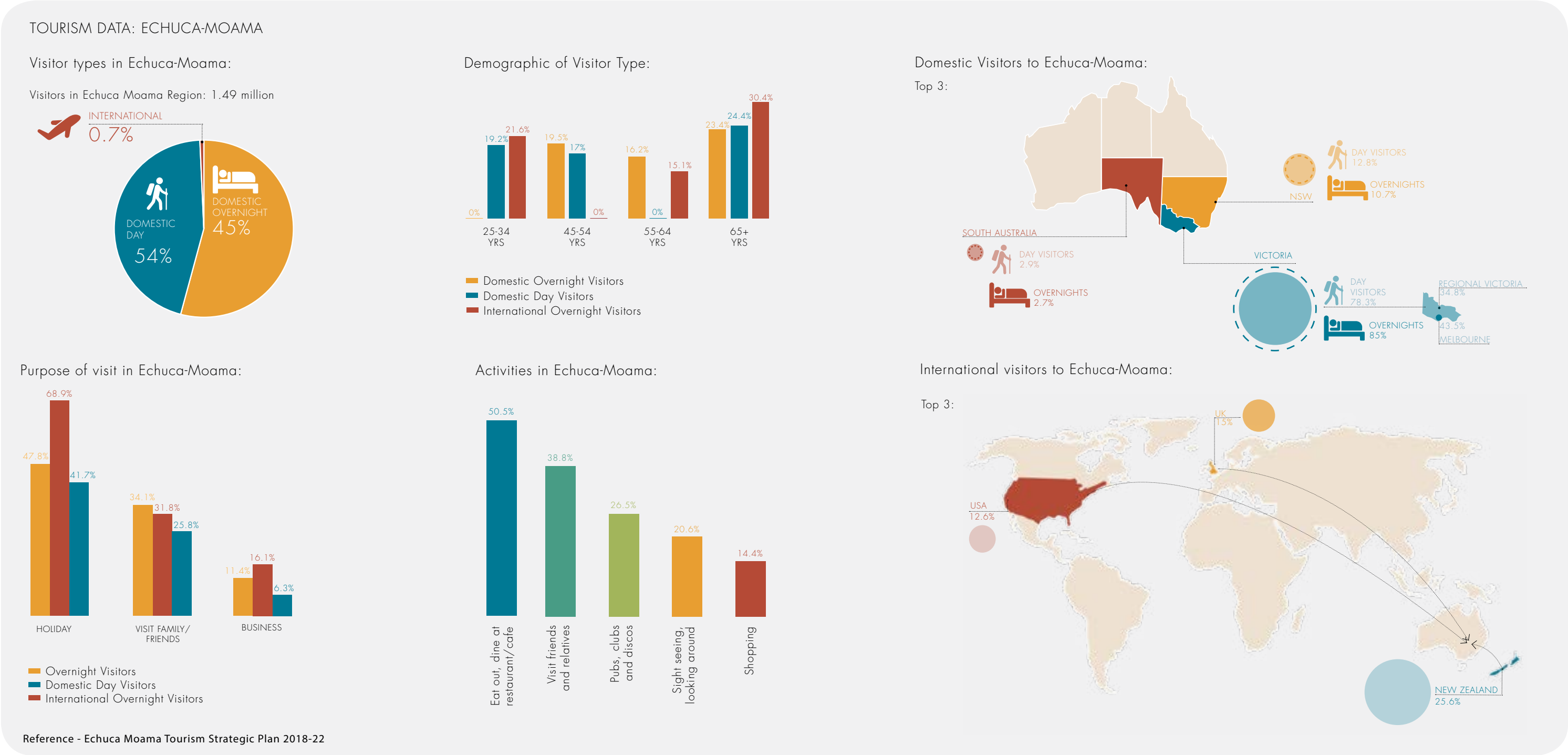
APPENDIX A - CONTEXT

A.03 KEY DATA - MURRAY RIVER REGION



APPENDIX A - CONTEXT

A.03 KEY DATA - ECHUCA MOAMA TOURISM



APPENDIX B: ANALYSIS

APPENDIX B - ANALYSIS

B.01 ECHUCA/MOAMA

It is important to remember the historical relationship and existing connections that exist between Echuca and Moama.

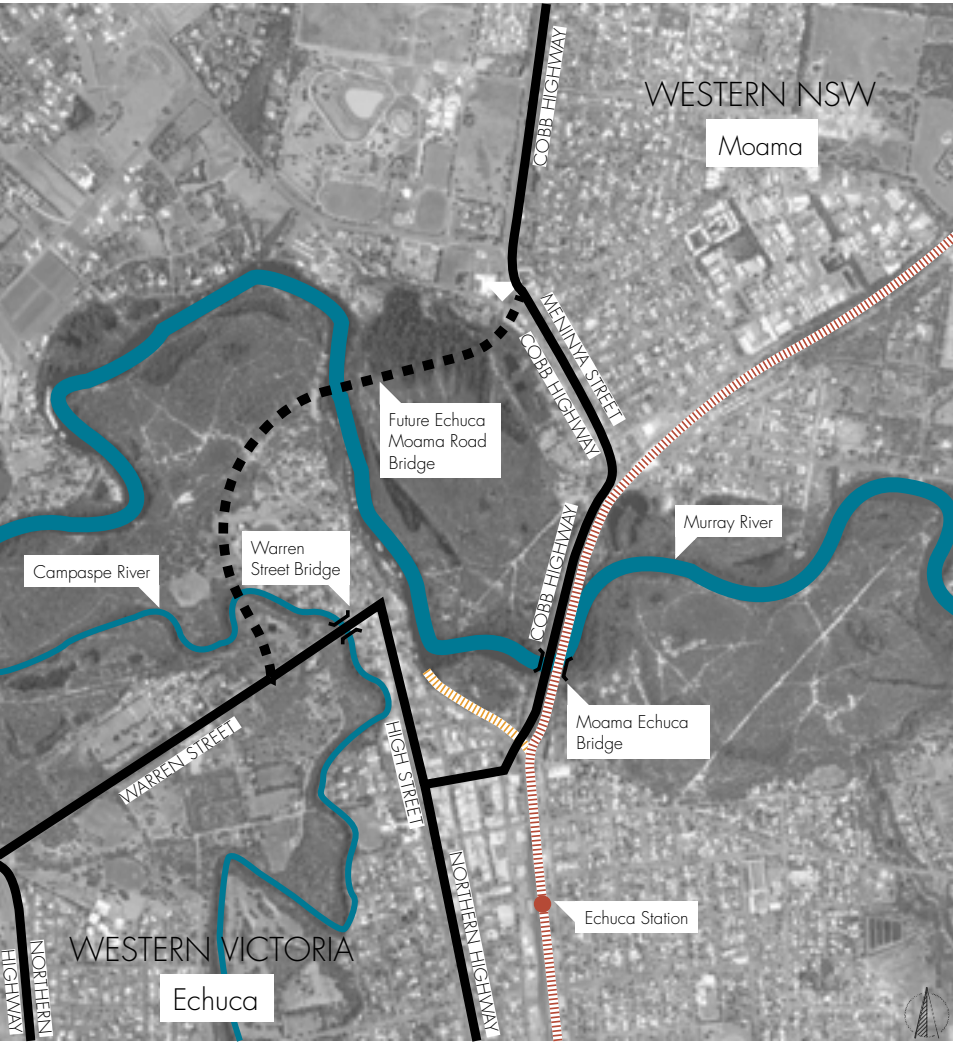
The Echuca Moama Arts Initiative aims to assist with and facilitate the production and promotion of art throughout the Shires of Campaspe, the Murray River and the surrounds. Understanding the connections between Echuca and Moama to support this initiative are important to allow a fluid connection between the arts and culture.



ECHUCA-MOAMA

- River
- State Boundary

Echuca-Moama is a twin town located on either side of the Murray River.



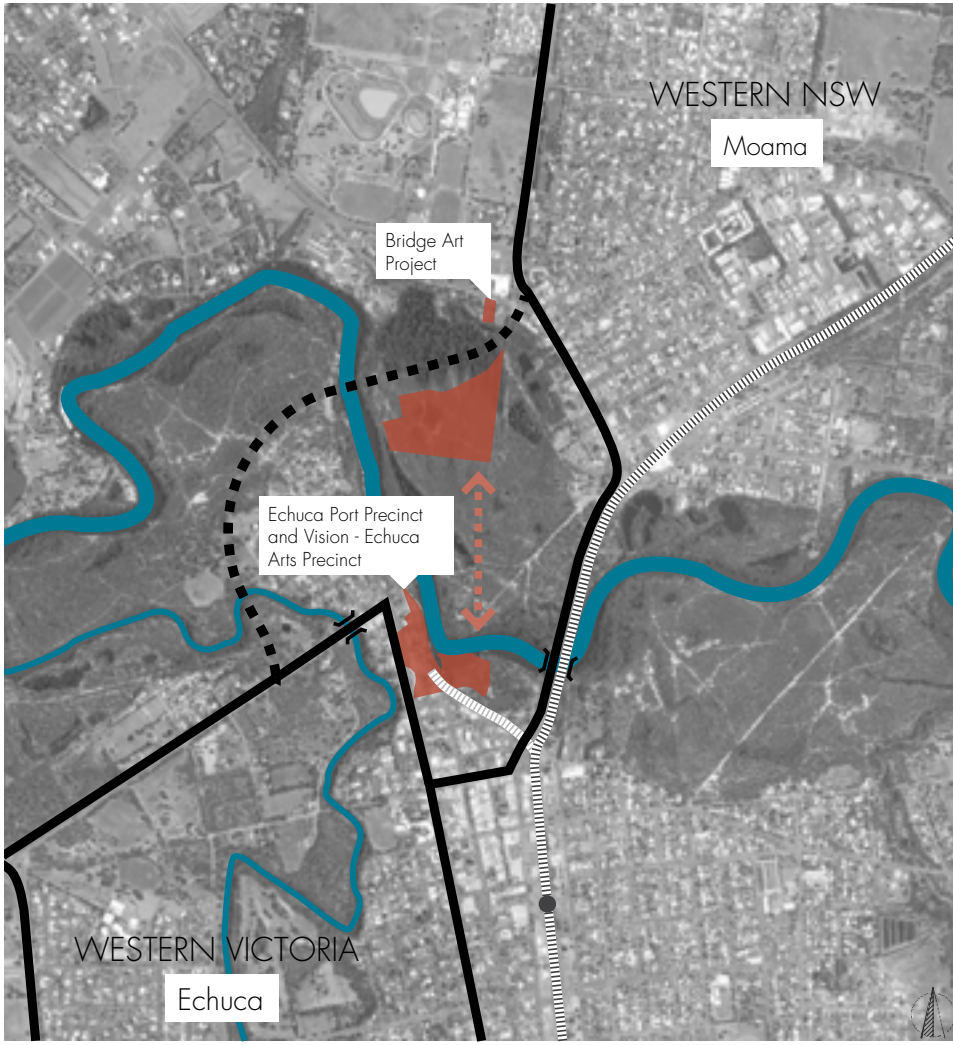
INFRASTRUCTURE

- River
- Main Road / Highway
- Future Road
- Existing Railway line
- Closed Tourist Railway Line
- Train Stations
- Bridge

The current infrastructure surrounding Moama and Echuca include a railway line, the Cobb Highway, which passes through Meninya Street, the Northern Highway that intersects the Cobb Highway, the Murray River that runs between the two towns and the future Echuca Moama Road Bridge.

APPENDIX B - ANALYSIS

B.01 ECHUCA/MOAMA



ARTS AND CULTURE PRECINCTS

- Arts and Culture Precincts
- River
- Main Road / Highway
- Future Road
- Existing Railway line
- Closed Tourist Railway Line
- Train Stations

The Echuca Port Precinct and Vision and the Moama Bridge Art Project and Meninya Street Masterplan are located on either side of the Murray River and are connected by the Cobb Highway and eventually the Future Echuca Moama Road Bridge. Allowing a connection between these two arts and culture precincts will support the Echuca Moama Arts Initiative. These two arts precincts are seen as the “artistic heart of the Murray River”.



GREEN SPACES

- Green Spaces
- Site Located within Environmental Management Area
- Main Road / Highway
- Future Road
- Existing Railway line
- Closed Tourist Railway Line
- Train Stations

There are a number of key green spaces that surround the site, such as the Victoria Park Reserve, Banyule State Forest Reserve and Horseshoe Lagoon. Victoria Park Reserve and Banyule State Forest are located in Echuca, while Horseshoe Lagoon and the Bridge Art Project precinct are located in Moama. These greens spaces are significant bookends to the Bridge Art Project precinct. The integration of these green spaces in Echuca-Moama is key to emphasise the twin towns connection as one continuous experience.

APPENDIX B - ANALYSIS

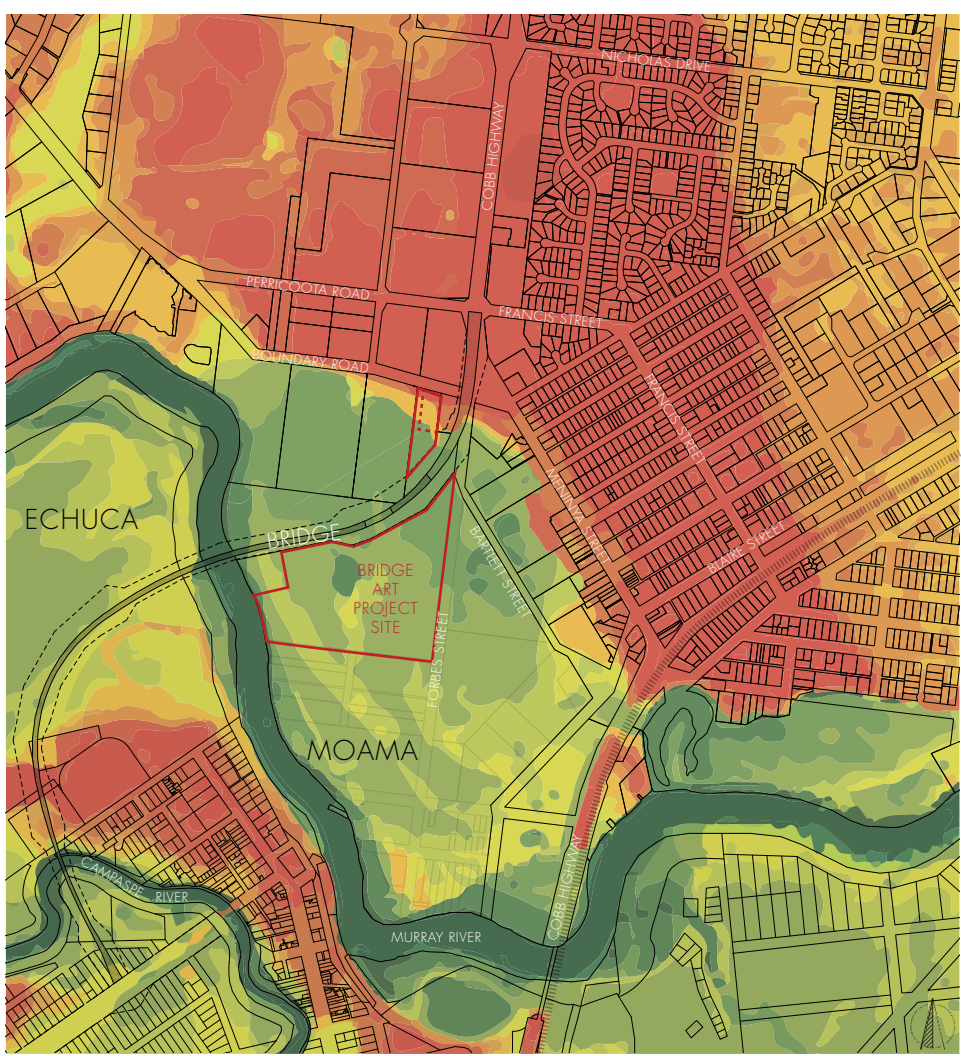
B.02 MOAMA

Key patterns emerge when reviewing key use patterns in the larger Moama region.

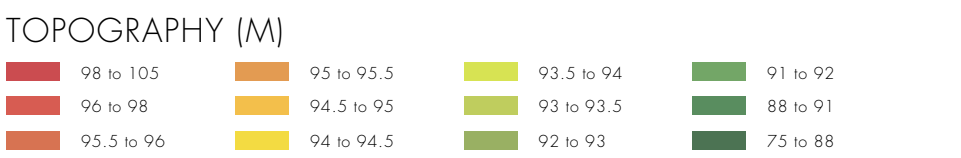
In approaching the key spatial and organisational characteristics of the Moama area and extending to the Murray River and Echuca, key large scale patterns related to use and spatial types have been reviewed. These simple and clear observations provide a foundation for the Strategic Framework Visions and Urban Principles, which will influence the design concept of the Moama Bridge Art Project and Meninya Street Masterplan.

Key use patterns are reviewed against relevant diagrams such as topography, flood plains, the location of open space and key attractions. In a place with Echuca Moama history, the overlaying pattern of heritage sites and buildings is also an important consideration.

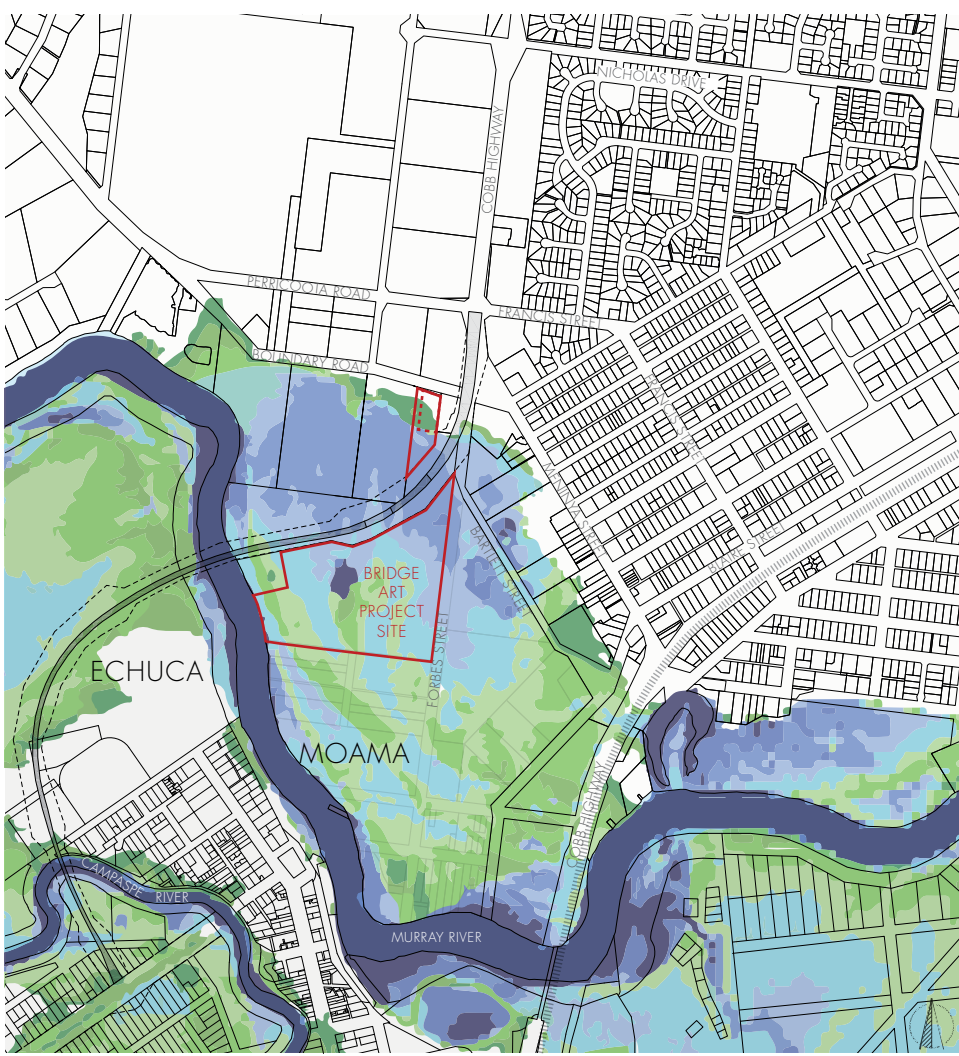
Understanding these layers are key to determining the experience and destination opportunities in an around the site and Moama.



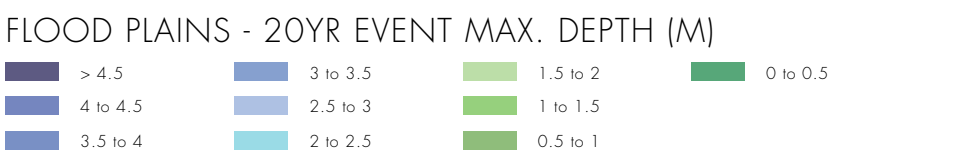
Reference - Echuca-Moama Bridge EES - Specialist Hydrology Report, <https://roadprojects.vic.gov.au/projects/echuca-moama-bridge>



Moama Bridge Art Project and Meninya Street Masterplan is located in close proximity to the Murray River. The topographic diagram shows that from Meninya Street, the commercial and residential areas are higher, while the Bridge Art Precinct site falls quite low to towards the Murray River.



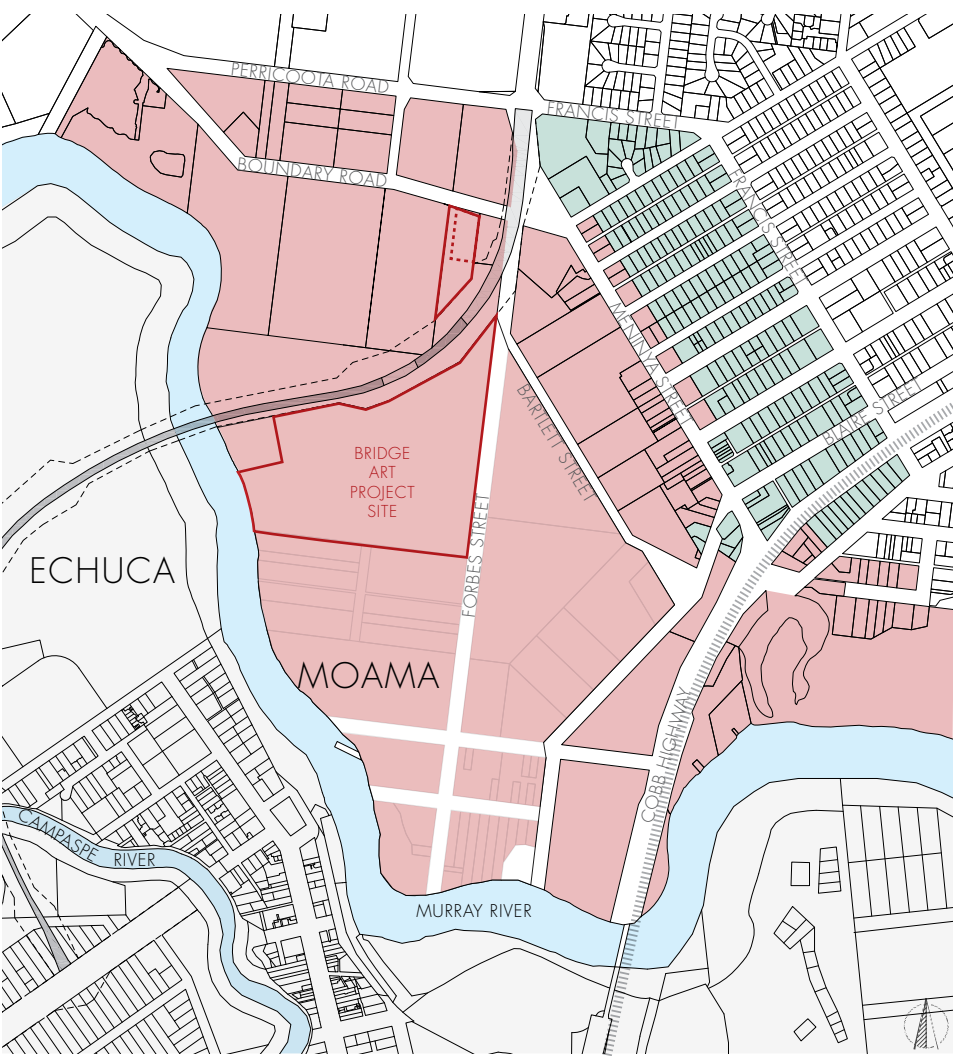
Reference - Echuca-Moama Bridge EES - Specialist Hydrology Report, <https://roadprojects.vic.gov.au/projects/echuca-moama-bridge>



The above diagram shows that the potential flood levels in a 20 year event. The maximum depth in the proposed site is estimated to be between 4m to 4.5m. The recent large flood that occurred in the area was in January 2011.

APPENDIX B - ANALYSIS

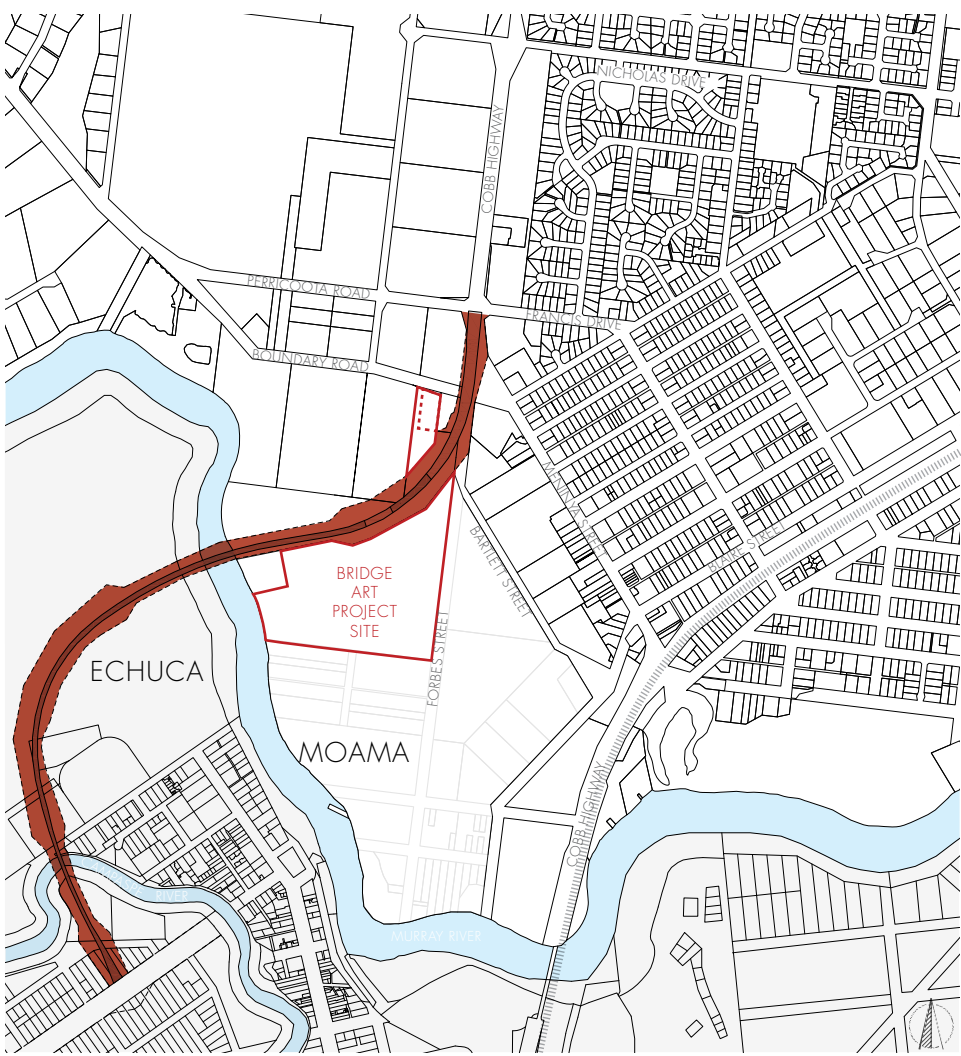
B.02 MOAMA



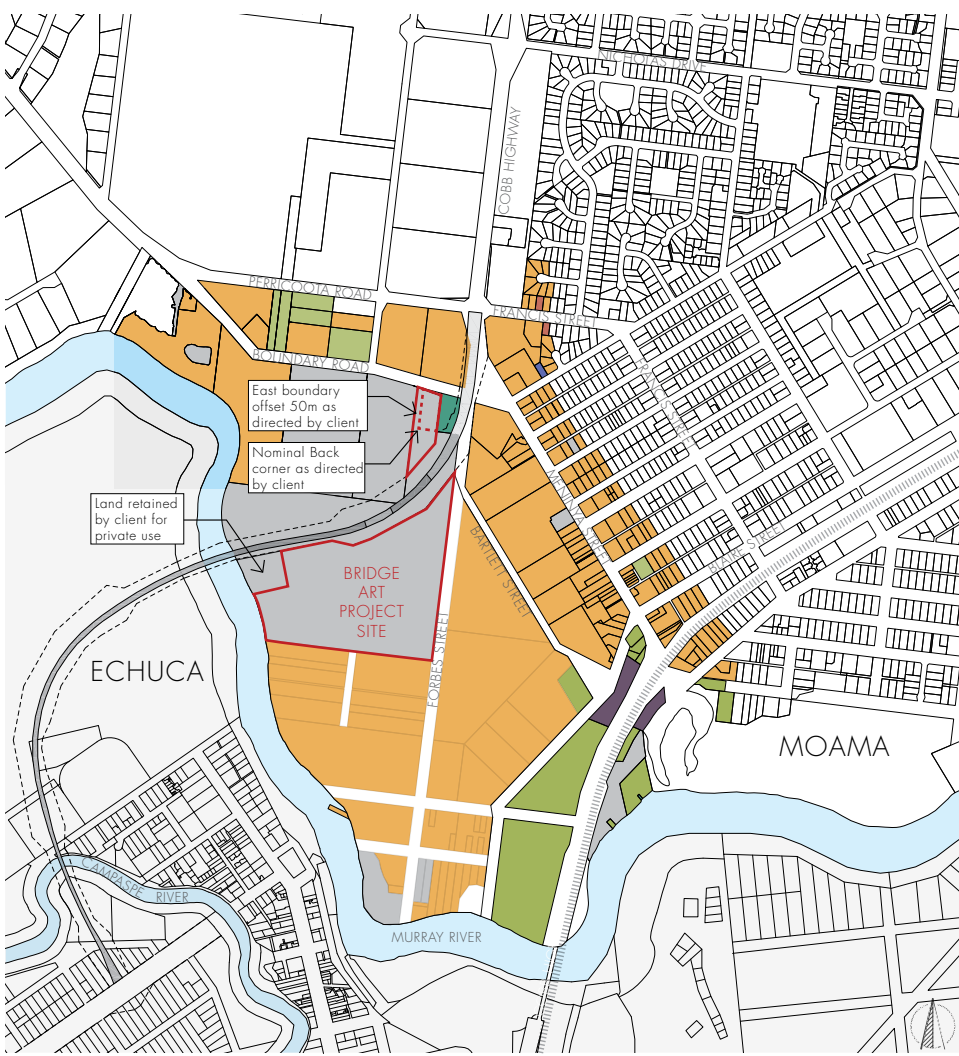
Reference - NSW Rural Fire Service, <https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection/bush-fire-prone-land/check-bfpl>



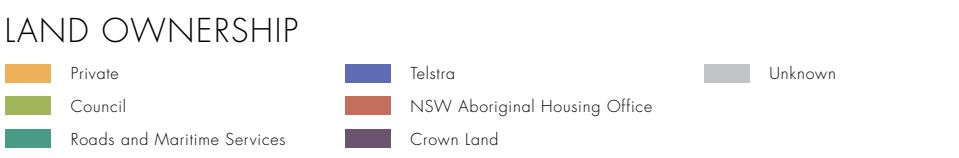
As indicated in the map, the site is located in fire prone area and will be required to meet the requirements of Planning for Bush Fire Protection 2006 and AS3959-2009.



The red zone indicates a proposed Right of Way or a road reserve for the bridge, within this boundary it contains the spill basins and embankments. The set backs are also required for safety and structural purposes if there were to be a built form on the site. Must seek permission to erect structures within this area.



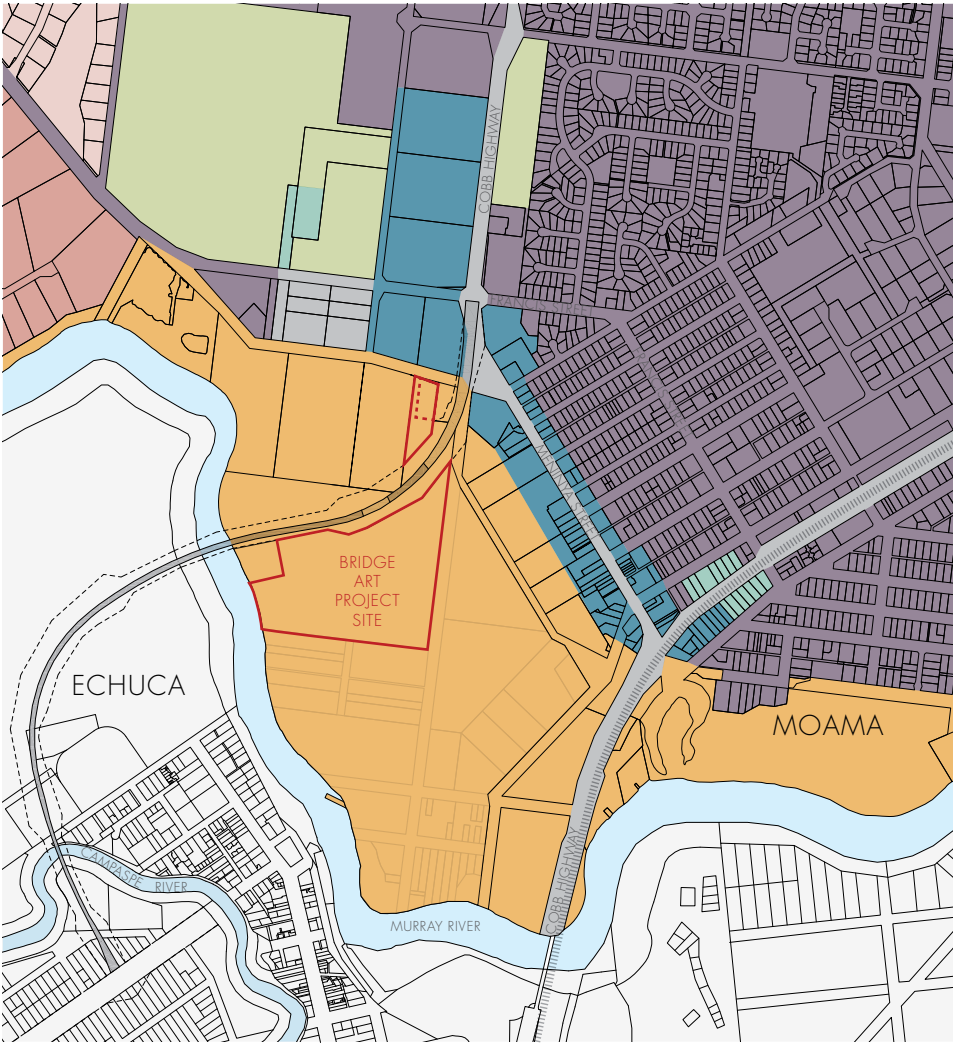
Reference - Echuca-Moama Bridge Environment Effects Statement, <https://roadprojects.vic.gov.au/projects/echuca-moama-bridge>



The area of interest is owned primarily by private owners, council and crown land. The site boundary indicated is the donated land by Barry Donchi for the Bridge Art Project. The land not indicated is used privately.

APPENDIX B - ANALYSIS

B.02 MOAMA



Reference - <https://www.legislation.nsw.gov.au/#/view/EPI/2011/682>

LAND ZONING

- | | | |
|--------------------------|-----------------------|----------------|
| Environmental Management | Large Lot Residential | Local Centre |
| General Residential | Public Recreation | Infrastructure |
| Low Density Residential | Private Recreation | |

The Bridge Art Project Site is located in an Environmental Management Zone, where the objectives of the zone is to:

- Protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
- Provide for a limited range of development that does not have an adverse effect on those values.

This land is permitted to allow extensive agriculture, home occupations, boat building and repair facilities, sheds, camping grounds, boating facilities, cellar doors, tourism facilities, flood mitigation works, child care, information and education facilities, recreational facilities, research station, roads, water supply systems.

The land is not permitted to have industries, intensive livestock agriculture, multi dwelling housing, retail premises, senior housing, service stations, warehouse.



Reference - <https://www.murrayriver.nsw.gov.au/discover/facilities/playgrounds>

PARKS AND OPEN SPACE

- Parks, Playgrounds and Open Space

From this analysis, it is evident that the majority of parks and open spaces are located north of Meninya Street, with the Moama Recreation Reserve a key area for leisure and recreation. South of Meninya Street are the Sound Shell, Skate Park and a park with a heritage listed tree. The Moama Sound Shell is a key location as it hosts the Echuca Moama Market, which takes place throughout the year.



Reference - <http://highwaytraveller.com.au/towns/nsw/moama/attractions>

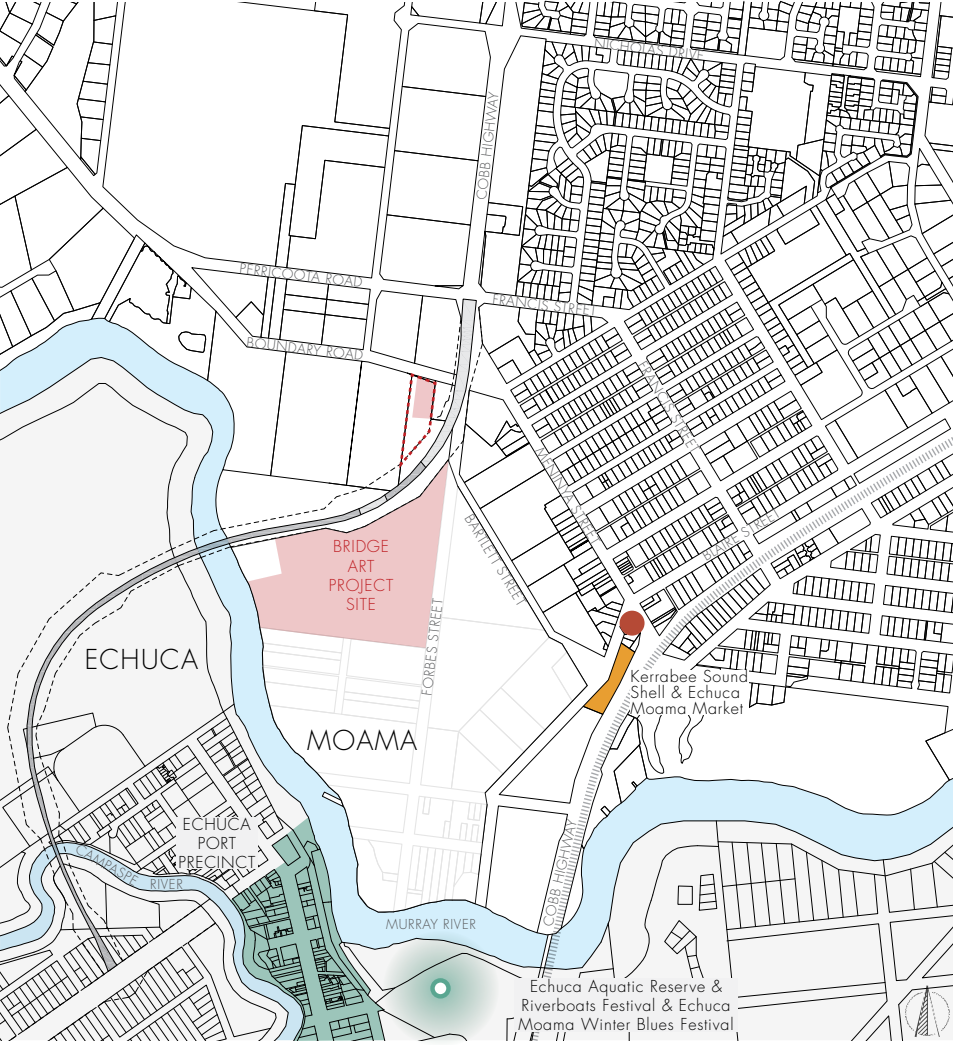
ATTRACTIONS AND POINTS OF INTEREST

- | | | |
|-----------------------------------|---|--|
| Accommodation | 1 Horseshoe Lagoon Walking Trail | 4 Moama Bowling Club |
| Attractions | 2 Adventure Play Park at Moama Recreation Reserve | 5 Echuca Moama Market at Moama Sound Shell |
| Markets | 3 Moama Beach | 6 Moama Riverside Holiday Park |
| Caravan Parks and Camping Grounds | | 7 Moama Swimming Pool |

Current tourism attractions and points of interest are located to the south of Meninya Street. These attractions consists of recreational activities, markets, caravan parks and camping grounds. The Echuca Port Precinct, across the Murray River has a number of attractions, such as museums, arts and craft, recreational activities, wineries and events and festival venues (Riverboats Music Festival and the Echuca-Moama Winter Blues Festival).The slipway is also seen as a future point of interest.

APPENDIX B - ANALYSIS

B.02 MOAMA

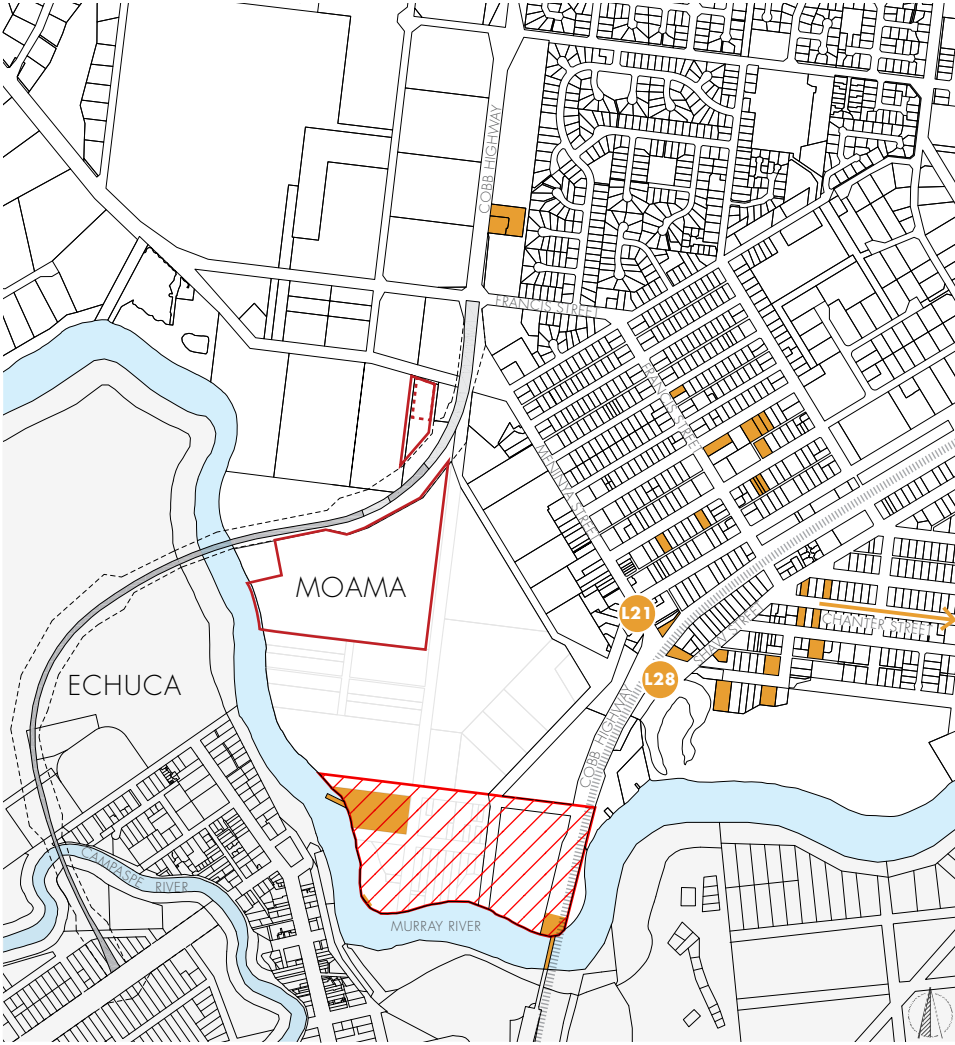


Reference - Echuca-Moama Bridge Environment Effects Statement, <https://roadprojects.vic.gov.au/projects/echuca-moama-bridge>

ARTS AND CULTURE

- | | | |
|-------------------------------|--------------------|--|
| Moama Arts and Culture Sites | Echuca Music Venue | Long Paddock Touring Route Stop - Echuca Moama |
| Echuca Arts and Culture sites | | |

The Murray River is currently seen as a region icon. The Echuca Port Precinct has a number of arts and culture activities and venues such as the Foundry Art Space, the Port of Echuca Discovery Centre, Echuca Historical Museum, the Echuca Paddlesteamers and festival venues. In Moama, there is currently the Echuca-Moama Market hosted at the Kerrabee Sound Shell. Echuca Moama is also the gateway of the Long Paddock Touring Route, which follows the stock route from Echuca Moama through to Wilcannia.



Reference - <https://www.legislation.nsw.gov.au/#/view/EPI/2011/682>; <https://www.environment.nsw.gov.au/heritageapp/>

HERITAGE

- | | |
|--------------------------|----------------------------|
| Environmental Management | To Historic Chanter Street |
| General Residential | |

There is one heritage listed building on Meninya Street which is currently a Heritage Homestay (brick residence). The building is listed as a heritage item in the Local Environmental Plan, with listing number L21. There is also a tree, in close proximity to Meninya Street, on Shaw Street that has been listed in the Local Environmental Plan, with listing number L28. This item is the La Bella Sombre Tree. There is a large cluster of heritage buildings south of Meninya Street. Chanter Street also leads to the Friends of Old Moama, an Echuca-Moama historical society group.



Reference - Echuca-Moama Bridge Environment Effects Statement, <https://roadprojects.vic.gov.au/projects/echuca-moama-bridge>

TRAFFIC FLOW - CURRENT (2014 data)

- | | |
|-----------------------------|------------------------------|
| Less than 1000 cars | Between 8,000 to 16,000 cars |
| Between 1,000 to 4,000 cars | More than 16,000 cars |
| Between 4,000 to 8,000 cars | |

The diagram above summarises the average weekday total bi-directional traffic flow. The 2014 traffic flow without the future Echuca Moama Road Bridge. There is currently high traffic movement on Meninya Street and the Cobb Highway heading to Echuca.

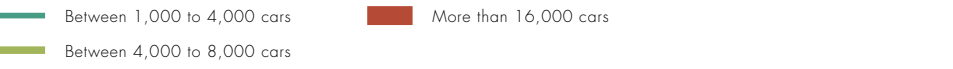
APPENDIX B - ANALYSIS

B.02 MOAMA



Reference - Echuca-Moama Bridge Environment Effects Statement, <https://roadprojects.vic.gov.au/projects/echuca-moama-bridge>

TRAFFIC FLOW - FUTURE (projected 2044 data)

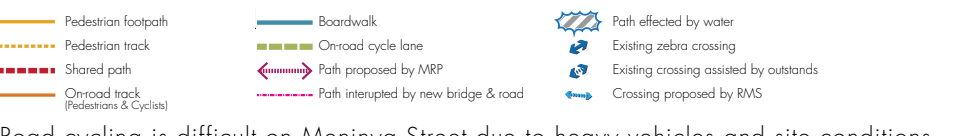


The diagram above summarises the average weekday total bi-directional traffic flow. The diagram above illustrates the projected traffic numbers in 2044 with the future Echuca Moama Road Bridge completed. The new bridge will relieve some stress on Meninya Street and the Cobb Highway. It has been estimated that the number of cars traveling on the existing bridge in 2014 (18,80 cars), will increase to 25,019 cars in year 2044 if there is no second bridge.



Reference - <https://www.mapmyride.com/au/moama-new-south-wales>; http://www.rms.nsw.gov.au/maps/cycleway_finder; Echuca-Moama Bridge Environment Effects Statement

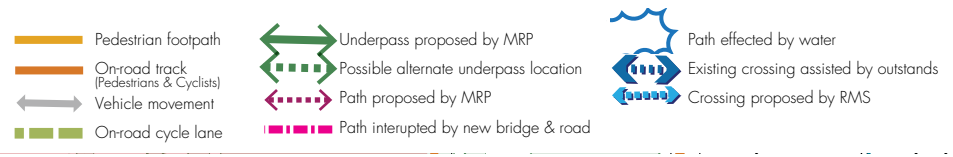
EXISTING PATH NETWORK - CYCLE AND WALKING



Road cycling is difficult on Meninya Street due to heavy vehicles and site conditions. The problem areas, identified by cyclists, include Blair Street roundabout and at traffic islands near Lions Park. The existing bushland tracks and trail system provides a safe off-road network, providing connections to destinations, such as Horseshoe Lagoon, and the natural setting enriches the journey. The new bridge and road system will create a barrier between the west and south-east sides of Moama. A planned underpass will be an important connection for both the BAP site and for Meninya Street. Underpasses are difficult spaces and often struggle with CPTED issues. The underpass area has been monitored by MRP. The area has sitting water on it for up to six months of the year. This makes it difficult to provide a high quality connection.



PATH NETWORK IN RESPONSE TO THE NEW BRIDGE



The new bridge and road system will create a barrier between the west and south-east sides of Moama. There is a planned underpass. This will be an important connection for both the BAP site and for Meninya Street. Underpasses are difficult spaces and often struggle with CPTED issues. The underpass area has been monitored by MRP. The area has sitting water on it for up to six months of the year. This makes it difficult to provide a high quality connection.

APPENDIX B - ANALYSIS

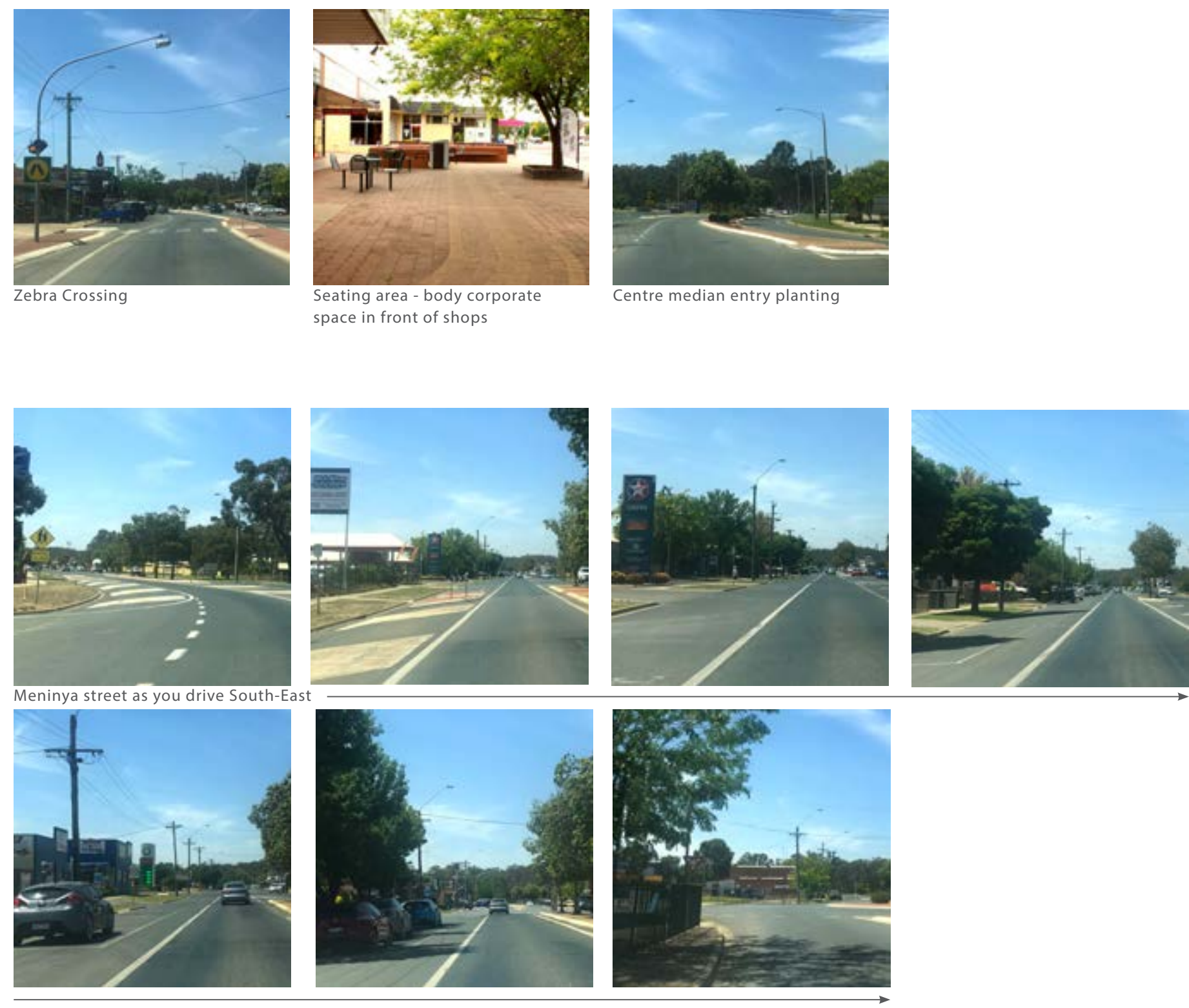
B.03 MENINYA STREET

Key use patterns emerge when reviewing the spine of the local centre, Meninya Street.

In approaching the key spatial and organisational characteristics of Meninya Street, key patterns related to use and spatial types have been reviewed. These observations provide a foundation for the Strategic Framework Visions, Urban Principles and Landscape Principles, which will influence the design concept of the Moama Bridge Art Project and Meninya Street Masterplan.

Key use patterns are reviewed against relevant diagrams such as land use, floor space ratios, rent, jobs and economic value of Meninya Street.

Understanding these layers is key to determining the experience and destination opportunities in and around Meninya Street.



APPENDIX B - ANALYSIS

B.03 MENINYA STREET

Meninya Street General
The road is just under 1km long and RMS currently manages the road. It will however, become an MRC asset when the new bridge opens. The road surface is wide with overhead power and significant through-traffic volumes. Street plantings are limited and of mixed species. The size of the trees is proportionally small to the width of the street. The street feels noisy, hot and exposed. There are footpaths on either side of the road, however, the walking experience is not comfortable. There is a mix of retail, mainly service and hospitality, with some semi-industrial, residential and vacant areas. The street can be divided into precincts (refer to plan on previous page). Traffic volumes and types will change with the construction of the new bridge. Most large trucks are expected to shift to the new bridge reducing noise and congestion in Meninya Street. Cars towing caravans and boats may increase in the street to access caravan parks to the south.

Marketplace
The Marketplace is at the north end of Meninya Street and includes the town's supermarket. The commercial area is expected to develop further after the construction of the new bridge. The Marketplace landscape is mostly car parking. It is exposed, lacks trees, shade or formal pedestrian connections. The surrounding roads are built at least 0.5m higher than the surrounding surfaces. There are steep batters creating barriers to cyclist and pedestrian connectivity. The new road will also be high with steep batters.

Meninya Street North
This area will change significantly with the new bridge and road upgrades. It is currently a mix of semi-industrial, services and residential areas. To the south end of this precinct is the bakery and takeaway shops. There is a very narrow footpath and angle parking. There are no trees. It feels hot and exposed. It is very difficult to cross the road in this section, which results in car parking concerns in this area. There are limited street trees. Central islands make a positive contribution aesthetically, however, have been noted by cyclists as dangerous spaces with larger vehicles using the road.

Meninya Street Central
This area includes hotels/motels, a car wash, service station and vacant ex-industrial land. They typically do not have active interfaces with the street. Some areas of nature strip are irrigated making a positive impression, however, this is inconsistent and reduces in quality further north. There are few street trees, and the road dominates the space.

Meninya Street South
Traffic dominates the landscape. A zebra crossing helps to improve pedestrian access across the road. Getting a car park is easy but leaving is difficult due to the traffic volume and angle parking. The off-street car park is well used and is reported to be at capacity. The footpath is made of a patchwork of concrete. There is a body corporate area which is also managed by MRC. There is a forecourt space in front of the Post Office on private land. These spaces provide small gathering places outside the street corridor, however they are dated and lack appeal. Near the train line most of the shops appear empty or not frequently open. Some shops have steps into their front doors which limits **access for all abilities**. There are some verandahs which provide weather protection and improve the pedestrian experience.

LEGEND:

Pedestrian footpath & track

Vehicle movement

Overhead power

Centre median

Line marking centre median

Existing streetscape tree

Existing large entry feature tree

Carpark

Parallel car parking

Angled car parking

Existing zebra crossing

Existing crossing assisted by outstands

Crossing proposed by RMS

Bridge soundwall

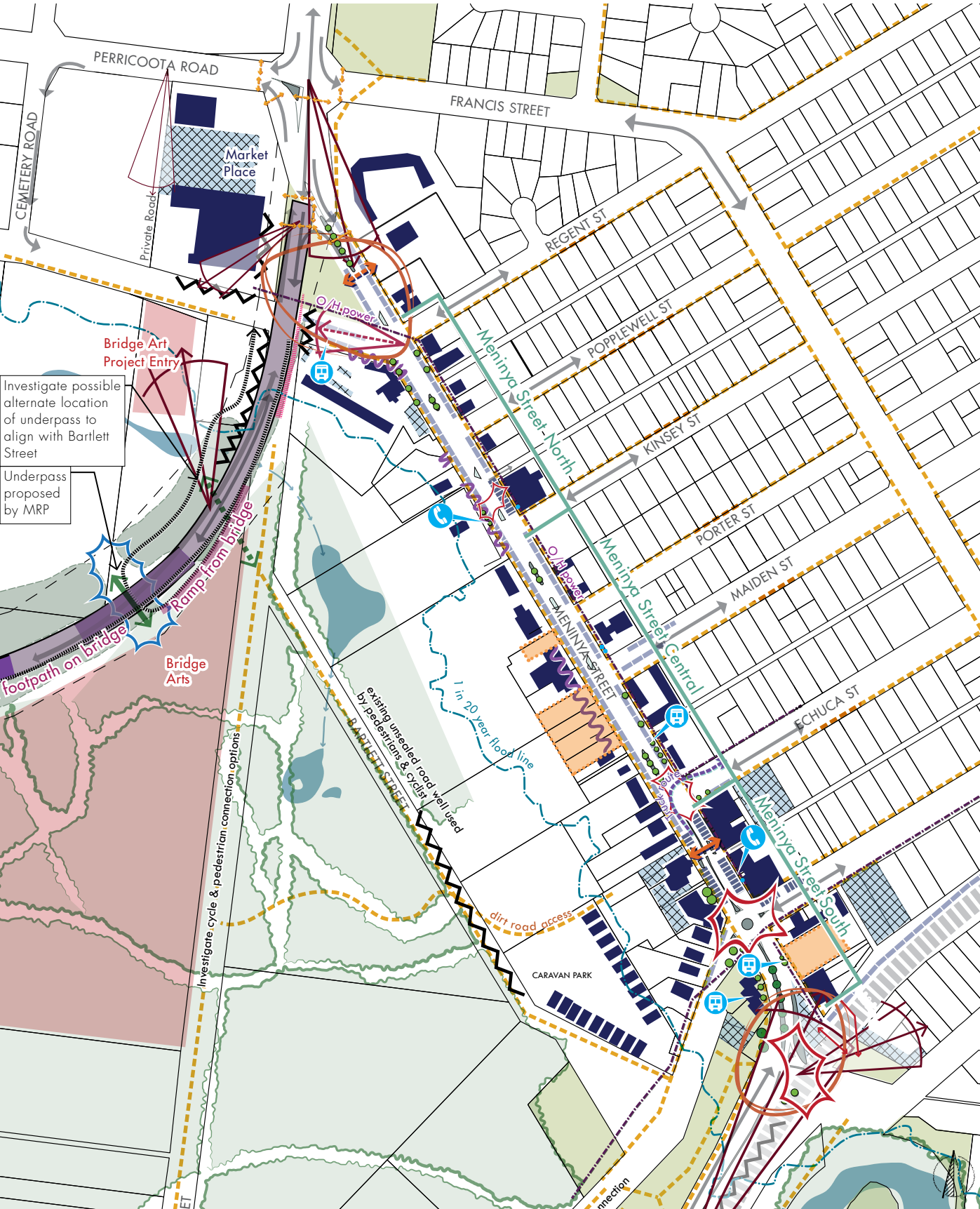
Vacant block facing Meninya Street

Fence etc. along Meninya Street frontage

Areas of poor aesthetic quality

Truck turning movement

Circulation issue



APPENDIX B - ANALYSIS

B.03 MENINYA STREET

MENINYA STREET - LAND USE
The street consists of a number of accommodation and retail businesses. There are also a number of vacant lots along Meninya Street.

LEGEND:

Accommodation (Resorts, Hotel, Motel and Inns)

Restaurant

Retail

Medical

Residential

Services

Post Office

Real Estate

Veterinary Clinic

Business

Murray River Council

Vacant Lot



APPENDIX C: LANDSCAPE QUALITIES

APPENDIX C - LANDSCAPE QUALITIES

C.01 REGIONAL

The Murray River is a boundary between New South Wales and Victoria, but it is also a shared asset and attractor to the region. The Riverina landscape in the town areas is highly modified to control water. The Riverina typically has towering River Red Gums with some undergrowth, swamplands and billabongs, smaller patches of grasslands. It is home to a rich diversity of fauna and flora.

The Cadell Fault Line is visible from south of Echuca to near Deniliquin. North of Moama, and near the Murray Valley National Park, is a 12-15m high cliff. The uplift of the Cadell Fault altered the river paths in the region since time immemorial. The floodplain has been lifted and creates the start of the flattest terrestrial plains on earth. Moama is a gateway to the Long Paddock Touring Route that explores the plains landscape and features artwork that celebrates local history.



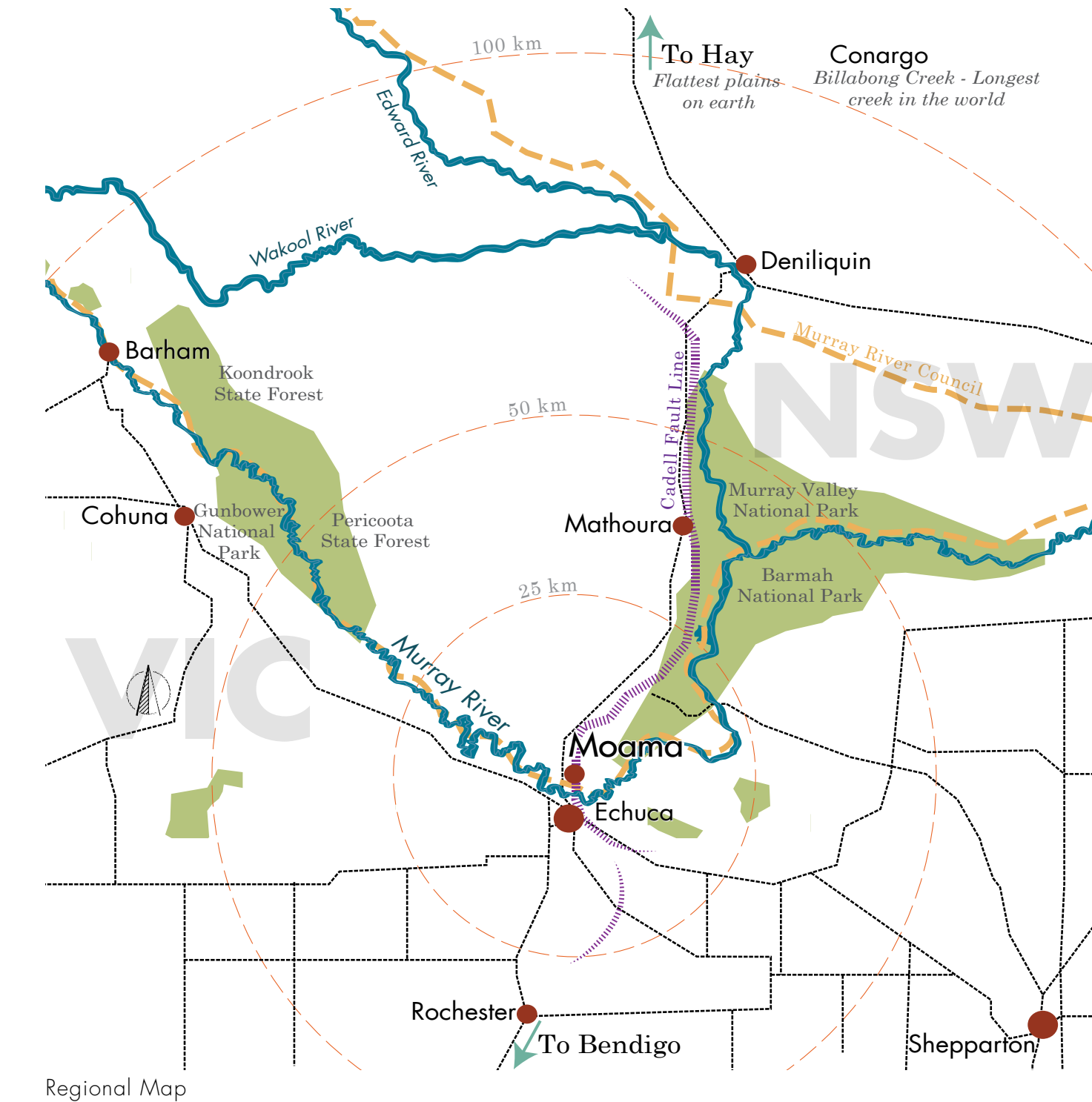
Plains landscape - David Kleinert Photography



Flooded wetland - Barmah-Millewa Forest - Murray Darling Basin Authority



Murray Valley National Park



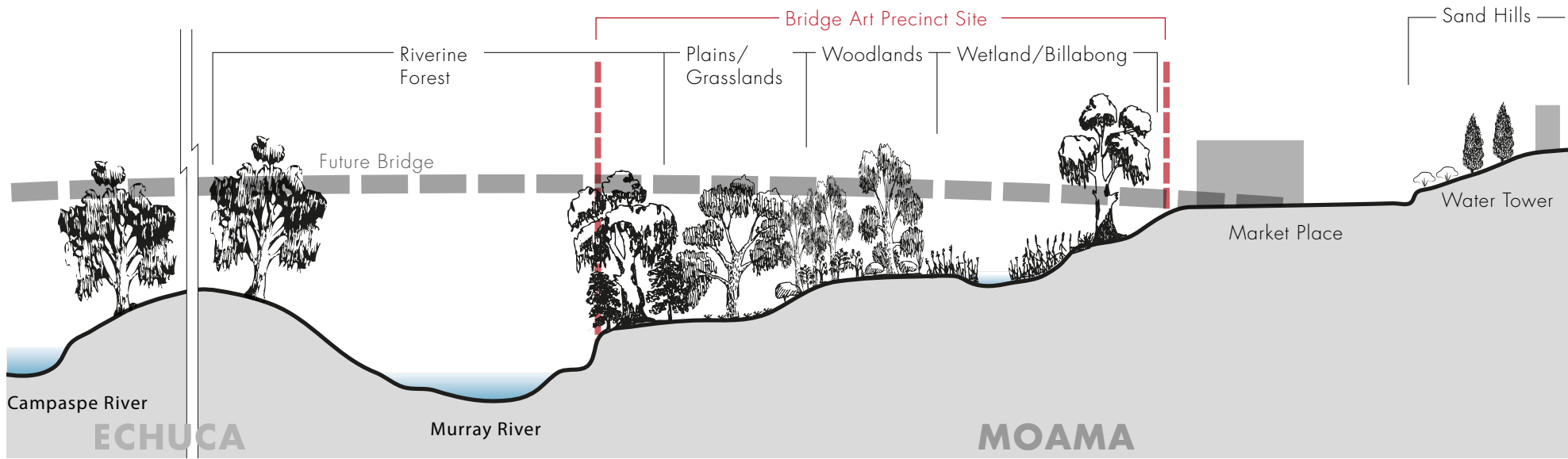
Regional Map

APPENDIX C - LANDSCAPE QUALITIES

C.02 ECHUCA - MOAMA

The landscape of the twin towns is typical of the Riverina. There are, however, important differences between the towns:

- Echuca means ‘Meeting of the Waters’ in the Yorta Yorta language. The town centre is between two rivers: the Murray and the Campaspe. The Murray has very high banks on the Echuca side and the swamplands have been formalised into controlled wetlands. Levees have been built close to the river to support urban development. The Moama side of the Murray has long, stepped banks which flood semi-regularly, less controlled wetlands and limited development on the foreshore. Moama means ‘Burial Place’ in the Yorta Yorta language. There are sand hills to the north of the town centre. Local Aboriginal people have noted these sand hills as one of the places historically used for Aboriginal burial sites.
- The twin towns share the same plant communities and fauna, except for Moama’s sand hills.
- Echuca has, up until now, embraced a historical narrative of the paddle steamer heyday. Moama is still to choose a strong identity that defines both the common and the different themes.
- River access is different too. Echuca has the historic wharf, larger mooring of private watercraft and a boat ramp close to the town centre. Moama has Horse Shoe Lagoon, Moama Beach, The Slipway, and a small private houseboat mooring area.
- By car, Echuca is only 3 hours from the Victorian state capital of Melbourne, while Moama is over 8 hours to Sydney. The different relationship to the river and state economics has influenced development over the last 170 years. Echuca has developed an active town centre which services the region well. Shops and services in Moama are limited in number and offer less choice in comparison.



Conceptual section
Note: exaggerated vertical scale



High Street, Echuca



Echuca boat ramp - location of new bridge



Murray River



Views to Moama Beach from the Bridge



Meninya Street, Moama



Sand hill with Callitris glaucophylla (Murray Pine) trees and water tower



Port of Echuca



Echuca Aquatic Reserve (2014)



Echuca - Moama Bridge



Moama Five Mile Mountain Bike Trail



Horseshoe Lagoon



Historic River Captains Cottage - Chanter Street

APPENDIX C - LANDSCAPE QUALITIES

C.03 MOAMA CENTRAL

Approaches:

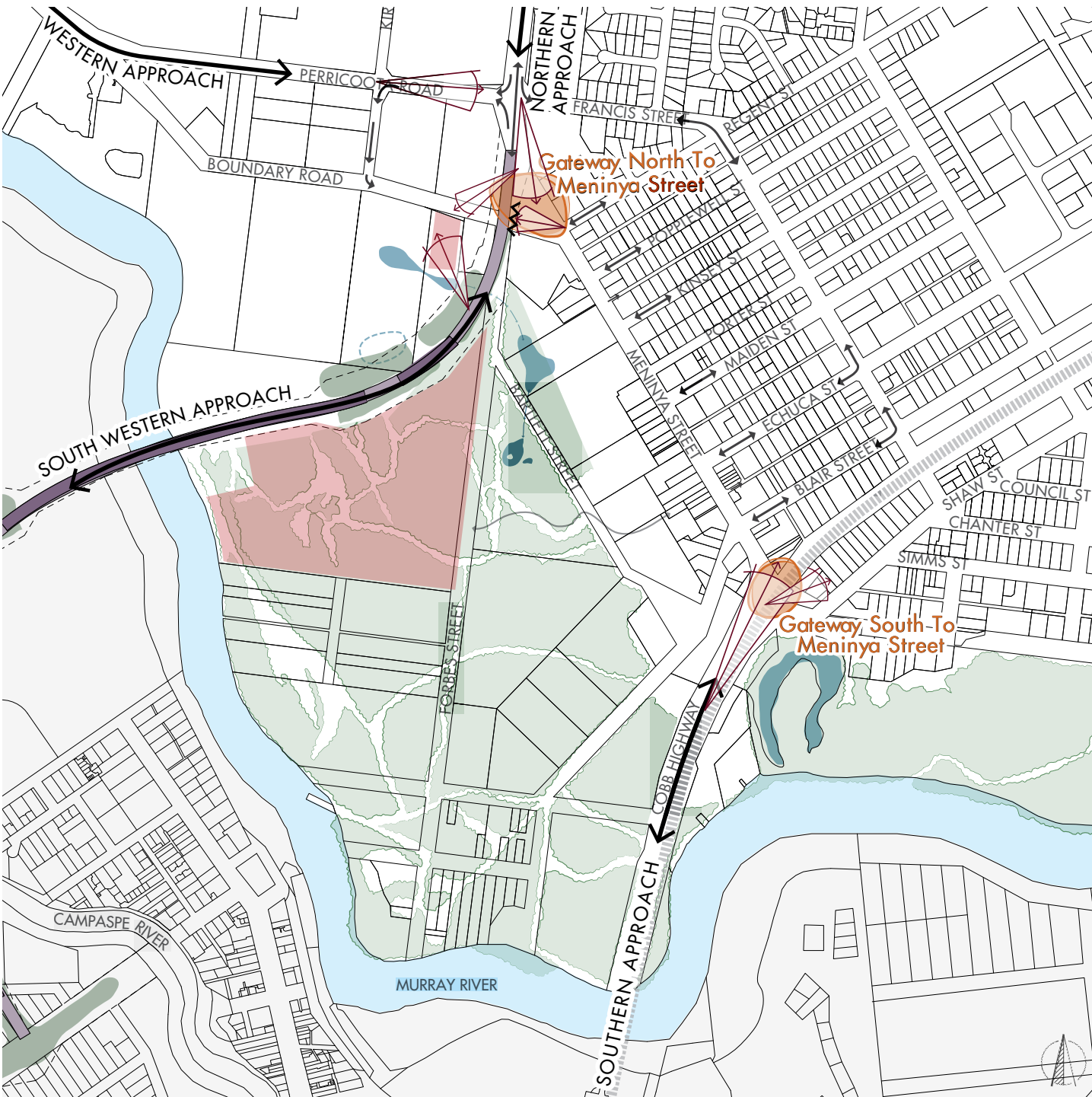
- There are going to be four approaches into Moama - Southern via the current bridge, Northern via Cobb Highway, Perricoota Road from the growing western subdivisions and South Western via the proposed bridge.
- The bridge approaches to Moama will have similar landscape qualities – views to the canopy of River Red Gums.
- The Cobb Highway and Perricoota Road will approach the town centre through built-up areas first.



Kerrabee Sound Shell



Moama Market Place



APPENDIX C - LANDSCAPE QUALITIES

C.03 MOAMA CENTRAL

- Precincts
- Southern Gateway - There are historical plantings of Canary Island Palms and Kurrajong trees that frame the entry at the south end of Meninya Street. The Kerrabee Sound Shell area provides a green outlook to the approach. On Market days this area is full of people. Large trees frame the Sound Shell and create a pleasant event space with shade and green grass.
 - North Gateway - The new traffic signalisation at Perricoota Road and the north end of Meninya Street will formalise a gateway to Meninya Street. Lions Park will change - removing the play and relocating the nearby bus stop. This green space is on the long view line and has the potential to form a welcoming entry to the town centre.
 - The Riverine Bushland provides a beautiful setting to the town. There are challenges of flood and fire which restrict development of the environment. The Red Gum forest is an asset, which provides the town with a natural identity and setting close to the central business district. Most of this area is private land and includes some dwellings. The private land in some cases extends to the bank of the Murray River.



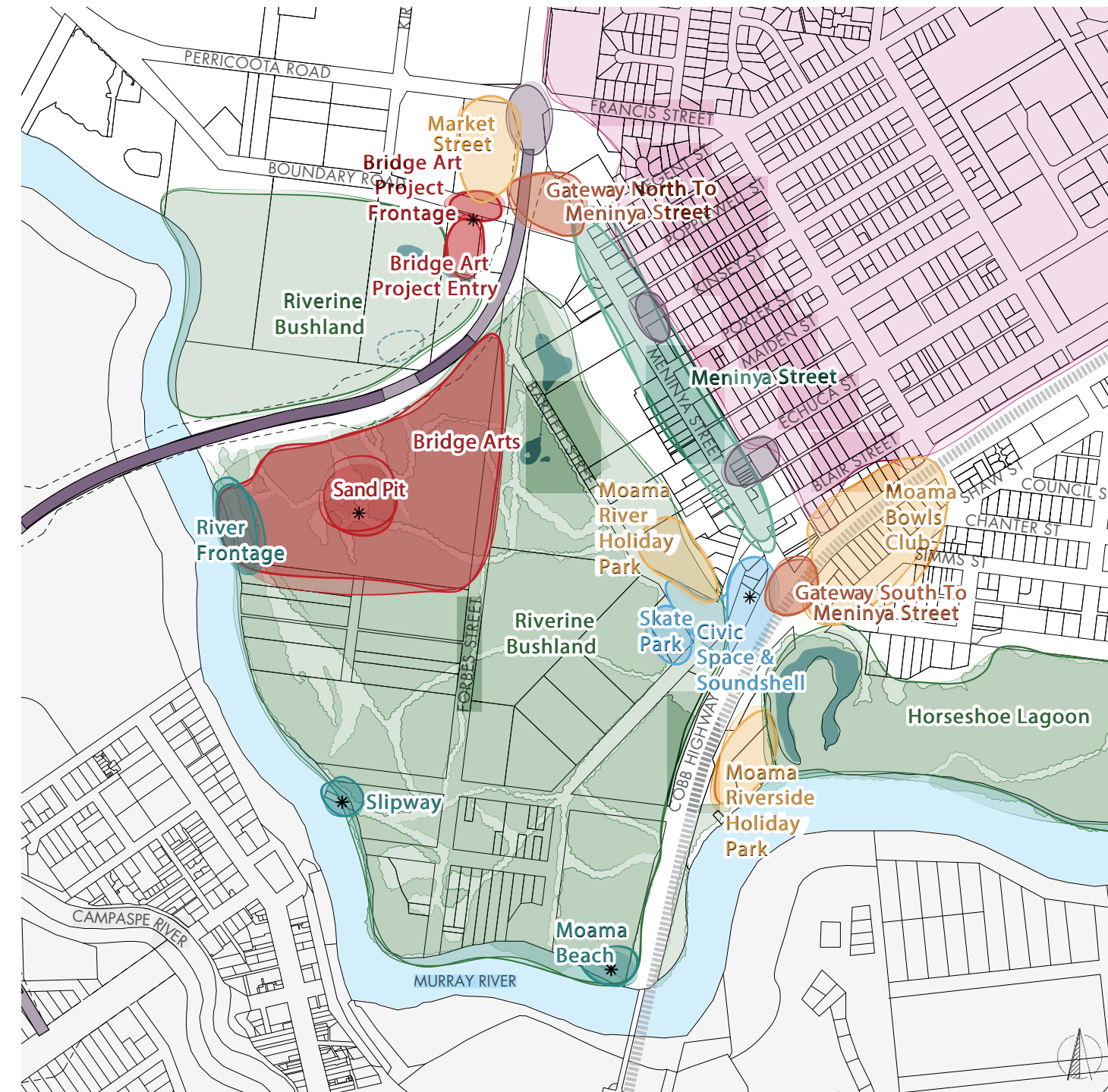
Moama Slipway (2011)



Moama Beach



Moama Skate Park



APPENDIX C - LANDSCAPE QUALITIES

C.04 BRIDGE ART PRECINCT

Bridge Art Precinct Landscape Zones

Visitors will approach the site from the new signalised intersection at Perricoota Road. This road is exposed, lacks trees and carries a significant volume of cars and deliveries. There is a private road next to the Marketplace that provides a viewline to the BAP site. This road is a private road, and it is not considered suitable as the primary access to the site. Cemetery Road is a council managed road and is preferred for that reason. There will be no direct access from the new bridge to the site. There will be some limited views from the bridge close to the site.

The Boundary Road frontage of the BAP site is opposite the rear side of the Marketplace. RMS is planning to upgrade the truck turning circle for deliveries. The space is vehicle dominated and 'feels back of house'. The planned works are likely to increase this feeling. There is a spray seal path along the BAP frontage.

The front of the BAP site is the only area above the 1:20 year flood level. The block has only a few Eucalyptus trees. The under-storey is minimal and is mostly slashed grass. The site slopes towards a small waterbody – part of a wetland system on private land. The site boundaries have not been officially subdivided.



Entry to the Bridge Art Precinct



Legend:

- Existing pedestrian footpath/trail
- Vehicle movement
- Path proposed by MRP
- Underpass proposed by MRP
- Possible alternate underpass location
- BAP site
- Areas of poor aesthetic qu

APPENDIX C - LANDSCAPE QUALITIES

C.04 BRIDGE ART PRECINCT

The new bridge is to be built over the site creating a second area closer to the river. This space will generally be subject to inundation.

The following areas have distinct landscape qualities which will impact on the site use and management:

River
Steep banks, old, large trees, fallen branches, more wattle trees and weed species



Regrowth areas
Dense natural revegetation of Box and Red Gum trees, approximately 20 years since the area was cropped



Grassland clearings
Land subject to inundation, diversity of grass species, some areas with younger Red Gums



Woodland areas
Medium and older aged trees, more under-storey and mid level species with a number of fallen branches



Sand quarry
Steep banks into large sand quarry, tree top views some grass species



Billabong - wetland areas
Very green, Red Gums and variety of grass species, high weed quantities



Old Sawmill site
Degraded and compacted soil, left over debris, cleared area with little revegetation, some remnant Box and Red Gum trees



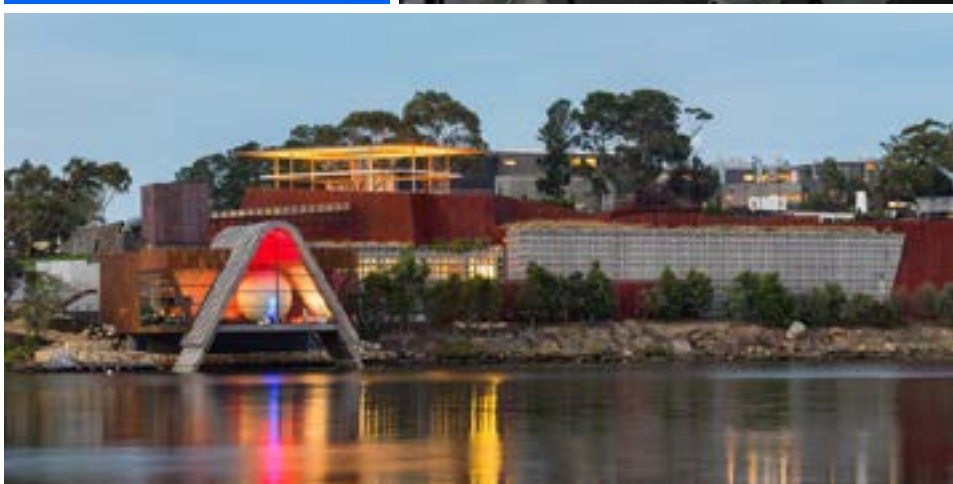
APPENDIX D: PRECEDENTS

APPENDIX D - PRECEDENTS

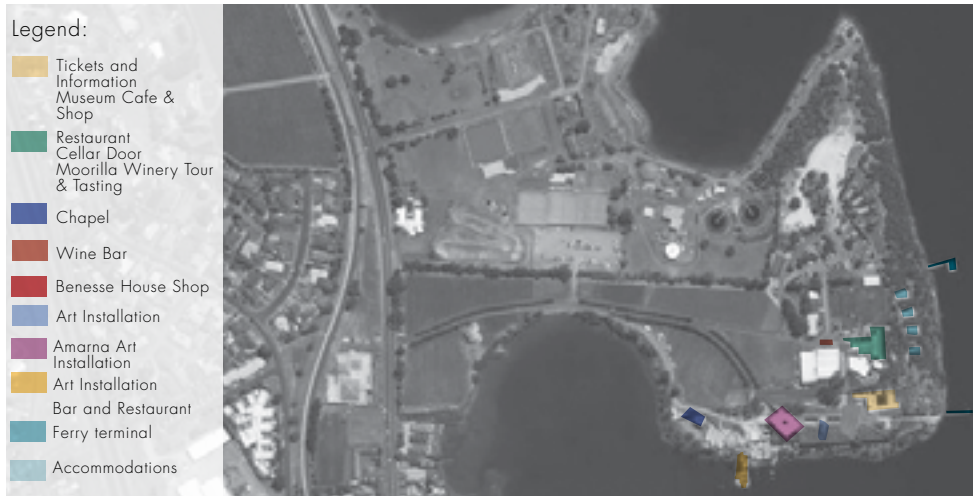
D.01 PRECEDENTS - ART PRECINCTS

MUSEUM OF OLD AND NEW ART (MONA), HOBART

Located just up the river from Hobart (Tasmania's southern capital), Mona's subterranean architecture showcases the highlights (and lowlights) of David Walsh's \$110m private collection of art and antiquities, as well as hosting a busy exhibitions program. Mona is also home to the Moorilla winery, Source Restaurant, bars, cafe, accommodation pavilions and more (plus Moo Brew, an off site brewery).



Scale comparison of Mona and Bridge Art Project Site



Mona - Programme analysis



Mona - Land use analysis

APPENDIX D - PRECEDENTS

D.01 PRECEDENTS - ART PRECINCTS

BUNDANON TRUST - BUNDANON AND RIVERSDALE MASTERPLAN

In 1979 Bundanon was sold privately to Arthur and Yvonne Boyd. Bundanon was gifted to the people of Australia in March 1993 and Bundanon Trust was set up by the Federal Government to administer the gift. In 2004 an upstairs room in the Bundanon Homestead was renovated to create a gallery space. In 2009 the machinery shed was transformed into a dance/performance space with a sprung floor. The Boyd Education Centre on the riversdale site officially opened in the 1999. The building comprises a forecourt and open plan hall area, a commercial kitchen and residential accommodation for 32 people. It caters for a diverse range of activities including dining, education workshops, conferences, weddings, performances and rehearsals. It has been described as a building which heightens the appreciation of its' surroundings.



Bundanon, Arthur Boyd's Studio



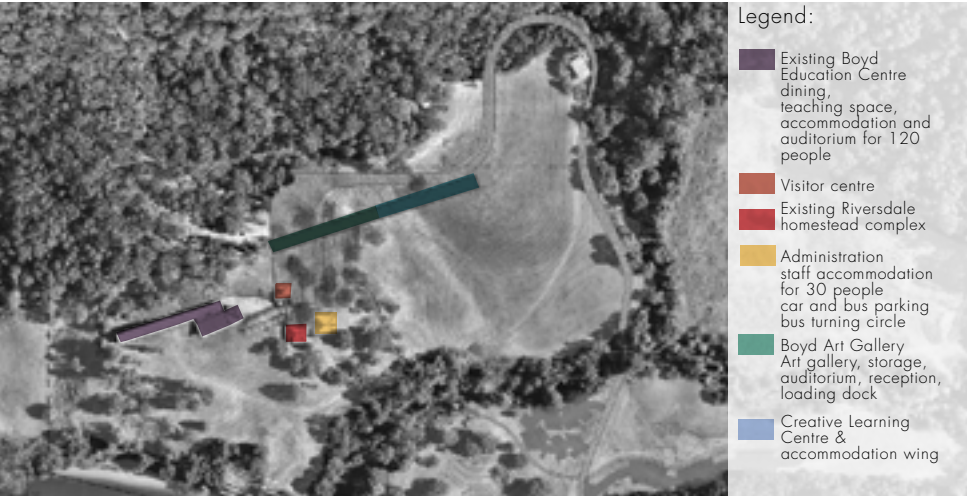
Riversdale, The Boyd Education Centre



Scale comparison of Bundanon Masterplan and Bridge Art Project Site



Scale comparison of Riversdale Masterplan and Bridge Art Project Site



Riversdale Propriety, Bundanon Trust - Programme analysis



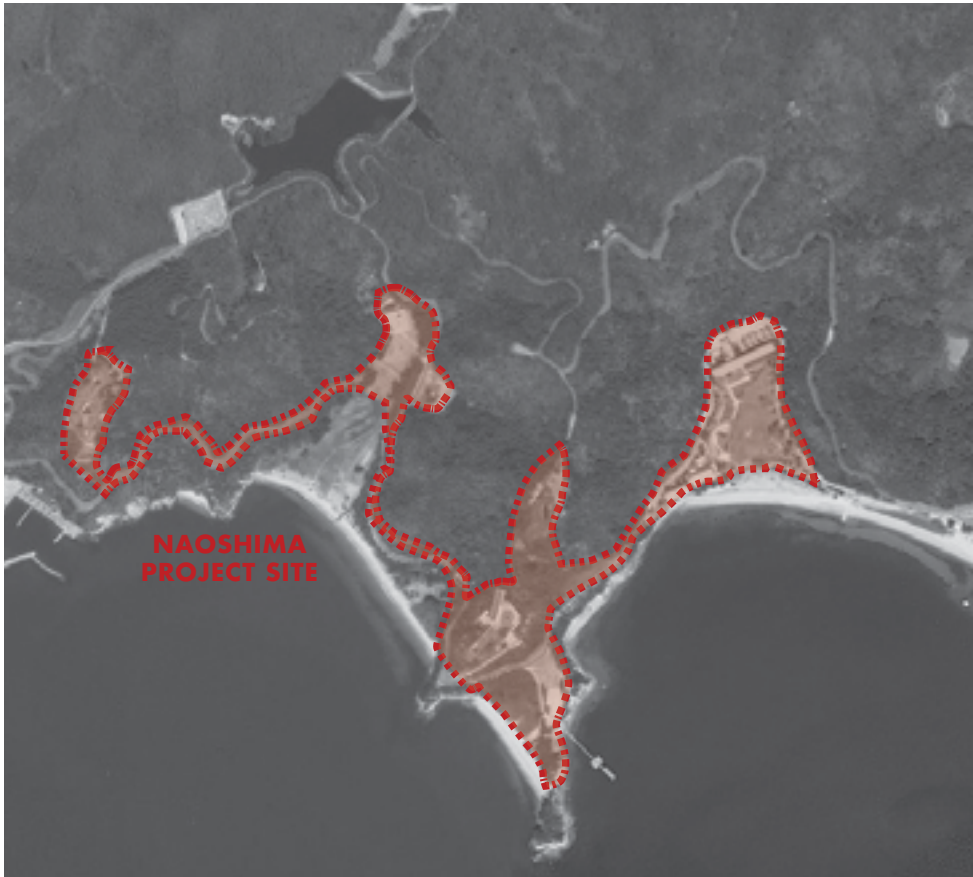
Bundanon Trust - Land use analysis

APPENDIX D - PRECEDENTS

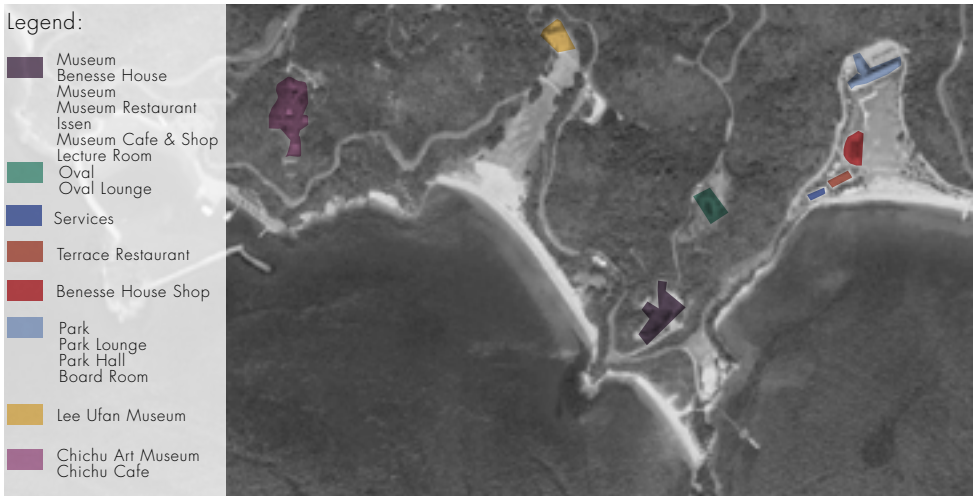
D.01 PRECEDENTS - ART PRECINCTS

BENESSE ART SITE NAOSHIMA, JAPAN

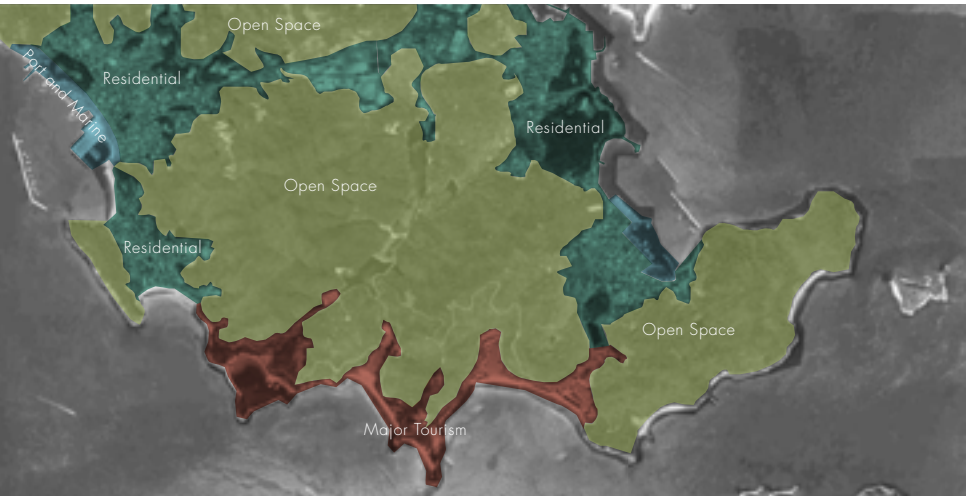
“Benesse Art Site Naoshima” is the collective name for all art-related activities conducted by Benesse Holdings, Inc. and Fukutake Foundation on the islands of Naoshima and Teshima in Kagawa Prefecture and on Inujima island in Okayama Prefecture. Among these islands, Naoshima — with a population about 3,000 residents — is a special place where people can enjoy Contemporary arts and architectural works in a splendid setting of ocean and mountain views, which has become a popular destination for international visitors. In contrast, Teshima Island, a homey place that preserves its local lifestyle amid unspoiled natural beauty, offers opportunities for artistic appreciation through its three art museums and more.



Scale comparison of Benesse Art Site Naoshima and Bridge Art Project Site



Benesse Art Site Naoshima - Programme analysis



Benesse Art Site Naoshima - Land use analysis

APPENDIX D - PRECEDENTS

D.02 PRECEDENTS - BRIDGE ART PROJECT

GATEWAYS

Gateways can begin to open up a street to expose the hidden landscapes behind. It allows a more fluid connections between destinations.



Hyundai Card Music Library by Choi Moongyu

POLYCARBONATED MATERIAL FOR EXTERNAL SURFACE OF GATEWAY

Polycarbonated material for the facade is a really versatile material that can be great during the day and night. This material allows lighting projections and lighting effects to occur during the night.



Rhode Island School of Design Performance Venue in Providence



Ghent Market Hall by Robbrecht & Daem + Marie-Jose Van Hee

RECYCLED TIMBER FOR INTERNAL SURFACE OF GATEWAY

The use of recycled or untreated timber from the site can begin to open up the natural landscape and bush setting to Meninya Street. This begins to connect the bush with the street and vice versa.



Little Big House by Room 11



Pumphouse Point by Cumulus Studio

APPENDIX D - PRECEDENTS

D.02 PRECEDENTS - BRIDGE ART PROJECT

FOLDED ROOF PROFILE

Having a large distinct building profile can be useful as a large signifier. This can attract community attention to a particular point or location. It can also begin to become part of a cities identity.



B14 by Studio Granda



Ghent Market Hall by Robbrecht & Daem + Marie-Jose Van Hee

ELEVATED PLATFORMS - TREE TOP WALKS

A treetop walk or elevated platform is a great experience for locals and visitors. It provides a different perspective of the natural environment and a different perspective.



Tree Walk in Singapore



Whiting Forest Canopy Walk



Tree Canopy Walk in Michigan's Dow Gardens

ART IN NATURE

The integration of art into the natural environment. Art as a destination can draw locals and visitors to the site. Placing art on the ground or in the trees can add to the visitor experience. Art can begin to tell stories of the past and draw visitor through the bush and taking them on a journey.



Sculpture at Scenic World

APPENDIX D - PRECEDENTS

D.02 PRECEDENTS - BRIDGE ART PROJECT

ART SHOWCASE

A showcase of major artworks, conceived and created by local and nationally significant artists, inspired by nature. Art can begin to tell stories of the past and take them on a journey.



Hiroshi Senju Museum by Ryue Nishizawa



Art exhibition displays

PLATFORM SPACES - OPEN GATHERING SPACES

The platform space is a large open gathering space or event space to host a number of functions. Here a new journey starts with a large event and activity platform – music, film, art and other gatherings will be held here.



ZCB Bamboo Pavilion by The Chinese University of Hong Kong o Architecture



Proposed gathering space 42nd Street, 2nd Avenue, New York

AMPHITHEATRE SPACES - OUTDOOR AND INDOOR

The amphitheatre space can begin to elevate people or indicate a seating area in which performances will occur. This can also become a great gathering space for different cultures and groups.



A Gathering Space, Scotland at Venice Biennale of Architecture, 2008



Amphitheatre

APPENDIX D - PRECEDENTS

D.02 PRECEDENTS - BRIDGE ART PROJECT

RING WALK

The ring walk encourages a clear and solid connection to multiple sites within its landscape. The ring walk allows a genuine urban connection and presence in any landscape it is in. It can incorporate colour, information boards, interactive art and viewing platforms to key locations.



The Brick Pit Ring by Durbach Block Jagers

LOOSE PERIMETER STRUCTURES

Loose perimeter structures allows sites to be distinguished as key destination. Due to its loose structure, the boundary is blurred and open to allow a fluid and unobstructed connection to key sites.



Mallast Point Park by McGregor Coxall

ART SHED/DEPOTS

Art sheds or depots are great structures to house artworks that are not on display in museums or galleries. Though it is labeled a shed, it is still an active space with its own exhibitions, artist spaces, studios, workshop spaces and educational facilities.



Archi Depot Museum in Tokyo



Archi Depot Museum in Tokyo



Collection Centre Netherlands by Cepezed

APPENDIX D - PRECEDENTS

D.02 PRECEDENTS - BRIDGE ART PROJECT

SIGNAGE

Signage is extremely important to allow visitors know exactly where to go. The use of signage can add a positive experience from getting from one destination to another. Signage will also be seen as a sculptural piece integrated with the art works on display and the bush.



City of Pheonix Mountain Preserve Signage



Brecon Beacons National Park signage by FWDP

NIGHT ACTIVATION - BUILDING ACTIVATORS

Street art is one of the many ways to rejuvenating a site. By applying pops of colour and art to the ground and the wall surfaces, it starts to give a street its own identity and character. This is a great tool to bring attention to a street and activate its associated site.



Light installations, Vivid Sydney

NIGHT ACTIVATION - PROJECTIONS

The use of projections on different surfaces, such as the surface of a building or the ground is a great tool to activate a site.



AURA Sound and Light Show Exhibition in Sovereign Hill



Projections on the ground, Parrtjima Festival

APPENDIX D - PRECEDENTS

D.02 PRECEDENTS - BRIDGE ART PROJECT

NIGHT ACTIVATION - PATHWAYS

Lighting the street with suitable, functional and creative lighting can create a safe, engaging and vibrant experience. It can also change the character of the street or path and can activate the streets at night to connect key destinations with night activities.



NIGHT ACTIVATION - EVENT SPACES

The use of light in public event spaces is a great tool to activate a site. Contemporary and creative lighting can bring vibrancy to the space and can change the character of the space though the use of diverse colours.



NIGHT ACTIVATION - SKATE PARKS

Lighting up the skate park with functional and suitable lighting is extremely important to activate the space at night and to create a safe environment for people and youths who will be using this space.



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

STREETSCAPE

Maitland Levee, Maitland NSW
McGregor Coxall

Material choice
WSUD
Deciduous trees
Custom furniture



John Street, Singleton NSW
SCAPE Design

Tree Cells
Colour
WSUD
Custom furniture & lighting



Grey Street, Brisbane QLD

Layers of greenery
Arbour & vines
Boulevard of trees
Height in the streetscape



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

STREETSCAPE INFRASTRUCTURE & TECHNOLOGY

Strataflow, Citygreen

Green & Blue infrastructure
WSUD
Irrigation
Water quality



Image from CityGreen

Tree Cells

Tree establishment
Root space
Canopy cover



Kent Street Cycleway - Sydney

View Street, Pall Mall & High Street, Bendigo VIC

Underground power
Tree boulevard



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

WATER SENSITIVE URBAN DESIGN

Sixth Street, Murray Bridge SA
Jensen Plus

Raingardens
Kerb edge
Pits



Were Street, Montmorency VIC

Tiered system
Corten



Kerb & Raingardens

Kerb or no kerb
Kerb cut ins and blisters
Swale
Feature grates



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

ARBOURS & PERGOLAS
Bendigo Market Place, VIC

Timber
Horizontal and vertical shade



Langtree Mall, Mildura VIC
Hansen Partnership

Feature
Dappled shade
Introducing colour



Shepparton Law Courts, VIC

Simple shape
Integration with furniture
Climbing vine



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

CUSTOM FURNITURE
Natural Materials

Timber
Corten steel
Red brick
Concrete
Exposed aggregate concrete



Shepparton Law Courts - VIC

Colourful

Powdercoated steel
Stainless steel
Concrete



Morgan Court, Glenroy - Enlocus



Florence Streets, Port Pirie SA - Jensen Plus



Holland Street, Thebarton SA

Rokeby Road, Subiaco WA

APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

LIGHTING

Custom lighting
Lighting as sculpture
Lighting along surfaces & in trees
Pedestrian scale lighting



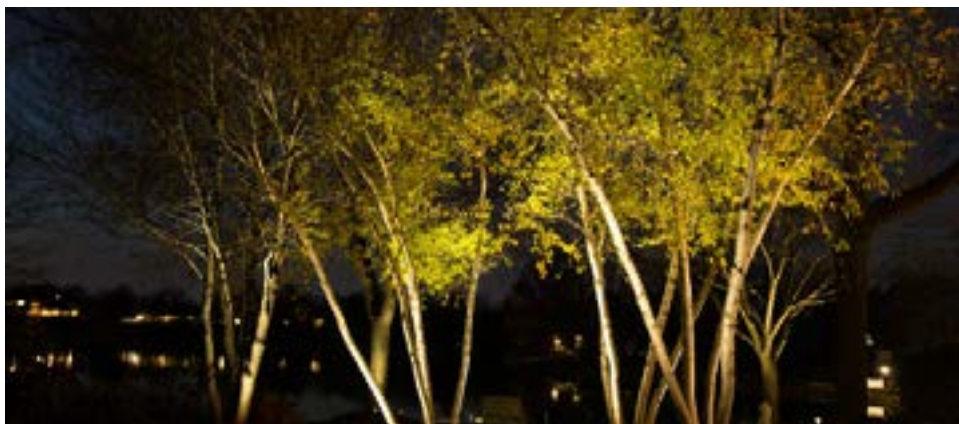
ASPIRE, Warren Langley 2010 - Sydney



City of Fremont, California US



Forest Hill Village Streetscape, Toronto Canada - PLANT Architect



Windrush Square, Brixton - GROSS.MAX.

APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

UNDERPASS



Greenock underpass, UK - William Dobbie



Central Park Blvd Underpass, Denver US



Craiglinn Underpass, Cumbernauld Scotland - Bigg Design



Bowen Place Crossing, Kings Avenue Bridge, Canberra - Lahznimmo Architects



Cardinia Road station, Melbourne - Lump Studio



Thunder Over The Rockies - Richard C. Elliott, Denver US



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

ABORIGINAL ARTWORK & INPUT

Musée du quai Branly, France
Lena Nyadbi



Champion Lakes Aboriginal Interpretive Centre
Gresley Abas



IHHP - Dion Brownfield

Projects with Eye and Ear Foundation to improve health in regional communities
Produced in collaboration with hip-hop dance workshops



APPENDIX D - PRECEDENTS

D.03 PRECEDENTS - LANDSCAPE

A LIGHT TOUCH IN A RIVERINE ENVIRONMENT



Krakani lumi, TAS - Taylor and Hinds Architects

BOARDWALKS



Kew Tree Top Walkway, London - Marks Barfield Architects



Victoria Park Lake, Shepparton VIC



MacKenzie Falls Gorge Trail, Grampians VIC - Hansen Partnership



MacKenzie Falls Gorge Trail, Grampians VIC - Hansen Partnership