

Active Transport Plan

Narrandera Shire
2023



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I Disclaimer

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ACKNOWLEDGEMENT OF COUNTRY

Narrandera Shire Council acknowledges Aboriginal and Torres Strait Islanders as the first Australians and recognises that they have a unique relationship with the land and water.

Narrandera Shire is situated on the traditional lands of the Narrungdera Clan of the Wiradjuri Nation, who have lived here for thousands of years. We offer our respect to their elders past and present and through them, to all Aboriginal and Torres Strait Islander people.

Aboriginal people maintain a strong belief that if we care for Country, it will care for us. This requires Country to be cared for throughout the process of design and development of projects such as the Narrandera Shire Active Transport Plan.

Many of the transport routes we use today follow the traditional Songlines, trade routes and ceremonial paths in Country that Aboriginal people followed for thousands of years.

It is appropriate that the Narrandera Shire has an Active Transport Plan that plans for new connections to Country under a systematic approach with appropriate levels of community engagement.

A 'Connecting with Country' approach will also help us all meet any statutory requirements to sustainably manage Aboriginal culture and heritage in the built environment.





MESSAGE FROM THE MAYOR

I am pleased to present the first Active Transport Plan to support walking, cycling and personal mobility in the Narrandera Shire.

Since the adoption of the Narrandera Community Strategic Plan in 2012, Council has been making informed decisions about development and infrastructure projects under its Integrated Planning and Reporting Framework. The Narrandera Shire Active Transport Plan is our most recent plan to help programme improvements to the transport network.

The Narrandera 2034 Community Strategic Plan highlights the community's aspiration to be a shire that strives for an inclusive community with great lifestyle opportunities and a clear direction for long term sustainable development.

Walking and cycling, otherwise referred to as active transport, is environmentally friendly and good for your health, not to mention the social and economic benefits. To achieve a connected, safe and well used active transport network, we need a plan to make active transport part of our everyday routines.

The State government has a goal to double active transport trips in 20 years and it is one that I very much support for the Narrandera Shire, given our beautiful connections to Country and interesting urban streetscapes.

Our goal is to create accessible towns and great local destinations and many options to get there.



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01

PROJECT INTRODUCTION

Narrandera Shire Council has prepared the first Active Transport Plan to apply in the Narrandera Shire. The Active Transport Plan is proudly funded by the NSW Government in association with Narrandera Shire Council.

Narrandera Shire has a large network of constructed footpaths within the main towns and a smaller cycling and shared path network. Public amenities, directional signage, water points, seating, bicycle racks, streetlights and trees as well as other urban facilities all support this network.

Travel patterns are dispersed across Narrandera Shire and highly dependent on motorised vehicles for long and short trips. As a result, the road network can become quite busy, particularly along highways and main roads as well as local roads during the harvest season, peak shopping times, school zones times and around weekend sporting and community events.

The Narrandera ATP draws on the Narrandera Shire Pedestrian Access and Mobility Plan 2016 as well as the Transport for NSW Future Transport Strategy and Active Transport Strategy, both released in 2022. The aim is to make active transport the preferred way to undertake short trips, with Transport for NSW encouraging regional councils to assist with achieving the NSW target to double the number of active transport trips within 20 years.

The Narrandera ATP identifies a range of infrastructure improvements and social initiatives, aimed at enhancing pedestrian and cycling opportunities within the Narrandera Shire, with a particular focus on urban areas where the

highest level of active transport occurs. Given there are limited funds available to undertake this work, the Narrandera ATP proposes targeted improvements that are assessed to have the greatest benefits and user support.

Stakeholder engagement and investigations have already commenced through surveys, workshops and meetings with various agencies, interest groups and residents. Feedback received so far provides valuable insight on active transport behaviour, attitudes and aspirations. It suggests the community is supportive of a more comprehensive and safer active transport network throughout the Narrandera Shire.

Public exhibition of the Narrandera ATP was the next step in the process, followed by community input on the recommended actions in the Narrandera ATP and final adoption by Narrandera Shire Council. The Active Transport Plan will be used as a planning tool by Council to assist with the programming of new projects.

02 THE VISION

The State Vision

The Transport for NSW Future Transport Strategy 2022 sets out the key actions to connect communities and encourage more people to choose active transport, including:

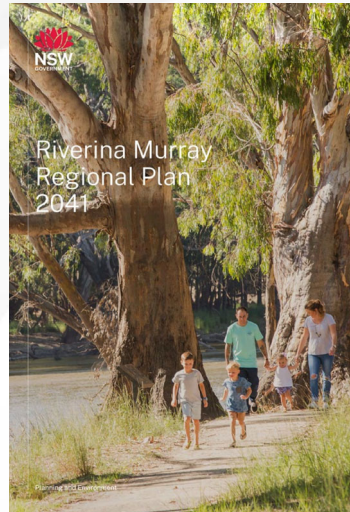
- + Delivering continuous and connected cycling networks.
- + Improving the safety and comfort of people walking and riding bikes by providing fit-for-purpose active transport infrastructure and appropriate road speeds.
- + Facilitating children's and young people's independent mobility by improving safe walking and bike riding options for travel to and from school.
- + Supporting multimodal journeys by integrating active and public transport.
- + Encouraging a shift to walking and cycling trips by delivering walking and cycling infrastructure to support mode shift.
- + Supporting emerging technology choices such as e-bikes and other micro-mobility devices.

The Transport for NSW Active Transport Strategy 2022 draws on the NSW Future Transport Strategy 2022 and its vision for walking, riding and personal mobility. The NSW Government wants walking and bike riding to be the preferred way to make short trips and a viable, safe and efficient option for longer trips. The vision of the NSW Active Transport Strategy 2022 is to double active transport trips in NSW over the next 20 years by focussing on five areas:

- + Enable 15-minute neighbourhoods.
- + Deliver continuous and connected cycling networks.
- + Provide safer and better precincts and main streets.
- + Promote walking and cycling and encourage behaviour change.
- + Support our partners and accelerate change.

The NSW Active Transport Strategy advocates for councils to adopt longer term ambitions (through the development of active transport plans) to guide planning, investment and priority actions for active transport across NSW, including regional and rural areas.





The Vision for the Region

Narrandera is within the Riverina Murray Region, which is one of the strongest agricultural regions in Australia and well connected to national road and rail corridors.

The Riverina Murray Regional Plan 2041 provides the NSW Government's vision for land-use in the region, including the natural environment, future hazards, housing and related infrastructure, industry, employment areas and town centres.

While not specifically targeting transport planning, the Riverina Murray Regional Plan 2041 supports the expansion of transport networks and improved connections between centres and other regions to bolster business and industry growth.

Other recent regional planning work such as the NSW 2040 Economic Blueprint, Transport for NSW Future Transport 2056, NSW Services and Infrastructure Plan, regional economic development strategies and regional water strategies have been incorporated into the regional plan.



The Narrandera Community Vision

The Narrandera 2034 Community Strategic Plan sets the following long-term vision for Narrandera Shire:

'The vision of our Community Strategic Plan is 'to preserve and enhance the lifestyle of our communities by encouraging, promoting and facilitating the sustainable development of the Shire'. We do this by 'Achieving Together.'

Five focus areas have been agreed upon to achieve the community's aspirations and vision for Narrandera Shire, as follows:

- + Our Community.
- + Our Environment.
- + Our Economy.
- + Our Infrastructure.
- + Our Civic Leadership.



The Narrandera Delivery Framework

The Narrandera Shire Council 2022 - 2026 Delivery Program is Council's four-year commitment to the progression of work highlighted for greater focus.

Council's Operational Plans provide specific detail on the delivery of projects within each financial year, including budgets.

The Narrandera Shire Council Road Safety Action Plan is a four year plan for the delivery of local road safety projects to June 2025. This plan incorporates analysis of local crash data to identify issues to be addressed through education and behaviour change programs.



Narrandera Active Transport Plan

The Narrandera ATP (this report) proposes a targeted project approach to the progressive improvement of the active transport network over a 10 to 20 year period.

Projects identified in the Narrandera ATP have been visualised in mapping and prioritised to facilitate inclusion in Council's Delivery Program and Operation Plans.

Council will refer to the Narrandera ATP when seeking grant funding assistance or raising the profile of important projects with other organisations, residents and stakeholder groups.

03

CHALLENGES + OPPORTUNITIES

Recent Changes

A lot has changed since the adoption of the Narrandera Shire Pedestrian Access and Mobility Plan 2016, including:

- + Floods and bushfires have demonstrated the need to build more resilient towns and multi-modal transport systems.
 - + The COVID-19 pandemic has shown how quickly we can adapt and adopt new habits such as remote working, different transport choices beyond motor vehicles and a rethink of work / life balance and the five-day work commute.
 - + There is more urgency around reducing greenhouse gas emissions from transport, with a growing demand for electric vehicles and the NSW government making a commitment to Net Zero for transport operations by 2035.
 - + Connecting with Country now informs the planning, design, and delivery of built environment projects in NSW.
 - + The 6 Cities Region of Greater Sydney has supplanted the Metropolis of Three Cities, and there is renewed emphasis on regional planning and development.
 - + The Movement and Place framework introduced in 2018 is now fully embedded in Transport for NSW policy.
- + New targets for '15-minute neighbourhoods' have been adopted by Transport for NSW policy under the NSW Active Transport Strategy 2022.
 - + Other Important policies that support active transport infrastructure have been released, including the NSW Road User Space Allocation, Providing for Walking and Cycling in Transport Projects, the Walking Space Guide and the Cycleway Design Toolbox.
 - + Improvements in taxi, uber and rideshare services and public transport ticketing technology is empowering customers to be more comfortable choosing the best mode for a trip and switching between modes.
 - + Micro-mobility in the form of mobility scooters, e-bikes and e-scooters is growing strongly, requiring consideration of these new transport modes in the road environment.
 - + Recent State government funding for the preparation of the Narrandera ATP allows Council to undertake more detailed planning of its walking and cycling program.



Challenges

- + The size of the Narrandera Shire and distances between centres.
- + Social and cultural connections to Country, with 11.3% of the population being from Aboriginal or Torres Strait Islander heritage.
- + Health, well-being and access, with almost 30% of the population 55 years old and over.
- + Heavy vehicle and through traffic along urban and rural roads, with the Newell Highway and Sturt Highways running through the shire.
- + High motor vehicle dependency, with over 75% of the people using motor vehicle transport to travel to work.
- + Flooding of the Murrumbidgee River, drought and bushfires.
- + Work and lifestyle challenges.
- + Weeds and sediment movements over paths and parkland facilities.

Opportunities

- + Unique and beautiful places – riparian areas, National Parks and reserves, with locals and visitors wanting to experience open freedoms, natural wildlife including koalas and other connections to Country.
- + Supportive communities, with water and land management innovations, resource sharing, health, education and transport being at the forefront of community focus.
- + Building even more resilient / connected communities around health, education, sports, natural landscapes, rural land management and local businesses.
- + Providing active transport facilities to attractors such as to commercial precincts, schools, hospitals, sports facilities and riparian areas.
- + Using active transport initiatives to promote health, safety, environmental and economic goals.
- + Conditions at Narrandera are ideal for walking and cycling. A high proportion of the town population lives within a walkable distance of the Narrandera CBD and many of the schools and workplaces.

04

APPROACH + METHODOLOGY

Active transport users are far more attuned to the environment in which they are moving than faster moving motorists.

Planning for pedestrians and cyclists does not follow the same logic as motor traffic planning, which normally involves a 'car' - 'trips' - 'routes' - 'traffic network'. It places more emphasis on the environment and the conditions along routes and at attractors.

An important aspect of the Narrandera ATP is to build an understanding of the elements that will make a good pedestrian and cycling network in the local context. These include an understanding of the following:

- + The types of existing / potential pedestrians and cyclists and their needs.
- + The condition of the existing pedestrian and cycling network (including existing paths, gaps and barriers).
- + Where pedestrians and cyclists are going and why.
- + The traffic environment (speed and volume) that pedestrians and cyclists must deal with.
- + The most appropriate design options that meet pedestrian and cyclists needs, including standard and innovative options.
- + The views and aspirations of stakeholders.
- + The key planning and engineering principles that underpin an effective and usable network.
- + Mechanisms to program / fund improvements to the active transport network.

The approach is to develop new active transport plans that build upon existing infrastructure and that address the key issues and aspirations identified from community consultation and audits.

To achieve this approach, the Narrandera ATP was undertaken in the following stages:

Stage 1 - Asset Review

The main elements of the existing network of active transport facilities have been recorded on a series of maps in the Narrandera ATP. This local data has been presented to key Council staff, Transport for NSW and other stakeholders as the basis for reviewing the long-term management of the active transport network in Narrandera Shire.

Stage 2 - Independent Audit Investigations

Consultant planners and traffic engineers specialising in active transport planning have been engaged by Council to independently investigate the existing active transport network. This audit work was undertaken by:

- + Drive-through and walk-through surveys of the study area, with particular focus on settlement areas, primary routes and attractors.
- + On-site meetings with community members where specific sites / issues needed to be observed / discussed.

The audits were not meant to gather a comprehensive inventory of pedestrian and cycling assets in the Narrandera Shire. The emphasis of the audits was on identifying gaps in the network as well as the barriers to people using the network.

Stage 3 - Promotion

Information about the Narrandera ATP was published in local media and Council's website to inform community members about the preparation of the new plan. Emails were also sent out to stakeholders known to Council to have an interest in pedestrian and cycling activities.

Stage 4 - Online Survey

An online survey was made available to obtain more information from community members about walking and cycling behaviour and attitudes. Sixty (60) surveys were completed which provided great insights on existing active transport activity and community aspirations into the future.

Stage 5 - Preliminary Community Workshops

Community workshops were held in Barellan, Grong Grong and Narrandera in December 2022. The workshops were structured around a series of local area maps to define issues and places of interest. Questions were asked about the pedestrian and cycling network and local conditions that led the conversation to allow for problems, solutions, suggested routes and feedback to be covered within the allocated workshop. Throughout the workshops, the responses given had common themes which reiterated the desire for additional paths to popular destinations and routes within the community.

Stage 6 - Local Data Review and Planning

The audits and stakeholder feedback revealed a variety of pedestrian and cycling facilities provided in Narrandera Shire in varying conditions. Expectedly, the investigations identified a number of deficiencies and barriers in the network, which are discussed later in this report. Where these involved minor issues, they were discussed with Council staff for addressing. Project planning and development issues were also discussed with relevant staff to assist with the formulation of projects and priorities in the Narrandera ATP.

Stage 7 - Narrandera Active Transport Plan

The Narrandera ATP was prepared to record the relevant information in one succinct strategy document. Incorporated into the Narrandera ATP are a series of maps dealing with the audit and engagement findings as well as active transport project plans for Barellan, Grong Grong and Narrandera.

These plans 'visualise' the additional facilities required to achieve a connected network in each town. A Matrix Table in Section 8 provides full visibility on how priorities and actions were decided. Concept designs of the top priority projects recommended for action are also shown in the Narrandera ATP along with project costings and any notes relating to project implementation.

Stage 8 - Public Exhibition

Formal public exhibition of the draft Narrandera ATP was completed in accordance with the Narrandera Community Participation Plan. The draft plan was made available for viewing at the Narrandera Council Chambers and on Council's website.

Stage 9 - Review of Submissions and Finalisation of Narrandera ATP

The final task was to review the draft plan and finalise the programme of infrastructure projects for adoption by Council.





05

LOCAL CONTEXT

Narrandera Shire

Narrandera Shire is centred on the Murrumbidgee River, approximately 550 kilometres south-west of Sydney and 437 kilometres north of Melbourne.

Narrandera is located at the junction of the Murrumbidgee River, Newell and Sturt Highways. The junction marks the transition between the extensive broad acre agricultural areas of the western slopes and plains to the east and the highly productive Murrumbidgee Irrigation Area (MIA) to the west.

The Narrandera Shire has a population of around 5,905 people (2021 Census) spread over a relatively large area of 4,117 square kilometres. It includes the townships of Narrandera, Barellan and Grong Grong, with Binya village and a number of farming localities all contributing to the unique characteristics of the region.

The mainstay of the Narrandera Shire economy is agriculture, with 24% of the Shire's workforce employed in this sector.

Analysis of car ownership from 2021 Census data indicates over 90% of households in Narrandera Shire own one or more motor vehicles. The dependency on motor vehicles is largely the result of limited public transport coverage and the large distances between origins and destinations.

Only a small proportion of the community use alternative methods to travel to work, with walking being the most preferred with around 6% of people advising they walk to work in the 2021 ABS Census.

Access to education and support services and a long-term focus on improving health and well-being are important issues to cater to the needs of existing and future residents. Poor access to public transport contributes to social disadvantage and accessibility issues in some sections of the community.

Barellan

Overview

Barellan has a population of 459 (2021 Census) and is located on Burley Griffith Way, approximately 56 kilometres north of Narrandera. Barellan is known for agricultural production and the Big Tennis Racquet associated with great Australian tennis player Evonne Goolagong-Cawley, OAM.

Barellan has a central school which caters for students K-12, multi-use sports ground and swimming pool, a small commercial and community precinct with a hotel, club, general store / café and post office.

Barellan is a convenient / regular stop for traffic travelling along the Burley Griffin Way, which forms into Yapunyah Street within the urban area. Road safety conditions along Yapunyah Street would be improved considerably with a review of parking, footpaths and crossing points west of the intersection of Yapunyah and Boree Street.

The drainage conditions around Barellan are also an issue for pedestrians and cyclists, with flat conditions leading to the build-up of sediment within gutters, which tends to create water ponding at road crossing points.

Preliminary consultation and audit findings

The audit and consultation work in Barellan revealed a relatively extensive footpath network in fair to good condition. A number of opportunities and constraints (deficiencies, gaps and barriers) were identified in the Barellan active transport network, which are discussed in this section. A map summarising the audit / consultation findings of the Barellan investigations is also presented.

I Footpaths

There is a need to provide safer crossing conditions at Yapunyah Street near the centre of business and visitor activity (west of the intersection of Yapunyah and Boree Street). The constructed footpath network south of Yapunyah Street is patchy, particularly along Myall Street and Mulga Street which are readily used by residents, students and recreational walkers. Given the concentration of facilities south of Yapunyah Street there is a need to provide additional connections to link the western part of Yapunyah Street (including Barellan Post Office) to Barellan Central School, Barellan Swimming Pool and Barellan Sports Ground as well as residential properties south of the main street.

I Shared Paths

There are no shared paths within Barellan. The community is supportive of shared paths where they can fit within the footpath reserve.

I Kerb Ramps

In general, the provision of kerb ramps along existing paths is patchy, non-compliant and affected by water ponding within gutters and the road shoulder. There is a need to undertake a comprehensive review, repair and / or replacement program of all kerb ramps in Barellan. New kerb ramps should form part of any new footpath treatments.

I School Zones

Barellan Central School has an established school zone. There is an existing footpath network (focused primarily on Mulga Street and Boree Street) connecting the school to other

nearby attractors including Barellan Swimming Pool, Barellan Sports Ground and key commercial / community uses on Yapunyah Street. The installation of an additional footpath connection to Yapunyah Street via Myall Street would benefit school children as well as residents living in the southern areas of Barellan looking to walk and / or cycle to the District War Memorial Club and Post Office and other attractors in this area.

I Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Barellan. There does not appear to be any need to provide dedicated bike lanes or off-road cycle paths at this stage.

I Road crossings

There is generally limited use of kerb extensions and blisters to reduce effective road carriageway width and provide more effective road crossing points.

There is a need to provide safer crossing conditions of Yapunyah Street to connect the General Store and Barellan Hall (south side of street) to the public toilets, barbecue facilities, CWA Rest House, parking and tourist facilities located on the northern side of Yapunyah Street.

The drainage conditions around Barellan need to be reviewed to ensure footpath and road crossing points are free draining and are not affected by water ponding after rain events. This is particularly important along Yapunyah Street, which has minimal fall and no underground drainage system. Improved crossing points, underground drainage and / or

regular maintenance and cleaning of gutters would avoid incidences of people walking on roads and crossing roads at inappropriate locations.

I Barriers

The railway and traffic along Yapunyah Street act as slight barriers to walking and cycling movements.

I Obstacles

Water ponding along Yapunyah Street and open drainage swales at some locations act as temporary obstacles after rain events. No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

I Trip hazards

Some kerb ramps and grassed footpaths present as trip hazards. Provision of concrete footpaths and new kerb ramps along main walkways would help address potential trips and falls.

I Lighting

No major issues were raised / noted.

I Tactile indicators

Generally absent in Barellan and not required at this stage.

I End of trip facilities

Evonne Goolagong Park provides end of trip facilities.

I Signage

Generally absent at main visitor attractors.



General Comments

There is a general need to plan for long-vehicle parking within Barellan.

There are sight distance issues at some locations within Barellan that need to be considered as part of the planning of the new active transport network.

Swale drains and pipe crossings can impede access for pedestrians in some locations of Barellan.

Informal parking locations can also impede access for pedestrians in some locations of Barellan.

The main street is not particularly accessible for aged or disabled persons.

The disabled car parking space in front of the Barellan General Store is not compliant and needs to be reviewed.

Project
Narrandera Active Transport Plan

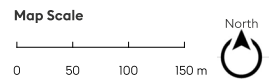
Map Title
Consultation / Audit Map

Map Location
Barellan

Sheet Ref
Sheet 01 of 01

Map Legend

- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways - Operational
- Railways - Disused
- Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
- Centre Refuge Island
- Existing Pedestrian Crossing
- Regular Walking and Cycling Routes
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- On-road Bike Lanes
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Grong Grong

Overview

Grong Grong (population 326) is located approximately 32 kilometres to the north-west of Narrandera.

The Newell Highway bypasses the Grong Grong Township on the western outskirts of town. Traffic in Grong Grong connects to the Newell Highway via Berrembed Street. The Junee-Hay Railway also passes through Grong Grong in an east-west direction and there are major grain receipt depots adjacent to railway lines.

The Grong Grong Post Office and General Store in Junee Street are the centre of most daily traffic and activity. The Royal Hotel, at the corner of Narrandera Street and Balara Street is also a strong attractor.

The Grong Grong Motor Inn is located north-west of town with frontage to Berrembed Street.

Residents were observed walking on roads throughout town, as well as across the railway line between Junee Street to Narrandera Street.

Preliminary consultation and audit findings

The audit and consultation work in Grong Grong revealed a general lack of footpaths and facilities. Key active transport issues and opportunities are discussed in this section. A map summarising the audit / consultation findings of the Grong Grong investigations is also presented.

I Footpaths

There are constructed footpaths along Junee Street adjoining the main street shops. There are also small sections of constructed footpaths along the street frontages of the Grong Grong Commemoration Hall and the Royal Hotel. The blue lines on the map show the existing footpaths in Grong Grong. The balance of streets have grassed footpath verges. The blue dash lines show parts of the road network that are being readily used by pedestrians that do not have constructed footpaths.

I Shared Paths

There are no shared paths within Grong Grong.

I Kerb Ramps

There are kerb ramps along constructed footpaths with varying levels of compliance. In general, the provision of kerb ramps along existing paths is patchy and non-existent where there are no constructed paths. New kerb ramps should form part of any new path treatments.

I School Zones

There are no schools in Grong Grong and there is no need for school zones or crossings.

I Bicycle Lanes

There are no on-road cycling lanes or exclusive cycling paths in Grong Grong, nor are they warranted at this stage.

I Road crossings

There are no constructed road crossings in Grong Grong.

I Barriers

The railway and Newell Highway act as barriers to active transport movement. The warrant for a formal crossing point of the Newell Highway is low due to the lack of land-use attractors on the western side of Berrembed Street.

There is a need to provide a formalised crossing of the Junee to Hay Railway. The path crossing the railway is not recommended as it is not located on the public road network. A new path along Canola Way would provide a safe cross of the railway.

I Obstacles

No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

I Trip hazards

Grassed footpaths present as potential trip hazards. Provision of concrete footpaths and new kerb ramps along main walkways would help address potential trips and falls.

I Lighting

No major issues were raised / noted.

I Tactile indicators

Generally absent in Grong Grong and not required at this stage.

I End of trip facilities

The park adjoining the Post Office provides end of trip facilities.

I Signage

Generally absent.

I Other

The roadside environment near the Royal Hotel includes a bus stop that is used as a central drop-off and pick-up point for Countrylink and school buses.



General Comments
 No general issues or comments raised as part of consultation. Specific issues are identified on the map.

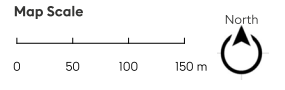
Project
 Narrandera Active Transport Plan

Map Title
 Consultation / Audit Map

Map Location
 Grong Grong

Sheet Ref
 Sheet 01 of 01

- Map Legend**
- Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railways - Operational
 - Railways - Disused
 - Speed Signage - 40km
 - Public Toilets
 - Bus Stops
 - Existing Kerb Blister
 - Centre Refuge Island
 - Existing Pedestrian Crossing
 - Regular Walking and Cycling Routes
 - Regular Walking Routes
 - Existing Shared Paths
 - Existing Gravel Paths
 - Existing Footpaths / Under Construction
 - On-road Bike Lanes
 - Water Feature
 - Landuse - Recreation
 - Landuse - Community
 - Landuse - Education
 - Landuse - General Commercial
 - Landuse - Industrial



Narrandera

Overview

Narrandera is home to approximately two-thirds of the Shire's population and has the mainstay of services and facilities including Narrandera Central Business District (CBD), Narrandera Art and Community Centre, Narrandera District Hospital, Marie Bashir Park, public and private schools, TAFE, administrative buildings (police station, post office, courthouse, council buildings) and the Narrandera Showground.

Conditions at Narrandera are ideal for walking and cycling. Over 90% of the town population lives within one kilometre of the Narrandera CBD, schools and workplaces. Many of the streets in Narrandera are quite wide and have lower traffic volumes than in larger regional centres. The parklands and riparian areas in Narrandera offer ideal conditions for residents and visitors to conveniently access natural and outdoor spaces.

Tree lined streets, heritage buildings, beautiful natural environs, koala colony, rich natural wildlife and the Lake Talbot aquatic environment incentivise daily walking and cycling by many residents as part of their regular exercise routine. The rich diversity of riparian bushland is also catering to a burgeoning visitor economy that is seeking connection to Country, wildlife and friendly locals.

A new pedestrian bridge linking Lake Drive to Oakbank Street has been constructed and this improves access over the main canal, which forms part of the program of riparian bridge crossings to create a comprehensive active transport plan for Narrandera.

Preliminary consultation and audit findings

A number of opportunities and constraints were identified in the Narrandera active transport network, which are reported in this section. A map summarising the audit / consultation findings of the Narrandera investigations is also presented.

I Footpaths

The blue lines on the map show existing footpaths. The blue dash lines show the streets with no footpaths that were observed to be used by pedestrians. All community members consulted are supportive of more footpaths.

I Shared Paths

The purple lines on the map show the existing shared path network, which include bitumen sealed and concrete surfaces. The purple dash lines on the map show parts of the road network that are being readily used by pedestrians and cyclists which would benefit from a shared path. All community members consulted are supportive of more shared paths.

I Kerb Ramps

There are a number of kerb ramps that need to be provided or need replacing due to poor alignment, grade or condition.

I School Zones

Schools in Narrandera are generally provided with constructed footpaths and / or shared paths. Conditions around Narrandera High School, Narrandera Public School and St Josephs Primary School are quite busy during school zone times and require a more comprehensive active transport network. For Narrandera East Infants School, pick-up and drop-offs

occur within school grounds, however maintaining quality footpath and shared path connections would encourage active transport to this facility.

I Bicycle Lanes

There is one small section of on-road cycling lane in Narrandera. Consultation with community members suggested a focus on off-road shared paths over the provision of dedicated bicycle lanes on roads. There are some regular cyclists who seek on-road cycling for leisure or training. The section of Irrigation Way between Narrandera and Weir Park Road was identified as a hazardous ride for cyclists, particularly the bridge crossing of the main canal approximately 1.7km from the outskirts of town.

I Road crossings

There is generally limited use of kerb blisters and refuge islands to reduce effective road carriageway width and provide more effective road crossing points. The main existing crossing points are shown on the audit map.

There is a need to provide safer crossing conditions of canals and river crossings to create a more connected active transport network.

The bridge crossing of the main canal on Larmer Street was raised as a potential safety issue by residents in the area that needed addressing by Council as soon as practical.

I Barriers

The Junee to Hay Railway running through Narrandera and the Newell Highway both act as major barriers for active transport movements north and south of town. Limited crossing points tend to concentrate active transport movement along main roads. Community members consulted raised issues about informal rail crossing points used by some pedestrians. It was generally appreciated that negotiating access agreements over railway reserves for active transport use was difficult and often requires many years of planning. It was suggested the focus should be on providing paths that incorporate existing road crossing points to ensure coherent, safe and direct paths. Using road crossing points over canals was also raised as a potential barrier.

I Obstacles

No street furniture, signs or other structures were observed to present major obstacles or hazards to pedestrians or cyclists on constructed paths.

I Trip hazards

Footpath cracking and sections of broken paving were observed on some footpaths in the central business district and along some residential streets. Some constructed paths finish before the road pavement which creates potential trip hazard areas.

Many existing kerb ramps present as trip hazards due to poor alignment, grade or condition. Provision of concrete footpaths, shared paths and new kerb ramps along main walkways to the edge of the sealed road carriageway would help address potential trips and falls.

I Lighting

No major issues were raised / noted.

I Tactile indicators

Generally absent in Narrandera CBD and other public areas.

I End of trip facilities

There are a good number of public parks and facilities providing end-of-trip facilities throughout Narrandera.

Other

There are a number of attractors on the outskirts of Narrandera (Rocky Waterholes, Mountain Bike Trails, Carella Woods, Aboriginal Cultural areas) that are being accessed by people walking or riding their bike.

There was a need to provide greater focus on cyclists and bike riding activity, with most people asking for more constructed shared paths to avoid traffic and punctures from catheads and bindies.

The Newell Highway was raised as a road corridor requiring off-road paths.

I Signage

Generally absent.



Sheet 01	Sheet 04	HILWICK CRES
Sheet 02	Sheet 05	Sheet 06
Sheet 03		



Joins Map Sheet 02

General Comments

The community would generally like to see more recreational cycling routes which connect to the river and the forest.

The community would generally like to see wider paths throughout the township.

The community would generally like to see some of the existing gravel path networks upgraded to bitum or concrete.

Road bike riders use Irrigation Way to access rural areas to the west of Narrandera. There is a bridge approximately 2.7km from Narrandera that presents as a hazard. The community would be supportive of improvements along this road that improve road cycling conditions.

Ask first (Aboriginal Cultural Groups) when contemplating projects in riparian areas and other cultural areas.

There is a need for greater promotion of existing walking tracks.

Project

Narrandera Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Narrandera Township

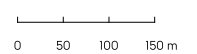
Sheet Ref

Sheet 01 of 06

Map Legend

- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways - Operational
- Railways - Disused
- Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
- Centre Refuge Island
- Existing Pedestrian Crossing
- Regular Walking and Cycling Routes
- Regular Walking Routes
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- On-road Bike Lanes
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
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Map Scale



Sheet 01	Sheet 04
Sheet 02	Sheet 05
Sheet 03	Sheet 06

Joins Map Sheet 01

Joins Map Sheet 03

Joins Map Sheet 05

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
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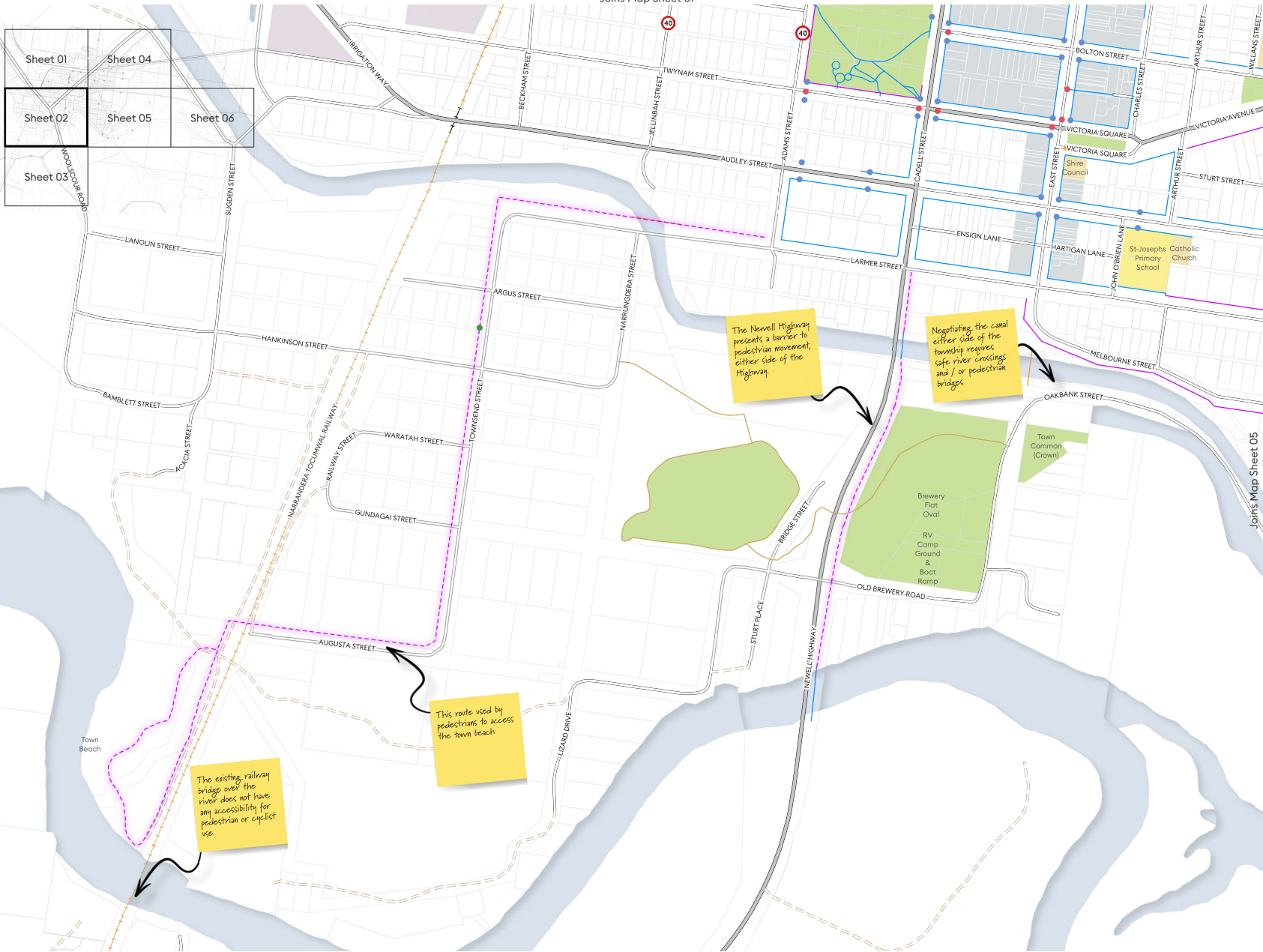
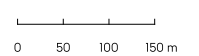
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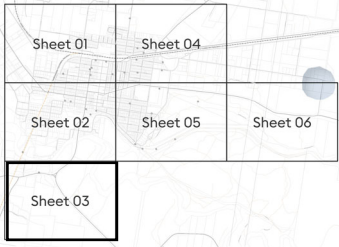
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Joins Map Sheet 02



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Narrandera Active Transport Plan

Map Title

Consultation / Audit Map

Map Location

Narrandera Township

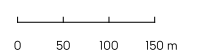
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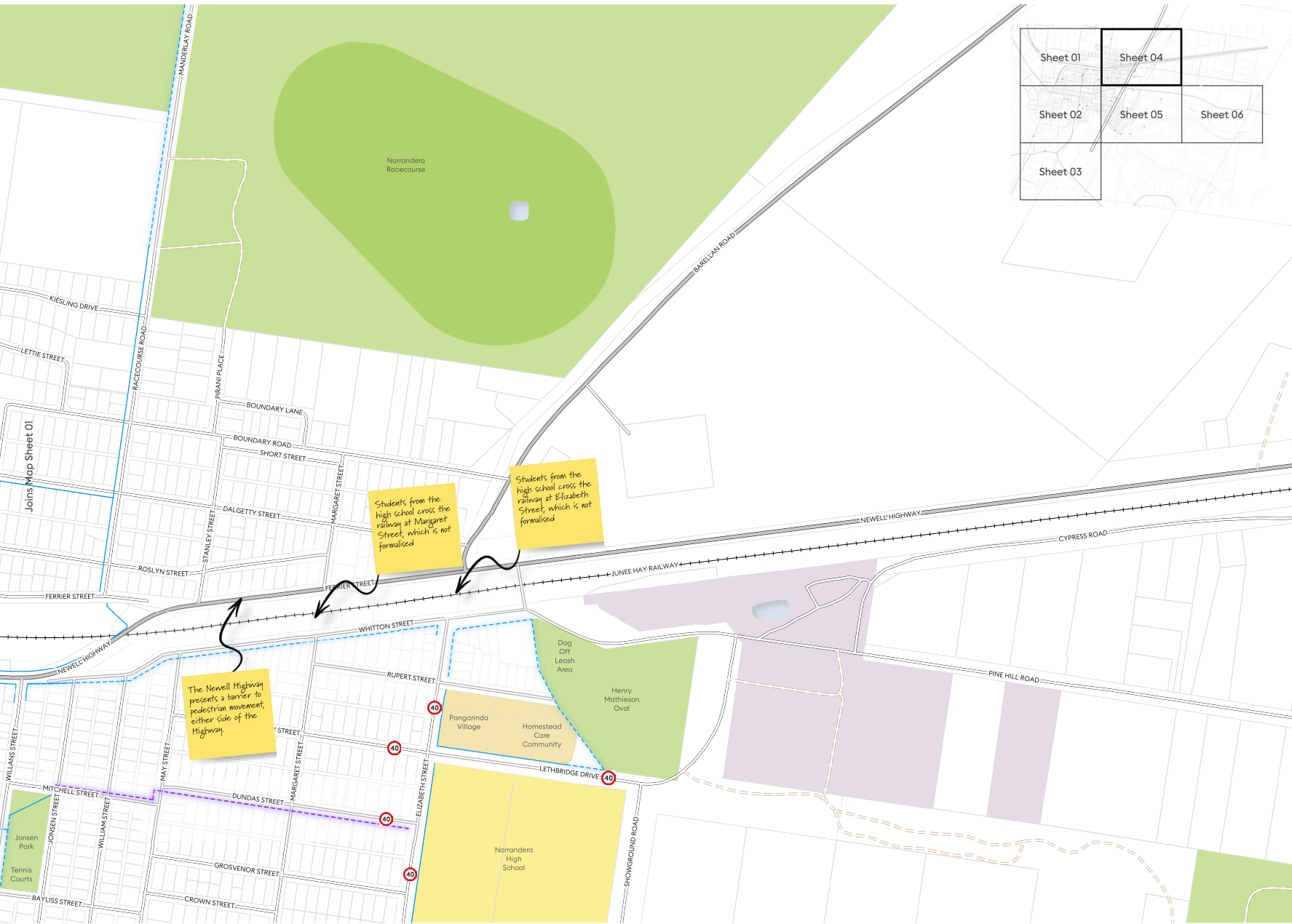
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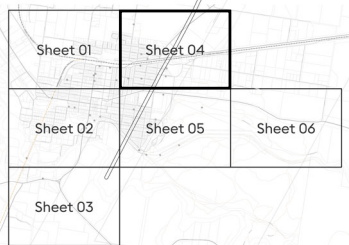




The Newell Highway presents a barrier to pedestrian movement, either side of the Highway.

Students from the high school cross the railway at Margaret Street, which is not formalised.

Students from the high school cross the railway at Elizabeth Street, which is not formalised.



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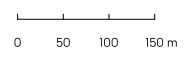
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Sheet 04 of 06

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Map Scale



Joins Map Sheet 04



The shared path on the southern side of Victoria Ave is regularly used by pedestrians and cyclists connecting to key attractors in this area of Naranderra. Parts of the path appear degraded and in need of repair.

There is strong support for improvements to the active transport network leading to the Rocky Waterholes.

Negotiating the canal either side of the township requires safe canal crossings and / or pedestrian bridges.

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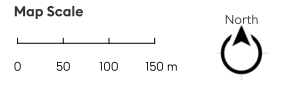
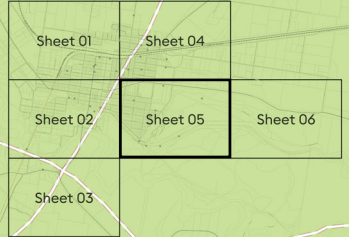
Project
 Naranderra Active Transport Plan

Map Title
 Consultation / Audit Map

Map Location
 Naranderra Township

Sheet Ref
 Sheet 05 of 06

- Map Legend**
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Joins Map Sheet 05

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Project

Narrandera Active Transport Plan

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Consultation / Audit Map

Map Location

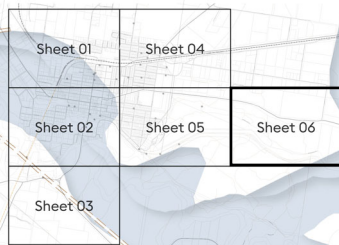
Narrandera Township

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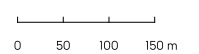
Sheet 06 of 06

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Map Scale



Iconic walks and rural attractions

The bushland walking trails around Narrandera warrant special attention as they provide a wide range of opportunities for locals and visitors to exercise, socialise and enjoy the natural beauty of the Murrumbidgee River and riparian forested areas.

Improvements to the off-road active transport network is seen by many as important in supporting the health, fitness and safety of the local community as well as the wider visitor economy.

A 'Bike and Hike Narrandera' map has been produced to show the general location of walking paths and destinations around the outskirts of Narrandera. This map needs updating, and the level of detail is likely inadequate to satisfy the requirements of visitors to plan trips into these areas.

Navigational and interpretative signage around Narrandera is also inadequate to provide people with enough information to fully explore attractions.

Improvements in mapping and signage, and the general availability of this information (in hard copy maps, brochures and online) would likely improve satisfaction levels of visitor experiences to local tourist attractions and destinations.

Regular Riding Routes and Destinations

There are no formal pedestrian or cycle routes connecting towns and villages in the Narrandera Shire. Cycling between towns and to other rural destinations within Narrandera Shire is generally undertaken by individuals and small bunch rides via a number of well-established routes known to local cyclists.

Narrandera has a local cycling club known as 'Narbugs'. The club holds regular weekend training rides and other planned events. There are also active cycling clubs and groups established in nearby centres such as Griffith and Wagga Wagga.

The mode of choice for cyclists appears to be road bikes and all-terrain bicycles. Road bike rides along sealed roads was described by a number of locals as potentially hazardous due to traffic and the conditions along rural roads. This was especially highlighted for bike riders observed riding along Irrigation Way between Narrandera and Leeton where there is a narrow bridge approximately 2.7km from the western outskirts of Narrandera that presents as a hazard. Some bike riders suggested if road conditions could be improved west of Narrandera, the local road network then 'opens-up' to give bike riders more options to access quieter rural roads. It was discussed that improving active transport conditions along this section of Irrigation Way is difficult due to traffic volumes, bridge barriers and the costs associated with creating effective improvements.

Locals seeking recreational cycling activity tend to ride more sturdy all-terrain bikes (e.g. flat bar touring bikes and mountain bikes) due to the existing road conditions and the freedom they provide in accessing quieter gravel roads and rural attractions.

In the community workshops a number of people expressed the desire to see more recreational cycling routes connecting to the Murrumbidgee River and riparian forested areas. The Bike and Hike Narrandera map (right of page) shows some of the main walking and cycling routes used by locals and visitors.



Planning decisions at a local level are influenced by broader global, National, State and regional issues, trends, needs and planning priorities.

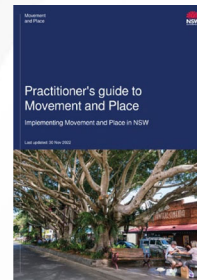
The review of supportive documents serves the following purposes:

- + To ensure the Narrandera ATP aligns with regional, State and national policy directions.
- + To ensure the Narrandera ATP aligns with the wider context of transport and land-use planning policy directions.

- + To understand the projects, links and network connections being planned in adjoining local government areas that might benefit the strategy.
- + To help understand the correct methodology and approach when preparing the strategy.
- + To help identify any deficiencies within the current network and existing policies that may hinder ongoing success.

The following documents are particularly important.

Movement and Place Practitioner's Guide



Explains how built environment practitioners can apply a Movement and Places approach to projects and plans

Walking Space Guide



Provides a set of standards and tools to ensure that sufficient space is provided on streets to achieve comfortable environments which encourage people to walk.

Cycleway Design Toolbox



Provides guidance on desired outcomes for cycling and micromobility. It establishes design principles for cycleways in specific contexts, including temporary initiatives and public bicycle parking facilities.

Network Planning in Precincts Guide



Provides best practice principles, tools, examples and case studies of a transport network that facilitates the efficient movement of people and goods while supporting 15 minute neighbourhoods.

NSW Public Spaces Charter



The NSW Public Spaces Charter has been developed to support the planning, design, management and activation of public spaces in NSW. It identifies 10 principles for quality public space.

NSW Guide to Walkable Public Space

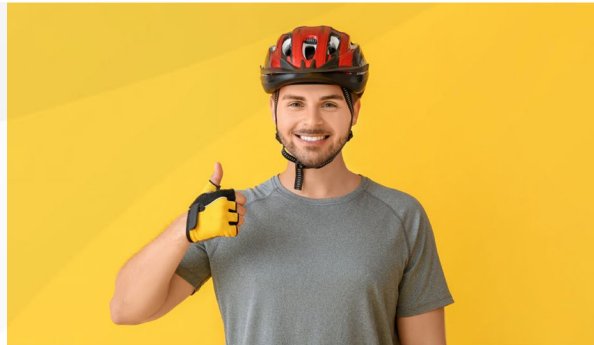


Outlines why walkable public spaces are needed. It includes ideas and opportunities for how they can be created and methods for trialling and evaluating improvements.

06

STRATEGIC CONTEXT

07 BENEFITS OF ACTIVE TRANSPORT PLANNING



Healthy Lifestyle

Leading an active lifestyle brings many benefits for the general health and well-being of Narrandera Shire residents. Using footpaths, bicycle lanes and shared paths provide a cheap means of incorporating exercise into our daily routine. As a regular activity, walking, running, bike riding, scooter riding or skateboarding can aid the prevention of:

- + Heart disease.
- + Stroke.
- + Type 2 diabetes.
- + Falls, fractures and injuries (through improved strength and coordination).
- + Hypertension.

Active transport activity can also improve psychological well-being, metabolism, muscle strength and flexibility, endurance, respiratory function, energy levels and weight management. All this aids in a speedy return to good health in the event of illness or recovery from trauma / surgery.

Children's health should include regular physical activity, with at least 60 minutes of moderate to vigorous physical activity being recommended for children 5 to 18 years of age to keep healthy. Outdoor activity, such as playing, walking, running, biker riding, scooter riding or skateboarding can contribute to children's health, as well as their development of physical, practical, emotional and social skills.

The presence of footpaths, shared paths and cycleways are associated with active travel across all age groups.

Creating a comprehensive active transport network

Comprehensive road environments are ones that incorporate efficient transport options (roads, public transport, footpaths and cycleways) as well as aesthetic presentation and general walkability. Quality footpaths and shared paths are particularly influential in encouraging people across all ages to lead more active lifestyles.

The transport network throughout the wider Narrandera Shire is largely based around private motor vehicles on roads. Creating a comprehensive active transport network throughout the non-urban areas of Narrandera Shire is not possible within the scope of the Narrandera Shire Active Transport Plan. What is achievable is the progressive development of comprehensive active transport networks in urban areas.

As the centres with the most activity and growth in the shire, Barellan, Grong Grong and Narrandera all need their own active transport project plan to cater for the growing needs of residents and visitors.

Safety Benefits

Pedestrians and cyclists are considered vulnerable due to their lack of protection against motor vehicles in the event of a crash. It is important for road safety reasons that facilities are available for active transport users that minimise their exposure to potential conflict with motor vehicles.

Connected active transport networks have been shown to be associated with more walking in older adults and children, but only when traffic-related issues are managed, and the local streets are perceived to be safe. Connected street networks that are perceived as safe by users tend to encourage greater levels of active transport across all age groups. Older adults, particularly women, are more fearful and more vulnerable to crime thus the design and location of active transport facilities to achieve good levels of perceived / actual safety is important to avoid people constraining their behaviour.

Evidence indicates that Crime Prevention Through Environmental Design (CPTED) elements, such as good street lighting, neighbourhood upkeep, and less physical incivilities (e.g. litter, graffiti and vandalism) can encourage active transport. The design of commercial buildings and their relation to the street also has the potential to increase natural surveillance which improves safety and feelings of safety. Providing safe, well-lit building entrances that face the street and are directly accessible from the street, footpath and car parks has been shown to encourage active modes of transport to and from buildings.



Economic Benefits

For the wider community, leading a healthier lifestyle reduces the impacts on our health care system. It also reduces costs of living and boosts industry productivity from fit and healthy workers. Active transport creates more footfall for local businesses and caters to the burgeoning visitor market interested in exploring main street environments, heritage walking trails, riparian areas and bushland trails, either on foot or on a bike.

Social Benefits

Active transport, particularly walking is one of the most socially inclusive modes of transport. It provides opportunities to socialise with friends and neighbours and creates a safer, friendlier and more connected community. Benefits include:

- + Encouraging family and community connectedness.
- + Improving social skills and networks.
- + Reducing isolation and loneliness.
- + Enhancing self-esteem and confidence.
- + Prolonging independent living for older people in the community.

Evidence suggests that active transport infrastructure, particularly footpaths around local shops and community facilities, are important for encouraging social interaction and social capital. Such facilities provide casual and chance interactions with other members of the community as well as providing places for people to meet friends and family and engage in social activities.



Great Places

The way we design and build our streets and neighbourhoods has an effect on many residents' social connections, sense of community and social capital, and thus their use of active transport facilities. Neighbourhood 'walkability' (a combination of residential density, mixed-use planning and street connectivity) is particularly associated with walking for transport and general walking.

Land-use decisions affect social connection by determining the places available for people to interact and spend time, and how far people have to travel to get to places where they can interact with others. A connected street network that is clearly defined and practical for all users is likely to enable more movement choices around town. This encourages more walking and cycling, allowing for more interactions between neighbours and residents, which in turn increases the sense of community in residents.

Shorter travel distances between land-uses can enable easy access to facilities and services for all people, including the very young, older persons and people with a disability, which can reduce social isolation for these groups. For example, living within close proximity (400-800m) of a mix of destinations is associated with higher levels of active travel across all age groups.

In terms of active transport behaviours, increased connectivity reduces the distances between origins and destinations and provides a range of routes to choose from, increasing the likelihood of walking and cycling between locations.

Traditionally designed neighbourhoods tend to have a grid-style street layout, which create few barriers to direct travel, resulting in high levels of connectivity and a choice of routes. In contrast, more modern neighbourhoods are developed around a network of hierarchical roads, which often result in creating low levels of connectivity. Residents have little or no choice of route, as often there is only one road in and out of the development, and the indirect curvilinear streets increase active transport distances between destinations.

A review of the walking and cycling conditions in urban areas is therefore important and may provide opportunities for the review of other land-use / transport policies, particularly the overuse of cul-de-sacs that can result in a disconnected street system and general lack of active travel facilities in new residential estates.





08

NETWORK PLANNING

Pedestrian Types + Needs

Everyone is a pedestrian, be it walking 30 metres from the car to a place of work, walking to school or the shops, using wheeled devices on footpaths or walking and running for fitness.

Pedestrians are considered vulnerable due to the severe outcomes that can occur when they come into conflict with motor vehicles. In the five years from 2017-2021, about one in six people killed on our roads was a pedestrian.

In the Narrandera Shire context, the main pedestrian groups are as follows:

Older pedestrians

Are generally less mobile than other pedestrians and prefer footpaths and shared paths with minimal gradients / steps and a high degree of safety and personal security.

Commuters

This group comprises adults and adolescents who use the footpath network mainly as a mode of transport for journeys to and from a workplace. They prefer the fastest safe route between their origin and destination and are generally more skilled and experienced. On-road lanes and footpaths are suitable for commuters.

Utility / shopping

Trips are generated for specific purposes, such as running errands, shopping, visiting friends and relatives and points of interest. Local trips are often short length trips and can be unpredictable. Users may be constrained by time and vary widely in skill and experience. They prefer footpaths, shared paths, low volume roads, minimal gradients and a high degree of safety and personal security.



Secondary / tertiary students

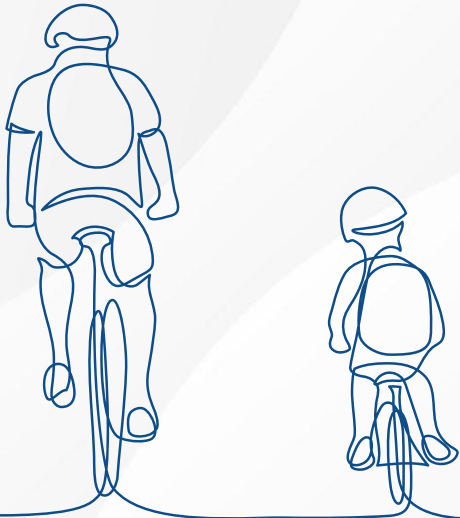
Secondary and tertiary age students have similar characteristics as commuters and utility / shopping users, using the footpath network mainly as a mode of transport for journeys to an education facility. Footpaths, on-road lanes and shared paths are suitable for older students.

Infants / primary school students

Infant and primary school aged pedestrians have undeveloped cognitive skills, lack good peripheral vision, and have little knowledge of road traffic rules. They require adult supervision and / or off-road paths and facilities. Road crossing points must be carefully designed to give greater visibility / priority to children.

Fitness

Sports people use the road environment for fitness and training purposes and to access sporting events. They often travel alone or in small groups - seeking long distances for training purposes which can take them onto busier roads. Fitness pedestrians prefer footpaths and shared paths but will use any path or the road / road shoulder if necessary.



Cyclist Types + Needs

There are a range of cyclists who access different parts of the Narrandera Shire on their bike for recreational, educational, shopping, commuting and other purposes.

Cyclists are considered vulnerable due to the severe outcomes that can occur when a rider crashes their bike or when they come into conflict with motor vehicles. Most cyclists are aware of their vulnerability on the road network and use safety lights, helmets and high visibility gear when riding.

The different cyclist groups in the Narrandera Shire are detailed in this section.

Older bike riders

Older people in the local context are tending to avoid using bicycles.

Commuters

This group comprises predominantly adults who use the road to cycle to work. They prefer the fastest safe route between their origin and destination and are generally more skilled and experienced. On-road lanes and shared paths are suitable for commuter cyclists. Commuters ride reasonable distances, typically less than 20km. They prefer flat, direct routes, but may tolerate up to 10% gradients, or 15% with e-bikes. Bike commuters desire all day secure parking, showers and change facilities.

Utility / shopping

A small percentage of people use a bicycle to run errands and do the shopping as well as visit friends, local destinations and points of interest. Local trips may be 'spare-of-the-moment' decisions, where a bicycle is used to visit the shops for last minute supplies. Users may be constrained by time and vary widely in skill and experience. They may use footpaths, shared paths and roads to access their destination, and sometimes may forget to take appropriate safety precautions.

Secondary / tertiary students

Older students in the local context are tending to avoid using bicycles, other than to access weekend sports, skate parks and friends.

Infants / primary school students

Infant and primary school aged cyclists have undeveloped cognitive skills, lack good peripheral vision, and have little knowledge of road traffic rules. Fear of traffic and bike theft appear to be factors limiting those in this age group from riding their bikes regularly.



Fitness

Adult riders are more confident mixing with traffic. If riding for training purposes, may ride very long distances, sometimes more than 100km. A number of different bikes are available (road, flat-bar touring and mountain bikes) for fitness and recreation. Road and touring cyclists often travel in small groups or larger bunch rides seeking long distances for training and recreational purposes, which can take them onto busier roads. Mountain bike riders often travel individually or in small groups and seek quieter roads and off-road trails.

Families with children

Prefer separation from traffic. Ride shorter distances. Prefer flat routes with less than 5% gradient. Adults / guardians may be walking alongside young children on bicycles.

Access Impaired Needs

Disability is an issue that affects a significant proportion of the population. The 2018 ABS Survey of Disability, Ageing and Carers reported that 17.7% of Australians had a long-term disability that restricted their everyday activities.

Planning for the transport needs of disabled persons presents its own unique challenges, with a person in a wheelchair requiring different assistance to negotiate the active transport network than a person who is sight impaired. Navigation to end of trip facilities, such as parking facilities, water points and toilets also requires special consideration.

Motorized scooter usage is a growth industry and there is a need to review current and future innovations in these mobility devices to ensure infrastructure improvements are aligned with technology.

A key focus of the Narrandera ATP should be to provide mobility and access facilities for disabled and older persons in our community, particularly in high activity areas such as the Narrandera CBD.



Aged Access Needs

Age is related to a variety of characteristics and skills that influence the risk of traffic injury. These age-related characteristics can also affect the way in which people of different ages interact with the movement network. In the 2010 NSW Health Falls Prevention Baseline Survey, 26.7% of people aged 65 and older, reported limiting their walking because of fear of falling whilst walking over rough or uneven surfaces, steps or stairs. The main needs of aged persons are for level walking surfaces that are free of hazards. Aged persons also appreciate end of trip facilities, such as seating, water points and toilets.

Older people continue to be over presented in pedestrian crashes. As shown by Job RFS, Pedestrians at Traffic Light Controlled Intersections: Crossing Behaviour in the Elderly and Non-elderly, several factors work together to increase the risk of older people:

- + Deterioration in visual acuity may have a negative impact on an older person's ability to cross the road safely.
- + Reduced mobility can render older people unable to react quickly in imminent danger to avoid a crash.
- + Underlying health conditions or frailty can result in greater injury severity when a crash occurs.
- + Reduced speed when crossing the road can be an issue at automated signals that do not allow sufficient time for slower pedestrians to cross safely.

A key focus of the Narrandera ATP should be to provide mobility and access facilities for disabled and older persons in our community, particularly in high activity areas such as the Narrandera CBD. The following measures have been adapted from the WHO Pedestrian Safety Manual 2013 and the NSW Centre for Road Safety to improve the safety, comfort and amenity of elderly pedestrians:

- + Install high-visibility crossings and advance stop bars.
- + Repair broken kerbs and pedestrian ramps.
- + Replace missing and / or upgrade existing signs.
- + Install pedestrian refuge islands or, preferably, raised medians.
- + Narrow roadways with traffic-calming techniques.
- + Raise public awareness about the safety needs of elderly pedestrians.
- + Reduce legal speed limits where necessary.
- + Strengthen enforcement of laws on speed limits, and drink-driving.



Needs of Young Children

Children are highly vulnerable road users. Preschool, infant and primary school aged children need their parents or other adult supervision when they ride along the road network, but they also need our confidence to explore their environment and learn how to do things independently.

Children can use the same facilities as adults (and can ride on the footpath) however they are still at risk from traffic for many reasons. Preschool, infant and primary school aged bike and scooter riders have undeveloped cognitive skills, lack good peripheral vision, and have little knowledge of road traffic rules. Although children may think they can handle the road network, Kidsafe NSW advises they are:

- ✦ Easily distracted and focus only on one aspect of what is happening.
- ✦ They are smaller and harder for drivers to see, and less predictable than other road users.
- ✦ Cannot accurately judge the speed and distance of moving vehicles.
- ✦ Cannot accurately predict the direction that sounds are coming from.

- ✦ Unable to cope with sudden changes in traffic conditions.
- ✦ Do not understand abstract ideas, such as road safety.
- ✦ They may lack the ability to distinguish between safe and unsafe crossing gaps and sites, putting them at risk as they cross the road.
- ✦ They may lack understanding of the dangers presented under different conditions, such as wet weather or darkness.

In general, less school aged children are riding to school due to a number of factors, including fear of traffic and bike theft, convenience of walking, availability of school bus services and parents driving their children to school.

An extensive network of structured sporting activities is available for children in Narrandera Shire that helps to keep them active and engaged. There are also a number of areas where children can go 'off-road' and explore the environment and practice skills on their own or with friends.

Key objectives of the Narrandera ATP should be to highlight areas that provide opportunities for off-road play on bikes and kick-scooters and to link these areas to residential neighbourhoods and the wider network.



Network Planning Principles

The planning focus of the new active travel network is to make pedestrian and cycling activities a safe, healthy and attractive travel option throughout the Narrandera Shire. To achieve this over such a vast area requires a targeted and systematic approach, based on a number of principles which are explored further in this section.

Coherence

Coherence can be characterised by the completeness of the network or the completeness of connecting routes. A cohesive network should be continuous and it should be clear to the user where the path leads. Sign-posting and line-marking should indicate major destinations as well as the 'serious transport intent' of sections of road routes. The quality of network facilities should be consistent throughout the length of the route regardless of whether the facility uses a separate or shared road profile. End of trip facilities, such as seating, watering stations, toilets, change room facilities, bicycle racks and storage facilities should also be integrated into the cohesive network.

15 minute neighbourhoods

People will generally walk or use assisted mobility for 10-15 minutes to access local shops and services, depending on their age, health, the walking environment and the weather. Active transport networks are based on active transport trip distances of 15 minutes.

Suitability for all users

Quality environments must be available to all who choose to use them. Paths and facilities must have appropriate gradients and be continuous and free of obstructions such as signage, street furniture and overhanging tree branches. The needs of hearing and vision-impaired users should be considered at primary attractors, especially where user safety is an issue.

Safety

Perceived and actual safety is very important to pedestrians and cyclists. Pedestrians of all ages and genders need to feel that it is safe to walk, whenever they choose to do so. Route safety and security is important to pedestrians, who desire well-lit pathways and open-to-viewer routes. Road crossings present the greatest danger to pedestrians. Therefore, safe crossing locations need to be provided at regular intervals along major streets or where there are key desire lines to cross major streets. Pedestrians will rarely walk along an indirect route to access safe crossing points, so frequent crossing points must be provided.

Cyclists travel faster than pedestrians and therefore are less concerned about personal security. However, cyclists are still slower and smaller than motor cars and trucks, making them less likely to be seen. When they do come into conflict, cyclists have little protection in a collision. On-road paths and off-road paths reduce the risk of collision with motor vehicles, but still endanger cyclists at squeeze points and intersections with roads. They can also involve potential conflict with pedestrians where the off-road facility is a shared path. The general principles of predictability and clear priority remain important for off-road paths, including directional segregation and high visibility for all users.

Directness

Pedestrians and cyclists do not like to travel out of their way to reach a destination. This is a natural response to avoid the extra effort involved in walking or riding extra distances. Paths serving desire lines between activity areas need to be direct and clearly defined in order to provide for and encourage walking and riding trips. Wherever possible, barriers should be overcome, with slight deviations or additional safe crossing points. A careful balance must be found between providing a direct route and also one free of delays, excessive energy expenditure, or safety concerns.

Amenity

People are more likely to walk or cycle in an attractive environment because it is enjoyable. Areas with high volumes of vehicular traffic, excessive noise and poor pavements may discourage walking and cycling. Urban areas should be maintained at a human scale that provides an attractive and safe environment. Pedestrian and cycling facilities should be designed to fit into the surrounding environment so that the enjoyment of the experience is enhanced. The route should be scenic, quiet, and free of heavy traffic and traffic travelling at high speeds. The best walking and cycling environments are often found along quiet rural roads, in urban parklands or residential areas that have been traffic calmed.



Identifying Activity Generators

There are certain areas of the Narrandera Shire that generate significantly more pedestrian and cycling activity than other areas. Identifying activity generators is particularly important to consider in the preparation of new active transport plans. The different activity generators have been divided into four main groups and are presented in this section. The audit maps show the generators in Narrandera Shire.

Primary Activity Areas

Primary activity areas include commercial precincts, large schools and hospitals as well as other areas that attract large concentrations of people. Safety, connected / wide footpaths, road crossing points, disability access infrastructure, secure bike parking and end of trip facilities are important design goals for primary activity areas.

Secondary Activity Areas

These include neighbourhood shops, smaller schools, popular sporting and recreational facilities, clubs, smaller hospitals and community facilities such as the larger congregation churches that are not centrally located within primary activity areas. These land-uses are busy places at certain times of the day or week. Safety, connected footpath networks and end of trip facilities are important design goals for secondary activity generators.

Primary Routes

These are routes from residential areas to the primary activity areas and secondary activity generators. They are collector level routes, which do not reach every property but instead form a network of routes that are accessible to a significant catchment of population.

Hazard Areas

Through the analysis of crash data and consultation undertaken, there are a number of areas / routes that have been noted from crash reports or from road users as being potentially dangerous or particularly stressful places for pedestrian and cyclists.



Identifying Appropriate Paths

The selection of the appropriate path type treatment depends on a combination of factors, including the level of demand for the path, the conditions present in the surrounding environment (traffic speed and volume), the availability of space in which to provide the path, and whether path usage is for exclusive pedestrian or cycle use or shared use. The overall goal is to install facilities that are safe, practical and that respond to local conditions. A number of different path treatments can be applied, which are covered in this section:

Footpaths

Footpaths are suitable for a wide range of pedestrian situations. Footpaths are required to be designed and built to meet minimum dimension requirements. Design elements of footpaths include width, gradient, pavement materials that are slip resistant, type of kerb and adequate setback distance of the footpath from the roadway.

According to the Austroads Guide and other guidelines referred to in Section 6, the general minimum footpath width of 1.2m (or 1.0m as an absolute minimum) is adequate for most road and street situations except in commercial and shopping environments. A footpath wider than the minimum may also be necessary at locations where pedestrians gather such as the entrance to schools and associated crossings, recreation facilities and bus stops or on routes with high pedestrian traffic volumes.



Shared paths

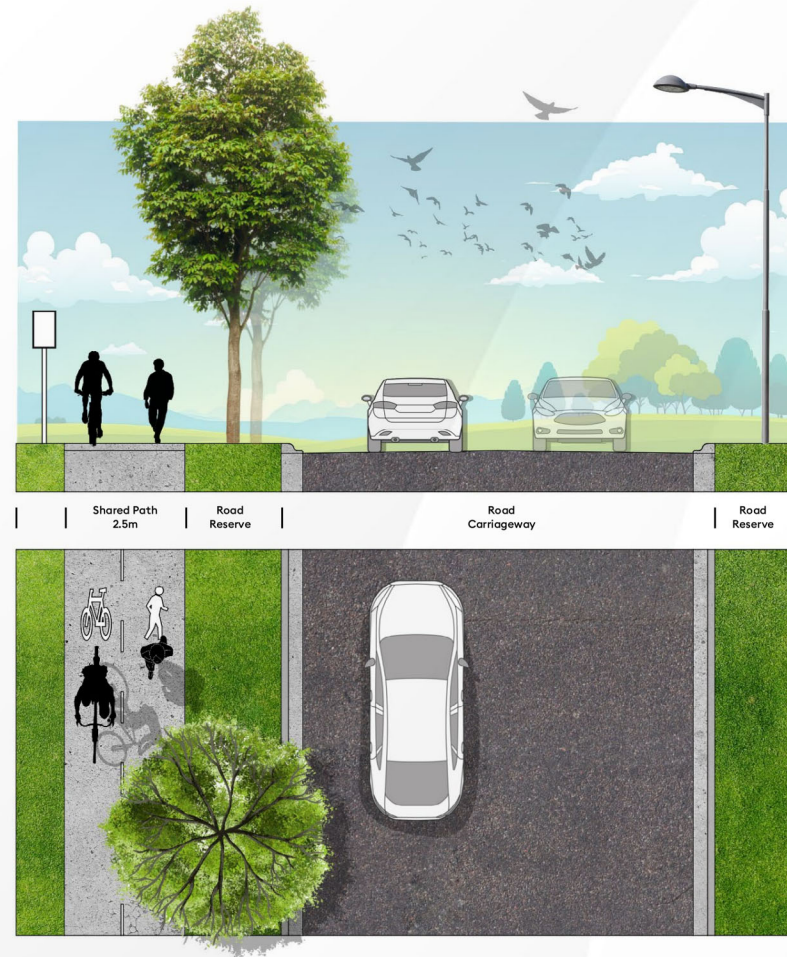
Shared use paths are a type of off-road facility that are generally wider than footpaths and allow common use of the facility by both cyclists and pedestrians. The minimum width for a shared path is 2.0m, the desirable width is 2.5m and in some situations a path width of 3.0m may be required depending on the location, purpose and anticipated level of walking / cycling activity).

According to the Austroads Guide and other guidelines referred to in Section 6, a shared use path may be appropriate where demand exists for both a pedestrian path and a bicycle path but where the intensity of use is not expected to be sufficiently great to provide separate facilities. Shared paths are a popular response to connecting attractors and as paths in large parklands.

In some situations shared paths may cause friction between pedestrians and cyclists. Displaying highly visible signs and rules applying to the proper use of share paths are important considerations when planning these paths.

Shared streets

Shared local streets have 'design speeds' that provide greater safety for pedestrians, cyclists and motorists. The Cycleways Design Toolbox recommends the sharing of traffic lanes only where design speeds are 30km/h or less and traffic volumes are very low.



Exclusive off-road cycle paths

Exclusive bicycle paths are most appropriate when there is a significant cycling demand and very few pedestrians desire to use the path or a separate footpath is provided, and there is very limited motor vehicle access across the path.

According to the Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling, the recommended width varies based on the volume of cyclists with the suggested width ranging from 2.0m minimum to a typical maximum of 3.0m for a local access path.

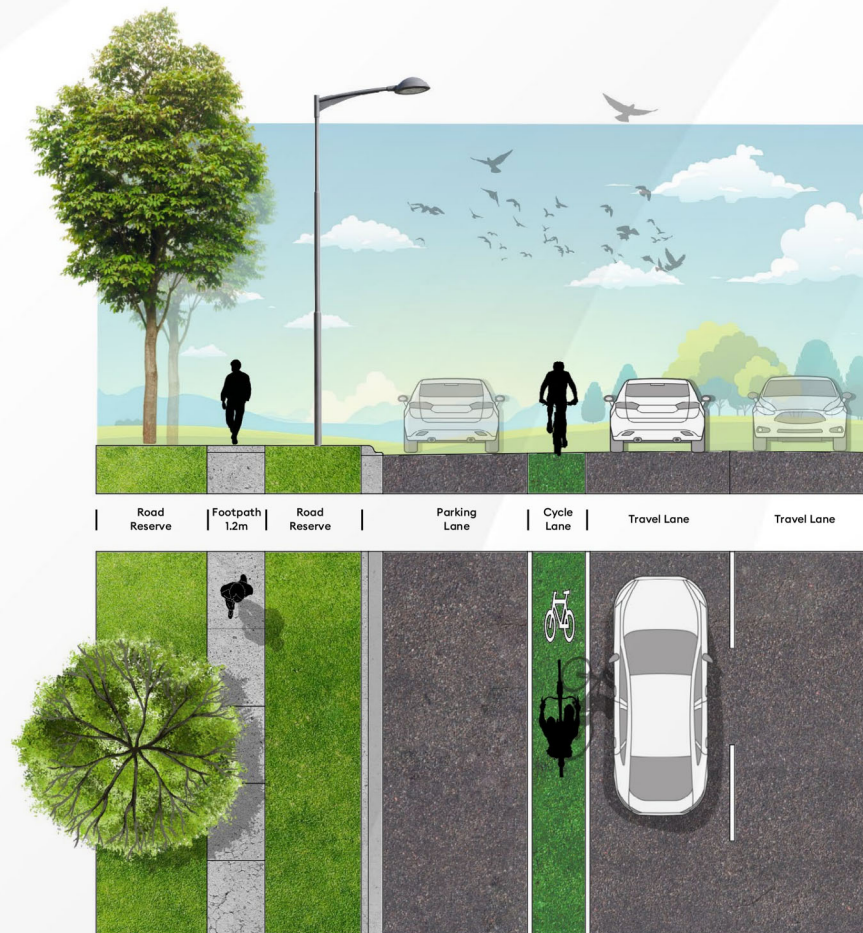
On-road cycle paths

On-road cycle paths are 'bicycle lanes' located alongside the motor vehicle traffic lane on a road.

According to the Austroads Guide to Road Design Part 03 - Geometric Design (Table 4.18), the recommended width for exclusive bike lanes in urban areas varies from 1.2m to 3.0m depending on the road speed limit and local conditions (including clearances, physical or visual separations).

Generally, exclusive on-road cycle paths are delineated by line-marking and / or green colour, and located on the far left of the road, and often on the bitumen sealed road shoulder. Where considered necessary / feasible in regional settings, on-road cycle paths should comply with current design standards and undergo periodic monitoring to ensure painted line-marking remains clear and legible.

On-road painted bike lanes and road shoulders in typical road environments do not provide riders with protection from passing traffic and are often perceived as unsafe by current and potential everyday bike riders. For this reason, on-road cycle paths are not particularly effective in encouraging more local cycling trips unless they are physically separated and / or properly protected from traffic lanes, and without such treatment on-road cycle lanes are not the preferred method of providing for short, everyday cycling trips. Where possible, the Narrandera ATP should give preference to new shared path installations as a strategy for increasing cycling activity throughout Narrandera LGA.



Pavement Surfaces

There are a variety of pavement materials commonly used as part of the construction of new active transport infrastructure. These are described as follows.

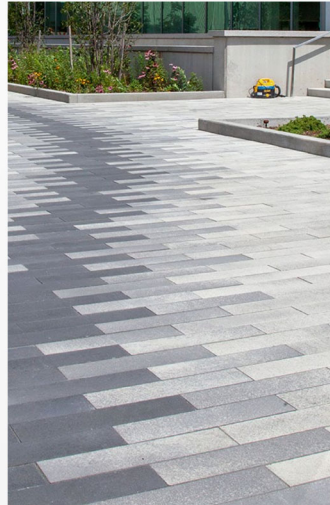
Concrete and Asphalt

This provides a hard surface and is generally functionally appropriate. This material is ideal where footpaths are on a gradient and exposed to water, as the texture of these surface materials are slip resistant. Most footpaths in Narrandera Shire are of these construction types. Some main street beautification works use a combination of asphalt, concrete and brick paver to provide variety and interest.



Pavers and Bricks

For aesthetic reasons and to add interest and variety, pavers and brick paving are often used. Pavers have been used extensively in commercial areas and at tourist destinations. When used for pedestrian paths, glazed surfaces should be avoided as they are slippery when wet. Stone path surfaces should also be avoided as they can fail flatness tests. Pavers are ideal for sight impaired pedestrians as a guidance using different pavement colours, however overuse of colours can also be confusing.



Spray seal emulsion

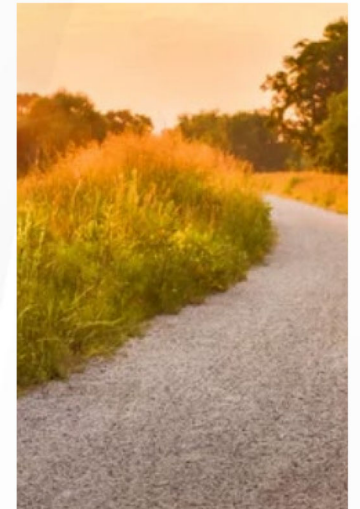
Generally less hard wearing than concrete, asphalt or pavers. It is often used as a cheaper option in low trafficked areas where drainage is not an issue. It may also be considered where a new path is being trialled to determine its longer-term material type.



Loose surface material

These materials such as exposed aggregate, gravel, soil, sand, grass and tanbark should be avoided along heavily used routes. They can be very difficult to walk on and make it difficult for people in wheelchairs. However, gravel surfaces may be suitable for fitness walkers, runners and mountain bike riders.

Ideally loose surface paths should be free of obstructions and therefore should not include steps, stairways or obstacles that affect safety.





Lighting

Night-time outdoor lighting has most often been designed for the vehicle driver, rather than for pedestrians and cyclists.

Where footpaths, bicycle lanes and shared pathways carry a substantial number of pedestrians and cyclists during periods of darkness, consideration should be given to the provision of path lighting. Lighting will increase both actual and perceived safety along the network and should be targeted along key pedestrian routes and activity zones (Austroads, 2009).

The main objectives of pedestrian lighting are to ensure adequate lighting is provided to identify pedestrian routes and signage, illuminate pedestrians to other road users and to achieve facial recognition of another pedestrian at a reasonable distance.

The main objective of cycleways lighting is to ensure adequate lighting is provided so that cyclists, travelling at reasonable speed are able to avoid potholes and any other traffic hazards.

Generally provision for public lighting for bicycles may occur where:

- + Paths for cycling associated with promenades or a centre for night-time activity.
- + Paths for cycling used for commuting by workers or students.

Lighting should be placed along key routes, key crossing points, intersections and places where people congregate. Direction and height of illumination, background land illumination levels are key considerations that should be addressed within the design.

End of Trip Facilities

Public amenities can be important mid-way or end of trip resources for pedestrians and cyclists. Examples of end of trip facilities including:

- + Bicycle parking / repair stations
- + Seating / rest stops
- + Water points
- + Toilets
- + Shade structures
- + Way-finding signage
- + Personal storage lockers
- + Drying facilities

Exercise equipment is also being used / provided in some parks to facilitate more intensive fitness training. These facilities are the 'outdoor' equivalent of a gym, and may include weights and resistance benches, step-up and pull-up devices.

Providing end of trip facilities is another means of encouraging more people to make walking and cycling part of their daily routine, as they provide places to rest, re-energise and / or safely store their bikes upon arrival. Generally, end of trip facilities enhance the overall experience for pedestrians and cyclists, ensuring they have a comfortable and stress-free transition from active transport to their end destination.

Landscape Design

Landscape works which are poorly planned and designed can have negative impact on pathway use. It is important that landscaping is designed, constructed and managed to:

- + Provide clear sightlines.
- + Promote good visibility.
- + Provide safe side clearances.
- + Prevents intrusion into pedestrian / cycling operating space.
- + Manages tree root damage to pathways.
- + Provide passive surveillance and promotes an open easy – supervised environment.
- + Manage weeds, especially catheads.

Technical advice on key considerations for landscape design are provided in the Austroads Guide and other guidelines referred to in Section 6.

Signage and Line Marking

Signage and or markings should be provided throughout the entire network to guide pedestrians and cyclists use of the bicycle and shared path network.

Signage and / or markings should include both directional and informative information and be designed to be easily identifiable and consistent across both on-road and off-road networks. They will inform users of the direction and distance to key destinations, provide warning of changing conditions (e.g. intersection) and of approaching hazards and provide clear travel pattern advice, which is particularly important at intersections.

Signage and / or markings should be provided as new on-road bicycle and shared pathways are constructed and should be progressively retro-fitted across the existing network.

The use of a green surface for bicycle lanes which draws motorists' attention to the presence of bicycles is recommended at busy or higher-speed locations and areas where the road layout is complex.

Technical advice on signage and marking treatments is provided in the Austroads Guide and other guidelines referred to in Section 6.

Pedestrian Crossings

Pedestrian crossings provide designated areas for pedestrians to cross the road safely, reducing the risk of accidents and promoting walking activity. With well-placed crossings, walking becomes more accessible to people of all ages and abilities and may encourage more individuals within the community to choose walking as a mode of transport.

The locations of existing pedestrian crossing facilities should be properly identified in the Narrandera ATP and new crossing facilities incorporated into proposed network improvements where it can be identified that it would provide a benefit in terms of supporting safe active transport trips.

In the Narrandera LGA, there are a limited number of pedestrian crossings and these are generally located in key activity areas of the CBD.

Other Crossings

Centre refuge islands, kerb extensions / blisters provide alternate ways to improve the safety of pedestrians crossing a road. With well-placed road crossing facilities, walking becomes more accessible to people of all ages and abilities and may encourage more individuals within the community to choose walking as a mode of transport.

The locations of existing road crossings should be properly identified in the Narrandera ATP and new crossing facilities incorporated into proposed network improvements where it can be identified that it would provide a benefit in terms of supporting safe active transport trips.

In the Narrandera LGA context, centre refuge islands, kerb extensions / blisters are preferred and are already well utilised in key locations within the CBD and other high activity areas such as schools, parks and community facilities.



09

ACTIVE TRANSPORT PROJECT PLANS

Active Transport Project Plans have been prepared for Barellan, Grong Grong and Narrandera.

The Active Transport Project Plans are presented in a series of maps, as necessary, for each locations and typically include the following detail:

- + Public Roads (sealed, unsealed, tracks-in-use).
- + Railway Infrastructure.
- + Primary Activity Areas.
- + Secondary Activity Areas.
- + Primary Routes.
- + Hazard Areas.
- + Other key land-uses and / or landmarks.
- + Existing and proposed footpath locations.
- + Existing and proposed shared path locations.
- + Existing and proposed off-road path locations.
- + Existing and proposed end of trip facilities.

Guiding Principles

Focusing efforts in areas of highest importance

Effective and useful planning relies on focusing effort and resources in areas that it is most needed. Narrandera Shire Council has limited funds for improvements and these funds need to be carefully directed towards achieving optimal outcomes. The Narrandera ATP focuses efforts on areas with high levels of pedestrian and cyclist activity as well as the desire lines of high potential and demand. Consideration should also be given to locations which may merit a review of road conditions based on a poor safety record.

Focusing on potential pedestrian and cyclists

It is important to consider existing pedestrians and cyclists, however, the biggest advantage in terms of increasing patronage is to target people who currently are not active pedestrians or cyclists, but who are likely to become so if conditions improve. The Narrandera ATP needs to consider ways to promote behaviour changes that encourages new users.

Developing effective infrastructure to improve conditions

The Narrandera ATP aims to develop innovative infrastructure interventions, based on the NSW guidelines and other applicable guidelines and standards.

Setting achievable targets

Funds are limited and there is a need to focus on specific actions that are achievable by Council. There is no sense in developing an action plan that proposes excessive expenditure beyond the means of the community. It is better to set targets that can be realistically achieved over the intended 10 - 20 year implementation period. Should extra funding become available and targets are met earlier, it is a relatively simple task of reviewing the action plan to set more goals and targets.

Sheet 01	Sheet 04	
Sheet 02	Sheet 05	Sheet 06
Sheet 03		



Joins Map Sheet 02

Project
Narandera Active Transport Plan

Map Title
Active Transport Project Plan

Map Location
Narandera Township

Sheet Ref
Sheet 01 of 06

Map Legend

- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
- Centre Refuge Island
- Existing Pedestrian Crossing
- Proposed Centre Refuge Island
- Signage Improvements
- Accessibility Improvements
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- Proposed Pedestrian Bridge
- On-road Bike Lanes
- Proposed Path Widening
- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial

Map Scale

0 50 100 150 m

North

Sheet 01	Sheet 04
Sheet 02	Sheet 05
Sheet 03	Sheet 06

Joins Map Sheet 01

Joins Map Sheet 05

Joins Map Sheet 03

Project
Narrandera Active Transport Plan

Map Title
Active Transport Project Plan

Map Location
Narrandera Township

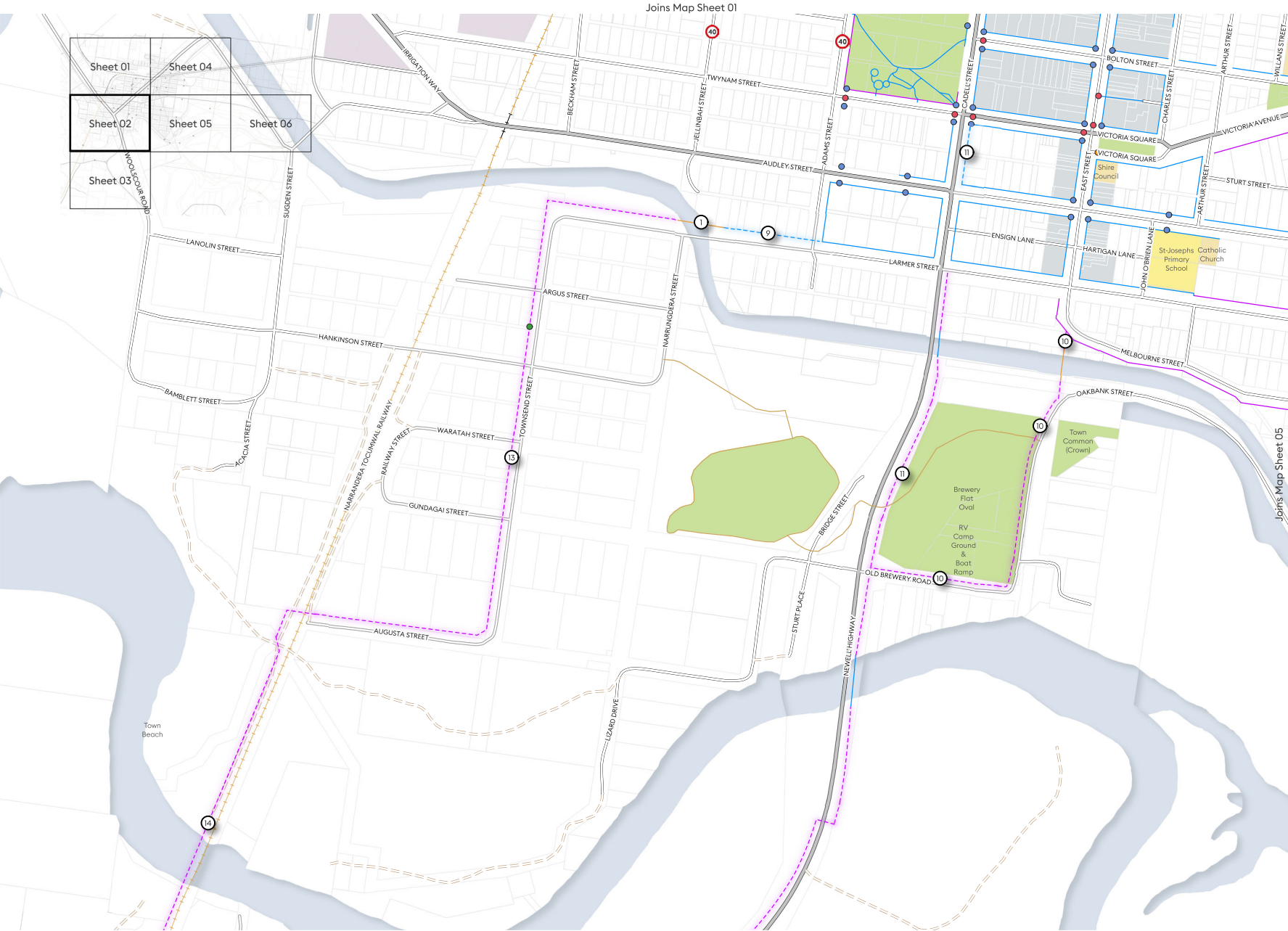
Sheet Ref
Sheet 02 of 06

- Map Legend**
- Project Numbers
 - Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railways
 - Speed Signage - 40km
 - Public Toilets
 - Bus Stops
 - Existing Kerb Blister
 - Centre Refuge Island
 - Existing Pedestrian Crossing
 - Proposed Centre Refuge Island
 - Signage Improvements
 - Accessibility Improvements
 - Existing Shared Paths
 - Existing Gravel Paths
 - Existing Footpaths / Under Construction
 - Proposed Pedestrian Bridge
 - On-road Bike Lanes
 - Proposed Path Widening
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 - Proposed Footpaths
 - Water Feature
 - Landuse - Recreation
 - Landuse - Community
 - Landuse - Education
 - Landuse - General Commercial
 - Landuse - Industrial

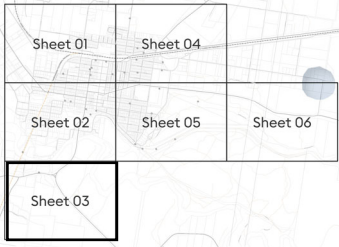
Map Scale

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North



Joins Map Sheet 02



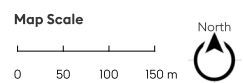
Project
Narrandera Active Transport Plan

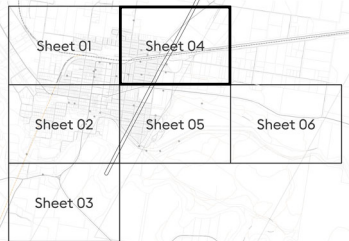
Map Title
Active Transport Project Plan

Map Location
Narrandera Township

Sheet Ref
Sheet 03 of 06

- Map Legend**
- Project Numbers
 - Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railways
 - Speed Signage - 40km
 - Public Toilets
 - Bus Stops
 - Existing Kerb Blister
 - Centre Refuge Island
 - Existing Pedestrian Crossing
 - Proposed Centre Refuge Island
 - Signage Improvements
 - Accessibility Improvements
 - Existing Shared Paths
 - Existing Gravel Paths
 - Existing Footpaths / Under Construction
 - Proposed Pedestrian Bridge
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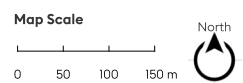
Project
Narrandera Active Transport Plan

Map Title
Active Transport Project Plan

Map Location
Narrandera Township

Sheet Ref
Sheet 04 of 06

- Map Legend**
- Project Numbers
 - Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railways
 - Speed Signage - 40km
 - Public Toilets
 - Bus Stops
 - Existing Kerb Blister
 - Centre Refuge Island
 - Existing Pedestrian Crossing
 - Proposed Centre Refuge Island
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 - Accessibility Improvements
 - Existing Shared Paths
 - Existing Gravel Paths
 - Existing Footpaths / Under Construction
 - Proposed Pedestrian Bridge
 - On-road Bike Lanes
 - Proposed Path Widening
 - Proposed Shared Paths
 - Proposed Footpaths
 - Water Feature
 - Landuse - Recreation
 - Landuse - Community
 - Landuse - Education
 - Landuse - General Commercial
 - Landuse - Industrial



Joins Map Sheet 04



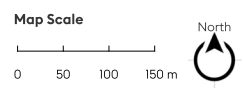
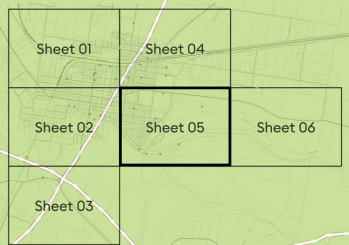
Project
Narandera Active Transport Plan

Map Title
Active Transport Project Plan

Map Location
Narandera Township

Sheet Ref
Sheet 05 of 06

- Map Legend**
- Project Numbers
 - Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railways
 - Speed Signage - 40km
 - Public Toilets
 - Bus Stops
 - Existing Kerb Blister
 - Centre Refuge Island
 - Existing Pedestrian Crossing
 - Proposed Centre Refuge Island
 - Signage Improvements
 - Accessibility Improvements
 - Existing Shared Paths
 - Existing Gravel Paths
 - Existing Footpaths / Under Construction
 - Proposed Pedestrian Bridge
 - On-road Bike Lanes
 - Proposed Path Widening
 - Proposed Shared Paths
 - Proposed Footpaths
 - Water Feature
 - Landuse - Recreation
 - Landuse - Community
 - Landuse - Education
 - Landuse - General Commercial
 - Landuse - Industrial





Joins Map Sheet 05

Project
Narrandera Active Transport Plan

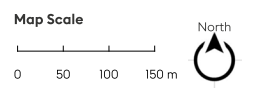
Map Title
Active Transport Project Plan

Map Location
Narrandera Township

Sheet Ref
Sheet 06 of 06

Map Legend

- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- Speed Signage - 40km
- Public Toilets
- Bus Stops
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- Centre Refuge Island
- Existing Pedestrian Crossing
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- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
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- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial





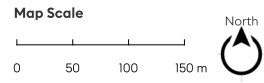
Project
Narrandera Active Transport Plan

Map Title
Active Transport Project Plan

Map Location
Barellan

Sheet Ref
Sheet 01 of 01

- Map Legend**
- Project Numbers
 - Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railroads
 - ⓪ 40 Speed Signage - 40km
 - Public Toilets
 - Bus Stops
 - Existing Kerb Blister
 - Centre Refuge Island
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 - Proposed Centre Refuge Island
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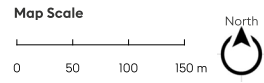
Project
Narrandera Active Transport Plan

Map Title
Active Transport Project Plan

Map Location
Grong Grong

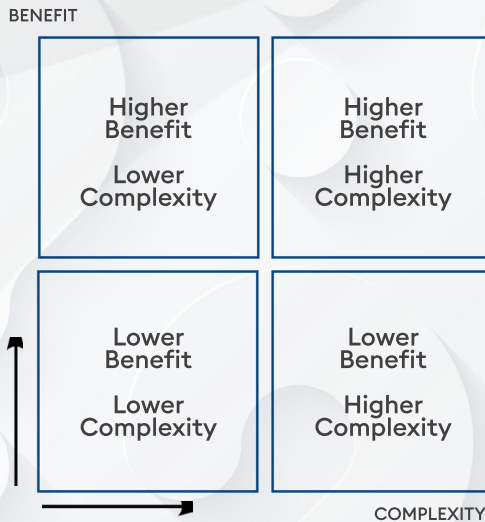
Sheet Ref
Sheet 01 of 01

- Map Legend**
- Project Numbers
 - Tracks in Use
 - Local Road Network
 - Primary Road Network
 - Gravel Roads
 - Railways
 - Speed Signage - 40km
 - Public Toilets
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10

PRIORITIES + ACTIONS



The facilities and treatments required to create a more cohesive, safe, direct and attractive network forms the basis of the new Active Travel Project Plans developed for Barellan, Grong Grong and Narrandera.

The Active Travel Project Plans are the result of the consideration of a number of variables that have been examined in previous sections. A series of questions were asked and given a ranking score to reflect their importance in pedestrian and bicycle planning outcomes and these are listed below:

- + Does it fill a gap in the network?
- + Was it identified in consultation, surveys, audits or inspections?
- + Will it benefit more than one user type? (recreation, commuter, fitness, shopping / short trips, student)
- + Will it be suitable for all users? (safe, direct, comfortable, coherent)
- + Is it located in a high activity area? (primary activity area, secondary activity generator, primary routes)?

- + Is it located in a hazard area? (In a black spot, or near miss area, arterial or collector road, school zone, a place visited at night, or place where alcohol is available)?
- + Will it improve separation for motor vehicles?
- + Is it an iconic link that inspires greater uptake of walking and cycling?
- + Will it increase active transport trips and change behaviour?
- + Is it practical and cost effective?

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it in located in a high activity area?	Is it in or near a hazard area?	Does it improve separation from motor vehicles?	Is it on iconic route that inspires greater activity?	Will it increase active transport trips and support?	Is it practical and cost effective?	Total
Narrandera		Street Name	Street Name											
Project # 1	Larmer Street pedestrian bridge crossing improvement	Larmer Street	Larmer Street	10	10	10	10	7	9	10	10	10	10	96
Project # 2	Shared path installation along Larmer Street	Midgeon Street	Elizabeth Street	10	10	10	10	7	9	10	10	10	10	96
Project # 3	Footpath installation along Dundas, Mitchell and King Streets	Elizabeth Street	Charles Street	10	10	10	9	7	8	8	8	7	8	85
Project # 4	Footpath installation along Audley Street	Elizabeth Street	Arthur Street	10	10	10	9	7	7	8	7	7	7	82
Project # 5	Footpath installation - Mathieson Oval Link	Lethbridge Drive	Whitton Street	9	9	9	9	7	7	7	7	7	7	78
Project # 6	Footpath installation along Whitton Street and Cadell Street	Elizabeth Street	Douglas Street via Whitton / Cadell Street	9	9	9	9	7	7	7	7	7	7	78
Project # 7	Footpath installation along Elizabeth Street and Gordon Street	Showground Road	Broad Street	9	9	9	9	7	7	7	7	7	7	78
Project # 8	Footpath installation along Douglas Street	Narrandera Health Service	Narrandera Cemetery	8	8	8	8	7	7	7	7	7	7	74
Project # 9	Footpath installation along Larmer Street	Adams Street	Narrungdera Street	8	8	8	8	7	7	7	7	7	7	74
Project # 10	Shared path installations connecting Newell Highway and Melbourne / East Streets to Brewery Flat Oval and the Town Common.	Newell Highway	Melbourne / East Street	8	7	7	7	7	7	7	7	7	7	71
Project # 11	Shared path installation along Newell Highway	Twynam Street	Intersection of Sturt Highway and Narrandera-Tocumwal railway	7	9	6	6	6	6	6	9	8	5	68
Project # 12	Shared path installation along Old Wagga Road	Elizabeth Street	Rocky Waterholes entry	7	8	6	6	6	6	6	8	7	5	65
Project # 13	Shared path installation along Larmer Street, Townsend Street and Augusta Street	Narrungdera Street	Augusta Street (western end)	7	8	6	6	5	5	6	7	7	5	62
Project # 14	Murrumbidgee River Rail Bridge project	Augusta Street	Sturt Highway	6	9	5	5	5	5	6	9	8	4	62
Project # 15	Footpath installation along Racecourse Road	Ferrier Street	Driscoll Road	7	7	6	6	5	5	5	5	5	5	56

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it in a primary activity zone?	Is it on a high activity area?	Is it in or near a hazard area?	Does it improve separation from motor vehicles?	Is it in an iconic route that inspires greater activity?	Will it increase active transport trips and support?	Is it practical and cost effective?	Total
Grong Grong		Street Name	Street Name												
Project # 1	Footpath installation along Balaro Street	Balaro Street (Rodeo Grounds Entry)	June Street	7	7	8	8	6	5	5	7	6	5	6	70
Project # 2	Footpath installation along Berrembed Street	Lachlan Street	Narrandera Street	8	8	7	7	5	6	7	5	5	5	6	69
Project # 3	Footpath installation along Narrandera Street	Royal Hotel	Tennis Courts	7	7	7	6	5	5	7	5	5	5	5	64
Project # 4	Footpath installation along Canola Way to Bushland Park	Canola Way	Canola Way	5	7	6	4	4	4	6	5	6	6	5	58

Project Description		From	To	Does it fill a network gap?	Has it been identified in consultation?	Is it suitable for all users?	Are there user type benefits?	Is it in a high activity area?	Is it in a secondary activity zone?	Is it in or near a hazard area?	Does it improve separation for motor vehicles?	Will it increase safety awareness?	Is it practical and cost effective?	Total
Barellan		Street Name	Street Name											
Project # 1	Yapunyah Street crossing installation	West of Yapunyah and Boree Streets intersection	West of Yapunyah and Boree Streets intersection	10	10	10	10	10	8	9	9	10	10	96
Project # 2	Yapunyah Street western crossing installation and footpath extension	East of Myall Street	Evonne Gooloogong Park	10	10	10	10	10	8	9	9	10	9	95
Project # 3	Footpath installation along Myall Street	Yapunyah Street	Mulga Street	10	10	9	9	8	8	7	9	9	8	87
Project # 4	Centre refuge installation on Mulga Street	Mulga Street	Mulga Street	5	6	8	9	8	7	5	7	7	8	70
Project # 5	Barellan Community Health Centre accessibility improvements	Bendee Street	Bendee Street	6	6	5	5	5	6	5	5	5	9	57

11

ONGOING RESPONSIBILITIES

Supporting a Culture of Active Transport

Even a locally tailored evidence-based plan of action is not a guarantee of lasting results once completed and implemented. According to the WHO Pedestrian Safety Manual 2013, safe road-user behaviour and increasing user support depends on a number of factors, including:

- + Knowledge and skills.
- + Leaders.
- + Community support.
- + Perception of vulnerability and risk.

- + Social acceptance to norms and change models.
- + Engineering measures.
- + Law enforcement.

As this is a strategic document, detailed behaviour-change interventions and road safety programs have not been considered comprehensively. These issues need to be addressed over a longer period and with greater community input.

The following community awareness, education and activation strategies are suggested for further consideration by Narrandera Shire Council and the wider local community over the life of the Narrandera ATP.

Actions	Time-frame
Create a cycling routes guide and / or way-finding map for Narrandera.	1-5 years
Review active transport path signage and investigate opportunities for improvements.	1-5 years
Encourage shared path etiquette, including signage and use of social media.	1-5 years
Investigate community crowd funding models that ensure delivery of priority projects for Narrandera Shire.	1-5 years
Install bicycle parking facilities, and encourage the inclusion of change room facilities in new employment generating developments.	5-10 years
Investigate / implement street tree plantings in appropriate locations along walking and cycling routes.	5-10 years
Partner with the NSW government and community organisations to deliver skills development and road safety awareness initiatives.	ongoing

Maintaining the Active Transport Network

The development of a comprehensive maintenance program which identifies key tasks and frequency of works is an important part of a quality network.

Monitoring Progress

Implementing the priorities of the Narrandera ATP will require on-going review of progress and regular feedback to key stakeholders and the wider community. Council will monitor, review and report on its progress under the Narrandera ATP using the existing Integrated Planning and Reporting Framework under the Local Government Act 1993 to ensure that its planning priorities are being achieved.

Funding Programs, Initiatives + Infrastructure

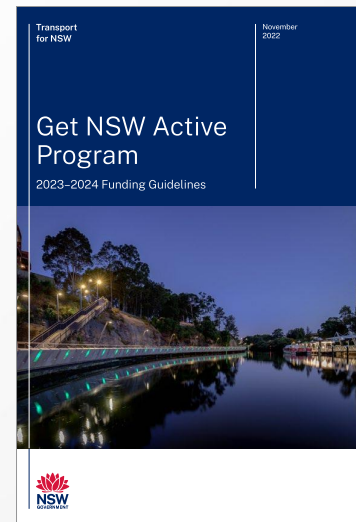
Moving forward, Council has the opportunity to make significant upgrades to walking and cycling infrastructure across the Narrandera Shire with support from other government authorities.

Options for funding the actions outlined within the Active Transport Action Plan include:

- + Section 7.11 contributions – collected from new development in the relevant areas. However, these contributions will not be able to fund all of the actions in this Plan;
- + Grants and contributions (operational and capital) – Council will actively pursue grant funding and other contributions to assist in the delivery of new infrastructure; and
- + Delivery partnerships – where Council and key partners (such as State Government agencies or private developers) collaborate to deliver a new infrastructure.

The following grant programs are currently available for active transport in NSW:

- + Transport, through the Get NSW Active grant program - funds grants to local and state governments for walking and cycling infrastructure as well as the development of strategies that support walking and cycling in local communities. To fund the development and delivery of the 15-minute neighbourhoods, the Get NSW Active grant program will be in part re-purposed for the delivery of links and networks that support 15-minute neighbourhoods, including the local links and networks that integrate with strategic cycleways.
- + The Liveable and Safe Urban Communities Initiative - will deliver targeted, area-based actions and treatments to improve safety. In busy urban places, the Safer Roads Program will deliver traffic calming, pedestrian facilities, and the expansion of safer speed settings.
- + The Streets as Shared Spaces program - provides grants for NSW Councils to deliver temporary and demonstration projects that test and pilot innovative ideas for streets as safe, shared public spaces. The program tests possible permanent changes that can strengthen the amenity, accessibility and economic vitality of a high street and surrounding areas.



12 PROJECT SHEETS

A number of project sheets have been developed to support the active transport projects in Narrandera, Barellan and Grong Grong. These project sheets are presented in the following sections of the Active Transport Plan.



Narrandera Project #1

Project Description

Larmer Street pedestrian bridge crossing improvement

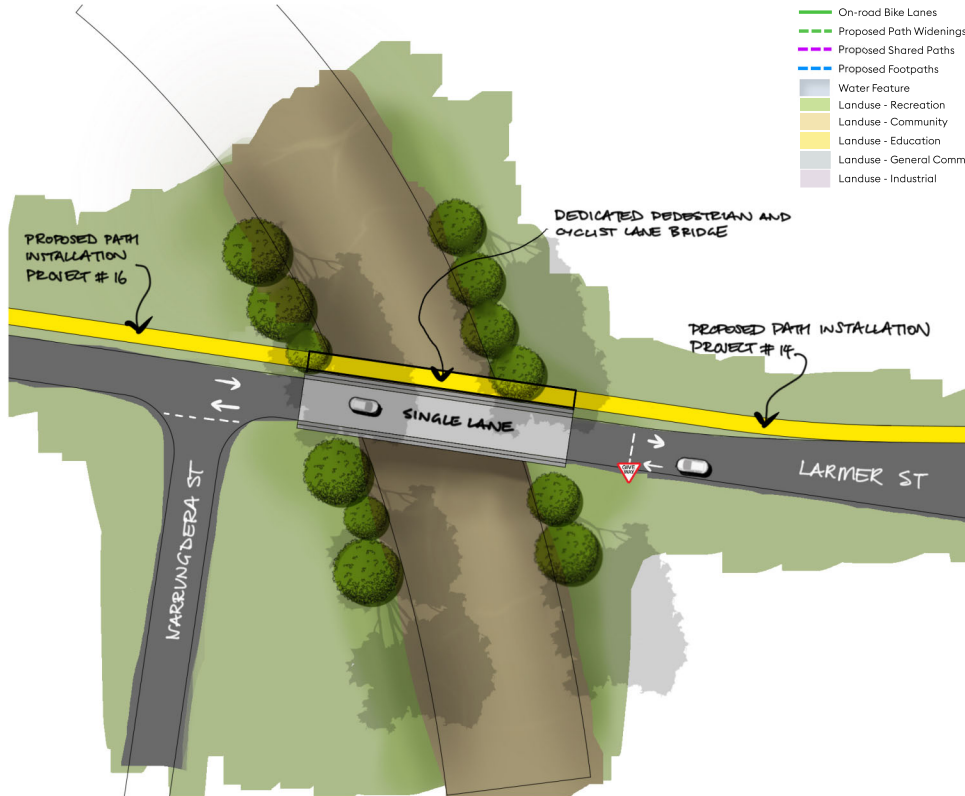
Project Benefit

Improvements to the existing bridge in Larmer Street has been highlighted as a priority project from residents in this locality. The provision of a safe crossing point of the main canal along Larmer Street will have a wide range of benefits for residents and people wishing to access Town Beach. Construction of a pedestrian bridge on the northern side of the existing road bridge is proposed to separate pedestrians and cyclists from motorists. It is recommended that signage be installed to require bike riders to alight from their bike and cross the new bridge on foot

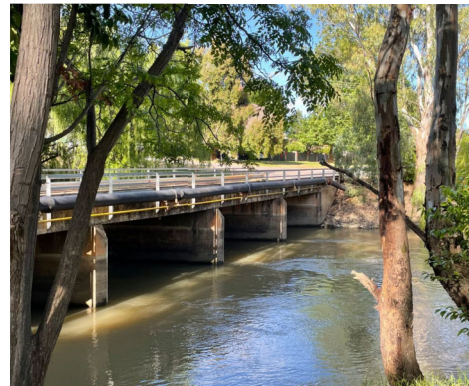
Project Specifications

Pedestrian bridge, as quoted by a specialist bridge builder

- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
- Centre Refuge Island
- Existing Pedestrian Crossing
- Proposed Centre Refuge Island
- Signage Improvements
- Accessibility Improvements
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- Proposed Pedestrian Bridge
- On-road Bike Lanes
- Proposed Path Widening
- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Site Photograph



Site Photograph

Narrandera Project # 3

Project Description

Footpath installation along Dundas, Mitchell and King Streets, linking Narrandera High School to the Narrandera CBD

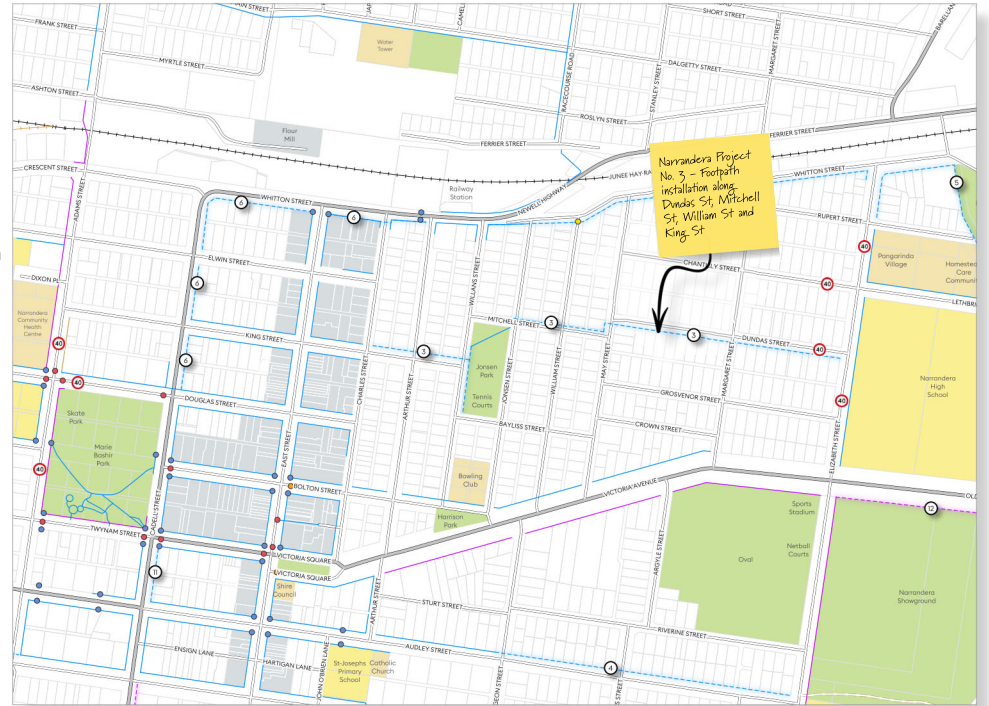
Project Benefit

The project will improve conditions for active transport movement along an identified route that is well used by students accessing the Narrandera CBD. Provision of the new path will also serve residents living in the area

Project Specifications

- Footpath x 1,005m
- Kerb Ramps x 12
- Drainage and footpath rehabilitation
- Traffic control

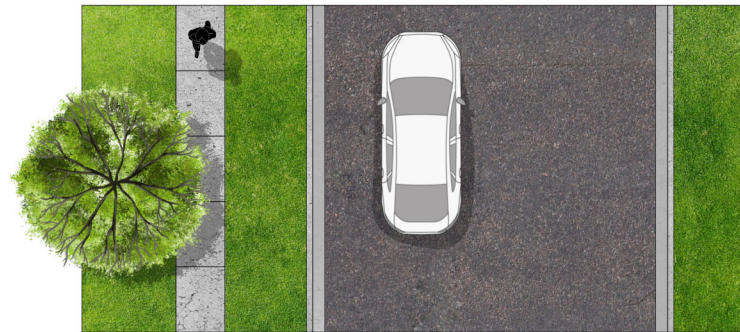
- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
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- Proposed Pedestrian Bridge
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- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Road Reserve | Footpath 1.2m | Road Reserve | Road Carriageway | Road Reserve



Site Photograph



Site Photograph

Narrandera Project # 5

Project Description

Footpath installation along western boundary of Mathieson Oval Link to Rupert Street via Whitton Street

Project Benefit

The project will improve linkages between the Narrandera High School and nearby Henry Mathieson Oval which provides valued recreational opportunities for school users and residents in this part of Narrandera

Project Specifications

- Footpath x 520m
- Kerb Ramps
- Drainage and footpath rehabilitation
- Traffic control

- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
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- Proposed Centre Refuge Island
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- Proposed Footpaths
- Water Feature
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- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Road Reserve | Footpath 1.2m | Road Reserve | Road Carriageway | Road Reserve



Site Photograph



Site Photograph

Narrandera Project # 10

Project Description

Shared path installations connecting Newell Highway and Melbourne / East Streets to Brewery Flat Oval and the Town Common. The shared path installation will generally follow the alignment of Old Brewery Road and Oakbank Street and cross the canal via the new footbridge.

Project Benefit

This project provides active transport connections from a new pedestrian bridge across the main canal, south of Narrandera CBD to link with sports fields, camp grounds and boat ramp facilities as well as a link to the Newell Highway.

Project Specifications

Shared path x 650m

Kerb Ramps x 2

Drainage and footpath rehabilitation

Traffic control



- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
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- Bus Stops
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- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Site Photograph



Site Photograph

Narrandera Project # T1 - Sheet 01 of 02

Project Description

Shared path installation along Newell Highway.

Project Benefit

There is interest from local community members and visitors on how to access the Murrumbidgee River and riparian bushland areas south and south-west of Narrandera. A project has been identified to install a shared along the Newell Highway to the Murrumbidgee River (southern side) to the Narrandera Tocumwal Railway. This pathway would utilise existing pedestrian bridge crossings as well as negotiate under an existing bridge to achieve a continuous path along this busy highway. The path would also provide opportunities to link with other key attractors in the area including the Newell Motor Inn and Narrandera Caravan Park.

Project Specifications

Shared path (2.5 - 3.0m) x 2,950m

Construction work @ bridge underpass

Drainage and footpath rehabilitation

Traffic control

End of trip facilities (seating, signage and water points)

Project Considerations

The successful completion of this project requires the negotiation of a number of barriers and potential hazards that have been identified along a possible project route.

The eastern side of existing bridge crossing of the Murrumbidgee River incorporates a pedestrian footpath that is appropriately separated from the traffic lanes. The path is too narrow to function as a shared path and signage will be required to require cyclists to dismount when negotiating narrow bridge paths.

A safe crossing of the Newell Highway is required, with a possible location being identified underneath a bridge along the Newell Highway, approximately 700m north of the intersection of the Sturt Highway and the Newell Highway.

The environment underneath the bridge has not been designed / constructed with intent for pedestrian and cyclist use. The following issues, risks and site constraints will need to be considered as part of the detailed design of the project:

- ✦ Existing topography, site levels and path grades. The path will need to be suitable for all users, including people with a disability.
- ✦ Flood risk. The path design needs to account for flood inundation. The design will need to be supported by a detail survey, showing ground surface levels / finished path level in relation to known flood heights. Structural engineering of the shared path facilities, including handrails and other supporting structures above ground level will also need to be undertaken. Warning signage will also be required.
- ✦ Lighting. Subject to more detailed analysis of user requirements and CPTED assessment, the existing bridge underpass may require lighting to ensure user safety.
- ✦ Maintenance. On-going maintenance of facilities is required to be considered to arrive at a robust pathway design to withstand flood inundation and siltation.

Sections of the new shared path alignment are likely to be located in areas of the roadside stormwater drainage system. A special design response is likely required to ensure shared path constructions are compatible with stormwater functions and that public safety risks are appropriately considered.

Sections of the new shared path alignment may also contain impediments that need to be properly located and considered as part of a detailed design. Public utility installations, roadside infrastructure (guard rails) and any sudden changes in elevation will need to be accounted for.

The entry / exit locations of the Ampol and Mobil Highway Service Centres and the Narrandera Rest Area and their associated truck parking areas present as potential conflict points between motor vehicles and active transport users. Consultation with key stakeholders including landowners and Transport for NSW will be required to determine the most acceptable design response for driveway crossings.

A detailed costing exercise is likely required in order to determine the cost-benefit ratio for the project. Significant costs may be associated with project tasks including detail survey, earthworks, drainage, vegetation removal and rehabilitation, engineering design and construction.

Concept diagrams have been prepared for the project, and shown over page. The diagrams visualise the main issues associated with this project for the purposes of engaging with key stakeholders.



Project Location Map



Site Photograph



Site Photograph



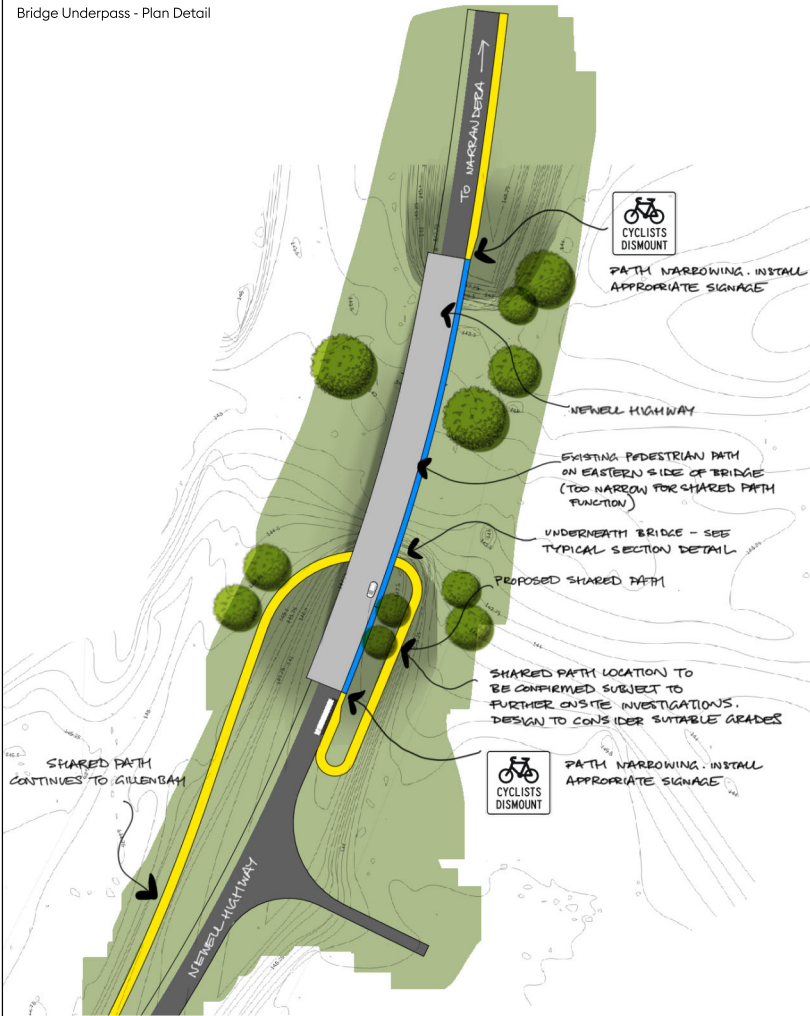
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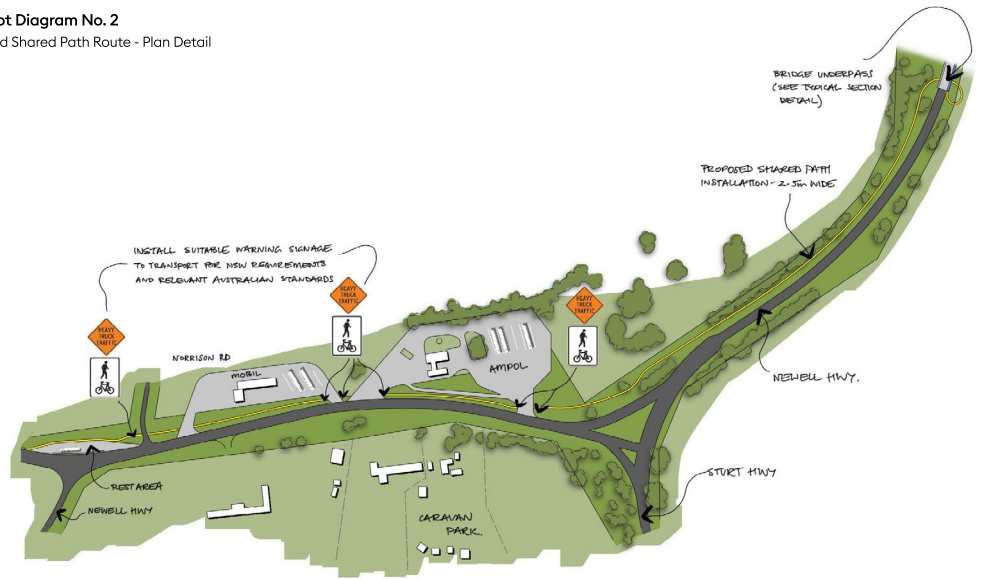
Site Photograph

Narrandera Project # T1 - Sheet 02 of 02

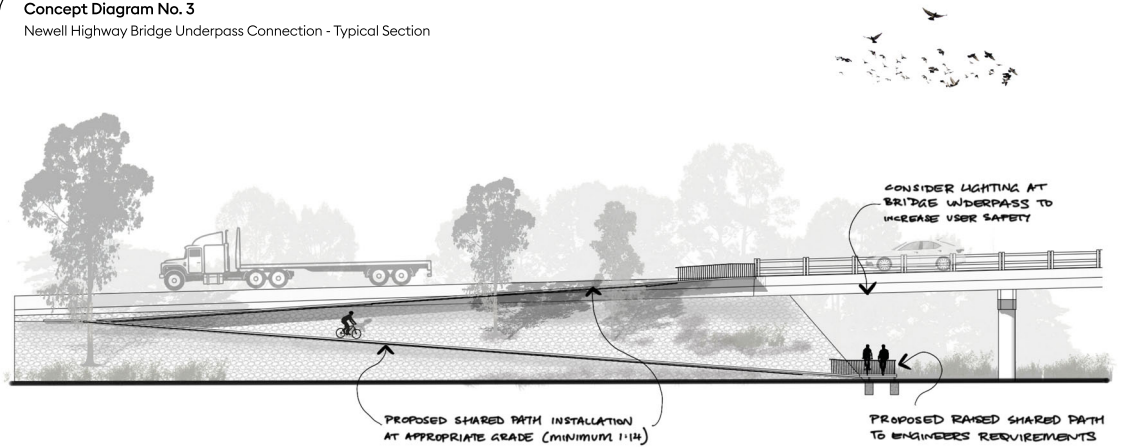
Concept Diagram No. 1
Bridge Underpass - Plan Detail



Concept Diagram No. 2
Proposed Shared Path Route - Plan Detail



Concept Diagram No. 3
Newell Highway Bridge Underpass Connection - Typical Section



Narrandera Project # 12

Project Description

Shared path installations along Old Wagga Road, connecting the urban area of Narrandera to Rocky Waterholes

Project Benefit

The forested riparian areas around Rocky Waterholes are popular with local community members and visitors to Narrandera. These areas are currently accessed by cyclists, runners and walkers via Old Wagga Road who are particularly vulnerable to road traffic. The installation of a shared path link along Old Wagga Road to this iconic destination would further establish Narrandera as an important destination offering active transport, health, environmental and tourism benefits and experiences

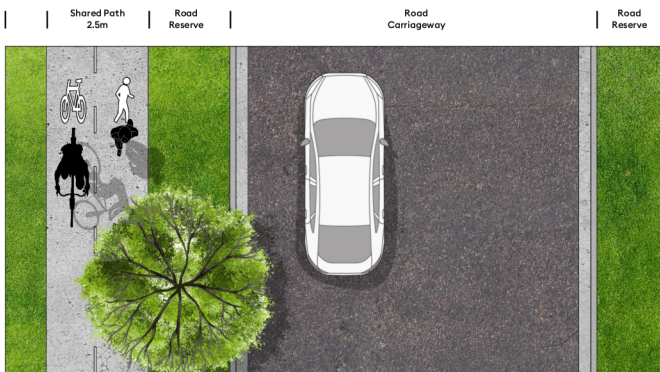
Project Specifications

Concrete shared path along Old Wagga Road x 3,200m

Drainage and bushland rehabilitation as necessary

Traffic control

End of trip facilities (seating, signage and water points)



- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
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- 40 Speed Signage - 40km
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- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Site Photograph



Site Photograph



Site Photograph

Narrandera Project # 14

Project Description

Murrumbidgee River Rail Bridge project

Project Benefit

Re-use of the iconic rail bridge over the Murrumbidgee River has been a long-term goal of the Narrandera community. Provision of a quality shared path to the bridge would further establish Narrandera as an important destination offering active transport, heritage, health, environmental and tourism experiences and benefits. The project could also link with Newell Highway shared path projects to facilitate access to the Murrumbidgee River and the forested riparian areas south-west of Narrandera

Project Specifications

Subject to detailed design and specifications

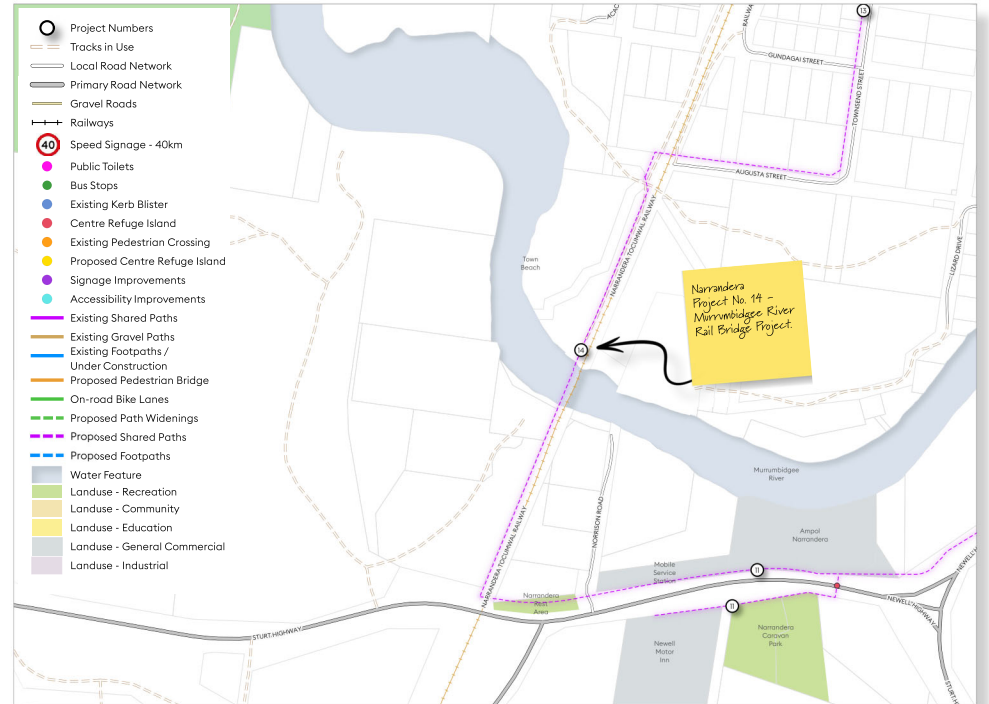
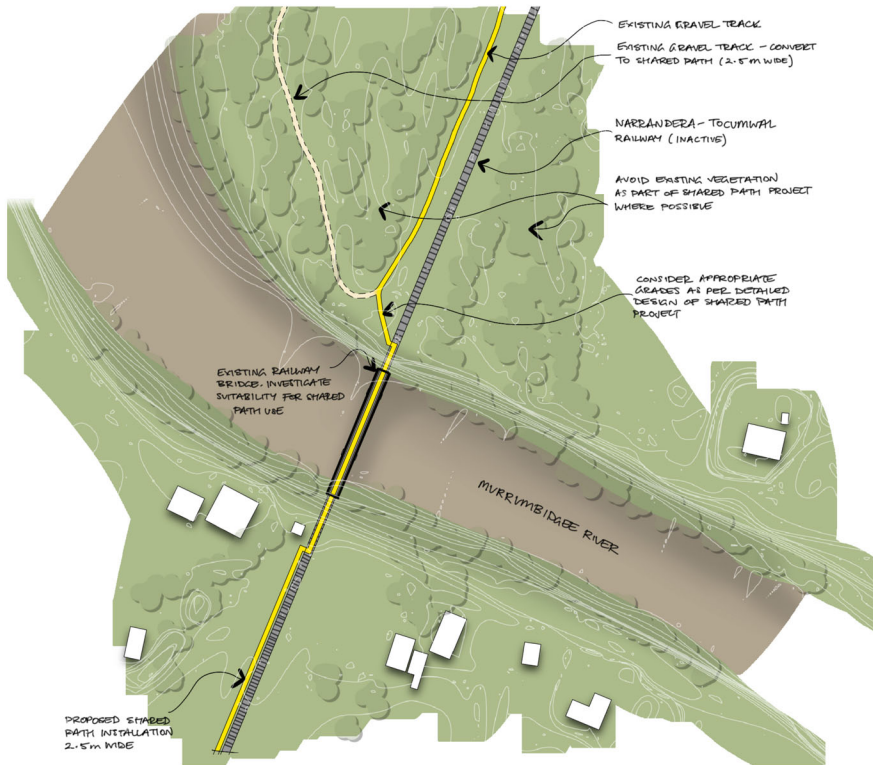
Project Considerations

A structural assessment is required to determine the suitability of converting the existing railway bridge for active transport use.

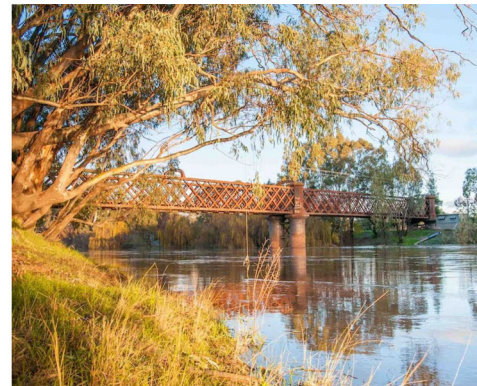
Some sections of the path alignment are located on sloping topography. Detailed site planning, survey and engineering investigations are required to determine appropriate alignments and grades for the proposed shared path installation.

A detailed costing exercise is likely required in order to determine the cost-benefit ratio for the project. Significant costs may be associated with project tasks including earthworks, drainage, vegetation removal and rehabilitation, engineering design and overall project implementation.

Sections of the path are likely to be located in areas that are subject to frequent inundation from floodwaters of the Murrumbidgee River. The project design should consider relevant issues relating to the flood compatibility, construction techniques, on-going maintenance requirements and the management of public safety.



Project Location Map



Site Photograph



Site Photograph

Grong Grong Project #1

Project Description

Footpath installation along Balara Street, connecting from the existing path location on Junee Street to the entry to the Grong Grong Rodeo Ground.

Project Benefit

This area experiences the most amount of active transport movements in Grong Grong and would link Junee Street shops and parkland, the Commemoration Hall and School of Arts, the Church and Grong Grong Rodeo Ground.

Project Specifications

Footpath x 340m
 Drainage and footpath rehabilitation
 Traffic control

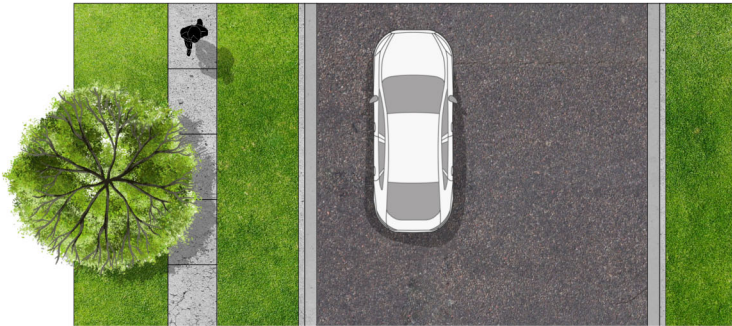
- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
- Centre Refuge Island
- Existing Pedestrian Crossing
- Proposed Centre Refuge Island
- Signage Improvements
- Accessibility Improvements
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- Proposed Pedestrian Bridge
- On-road Bike Lanes
- Proposed Path Widening
- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Road Reserve | Footpath 1.2m | Road Reserve | Road Carriageway | Road Reserve



Site Photograph



Site Photograph

Barellan Project #1

Project Description

Yapunyah Street crossing installation

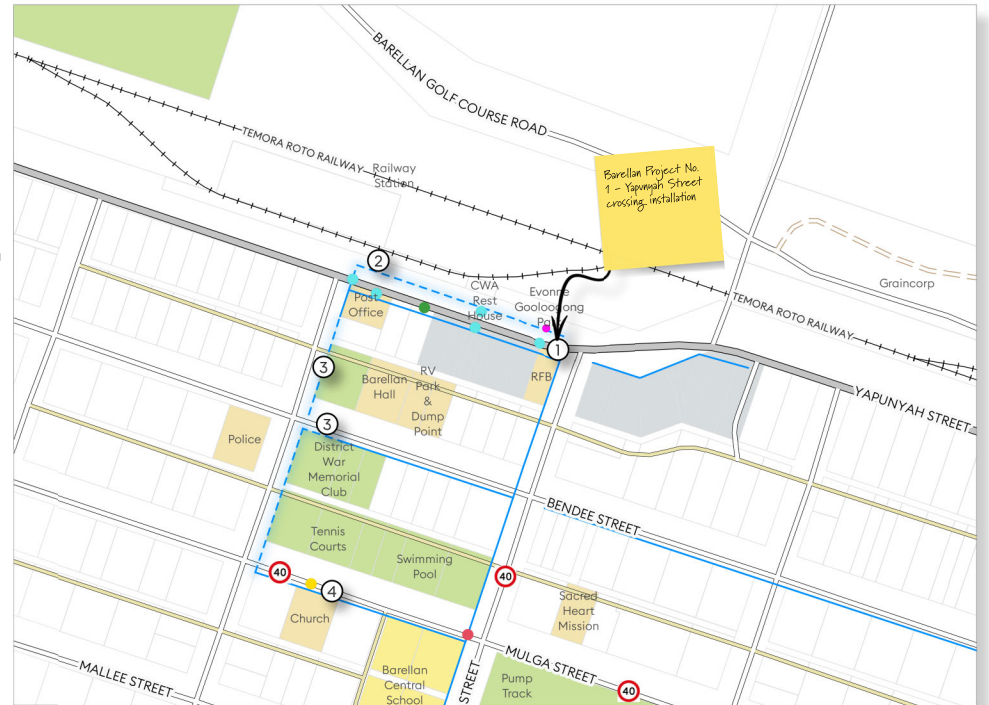
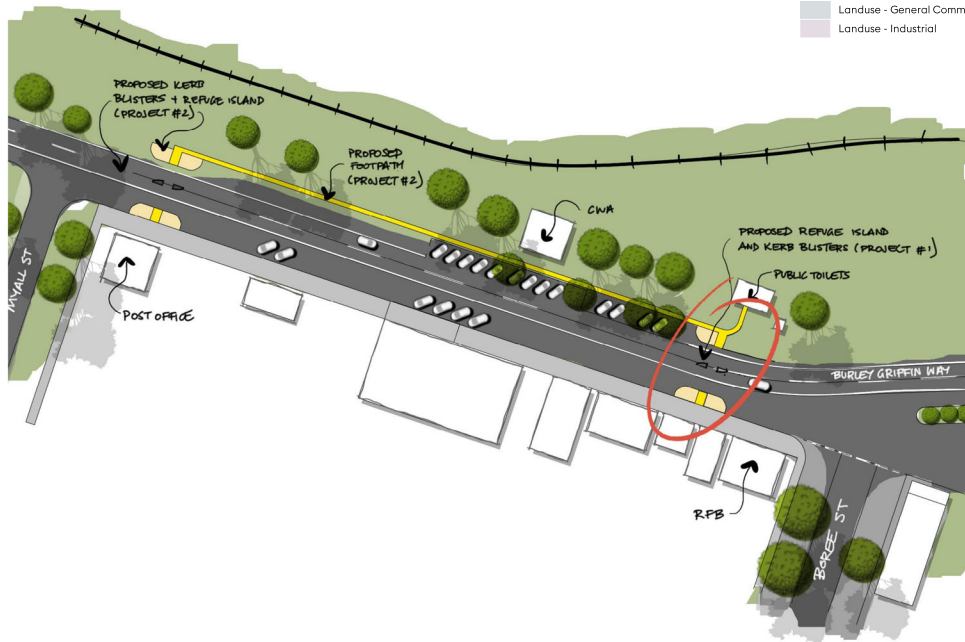
Project Benefit

Yapunyah Street is the main commercial precinct for Barellan and is also the route of the Burley Griffin Way. The street is quite busy with trucks and through traffic and motor vehicle speed and parking congestion has been raised by locals and visitors. There are visitor facilities both sides of Yapunyah Street and pedestrians are observed crossing this busy road at various uncontrolled points. There is a need to provide improved crossing of the Mainstreet

Project Specifications

- Road refuge island
- Kerb side blisters x 2
- Road shoulder and footpath rehabilitation
- Australian Road Rules signage x 4 signs
- Traffic control

- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Bliaster
- Centre Refuge Island
- Existing Pedestrian Crossing
- Proposed Centre Refuge Island
- Signage Improvements
- Accessibility Improvements
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- Proposed Pedestrian Bridge
- On-road Bike Lanes
- Proposed Path Widening
- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Site Photograph

Barellan Project # 2

Project Description

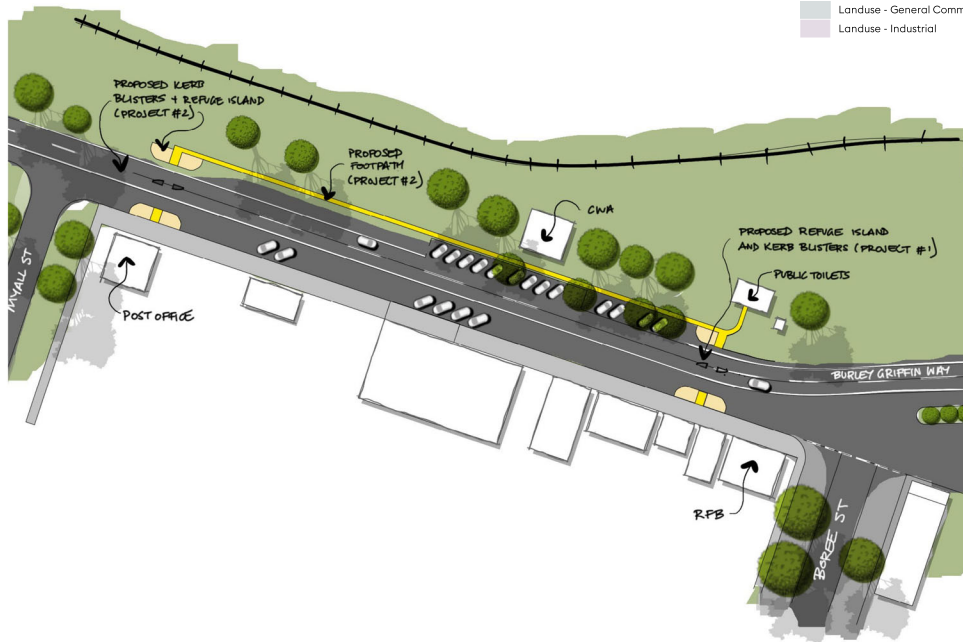
Yapunyah Street western crossing installation and footpath extension

Project Benefit

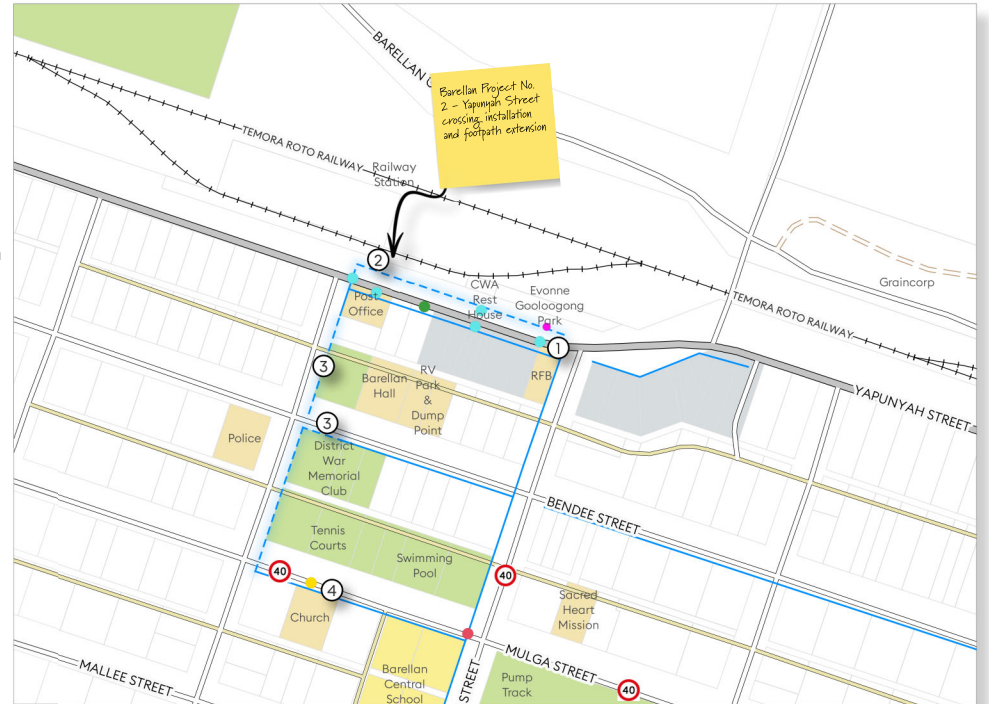
There is a great deal of active transport movement both sides of Yapunyah Street, which forms part of the Burley Griffith Way. There are visitor facilities that need to be linked both sides of the street. This path would also link to other footpaths proposed to link school and community facilities to the south

Project Specifications

- Footpath x 525m
- Road refuge island
- Kerb side blisters x 2
- Road shoulder and footpath rehabilitation
- Traffic control



- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Bliaster
- Centre Refuge Island
- Existing Pedestrian Crossing
- Proposed Centre Refuge Island
- Signage Improvements
- Accessibility Improvements
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- Proposed Pedestrian Bridge
- On-road Bike Lanes
- Proposed Path Widening
- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Site Photograph



Site Photograph

Barellan Project # 3

Project Description

Myall Street footpath installation

Project Benefit

The project will improve conditions for active transport movement along an identified route that is well used by students accessing the southern areas of Barellan, and which also provides links from Yapunyah Street to other attractors including the District War Memorial Club. Drainage and street trees require careful consideration in completing this project

Project Specifications

Footpath x 265m

Kerb Ramps x 2

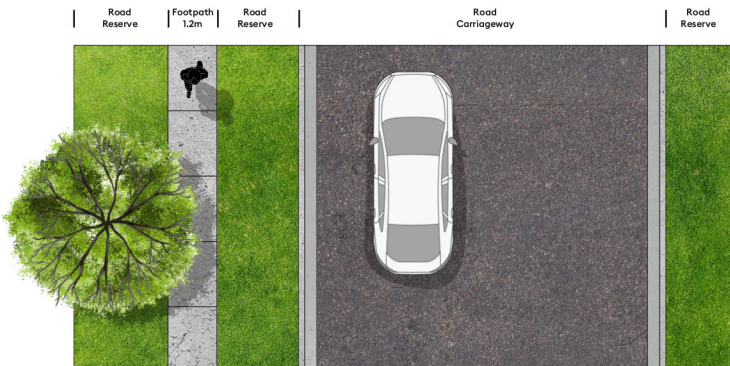
Drainage and footpath rehabilitation

Traffic control

- Project Numbers
- Tracks in Use
- Local Road Network
- Primary Road Network
- Gravel Roads
- Railways
- 40 Speed Signage - 40km
- Public Toilets
- Bus Stops
- Existing Kerb Blister
- Centre Refuge Island
- Existing Pedestrian Crossing
- Proposed Centre Refuge Island
- Signage Improvements
- Accessibility Improvements
- Existing Shared Paths
- Existing Gravel Paths
- Existing Footpaths / Under Construction
- Proposed Pedestrian Bridge
- On-road Bike Lanes
- Proposed Path Widening
- Proposed Shared Paths
- Proposed Footpaths
- Water Feature
- Landuse - Recreation
- Landuse - Community
- Landuse - Education
- Landuse - General Commercial
- Landuse - Industrial



Project Location Map



Site Photograph



Site Photograph



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