



Ordinary Meeting

Tuesday, 8 May 2018

CL06 - GRIFFITH PEDESTRIAN & BICYCLE STRATEGY

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Griffith Pedestrian & Bicycle Strategy

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Griffith Pedestrian & Bicycle Strategy

2018

Griffith City Council

Executive Summary

Walking and cycling are important modes of travel, for both solely pedestrian journeys and also as a part of trips where the major method of transport is bus, train or car. Increasing the proportion of pedestrian and bicycle journeys can make a significant contribution to achieving a better quality of life and environment for all. There are considerable benefits that may be achieved by encouraging more pedestrian activity within the city, particularly for shorter distance trips. These benefits include improved health, better environmental conditions, decreased traffic congestion and improved safety.

The purpose of the review of the PAMP and Bicycle Plan is to improve and amend the existing plan to suit the expanded pedestrian and bicycle infrastructure built since 2009. Due to the similar nature of the two plans; the review incorporates the merger of the plans into the Griffith Pedestrian and Bicycle Strategy. The strategy encompasses all areas previously addressed by the Griffith PAMP and Griffith Bicycle Plan.

The development of the Strategy is a step towards Griffith becoming a fully accessible community with high quality pedestrian and bicycle facilities that encourage walking and cycling as legitimate and sustainable modes of transport in the city. Three broad strategic goals were developed by Griffith City Council to supplement the original aim of the PAMP and Bicycle Plan and coincide with the above. These are:

- *An equitable and accessible transport network that allows for consistent and reliable travel.*
 - Provide good connectivity to key landmarks and attractors;
 - Improve the footpath and cycleway network;
 - Provide safe and convenient crossing locations;
- *A safe and attractive transport network where the severity and risk of accidents are minimised.*
 - Reduce conflicts between all road users;
 - Improve safety for all road users;
 - Improve the environment around pedestrian footpaths and cycleways;
- *A transport network that promotes walking and cycling as a mode of transport.*
 - Encourage walking and cycling to replace trips usually made by motor vehicles;
 - Provide suitable end of trip facilities across the network, especially at key landmarks and attractors.

The analysis of methodology outlined in several guidelines and documents (such as the NSW Roads and Maritime Services (RMS) Guidelines, *How to Prepare a Pedestrian Access and Mobility Plan* (2002), as well as data analysis of pedestrian crash history and community consultation, allowed Griffith City Council to produce the Griffith Pedestrian and Bicycle Strategy as a review of the 2009 PAMP and Bicycle Plan; combining them into a simplified and more precise document.

The amended plans provide an important framework for addressing the needs of pedestrians and cyclists within the Griffith area and the management of resources and funding required to construct such infrastructure. The review also outlined the engineering actions that need to be executed to achieve the overall goal of the document which resulted in an estimated cost of approximately \$33.4 million.

Ongoing monitoring and updating of the document will be undertaken on a regular basis as works are completed or part completed as listed in the implementation strategy. The ongoing amendments also provide the opportunity to correct or rectify any infrastructure that will need to be taken into consideration as Griffith expands into the future.

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Definitions

Active Transport – Movement undertaken by active means, e.g. walking, cycling, jogging, skating, roller blading etc - including access to public transport.

Attractor – A destination (whether built or natural) that attracts people. Below is a list of the types of attractors that are found in the Griffith LGA:

- **Retail/commercial attractors:** including shopping centres (Griffith Central, Griffin Plaza); shopping strips (such as Banna Avenue); village centre/ local shops (such Yenda Place, Yoogali).
- **Commercial/industrial attractors:** including offices, banks, smash repairs, salvage yards, and industrial areas (such as Wickham Hill and Mooreville).
- **Recreational attractors:** including Lake Wyangan; Scenic Hill; sporting ovals and fields (such as Ted Scobie Oval, Jubilee Oval, Westend oval); local parks and reserves; golf courses, Griffith Regional Aquatic Leisure Centre; multi-use trails and walking/cycling.
- **Educational facilities:** including day care centres, preschools, primary schools, secondary schools, tertiary education facilities (such as Griffith TAFE).
- **Community facilities:** including libraries, Council offices, community health centres, disability services, community youth centres, community gardens.
- **Health and medical facilities:** including doctors' surgeries, dentists, alternative health practitioners, medical centres, hospitals.
- **Public Transport stops:** including bus stops, taxi ranks and community service vehicles.

Bicycle – A vehicle with two or more wheels that is built to be propelled by human power through a belt, chain or gears.

Bicycle Lane – A marked on-road lane provided for the movement of cyclists.

Cycleway – An off-road cycling path — in almost all instances in NSW, these are shared walking and cycling paths.

Cyclist – A person who is riding a bicycle.

Footpath – The designated walking path along the footway.

Footway – The property boundary to kerb pedestrian movement space which generally includes a footpath and nature strip.

Generator – The place from where people live, and from where they commence their trips. Generators then are largely residential areas which can be classified as:

- **Low density housing:** includes detached houses (these are the most common type of housing in Griffith)
- **Medium density housing:** villas, townhouses; defined as at least 2 but less than 20 dwellings in the RTA Guide to Generating Developments;
- **High-density housing:** apartment blocks, flats, units; a building containing 20 or more dwellings as per the RTA Guide to Generating;
- **Aged care facilities:** nursing homes, retirement villages, self-care or assisted care units; Most residents at these facilities rely solely on others for driving, so it is important to provide accessible pedestrian facilities to nearby shops, library, or parks, to allow residents some autonomy in their personal mobility.
- **Accessible housing:** these residences allow for semi-independent living for people with some form of developmental disability; accessible pedestrian paths and safe crossings to nearby

facilities such as shops, parks, swimming pools, a community centre, or bus stops are important for fostering and maintaining independence.

- **Public transport stops:** considered both pedestrian attractors and generators: bus stops and taxi ranks are attractors because people travel to these locations for further travel (forming part of their trip); public transport stops are also generators because pedestrians are generated from these locations, from outside the area.

Pedestrian – Everyone is a pedestrian at some time, even if just walking from the car to a destination. In the Strategy, pedestrians include:

- A person on foot – all ages, ably or with an impairment (for example, using a cane, guide dog, walking frame, crutches; or with assistance from another person);
- A person using a wheelchair;
- A person pushing a pram, shopping trolley, wheelchair etc;
- A person using a motorised wheelchair or mobility scooter (that is limited to 10km/h); and
- A person using a wheeled recreational device or wheeled toy.

Road Reserve – The entire street space from property boundary to property boundary.

Roadway – The kerb-to-kerb vehicular movement space.

Vulnerable User Groups – in the context of the pedestrian environment, user groups with specific needs include:

- Children;
- A person who requires assistance with walking (for example, using a guide dog, cane, walking frame, crutches or assistance from another person);
- A person using a manual wheelchair;
- A person pushing a pram, shopping trolley, wheelchair etc;
- A person using a motorised wheelchair or mobility scooter (that is limited to 10km/h);
- Learner cyclists and child cyclists.

1. Introduction

Walking and cycling are important modes of travel, for both solely pedestrian journeys and also as a part of trips where the major method of transport is bus, train or car. Increasing the proportion of pedestrian and bicycle journeys can make a significant contribution to achieving a better quality of life and environment for all. There are considerable benefits that may be achieved by encouraging more pedestrian activity within the city, particularly for shorter distance trips. These benefits include improved health, better environmental conditions, decreased traffic congestion and improved safety.

Universal access is the ability of all road users to safely travel along a transport network, including pedestrians and cyclists. The development of a Pedestrian Access and Mobility Plan provides a way for Council's to address the principles of universal access based on current traffic science and engineering practices.

Griffith City Council's Pedestrian Access and Mobility Plan (PAMP) was originally completed by GHD Consultants in February 2004. The PAMP was based on the NSW Roads and Traffic Authority (RTA) Manual 'How to Prepare a Pedestrian Access and Mobility Plan'. A PAMP provides an important framework for the development of pedestrian and cycling infrastructure and increasing the sustainable safety, convenience and mobility of areas identified by the community.

Griffith City Council's Bicycle Plan was originally completed in 1996. The production of a Bicycle Plan allows Griffith City Council to coordinate investments on safe, convenient and accessible cycling infrastructure.

A review of both the PAMP and Bicycle Plan was conducted by UrbanArc Pty Ltd in conjunction with Griffith City Council's engineering staff in 2009. The aim of the review was to improve and amend the existing plans to suit the needs of the expanded urban area of Griffith. The future needs of the pedestrians and cyclists in the area were also considered as part of the review and addressed the management of resources and funding to meet the needs identified.

The existing plans provide an important framework for addressing the needs of pedestrians and cyclists within the Griffith urban area and the management of resources and funding to meet the needs identified. The PAMP and Bicycle Plan also allow Council to coordinate investments on safe, convenient and accessible pedestrian and cycling infrastructure on key pedestrian, shared and/or cycling routes throughout the Local Government Area.

The purpose of the review of the PAMP and Bicycle Plan is to improve and amend the existing plan to suit the expanded pedestrian and bicycle infrastructure built since 2009. Due to the similar nature of the two plans; the review will also incorporate the merger of the plans into the Griffith Pedestrian and Bicycle Strategy. The strategy will encompass all areas previously addressed by the Griffith PAMP and Griffith Bicycle Plan.

The reviewed Pedestrian and Bicycle Strategy provides approximately 146km of designated path across the Griffith City Council Local Government Area. The cost of providing the entire Pedestrian and Bicycle network is approximately \$33,000,000, which is well outside of Council's ten (10) year forecasted capital works budget. Council receives limited funding from the Roads and Maritime Services (RMS) for shared paths and kerb ramps and Council is required to pay half the construction costs if the work is on a local road. The funding from the RMS is not guaranteed and must be applied for and approved annually before construction commences and the work must be approved once completed to ensure that the work meets RMS standards.

Council's current rate of construction means that the construction of the 2009 reviewed PAMP will not occur for almost 200 years. Council's current financial situation does not allow for increased expenditure on

footpaths or shared paths, as it is Council is fortunate to be able to afford the limited development of footpaths around the city. Therefore a key component of the review will be identifying alternate revenue streams to assist in funding the proposed pedestrian and cycle way network.

1.1 Study Aims

The main aim of the Griffith Pedestrian & Bicycle Strategy is to develop a strategic pedestrian and cycleway infrastructure plan around Griffith and the surrounding areas to provide attractive, coherent, direct and safe access for pedestrians and cyclists.

The development of the Strategy is a step towards Griffith becoming a fully accessible community with high quality pedestrian and bicycle facilities that encourage walking and cycling as legitimate and sustainable modes of transport in the city. Three broad strategic goals were developed by Griffith City Council to supplement the original aim of the PAMP and Bicycle Plan and coincide with the above. These are:

- *An equitable and accessible transport network that allows for consistent and reliable travel.*
 - Provide good connectivity to key landmarks and attractors;
 - Improve the footpath and cycleway network;
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- *A safe and attractive transport network where the severity and risk of accidents are minimised.*
 - Reduce conflicts between all road users;
 - Improve safety for all road users;
 - Improve the environment around pedestrian footpaths and cycleways;
- *A transport network that promotes walking and cycling as a mode of transport.*
 - Encourage walking and cycling to replace trips usually made by motor vehicles;
 - Provide suitable end of trip facilities across the network, especially at key landmarks and attractors.

1.2 Study Objectives

The principles of universal design highlight the rights of all road users, including pedestrians and cyclists, to access all destinations utilising the public road network. While motor vehicle travel is extremely popular, there are many people that need or prefer to travel on foot, by wheelchair, by motorised scooter or by bicycle. The universal design principles advise that all road users should be accommodated in the design and regulation of the transport network. The Universal Access Principles provide part of the basis of developing the Griffith Pedestrian & Bicycle Strategy.

In order to address the expansion of pedestrian and bicycle access along the road network and the concerns of the community since the 2009 review of the Griffith PAMP Study and Griffith Bicycle Plan; Council has commissioned the review of both documents. Several objectives were developed by Griffith City Council to ensure that the strategy addressed all of the community's concerns. The main objectives of the Griffith Pedestrian & Bicycle Strategy are:

- i. to facilitate improvements in the level of pedestrian and bicycle access and priority; particularly in areas with high pedestrian and bicycle traffic;
- ii. to reduce pedestrian and bicycle access severance and enhance safe and convenient crossing opportunities along major roads;
- iii. to identify and resolve pedestrian and bicycle crash clusters.

- iv. to facilitate improvements in the level of personal mobility and safety for all pedestrians and cyclists; including children, disabled pedestrians, and seniors; through the provision of enhanced pedestrian and bicycle infrastructure and facilities;
- v. to ensure that pedestrian and bicycle facilities remain appropriate and relevant to the surrounding land use and user groups;
- vi. to identify funding opportunities to assist Council in the future implementation of the Griffith Pedestrian & Bicycle Strategy;
- vii. to facilitate the integration of walking/cycling into the transport system by providing a safe and visually pleasant environment; and
- viii. to meet Council's obligations under the Commonwealth Disability Discrimination Act 1992.

1.3 Project Methodology

The Griffith PAMP was developed utilising the methodology outlined in the NSW Roads and Maritime Services (RMS) Guidelines, *How to Prepare a Pedestrian Access and Mobility Plan* (2002). The methodology used is broken up into three broad stages; Objectives, Preparation and Implementation.

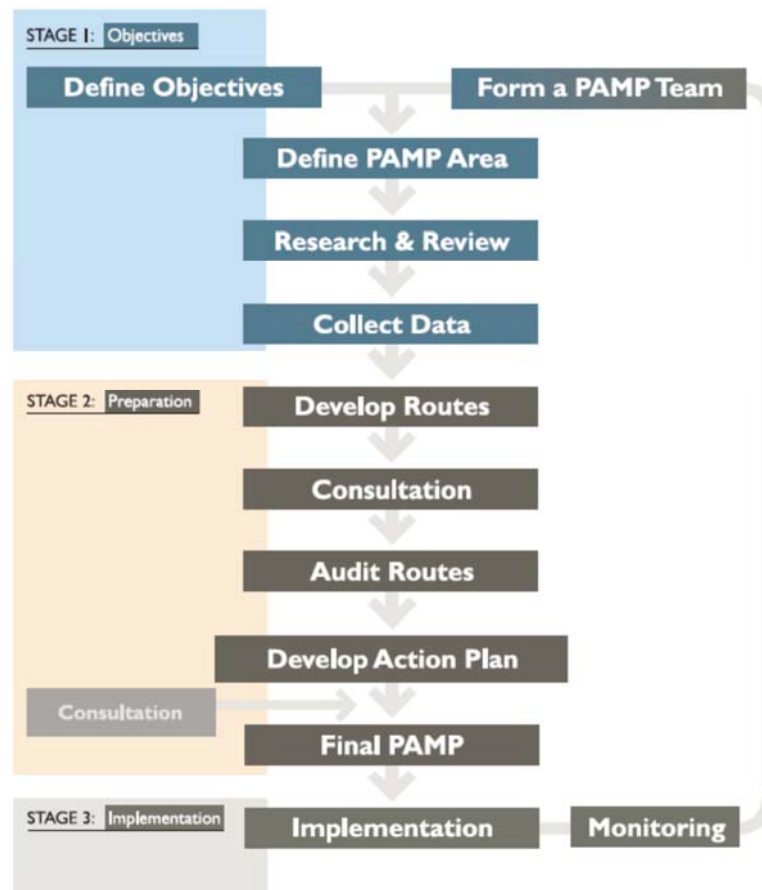


Figure 1 - PAMP Methodology (*How to prepare a Pedestrian Access and Mobility Plan*, 2002)

1.4 Universal Design

Universal design refers to set of seven principles applied to the design and construction of buildings, products and environments to ensure they are inherently accessible to all user groups including the

elderly, children and people with disabilities. The principles were developed by Ronald Mace and a group of architects, engineers, designers and design researchers at North Carolina State University in 1997. The intended use of the principles was 'to evaluate existing designs, guide the design process and educate both designers and consumers about the characteristics of more usable products and environments.'

Ronald Mace developed the term 'universal design' to describe the concept of designing all products and the built environment to be aesthetic and usable to the greatest extent possible by everyone, regardless of their age, ability, or status in life ("[Ronald L. Mace on NC State University, College of Design](http://design.ncsu.edu)" design.ncsu.edu. Retrieved 2013-07-26.). The principles developed guide the design of environments, products and communications. These principles are presented below:

- I. **Equitable Use** – The design is useful and marketable to people with diverse abilities;
- II. **Flexibility of Use** – The design accommodates a wide range of individual preferences and abilities;
- III. **Simple and Intuitive Use** – Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level;
- IV. **Perceptible Information** – The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities;
- V. **Tolerance for Error** – The design minimizes hazards and the adverse consequences of accidental or unintended actions;
- VI. **Low Physical Effort** – The design can be used efficiently and comfortably and with a minimum of fatigue; and
- VII. **Size and Space for Approach and Use** – Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

The Universal Access Principles form a key component in the development of Griffith's Pedestrian & Bicycle Strategy.

2. Griffith Local Government Area

Griffith is the regional service centre for the Murrumbidgee Irrigation Area and has become one of regional NSW's major industrial centres. Located at the junction of the Kidman Way, Burley Griffin Way and Irrigation Way, three major highways through the Riverina area, the Griffith City Council area covers approximately 1640.5 square kilometres and has a population of approximately 26,000 people.



Figure 2 - Griffith City Council - Locality Plan

Griffith and the surrounding area is a significant agricultural region in south-western New South Wales. The area has made significant contributions to the establishment and development of vineyards, orchards, cereal crops, pasture, rice, cotton and the emerging nut industry in the region and across the nation. The area's extensive agricultural sector is supplemented by Griffith's manufacturing, retail and commercial sectors. Recently there has been significant growth in the food processing, manufacturing, transport and logistics industries, which can be attributed to the decline of agricultural industries during the recent drought period and businesses diversifying in order to become more sustainable.

2.1 Physical Features and Topography

The topography of Griffith is typical of the western Riverina, flat, with the exception of the McPherson Range that provides variation to the landscape. The major physical features of the area include the National Parks, State Forests, mountain range and various water bodies.

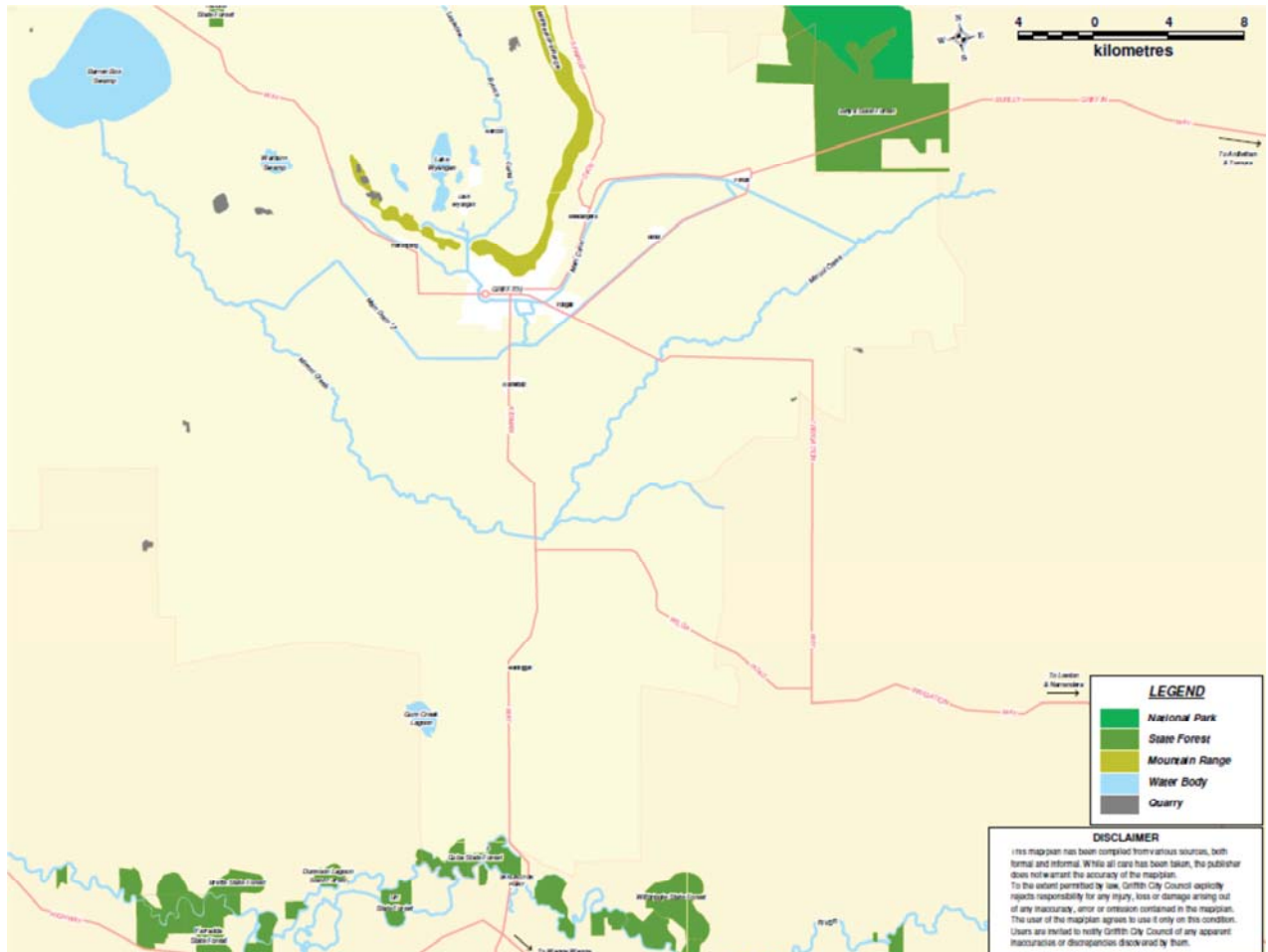


Figure 3 - Major Natural and Physical Features

Griffith is situated 35km north of the Murrumbidgee River, which flows for 1,690 km from its headwaters in the Snowy Mountains to its junction with the Murray River. The Murrumbidgee River supports large irrigated agricultural and irrigated pastoral developments in the western part of the catchment and includes the Murrumbidgee Irrigation Area (MIA) and Coleambally Irrigation Areas (CIA). There are high demands on surface water and ground water resources in terms of quality and quantity. Viticulture is a growth industry in the Griffith LGA and the numbers of agricultural processing industries are increasing demand on water resources.

The urban area of Griffith is set against the McPherson Range. The landform of the range and its existing vegetation provides a backdrop to the City in an otherwise flat cleared landscape. Consequently, its value as a visual element in the landscape is extremely high. The majority of the McPherson Range is preserved to date. Due to its elevation and steep terrain in the past it has not been suitable for agricultural purposes.

The McPherson Range is a small isolated natural reserve without connection to other fragments of natural ecosystems in the region. Within the range itself there are already developments which fragment parts of the range, such as roads, residential subdivision, orange groves and other agricultural land use.

2.2 Population Overview

2.2.1 Current Demographics

The population of the Griffith Local Government Area (LGA) was 25,641 as of the Australian Bureau of Statistics (ABS) 2016 Census. The Griffith Land Use Strategy's *Demographic Analysis of the Griffith LGA (2680 & 2681)* estimates that Griffith's population will increase to 34,905 by 2033.

A demographic analysis based on the ABS 2016 census of population and housing data for Griffith has been undertaken as part of the initial stages of the strategy. The analysis focused on age distribution, school attendance and journey to work information gathered in the census to justify the encouragement initiatives for walking and cycling developed as part of the strategy. The data has been compared to that of the Australian Bureau of Statistics 2011 and 2006 census surveys.

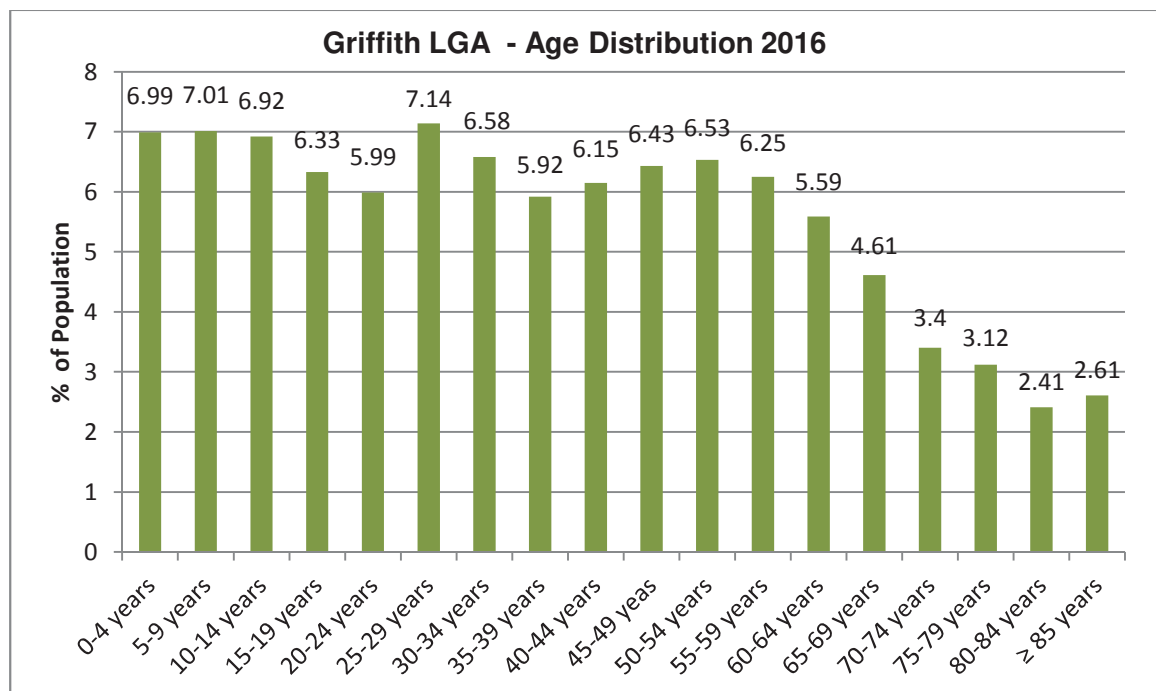


Figure 4- Age Distribution of Griffith's Population (ABS 2016 Census)

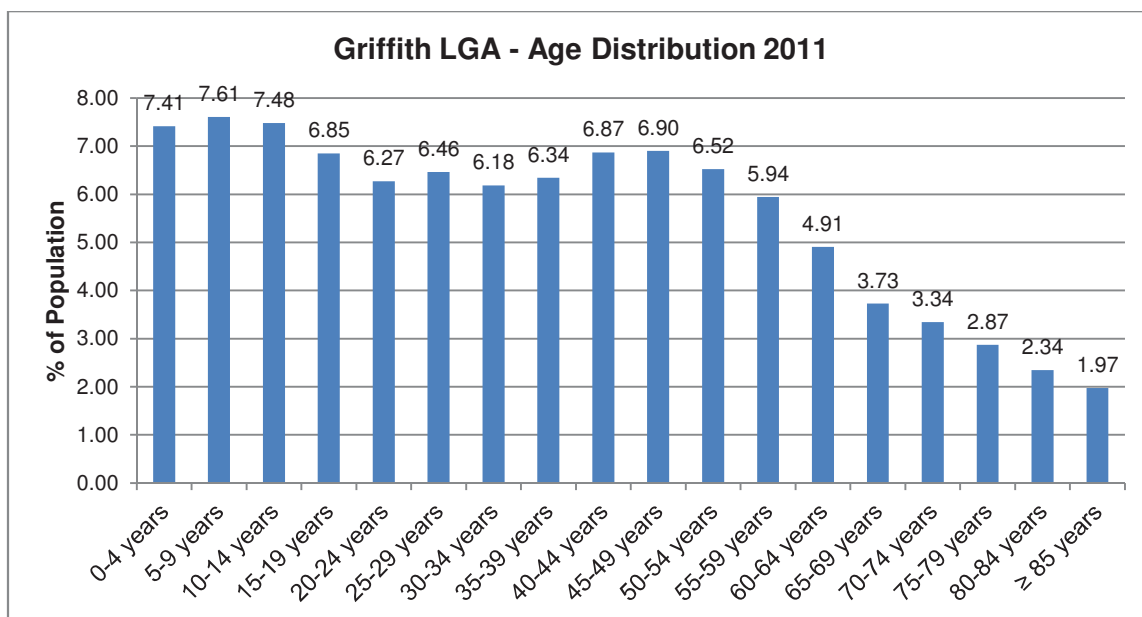


Figure 5 - Age Distribution of Griffith's Population (ABS 2011 Census)

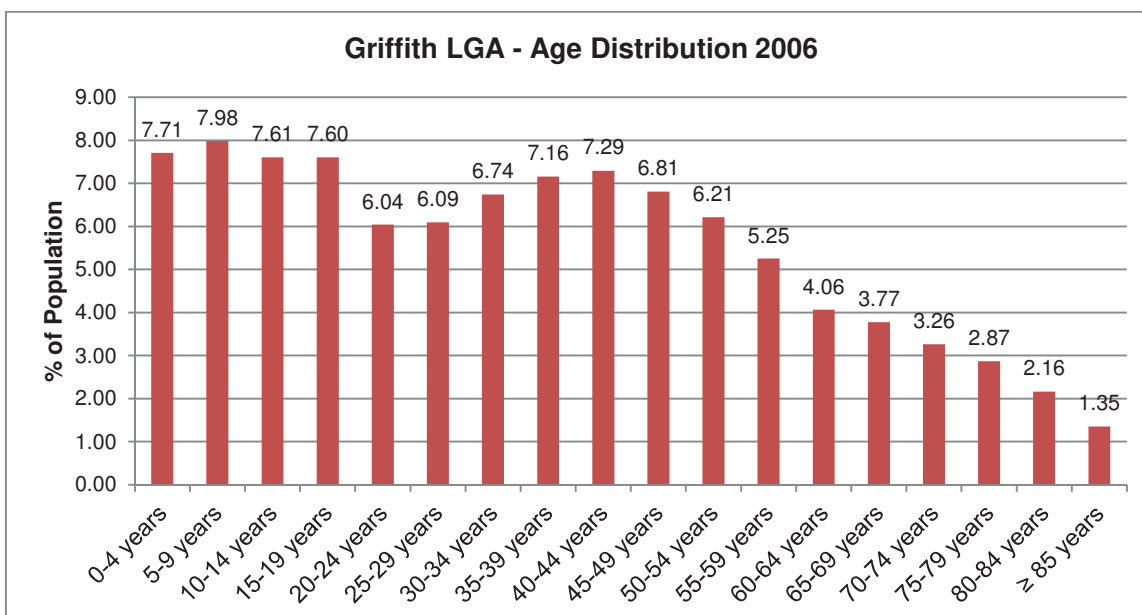


Figure 6 - Age Distribution of Griffith's Population (ABS 2006 Census)

The age distribution of Griffith's population in 2016 was analysed and compared with that of 2011 & 2006. The main outcomes of the analysis are detailed below:

- The working age population (15-59 years) accounts for 57.32% of Griffith's population, 14,697 people in 2016. This is compared to 58.33% of Griffith's population, 14,213 people, in 2011 and 59.19%, 14,901 people, at the time of the 2006 census. The working age population has increased however the proportion of the population that this age group represents has reduced by approximately two percent in ten years.
- Older people (over 65 years) account for 16.15% of Griffith's population, 4141 people, in 2016. This is compared to 14.25% of Griffith's population, 3,472 people, in 2011 and 13.43%, 3,195 people, at the time of the 2006 census. The older population of Griffith increased significantly in keeping with trends across Australia. The increasing age of Griffith's population results in the growth of the city's vulnerable user groups, which will

require specific infrastructure to increase the viability of walking or cycling as a legitimate mode of transport.

- Young people (15-29 years) account for 19.46% of Griffith's population, 4,990 people, in 2016. This is compared to 19.57%, 4,770 people at the time of the 2011 census and 19.74%, 4,697 people, at the time of the 2006 census. The amount and proportion of young people within Griffith has remained steady between the surveys. This is most likely attributed to the migration of young people to larger cities for tertiary education, careers and/or travel, however a significant number do return to Griffith. This user group is most likely to accept walking or cycling as a legitimate mode of transport for short distance journeys.
- The 0-14 age group accounts for the largest portion of Griffith's population at the time of all three surveys, but has decreased between 2006 and 2016. The vulnerable road users include people in this age group.

The population of the Griffith Local Government Area (LGA) that were attending an educational institution was 5,355 as of the Australian Bureau of Statistics 2016 Census. This represented an increase of 23 people from the 2011 ABS Census and an increase of 267 people from the 2006 ABS Census. The education trends identified in the 2006 census as part of the 2009 PAMP have altered minimally in the 2016 study; i.e. the infants/primary group remains the most prominent group attending an educational institution and approximately 49% of students attend secondary school or higher (previously 47%).

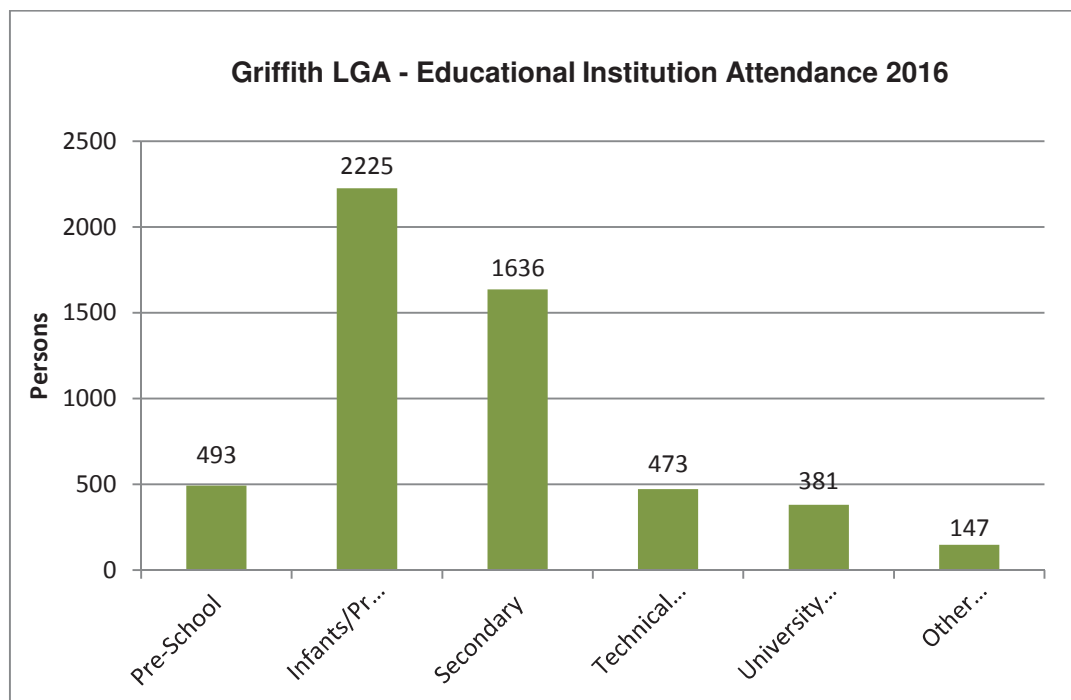


Figure 7 - Educational Institution Attendance (ABS 2016 Census)

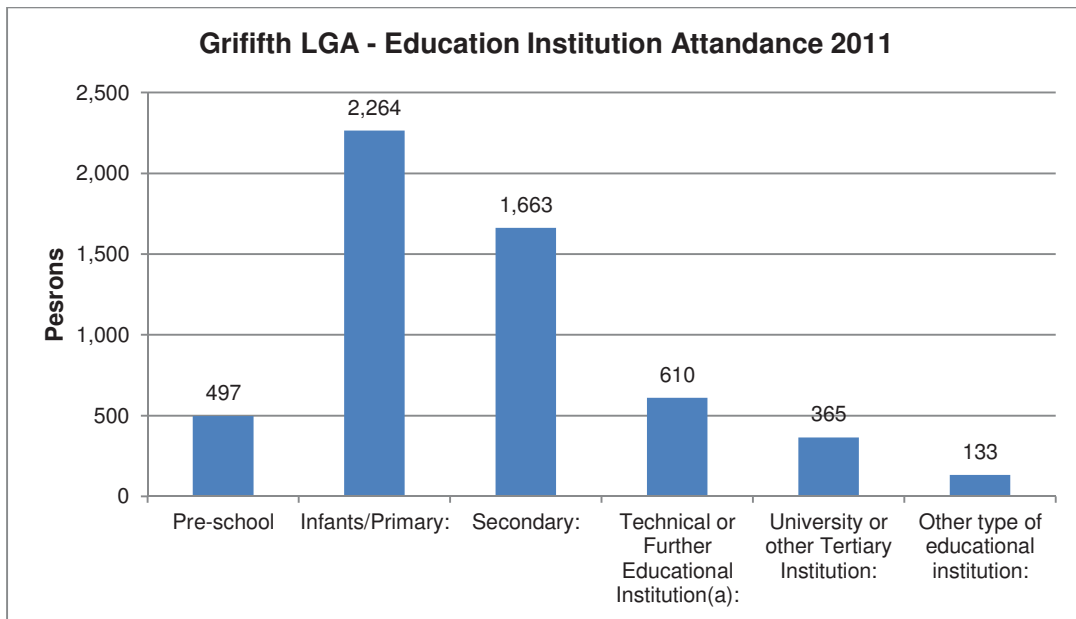


Figure 8- Educational Institution Attendance (ABS 2011 Census)

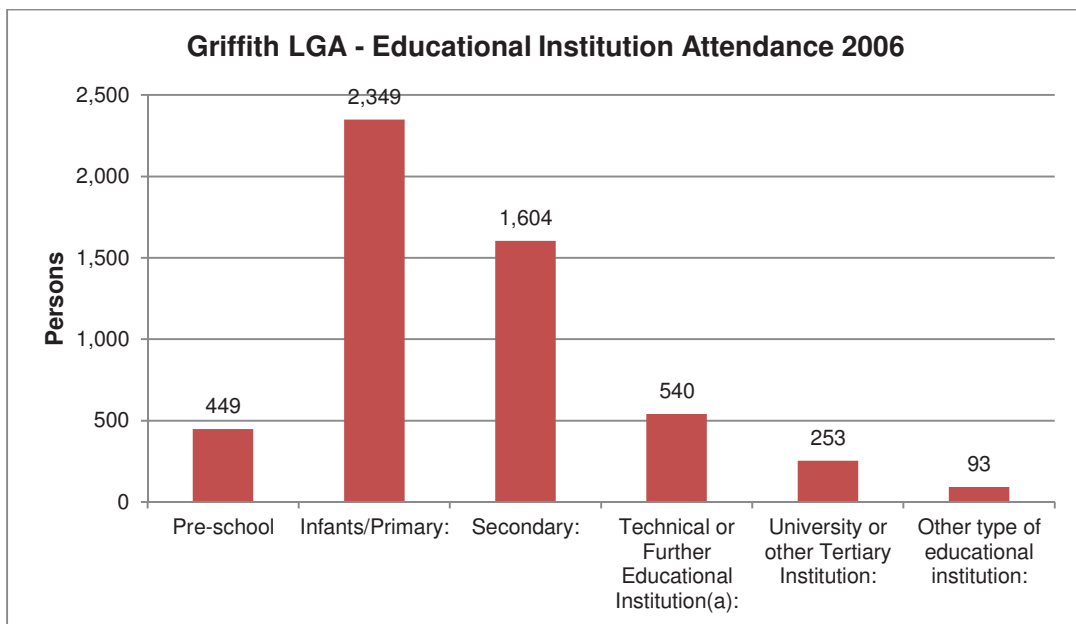


Figure 9 - Educational Institution Attendance (ABS 2006 Census)

Students have significant potential as a target user group to encourage walking and cycling as a legitimate mode of transport, especially secondary school and higher. Infants and primary school students are still vulnerable road users however with proper supervision and learning initiatives, such as the walking school bus, students will hopefully be encouraged to walk or ride to school.

The method of travel to work within the Griffith LGA is predominantly by car, with roughly 90% of people travelling either as the driver or passenger of a car. Griffith's regional locality has resulted in an over reliance on motor vehicles as the major mode of transport for all trips, this is reflected in the census data below. The data also shows that there was a marked increase of persons travel to work by car while the remaining modes of travel remained stable if not a slight decrease.

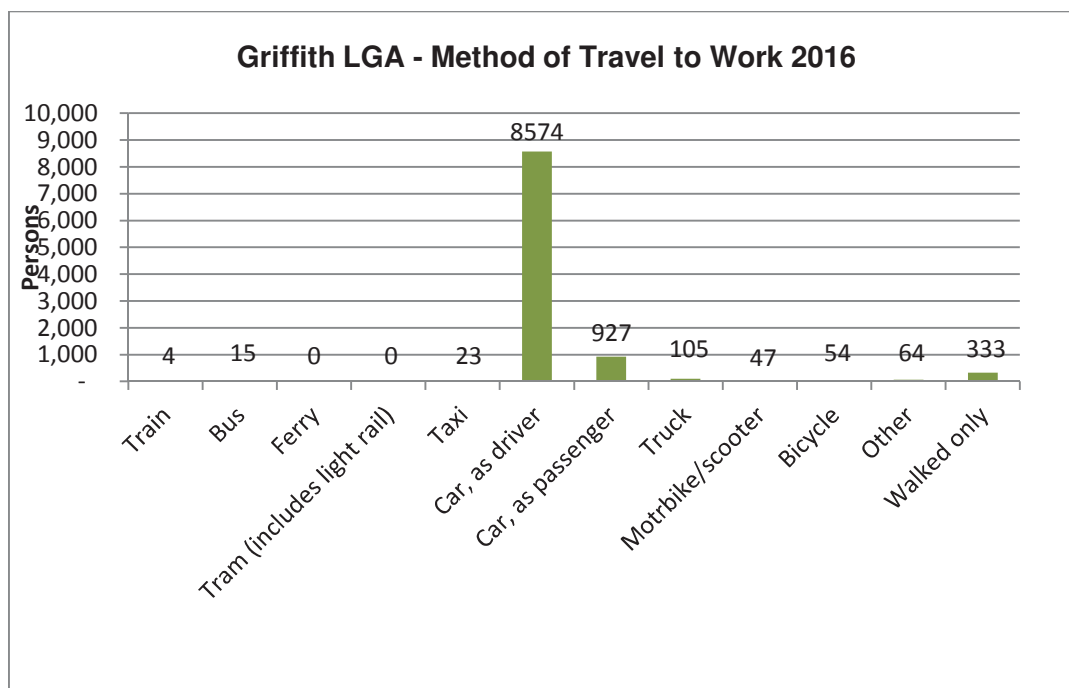


Figure 10 Figure 11 - Method of Travel to Work (ABS 2016 Census)

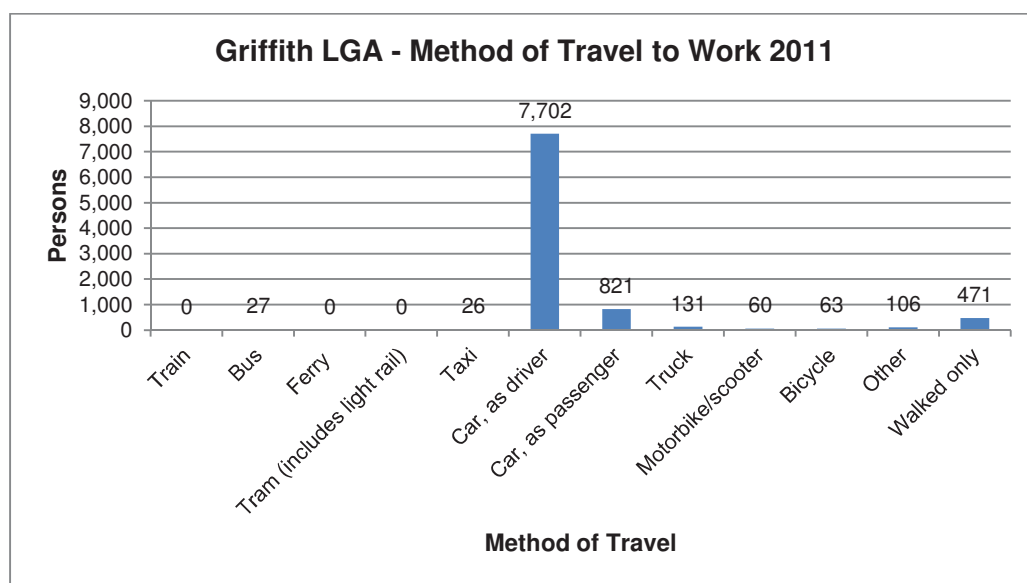


Figure 12 - Method of Travel to Work (ABS 2011 Census)

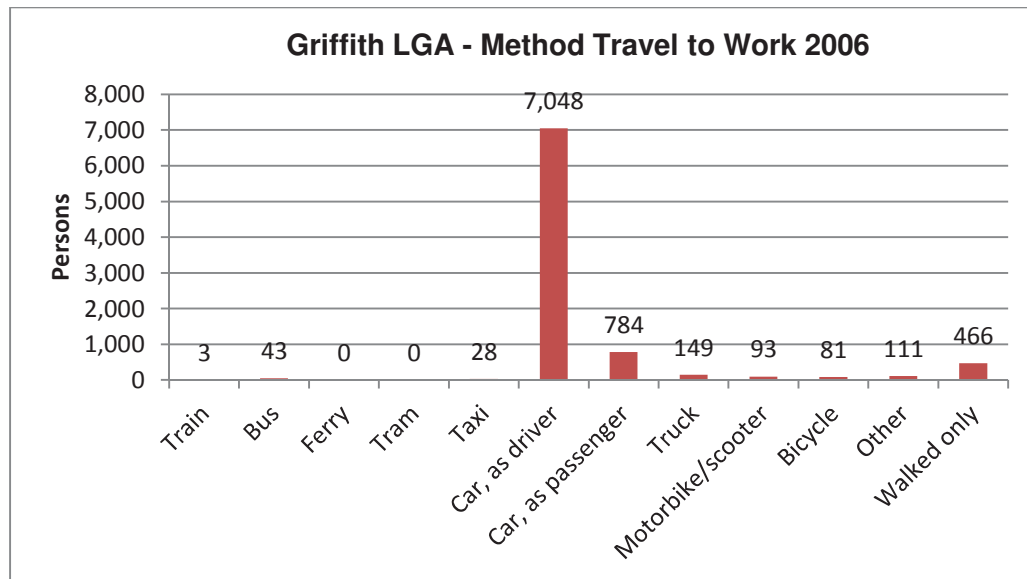


Figure 13 - Method of Travel to Work (ABS 2006 Census)

The method of travel to work in 2016 was analysed and compared with that of 2011 and 2006. The main outcomes of the analysis are detailed below:

- Car travel, either as a driver or a passenger, is the dominant choice for travel to work in Griffith. This accounts for roughly 93.6% in 2016, 90% of travel in 2011 and 89% in 2006.
- Walking accounts for approximately 5% of travel to work in both 2006 and 2011 and approximately 3.3% of travel to work in 2016.
- Bicycle travel is extremely limited in the Griffith LGA, accounting for less than one percent of all travel to work and has decreased over the past 10 years.

The method of travel to work information is solely based on the commute to and from employment, therefore other uses, i.e. recreation, tourism, etc.; are not measured. While this limits the scope of the information obtained through the census, it does provide a useful snapshot of the pedestrian and bicycle activity around Griffith.

2.2.2 Future Growth

Griffith City Council commissioned an independent research project to investigate the population growth of the local government area between 2008 and 2038 as part of the *Griffith Land Use Strategy*. Griffith's population growth is based upon a relatively volatile, but extremely prosperous local economy, therefore a number of factors based upon the strong population and economic growth had to be considered to determine the estimated population. Based on these factors, three estimates for Griffith's potential population were calculated, a conservative estimate, an increased growth estimate and a decreased growth estimate.

Conservative Estimate		Increased Growth Estimate		Decreased Growth Estimate	
2033	2038	2033	2038	2033	2038
MIN 34,717	MIN 37,390	MIN 37,618	MIN 40,251	MIN 32,452	MIN 33,540
AVG 34,905	AVG 36,587	AVG 37,822	AVG 40,469	AVG 32,628	AVG 33,722
MAX 35,093	MAX 36,784	MAX 38,026	MAX 40,687	MAX 32,803	MAX 33,903

Table 1 - Griffith LGA Estimated Population Growth (*Griffith Land Use Strategy*)

The *Griffith Land Use Strategy* recommends that the average of increased growth rate estimate be utilised for the purpose of the strategy, approximately 37,822 people. However given recent developments in relation to the water allocations for Irrigation areas due to the Murray-Darling

Basin Plan this estimate is extremely optimistic. More recent analysis conducted by id Forecast has Griffith's population at approximately 28,900 people by 2031.

Griffith will continue to grow, especially as the local winery industry, particularly Casella Family Brands, McWilliams Winery and De Bortoli Wines, and Baiada Poultry continue to expand their current operations within the Griffith LGA. Griffith City Council have commissioned several strategies to address land development in response to the future growth of Griffith and surrounding areas. These include the Griffith Land Use Strategy, Griffith Local Environmental Plan 2014 and Griffith Growth Strategy 2030.

Based upon these strategies the majority of residential development that will occur within the Griffith LGA will be focused in three key areas; these are Collina/Beelbanger, Lake Wyangan and South Griffith. There will also be limited pockets of residential development allowed around the Bilbul, Hanwood, Yenda and Yoogali villages. In addition to the residential development, there is also provision for the expansion of the commercial sector along the Kidman Way, between Willandra Avenue and Thorne Road, and Along Mackay Avenue between Griffith and Yoogali.

2.3 Key Pedestrian Attractors and Generators

The urban layout, size and topography of Griffith means that most trips to schools, shops and recreation areas are relatively short and can be easily achieved by walking or cycling. The same is apparent for the villages surrounding the City.

The Griffith LGA is characterised by the centrally located city of Griffith with satellite villages surrounding the city centre that service the surrounding rural communities. The terrain throughout the LGA is relatively flat, with Scenic Hill providing steep terrain in the LGA. Griffith's terrain is conducive to the provision of a continuous, accessible path of travel throughout the LGA.

Public transport in Griffith is extremely limited with Griffith Buslines currently providing a public bus service for Griffith and the surrounding area accessing Griffith's suburbs Monday to Friday and Saturday morning. Patronisation of these services is very limited outside of school times with the majority of transport in Griffith focused upon personal modes, especially cars. This places emphasis on providing more footpaths to access the buses and provide a transport means when the bus is unavailable.

There are a number of pedestrian attractors and generators located throughout Griffith and the surrounding area. These usually consist of a combination of landuses including residential, educational, retail, commercial and industrial land uses which produce a broad range of pedestrian and bicycle activity. It is important that sufficient facilities are provided to cater for this activity.

2.3.1 Griffith's Central Business District

The central business district (CBD) of Griffith is the major centre of the Griffith City Council LGA. Griffith's CBD stretches from Crossing Street to the western end of Kookora Street from east to west and between Binya Street/Wakaden Street and Coolah Street from north to south.



Figure 14 - Griffith's Central Business District

The CBD of Griffith is the primary retail area of the LGA, with Banna Avenue and Yambil Street the main retail centres of Griffith. Griffith Central Shopping Centre and Griffin Plaza are both located off Yambil Street, between Jondaryan Avenue and Crossing Street, and have decentralised the retail sector of Griffith. These areas are the major attractors in Griffith with the majority of pedestrian activity in the city focused in this area, however this mainly associated with the end or start of trip phases of travel due to the significant amount of parking available within the city centre, especially in close proximity to these major retail areas, and the lack of connectivity to the rest of the city.

Griffith's CBD is also the major civic area with the Griffith City Council Chambers, Griffith Campus of TAFE, Griffith City Library, Griffith Regional Art Gallery, Griffith Police Station and the NSW State Government Office Block. In addition there are a number of recreational facilities located in the CBD including City Park, Griffith Regional Aquatic Centre, Griffith PCYC and a number of parks and playgrounds.

Griffith City Council's Urban Design and Strategic Planning Section have developed the Griffith CBD Strategy which was adopted by Council in October, 2015. The Griffith CBD Strategy and the Griffith Pedestrian and Bicycle Strategy will inform each other, as one of the main aims of the CBD strategy is to *'provide ideas that seek better management of traffic, car parking, cyclist and pedestrian movement'*.

One key area that the Griffith Pedestrian and Bicycle Strategy will have to address is increasing connectivity between the CBD and the residential areas of Griffith especially the north-south corridors. Currently there is limited connectivity in this area and there is need for improvement especially to Wakaden Street, Coolah Street and Canal Street where there is a significant percentage of higher density housing.

2.3.2 Local Village Centres

Griffith City Council's Urban Design and Strategic Planning Section are currently preparing village public realm strategies that will be informed by the updated Griffith Pedestrian and Bicycle Strategy. The Griffith LGA includes several village and neighbourhood centres in addition to the CBD of Griffith. These centres are spread around Griffith and service the villages and surrounding rural areas. The pedestrian facilities around these centres need to be improved to encourage multiple activities in the area which will support the local business activity. The areas identified by Griffith City Council include:

- Yenda;
- Yoogali;

- Hanwood;
- Beelbanger;
- Bilbul;
- Lake Wyangan;
- Tharbogang;
- Nericon;
- Driver;
- East Griffith; and
- North Griffith (Kelly Avenue)

Appendix B highlights the pedestrian and bicycle network in the above villages.

2.3.3 Residential Areas

The residential areas of the Griffith LGA are focused around Griffith and the surrounding villages, including Yenda, Yoogali and Hanwood. The residential areas in Griffith are mainly low to medium density housing with several pockets of higher density housing in close proximity to Griffith's CBD. The main objective of the strategy is to improve pedestrian and bicycle access throughout Griffith and the surrounding area, which will include the provision of appropriate pedestrians and bicycle facilities throughout Griffith's residential areas. The strategy will look to improve connectivity between the Griffith CBD, neighbourhood centres and residential areas.

2.3.4 Industrial Areas

Griffith and the surrounding area is a significant agricultural region in south-western New South Wales. Griffith is home to several of Australia's major agribusiness companies and several wineries which are major employers in the Griffith area. In addition the Mooreville and Wickham Hill industrial areas service the Griffith LGA. The strategy will look to improve connectivity to these areas and encourage walking and cycling as a legitimate mode of transport to work.

2.3.5 Recreational Areas

Griffith and its surrounding villages offer residents and visitors a wide range of recreational experiences. These include natural attractions in addition to formal parks, playgrounds and sports centres for organised sports. The recreational attractors for the Griffith LGA include:

- *Ted Scobie Oval* – with playing fields, ovals, recreational activities and picnic areas;
- *Westend Sports Oval* – with playing fields, ovals, athletics track and sports stadium used for basketball, volleyball, badminton;
- *Griffith Showground* – with playing fields, ovals and recreational activities;
- *Lake Wyangan* – recreational water activities, multi-use trail, picnic areas;
- *Jubilee Sports Oval* – netball and tennis courts, multi-purpose ovals;
- *Scenic Hill* – extensive walking track, fire trails for use by mountain bike riders, some picnic areas and lookouts;
- *Griffith Regional Aquatic and Leisure Centre* - indoor heated swimming pools, learn-to-swim, gymnasium and social programs;
- *Golf Courses* – Griffith and Yenda;
- *City Park* – recreational activities, picnic areas;
- *E.W. Moore Oval* – sports stadium used for soccer, rugby league;
- *Ex-Servicemens Oval* – sports oval used for soccer, cricket, rugby league, Australian rules football;
- *Hanwood Sports Oval* – sports oval used for soccer, cricket;
- *Wade Park* – sports oval used for soccer, cricket, rugby league;
- Many other parks, sporting ovals and reserves around Griffith and the surrounding area.

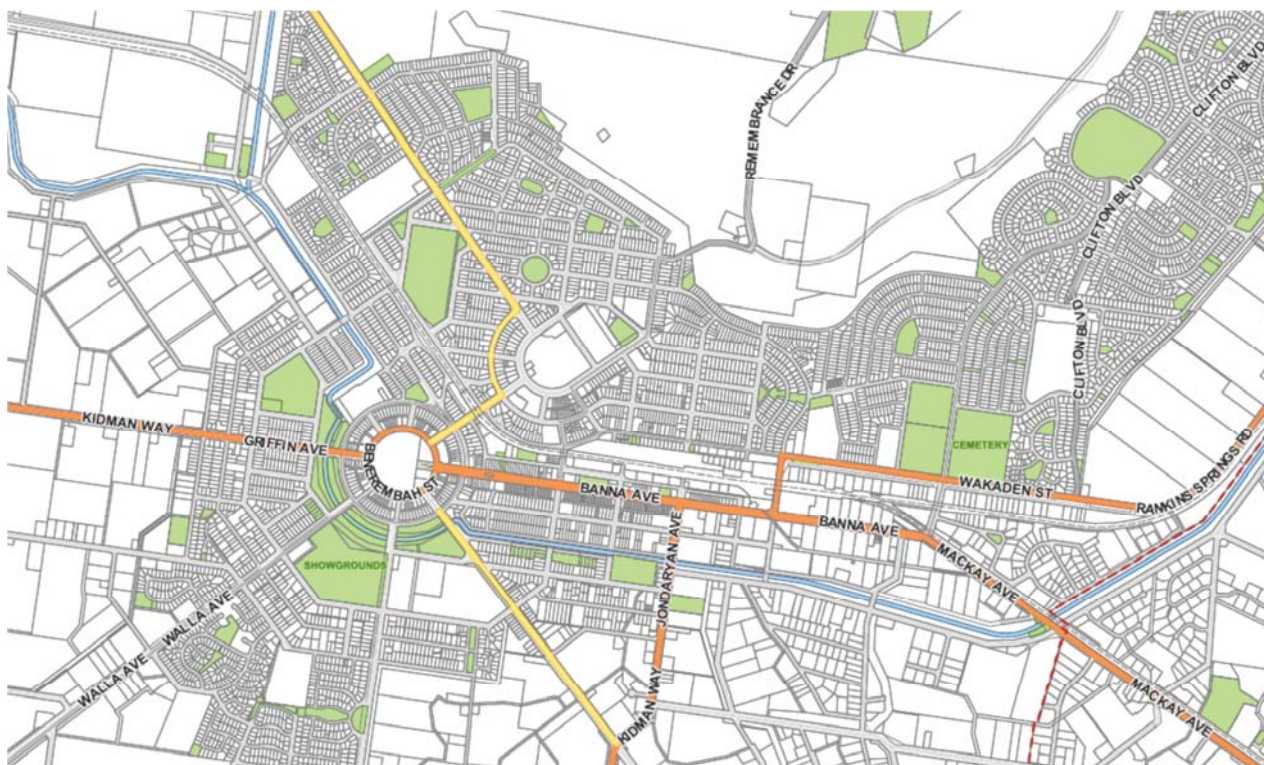


Figure 15 - Griffith's Parks & Recreational Facilities – shown in green

The PAMP and associated Bicycle Plan for Griffith is aimed at providing safe and accessible pedestrian paths and cycleways across the Griffith LGA. The review will address providing access along key recreational routes to provide access to the pedestrian attractions identified and encourage the public to walk to these facilities.

2.3.6 Vulnerable User Groups

There is a significant portion of the community that additional support when walking to ensure that the safety and accessibility of the pedestrian infrastructure is maintained. These pedestrians are termed vulnerable or specific needs user groups and include children, parents with prams, people with mobility disabilities and the elderly. There are specific facilities/locations where these user groups are likely to be concentrated, in Griffith these include:

- Schools;
- Childcare facilities;
- Nursing homes;
- Retirement villages;
- Community facilities and centres;
- Disability service providers;
- Playing fields and sports facilities; and
- Parks and other recreational facilities.

Vulnerable user facilities are located throughout the Griffith LGA, therefore the PAMP will need to provide safe and accessible pedestrian routes between these facilities and the local centres identified.

2.4 Transport Infrastructure

The transport choices and existing infrastructure has important implications for the future pedestrian and cyclists needs and demands of the Griffith LGA.

2.4.1 Traffic and Road Hierarchy

Griffith's role as a regional centre for the Murrumbidgee Irrigation Area and the western section of the Murray-Murrumbidgee region creates a significant amount of travel to the city. The Kidman Way (MR 321 & MR80), Irrigation Way (MR 80) and Burley Griffin Way (MR 84) form part of NSW's classified main road network and handle the majority of traffic entering and leaving Griffith.. These roads cater for most of the traffic accessing Griffith. Rankins Springs Road (MR 321) and Whitton Stock Route Road (MR 251), which form part of the state's classified regional road network, and a number of local roads, including Boorga Road, Beelbangera Road, Bringagee Road and Brogden Road provide a link to Griffith for the regions smaller town centres and agricultural areas.

Griffith's road network uses a hierarchy system to classify all of the remaining roads in the LGA. The road hierarchy is separated into five different classifications; arterial, sub-arterial, collector, local access and property access. The hierarchy can be used to assist in determining the type of footpaths required, crossing designs and the location of pedestrian and cycle facilities. Griffith's *Engineering Guidelines for Subdivisions and Development Standards* (2008) determines the level of service required for new subdivisions in regards to footpath and cycleways which can be used to determine the level of service required as part of the strategy.

Road Classification	Role	Examples
Arterial	Provide For major regional and inter-regional traffic movement High Traffic Volumes Carries bus and freight routes	Banna Avenue Mackay Avenue Jondaryan Avenue Griffin Avenue Wakaden Street
Sub-Arterial	Connects local areas and arterial roads Distribute traffic and bus services within urban areas Provides through route between arterial roads Carries bus and freight routes	Blumer Avenue Clifton Boulevard Wyangan Avenue Murrumbidgee Avenue Walla Avenue
Collector	Provide a link traffic between sub-arterial roads and local streets Distribute traffic and bus services within urban areas	Merrigal Street Binya Street Probert Avenue Noorilla Street Ortella Street
Access	Provide access to properties May be used for 'rat running' to avoid congested streets	Majority of roads within the Griffith LGA

Table 2 - Griffith City Council Road Classifications

Public transport in Griffith is extremely limited with Griffith Buslines currently providing a public bus service for Griffith and the surrounding area accessing Griffith's suburbs Monday to Friday and Saturday morning. Two services to Yenda are provided, one via Bilbul and Yoogali and the other via Beelbangera. A daily service to Darlington Point via Hanwood has also been established by Griffith Buslines in addition to the existing CountryLink services. Patronisation of these services is very limited outside of school times with the majority of transport in Griffith focused upon personal modes, especially cars. The promotion of bus transport as convenient alternative for local trips is required to help change the public's perception and increase patronage of bus services.

Community transport is available in Griffith for those that require assistance above that provided through normal public transport services. There is one community transport operators in the Griffith LGA; Intereach Griffith Community Transport who provide local and long-distance transport service for recreation, shopping, medical care, social services and social contact for older people or people with a disability.

The Griffith LGA is serviced by a sole taxi operator, Griffith City Taxis, with two taxi's being wheelchair accessible.

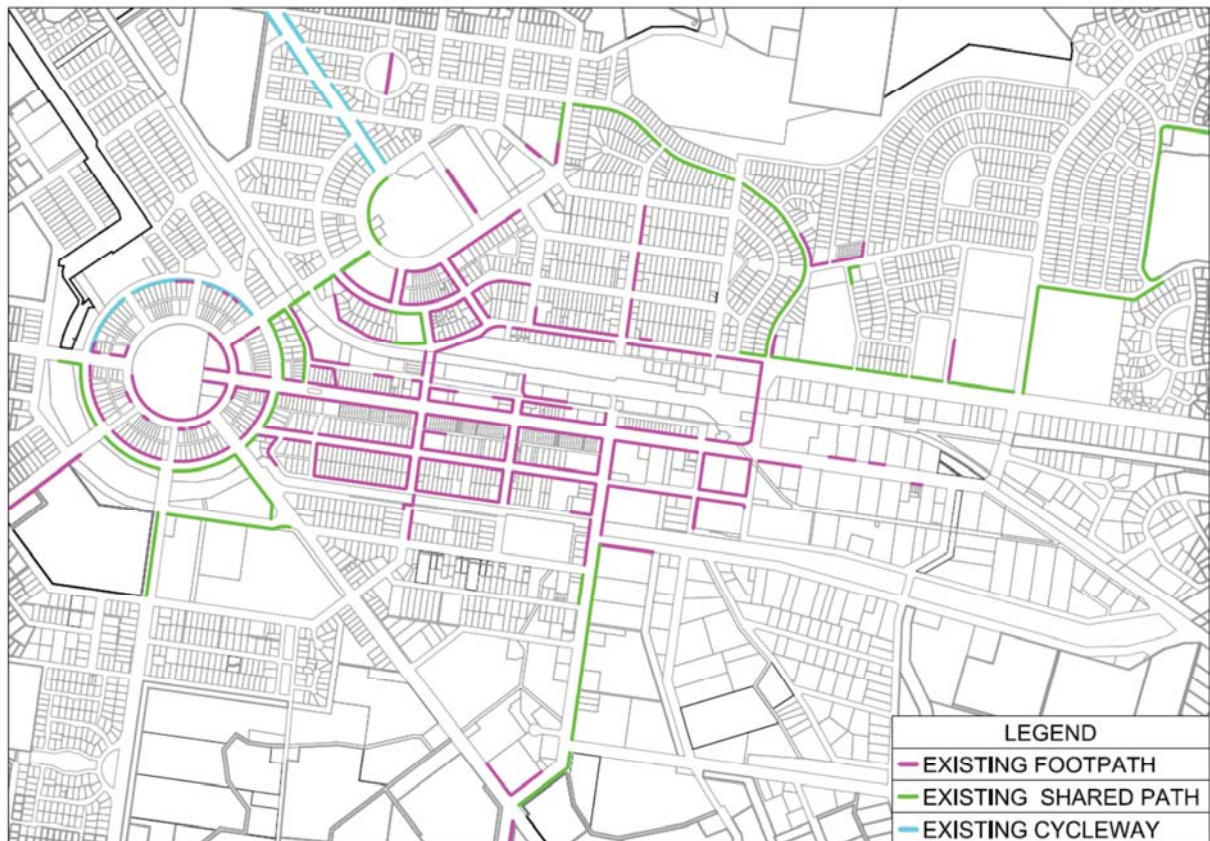


Figure 16 - Existing Footpath and Cycleway Infrastructure

2.4.2 Existing Infrastructure

The existing footpath, shared path and cycleway network servicing Griffith and the surrounding area does not provide adequate coverage. The footpaths are focused within the CBD of Griffith, the village centres of Yenda and Yoogali and several links extending to North Griffith, East Griffith, South Griffith, Collina and Lake Wyangan. There is an increasing demand and need for more extensive footpath coverage that caters for all levels of mobility.

There is a significant portion of Griffith that is not serviced by footpaths or where there are footpaths present these are too narrow or obstructed to allow wheelchair or pram access. The condition, including grades and widths, of footpaths, kerb ramps, and pedestrian crossing points is also inconsistent throughout Griffith. This can be attributed to a number of key factors these can include the time of construction, natural topography and driveway levels. The ageing population has resulted in the prevalence of motorised wheelchairs and mobility scooters utilising footpaths. In addition the prams are now wider. Therefore the minimum footpath width of 1.2m should be increased to accommodate these wider mobility aids.

Recently Griffith City Council has increased the amount of funding allocated to the development of Griffith's shared path network and has applied for funding from the RMS to assist in the construction. However while this shift in funding allocation has increased the pedestrian infrastructure in Griffith significantly, at the current rate of construction the delivery of the 2009 PAMP will take approximately 200 years.

2.4.3 Future Needs

Griffith is one of regional NSW's major centres, with a strong economy and is set to grow in the future. The Griffith Local Environmental Plan and Griffith Land Use Strategy identify Collina/Beelbanger, Lake Wyangan and South Griffith as expansion areas for residential

development over the next thirty years. Griffith's terrain and climate are ideal for walking and cycling, therefore upgrade and expansion of the existing infrastructure is necessary to promote these as a legitimate mode of transport.

The population of vulnerable road users living in Griffith is growing, including children (0-14 years old), the elderly (over 65 years old) and people with a disability or requiring assistance to conduct core activities. Pedestrian facilities should cater to a range of mobility aids, resulting in wider footpath and kerb ramp requirements. The facilities constructed/reconstructed should be level and provide sufficient crossing opportunities. New developments will provide facilities catering to pedestrian and cyclist amenity; this has been reflected in *Griffith's Engineering Guidelines – Subdivision and Development Standards*.

3. Literature Review

In order to properly develop the pedestrian and bicycle strategy, research regarding the guidelines and processes developed by national and state road authorities has been conducted. Walking and cycling are important modes of travel, increasing the proportion of pedestrian and bicycle journeys can make a significant contribution to achieving a better quality of life and environment for all.

Research has been conducted to establish the measures implemented by regional centres across Australia to improve pedestrian and bicycle access. Council's research determined that the majority of regional centres have conducted studies addressing the infrastructure requirements and potential active measures to encourage walking and cycling as a legitimate mode of transport.

Research regarding Griffith's road network and the transport planning Griffith City Council has previously completed has also been conducted. Griffith City Council's Pedestrian Access and Mobility Plan (PAMP) was originally completed by GHD Consultants in February 2004. Griffith City Council's Bicycle Plan was originally completed in 1996. A review of both the PAMP and Bicycle Plan was conducted by UrbanArc Pty Ltd in conjunction with Griffith City Council's engineering staff in 2009. The PAMP and Bicycle plan provide an important framework for the development of pedestrian and cycling infrastructure and increasing the sustainable safety, convenience and mobility of areas identified by the community.

3.1 Guidelines

Road authorities, including the RMS and local Councils, have a responsibility to provide safe, convenient and coherent pedestrian and cycle network to encourage walking and cycling as legitimate modes of transport. This has led to the development of a significant amount of literature regarding the development of a pedestrian or cycleway network and the associated infrastructure by a variety of agencies, including Austroads and the RMS. These documents establish the minimum standards required for pedestrian and bicycle access and provide management techniques to minimise the impact on the road network. These guidelines include:

- *How to Prepare a Pedestrian Access and Mobility Plan* (2002); Roads & Maritime Services
- *NSW Bicycle Guidelines* (2005); Roads & Maritime Services
- *Planning Guidelines for Walking and Cycling* (2004); Roads & Maritime Services and NSW Department of Infrastructure, Planning and Natural Resources
- *Guide to Road Design – Part 6A Pedestrian and Cyclist Paths* (2009); Austroads
- *Guide to Road Transport Planning* (2009); Austroads
- *Guide to Traffic Management – Part 4 Network Management* (2009); Austroads

Each of these guides addresses the issues concerning pedestrian and bicycle access in urban areas and provides details on the minimum design standards for the required infrastructure.

3.1.1 How to Prepare a Pedestrian Access and Mobility Plan

The guide was prepared by the RMS (known as the Roads and Traffic Authority at the time) to provide council staff, community groups and other parties a manual for the preparation of a PAMP. The guide provides interested parties, i.e. health authorities, an understanding of the pedestrian environment and the planning process. The guide is based on the methods several NSW councils used to develop their own plans, and provides a framework that is considered best practice.

The guide provides a step-by-step approach to pedestrian planning and details several significant issues that require consideration during all stages of the planning process.

3.1.2 NSW Bicycle Guidelines

The guidelines were prepared to provide assistance to road designers, engineers and planners when designing and constructing bicycle transport facilities. The document provides technical assistance for the development of the bicycle network across a number of different conditions. The document is intended to be used as a best practice guide for the development of bicycle transport networks across New South Wales.

The guide identifies the key principles for the development of an efficient and useable bicycle transport network that meets the needs of all cyclists. These principles can also be applied to pedestrian transport networks. The NSW Bicycle Guidelines identifies coherence, directness, safety, attractiveness and comfort as the key principles of the bicycle transport system. In addition to these principles the guidelines identify three issues required to be considered during design; the road/cycleway function, the priorities assigned to cycleways and adjacent roads and the surrounding speed environment.

The guidelines detail the different types of facilities utilised by cyclists, including intersection treatments, shared paths and separated paths, and details the functions of each facility including the most appropriate use for them. Information and guides regarding the surfacing, signposting and linemarking of bicycle facilities are also provided.

3.1.3 Planning Guidelines for Walking and Cycling

The NSW Department of Planning developed the *Planning Guidelines for Walking and Cycling* in 2004 to assist land-use planners and associated professionals improve the understanding of walking and cycling as it relates to their work. The guide aims to improve planning practices in regards to walking and cycling to increase access to urban services and transport via pedestrian and bicycle facilities and reduce car use to create healthier urban areas. The guide highlights several support structures and policies, ranging from international to local, that assist the planning for pedestrian and bicycle transport networks.

The guidelines also identify development as a key contributor to the provision of a safe and comfortable walking and cycling environment. The guidelines advise Council's to include pedestrian and bicycle facilities when drafting contribution plans and planning policies/instruments for developments. Developments are an opportunity to improve the planning for walking and cycling within an area through Transport Management and Accessibility Plans, Transport Access Guides and provision of bicycle parking and end-of-trip facilities.

3.1.4 Guide to Road Design – Part 6a Pedestrian and Cyclist Paths

The guide forms part of the Austroads *Guide to Road Design* series and is concerned with the design of paths for safe and efficient walking and cycling. The guide provides a brief introduction to planning and the need for a path, describes the types of path and covers the requirements of path users. However, the main focus of Part 6A is the geometric design of paths and related facilities such as intersections between paths, and terminal treatments. Detailed guidance is provided on path location, alignment, width, clearances, crossfall, drainage and sight distance requirements.

The location and design of paths may be influenced by a range of aspects that need to be considered and facilities that need to be accommodated within roadsides. In particular, designers should refer to the Part 6: Roadside Design, Safety and Barriers and Part 6B: Roadside Environment of the Austroads *Guide to Road Design*.

The design of pedestrian and cyclist paths may also be influenced by design considerations and requirements covered in other parts of the *Guide to Road Design*. In addition, road designers should also refer to relevant parts of the Austroads *Guide to Traffic Management* in relation to

traffic management devices and requirements that may need to be accommodated within a roadside or may otherwise influence the design.

3.1.5 Guide to Road Transport Planning

The guide reviews the developments in transport planning across Australia and New Zealand and identifies the issues which are required to be addressed when developing network or route infrastructure. The guide highlights the key issues of transport planning identified through consultation with the relevant government authorities and literature review from around the globe. The guide identified the development of 'planning processes consistent with the expectations of both the community and industry, interface between planning and operations within road agencies at the national and state/territory levels and principles for road transport planning adopted for urban and rural areas at the different levels of the network, in particular road route and link-level planning'.

The guide identifies the critical aspects of good transport planning by examining the current guidelines, processes and practices of road authorities. The guide provides an introduction into road transport planning initially focusing upon network and corridor planning. The guide then details the concepts required to undertake proper road route and link planning focusing on the planning principles and processes currently used. The aim of the guide is to compare current Australian practices with the best practices from across road transport planning.

The guide provides an insight into the issues required to be addressed in all forms of road transport planning, including pedestrian and bicycle transport planning. The guide also identifies the processes and practices in road transport planning considered to be best-practice and applies them to those currently utilised in Australia.

3.1.6 Guide to Transport Management – Part 4 Network Management

The guide forms part of the Austroads *Guide to Traffic Management* series and is concerned with the management of traffic at the network level. The guide identifies the different categories and characteristics of road user and network, the needs of the road user and the processes used to balance/prioritise the needs of the competing users. The guide also identifies different traffic engineering solutions that are used to address traffic needs at the network level, including access, traffic signals, parking and lane allocation measures.

The guide briefly discusses the management of the pedestrians and cyclists on the transport network. The report identifies the issues presented by pedestrian and cyclist movements within urban areas and provides several strategies used to manage the associated networks.

The guide provides an insight into the management of all forms of road transport networks, including the pedestrian and bicycle transport networks. The guide identifies the processes and practices used to successfully manage pedestrian and bicycle networks.

3.1.7 Disability Discrimination Act 1992

The Disability Discrimination Act 1992 (DDA) provides that a person with a disability has a right to have access to places used by the public. The definition of "disability" in the DDA includes physical, intellectual, psychiatric, sensory, neurological, and learning disabilities, as well as physical disfigurement, and the presence in the body of disease-causing organisms. This broad definition is meant to ensure that everyone with a disability is protected.

The Disability Discrimination Act (DDA) makes it against the law for public places to be inaccessible to people with a disability. Places used by the public include: public footpaths and walkways, parks, public swimming pools, public toilets, pedestrian malls, libraries, retail and commercial premises, sporting venues, social and sporting clubs, Government offices, public transport, hospitals, Government-run services.

This applies to existing places as well as places under construction. To comply with the DDA existing places may need to be modified to be accessible (except where this would involve "unjustifiable hardship"). Every area and facility open to the public should be open and available to people with a disability. They should expect to enter and make use of places used by the public if people without a disability can do so.

3.2 Pedestrian Access & Mobility Plans

Griffith's situation is not unique in Australia, as a major regional centre required to provide significant pedestrian and bicycle transport network throughout the city and surrounding area that is coherent, direct, accessible and safe. Most regional centres across Australia have addressed this issue through the development of a Pedestrian Access and Mobility Plan or similar documents. These studies address the use, extent and condition of the existing infrastructure and the future needs of the community including the development of infrastructure and programs promoting walking and cycling as a legitimate mode of transport.

A selection of Pedestrian Access and Mobility Plans and similar documents were reviewed during the preparation of the Griffith Pedestrian and Bicycle Strategy. The documents selected represented a diverse cross-section of Council areas and presented a broad range of strategies developed to address pedestrian and bicycle access within urban and rural areas. These plans included:

- *Warrangah Pedestrian Access and Mobility Plan* (2011); Aurecon Australia;
- *Kyogle Council Pedestrian Access and Mobility Plan* (2009); Kyogle Council;
- *Pedestrian Access & Mobility Plan* (2010 Review); Ballina Shire Council;
- *Clarence Valley Council Bike Plan and Pedestrian Access and Mobility Plan* (2008); QED
- *Port Macquarie-Hastings Pedestrian Access and Mobility Plan DRAFT* (2014); Port Macquarie-Hastings Council;
- *Albury City Pedestrian Access and Mobility Plan (PAMP) 2010-2015* (2010); Albury City Council; and
- *Albury City Bicycle Plan 2014-2019* (2014); Albury City Council.

Each of these reports has addressed the issues concerning pedestrian and bicycle transport in the area of the study. The review of these documents provided Griffith City Council with an understanding of the issues being addressed across Australia and how they can be applied to Griffith and the surrounding area.

3.3 Griffith Studies

Griffith City Council has conducted several investigations of traffic behaviour throughout the city and its surrounds. The reports developed through these investigations form the basis of traffic management around Griffith, including pedestrian and bicycle transport. These reports include:

- *Griffith Pedestrian Access & Mobility Plan Review* (2009); UrbanArc;
- *Griffith Bicycle Plan Review* (2009); UrbanArc;
- *Griffith Central Business District Strategy (Draft)* (2015); Griffith City Council;
- *Assessment of Traffic Growth and Impacts in Griffith* (2002) – Scott Wilson Nairn;
- *Traffic Impact Study, Kidman Way* (2002) – Brown Consulting; and
- *Griffith Land Use Strategy Beyond 2030* (2012); Griffith City Council.

Each of these reports has addressed different issues concerning traffic in Griffith. While the investigations have addressed vehicular movements and behaviour and formulated recommendations for the improvement of traffic flow throughout the city, only the Griffith Pedestrian Access & Mobility Plan Review and Griffith Bicycle Plan Review include a strategy the development of a pedestrian and bicycle transport network around Griffith.

3.3.1 Griffith Pedestrian Access & Mobility Plan Review

In 2009 Griffith City Council engaged Urban Arc to undertake a Pedestrian Access and Mobility Plan (PAMP) Review for Griffith town centre and surrounding villages. The bounds of the study include the limits of the Griffith City town area, approach feeder corridors to the township and the periphery villages.

The focus of the study was to identify new pedestrian facilities, upgrade of existing facilities and the integration of the network to achieve a coherent and direct pedestrian network for Griffith and the surrounding villages.

Existing and potential pedestrian / cycling routes were identified. These were prioritised to produce a pedestrian action plan for short, medium and long term implementation. The actions identified on high priority routes were to be completed first subject to the availability of appropriate funding.

3.3.2 Griffith Bicycle Plan Review

In 2009 Griffith City Council engaged Urban Arc to undertake a Bike Plan Review for Griffith town centre and surrounding villages. The bounds of the study include the limits of the Griffith City town area, approach feeder corridors to the township and the periphery villages.

The focus of this study was to identify new cycling facilities, upgrade the existing facilities and integrate the network of cycle ways to achieve a coherent and direct cycling network for Griffith city and villages.

Existing and potential cycling routes were identified. These were prioritised to produce a bicycle action plan for short, medium and long term implementation. The actions identified on high priority routes were to be completed first subject to the availability of appropriate funding.

3.3.3 Griffith Central Business District Strategy

The Griffith CBD Strategy is a working document aimed at directing the future development of Griffith's city centre. The purpose of the strategy is:

- To develop an attractive place to live, work and stay;
- To improve the connection and quality of public open space;
- To reinforce Griffith's role as a regional centre; and
- To promote sustainable development and lifestyles.

The strategy identifies that Griffith has poor pedestrian and bicycle infrastructure within the CBD, this includes poor connectivity of paths and the lack of a dedicated cycle network through the CBD. The strategy makes several recommendations for the improvement of the pedestrian and cycleway network in Griffith's CBD. These recommendations focus on the improvement of the existing pedestrian facilities and developing the cycleway network in the CBD.

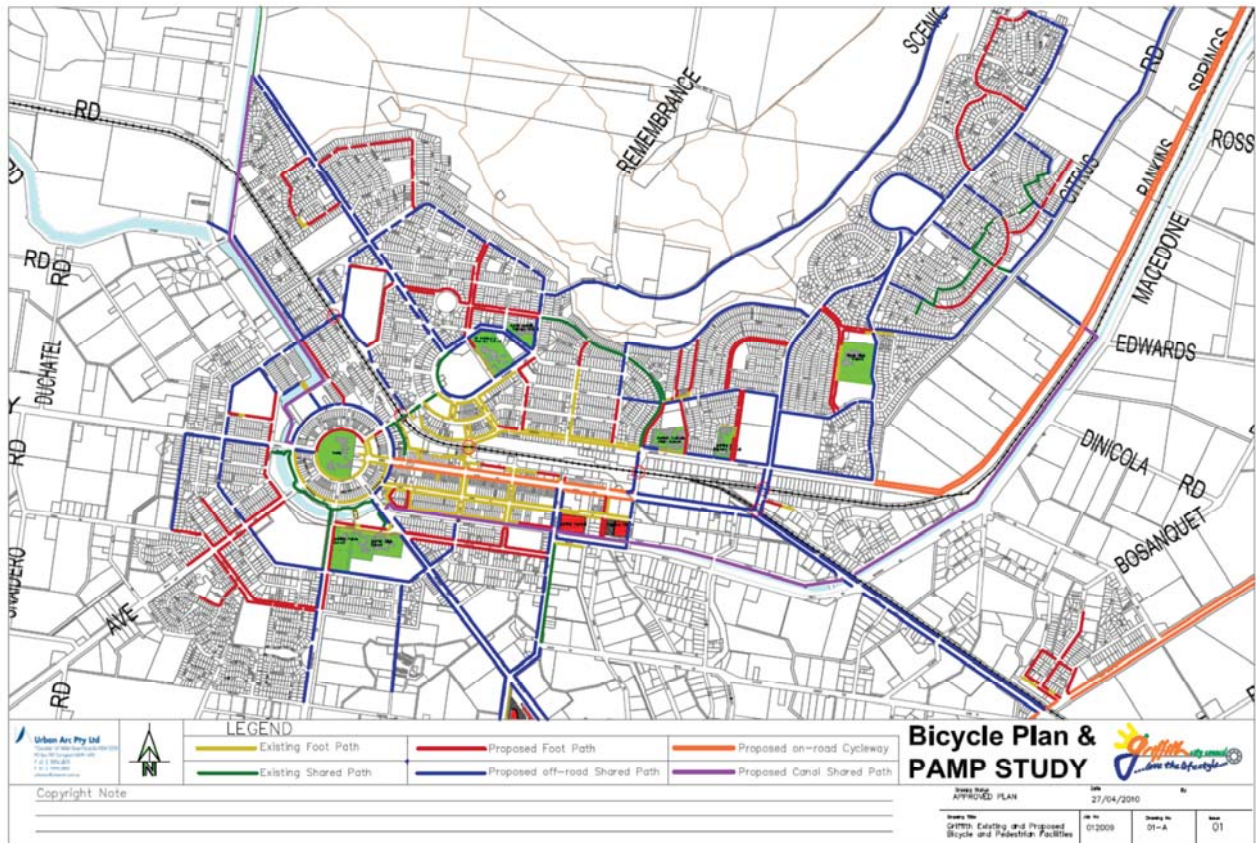


Figure 17 - Griffith Bicycle Plan and PAMP Study - Existing and Proposed Network

3.3.4 Assessment of Traffic Growth and Impacts in Griffith

The Scott Wilson Nairn report was commissioned by Griffith City Council and formed part of the development of the Section 94 Contribution Plan for Griffith City Council. The report investigated the transport routes and facilities required to service the growth of Griffith to the year 2030. This included the development of a ten-year capital works infrastructure to improve the city's key road and traffic infrastructure and improve the road network for future urban expansion.

The report addressed the improvements required to Griffith's road and traffic infrastructure to ensure that the city's road network is able to operate effectively in the future. The study does not differentiate between the different types of traffic and therefore has not considered the impacts of the heavy vehicle travel through Griffith. The report provides a good framework for the development of key road and traffic facilities.

The report also identified the 1996 Griffith Bicycle Plan as the framework for the development of bicycle infrastructure within Griffith. The report recommends Council develop and maintain the city's bicycle infrastructure in accordance with the plan to meet the present and future needs of Griffith's cyclists.

The study does not consider pedestrian access.

3.3.5 Traffic Impact Study, Kidman Way

Griffith City Council commissioned Brown Consulting to undertake a Traffic Impact Assessment of the Kidman Way between Griffith and Hanwood. The assessment was conducted to identify the current and future impacts of traffic along the Kidman Way and produce a strategy to provide the best level of transport service to the community. The assessment focused on traffic efficiency, minimising traffic conflict and improving road safety along this section of the Kidman Way.

The report details the strategies and improvements required to the road network to the south of Griffith to ensure that future traffic demands are met. The report assumes that the land between Griffith and Hanwood will be developed for commercial and retail purposes. The completion of the report's recommendations is required to cater for this development. The report states that should this development not occur; Griffith's economy may not be able to support the proposed improvements.

The report indicates that the number of pedestrian and cycleway movements were not significant at the time of the study, other than within the Hanwood village especially within close proximity to the Hanwood Public School and Hanwood Store.

The study recommends the provision of a footpath and a cycleway upon either side of the Kidman Way. In addition to the paths, the study also recommends the construction of pedestrian crossings at each intersection along the Kidman Way with locations in Hanwood and at Willandra Avenue being identified as possible locations for an overpass/underpass.

3.3.6 Griffith Land Use Strategy Beyond 2030

The Strategy was developed to provide direction for the land use and spatial development of the Griffith Local Government area over the next thirty years. The document forms the framework for the development of the Griffith Local Environmental Plan 2014. The main objectives of the strategy are to encourage:

- Spatial development responsive to the forecasted and/or perceived needs of the community and local economy;
- Spatial development carefully managed to prevent or minimise impacts on the natural environment; and
- The protection of natural and built assets from inappropriate rural and urban development that would prejudice the rural and urban attributes of Griffith.

The strategy identifies the constraints to the development of land throughout the Griffith Local Government Area and proposes the future use of this land. The strategy also included the development of revised implementation plans, i.e. the Local Environmental Plan, Development Control Plans, etc.

4. Pedestrian Crash Data

The pedestrian crash data for the Griffith LGA over the past five years (from June 2009 to June 2014) has been obtained from the Roads and Maritime Services. The data was examined and plotted to identify crash clusters and any contributing factors to the incidents.

The collected data details 15 pedestrian crashes within the Griffith LGA between January 2010 and December 2014. However a detailed breakdown of the crash data was not available for all of this period therefore the period between June 2009 and June 2014 was considered in the Strategy.

The results of the crash analysis are summarised below:

- **15 crashes** occurred, including 1 fatal crash and 14 crashes causing injuries;
- **1 fatality** and 14 injuries were reported; and
- The majority of crashes, 10, occurred during the day. The remaining crashes occurred at night.



Figure 18 - Pedestrian Injury Crashes

40% of pedestrian crashes occurred along Banna Avenue, most of these crashes were reported within a 300m stretch of the road between Ulong Street and Jondaryan Avenue. The remaining crashes occurred within close proximity to a large pedestrian generator/attractor, such as Marian Catholic College, City Park and Griffith Base Hospital. These statistics highlight the need to improve pedestrian safety and driver awareness in these areas, especially along Banna Avenue.

The single pedestrian fatality occurred at night in fine weather along Slopes Road in Tharbogang, a rural area to the north west of Griffith with no street lighting or footpaths. The circumstances surrounding the incident are uncertain; however the contributing factors to the incident, such as time of day, weather, types of vehicles and whether alcohol, speed or fatigue contributed, are detailed in the data provided by NSW Centre for Road Safety.

5. Prioritised Network Development

The proposed pedestrian and cycleway network developed as part of this strategy was developed based upon the Griffith Pedestrian Access & Mobility Plan Study 2009, the Griffith Bicycle Plan 2009, the recent development of Griffith and the changing priorities of the community. The proposed prioritised pedestrian and bicycle network developed as part of this Strategy is illustrated in Appendix C. The network has been prioritised based upon a number of factors; including the route hierarchy, surrounding land uses, traffic impact, safety and continuity. The Strategy comprises of a series of footpaths, cycleways and shared paths throughout Griffith and the surrounding area linking key pedestrian and cyclist generators and attractors.

5.1 Route Hierarchy

A route hierarchy has been developed for the proposed pedestrian and cycleway network to assist in determining the appropriate infrastructure to be installed along the routes identified in the strategy. The main factors considered when determining the route hierarchy were the number of generators and/or attractors along the route and the adjacent road hierarchy. Any evidence of pedestrian desire lines and the potential for use by vulnerable user groups were also considered.

The route hierarchy of the proposed pedestrian & bicycle network is divided into Principal, Secondary, Collector or Recreational routes. The different categories identified within the hierarchy determine the purpose and role of a route. These have been summarised in the table below.

5.1.1 Primary Routes

Principal routes were identified by the presence of all or a number of the below characteristics along the route:

- ***A major attractor/generator;***
- ***Many attractors and generators;***
- ***A strong pedestrian desire line;***
- ***Significant volume of vulnerable user groups;*** and/or
- ***Adjacent to and arterial road or a collector road serviced by public transport.***

Principal routes focus on providing suitable facilities for the pedestrian types and activities undertaken in an area. Footpaths, preferably shared paths, should be provided along both sides of the roadway with convenient road crossing points with accessible kerb ramps at suitable locations.

5.1.2 Secondary Routes

Secondary routes were identified by the presence of a number of the below characteristics along the route:

- ***Connection between nearby Principal Routes;***
- ***Areas of medium-intensity pedestrian activity;***
- ***Along strong recreational or local routes;***
- ***Vulnerable user groups links;*** and/or
- ***Adjacent to and arterial road, sub-arterial road or a collector road serviced by public transport.***

Secondary routes still focus on providing suitable facilities for the pedestrian types and activities undertaken in an area. A footpath, preferably a shared path, should be provided along one side of the roadway with convenient road crossing points with accessible kerb ramps at suitable locations.

5.1.3 Collector Routes

Collector routes were identified by the presence of a number of the below characteristics along the route:

- ***Connection between isolated generators/attractors to principal or secondary routes;***
- ***Areas of medium- to low-intensity pedestrian activity;***
- ***Intra-regional recreational routes;*** and/or
- ***Intra-regional links between centres.***

Collector routes generally link Principal and Secondary route to the wider pedestrian population. A footpath should be provided along one side of the roadway with convenient road crossing points with accessible kerb ramps at suitable locations.

5.1.4 Recreational Routes

The routes identified as part of the Pedestrian & Bicycle Strategy have incorporated recreational links, reflecting the lifestyle of Griffith's residents where walking is a major recreational activity. The paths identified in the strategy fulfil two roles, providing both an alternate means of transport and facilities for recreational walking and cycling for residents of the Griffith LGA.

The main recreational route identified is the shared path between Griffith and Lake Wyangan, including a path around the shore of the lake. A shared path currently exists along Boorga Road and Jones Road, beginning at the cul-de-sac north of Crump Close and terminating at the causeway on Jones Road. The existing path sees frequent use by recreational walkers and cyclists especially during daylight savings. The continuation of this path between the lakes along Jones Road and then along the shore of the North Lake is a natural progression of this recreational path.

The existing off road trails located around Scenic Hill have also been identified as recreational routes, although no works have been proposed for the trails. An off road shared path has been identified along Scenic Drive to compliment the trails and provide a link to the Hermits Caves located along the eastern face of Scenic Hill.

5.2 Generation of Preliminary Network

The Griffith Pedestrian & Bicycle Strategy is both a review and amalgamation of the Griffith Pedestrian Access & Mobility Plan Study 2009 and the Griffith Bicycle Plan 2009. The routes identified as part of these documents form the basis for the strategy. Council staff have reviewed the all routes identified to reflect the recent development of Griffith and the current requirements for pedestrian footpaths, shared paths and cycleways.

Public transport options are minimal in Griffith, being limited to a single public bus service and a sole taxi operator servicing the Griffith LGA. The limited availability of public transport and Griffith residents' reliance on personal transport options emphasises the necessity of providing pedestrian footpaths, shared paths and cycleways for access to the public transport and as a separate mode of transport. The provision of high quality pedestrian and bicycle infrastructure that is coherent and direct will enhance safety and attractiveness of walking and cycling as a legitimate mode of transport.

Transport Authorities must compete for funding with other levels of government. Funding for pedestrians and cyclists can usually be facilitated if the wider community benefits are identified. Many expensive initiatives are applicable only to a small range of problems. The wider range of low cost minor measures must also be given due consideration.

In reviewing the Griffith Pedestrian Access & Mobility Plan Study 2009 and the Griffith Bicycle Plan

2009 an attempt was made to measure its performance. Measurements of a plan performance against the study objectives is challenging because the objectives are qualitative, which makes measurement difficult, and rating of the importance of different objectives is a difficult task. The demographic analysis clearly indicates pedestrian usage as the main method of travel to work to be five percent in the 2006 and 2011 Census data. The Census data also indicates that bicycle travel is extremely limited as a mode of transport, accounting for less than one percent of travel to work. This is relatively consistent with other regional town centres. Unless pedestrian and cycling infrastructure is provided the modal shift from the private motor vehicle to walking or cycling will not easily occur.

Implementation of individual pedestrian, shared or cycle routes necessitates the adoption of the strategy by Council, allocation of funding and resources and continual community input in the development of individual projects. These principles were used to derive new preliminary routes for walking, cycling and access.

The strategy's action plan focuses on the engineering actions and recommendations. The site inspections of potential pedestrian routes were undertaken by Council staff. The Action Plan has been developed primarily through pedestrian inspections on routes throughout Griffith LGA.

The main considerations of the inspections included:

- Paths of travel;
- Major intersections;
- Pedestrian crossings and crossing points; and
- General comments (land use, road user behaviour, road environment).

The pedestrian and cycle network in the city is quite coherent consisting of footpaths and shared paths. This is the result of the implementation of several recommendations from the Griffith Pedestrian Access & Mobility Plan Study 2009 and the Griffith Bicycle Plan 2009. Improvements could be made to the support facilities for the pedestrian and cycleway network to include the following:

- Signposting;
- Mid-block improvements;
- Pram ramp upgrades; and
- Maintenance of existing facilities.

As the area attracts tourists the potential exists to encourage more walking and cycling along tourist generators. As these tourists are unfamiliar with the area and as such they will have a greater reliance upon the proper presentation of the pedestrian facilities in the City. Directional and other signage is essential for good route coherence, high visibility and overall consistency along the length of the route.

Pedestrians and especially people with special mobility needs require the construction of ramps so that the transition from footpath to the roadway, when crossing the road, is seamless and smooth. Also, they require the facilitation of improvements in the level of pedestrian access and priority, particularly in areas of high pedestrian concentrations. Through the implementation of the Griffith Pedestrian Access & Mobility Plan Study 2009 and the allocation of funding, pedestrian access throughout Griffith has greatly improved. This strategy aims to further reduce pedestrian access severance and enhance safe and convenient crossing opportunities on roads.

Bicycles need clear space to operate and when they go through intersections they are expected to share operating space with other road users. Intersections provide important access to most destinations and sometimes they lack direct connectivity for cyclists along the route, have no directional signposting and are complex to interpret. This is the case also for roundabouts that may

display the same difficulty characteristics.

Poorly maintained road shoulders can also become a deterrent to cyclists due to the resultant punctures and inability to continue safely along the route. The provision of high quality bicycle routes, both on and off road, is considered a fundamental requirement to encourage cycling and will eventually lead to higher rates of cycling participation.

The provision of end-trip facilities such as bicycle parking at key trip attractors is an essential requirement for an integrated transport system. Bicycle parking will be used only if it offers security that effectively minimises the risk of theft and is located in an area with a high amount of passing pedestrians. Deterring theft is an effective way to reduce the short trip barrier for cycling.

6. Pedestrian and Bicycle Network

The proposed pedestrian and bicycle network was identified based upon the identified generators and attractors, recreational attractions, areas of future development and areas frequented by vulnerable user groups. The network has been prioritised to reflect the importance of the proposed infrastructure based upon these factors. The network has been prioritised into primary routes, secondary routes, collector routes and recreational routes.

Griffith's Central Business District (CBD) has been given a separate classification within the strategy, due to the greater proportion of pedestrian and bicycle activity in the area. The CBD is also subject to the Griffith CBD Strategy which details the recommendations for pedestrian and bicycle infrastructure in the area. The Strategy will reflect these recommendations.

This section of the Griffith Pedestrian and Bicycle Strategy outlines each priority area with focus on location and type of footpath for its specific use.

6.1 Griffith Central Business District

Griffith's Central Business District has been given a separate classification within the strategy as the majority of pedestrian activity is generated in this area. The CBD also generates a significant amount of bicycle activity. The area consists of major pedestrian attractors and generators such as; retail businesses, commercial businesses, hotels, recreational facilities and restaurants. All of these attractors and generators are the main source of pedestrian and bicycle activity within a city. The high prevalence of activity in the area justifies the provision of an extensive footpath network throughout the CBD.

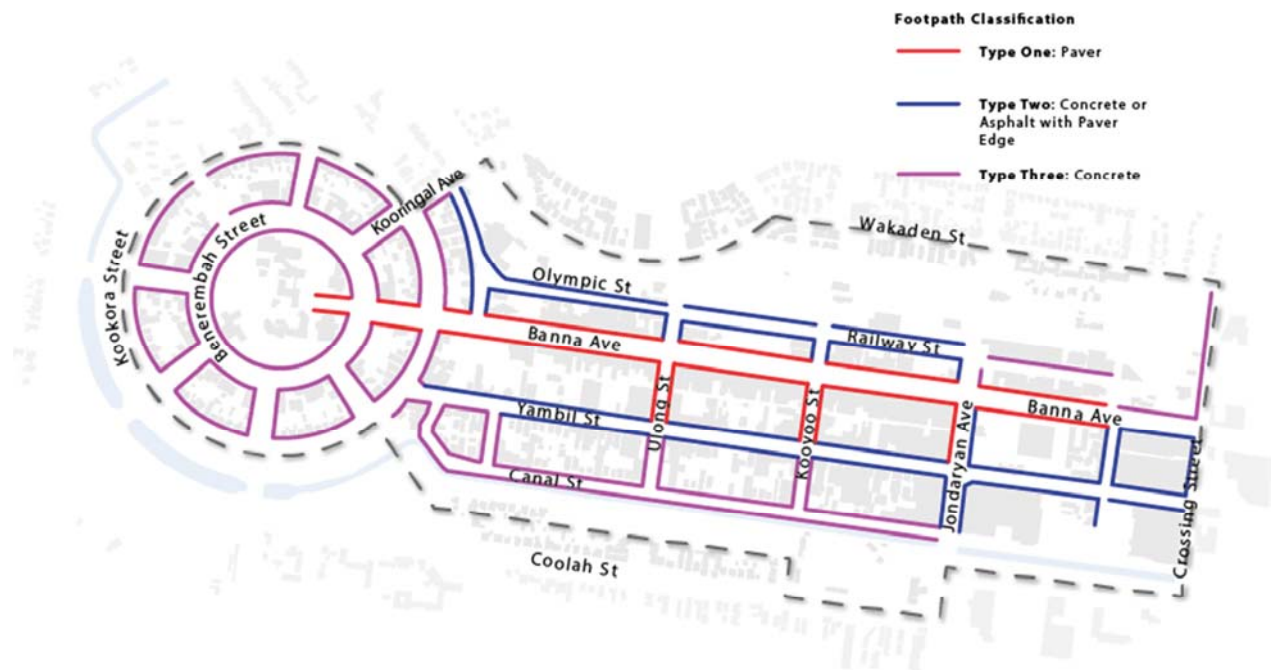


Figure 19 - Recommended Footpath Finishes Griffith *Central Business District Strategy*

Griffith City Council have developed the Griffith Central Business Strategy identifies that Griffith has poor pedestrian and bicycle infrastructure within the CBD, this includes poor connectivity of paths and the lack of a dedicated cycle network through the CBD. The strategy makes several recommendations for the improvement of the pedestrian and cycleway network in Griffith's CBD. These

recommendations focus on the improvement of the existing pedestrian facilities and developing the cycleway network in the CBD. The identified network reflects these recommendations.



Figure 20 - Proposed Pedestrian Network Griffith *Central Business District Strategy*

The strategy aims to strengthen the existing pedestrian network in the CBD through a number of different recommendations. The primary recommendation is to increase the north to south connectivity for pedestrians into the CBD. This will be achieved through the development of pedestrian and cycle access over the railway at Kooyoo Street and Jondaryan Avenue and the upgrade of the existing bridges over the main canal to support shared access.



Figure 21 - Proposed Bicycle Network Griffith's *Central Business District Strategy*

The strategy aims to develop the bicycle network in the CBD through a number of different recommendations. The primary recommendation is to install a comprehensive bicycle path/lane

network throughout the CBD. In addition, the strategy recommends the installation of bicycle facilities across the CBD.



Figure 22 - Proposed Yambil Street Streetscape Griffith Central Business District Strategy

The footpaths within the CBD have been identified as relatively high priority routes where identified in the strategy. The high prioritisation of the proposed footpaths within the CBD ensures that the accessibility and safety of Griffith's main high pedestrian activity area is improved.

Road	From	To	Location of Path	Type of Path
Banna Avenue	Jondaryan Ave	Blumer Ave	Both Sides	Shared path
Banna Avenue	Benerembah St	Jondaryan Ave	Both Sides	Footpath
Yambil Avenue	Kookora St	Crossing St	Both Sides	Footpath
Railway Street	Banna Ave	Wayeela St	Northern Side	Shared path
Railway Street	Banna Ave	Wayeela St	Southern Side	Footpath
Olympic Street	Ulong St	Wayeela St	Northern Side	Shared Path
Olympic Street	Ulong St	Wayeela St	Southern Side	Footpath
Canal Street	Jondaryan Ave	Kookora St	Southern Side	Shared Path
Canal Street	Jondaryan Ave	Yambil St	Northern Side	Footpath
Crossing Street	Bridge Rd	Wakaden St	Western Side	Shared Path
Bonegilla Road	Banna Ave	Twigg Rd	Both Sides	Footpath
Jondaryan Avenue	Banna Ave	Canal St	Both Sides	Shared Path
Tranter Place	Banna Ave	Railway St	Both Sides	Footpath
Kooyoo Street	Railway Street	Canal St	Both Sides	Footpath
Ulong Street	Wakaden St	Railway St	Both Sides	Shared path
Ulong Street	Railway St	Canal St	Both sides	Footpath
Wayeela Street	Banna Ave	Koorringal Ave	Both Sides	Shared path
Kookora Street	Willandra Ave	Koorringal Ave	Outer Circumference	Shared path
Kookora Street	Willandra Ave	Koorringal Ave	Inner Circumference	Footpath
Benerembah Street	Willandra Ave	Koorringal Ave	Both Sides	Footpath
Koorringal Avenue	Kookora St	Wakaden St	Eastern Side	Shared path
Koorringal Avenue	Benerembah St	Kookora St	Both Sides	Footpath

Table 3 - Proposed CBD Routes

6.2 Primary Routes

The primary routes provide a connection between the major residential areas of Griffith with the CBD and other identified generators/attractors for pedestrians and cyclists. The proposed primary route network will increase the connectivity to these generators/attractors, i.e. schools, shopping centres, recreational facilities, etc.

Primary routes should allow for both pedestrian and bicycle movements therefore the typical design width of a pedestrian path is recommended to be a 2.5m wide shared path commonly expected on both sides of the road. The footpath requirements for the proposed routes have been detailed below.

Road	From	To	Location of Path	Type of Path
Griffith				
Banna Avenue	Mackay Ave	Jondaryan Ave	Both sides	Shared path
Animoo Avenue	Wyangan Ave	Noorebar Ave	Eastern side	Shared path
	Wyangan Ave	Noorebar Ave	Western side	Footpath
Blumer Avenue	Banna Ave	Probert Ave	Both sides	Shared path
	Probert Ave	Doolan Cr	Eastern side	Shared path
Boonah Street	Noorebar Ave	Macarthur St	Both sides	Shared path
Clifton Boulevard	Wakaden St	Rifle Range Road	Both sides	Shared path
Griffin Avenue	Kookora St	Harward Rd	Southern side	Shared path
Jondaryan Avenue	Canal St	Willandra Ave	Both sides	Shared path
Kidman Way	Willandra Ave	Stafford Rd	Both sides	Shared path
Kookora Street	Willandra Ave	Koorringal Ave	Western side	Shared path
	Willandra Ave	Koorringal Ave	Eastern side	Footpath
Koorringal Avenue	Kookora St	Animoo Ave	Eastern side	Shared Path
Macarthur Street	Boonah St	Wakaden St	Southern side	Shared Path
Mackay Avenue	Banna Ave	Bridge Rd	Both sides	Shared Path
Noorebar Avenue	Animoo Ave	Boonah St	Northern side	Shared Path
	Animoo Ave	Boonah St	Southern side	Footpath
Rankins Springs Road	Wakaden St	Davis Rd	Northern Side	Shared path
Wakaden Street	Koorringal Ave	Rankins Springs Rd	Northern side	Shared path
	Ulong St	Crossing St	Southern Side	Footpath
Willandra Avenue	Jondaryan Ave	Kookora St	Both sides	Shared path
Wyangan Avenue	Animoo Ave	Wood Rd	Both sides	Shared path
	Wood Rd	Boorga Rd	Eastern side	Shared path
Beelbanger				
Rifle Range Road	Rankins Springs Rd	Clifton Boulevard	Southern side	Shared path
Hanwood				
Kidman Way	Stafford Rd	Jack Mcwilliam Rd	Eastern side	Shared path
	Leonard Rd	Hanwood Ave		Footpath
Yoogali				
Burley Griffin Way	Mackay Ave	McCormack Rd	Northern Side	Shared path
Mackay Avenue	Bridge Rd	Burley Griffin Way	Northern side	Shared path

Table 4 - Proposed Primary Routes

6.3 Secondary Routes

The secondary routes provide link the residential areas of Griffith with the primary routes of the network. The proposed secondary route network also provides direct links to Griffith's major facilities and the surrounding villages.

Secondary routes still focus on providing suitable facilities for the pedestrian types and activities undertaken in an area. A footpath, preferably a shared path, should be provided along one side of the roadway with convenient road crossing points with accessible kerb ramps at suitable locations.

Road	From	To	Location of Path	Type of Path
Griffith				
Anzac Street	Binya St	Noorebar Ave	Western side	Shared path
	Binya St	Noorebar Ave	Eastern Side	Footpath
Animoo Avenue	Wyangan Ave	Konoa St	Eastern side	Shared path
	Wyangan Ave	Konoa St	Western side	Footpath
Binya Street	Koorinal Ave	Burrell Pl	Southern side	Shared path
	Koorinal Ave	Burrell Pl	Northern Side	Footpath
Boonah Street	Macarthur St	Ortella St	Western side	Shared path
Bridge Road	Lenehan Rd	Jondaryan Ave	Southern side	Shared path
Burrell Place	Binya St	Wakaden St	Western side	Shared path
Calabria Road	Rankins Springs Rd	Clifton Boulevard	Eastern side	Shared path
Campbell Street	Ortella St	Cutler Ave	Eastern side	Shared path
Citrus Road	Rifle Range Rd	Sanders St	Eastern side	Shared path
Cutler Avenue	Campbell St	Koorinal Ave	Eastern side	Shared path
Goondooloo Street	Cutler Ave	Merrigal St	Eastern side	Shared path
Illiliwa Street	McNabb Cr	Wakaden St	Western side	Shared path
Kooba Street	Boonah St	Konoa St	Southern Side	Shared path
	Boonah St	Konoa St	Northern Side	Footpath
Lenehan Road	Oakes Rd	Bridge Rd	Western side	Shared path
McCudden Street	Clifton Blvd	Blumer Ave	Southern side	Shared path
McNabb Crescent	Blumer Ave	Macarthur St	Northern side	Shared path
Merrigal Street	Goondooloo St	Willandra Ave	Eastern side	Shared path
Murrumbidgee Avenue	Kookora St	Stafford Rd	Western side	Shared path
Oakes Road	Jondaryan Ave	Kurrajong Ave	Northern side	Shared path
Ortella Street	Boonah St	Campbell St	Southern side	Shared path
Probert Avenue	Blumer Ave	Macarthur St	Southern side	Shared path
Sanders Street	Citrus Road	Clifton Boulevard	Southern side	Shared path
Stafford Road	Murrumbidgee Ave	Kidman Way	Northern side	Shared path
Walla Avenue	Kookora St	Middleton Ave	Eastern side	Shared path

Table 5 - Proposed Secondary Routes

6.4 Collector Routes

Collector routes provide additional access improving connection to the primary and secondary routes which accommodate residential pedestrian and bicycle traffic. These routes are mainly designed for medium to low density pedestrian traffic. Collector routes mainly consist of footpaths on local access roads with a minimum footpath width of 1.2 metres.

Road	From	To	Location of Path	Type of Path
Griffith				
Alexander Street	Nicholls St	Manera St	Southern side	Footpath
Barellan Street	Macarthur St	Wakaden St	Eastern side	Footpath
Benerembah Street	Willandra Ave	Koorinal Ave	Both Sides	Footpath

Road	From	To	Location of Path	Type of Path
Binya Street	Burrell Pl	Whitton St	Both Sides	Footpath
Burley Street	Clifton Blvd	Sanders St	Eastern side	Footpath
Cavenagh Street	Ledgerwood St	Marcus St (through Marcus park)	Northern side	Footpath
Coolah Street	Willandra Ave	Jondaryan Ave	Both sides	Footpath
Dickson Road	Wyangan Ae	Noorla St	Eastern side	Footpath
Ellimo Street	Yarrabee St	Kywong St	Southern side	Footpath
Erskine Road	Moses St	Walla Ave	Eastern side	Footpath
Evanside Parade	Little Rd	Murrumbidgee Ave	Northern side	Footpath
Gibbs Street	McNabb Cr	Probert Ave	Eastern side	Footpath
Griffin Avenue	Kookora St	Benerembah St	Northern side	Footpath
Groongal Avenue	Wyangan Ave	Cutler Ave	Western side	Footpath
Hart Street	McNabb Cr	Probert Ave	Western side	Footpath
Harward Road	Griffin Ave	Spence Rd	Eastern side	Footpath
Hickey Crescent	Probert Ave	Wakaden St	Eastern side	Footpath
Hillam Drive	Clifton Blvd	Verri St	Northern side	Shared path
	Verri St	Christina Pl	Western side	Footpath
	Christina Pl	Clifton Bvd	Southern side	Shared path
Hyandra Street	Noorebar Ave	Illiliwa St	Northern side	Footpath
Kelly Avenue	Wood Rd	Ortella St	Western side	Footpath
Konoa Street	Ortella St	Animoo Ave	Western side	Footpath
Langley Crescent	Probert Ave	Blumer Ave	Eastern side	Footpath
Ledgerwood Street	Blumer park	Ledgerwood park	Western side	Footpath
Little Road	Middleton Ave	Evanside Parade	Eastern side	Footpath
Madden Drive	Hillam Dr	End of Madden Dr	Southern side	Footpath
Merrowie Street	Yarrabee St	Merrigal St	Northern side	Footpath
Middleton Avenue	Walla Ave	Watson Rd	Western side	Footpath
Moses Street	Harward Rd	Erskine Rd	Southern side	Footpath
Nicholls Street	Clifton Blvd	Alexander St	Eastern side	Footpath
Noorebar Avenue	Hyandra St	Carathool St	Eastern side	Footpath
Noorilla Street	Campbell St	Boonah St	Northern side	Footpath
North Grove Drive	Wyangan Ave	Robrick Cl	Western side	Footpath
Polkinghorne Street	Madden Dr	End of Polkinghorne St	Eastern side	Footpath
Robertson Street	Clifton Blvd	Nicholls St	Western side	Footpath
Sidlow Road	Stafford Rd	Merrigal St	Eastern side	Footpath
Speirs Street	Probert Ave	Existing footpath	Eastern side	Footpath
Spence Road	Harward Rd	Walla Ave	Northern side	Footpath
Ulong Street	Willandra Ave	Coolah St	Eastern side	Footpath
Warrambool Street	Animoo Ave	Noorebar Ave	Both sides	Footpath
Watson Road	Walla Ave	Murrumbidgee Ave	Southern side	Footpath
Whitton Street	Hyandra St	Wakaden St	Eastern side	Footpath
Wood Road	Kelly Avenue	Wyangan Ave	Southern side	Footpath
Yarrabee Street	Griffin Ave	Merrigal St	Western side	Footpath
Hanwood				
Ash Street	School St	Wilga St	Western side	Footpath
School Street	Hanwood Rd	Ash St	Northern side	Footpath
Wilga Street	Hanwood Rd	Ash St	Southern side	Footpath
Yarran Street	School St	Club St	Northern side	Footpath
Lake Wyangan				
Todd Road	Boorga Rd	Mason St	Northern side	Footpath
Yenda				
Bingar Street	Henry St	Leaver St	Western side	Shared path
East Avenue	Yenda Pl	Mirrool Ave	Both sides	Footpath

Road	From	To	Location of Path	Type of Path
Henry Street	Park St	Bingar St	Southern side	Shared path
Mirrool Avenue	Dredge St	Twigg Rd	Western side	Shared path
Park Street	West Ave	Henry St	Western side	Shared path
Railway Parade	Henry St	Mirrool Ave	Southern side	Shared path
	Myall Park Road	Mirrool Ave	Northern side	Shared path
South Avenue	Yenda Pl	Mirrool Ave	Eastern side	Footpath
Twigg Road	Burley Griffin Way	Beelbanger Rd	Western side	Shared path
West Avenue	Railway Pde	Yenda Place	Northern side	Shared path
	Yenda Pl	Bingar St	Southern side	Footpath
Yoogali				
East Street	Edon St	Moura St	Western side	Shared path
Edon Street	Burley Griffin Way	Hebden St	Northern side	Shared path
	Burley Griffin Way	Hebden St	Southern side	Footpath
Gorton Street	Edon St	Henderson Oval	Eastern side	Footpath
Hebden Street	Edon St	Moura St	Western side	Shared path
Moura Street	Hebden St	East St	Southern side	Shared path

Table 6 - Proposed Collector Routes

6.5 Recreational Routes

Recreational routes link Griffith's attractions. The main purpose of the network is to provide the community the ability to enable walking and cycling as a legitimate form of recreation. These recreational links provide the community connection to Griffith's tourist attractions which include:

- Lake Wyangan;
- Scenic Hill;
- Pioneer Park Museum;
- Sports centres, ovals; and
- The main canal.

Achieving a strong link to these recreational attractions will assist in increasing pedestrian activity, public satisfaction and increased health benefits. The routes have ultimately been designed as a grand loop around Griffith.

Road	From	To	Location of Path	Type of Path
Beelbanger Road	Myall Park Rd	Rankins Springs Rd	Both sides	Bicycle Lane
Boorga Road	Jones Rd	Wyangan Ave	Western side	Shared path
Burley Griffin Way	Mackay Ave	Whitton Rd (Yenda)	Both sides	Bicycle Lane
Jones Road	Boorga Rd	Lakes Rd	Northern side	Shared path
	McCarthy Rd	Boorga Rd	Both sides	Bicycle Lane
Kidman Way	Lakes Rd	Harward Rd	Both sides	Bicycle Lane
Kurrajong Avenue	Old Willbriggie Rd	Mackay Avenue	Both sides	Bicycle Lane
Lakes Road	Jones Rd	Lake Wyangan Picnic area	Eastern side	Shared path
	Kidman Way	Jones Rd	Both sides	Bicycle Lane
Main Canal	Calabria Rd	Wyangan Ave	Northern side	Shared path
Old Willbriggie Road	Kurrajong Ave	Oakes Rd	Both sides	Bicycle Lane

Road	From	To	Location of Path	Type of Path
Remembrance Dr	Noorilla St	Scenic Dr	Southern side	Shared path
Rifle Range Road	Rankins Springs Rd	Scenic Dr	Both sides	Shared path
	Scenic Dr	McCarthy Rd	Both sides	Bicycle Lane
Scenic Drive	Rifle Range Rd	Remembrance Dr	Southern side	Shared path
Thorne Road	Kidman Way	Old Willbriggie Rd	Both sides	Bicycle Lane
Watkins Avenue	Old Willbriggie Rd	Rae Road	Both sides	Bicycle Lane

Table 7 - Proposed Recreational Routes

7. Design Standards

Griffith City Council's ambition for an extensive pedestrian network is an important issue but designing the pedestrian network to last for years to come is just as important as the development. A set of design standards have been formed to ensure the network will be sustainable for the future. The design standards refer to the minimum requirements, dimensions and materials used to accomplish a project. Griffith City Council has commissioned a standard design scope for pedestrian and bicycle infrastructure around the city to ensure a safe, equitable, accessible and long term network. The design standards outlined in this section provide both a minimum standard and a recommended standard for the construction of specific infrastructure. Consideration has been focused on providing suitable access to a range of pedestrian groups including the disabled.

The design standards in relation to the PAMP apply to:

- Footpaths;
- Shared Paths;
- Road crossings (Pedestrian Refuges);
- Kerb ramps;
- Gradients; and
- Associated pedestrian furniture e.g. handrails, seats, bus stops etc.

The specific design standards have been adapted from a range of sources including:

- Australian Standards 1428.1;
- The Austroads series; and
- Griffith City Council Engineering Guidelines.

7.1 Path Width and Construction

Whether it is footpaths or shared paths, these pedestrian facilities ultimately provide the public with the capability of safe connection across Griffith. Guidance on the specifications of footpaths has been sought through various documents including Austroads, Road Design guide and Australian Standards. Griffith City Council staff have adapted its own minimum and recommended requirements which are outlined in the table below.

Type of Path	Minimum Width	Recommended Width
Footpath	1.2m	1.5m
Shared Path	2.0m	3.0m
Recreational Path	2.5m	3.0m

Table 8 - Recommended Path Widths

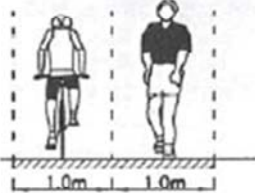
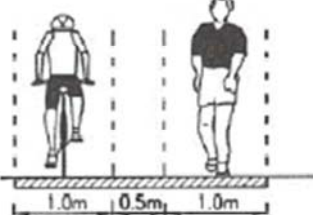
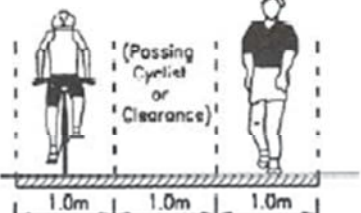
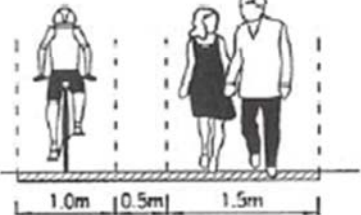
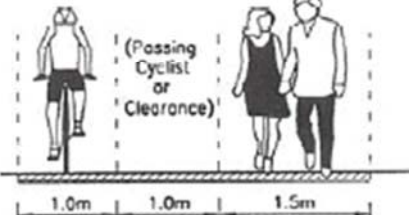
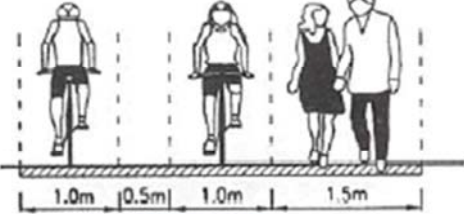
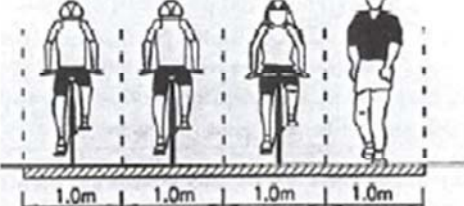
Scenario	Overall width of path	Predominant path purpose	
A	2.0 m	<ul style="list-style-type: none"> • Typical circumstances of use • Local access • Constrained conditions • 'Tidal flow' • Low use 	
B	2.5 m	<ul style="list-style-type: none"> • Commuting and local access • Regular use • 20 km/h 	
C	3.0 m	<ul style="list-style-type: none"> • Commuting • Frequent and concurrent use in both directions • 30 km/h+ 	
D	3.0 m	<ul style="list-style-type: none"> • Recreation • Regular use • 20 km/h 	
E	3.5 m	<ul style="list-style-type: none"> • Commuting and recreation (concurrent) • Frequent and concurrent use in both directions • 30 km/h+ 	
F	4.0 m	<ul style="list-style-type: none"> • Major recreational path • 20 km/h • Heavy and concurrent use in both directions 	
G	4.0 m	<ul style="list-style-type: none"> • Major recreational path • Regular group rides • Heavy and concurrent use in both directions • Generally low speed due to congestion 	

Figure 23 - Operation of Shared Paths (*Austroads Guide to Road Design - Part 6A: Pedestrian and Cyclist Paths*)

7.2 Plans and Sections of Paths

Footpaths and shared paths are required to be constructed in accordance with Council's *Engineering Guidelines – Subdivision and Development Standards*.

Path Thickness	100mm (minimum)
Path Materials	Reinforced Concrete (SL72)
Path Base	100mm Compacted Road Building Gravel
Path Location	1-metre from the property boundary

Table 9 - Path Design/Construction Requirements

Alteration to the above standards is possible; the alterations shall be justified to and approved by Council.

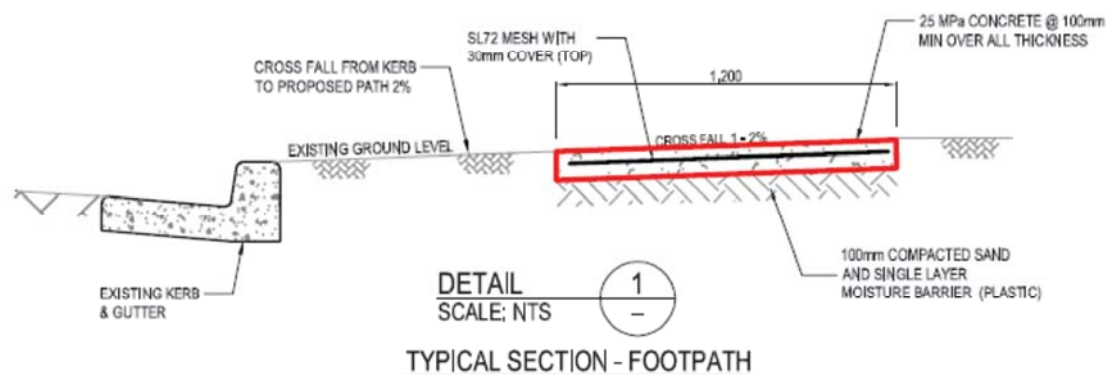


Figure 24 - Typical Section - Path

7.3 Road Crossing and Accessibility

Accessibility to paths and other pedestrian and bicycle infrastructure is crucial to the successful use of these facilities. Designing the infrastructure to be accessible by all user groups will promote the use of such.

Pedestrian infrastructure must also be able to effectively connect and provide the safe movement of pedestrians across roads. Throughout Griffith's CBD there are six pedestrian crossings that link the northern and southern sides of Banna Avenue. This form of pedestrian infrastructure is an effective measure to ensure the safe movements of pedestrians crossing the road.

The general rule is that pedestrians should not have to cross a road that is more than eight metres (average trafficable lane plus a parking lane) without some form of refuge or crossing. This rule applies to all streets with more than 1000 vehicle movements per day and has been sourced from the *Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings*.

The following sections provide Griffith City Council with the specifications required to be met for all new footpath, kerb ramp and pedestrian refuge construction. This infrastructure has not been specifically planned for but shall be considered where new construction occurs providing it is warranted.

7.3.1 Pedestrian Refuges/Medians

Medians and pedestrian refuges are designed for safe navigation of roads for pedestrians. This infrastructure increases the safety of pedestrian and cyclist activity where there is a need. The technical direction TDT2011/01a provides guidance and a standard to abide by when designing and installing pedestrian refuges.

7.3.2 Kerb Ramps

Kerb ramps are an important aspect of developing an accessible and suitable pedestrian network. Kerb ramps provide ease of access to footpaths for the disabled and the elderly that utilise wheelchairs or mobility scooters. This treatment requires specific design standards to be adhered to, ensuring vulnerable user groups, such as the disabled, are catered for.

Griffith City Council has developed standards in the design of kerb ramps with guidance from Australian Standard 1428.1. These standards outline the maximum gradient and associated clearances around a ramp which is displayed in the below figure.

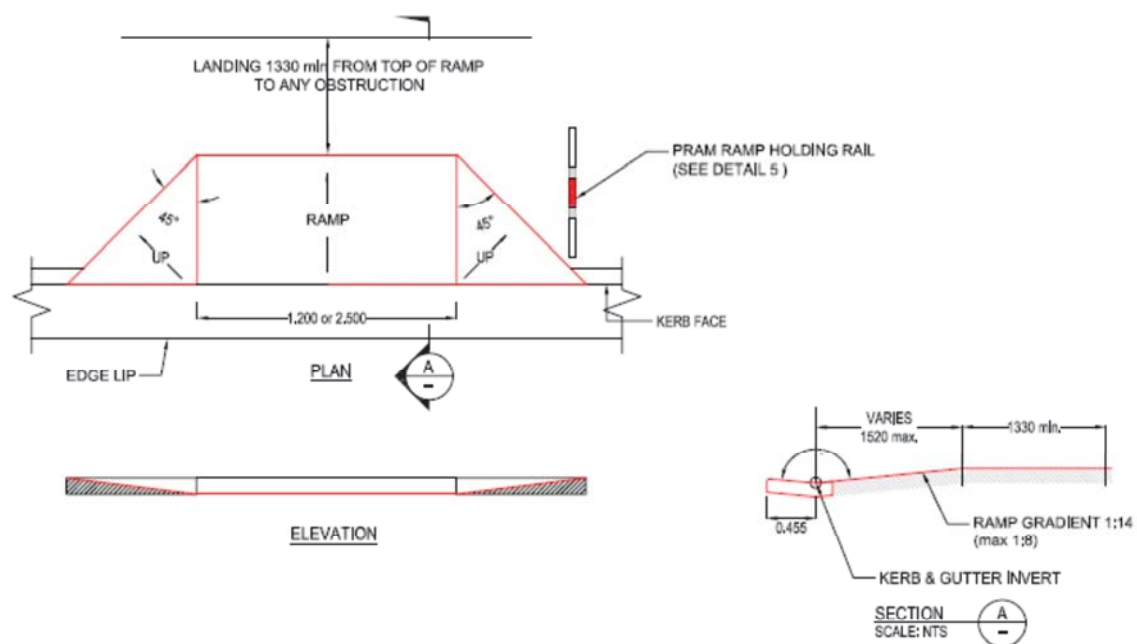


Figure 25 - Typical Details - Kerb Ramp

7.4 Gradients, Cross falls and Vertical Clearance Standards

7.4.1 Gradients

Gradient refers to the vertical rise over the horizontal (longitudinal) run of a path and ultimately provides a ratio on how steep a footpath has been designed. Standards have been established to provide guidance on the recommended gradient for paths for appropriate accessibility. The following gradients outlined in Australian Standard 1428.1 provide guidance on the construction of such infrastructure.

- A desired gradient of 1:14 is recommended but this may not be achievable and so the absolute maximum gradient permissible is 1:8 (AS 1428.1); and
- Gradients for footpaths as per AS 1428.1 – *“Where the gradient is 1:33 level rest areas 1.2m long should be provided at not greater than 25 m intervals whereas at 1:20 the interval should not exceed 15 m. Between gradients of 1:33 and 1:20 the interval should be interpolated. Landings are not required on gradients less than 1:33. Paths with a gradient steeper than 1:20 are to be considered as ramps for design purposes.”*

In some cases the recommended gradients cannot be achieved due to the natural topography of the land and this should be noted.

7.4.2 Cross fall

Cross fall refers to the vertical rise over along the run of a path at right angles to the centreline.

In areas where the road reserve is to be totally paved from the top of the kerb to the adjacent boundary (i.e. the CBD), the cross fall is to be 1 in 50 towards the kerb (2%).

In areas where the footpath is unpaved or partially paved, cross fall from kerb to the adjacent boundaries is to be 1 in 35 towards the kerb (3%). Alternative treatments that achieve water sensitive urban design outcomes are encouraged subject to prior approval as part of the concept design development.

The design of footpath cross fall shall comply with the drainage requirements in Australian Rainfall and Runoff. 1 in 100 ARI flows shall be contained within the road reserve, public reserves or piped.

Vehicle access is to be checked using standard vehicle templates.

7.4.3 Vertical Clearances

Vertical Clearance standards are set out in the Australian Standards 1428.1 and Australian Standard 1742.2. Council abides by these standards set out which state a 2.5m vertical clearance above the top of kerb shall be maintained at all times.

8. Implementation Strategy

Griffith's pedestrian and bicycle network identified within this document can be achieved through the staged implementation of engineering actions. These actions have been divided into high, medium and low priorities which are also numbered to indicate its level of importance.

The implementation strategy has been developed by Griffith City Council's Infrastructure and Operations Assistant who applies for funding for the projects. This ensures that due consideration has been taken into account for the likelihood of the construction of infrastructure and the availability of funding. Community consultation is also factored into the implementation strategy to gauge if priorities have been accurately arranged.

Refer to Appendix D for priority / implementation strategy.

8.1 Funding Sources

The staging and implementation of any strategic plan is dependent on the availability of funding. Being able to access funding allows the commencement of any engineering actions that are required to be carried out. Griffith City Council currently funds projects from various sources such as community rates, developer contributions and most importantly Roads and Maritime Services who provide annual funding on a 50:50 basis.

The implementation of the Griffith Pedestrian and Bicycle Strategy requires the adoption of the strategic plan by Griffith City Council. The development of individual projects identified will then require the allocation of Council funding and resources. Preliminary costings of the proposed works have been completed by Council and are detailed below.

The implementation of the Griffith Pedestrian and Bicycle Strategy will cost in excess of \$33 million. Given Griffith City Council's limited budget and the scope of the proposed works, alternate funding sources are required.

The reviewed Pedestrian and Bicycle Strategy provides approximately 146km of designated path across the Griffith City Council Local Government Area. The cost of providing the entire Pedestrian and Bicycle network is approximately \$33,400,000 which is well outside of Council's ten (10) year forecasted capital works budget. Council receives limited funding from the Roads and Maritime Services (RMS) for shared paths and kerb ramps and Council is required to pay half the construction costs if the work is on a local road. The funding from the RMS is not guaranteed and must be applied for and approved annually before construction commences and the work must be approved once completed to ensure that the work meets RMS standards.

Council's current rate of construction means that the construction of the reviewed PAMP will not be completed within 200 years. Council's current financial situation does not allow for increased expenditure on footpaths or shared paths. Council is fortunate to be able to afford the limited development of footpaths around the city. Alternate revenue streams to assist in funding the proposed pedestrian and cycle way network include:

- Developers contributions;
- NSW Roads and Maritime Services;
- Transport for NSW;
- NSW Department of Trade and Investment, Regional Infrastructure and Services;
- Commonwealth Department of Infrastructure and Transport; and
- Commonwealth Department of Regional Australia, Local Government, Arts and Sport.

9.0 Conclusion

The Griffith Pedestrian & Bicycle Strategy is an important document for Griffith City Council and within the Griffith community. The strategy enables Griffith City Council to provide the community with a pedestrian and bicycle network that is attractive, safe, direct and accessible to all demographics ultimately providing a suitable link to all of Griffith's attractors and generators such as schools, shopping centres and recreational facilities.

The development of the Strategy is a step towards Griffith becoming a fully accessible community with high quality pedestrian and bicycle facilities that encourage walking and cycling as legitimate and sustainable modes of transport in the city. Three broad strategic goals were developed by Griffith City Council to supplement the original aim of the PAMP and Bicycle Plan and coincide with the above. These are:

- *An equitable and accessible transport network that allows for consistent and reliable travel.*
 - Provide good connectivity to key landmarks and attractors;
 - Improve the footpath and cycleway network;
 - Provide safe and convenient crossing locations;
- *A safe and attractive transport network where the severity and risk of accidents are minimised.*
 - Reduce conflicts between all road users;
 - Improve safety for all road users;
 - Improve the environment around pedestrian footpaths and cycleways;
- *A transport network that promotes walking and cycling as a mode of transport.*
 - Encourage walking and cycling to replace trips usually made by motor vehicles;
 - Provide suitable end of trip facilities across the network, especially at key landmarks and attractors.

Walking and cycling should be a method of travel that all user groups can utilise proactively. With the implementation of the Griffith Pedestrian and Bicycle strategy, the Griffith community is empowered to use the infrastructure and ultimately increase a wellbeing which is sustainable, and beneficial for not only health purposes but for traffic congestion and improved safety across the city.

The analysis of methodology outlined in several guidelines and documents (such as the NSW Roads and Maritime Services (RMS) Guidelines, *How to Prepare a Pedestrian Access and Mobility Plan* (2002), as well as data analysis of pedestrian crash history and community consultation, allowed Griffith City Council to produce the Griffith Pedestrian and Bicycle Strategy as a review of the 2009 PAMP and Bicycle Plan combining them into a simplified and more precise document. The aim of the review was to improve and amend the existing plans to suit the needs of the expanded urban area of Griffith. The future needs of the pedestrians and cyclists in the area were also considered as part of the review and addressed the management of resources and funding to meet the needs identified.

The amended plans provide an important framework for addressing the needs of pedestrians and cyclists within the Griffith area and the management of resources and funding required to construct such infrastructure. The review also outlined the engineering actions that need to be executed to achieve the overall goal of the document which resulted in an estimated cost of \$33.4 million.

Ongoing monitoring and updating of the document should be undertaken on a regular basis as works are completed or part completed as listed in the implementation strategy. The ongoing amendments also provide the opportunity to correct or rectify any infrastructure that will need to be taken into consideration as Griffith expands into the future.

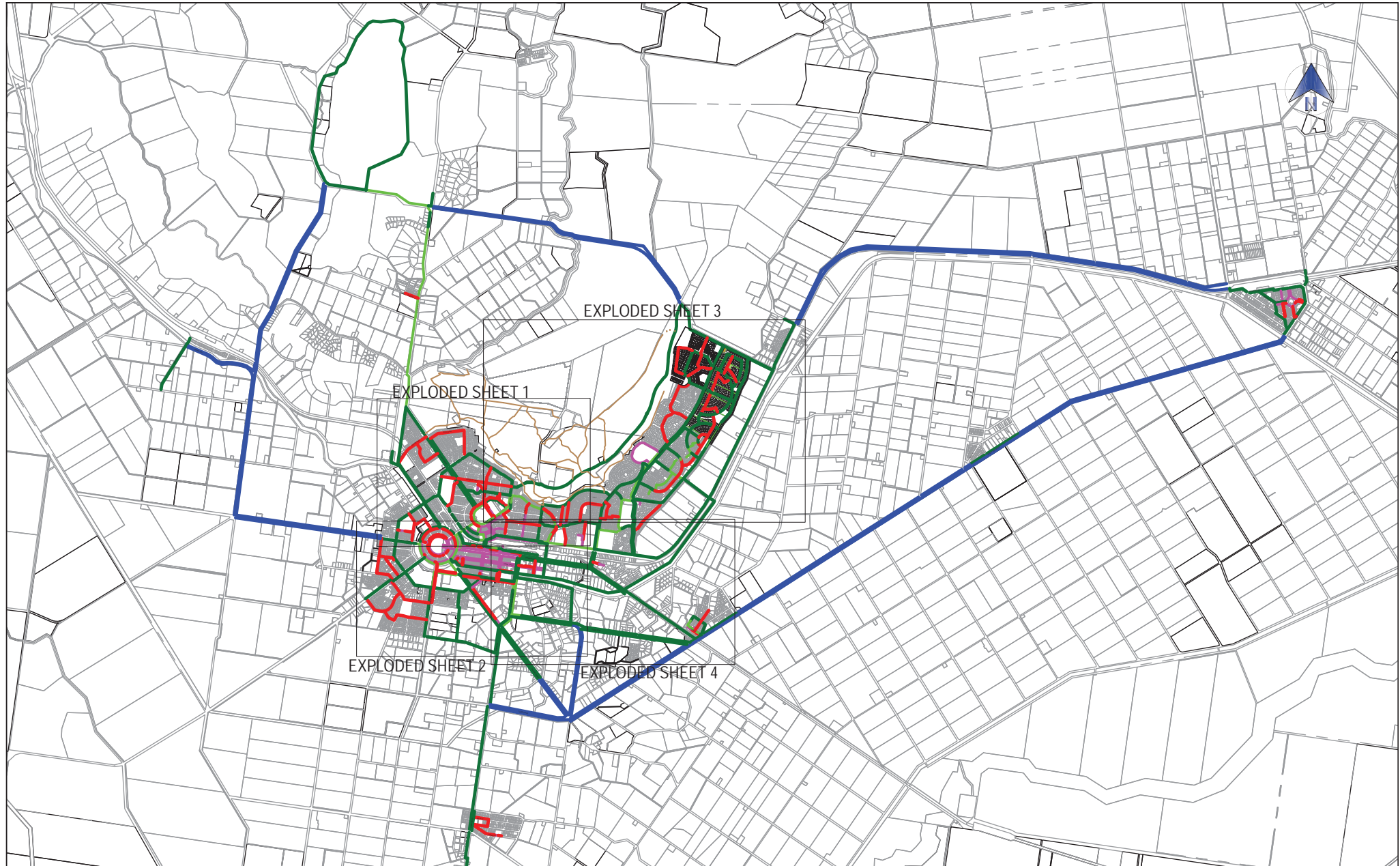
10.0 Community Consultation

Public consultation is a key element in the development of a pedestrian and bicycle access plan. The local community is directly affected by the standard and extent of the footpath and cycleway network, using the facilities daily for work, transport or recreation. The development of the Griffith Pedestrian & Bicycle Strategy involved several stakeholder consultations including Council's Transport and Logistics Committee and the Disability Inclusion and Access Committee. These involved a broad cross-section of the Griffith community to capture the different viewpoints of users. The committees meet regularly discussing access and transport issues to be brought to Council staffs attention.

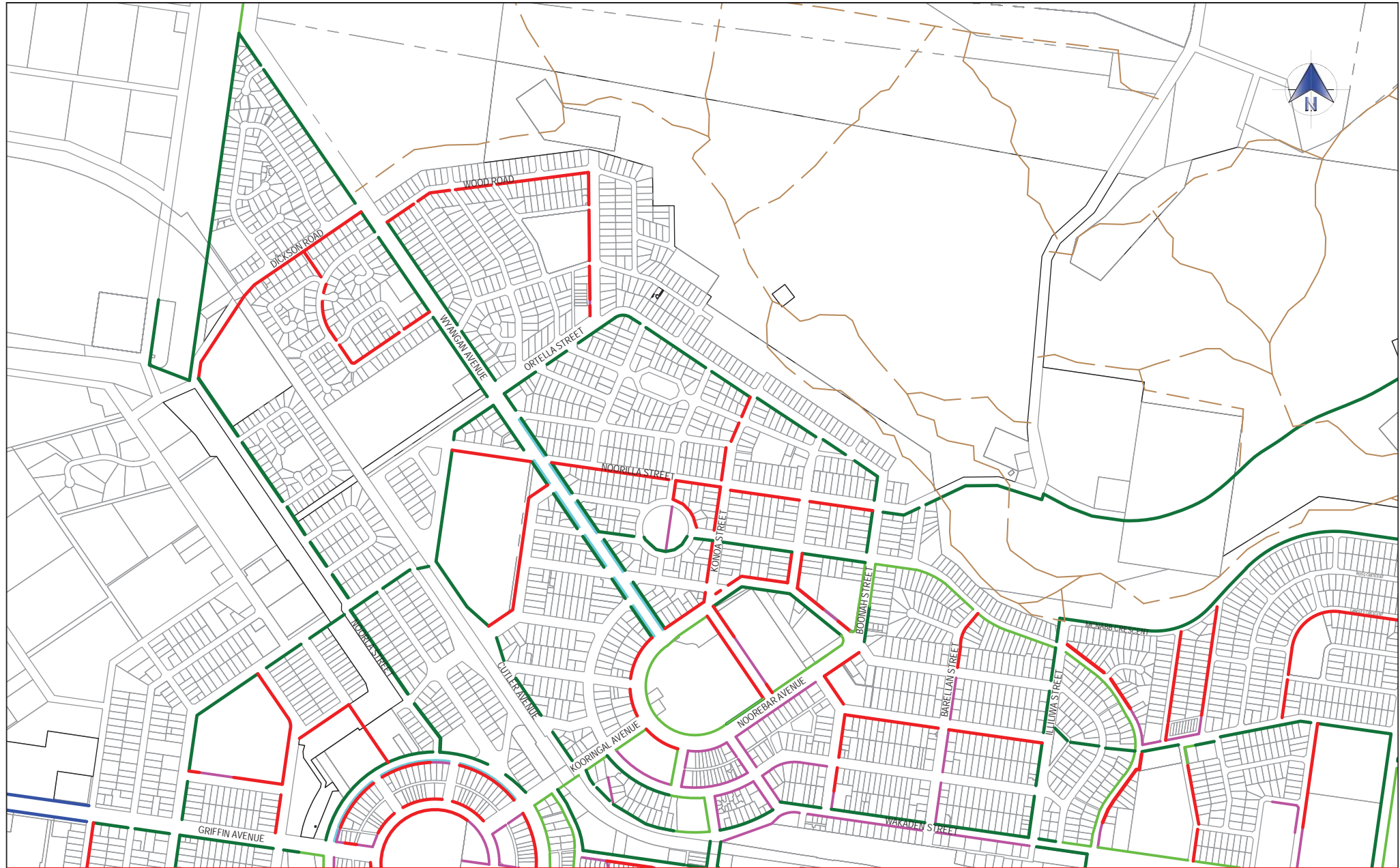
The Draft Pedestrian and Bicycle Strategy was exhibited for a period of 28 days. Griffith City Council's webpage, the local newspaper, and an information brochure were used to advertise the exhibition of the Strategy and to inform the public of the dates, times and locations to view the document. General submissions were accepted and included into the strategy.


Appendices

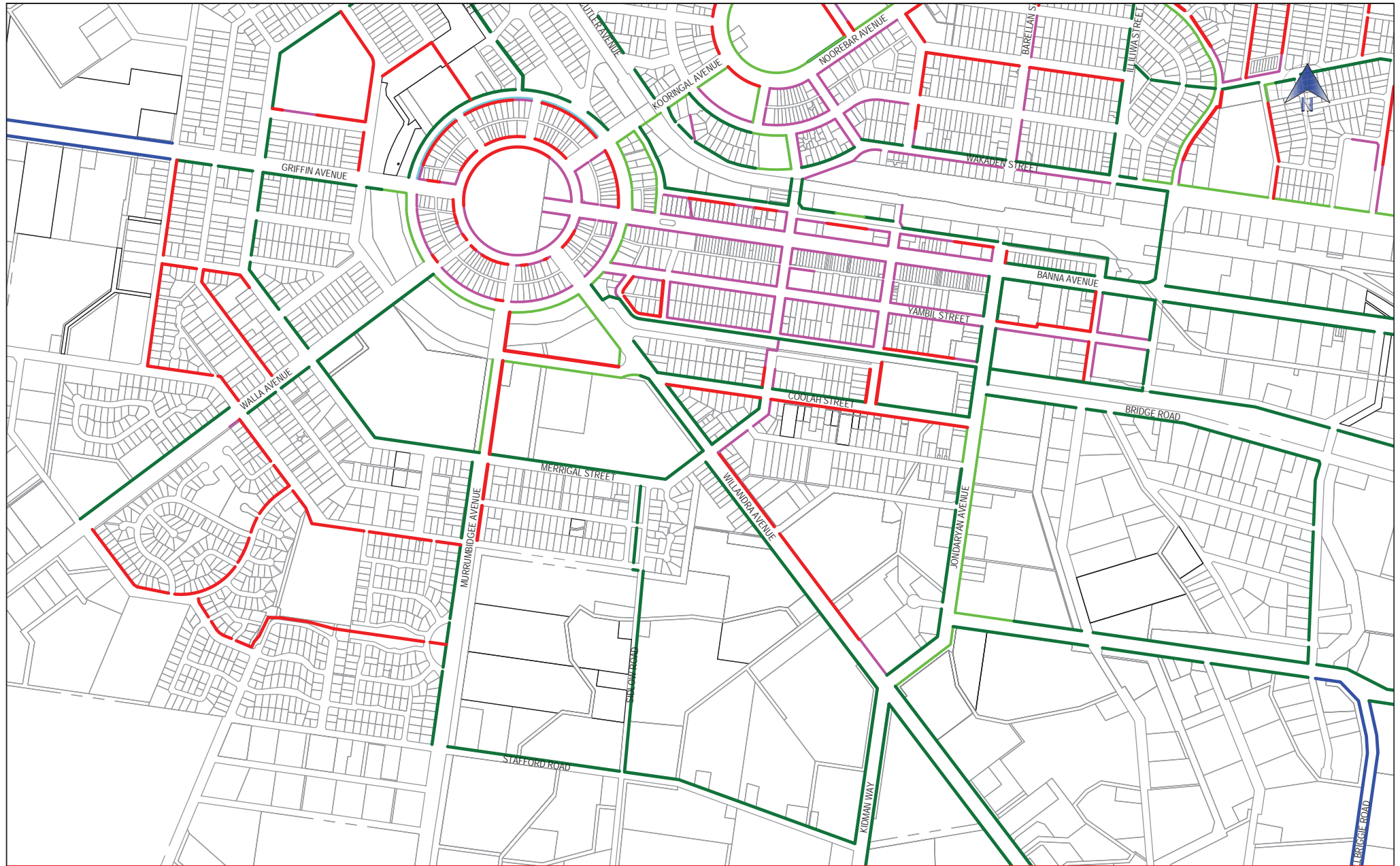
Appendix A – Pedestrian and Bicycle Masterplan



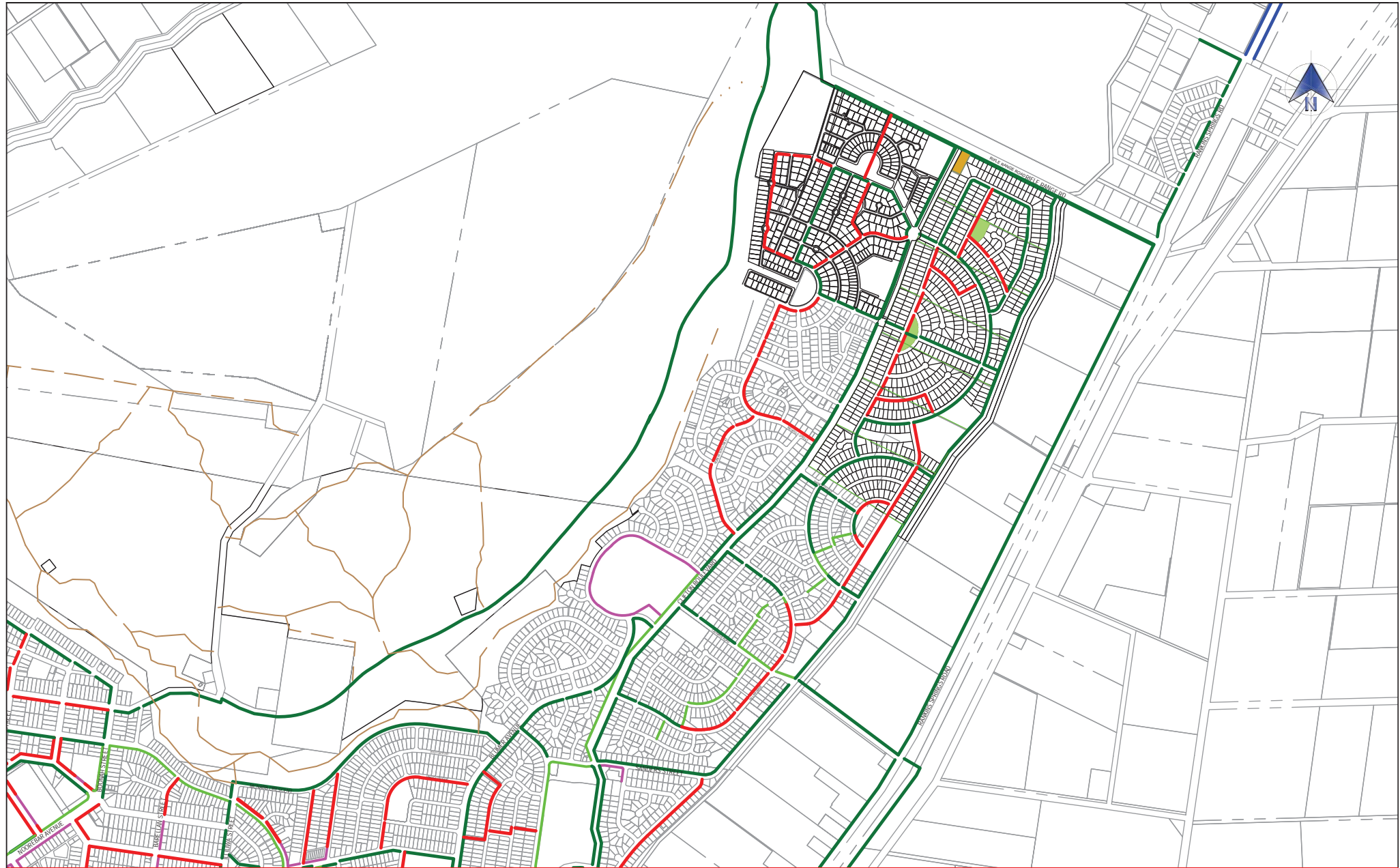
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		EXISTING SHARED PATH :	PROPOSED SHARED PATH :					
		EXISTING FOOTPATH :	PROPOSED FOOTPATH :					
		OFF ROAD TRAILS :						NUMBER OF SHEETS : 5



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	A	EXISTING CYCLEWAY :	PROPOSED CYCLEWAY :	12/01/2017		DRAWING TITLE : Griffith Pedestrian and Bicycle Strategy - EXPLODED 1	SHEET NUMBER : 2
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REVISION	LEGEND		ISSUE DATE
A	EXISTING CYCLEWAY :	PROPOSED CYCLEWAY :	12/01/2017
	EXISTING SHARED PATH :	PROPOSED SHARED PATH :	
	EXISTING FOOTPATH :	PROPOSED FOOTPATH :	
	OFF ROAD TRAILS :		

GRIFFITH PEDESTRIAN AND BICYCLE STRATEGY

ABN: 80314187872
1 Townsend Street, GRIFFITH NSW 2880
T: 08 93242000 F: 08 93242171 enquiries@griffith.nsw.gov.au

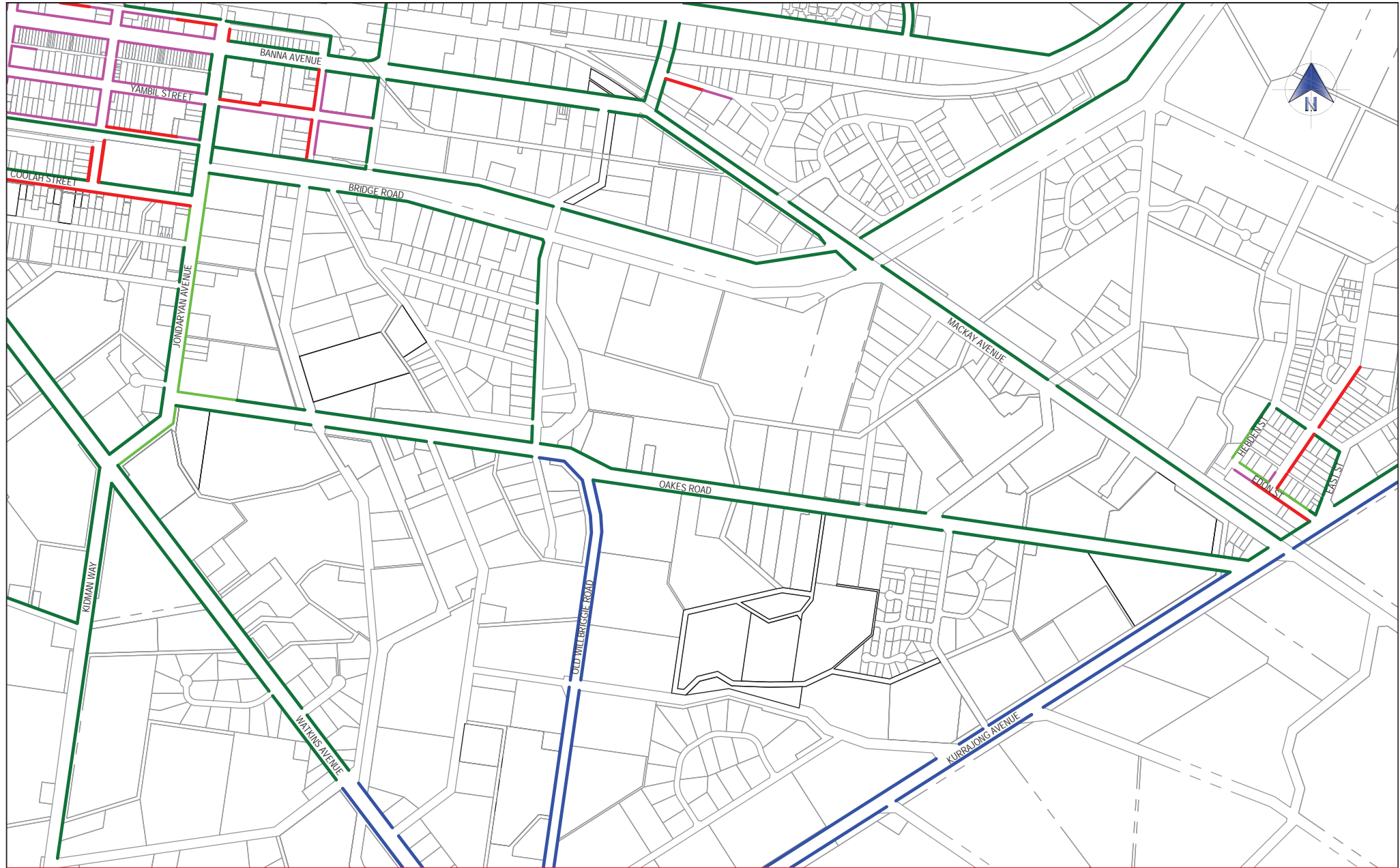
PROJECT TITLE & LOCATION : Griffith Pedestrian and Bicycle Strategy
- Overall Masterplan









DRAWING TITLE : Griffith Pedestrian and Bicycle Strategy - EXPLODED 3

SCALE :
1:7500 @ A1

SHEET NUMBER : 4

NUMBER OF SHEETS : 5



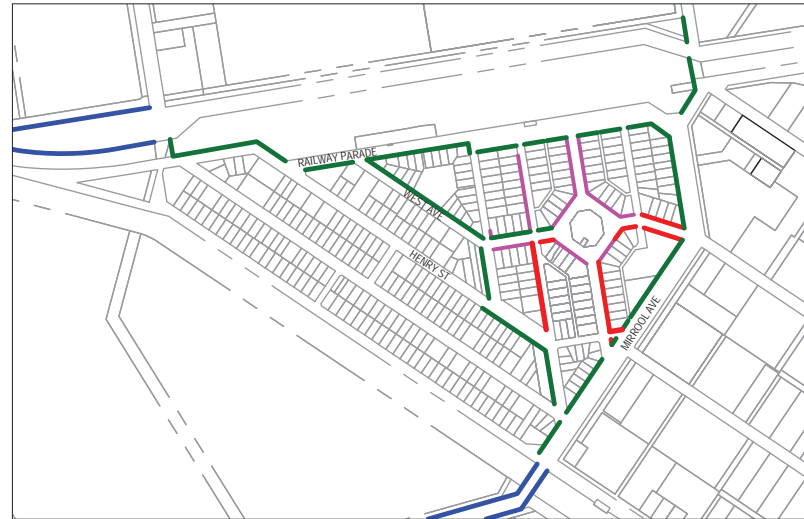
COPYRIGHT This drawing and the information shown hereon is the property of Griffith City Council and may not be used for any other purpose than that for which this drawing is supplied. Any other use, copying or reproduction of all or any part of this drawing is prohibited without the written consent of Griffith City Council.	REVISION:	LEGEND		ISSUE DATE	GRIFFITH PEDESTRIAN AND BICYCLE STRATEGY	 <small>ABN: 80124187812 1 Riverina Street, GRIFFITH NSW 2684 T: 02 68220000 F: 02 68221111 www.griffith.nsw.gov.au</small>	PROJECT TITLE & LOCATION: Griffith Pedestrian and Bicycle Strategy - Overall Masterplan	SCALE: 1:5000 @ A1		
	A	EXISTING CYCLEWAY:		PROPOSED CYCLEWAY:				12/01/2017	DRAWING TITLE: Griffith Pedestrian and Bicycle Strategy - EXPLODED 4	SHEET NUMBER: 5
		EXISTING SHARED PATH:		PROPOSED SHARED PATH:						NUMBER OF SHEETS: 5
		EXISTING FOOTPATH:		PROPOSED FOOTPATH:						
		OFF ROAD TRAILS:								

Appendix B – Village Maps

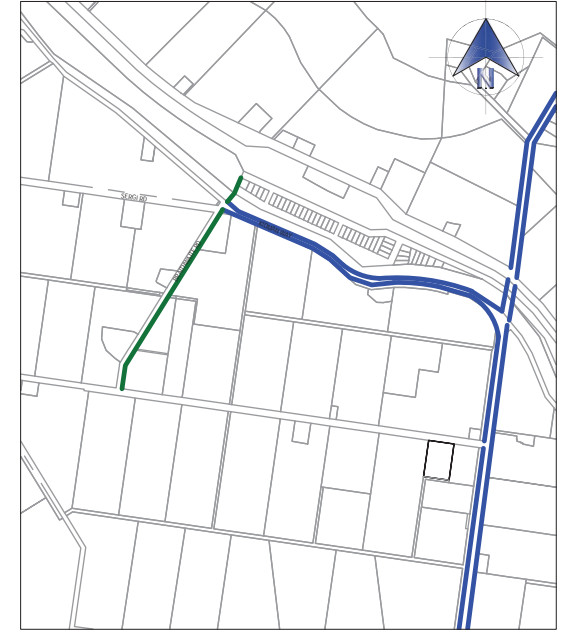
Lake Wyangan



Yenda



Tharbogang



Beelbangera



Yoogali



Bilbul



Hanwood



Project File Location: 30

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REVISION	
A	EXISTING CYCLEWAY :
	EXISTING SHARED PATH :
	EXISTING FOOTPATH :
	OFF ROAD TRAILS :

EXISTING CYCLEWAY :	
EXISTING SHARED PATH :	
EXISTING FOOTPATH :	
OFF ROAD TRAILS :	

LEGEND

PROPOSED CYCLEWAY :	
PROPOSED SHARED PATH :	
PROPOSED FOOTPATH :	

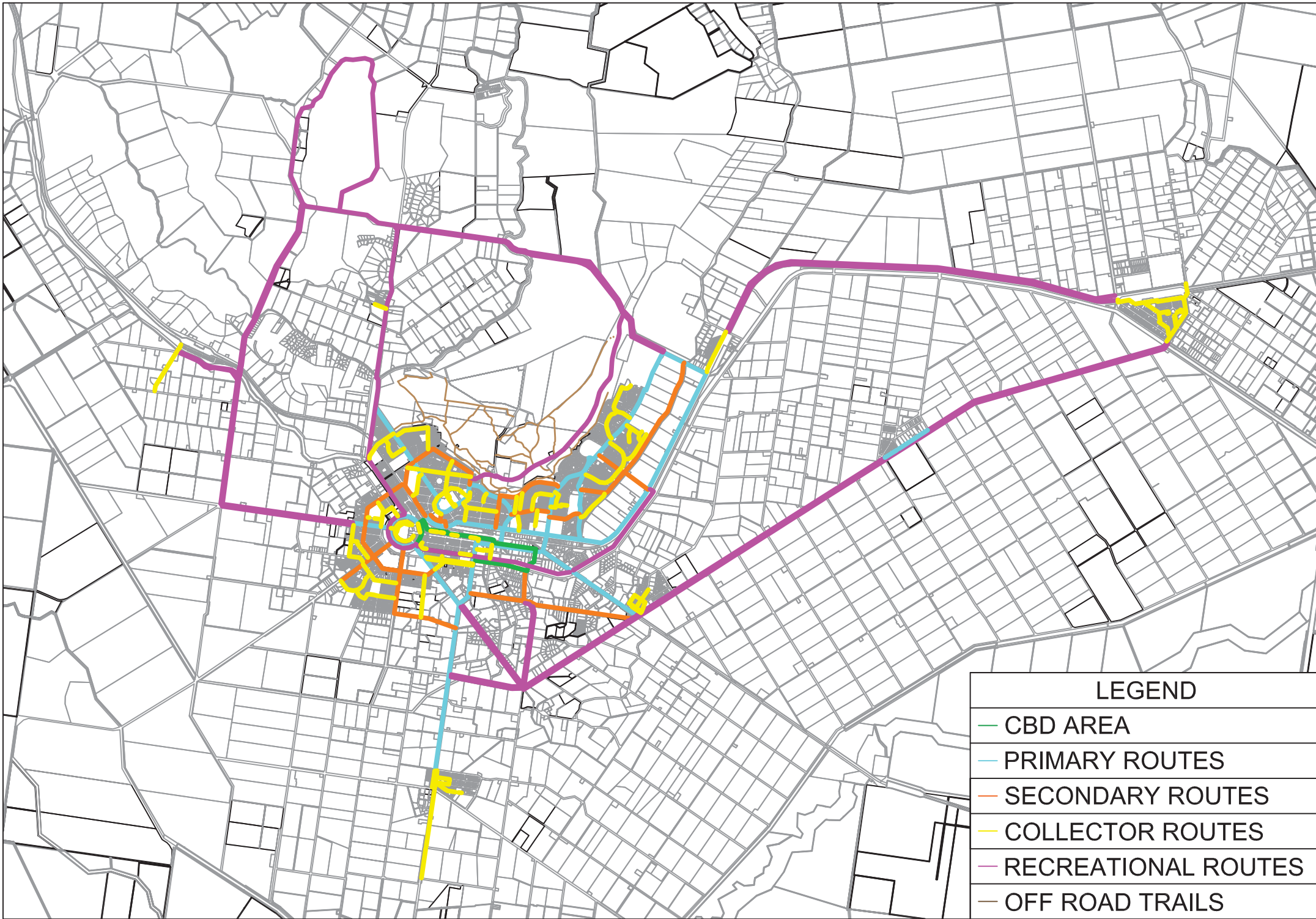
ISSUE DATE	14/03/2018
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GRIFFITH PEDESTRIAN AND BICYCLE STRATEGY



PROJECT TITLE & LOCATION : Griffith Pedestrian and Bicycle Strategy - Overall Masterplan	SCALE : NTS
DRAWING TITLE : Griffith Pedestrian and Bicycle Strategy - Overall Masterplan	SHEET NUMBER : 1
	NUMBER OF SHEETS : 1

Appendix C - Pedestrian and Bicycle Prioritised Route Network



Appendix D – Priority Table / Implementation Strategy table

				Griffith Pedestrian and Bicycle Strategy Priority Table				Total Value	33,426,050.00
PAMP Priority	Route Type	Location	Suburb	Description	Type	Width	Length (m)	\$	Status
1	Local	Edon Street	Yoogali	2.0m wide path on northern side of Edon Street Yoogali from Hebden Street to Cafes/shops	Shared Path	2	185	37000	completed
2	Local	Hebden Street	Yoogali	Construction of a 2.0m wide shared path between Moura St and Edon St along the western side of Hebden St	Shared Path	2.5	200	50000	part completed
3	Local	Noorebah Avenue	Griffith	2.5m wide path on western side of Noorebah Ave from Warrambool Street to Kooba Street	Shared Path	2.5	290	72500	completed
4	Local	West Avenue	Yenda	Construction of a 1.2m wide footpath between Yenda Pl and Railway Parade along the northern side of West Ave	Footpath	1.2	360	43200	future proposal
5	Regional	Crossing Street	Griffith	Construction of a 2.5m wide shared path between Wakaden St and Railway pedestrian crossing along the western side of Crossing St	Shared Path	2.5	100	25000	
6	Regional	Crossing Street	Griffith	Construction of a 2.5m wide shared path between Banna Avenue and Bridge Road along the western side of Crossing St.	Shared Path	2.5	200	50000	
7	Local	Olympic Street	Griffith	2.5m shared path along the northern side of Olympic street between Wayeela Street and Ulong Street	Shared Path	2.5	300	75000	
8	Local	Willandra Avenue	Griffith	Construction of a 2.5m wide shared path between Kookora St and the Kidman Way along the southern side of Willandra Ave	Shared Path	2.5	2260	565000	part completed
9	Local	Willandra Avenue	Griffith	Construction of a 1.2m footpath along the northern side of Willandra Avenue between Ulong Street and Jondaryan Avenue	Footpath	1.2	800	96000	
10	Local	Merrigal Street	Griffith	Construction of a 2.5m wide shared path between Noorla St and Willandra Ave along Merrigal St	Shared Path	2.5	2540	635000	
11	Local	Coolah Street	Griffith	Construction of a 2.5m wide shared path between Jondaryan Ave and Murrumbidgee Ave along the northern side of Coolah Street	Shared Path	2.5	1190	297500	
12	State	Benerembah Street	Griffith	Construction of a 1.2m wide footpath between Griffin Ave and Koorngal Ave along the inside diameter of Benerembah St	Footpath	1.2	340	40800	
13	Local	Sidlow Road	Griffith	Construction of a 2.5m wide shared path between Merrigal St and Trowella Gardens.	Shared Path	2.5	555	138750	
14	Local	Warrambool Street	Griffith	Construction of a 1.2m wide footpath between Animoo Ave and Noorebah Avenue along both sides of Warrambool St	Footpath	1.2	350	42000	
15	Local	Kooba Street	Griffith	Construction of a 2.5m wide shared path between Animoo Ave and Noorebah Avenue along the southern side of Kooba St	Shared Path	2.5	250	62500	
16	Local	Animoo Avenue	Griffith	Construction of a 2.5m wide shared path between Warambool St to Kooba St along the eastern side of Animoo Ave	Shared Path	2.5	120	30000	
17	Local	Railway Street	Griffith	Construction of a 1.2m wide footpath between Tranter Pl and the Library along the southern side of Railway St	Footpath	1.2	115	13800	
18	Local	Railway Street	Griffith	2.5m shared path along the northern side of Railway Street between Ulong Street and Bonegilla Road	Shared Path	2.5	775	193750	
19	Local	Ulong Street	Griffith	2.5m shared path between Wakaden Street and Railway Street along both sides.	Shared Path	2.5	90	22500	
20	Local	Yambil St	Griffith	1.2m foot path along the northern side of Yambil Street between Jondaryan Avenue and Bonegilla Road	Footpath	1.2	275	33000	
21	State	Banna Avenue	Griffith	Construction of a 2.5m wide shared path between Jondaryan Ave and Blumer Ave along both sides of Banna Ave	Shared Path	2.5	625	156250	
22	Local	Kooyoo Street	Griffith	Construction of a 1.2m wide footpath between Coolah St and Canal St along both sides of Kooyoo St	Footpath	1.2	125	15000	
23	Local	Bridge Road	Griffith	2.5m shared path along the southern side of Bridge Road from Jondaryan Avenue to Lenehan Rd	Shared Path	2.5	1000	250000	
24	Local	Wyangan Avenue	Griffith	Construction of a 2.5m wide shared path between Animoo Ave and Crump Cl along both sides of Wyangan Ave	Shared Path	2.5	1700	425000	part completed
25	State	Kidman Way	Griffith/Hanwood	Installation of a 2.5m wide shared path between Jondaryan Ave and Hanwood Ave along the eastern side of Kidman Way	Shared Path	2.5	2880	720000	Unsuccessful
26	Local	Probert Avenue	Griffith	Construction of a 2.5m wide shared path between Blumer Ave and Macarthur St along the southern side of Probert Ave	Shared Path	2.5	570	142500	
27	State	Kidman Way	Griffith	2.5m shared path along the eastern side of Kidman Way from Hanwood Avenue to Jack McWilliam Road	Shared Path	2.5	1700	425000	
28	Local	Noorla Street	Griffith	Construction of a 2.5m wide footpath between Kookora St and Goondooloo St along the northern side of Noorla St	Footpath	2.5	385	96250	
29	Local	Noorla Street	Griffith	Construction of a 2.5m wide shared path between Goondooloo St and Kennedy St along the northern side of Noorla St	Shared Path	2.5	820	205000	
30	Local	Goondooloo Street	Griffith	Construction of a 2.5m wide shared path between Cutler Ave and Noorla St along Goondooloo St	Shared Path	2.5	245	61250	
31	Local	Kennedy Street	Griffith	2.5m shared path along Kennedy Street from Noorla Street to Goolagong Street	Shared Path	2.5	250	62500	
32	Local	Blumer Avenue	Griffith	Construction of a 2.5m wide shared path between Banna Ave and Doolan Cres along Blumer Ave	Shared Path	2.5	1800	450000	part completed

PAMP Priority	Route Type	Location	Suburb	Description	Type	Width	Length (m)	\$	Status
33	Local	Poole Street	Griffith	Construction of a 2.5m wide footpath between Blumer Ave and Sanders St along Poole St	Shared Path	2.5	200	50000	
34	Regional	Wakaden Street	Griffith	Construction of a 2.5m wide shared path between Blumer Avenue and Clifton Bvd along the northern side of Wakaden St	Shared Path	2.5	640	160000	
35	Local	Canal Street	Griffith	2.5m shared path along the Southern Side of Canal street from Jondaryan Avenue to the existing bridge crossing	Shared Path	2.5	1100	275000	
36	Local	Canal Street	Griffith	Construction of a 1.2m wide footpath between Jondaryan Ave and Kooyoo St along the northern side of Canal St	Footpath	1.2	235	28200	
37	Local	Canal Street	Griffith	Construction of a 1.2m wide footpath between Yambil St and Daines St along the northern side of Canal St	Footpath	1.2	160	19200	
38	Local	Daines Street	Griffith	Construction of a 1.2m wide footpath between Yambil St and Canal St along the western side of Daines St	Footpath	1.2	95	11400	
39	Local	Murrumbidgee Avenue	Griffith	Construction of a 2.5m wide shared path between Kookora St and the Showground and between Merrigal St and Foreshaw Ave along the western side of Murrumbidgee Ave	Shared Path	2.5	800	200000	part completed
40	Local	Murrumbidgee Avenue	Griffith	Construction of a 1.2m wide footpath between Kookora St and Taylor Rd along the eastern side of Murrumbidgee Ave	Footpath	1.2	520	62400	
41	State	Griffin Aveune	Griffith	Construction of a 2.5m wide shared path between Kookora St and Harward Rd along the southern side of Griffin Ave	Shared Path	2.5	535	133750	part completed
42	State	Griffin Aveune	Griffith	Construction of a 1.2m wide footpath between Kookora St and Benerembah St along the southern side of Griffin Ave	Footpath	1.2	110	13200	
43	State	Benerembah Street	Griffith	1.2m foot path along the outer diameter of Benerembah Street from Banna Avenue to Koorinal Avenue	Footpath	1.2	800	96000	
44	State	Mirrool Avenue (Burley Griffin Way MR84)	Yenda	Installation of a 2.5m wide shared path between Dredge Street and Twigg Rd along the western side of Mirrool Ave	Shared Path	2.5	960	240000	
45	Local	Twigg Road	Yenda	Installation of a 2.5m wide shared path between Mirrool Ave and Wade Park along the western side of Twigg Rd	Shared Path	2.5	215	53750	
46	Local	Short Street	Yenda	Construction of a 1.2m wide footpath between Mirrool Ave and South Ave along the eastern side of Short St	Footpath	1.2	35	4200	
47	Local	South Avenue	Yenda	Construction of a 1.2m wide footpath between Short St and Yenda PI along the eastern side of South Ave	Footpath	1.2	155	18600	
48	Local	Yenda Place	Yenda	Construction of a 1.2m wide footpath between South Ave and East Ave along the eastern side of Yenda PI	Footpath	1.2	90	10800	
49	Local	East Avenue	Yenda	Construction of a 1.2m wide footpath between Yenda PI and Mirrool Ave along the western side of East Ave	Footpath	1.2	145	17400	
50	Local	East Street	Yoogali	Construction of a 1.2m wide footpath between Burley Griffin Way and Moura St along the western side of East St	Footpath	1.2	200	24000	
51	Local	Boonah Street	Griffith	Construction of a 2.5m wide shared path between Macarthur St to Ortella St along the western side of Boonah St	Shared Path	2.5	240	60000	part completed
52	Local	Konoa Street	Griffith	Construction of a 1.2m wide footpath between Animoo Ave and Ortella St along western side of Konoa St	Footpath	1.2	450	54000	
53	Regional	Rankins Springs Road	Beelbangera	Construction of a 2.5m wide shared path between Rifle Range Rd and Beelbangera Rd along the western side of Rankins Springs Rd	Shared Path	2.5	620	155000	
54	Regional	Rankins Springs Road	Beelbangera	Construction of a 2.5m wide shared path between Beelbangera Rd and the Beelbangera Public School along the southern side of Rankins Springs Rd	Shared Path	2.5	165	41250	
55	State	Jondaryan Avenue	Griffith	Construction of a 2.5m wide shared path between Banna Ave and the Kidman Way along both sides of Jondaryan Ave	Shared Path	2.5	990	247500	part completed
56	State	Jondaryan Avenue	Griffith	2.5m Shared path along the western side of Jondaryan Avenue between Willandra Avenue and Stafford Road	Shared Path	2.5	460	115000	
57	Local	Kookora Street	Griffith	2.5m wide shared path along the outer diameter of Kookora Street between Griffin Avenue and Koorinal Avenue	Shared Path	2.5	700	175000	
58	State	Mackay Avenue	Griffith/Yoogali	Installation of a 2.5m wide shared path between Blumer Ave and Burley Griffin Way along both sides of Mackay Ave	Shared Path	2.5	2100	525000	
59	State	Burley Griffin Way	Yoogali	Installation of a 2.5m wide shared path between Mackay Ave and McCormack Rd along the western side of Burley Griffin Way	Shared Path	2.5	820	205000	
60	Local	Koorinal Avenue	Griffith	Construction of a 1.2m wide footpath between Benerembah Ln and Kookora St along the western side of Koorinal Ave	Footpath	1.2	45	5400	
61	Local	Clifton Boulevard	Griffith	Construction of a 2.5m wide shared path between Wakaden St and Rifle Range Rd along the western side of Clifton Bvd	Shared Path	2.5	3000	750000	part completed
62	Local	School Street	Hanwood	1.2m foot path along the northern side of School Street between Hanwood Road and Ash St	Footpath	1.2	255	30600	
63	Local	Wilga Street	Hanwood	1.2m foot path along the southern side of Wilga Street between Hanwood Road and Ash Street	Footpath	1.2	255	30600	
64	Local	Ash Street	Hanwood	Construction of a 1.2m wide footpath between Wilga Street and School Street	Footpath	1.2	140	16800	
65	Local	Yarran Street	Hanwood	Construction of a 1.2m wide footpath between School St and Club St along the northern side of Yarran St	Footpath	1.2	395	47400	
66	State	Hanwood Road	Hanwood	1.2m foot path between Leonard Road and Hanwood Avenue along the western side of Hanwood Road	Footpath	1.2	320	38400	
67	Local	Gorton Street	Yoogali	Construction of a 1.2m wide footpath between Edon St and Henderson Oval along the eastern side of Gorton St	Footpath	1.2	435	52200	

PAMP Priority	Route Type	Location	Suburb	Description	Type	Width	Length (m)	\$	Status
68	Local	Moura Street	Yoogali	Construction of a 2.5m wide shared path between East St and Hebden St along the southern side of Moura St	Shared Path	2.5	170	42500	
69	Local	McCudden Street	Griffith	Construction of a 2.5m wide shared path between Poole Street and Clifton Boulevard.	Shared Path	2.5	210	52500	
70	Local	Watson Road	Griffith	Construction of a 1.2m wide footpath between Murrumbidgee Ave and Walla Ave along southern side of Watson Rd	Footpath	1.2	630	75600	
71	Local	Heath Crescent	Griffith	Construction of a 1.2m wide footpath between Raphael Walkway and Middleton Ave along the northern side of Heath Cr	Footpath	1.2	115	13800	
72	Local	Middleton Avenue	Griffith	Construction of a 1.2m wide footpath between Heath Cr and Watson Rd along the western side of Middleton Ave	Footpath	1.2	140	16800	
73	Local	Ortella Street	Griffith	Construction of a 2.5m wide shared path between Wyangan Avenue and Noorilla Street.	Shared Path	2.5	1030	257500	
74	Local	Campbell Street	Griffith	Construction of a 2.5m wide shared path between Ortella St and Goondooloo St along the northern side of Campbell St	Shared Path	2.5	300	75000	
75	Local	Cutler Avenue	Griffith	Construction of a 2.5m wide shared path between Koorungal Ave and Goondooloo St along the northern side of Cutler Ave	Shared Path	2.5	730	182500	
76	Local	Whitton Street	Griffith	Construction of a 1.2m wide footpath between Wakaden St and Hyandra St along the western side of Whitton St	Footpath	1.2	220	26400	
77	Local	Hyandra Street	Griffith	Construction of a 1.2m wide footpath between Whitton St and Noorebah Ave along Hyandra St	Footpath	1.2	85	10200	
78	Local	Wakaden Street	Griffith	2.5m shared path along the northern side of Wakaden street from Curtain Street to Koorungal Avenue	Shared Path	2.5	1380	345000	
79	Local	Wakaden Street	Griffith	2.5m shared path along the southern side of Wakaden street from Crossing to Illiliwa	Shared Path	2.5	150	37500	
80	Local	Robb Park	Griffith	Construction of a 2.5m wide shared path between Macarthur St and Illiliwa St through Robb Park	Shared Path	2.5	205	51250	
81	Local	Illiliwa Street	Griffith	Construction of a 2.5m wide shared path between Robb Park and Macarthur St along Illiliwa Street	Shared Path	2.5	235	58750	
82	Local	Hyandra Street	Griffith	1.2m foot path along Hyandra Street from Whitton Street to Illiliwa Street	Footpath	1.2	580	69600	
83	Local	Illiliwa Street	Griffith	Construction of a 2.5m wide shared path between Robb Park and Wakaden St	Shared Path	2.5	240	60000	
84	Local	McNabb Crescent	Griffith	Construction of a 2.5m wide shared path between Macarthur St and Blumer Ave along the northern side of McNabb Cr	Shared Path	2.5	1065	266250	
85	Local	Walla Avenue	Griffith	Construction of a 2.5m wide footpath between Kookora St and Middleton Avenue along the eastern side of Walla Ave	Shared Path	2.5	1000	250000	
86	Local	Yoolooma Street	Griffith	Construction of a 1.2m wide footpath on both sides of Yoolooma Street between Kooba Street and Macarthur Street	Footpath	1.2	200	24000	
87	Local	Macarthur Street	Griffith	Construction of a 2.5m wide footpath between the Circle and Boonah St along the both sides of Macarthur St	Shared Path	2.5	430	107500	
88	Local	The Circle	Griffith	Construction of a 2.5m wide shared path between Boyana St and Macarthur St along the southern side of the Circle	Shared Path	2.5	160	40000	
89	Local	Boyana Street	Griffith	Construction of a 2.5m wide footpath between Wyangan Ave and the Circle along both sides of Boyana St	Shared Path	2.5	115	28750	
90	Local	Speirs Street	Griffith	Construction of a 1.2m wide footpath between Probert Ave and Wakaden St along eastern side of Speirs St	Footpath	1.2	380	45600	
91	Local	Main Canal Reserve (Recreational Path)	Griffith	2.5m recreational path following the length of Canal from Kookora Street to Mackay Avenue. Continue following the Canal Along Macedone Rd from Mackay Avenue to Calabria Road	Shared Path	2.5	3700	925000	
92	Local	Lenehan Road	Griffith	2.5m shared path along the western side of Lenehan Road from Bridge Road to Oakes Road	Shared Path	2.5	600	150000	
93	Local	Jones Road	Lake Wyangan	Construction of a 2.5m wide shared path between Lakes Rd and the existing shared path along the northern side of Jones Rd	Shared Path	2.5	580	145000	
94	Local	Lake Wyangan Shared Path	Lake Wyangan	Construction of a 2.5m wide shared path around the shore of the North Lake. Beginning from Jones Rd and extending around through the Lake Wyangan Picnic Area to Lakes Rd	Shared Path	2.5	5570	1392500	
95	Local	Lakes Road	Lake Wyangan	Construction of a 2.5m wide shared path between the Lake Wyangan Picnic Area and Jones Rd along the eastern side of Lakes Rd	Shared Path	2.5	1920	480000	
96	Local	Boorga Road	Griffith	2.5m shared path from the existing shared path to the intersection of Boorga Road and Jones Road (small length of path)	Shared Path	2.5	250	62500	
97	Local	Remembrance Drive	Griffith	Construction of a 2.5m wide shared path between Noorilla St and Scenic Dr along the southern side of Remembrance Dr	Shared Path	2.5	350	87500	
98	Local	Burley Street	Griffith	1.2m footpath along the southern side of Burley Street between Clifton Blvd and Sanders Street	Footpath	1.2	650	78000	
99	Local	Coolah Street	Griffith	Construction of a 1.2m wide footpath between Jondaryan Ave and Murrumbidgee Ave along the southern side of Coolah Street	Footpath	1.2	1250	150000	
100	Local	Oakes Road	Griffith	2.5m Shared Path from Jondaryan Avenue to Kurrajong Avenue along both sides of Oakes Road	Shared Path	2.5	6200	1550000	
101	Local	Stafford Road	Griffith	2.5m Shared path along the Northern side of Stafford Rd from Jondaryan Avenue to Murrumbidgee Avenue	Shared Path	2.5	1180	295000	
102	Local	Calabria Road	Griffith	Construction of a 2.5m wide shared path between Clifton Bvd and Rankins Springs Rd along the northern side of Calabria Rd	Shared Path	2.5	800	200000	
103	Local	Hillam Drive	Griffith	Construction of a 2.5m wide shared path between Clifton Bvd and the existing shared path along the northern side of Hillam Dr	Shared Path	2.5	275	68750	
104	Local	Hillam Drive	Griffith	Construction of a 1.2m wide footpath between the existing shared path and Antonio Pl along the western side of Hillam Dr	Footpath	1.2	640	76800	

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105	Local	Hillam Drive	Griffith	Construction of a 2.5m wide shared path between Antonio Pl and Clifton Bvd along the southern side of Hillam Dr	Shared Path	2.5	220	55000	
106	Local	DeLuca Road	Tharbogang	2.5m shared path along the eastern side of DeLuca Road between Kidman Way and Dunn Street	Shared Path	2.5	120	30000	
107	Local	Braithwaite Road	Tharbogang	2.5m shared path along the eastern side of Braithwaite Road between White Road and Kidman Way	Shared Path	2.5	860	215000	
108	Local	Hickey Crescent	Griffith	Construction of a 1.2m wide footpath between Probert Ave and Wakaden St along the western side of Hickey Cr	Footpath	1.2	300	36000	
109	Local	Barellan Street	Griffith	Construction of a 1.2m wide footpath between Macarthur St and Carrathool St along the eastern side of Barellan St	Footpath	1.2	150	18000	
110	Local	Noorebah Avenue	Griffith	Construction of a 1.2m wide footpath between Hyandra St and Carrathool St along the eastern side of Noorebah Ave	Footpath	1.2	105	12600	
111	Local	Sanders Street	Griffith	Construction of a 2.5m wide shared path between Clifton Bvd and Citrus road	Shared Path	2.5	450	112500	
112	Local	Rankins Springs Road	Griffith	2.5m shared path from Wakaden Street to Rifle Range Road along Rankins Springs Rd	Shared Path	2.5	4000	1000000	
113	Local	Bonegilla Road	Griffith	Construction of a 1.2m wide footpath between Twigg St and Banna Ave along Bonegilla Rd	Footpath	1.2	200	24000	
114	Local	Macarthur Street	Griffith	Construction of a 1.2m wide footpath between Illiliwa St and Wakaden St along the eastern side of Macarthur St	Footpath	1.2	255	30600	
115	Local	Robertson Street	Griffith	Construction of a 1.2m wide footpath between Clifton Bvd and Nicholls St along the western side of Robertson St	Footpath	1.2	480	57600	
116	Local	Nicholls Street	Griffith	Construction of a 1.2m wide footpath between Clifton Bvd and Alexander St along the eastern side of Nicholls St	Footpath	1.2	700	84000	
117	Local	Alexander Street	Griffith	Construction of a 1.2m wide footpath between Nicholls St and Manera St along the southern side of Alexander St	Footpath	1.2	160	19200	
118	Local	Manera Street	Griffith	Construction of a 2.5m wide shared path between Alexander St and Clifton Bvd along the southern side of Manera St	Shared Path	2.5	215	53750	
119	Local	Kelly Avenue	Griffith	Construction of a 1.2m wide footpath between Ortella St and Wood Rd along the western side of Kelly Ave	Footpath	1.2	360	43200	
120	Local	Wood Road	Griffith	Construction of a 1.2m wide footpath between Kelly Ave and Wyangan Ave along the western side of Wood Rd	Footpath	1.2	490	58800	
121	Local	North Grove Drive	Griffith	Construction of a 1.2m wide footpath between Wyangan Ave and Kinkead Park along the northern side of North Grove Dr	Footpath	1.2	305	36600	
122	Local	Kinkead Park	Griffith	Construction of a 1.2m wide footpath between North Grove Dr and Dickson Rd through Kinkead Park	Footpath	1.2	95	11400	
123	Local	Dickson Road	Griffith	Construction of a 1.2m wide footpath between Kinkead Park and Wyangan Ave along the southern side of Dickson Rd	Footpath	1.2	170	20400	
124	Local	Noorilla Street	Griffith	Construction of a 1.2m wide footpath between Campbell St and Wyangan Ave along Noorilla St	Footpath	1.2	195	23400	
125	Local	Noorilla Street	Griffith	Construction of a 2.5m wide shared path between Boonah St and Mallinson Street along Noorilla St	Shared Path	2.5	95	23750	
126	Local	Noorilla Street	Griffith	1.2m footpath along the Northern side of Noorilla Street between Wyangan Avenue and Boonah Street	Footpath	1.2	950	114000	
127	Local	Nyora Street	Griffith	Construction of a 1.2m wide footpath between Noorilla Street and The Circle along the eastern side of Nyora Street.	Footpath	1.2	60	7200	
128	Local	The Circle	Griffith	Construction of a 1.2m wide footpath between Nyora St and Macarthur St along the northern side of the Circle	Footpath	1.2	110	13200	
129	Local	Groongal Avenue	Griffith	Construction of a 1.2m wide footpath between Cutler Ave and Wyangan Ave along the western side of Groongal Ave	Footpath	1.2	405	48600	
130	Local	Park Street	Yenda	2.5m shared path between West Ave and Henry Street along the Western side of Park Street	Shared Path	2.5	130	32500	
131	Local	Bingar Street	Yenda	Construction of a 1.2m wide footpath between West Ave and Pre-school along the western side of Bingar St	Footpath	1.2	235	28200	
132	Local	Bingar Street	Yenda	2.5m shared path along the western side of Bingar Street between Mirrool Avenue and Short Street	Shared Path	2.5	140	35000	
133	Local	Ellimo Street	Griffith	Construction of a 2.5m wide shared path between Yarrabee St and Kywong St.	Footpath	1.2	140	16800	
134	Local	Henry Street	Yenda	2.5m shared path along the southern side of Henry Street between Park Street and Bingar Street	Shared Path	2.5	150	37500	
135	Local	Yarrabee Street	Griffith	Construction of a 1.2m wide footpath between Merrigal St and Griffin Ave along the western side of Yarrabee St	Footpath	1.2	500	60000	
136	Local	Off Road Shared Path	Griffith	Construction of a 1.2m wide shared path between Ellimo St and Kookora St along through the Canal reserve	Footpath	1.2	175	21000	?
137	Local	Altin Street	Griffith	Construction of a 1.2m wide footpath between Blumer Ave and the existing footpath along the southern side of Altin St.	Footpath	1.2	100	12000	
138	Local	Merrowie Street	Griffith	Construction of a 1.2m wide footpath between Merrigal St and Yarrabee St along the northern side of Merrowie St	Footpath	1.2	230	27600	
139	Local	Harward Road	Griffith	Construction of a 1.2m wide shared path between Griffin Ave and Spence Rd along the eastern side of Harward Rd	Footpath	1.2	510	61200	
140	Local	Spence Road	Griffith	Construction of a 1.2m wide footpath between Harward Rd and Walla Ave along the northern side of Spence Rd	Footpath	1.2	240	28800	
141	Local	Moses Street	Griffith	1.2m foot path between Merrigal Street and Harward Road along the southern side	Footpath	1.2	100	12000	
142	Local	Erskine Road	Griffith	1.2m foot path between Walla Avenue and Moses Street on the western side	Footpath	1.2	380	45600	

PAMP Priority	Route Type	Location	Suburb	Description	Type	Width	Length (m)	\$	Status
143	Local	Langley Crescent	Griffith	Construction of a 1.2m wide footpath between Probert Ave and Blumer Ave along eastern side of Langley Cr	Footpath	1.2	500	60000	
144	Local	Citrus Road	Griffith	Construction of a 2.5m wide shared path between Sanders St and Gillmartin along the northern side of Citrus Rd.	Shared Path	2.5	785	196250	
145	Local	Citrus Road	Griffith	Construction of a 2.5m wide shared path between Gillmartin Dr and Rifle Range Rd along the northern side of Citrus Rd	Shared Path	2.5	1640	410000	
146	Local	Gibbs Street	Griffith	Construction of a 1.2m wide footpath between Probert Ave and McNabb Cr along the eastern side of Gibbs St	Footpath	1.2	260	31200	
147	Local	Hart Street	Griffith	Construction of a 1.2m wide footpath between Probert Ave and McNabb Cr along the western side of Hart St	Footpath	1.2	300	36000	
148	Local	Todd Road	Lake Wyangan	Construction of a 1.2m wide footpath between Boorga Rd and Mason St along the northern side of Todd Rd	Footpath	1.2	210	25200	
149	Local	Polkinghorne Street	Griffith	Construction of a 2.5m wide shared path between the existing shared path and Haines St along the western side of Polkinghorne St	Shared Path	2.5	85	21250	
150	Local	Haines Street	Griffith	Construction of a 2.5m wide shared path between Polkinghorne St and Clifton Bvd along the southern side of Haines St	Shared Path	2.5	215	53750	
151	Local	Gillmartin Drive	Griffith	Construction of a 2.5m wide shared path between Citrus Rd and the existing shared path along the northern side of Gillmartin Dr	Shared Path	2.5	120	30000	
152	Local	Gillmartin Drive	Griffith	Extension of the existing 2.5m shared path along the southern side of Gillmartin Drive to Haines Street	Shared Path	2.5	350	87500	
153	Local	Madden Drive	Griffith	1.2m foot path along the southern side of Madden Drive between Hillam Drive and the end of Madden Drive	Footpath	1.2	640	76800	
154	Local	Locklea Park	Griffith	1.2m foot path in the middle of Locklea Park meeting up with the 1.2m path on Little Road.	Footpath	1.2	640	76800	
155	Local	Little Road	Griffith	1.2m foot path between Middleton Ave and Evanside Parade along the northern side	Footpath	1.2	230	27600	
156	Local	Ledgerwood Street	Griffith	1.2m foot path along the western side of Ledgerwood Street between Blumer Park and Ledgerwood Park	Footpath	1.2	250	30000	
157	Local	Kookora Street	Griffith	1.2m foot path along the southern side of Kookora Street between Griffin Avenue and Koorungal Avenue	Footpath	1.2	600	72000	
158	State	Burley Griffin Way	Bilbul	2.5m shared path along the northern side of Burley Griffin way between Canal Street and Bilbul Road	Shared Path	2.5	1000	250000	
159	Local	The Crescent	Bilbul	Construction of a 1.2m wide footpath between Mirrool St and Bilbul Public School along the western side of the Crescent	Footpath	1.2	250	30000	
160	Local	Watkins Avenue*	Griffith	Construction of a 2.5m wide shared path between Overs Road and Jondaryan Ave along both sides of Watkins Ave	Shared Path	2.5	2100	525000	
161	Local	Binya Street	Griffith	2.5m shared path along the southern side of Binya Street between Koorungal Avenue and Anzac Street	Shared Path	2.5	110	27500	
162	Local	Animoo Avenue	Griffith	1.2m foot path along the northern side of Animoo Avenue between Anzac Street to Kooba Street (clockwise direction)	Footpath	1.2	485	58200	
163	Local	Kooba Street	Griffith	1.2m foot path alon the northern side of Kooba Street between Animoo Avenue and Boonah Street	Footpath	1.2	380	45600	
164	Local	Railway Parade	Yenda	2.5m shared path along the southern side of Railway parade between Myall Park Road and Mirrool Avenue	Shared Path	2.5	1270	317500	
165	Local	Clifton Boulevarde	Griffith	Construction of a 2.5m wide shared path between Wakaden St and Haines Street along the eastern side of Clifton Blvd	Shared Path	2.5	2500	625000	
166	Local	Beelbanger Rd	Griffith	2.5m on road cycleway on both sides of Beelbanger Rd from Rankins Springs Road to Myall Park Road	On road Cycleway	2.5	8600	2150000	
167	State	Burley Griffin Way	Griffith	2.5m on road cycleway on both sides of Burley Griffin Way from McCormack Road to Whitton Road	On road Cycleway	2.5	10600	2650000	
168	State	Kidman Way (Hillston Rd)	Griffith	2.5m on road cycleway on both sides of Kidman Way from Harward Road to Braithwaite Road	On road Cycleway	2.5	6500	1625000	
169	Local	Kurrajong Avenue	Griffith	Construction of a 2.5m wide cycleway between Mackay Ave and Watkins Ave along the western side of Kurrajong Ave	On road Cycleway	2.5	2110	527500	
170	Local	Lakes Road	Griffith	2.5m on road cycleway on both sides of Lakes Road from Jones Road to Kidman Way	On road Cycleway	2.5	3500	875000	
171	Local	Rifle Range Road	Griffith	2.5m on road cycleway on both sides of Rifle Range Road from Jones Road to Scenic Drive	On road Cycleway	2.5	3000	750000	

PAMP Priority	Route Type	Location	Suburb	Description	Type	Width	Length (m)	\$	Status
172	Local	Rifle Range Road	Griffith	Construction of a 2.5m wide shared path between Scenic Dr and Rankins Springs Rd along the southern side of Rifle Range Rd	Shared Path	2.5	1740	435000	
173	Local	Scenic Drive	Griffith	Construction of a 2.5m wide shared path between Remembrance Dr and Rifle Range Rd along the eastern side of Scenic Dr	Shared Path	2.5	4745	1186250	
174	Local	Abattoir Road	Griffith	2.5m shared path along the Canal Adjacent to Abattoir Road meeting up with the existing shared path on Wyangan Avenue	Shared Path	2.5	1000	250000	

The General Manager

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Griffith

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27/02/2017

Griffith Pedestrian & Cycleway Plan Review

Dear Sir,

I would like to make the following submission on the "Griffith Pedestrian & Bicycle Strategy" currently open for comment. In particular I would like to comment on the proposal for a proposed "Shared cycle and footpath" on both sides of Willandra Avenue from Jondaryan Avenue to Kookora Street.

I note in the plan :

- Willandra Avenue is designated as a primary route under the plan
- Various other Primary Routes in the Plan have "Shared cycle & footpaths" on only one side of the Road, this includes parts of The Kidman Way and Mackay Avenue
- The plan recommends pedestrian crossing at each intersection along the Kidman Way and that the intersection of the Kidman Way and Willandra Avenue being identified as a possible location for a overpass/underpass
- There is an existing pedestrian island at the corner of Willandra Avenue and Ulong Street
- It is estimated that it will take almost 200 years to complete the construction of the entire PAMP in its current format

It has also been stated that the reason for the proposed Shared cycle & footpaths on both sides of Willandra Avenue is due to the fact that this Road is currently gazetted as a B-Double & Road Train Route, which makes crossing Willandra Avenue for pedestrians & cyclists problematic. Under the "Griffith Heavy Vehicle Strategy" Willandra Avenue will no longer be used by heavy vehicles as a bypass route through the city with the construction of the City's Southern bypass along Thorne Road. This is considered to negate the need for the Shared cycle and footpath on both sides of Willandra Avenue.

Currently the southern side of Willandra Avenue has:

- a major residential development under construction ("Willandra Gardens") which includes the construction of a 2.5 m wide shared cycle and footpath for approximately 200m
- a separate sealed service roadway with 15m of unformed road reserve suitable for a footpath from Ulong Street to Belford Road, approximately 300m
- predominately consists of residential properties

- Is a major pedestrian route from the Griffith High School to the Griffith HomeTown complex which includes a Cinema & a Bowling Alley complex on the south eastern side of the Kidman Way.
- Has another major development under consideration (Kissel's land) at the eastern end of Willandra Avenue which could incorporate a footpath pedestrian access along it's frontage that would provide almost uninterrupted pedestrian access from the Griffith High School to the Kidman Way
- A shared footpath and a recently constructed pedestrian bridge linking Griffith High School with City Park and Kookora Street

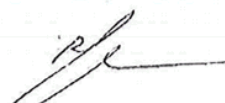
The northern side of Willandra Avenue currently has:

- A large proportion of Light Industrial business's that are already established and not likely to contribute to the construction of footpaths in front of their properties
- Reduced pedestrian traffic in comparison to the southern side

In addition:

- I currently have a DA lodged at council to subdivide 4 Light industrial lots fronting Willandra Avenue. This area is zoned "Mixed Use" and "Service Industry" and currently has 4 established businesses and although on one title is rated as 3 separate parcels
- Within the area I have 2 buildings that have been constructed, with consent from Council, to the Road reserve boundary. At these locations the existing road formation is up to 0.5m higher than buildings floor levels and the construction of a footpath as per the recommended guidelines in the strategy would be physically impossible.

For the above reason I would suggest that Council review the Strategy and change the proposed "Shared cycle and footpath" along Willandra Avenue from The Kidman Way to Kookora Street to the southern side of Willandra Avenue only. With the imminent completion of the city's southern bypass the number of heavy vehicles travelling along Willandra Avenue is expected to reduce significantly. The construction of a shared path on just the southern side of Willandra Avenue would meet all of the goals of the Strategy.



Yours

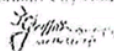
Brett Polkinghorne

Registered: 02/03/2018 Record No: 18/16434



Griffith North Public School

Griffith City Council



2 MAR 2018

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Dear, Mr Stonestreet

RE: Submission from Griffith North Public School P&C Association regarding the draft Griffith Pedestrian & Bicycle Strategy 2017

The Griffith North Public School P&C have reviewed the Draft Griffith Pedestrian & Bicycle Strategy 2017 and wish to commend Council on a comprehensive strategy to provide safe public access though-out the city and surrounds.

We have specifically reviewed the footpaths immediately surrounding the North Griffith Public School and wish to request the following additional paths be considered in the final strategy (see attached image):

1. Yoolooma Street from Kooba Street to Macarthur Street, east side nature strip – Shared Path
2. Yoolooma Street from Kooba Street to Macarthur Street, west side nature strip – Footpath
3. Short connecting path from the infant's school gate to the school crossing and west Yoolooma Street footpath.

We have requested these three paths, as we consider them to be essential to aid the passage of flow of school children and parents to and from the school daily. These footpaths will link the already proposed footpath and shared path on Kooba and Macarthur Streets respectively.

Currently students are accessing the western side of the school adjoining the Infant's playground, without any footpaths. There are many traffic issues in the locality particularly in relation to parking around the school. As a result, parking spaces are utilised in all the streets surrounding the school including Kooba, Yoolooma and Macarthur. It is hoped that the addition of these three proposed footpaths will improve safety and accessibility by providing a pedestrian link to the surrounding streets.

Please consider our submission and feel free to contact us via the school or visit our school at 3:10pm on a school afternoon to view pedestrian behaviour and use of this area.

Thankyou

Steve Mitchell

Vice President

GNPS P&C Association



Education

Hi Brett

This looks good to me.

The only comment I would make is to replace priority number 11 (Benerembah Street - no one really would use that in my opinion). Instead, I think you should insert a new Priority 11 - being the upgrade of the existing footpath along the Eastern side of Walla Avenue from Kookora St to Watson Rd (and perhaps some other footpath work in and around Pioneer like along Watson Rd up to Dorothy Wade Childcare Centre). I suggest this because the current footpath doesn't connect to Kookora St properly and its not wide enough. Also, I would imagine that residents in that part of Griffith have less access to cars for transport so footpaths/cycleways are important.

Also, the share footpath along Jondaryan Ave where it intersects with Bridge Rd needs upgrading as does the very short section from Bridge St to Griffith Central

Other than that all good

Can this be counted as my submission?

Adrian Piccoli