The Rural City of MURRAY BRIDGE

Bridge to Opportunity

Footpath Network Strategy 2017

"Paving the way Forward"

Author: Matt James
Date: 1 June 2017

Introduction

Footpaths play an important role within the Rural City of Murray Bridge, providing a means of access to community facilities, services, and open space. The provision of footpaths make communities more livable and better connected as well as encouraging healthier and more physically active people.

Many areas in the Rural City of Murray Bridge are well suited to walking. Geographically our region is relatively flat and the natural environment and climate makes Murray Bridge and surrounding areas ideal locations for walking and cycling.

In 2016 Council undertook a gap analysis of the existing footpath network in Murray Bridge and surrounding townships. This analysis highlighted the deficiencies in the existing networks and prompted immediate action.

A high proportion of residential streets within Murray Bridge and surrounding towns are without an all-weather sealed footpath (concrete, asphalt, or brick paved).

Since 2013 the Rural City of Murray Bridge has expanded its footpath network at a rate of $200,000 per annum which clearly does not meet the expectations of a growing community. This average is also skewed with significant work being undertaken in 2014 when $450,000 was spent by Council on new footpath infrastructure.

This Footpath Network Strategy provides guidance and structure that will enable Council to responsibly and systematically expand its network without placing significant financial burden on the community and will provide a prioritised program to deliver up to five kilometers of all-weather footpaths per annum for the next 10 years.

Objectives

The objectives of the Footpath Network Strategy are to:

- Promote and encourage walking as a sustainable and preferred mode of transport for short trips to work, shops, school and for recreation
- Reduce the risk of conflict between pedestrians and motor vehicles
- Improve the amenity, accessibility and safety of the footpath network so it is accessible for all users.
- Minimise the removal of significant vegetation through responsible design and construction of new footpaths.
- Where possible make use of environmentally suitable materials, recycled materials and materials sympathetic to the environment in which it is to be installed.
- Establish criteria to guide the development of new footpaths, which proposes the construction of a footpath on at least one side of most residential roads.
- Prioritise the construction of new footpaths through selection criteria that considers schools, medical facilities, pedestrian linkages and volume, shopping precincts and local area demographics (aged/young)
- Include provision in the Council's Long-Term Financial Plan to complete the development of the pedestrian footpath network in a financially sustainable manner.

Existing footpath network

Currently, the Rural City of Murray Bridge pedestrian footpath network incorporates approximately 230 km of footpaths constructed from concrete, block paving, bitumen and rubble, valued at approximately $16.5M. The footpaths are located in the urban areas of the City, along roads, river corridors and through reserves.

Information pertaining to footpaths is stored in Council's Asset Management Database and the Geographical Information System (GIS).

The GIS has enabled the existing footpaths throughout the City to be represented on a map based system, and provides the means for administration staff to undertake desktop analysis and mapping to plan for the provision of new footpaths.

The existing footpath network length, by material type, is listed in the table below.

Footpath material	Length	% of Network
Concrete paths	47,218	20%
Block paved paths	5,475	2%
Asphalt	260	<1%
Spray seal	1,762	<1%
Unsealed (Scalp/rubble/landscaped)	174,359	76%
TOTAL	**229,074**	

With 76% of our footpath network consisting of unsealed surfaces (scalp, rubble, landscape or no surface) it is recommended that significant work is required to be undertaken by Council to lift the standard of its footpaths and provide all weather pedestrian access throughout the towns

Pedestrian Footpath Network – Guidelines

Guidance for road designers and other practitioners on the design of footpaths for safe and efficient walking and cycling is provided in the *Australian Guide to Road Design – Part 6A: Pedestrian and Cycle Paths.*

The Austroads Guide provides the following general principles relating to the provision of footpaths:

- In general, all roads should have some type of walking facility out of the vehicle path. An exception may be categories of road that have a very low volume and low operating speed (i.e. <40 km/h) such as minor access roads

- The need for footpaths should also be related to the pedestrian network functional requirements. For example, the presence of pedestrians on many rural roads is a rare event and the provision of paths is not economically justified. In this situation the provision of road shoulders will provide space for a pedestrian who happens to use the road. On the other hand, all roads that have a moderate to high speed (i.e. >40 km/h) and significant pedestrian activity should be provided with footpaths because of the high risk of serious injury should a pedestrian be struck by a vehicle

- Pedestrian volumes are not regularly collected by most agencies and cannot be easily forecast. Development density can be used as a surrogate for pedestrian usage in determining the need for footpaths

- A higher road functional classification in urban areas generally means higher traffic speeds and volumes, hence a need to provide for pedestrian mobility and safety. However, some roads classified as local streets also function as traffic routes and have similar needs

- Collector and arterial roads in the vicinity of schools should be provided with

footpaths and desirably off-road cycle paths, shared or segregated footpaths, to increase safety for children travelling to and from school. Safe routes to school can also reduce reliance on car travel for school trips and have health and environmental benefits

- Many people with disabilities undertake much of their travel either on foot, in wheelchairs or on personal mobility devices (e.g. scooters) and so the development of a network of adequate footpaths is important for their mobility. The provision of footpaths that meet recommended dimensions, surface requirements, and which are free of obstructions is important to ensure that they do not represent a hazard for people who have difficulty in detecting or maneuvering around obstacles

- The use of electric powered scooters has emerged as an alternative means of transport for people with mobility impairment or other health issues and is likely to grow as the population ages. It is therefore important that paths and associated facilities can accommodate this type of use.

Criteria

The following criteria and general principles are recommended to guide the development of new footpaths throughout the City.

Footpath Constructed on One Side of a Road

AMCORD – A national resource document for residential development also provides guidance for the provision of footpaths. In general, a footpath is desirable on roads with vehicular volumes greater than 300 vehicles per day (vpd).

Typically, traffic volumes in a cul-de-sac less than 100m in length will be less than 300 vpd, and will not be provided with a footpath unless the cul-de-sac leads to a walkway, school or other facility and attracts a significant number of pedestrians.

Footpath Constructed on Both Sides of a Road

As a general principle, consideration will be given to constructing footpaths on both sides of a road where the annual average daily traffic volume is greater than 3,000 vehicles per day, along bus routes and in areas where the land use generates high pedestrian activity such as in the vicinity of schools, retail precincts, major sporting grounds and other public facilities.

Material Type

Council uses a number of material types such as concrete, block paving, bitumen and rubble. The selection of one material over another will depend on site specific circumstances including the desired level of amenity and future renewal and maintenance considerations.

It is proposed that Council will continue to use a range of different material types,

acknowledging the majority of new paths will be constructed with concrete and block paving.

Location

The location of a footpath within a road will be selected to suit the topography so the path complies with the requirement for disability access (as far as practicable) and minimises disturbance to vegetation, impact on adjoining properties and existing utility services such as electricityand telecommunications.

Width

The minimum width required for a footpath to allow wheelchair access is 1.2m, albeit it is permissible for a path to be 0.9m at a 'squeeze point' such as adjacent a stobie pole.

Council's current Footpath and Cycle Paths Policy (Guidelines for the Provision of Infrastructure) has adopted a desirable minimum footpath width of 1.5m, which provides for two pedestrians to walk side-by-side. The presence of couples walking side by side is a common occurrence along paths. In high activity areas such as commercial and shopping areas wider footpath widths are likely to be necessary, as well as at locations of higher pedestrian activity such as school crossings, recreational facilities and in the regional centre.

It is recommended that Council maintain the minimum width of 1.5m for footpaths, where possible, and a minimum width of 2.5m for shared use paths, acknowledging in some circumstances wider paths are desirable where there is a high concentration of activity.

Pedestrian Footpath Provision and Cost

The location of the existing footpath network has been mapped using a Geographical Information System (GIS).

The GIS has been used to identify all the roads that do not have a footpath on one side of the road and roads which should desirably have a footpath on both sides due to either traffic volumes in excess of 3,000 vehicles/day; they provide for a bus service; or generate very high pedestrian activity due to the adjacent land use.

Approximately 100 km of the urban road network (including Rural Townships) has been identified as not having an all-weather footpath provided on at least one side of the road, or where desirable, on both sides.

Approximately 1.4km of the road network are a cul-de-sac less than 100m in length (less than 300 vpd) and 30 km of the road network are in rural areas, where it is not desirable to construct footpaths due to the site conditions and low pedestrian numbers.

The length of footpath to be constructed under the Footpath Construction Strategy is approximately 45km.

The cost of constructing 48.6km of footpath using either concrete or block paving is estimated at $5.35 million (based on a 1.5m wide footpath at $110/m in 2016).

Based on Councils current budget allocation and making an allowance for CPI increase in construction the time to deliver this strategy will be between 11 and 12 years.

Prioritisation – Design and Maintenance Issues

The location of the existing footpath network has been mapped using a GIS.

The GIS enables the display of many different kinds of data on one map and enables Council to easily see, undertake analysis and understand relationships between different features and how they relate to each other.

For example, the footpath information includes location, material type, footpath width and condition. This information used in conjunction with other spatial data including the location of roads, schools, retail precincts, medical facilities, community centres, playgrounds and bus routes provides valuable information in planning for the provision of footpaths.

Due to the competing demands on Council's budget, the provision of footpaths need to be prioritised to maximise the benefit to the wider community, provide direction for installation of new footpaths and to justify the selection of footpath construction to residents and Elected Members.

Factors to consider in developing a prioritised hierarchy include:

- Road hierarchy – arterial, collector, local roads
- Land use/facility – education, medical, community centre, playground, sports ground, shopping precinct, aged care facility, reserves, residential, commercial
- Bus routes
- New popular locations
- Linkage to other footpaths and trails
- Pedestrian catchment – route most likely travelled to provide greater amenity – consider elderly and children
- Topography/sight distance
- Construction feasibility – vegetation and other infrastructure restricting or compromising the geometry

- Construction costs – improve mobility and access and prioritise particular areas
- Trafficable verge area – non-trafficable/ trafficable.
- Approved and future developments, which may either require the construction of footpath infrastructure (which may need to be linked to other existing footpath infrastructure elsewhere in the locality) or result in increases in demand for such infrastructure

Council will continue to develop and refine forward footpath construction programs based on the hierarchy and criteria listed above and informed through consultation with local communities where precinct planning is undertaken.

Delivery Program

A 5 year works program has been developed based on principals of this strategy where the first year of the plan is included in the 2017/18 budget.

Detailed programs exist for subsequent years based on an average expenditure of $500,000 and will be reviewed on an annual basis to reflect any changes resulting from consideration of the factors, priorities and principals of this strategy and the budget allocation provide by Council

2017/18 Program

			$ 572,419.28
Asset Name	Segment/Group Name	Segment Length	2018
Christian Rd - 10	10 - Maurice Rd to Gwen St	108.349	$ 12,405.96
Christian Rd - 20	20 - Gwen St to Commerce Rd	105.729	$ 12,105.97
Christian Rd - 30	30 - Commerce Rd to Shannon Ct	88.918	$ 10,181.11
Christian Rd - 40	40 - Shannon Ct to Drew St	106.565	$ 12,201.69
Christian Rd - 50	50 - Drew St to Norman St	141.783	$ 16,234.15
Christian Rd - 60	60 - Norman St to Cromwell Rd	291.668	$ 33,395.99
Christian Rd - 70	70 - Cromwell Rd to Sir John Cowan Av	127.278	$ 14,573.33
Christian Rd - 80	80 - Sir John Cowan Av to unnamed road	251.339	$ 28,778.32
Christian Rd - 90	90 - unnamed road to Recreation Av	65.83	$ 7,537.54
Leslie St - 10	10 - Monash Tce to Schottelius Av	364.231	$ 41,704.45
Leslie St - 20	20 - Schottelius Av to Parish Cr	127.472	$ 14,595.54
Leslie St - 30	30 - Parish Cr to Potter Av	114.377	$ 13,096.17
Leslie St - 40	40 - Potter Av to Stella St	120.833	$ 13,835.38
Leslie St - 50	50 - Stella St to Humphrey St	37.428	$ 4,285.51
Leslie St - 60	60 - Humphrey St to Stoneyfell Dr	167.972	$ 19,232.79
Leslie St - 70	70 - Stoneyfell Dr to Long Island Rd	97.428	$ 11,155.51
Mary Tce - 30	30 - Seventh St to Beatty Tce	109.845	$ 12,577.25
Myall Av - 10	10 - Adelaide Rd to Ida St	121.432	$ 13,903.96
Myall Av - 20	20 - Ida St to Standen St	117.143	$ 13,412.87
Myall Av - 30	30 - Standen St to Edwards St	106.856	$ 12,235.01
Myall Av - 40	40 - Edwards St to Slade St	121.928	$ 13,960.76
Myall Av - 50	50 - Slade St to William St	177.797	$ 20,357.76
Myall Av - 60	60 - William St to Sturt St	116.618	$ 13,352.76
Myall Av - 70	70 - Sturt St to Alympic Ct	110.971	$ 12,706.18
Myall Av - 80	80 - Alympic Ct to Gray St	147.769	$ 16,919.55
Myall Av - 90	90 - Gray St to Mulgundawah Rd	253.287	$ 29,001.36
Olive St - 10	10 - Charles St to McHenry St	312.065	$ 35,731.44
Olive St - 20	20 - McHenry St to Mannum Rd	124.97	$ 14,309.07
Verdun Rd - 10	10 - Standen St to Riverview Road	104.95	$ 12,016.78
Bridge St - 10 (Callington)	10 - East Tce to Bridge	144.164	$ 16,506.78
Thiele Rd - 30	30 - Campbell Dr to Lookout Rd	185.97	$ 21,293.57
Thiele Rd -10	10 - Siesta Dr to Lincoln Dr	124.74	$ 14,282.73
Thiele Rd -20	20 - Lincoln Dr to Campbell Dr	301.59	$ 34,532.06

2018/19 Program

2019/20 Program

2020/21 Program

2021/22 Program