

21.09 INTEGRATED TRANSPORT AND INFRASTRUCTURE

31/08/2017
C161(Part 1)

21.09-1 Integrated transport and land use planning

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Overview

The *Connecting Greater Bendigo Integrated Transport and Land Use Strategy, 2015* provides council with an overarching framework to integrate land use planning and the transport system (walking and cycling networks, public transport, private vehicles and the freight network). The strategy is based around the five overarching themes of:

- Connecting Greater Bendigo
- Healthy Greater Bendigo
- Moving Greater Bendigo
- Engaging Greater Bendigo
- Inspiring Greater Bendigo

The strategy provides a series of targets with a focus on moving away from private motor vehicles as the dominant form of transport. This will lead to health improvements while also maximising the use of existing infrastructure. With a growing population, this will become increasingly important.

The strategy seeks to maximise access to goods, services and facilities for all people throughout the municipality by supporting a compact Greater Bendigo. This includes a focus on 10 minute neighbourhoods surrounded by a network of well-connected small towns and rural communities.

Objective

1. To facilitate the integration of transport and urban growth in the municipality as per the *Integrated transport and land use strategic framework plan*, increasing the levels of accessibility, use and transport choice for all members of the community.

Strategies

- 1.1 Integrate transport provision and land use development by directing growth to areas within the urban growth boundary, the city centre and other major activity centres, and along main transit corridors.
- 1.2 Facilitate new development in locations which meet the '10 minute neighbourhood' principles.
- 1.3 Prioritise access for people in activity centres to strengthen their role as community hubs and places of business.
- 1.4 Design the road network in new urban areas to allow efficient and safe flow of vehicles, cyclists and pedestrians and the provision of services.

Objective

2. To support improved connections between Bendigo and rural towns and communities.

Strategies

- 2.1 Consolidate existing services to improve public transport connections between Heathcote and urban Bendigo, including services for Axedale and Junortoun.
- 2.2 Explore opportunities to legitimise community transport as a mode of choice particularly in isolated and rural areas.

21.09-2 Walking and cycling31/08/2017
C161(Part 1)**Overview**

Council's adopted *Connecting Greater Bendigo Integrated Transport and Land Use Strategy* is focused on prioritising active transport over private vehicle transport. Improving connections between walking and cycling paths, activity centres and the city centre will enable more people to comfortably travel through the municipality by walking or cycling. There are substantial health and wellbeing improvements to be gained by residents choosing to use active transport at least some of the time. A priority is to increase the number of residents and visitors who walk or cycle at least one day a week to work, study or school.

Objective

1. To increase the number of residents and visitors who walk or cycle.

Strategies

- 1.1 Prioritise active transport over private vehicle use.
- 1.2 Apply the latest road, intersection, footpath, pedestrian crossing and cycle path design solutions.
- 1.3 Require new residential developments to be linked to the bicycle and pedestrian network, and provide appropriate walking and cycling infrastructure inside the development.
- 1.4 Provide a high quality, fully separated, walking and cycling link between La Trobe University and Bendigo Railway Station and through the city centre.
- 1.5 Implement a walking and cycling way finding strategy for the activity centres, to identify key public transport, walking and cycling connections.
- 1.6 Complete a network of safe off and on road north-south and east-west cycling corridors.

21.09-3 Public transport31/08/2017
C161(Part 1)**Overview**

Bendigo is one of the State's key public transport hubs. It is the main terminus for rail and bus services between Bendigo and Melbourne, and between Bendigo and a large number of regional centres.

The implementation of Bendigo Metro Rail with its improved connections to existing stations, as well as a number of proposed new stations, will further reinforce the role of Bendigo as a major public transport hub.

While rail patronage and services are increasing, the bus network is currently underutilised and has poor service frequency. Improvements to the bus network and intra-city rail travel will be integral to the sustainable growth of Bendigo.

Council will continue to advocate for improvements in public transport, including more frequent services, new stations and improved connections, enabling more people to easily access and use public transport. Locating new development along transport corridors and within and proximate to activity centres will increase the viability of new public transport services.

Objective

1. To improve the provision, accessibility and frequency of bus and rail services.

Strategies

- 1.1 Support ongoing improvements to the bus network, to establish more frequent, convenient and high quality services, to encourage greater use.

- 1.2 Progressively build on existing rail and bus services to establish a frequent, convenient, high quality public transport network in Bendigo, to support and facilitate more healthy and sustainable trips.
- 1.3 Continue to implement the expansion of Bendigo Metro Rail, to improve services within Greater Bendigo.
- 1.4 Coordinate services connecting Bendigo with Melbourne, Echuca and Swan Hill.
- 1.5 Advocate for new railway stations at Huntly, Lansell Square, Maiden Gully and Marong, and the reopening of the Golden Square railway station.
- 1.6 Advocate for improved public transport connections and services, particularly bus and rail.
- 1.7 Develop new railway stations and public transport interchanges that are accessible by safe and convenient walking and cycling infrastructure.
- 1.8 Investigate access and safety improvements and opportunities for development and public realm activation on land designated for (or close to) proposed new and reinstated railway stations.

21.09-4 Private vehicles

31/08/2017
C161(Part 1)

Overview

Private vehicles are the dominant transport mode in Greater Bendigo, with around three quarters of all residents choosing this mode of transport to travel to work. Continuing the current pattern of car use would mean that traffic volumes would be likely to grow by up to 50 per cent over the next 20 years. The *Connecting Greater Bendigo Integrated Transport and Land Use Strategy* aims to minimise growth in traffic congestion by focusing on using our existing road network more efficiently and by moderating car use. This involves a shift in the way we optimise the road network's performance, from providing for the movement of the maximum number of vehicles to providing for the movement of the maximum number of people and goods. The strategy is about making the necessary infrastructure improvements and promoting alternative transport modes to move people away from private vehicle use, especially for short trips.

Objective

1. To optimise the use of the road network for moving people and goods and reducing the need for new car parking facilities.

Strategies

- 1.1 Prioritise access for people to activity centres to strengthen their role as community hubs and places of business.
- 1.2 Support the use of travel demand management strategies, including Green Travel Plans for larger developments.
- 1.3 Reduce or waive car parking requirements on sites which meet 10 minute neighbourhood principles, where there are demonstrated off-site car parking alternatives and where bicycle parking and end of trip facilities are provided above the rates specified in Clause 52.34.
- 1.4 Ensure that the safety and efficiency of arterial routes, as significant community investments, are not compromised by inappropriate development and vehicular access.

21.09-5 Bendigo Airport

31/08/2017
C161(Part 1)

Overview

The redevelopment of the Bendigo Airport and the new Bendigo Airport Business Park are priority projects for Council and are necessary to ensure that the facility continues to be an important infrastructure asset for the region. The redevelopment of the airport is consistent

with Bendigo’s designation as a regional city in the Loddon Mallee South regional growth plan and at Clause 11.12 of the State Planning Policy Framework.

Objective

1. To protect the operations of Bendigo Airport for emergency services, private and commercial flight activity, including flight training, recreation and charter operations.

Strategies

- 1.1 Discourage tall structures and buildings that will adversely impact on aircraft movement and airport operations at the Bendigo Airport.
- 1.2 Discourage uses that will adversely affect, or be adversely affected by, the operations of the Bendigo Airport.

Objective

2. To support the redevelopment of the Bendigo Airport, including a new runway and business park, to sustain the viability of the airport.

Strategies

- 2.1 Construct a new north-south runway to the east of the existing runway at the Bendigo Airport to improve the flexibility of aircraft movements, accommodate larger aircraft, attract new businesses to Bendigo and support existing users of the airport.
- 2.2 Facilitate the development of a new business park at the Bendigo Airport for airport compatible uses.

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Freight network

31/08/2017
C161(Part 1)

Overview

Bendigo is already an active ‘hub’ for freight activity. This includes a wide variety of goods being delivered to Bendigo and those being generated from Bendigo-based operations.

As Bendigo looks to build on the opportunity of becoming an even more important economic centre of regional Victoria, it will further develop as the origin and destination for many freight movements. With a growing population and expanding business operations (e.g. the Hospital Redevelopment Project) the frequency of freight movements will grow. However, there are substantial gaps in our understanding of the freight industry, of how it is using the road network and potentially the rail network and how its efficiencies and productivity could be improved.

Objective

1. To support the safe and efficient movement of freight into and through the city, to facilitate economic growth, and to minimise the impacts on residents and visitors.

Strategies

- 1.1 Protect and enhance key freight links and connections.
- 1.2 Support freight-generating activities near transport nodes and freight works.
- 1.3 Support the establishment of a major business park at Marong.
- 1.4 Provide freight hubs on the periphery of urban Bendigo.
- 1.5 Facilitate improvements to the road network to allow for better access and more efficient movement of trucks.
- 1.6 Prioritise the use of the road network to different transport modes at particular times of the day.

- 1.7 Reduce adverse impacts of freight movements by ensuring that the development of sensitive uses does not encroach on designated freight routes, particularly in areas designated for residential growth.

21.09-7 Infrastructure

31/08/2017
C161(Part 1)

Overview

The timely and coordinated development of the municipality’s physical and social infrastructure networks is essential to manage population growth and to foster economic development and community wellbeing.

Council is committed to the maintenance and enhancement of existing infrastructure and working with power, gas, water, sewerage, phone, internet, waste and resource recovery and road providers to upgrade or provide new infrastructure in line with the further development of the municipality.

The provision of appropriate wastewater infrastructure, including the network of reticulated sewerage and onsite domestic wastewater systems is important to the environment, public health, economic growth and affordable housing in the municipality. To ensure that domestic wastewater management in the municipality is sustainable and systems are appropriately designed, the responsible authority has developed the *City of Greater Bendigo Domestic Wastewater Management Strategy, 2014-15* and the *City of Greater Bendigo Land Capability Mapping and Assessment Tools for Wastewater Management, 2015* which will be used to guide and improve domestic wastewater management and practices.

The Eaglehawk waste and resource recovery hub is a key municipal facility that processes the municipality’s waste.

Objective

1. To ensure the appropriate provision of infrastructure that meets council and community expectations.

Strategies

- 1.1 Facilitate the timely provision of planned infrastructure for the Marong Business Park.
- 1.2 Promote water sensitive urban design techniques in new development.
- 1.3 Protect existing water supply and sewerage infrastructure from encroachment by incompatible uses.
- 1.4 Provide adequate community facilities within existing and new neighbourhoods.
- 1.5 Ensure that existing services and community facilities in small towns are protected.

Objective

2. To encourage connection to the reticulated sewerage network as the preferred method for domestic wastewater management.

Strategies

- 2.1 Require the installation of reticulated sewerage in unsewered areas and in all new developments.
- 2.2 Where reticulated sewerage is not required by the responsible authority, ensure that appropriate options for onsite domestic wastewater management are employed.

Objective

3. To ensure that onsite domestic wastewater infrastructure is appropriate, managed and sustainable where connection to reticulated sewerage services is not required by the responsible authority.

Strategies

- 3.1 Support the improvement and development of water infrastructure throughout the municipality.
- 3.2 Ensure the appropriate installation, approval and alteration of onsite domestic wastewater management systems or alternative waste treatment systems where connection to reticulated sewerage services is not required by the responsible authority.
- 3.3 Guide programs for the maintenance and monitoring of onsite wastewater management systems.
- 3.4 Plan and manage growth and development across the municipality.

Objective

- 4. To encourage educational uses in and around the Bendigo City Centre.

Strategy

- 4.1 Support the development of additional educational facilities in and around the Bendigo City Centre.

Objective

- 5. To encourage the reuse and recovery of materials to minimise and manage the environmental impacts of landfill.

Strategies

- 5.1 Ensure that offsite impacts from the Eaglehawk landfill, including gas migration, are considered in land use planning decisions.
- 5.2 Support the identification and protection of waste and resource recovery infrastructure in the municipality.

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Implementation

The strategies in relation to integrated transport and infrastructure will be implemented through the planning scheme by:

Policy guidelines

- Using local policy to protect, maintain and enhance Greater Bendigo’s road hierarchy and Bendigo CBD’s car parking facilities (Highway Entrances and Boulevards Policy, Clause 22.08 and Calder Freeway and Calder Highway Environs Policy, Clause 22.09).
- Continuing to work with Coliban Water to determine where connection to reticulated sewerage is required.

Application of zones and overlays

- Applying the Public Use Zone to land used for public utilities and community services and facilities.
- Applying the Road Zone, Category 1 to the Calder Highway, Calder Alternative Highway, McIvor Highway, Northern Highway, Loddon Valley Highway and Murray Valley Highway.
- Applying the Environmental Audit Overlay to the Eaglehawk landfill to ensure any potential future uses are not significantly adversely affected by contamination.
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- Applying the Special Use Zone to private education and religious establishments, hospitals and the Bendigo Airport.
- Applying the Design and Development Overlay to the Bendigo Airport and surrounds to reflect the Bendigo Aerodrome Obstacle Limitation Surfaces, June 2012 and restrict building heights on the approach to the airport.
- Applying the Design and Development Overlay to ensure consistent and high standards of design within the Bendigo Airport Business Park.
- Applying the Airport Environs Overlay, Schedules 1 and 2 to the Bendigo Airport and surrounds to be consistent with the Bendigo Airport Australian Noise Exposure Forecast 2032 and to identify areas that are subject to high levels of aircraft noise.
- Applying the Development Contributions Plan Overlay to the Marong Business Park to ensure the implementation of the *Marong Business Park Development Contributions Plan, March 2017*.

Further strategic work

- Reviewing the *Bendigo Highway Entrances and Boulevards Study 1994*.
- Considering the need for an outer distributor road for Bendigo in association with the Roads Corporation.
- Identifying a new regional landfill site.
- Further investigating the potential for gas migration from the existing Eaglehawk landfill site and implementing planning controls as appropriate.
- Preparing an economic development strategy.
- Working with other government agencies in securing maximum benefit from the Regional Fast Rail Project for the Bendigo community.
- Ensuring adequate health, emergency and community services and facilities are available to residents of the municipality in centralised locations and within local communities.
- Developing Greater Bendigo as the pre-eminent regional centre of education in Victoria.
- Recognising that the efficient delivery of reticulated services is a fundamental element in providing affordable housing and generating economic growth.
- Undertaking ongoing maintenance and upgrading of major road systems in conjunction with the Roads Corporation, including the duplication of the Calder Highway between Bendigo and Melbourne.
- Promoting options to improve water security.
- Investigating options for wastewater management in unsewered townships and areas identified for improvement within *the City of Greater Bendigo Domestic Wastewater Management Strategy, 2014-15*.
- Implementing the key public works identified in the *Bendigo Highway Entrances and Boulevards Study 1994* and the development of imaginative gateway features at the key entrances to the municipality.
- Updating the *City of Greater Bendigo Road Safety Plan 2007-2011*.
- Identifying bus stops and access to bus stops that need improvement and are not *Disability Discrimination Act 1992* compliant.
- Updating the *Bendigo CBD Parking Strategy* to align the provision of car parking with adopted strategies.
- Reviewing the *Marong Business Park Development Contributions Plan, March 2017* every five years.

Integrated transport and land use strategic framework plan

