Multi-modal Streets

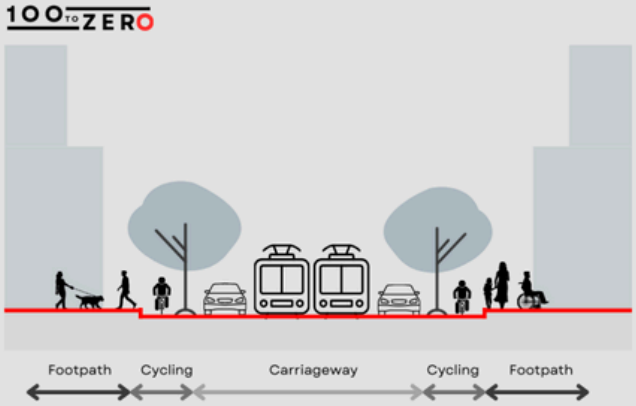
Moving more people, more equitably, within the same amount of space.

What's it about?

Multi-modal streets help to make cities more efficient by moving a greater volume of people along the same amount of roadspace.

How? Multi-modal streets allow different sections of road to be allocated to different modes of transport, including cars, on-street public transport (buses, light rail or trams), bikes and pedestrians. Unlike shared streets, multimodal streets have discrete road space allocated for the various modes of transport to maximise the volume of throughput [1].

Multi-modal streets move more people. Whereas a typical three metre lane can accommodate 600-1600 cars per hour, the same lane can accommodate 6500-7500 bikes per hour, or 8,000 public transport users per hour. A footpath, often integrated into multimodal streets, can accommodate 8,000-9,000 people per hour [2]. What's more, an on-street dedicated tram or busway can accommodate up to 25,000 people an hour[2]. For this reason multimodal streets are considered a more equitable use of the road, providing efficient, safe and convenient options for more people to travel - by foot, by cycle, on transit, as well as in motorised vehicles.



Multi-modal Streets

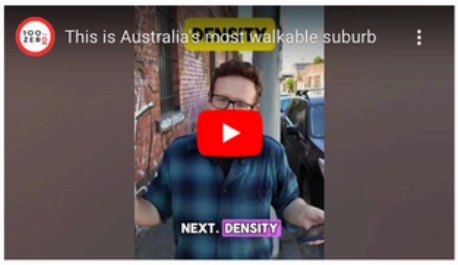
The 100 to Zero Project is supported by the National Road Safety Strategy's National Road Safety Action Grants Program.

Watch Videos

Explore road safety topics in 100 seconds or less.

Multi-modal Streets

Which lane moves the most traffic?



Australia's Most Walkable Suburb

What really makes a suburb walkable? 🚶

Yellow means...?

Red means STOP, Green means GO, what does the yellow light really mean?

Benefits

Who Benefits from Multi-modal Streets?

Increased Capacity and Efficiency

Multi-modal streets can move more people in the same amount of space compared to car-oriented streets. By prioritising space-efficient modes like public transit, walking, and cycling, these streets can significantly increase the overall capacity of the transport network. As we discussed above, a 3-meter wide lane can move up to 1,600 people per hour by car, compared with 7,500 by bike, and 8,000 by bus [2].

Improved Accessibility and Equity

Multi-modal streets provide better accessibility to a wider range of users, including those who cannot or choose not to drive. By offering various transportation options, these streets ensure that people of all ages, abilities, and socioeconomic backgrounds can access essential services, employment, and recreational opportunities. This inclusive approach contributes to a more equitable urban environment, where mobility is not limited by car ownership [1]

Boosts Local Economies

nvesting in multi-modal streets can have positive economic impacts on local businesses and property values. Studies have shown that people who walk, cycle, or use public transit often spend more at local retail businesses compared to those who drive [2]. Multimodal streets also connect people with local shopping centres, retail and commercial precincts, providing better options for people to access local centres.

Decrease Carbon Emissions

Multimodal streets reduce vehicular exhaust, which improves air quality and reduces a city's contribution to climate change. Encouraging shifts from car travel to walking, cycling, or public transport significantly reduces greenhouse gas emissions. For instance, a 20% shift to active transport in Sydney could cut transport-related emissions by 8% [3].

Improves Health and Wellbeing

Multimodal streets encourage active transport such as walking and cycling. This encourages healthier lifestyles, reducing risks associated with physical inactivity, such as obesity and cardiovascular diseases [4]. Additionally, the reduced reliance on private vehicles and improved infrastructure for vulnerable road users can lead to fewer traffic accidents and injuries, aligning with Australia's road safety goals.

Multi-modal Street Examples

Swanston Street Melbourne

As Melbourne's central street, Swanston Street prioritises throughput without cars. Swanston Street was once a congested and polluted street, but has been redesigned to be pedestrianised with only service vehicle traffic. Swanston Street features trams, pedestrians, and cyclists, fostering a safer, more sustainable urban environment.

Key Features:

- Dedicated tram lanes to improve transit efficiency and reduce delays.
- Dedicated cycling lanes to support active transport.
- Expanded wide pedestrian zones to accommodate high volumes of pedestrians. This includes raised tram stops to improve public transport accessibility. s.

Parramatta Road, NSW

Parramatta Road, a transport corridor in New South Wales that connects the Sydney CBD to Parramatta, is an example of the potential of multimodal streets to revitalise urban corridors. The ongoing transformation of this historically car-dominated corridor includes dedicated bus lanes, improved pedestrian crossings, and plans for better cycling infrastructure.

The goal is to improve the corridor's transport function, while improving liveability. This approach aims to reduce traffic congestion, support more sustainable transport options, and enable more people to move between the CBD and Parramatta, more easily.

Key Features:

- Dedicated bus lanes for improved public transit efficiency.
- High-quality pedestrian pathways and crossings for safer, more accessible walking.
- Separated cycleways to encourage cycling as a viable transport option.
- Traffic-calming measures to enhance safety and reduce congestion.

Image: *Parramatta Road Vision, part of he The Parramatta Road Corridor Urban Amenity Improvement Plan (UAIP), indicative artist impressions only*

North Terrace, Adelaide

North Terrace in Adelaide is an example of a multimodal street that seamlessly integrates pedestrians, public transport, cyclists, and vehicles. As one of the city's key cultural boulevards, North Terrace balances its role as a transport corridor, while it's wide footpaths and trees function as a public space. North Terrace supports active transport while enhancing accessibility to key locations in Adelaide's CBD [7].

Key Features:

- Separated bike lanes to ensure safe cycling routes.
- Enhanced pedestrian walkways with improved lighting and seating for public use.
- Dedicated bus lanes efficient and accessible public transport.
- Green infrastructure, including street trees, for shade and environmental benefits.

References

[1] Municipal Association of Victoria, Movement and Place in Victoria

[2] Global Designing Cities Guide, Multi-modal streets

[3] NSW Environment and Heritage

[3] Transport for NSW, Streets as Shared Places. 'Evaluation and Implementation of Shared Spaces in NSW: Empirical analysis of shared road infrastructure - Stage 2a Final Report' February 2024

[4] Transport NSW Movement and Place Guide

[5] Landcom, Paramatta Road Impementation Toolkit

[6] Transport NSW Paramatta Road Vision

[7] Department of Infrastructure and Transport SA Prioroty Bus Lane Project

Helpful Guides

Global Designing Cities Guide, Multimodal Streets

University of Melbourne AIMES: Australian Integrated Multimodal EcoSystem (AIMES)

HERE Mapping Multi-modal Movement in Australia

University of Technology Sydney, iMove Australia Project

Movement and Place, Street Design Guide, NSW

Movement and Place in Victoria Guide, Municipal Association of Victoria

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