



Improving Austroads Guidance for Cycling and Micromobility Planning

20 March 2025



OFFICIAL

Austroads acknowledges the Australian Aboriginal and Torres Strait Islander peoples as the first inhabitants of the nation and the traditional custodians of the lands where we live, learn and work. We pay our respects to Elders past, present and emerging for they hold the memories, traditions, culture and hopes of Aboriginal and Torres Strait Islander peoples of Australia.

Austroads acknowledges and respects the Treaty of Waitangi and Maori as the original people of New Zealand.



Austroads

Agenda



Topic

Project overview

Summary of consultation feedback

Translating consultation findings into guidance

Q+A



Clare Huggins

Principal Transport Planner
Stantec

E: clare.huggins@stantec.com

P: 0432 472 290



Amy Naulls

Program Manager
Austroads

E: anaulls@austrroads.com.au

Project objectives



Analyse evolving needs of cyclists and micromobility users



Review national and international experience and innovations



Consult with subject matter experts



Provide flexible advice

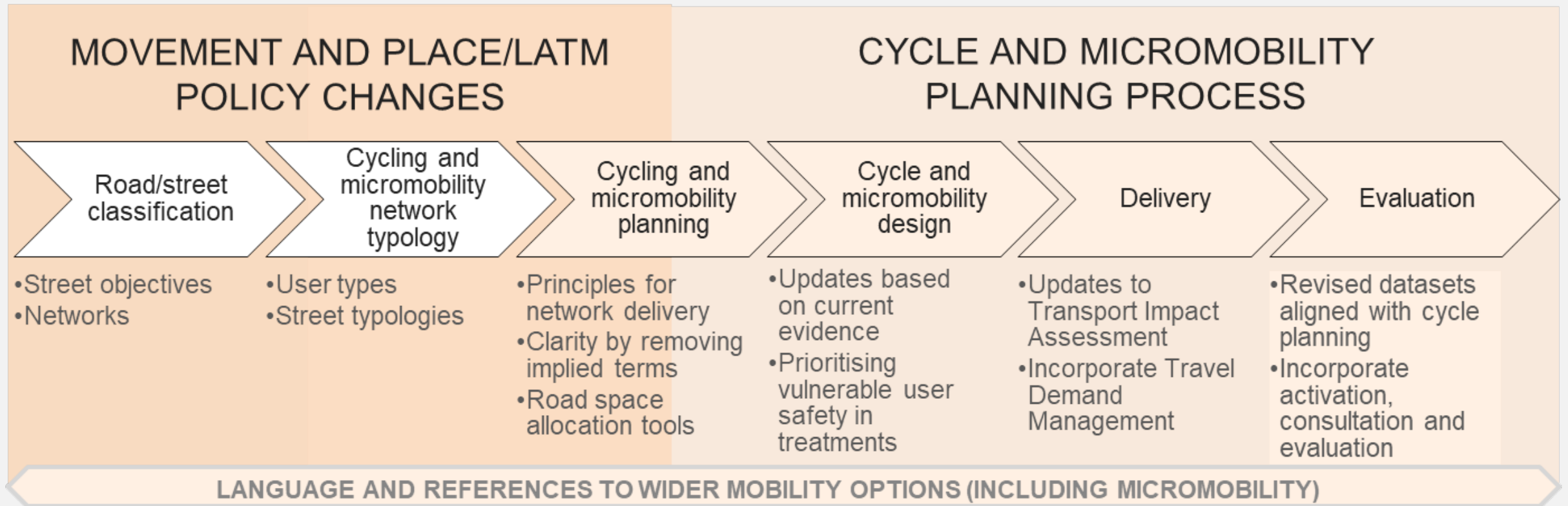


Update cycle planning guidance in the AGTM



Inform future revisions of the AGRD

Guidance scope



Summary of subject matter expert feedback



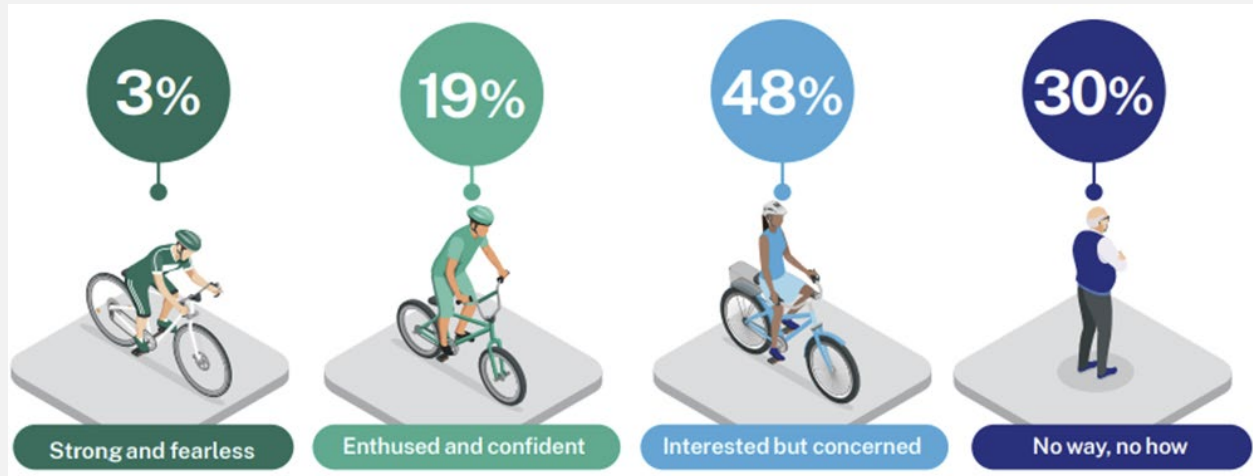
- Planning for a variety of riders and the appropriate infrastructure associated with them
- Planning suggestions for e-scooters and other evolving micromobility
- Planning and designing for all ages, abilities and diverse needs
- Practitioners want help navigating data collection and evaluation
- Advice on effective consultation and engagement techniques
- Addressing road space allocation and conflict

Translating consultation findings into guidance

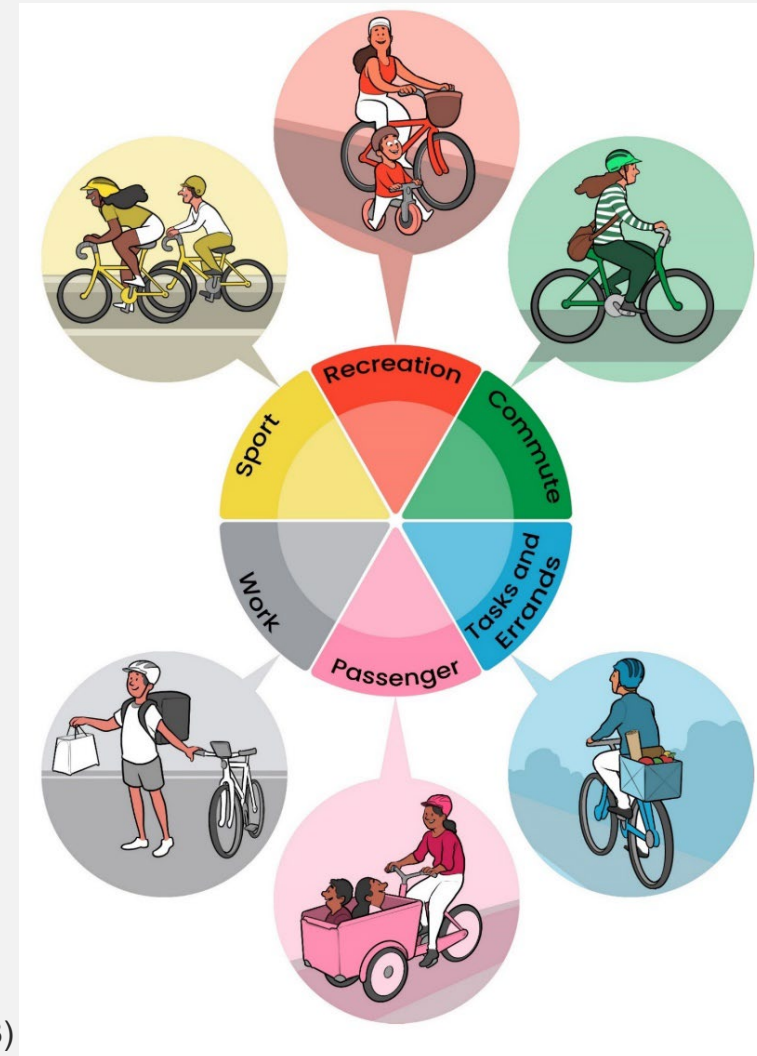


Planning for a variety of riders and the appropriate infrastructure associated with them

Geller and Napper typologies



Source: TfNSW (2020)



Source: Napper (2023)

Planning suggestions for e-scooters and other evolving micromobility



E-scooter



Non-standard Cycles



Cargo Freight Bikes

Terminology of Vehicles

Mini Vehicles



Bicycle



Cargo Bikes





Austroads

Speed Limit ¹	Two-way traffic flow (peak hour pcus)	Off-road cycle track	Raised cycle track adjacent to kerb	On-road Protected Cycle Lane	Painted Cycle Lane	Mixed Traffic
20 km/h	< 200					
	200-400					
	> 400					
30 km/h	< 200					
	200-400					
	> 400					
40 km/h	< 200					
	200-400					
	> 400					
50 km/h	< 200					
	200 - 400					
	> 400					
60 km/h	Any					
≥ 80 km/h	Any	*				

	Provision should be suitable for most users.
	Provision is not suitable for all ages and abilities, and will exclude some users.
	Provision not recommended because it will not be suitable for most users.
	Provision not suitable.

Notes:

1. If the 85th percentile motor traffic speed data is recorded/available and is more than 10% above the speed limit, the next highest speed limit should be applied.

* Assumes adequate buffer from general traffic.

Planning and designing for all ages, abilities and diverse needs

Practitioners want help navigating data collection and evaluation



Key reasons to collect cycling and micromobility data	Explanation
To understand cycling participation	Monitoring cycling trends reveals whether participation is increasing, decreasing or stagnant, allowing for an assessment of the effectiveness of existing policies and infrastructure. Data on bicycle rider and e-scooter demographics (age, gender, location, etc.) provides insights into who is using the infrastructure and who is not, enabling tailored cycling initiatives to address the needs of diverse segments of the population.
To optimise infrastructure investment	Analysing cycling routes, frequency and duration of trips helps identify areas where infrastructure is most needed, guiding the planning and prioritisation of new cycling routes, crossings, bicycle parking and other facilities. Collecting data before and after implementing infrastructure projects and behavioural initiatives provides valuable insights into their effectiveness and potential areas for improvement.
To prioritise resource allocation	Data-driven insights can help prioritise and allocate resources more efficiently. By understanding where and when cycling is most prevalent, has the most potential or is most needed, investments can be directed towards areas with the highest impact.
To build public support	Quantified data and real-life experiences of bikes and micromobility users can be used to demonstrate the popularity and benefits of cycling, fostering public support and increasing participation.
To assess safety	Data on bicycle and e-scooter crashes and near misses can identify dangerous areas and inform the development of targeted safety interventions.
To measure environmental impact	Data on cycling activity can be used to estimate the environmental benefits of cycling, such as reduced greenhouse gas emissions and air pollution.
To evaluate economic impact	Data on cycling activity can be used to assess the economic impact of cycling, such as increased tourism spending and job creation.
To determine public health impact	Data on cycling activity can be used to estimate the public health benefits of cycling, such as increased physical activity levels.
To benchmark and compare performance	Data on cycling allows for benchmarking performance against other cities and regions, facilitating continuous improvement and best practice sharing. By collecting and analysing cycling data effectively, cities can make informed decisions that promote cycling as a safe, sustainable, and equitable transportation mode.

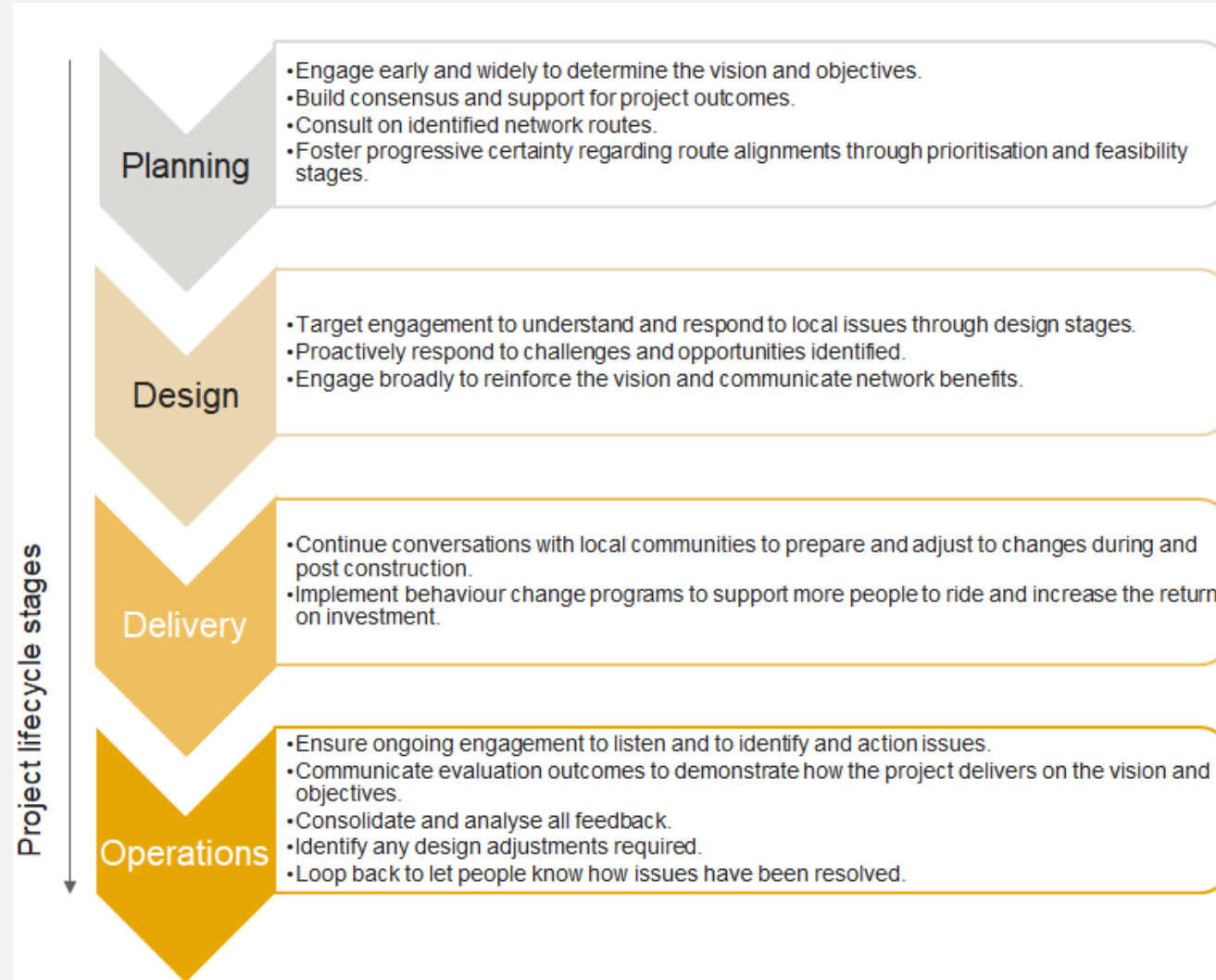
Example indicators to assess projects against cycle planning principles

Suitable indicators	Metric(s)	Potential data collection methods	Cycle planning principles relevant to indicator
Project scale indicators			
Diversity of users	- Gender and age - Types of riding device	Intercept surveys and observations	- Safe - Attractive - Adaptable
User confidence	Perception of safety (reported level of comfort and confidence)	Intercept surveys	- Safe - Comfortable - Attractive
Improved access and connectivity for people walking	People crossing the street on foot	Intercept surveys and observations	- Safe - Attractive
Community and stakeholder feedback	- Participation - Sentiment	Available channels such as online engagement tools	- Safe - Connected - Adaptable
Traffic speeds	Reduction in mean traffic speed	Manual or automatic counts	- Safe - Attractive
Network scale indicators			
Number of bicycle and micromobility riders	Volume of vehicles in bicycle lane/path	Manual or automatic counts	- Direct - Connected
Crash statistics	Fatal, serious and other injuries	State-based crash data	Safe

Advice on effective consultation and engagement techniques



- Recommended approach to engagement at each stage of the project lifecycle



Addressing road space allocation and conflict

Order of road user space considerations

consider first



consider last

Source: TfNSW Road User Space Allocation Policy and Procedure

Road Space Reallocation Techniques	
Rearranging road carriageway space	
Adjust general traffic lane positions or widths	Traffic lanes can be narrowed to cater for cycling facilities. This may be separated facilities or riders sharing lanes with drivers. The latter must be considered in parallel with a low-speed environment (30 km/h or less). Narrowing traffic lanes supports traffic calming and the reduction of signposted travel speeds.
Reduce the width of the median to widen carriageway	Consider why the median was installed in the first place. If the objective was to achieve narrower traffic lanes, this will be achieved through allocating space to cycling facilities. If the objective was to increase the separation between traffic in opposing directions and reduce the risk of head-on crashes, it must be considered how this risk compares to the safety advantages of installing facilities for cycling. The speed-calming effects of narrower lanes may also help reduce the risk of head-on crashes.
Remove a traffic lane	It may be possible to consolidate the number of traffic lanes if there is excess road capacity. This may be achieved alongside other measures aimed at reducing volumes.
Close the road to specific or all motor vehicle movements	Providing for fewer movements will simplify the requirements for road space. This is especially relevant at intersections and side roads, which have flow-on effects to the type of provision between intersections. Key questions to consider include: - Are all current movements really needed? - Can some movements be provided for elsewhere on the network? Answers to these questions may change over time. When establishing new cycle routes (as a response to elevating the status of cycling along a particular corridor), it may be appropriate to diminish the level of provision to other modes.
Allow contraflow cycling	Introducing a contraflow cycle facility on a one-way street may be an alternative to installing a facility on an adjacent road.
Temporary treatments	Temporal allocation of road spaces aims to optimise how space is allocated throughout the day, week or year. This includes the dynamic control of space, access, level of priority, speed and kerbside use through signage, signals and other technology.
Trading corridor space	
Seek opportunities to remove car parking to facilitate space for protected cycling lanes	Parking can be removed from one side or both sides of the road, depending on the local context.
Seek opportunities within the existing verges to reallocate parking and provide carriageway space for riders	Providing inset parking can facilitate the provision of painted or buffered cycling lanes. Take care to ensure this does not compromise pedestrian level of service or has an adverse effect on the surrounding environment, especially those that contribute to reducing the heat island effect.
Seek opportunities to narrow the existing verge to facilitate space for protected cycling lanes	Ensure this does not compromise pedestrian level of service or has an adverse effect on the surrounding environment, especially those that contribute to reducing the heat island effect.
Seek opportunities to manage car parking to facilitate space for cycling	Timed parking restrictions can be put in place to provide peak hour clearways for cycling. A painted or buffered cycle lane should be provided outside of peak hours to ensure a basic level of service is still provided for riders.
Seal road shoulders	Suburban and rural road bicycle rider groups appreciate the additional space from sealed shoulders provided the surface is smooth and kept free of debris. This is not a suitable consideration for less confident riders, such as the interested but concerned target audience.
Finding space elsewhere	
Off-road route	If a desired facility cannot be accommodated on the road, an off-road facility may be a viable alternative if it has a high standard of design, construction and maintenance and it can limit conflict with other road users, such as people walking (the preference is for separated paths). In some cases, off-road facilities may be more desirable than on-road routes, especially where they provide safer and more direct connections, for example, routes through parks or away from high-speed roads. Off-road facilities are generally perceived as suitable for all ages and rider abilities.



Further information



Links for the associated material on the Austroads website:

- Research report and three key (excel) tools: [Improving Austroads Guidance for Cycling and Micromobility Planning AP-R724-25](#)
- Webinar, webinar slides PDF and Q+A written answers: [Guidance for Cycling and Micromobility Planning](#)
- Publication page for all parts of the [Guide to Traffic Management](#).