

National Active Modes Infrastructure Group
Meeting at 9:00am on Thursday, 27 November 2014
Wellington City Council Offices, 101 Wakefield Street

Attending:

- Carl Whittleston Lets Go Project Manager, New Plymouth District
- Susan Lilley Transportation Planner, Dunedin City
- Steve Dejong Traffic Engineer, Christchurch City
- Paul Barker Safe and Sustainable Transport Manager, Wellington
- Sandi Morris Transportation Planner, Palmerston North City
- Matthew Rednall Manager-Community Transport, Auckland Transport
- Malcolm McAulay Senior Walking & Cycling Engineer, AT
- Kirsty Horridge Network Engineer, Hamilton City
- Glen Koorey Civil and Natural Resources Engineering School, Cant.
- Dougal List National Manager Cycling, NZTA
- Gerry Dance Principal Advisor, Network Optimisation, NZTA
- Glenn Bunting Network Manager, NZTA
- Richard Bean Senior Engineer, NZTA
- Wayne Newman RCA Forum Research & Guidelines Group (secretary)

Apologies:

- Bruce Galloway Road Corridor Advisor, Tauranga City
- Tim Hughes National Traffic and Safety Engineer, NZTA

1. Introductions and apologies

Apologies were noted. Kirsty Horridge, Susan Lilley, Malcolm McAulay and Dougal List were welcomed.

2.19 June 2014 meeting and actions arising

2.b. Te Ara Mua-Future Streets Project

Matthew Rednall and Malcom McAulay presented designs for Te Ara Mua-Future Streets Project in Mangere, South Auckland. The group discussed the interventions proposed for Bader Drive, Mascot Avenue, Jordan Road, Massey Road, Friesian Drive and Imrie Avenue in some detail.

The provision of a crossing for cyclists as well as pedestrians was recognised to pose a challenge within the current RUR forbidding riding across a pedestrian crossing, and possible alternatives were discussed. Ideas for a clearly differentiated cycle crossing included the chevrons and the chequer-board designs used overseas.

Appropriate treatment of the approach to a crossing was discussed, in light of the proposed use of a friction surface approach in the design. Inclusion of a

tactile edge or raised diamonds to offer enhanced visibility and an audible edge line was recommended where the approach was on a curve and where central refuges were contemplated.

The proposed placement of 'Stop' signs behind both pedestrian and cycle crossings at intersections was discussed. The effect was recognised to create a staged intersection, because the stopping point for any vehicle would be outside the sight lines for the intersection. The driver of any vehicle approaching the intersection would need to come to a complete stop, then check for pedestrians and roll forward onto the pedestrian crossing, then check for cyclists and roll forward across the cycle lane, and then check for vehicles.

The importance of matching design to desire lines and sight lines was discussed, as well as the need for the purpose of the crossings to be clear. In the absence of a 'zebra' marking, the presence of a pedestrian crossing at some 'tee' intersections was not immediately obvious and one possible solution discussed was to raise the platform of the crossing.

Measures to calm and discourage traffic from some roads to obtain a usage more in keeping with the design hierarchy of the network was discussed. One proposed intervention is to block a lane at key points. Experience with this approach elsewhere suggests that blocking one side of the road can create a situation where motorists in the unblocked lane assume priority, and a chicane partially blocking both lanes seems to be more effective.

Where a chicane is introduced, however, care must be taken to ensure the placement does not create an unexpected hazard. To this end it was agreed that placement of the obstruction in the travelling lane should be beyond the location of the obstruction in the on-coming lane.

The use of off-sets and separators on bus routes and their placement in such a way that they did not preclude legitimate access to property entrances by large vehicles, such as household or furniture movers or vehicles towing caravans or boats, was also discussed. It was agreed that a crucial part of the design for these interventions at each location would be checking the turning circles created by them.

As well, it was noted that the provision of bus shelters in conjunction with cycle lanes could be problematic. If a cycle lane is wrapped behind a bus shelter it creates a potential conflict between pedestrians crossing the lane to enter the shelter or alighting from the bus and stepping into the cycle lane without checking for cyclists. Design at these points was agreed to be critical.

3. Sharrow and Lane Markings trials updates

The 'sharrow' markings have generally had a traffic calming effect, with 7-day average speed reductions across all trials, and resulted in a slight but noticeable shift in lateral position for cyclists slightly further into the lane and away from, but not out of the 'door-zone'.

The results from the use of LANE markings have been inconclusive. Adding LANE appears to have added little to user perception, which continues to rely on the green coloured background as the primary marking for a cycle lane.

Similar results have been obtained from all trials, suggesting that the ideal marking for a cycle lane in terms of user recognition would be a white M2-3 symbol on a green background.

The analysis of the trial data will need to consider the cost implications of using LANE and the practical difficulties of ensuring precise alignment of renewed markings in narrow cycle lanes. Defining the legal cycle lane marking as the white M2-3 symbol only when on a specific green background may need to be considered against the same criteria.

Agreeing on the marking for a cycle lane will be particularly pressing, given that the 'sharrow' trials have been generally successful and increased the demand for the uptake of this marking. The benefit cost return in enhanced safety for all road users from the speed reduction generated by the markings can be expected to add urgency to this demand.

The group agreed that post-trial surveys of road users should be undertaken wherever practicable, but the results of the analysis of trial data from all sites will need to have been completed and circulated prior to the group reconvening in Christchurch in the first week of March to decide on a marking to be proposed for a Rule change.

4. National 'Sharrow' implementation guidance

Flow Transportation Specialists drafted an initial Best Practice Implementation Guideline for sharrow markings for the trials. The Group noted the importance of the Auckland study tour in revealing the variation in placement and the extent to which appropriate location of markings is very site-specific. The importance of guidelines for use and placement of 'sharrow' markings was recognised anew from the trial data.

The group agreed that the trial data and cost benefit analyses would be copied to Flow through Karl Hancock and Wayne Newman to provide an updated draft best practice guide for consideration at the next meeting in the first week of March 2015.

5. Delineators stocktake

Although a range of delineators have been investigated by members of the group, the most common concern with them was their low ascetic appeal. Vertical bollards and knock-down-posts were regarded as looking too much like a temporary treatment, even where they gave practical benefits, and were disliked by members of the cycling fraternity who tend to ride into them while "bunch riding".

"Armadillos" are seen as ugly and there are concerns about both their long-term stability and the potential trip or fall hazard they create. As well as concerns about achieving a consistent approach to their use nationally, practical details of how entrances might be treated need to be resolved.

Guidance on the consistent selection and use of vertical edge markers would also assist all authorities, because these come in a variety of colours and are designed for differing rates of strike.

The group agreed that members would report on delineators being used, and their performance, and on delineators being considered.

6. Wayfaring signage (should be Way-finding signage)

Steve Dejong reported on the results of Christchurch bringing recognised international expert, Warren Salomon, to advise on way-finding signage. The draft report, *Christchurch City Council Bicycle Network Sign Design Manual, September 2014*, was circulated before the meeting, with the *Draft Bicycle Network Signage Plan*. Comment was sought on both draft documents.

The manual reflects international usage and current best practice. Subject to corrections for the use of overseas examples of symbols not used in New Zealand, this document could form the basis for national guidelines.

The use and extent of branding was discussed, and also the extent to which signage for bicycle networks might provide information for pedestrians or motorists within integrated networks.

7. Separated bicycle facilities trial

Matthew Rednall presented a video showing the Beach Road separated facility. There was again discussion of the practical difficulties in providing a controlled crossing for cyclists beside one for pedestrians, including the need to provide tactile guidance for visually impaired pedestrians and to ensure that these pedestrians do not try to cross on the cycle crossing.

8. Shared paths

Carl Whittleston presented the experience gained from the New Plymouth Coastal Path. The popularity of the path and continuing increase in numbers of both cyclists and pedestrians using it mean that congestion cannot be avoided. In the evening, in particular, popular meeting points will become congested and there is some conflict between cyclists and static pedestrians.

In discussing the appropriate response to this conflict, it was noted that introducing signs and markings (such as centrelines) would detract from the amenity of the facility and change perceptions of the facility. In any guidelines on providing shared paths a critical table will need to be the appropriate design widths to allow for passing and congestion.

Another consideration will be provision for multiple modes using the shared path as personal mobility devices gain greater popularity. Elderly and disabled pedestrians accounted for 25% of journeys in the last Census and this proportion will increase, leading to more mobility scooters and electric wheel chairs, greater demand for crossing locations and wider paths for them, and simpler, clearer signage.

9. Intersections

Steve Dejong presented the draft report prepared by Via Strada on *MCR Signalised Intersections – design considerations* previously circulated. The

design considerations raised by this report would warrant a separate project in their own right, as some proposed interventions could be tested in trials under the TCD Rule, but several others cannot be tested under the current RUR.

Several areas within the RUR have been identified as possibly needing change. As any proposals for a change to the RUR cannot cite local breaches of the RUR, they must cite overseas examples and research. A clearer brief of the changes being sought and the research already undertaken or still to be undertaken to support the changes proposed needs to be prepared without further delay.

There was also some discussion of the circulated draft *Cycle Lane Sign – Hook Turn Ahead* and it was agreed that comments would be returned to Steve Dejong.

10. Shared spaces

The increasing conflict between modes and expectations of these spaces can only be exacerbated by the increasing uptake of personal mobility devices, e-bikes and mobility scooters. Provision of designs able to accommodate static and mobile users, and differing flows of mobile users, will be essential in guidelines for shared spaces.

11. Related activity & research

a. Cycle safety expert panel and summit

b. “Improving safety for people who cycle on rural roads”

c. Cycle Safety Research in the Waikato

Gerry Dance and Glen Koorey provided an update on the Cycling Safety Expert Panel, noting that the final draft of the Panel’s report to reflect the extensive submissions received was about to be circulated to the Panel members for final sign-off.

It is expected that there will be little significant change from the draft recommendations and the provision of national guidelines will remain a high-priority action.

The AMIG can be expected to have a significant role in providing new national guidelines, and particularly in ensuring that any guidelines being proposed provide for an integrated network. This would recognise the variety of modes needing to be accommodated within the network and provide guidance appropriate to delivering infrastructure appropriate for these different modes in a clear and accessible manner.

The classification of the components of the network was discussed, both in relation to fitting within the One Network system and in classifying cycling infrastructure according to the three classes of cyclist now recognised for design purposes – Advanced, Basic or Child.

Flowing from this discussion, Gerry Dance reported on a current research project looking to improve safety for cyclists on rural roads. A trial in the Waikato and Nelson regions will assess the effect of removing the centre line

and adding shoulder markings on rural roads.

This intervention would be appropriate only for roads with AADT of 1500 to 2000 and relatively low speeds of less than 70kph or even 60kph.

12. National guidance document

Gerry Dance presented the draft *Summary Scope for Developing National Cycle Design Guidelines for New Zealand* and sought feedback on the proposed approach, objectives and timeline. It is recognised that the NZ Supplement is out of date and that the Austroads Guides, by their nature, invariably reflect agreed best practice from at least five years previously. As a result, individual jurisdictions have developed their own guidelines. There is a need to pull together the relevant material from across the Austroads Guides as a first step towards a national guidance document for cycling facilities.

The draft *Summary Scope for Developing National Cycle Design Guidelines* seems to overlook pedestrians and other modes completely. There is a need for a guidance document that can be consistent across modes and provide a “one-stop shop” for all practitioners when looking for guidance on pedestrian/cycle infrastructure standards? Currently this information can be in NZS4121, or RTS14, or the Pedestrian Planning Design Guide or the New Zealand supplement to Austroads Part 14.

13. Presentation to Forum

The RCA Forum had sought an update on the group’s activities and an explanation of the point of difference between this group and the numerous others perceived to be active in the same field. Although the agenda for the next Forum meeting is now full and no presentation is being sought, the group should be better placed after this meeting to address the Forum’s concerns.

14. Other business

Terms of Reference

Sandi Morris questioned why our agenda was primarily concerned with cycle infrastructure and lacked any pedestrian focus. There are looming pedestrian issues on our networks and a need for consistent guidance. These include:

- zebra crossings
- kerb ramps with no lip causing contractor/drainage issues
- ageing population impacts

15. Next meeting

The Group agreed to meet in Christchurch in the first week of March for the first meeting of 2015. The Group recorded its thanks to Paul Barker for hosting the meeting.

Meeting closed at 3:40 pm.

Actions

Sharrow and Lane marking trials

- Analysis of trial data is to consider the cost implications of using LANE and the practical difficulties of ensuring precise alignment of renewed markings in narrow cycle lanes.
- Use of the white M2-3 symbol on a green background is to be considered against the same criteria.
- Post-trial surveys of road users should be undertaken wherever practicable.
- Results of the analysis of trial data from all sites will need to have been completed and circulated prior to the group reconvening in Christchurch in the first week of March

Implementation guidelines

- Trial data and cost benefit analyses are to be copied to Flow through Karl Hancock and Wayne Newman

Delineators

- Members are to report on delineators being used, and their performance, and on delineators being considered.

Way-finding signage

- Members are to provide comment on draft *Christchurch City Council Bicycle Network Sign Design Manual, September 2014*, and *Draft Bicycle Network Signage Plan*.

Separated bicycle facilities

- Members to circulate experiences and ideas for design, marking and control of cycle and pedestrian crossings.

Shared paths

- Members are to circulate comments on appropriate design widths to allow for passing and congestion on shared paths.

Intersections

- Gerry Dance and/or Wayne Newman will review proposed changes to RUR and circulate a summary for comment.

Shared spaces

- Members are to circulate experiences and ideas on how to accommodate static and mobile users, and differing flows of mobile users in shared spaces.

Related activity and research

- Members are to consider and comment on concept of classifying cycling facilities by class of confidence of target user, possibly using the FHWA Advanced, Basic, Child - A, B, C classification.

National guidance document

- Members are to circulate comments on the draft *Summary Scope for Developing National Cycle Design Guidelines for New Zealand*.