

MINUTES: ACTIVE MODES INFRASTRUCTURE GROUP MEETING

Thursday 6 July 2017 – 9.30 am to 5.30 pm

Kawau Room, Grand Mercure Hotel, 8 Customs Street East, Auckland

Attending

- Gerry Dance, Cycling Delivery Manager, System Design & Delivery, NZTA
- Kirsty Horridge, Network Engineer, Hamilton City
- Tim Hughes, National Traffic and Safety Engineer, NZTA
- Simon Kennett, Senior Project Manager, System Design & Delivery, NZTA
- Glenn Bunting, Network Manager, Safety and Environment, NZTA
- Kathryn King, Walking & Cycling Manager, Auckland Transport
- Ina Stenzel, Principal Specialist – Walking and Cycling, AT
- Steve Dejong, Traffic Engineer, Christchurch City (from start)
- Paul Barker, Safe and Sustainable Transport Manager, Wellington
- Glen Koorey – representing IPENZ Transportation Group
- Wayne Newman, RCA Forum Research & Guidelines Group
- Ben Frost, Senior Specialist, Walking & Cycling, Infrastructure Design, AT

Apologies

- Richard Bean, Senior Engineer, NZTA
- Claire Graham, Senior Specialist – Walking and Cycling, AT
- Nick Marshall, Senior Roding Engineer, Whangarei District
- Susan Lilley, Transportation Planner, Dunedin City
- Clare Cassidy, Planning Engineer, Transport, Tauranga City
- Nathaniel Benefield, Lets Go Project Manager, New Plymouth District
- Claire Sharland, Asset Manager Transportation, Taupo District
- Jodie Lawson, Sustainable Transport Team Leader, Rotorua Lakes

Actions

- a) Send a letter to all councils to encourage representation on AMIG – **WN**
- b) Regulatory supplementary sign ‘To Cyclists’ to be progressed – **RB**
- c) CNG will be developed for consultation and ratification. Austroads guides and Christchurch guide will be referenced. Best practice notes and case studies will be referred to AMIG for consideration – **TH**
- d) A case study of the key attributes for separators will be developed; IS to supply photographs to SD, who will provide report to TH – **SD, IS, TH**
- e) The effect of hook-turn signs will be monitored at another site – **SD**
- f) A case study on Bridge St Hook Turn sign to be supplied in due course – **KH**
- g) A case study on bus stop design on separated cycle routes will be supplied – **PB**
- h) A trial of different crossing markings is to be developed – **SK**
- i) A Rule change to make ASBs enforceable will be investigated– **SK**
- j) A Rule change to define a shared path will be progressed – **SK/TH**

- k) An application is to be made to TCDSG to use symbol in place of “cyclists” on “watch for traffic” sign - **SD**
- l) Incident/accident trend developing with new infrastructure to be monitored and reported to next meeting - **SD, PB, KK**.
- m) Progress of shared path signal trials to be reported to next meeting - **SD/IS**
- n) Responses used in Vancouver to alert cyclists to tram-line hazards will be researched and reported to next meeting - **SK**
- o) Update for next meeting on Paxster trial in Hamilton - **KH**
- p) Update for next meeting on school zone marking research - **KK**
- q) Circulate report of CCC study of school zone parking restrictions - **GK**
- r) Monitor media reports of public confusion over sharrow markings - **GK**
- s) Circulate paper on developing options for contraflow cycleways - **GK**
- t) A case study of the ramp and platform design for the Glen Innes shared path to be supplied for CNG - **BF**
- u) Arrange venue and catering for next meeting - **TH**
- v) Agenda for October meeting to include waste management and collection - **WN**

MEETING A G E N D A

1. Welcome, introductions, apologies and H&S briefing
2. Minutes of 12 April 2017 and actions arising
3. Cycle directional signals trial
4. 'Cyclist watch for traffic sign' - replace word 'cyclist' with cycle symbol
5. COPTTM use of Sharrow's
6. SBF(cycle facility) to Road merge Signage
7. Incident/accident trend developing with new infrastructure
8. Consistent interim design for SBF across T intersection best practice
9. Shared path signals
10. Shared path behaviour markings – adoption of the Austroads version
11. New path survey results: Hamilton
12. Paxter trials survey: Hamilton
13. School marking research: Auckland
14. Feedback from the Velo-city conference
15. Public education regarding Sharrow markings
16. Short-term cycle-friendly infrastructure trial options
17. Other business
18. Future meetings

NOTES

1. Welcome, introductions, apologies and H&S briefing

This item was taken informally during morning tea, which was brought forward an hour to 9.30 to allow a cycling facilities site inspection to be undertaken in the morning before too many streets became impassable due to the America's Cup victory parade.

A tour of local facilities was made from 10.00 to 11.00. K. King led the group on a guided cycle tour around the central city showcasing some recent infrastructure improvements. The tour took in the Quay Street bi-directional separated cycleway, Beach Road cycleway, Grafton Gully Cycleway, the Lightpath and down Nelson St Cycleway connecting back onto the Quay St cycleway. It was a great opportunity to ride these facilities that are providing a high level of service and enabling more people to cycle in central Auckland.

2. Minutes of 12 April 2017 and actions arising

- a) Send a letter to all councils to encourage representation on AMIG
 - This will be progressed before the next meeting – Action: open – WN
- b) Advisory speed marking for shared paths and possible advisory speed limit
 - Taken under item 10.
- c) Regulatory supplementary sign 'To Cyclists' to be progressed
 - This is being progressed. Until such a regulatory supplementary is approved, any sign indicating traffic must Give Way to anyone other than Pedestrians is illegal, as a local RCA has no authority to invent new regulatory signage – Action: open – RB
- d) CNG will be developed for consultation and ratification. Austroads guides and Christchurch guide will be referenced. Best practice notes and case studies will be referred to AMIG for consideration
 - This work is being progressed – Action: open – TH
- e) KiwiRail Level Crossing Guidelines to be circulated
 - The Guidelines have been circulated for comment and the final amendments have been incorporated, with the Risk Assessment now separate; final version is expected to be released soon – Action: closed.
- f) A case study of the key attributes for separators will be prepared
 - This is a report on the separator trials, as reported to the last meeting, to be added to the CNG site; Action: open - IS to supply photographs to SD, who will provide report.
- g) The trial of hook-turn signs will be tried at another site
 - This is a change made necessary by adjacent land uses making the approved sign less useful in its present context for monitoring behaviour – Action: open – SD
 - HCC installed a Hook Turn sign to reinforce an ignored Hook Turn box on Bridge St; case study to be supplied in due course – Action: KH
- h) A case study on bus stop design on separated cycle routes will be supplied
 - This is a report on the Victoria St designs to be supplied – Action: open – PB
- i) Directional signals update will be provided to the next meeting
 - Taken as item 3 on this agenda – Action: closed.
- j) Notes from the making trials easier workshop will be circulated to the group

- This has been done – Action: closed.
- k) A trial of different crossing markings is to be developed
 - This is being developed – Action: open – SK
- l) A further Rule change appears to be needed to make ASBs enforceable
 - This is being considered to understand the subtle amendment of the Rule that is needed – Action: open – SK
- m) Rule needs to contain a definition of a shared path
 - This is a priority in the next tranche of changes – Action: open – SK/TH

3. Cycle directional signals trial

S. Dejong reported on trials of signal hardware. 200mm and 300 mm signals were compared and masks with different sized arrows were compared. The signals were tested in fog to ascertain whether the signal would remain legible or become a diffused green aspect, and remained legible as a cycle directional signal. The 200 mm signal was found to be good for primary position displays, while the 300 mm seemed better suited for secondary position displays. The 200 mm signals have been set on half-height poles for the trial.

Although the trial was Gazetted on 1 July, it was not advertised in local papers twice before this date as required, so it will now be advertised and will start two weeks after the public notice has been published. The interim report from the trials is expected in February or March 2018. A final report would then follow in late 2018 and any change to the Rule to accommodate such signals would be done after that.

4. 'Cyclist watch for traffic sign' - replace word 'cyclist' with symbol

An approved sign for “Cyclists watch for traffic” was installed as a cycle symbol over “watch for traffic”. At the moment the use of the symbol is not approved. The meeting agreed that the symbol is potentially preferable to the word for such signage and approved an application to the TCDSG for approval. **Action:** an application is to be made to TCDSG to use the M2-4 symbol in place of “cyclists” on “watch for traffic” signs - SD

5. COPTTM: use of Sharrow's

There is a desire to use the Sharrow marking on long-term ‘temporary works’. **Agreed:** if the recommended conditions within the guidelines for use of the sharrow marking, including a 30 kph speed limit and reduced lane widths, were met, then it would be an appropriate use of the marking for TTM on long-term work projects.

6. SBF (Cycle Facility) to Road - Merging Signage

The question was asked whether a sign was needed to warn of a SBF ending and merging into a cycle lane. This was seen as a lesser need than an SBF ending in a traffic lane, but markings are already available for this situation and being used. AT uses “Cycle only ends” signage. WCC uses the sharrow.

7. Incident/accident trend developing with new infrastructure

S. Dejong noted an interesting trend in cyclist accident data, where it is the experienced cyclists who are having accidents on new facilities. P. Barker commented that the experienced cyclists are remaining on the traffic lane in Wellington, while K. King reported that video monitoring showed the experienced

cyclists tended to have problems on new infrastructure, although almost all complaints were received from new cyclists.

The critical variable appears to be speed and an assumption of priority for cyclists leading them to enter crossings too suddenly for motorists to react. More thought needs to be given to surface texture variations to reduce cyclist speeds where they might get into difficulties.

Action: trend to be monitored and reported to next meeting - SD, PB, KK; thought to be given to guidance on surface texture on approaches to crossings.

8. Consistent interim design for SBF across T intersection

S. Dejong raised the need for consistent best practice design guidance for T intersections where the SBF crosses the T. S. Kennett noted that this has been addressed by Traffic Note 1. The trials of driveway crossing markings on Hutt Rd also appear relevant. Four alternative treatments were tested.

A cycle marking on green stripes slowed cyclists and reduced near-miss incidents with vehicles by almost half. Placing a judder bar at the white line for the exit had a counterintuitive result, with vehicles coming forward into the cycle lane and stopping, because the judder bar was set too far back to provide clear sight lines to exit. Placing the judder bar at the side of the cycle path produced better results. Finally, replacing the judder bar with four light studs triggered by a vehicle being sensed by a radar signal produced a worse result than using just paint alone. The radar accuracy of 89% was not reliable enough for this purpose.

There are also situations where the legal requirement for both a "Give Way" sign and a triangle marking would be impractical, as for a left turning motorist turning into the stem of the T where the SBF crosses the T. In this situation a platform with zigzag lines on the ramps and elephant's feet edge lines could reinforce the priority for the SBF. A trial of this design will begin on Hutt Rd in September. It is intended to serve a SBF where the path is too narrow to allow a paired crossing.

9. Shared path signals

S. Dejong raised the matter of signal design and configuration for shared path crossings. I. Stenzel reported on a trial of a two-aspect signal employing pedestrian and cycle symbols on a single aspect, with only a red or green aspect used. A full trial is to be undertaken at new sites. **Action:** progress of shared path signal trials to be reported to next meeting - SD/IS

10. Shared path behaviour markings - adoption of the Austroads version

S. Kennett reported on the advisory speed marking used in Australia. The meeting noted that the advisory speed marking has proven ineffective in Australia, while the use of green stripes had been effective in slowing cyclists in NZ. **Agreed:** an advisory speed marking is not supported.

The meeting also considered the Austroads behaviour markings against several alternative markings for moving off the path when stopped, controlling dogs, warning when approaching and keeping left. Although the markings are not as clear in their message as might be wished for in places and could suggest less desirable behaviour (the cyclist appears to be shouting at the pedestrian), the Austroads markings have been installed by Nelson City and Christchurch City and it was agreed that a consistent national approach should be encouraged. **Agreed:** the Austroads shared path behaviour markings will be used in NZ.

S. Dejong raised a query about a marking warning of tram-lines. The immediate problem would be that a shared path behaviour marking could not be marked on a road. The response to this issue in Vancouver could be helpful. **Action:** responses used in Vancouver to alert cyclists to tram-line hazards will be researched and reported to next meeting - SK

11. New path survey results: Hamilton

K. Horridge reported on survey results from a conversion of a footpath to a shared path on Avalon Drive. Cars using the cycle lane as a left turn lane prompted a decision to put cyclists on the footpath, as all nearby footpaths are shared. There was vehement opposition from pedestrian advocacy groups and HCC scheduled four surveys to judge the effect. The prior survey was done in June 2016 with subsequent surveys done in August and November 2016 and March 2017. These showed a dramatic increase in cyclist numbers and pedestrians. Cyclists on the road increased from 9 to 13; cyclists using the path increased from 13 to 64; pedestrians increased from 60 to 153.

Improved use of the path has not resulted in conflict. Converting this section of footpath to shared use has connected surrounding networks of shared paths where cyclists were previously forced onto the road at this point.

12. Paxter trials survey: Hamilton

K. Horridge reported that a trial of Paxster delivery vehicles by NZ Post on HCC footpaths has been approved and will commence on 28 August. Pre-counts were being done and HCC was seeking data from NZ Post that will inform potential exclusion zones. **Action:** update for next meeting - KH

13. School marking research: Auckland

K. King reported on research being done on improving rates of walking to school and easing congestion around school entrances. H. Mackie is undertaking a literature review of overseas responses. S. Dejong noted that CCC had done a study on school zone markings. Although the congestion around schools slows traffic, it is in itself a major contributor to parents not letting children walk to school. **Action:** update for next meeting - KK; circulate report of CCC study - SK/GK

14. Feedback from the Velo-city conference

I. Stenzel reported on some of the dominant themes from the conference, which drew about 1500 delegates from 40 countries to hear 260 presentations over four days in Nijmegen/Arnhem. "Bionomics" seeks to embed cycling in modelling. "Flow" means "furthering less congestion by creating opportunities for more walking and cycling". Cycling improvements were shown to lead to 45% less car traffic and 10% faster public transport. The London access restrictions reduced vehicle numbers by 10,000 per day. Transport language remains motor dominated; active modes of personal transport are disparaged as "non-motorised".

Combining cycling with rail public transport is seen to offer substantial efficiency gains. The effective pedestrian catchment for a train station is about 500 m, whereas for a cyclist it is about 1900 m. Where shared bikes are available, 42% cycle to the station, 54% use the train more and 46% use a shared bike rather than a bus for the last mile. This approach needs safe and secure bike parking at

stations and a shared bike scheme for the “last mile”. Utrecht station has parking for 33,000 bikes.

Transport modelling needs to give a balanced account of the health benefits of increased investment in active modes by conversely taking into account the health disbenefit of investment that increases the use of cars.

15. Public education regarding Sharrow markings

G. Koorey noted the recent flurry of reports in both conventional and social media of confusion regarding the meaning of the marking. There appears to be adequate education available, but the media reports need to be monitored, especially to be sure that a consistent message is being presented to the public. **Action:** monitor media reports of public confusion over sharrow markings - GK

16. Short-term cycle-friendly infrastructure trial options

No item of business was raised under this standing item.

17. Other business

a) P. Barker presented a proposed contraflow cycle lane in a one-way street with parking in the same direction on both sides, which is legal in a one-way street, and queried whether adding a vehicle lane in the opposing direction would render half the parking illegal. G. Koorey offered to share a paper presented this year on contraflow cycleways. **Agreed:** adding a special vehicle lane contraflow in a one-way street is not adding a general vehicle lane, so the street remains one-way and right-side parking remains legal. **Action:** circulate paper on developing options for contraflow cycleways - GK

b) S. Kennett presented a situation where the new Austroads guidance for bollards to be 1.4 to 1.6 m apart is applied on a wider path and asked whether placing four bollards to divide the path into three would be appropriate. **Agreed:** a central gap between bollards generally leads to confusion and conflict, and it would be better to narrow the path and use a central bollard, even if the gap between bollards increased to 1.8 m, as even at 1.8 m very few cars could pass.

c) T. Hughes reported on the challenge in regulating Dockless bikes. This is a bike-share scheme whereby bikes are left at random on streets with GPS built in so that someone with the app can locate the nearest bike, and revenue from the data from tracking each individual’s journey subsidises the bike hire. As the bikes left on the footpath are not abandoned, but are not returned to a dock, the bikes are not controlled by current regulations. It was agreed that this is likely to be a parking management issue.

d) S. Kennett reported on an approved project to map cycle networks, using five colours to denote separated, shared, cycle lane, greenway and miscellaneous road space, to expand on the map of the Great Rides routes and Heartland routes and show the routes that are potential Great Rides or Heartland routes. This would map the potential national network. It was agreed that this tool would identify pinch points or gaps that could be considered in future route upgrade plans. G. Bunting suggested a map of the 100 high-risk cycle routes could possibly now be compiled using the same methodology used for the 100 high-risk motorcycle routes.

e) T. Hughes commented on the lack of implementation of the guidance on roundabout design. Use of wider lane widths in response to concerns about long vehicle passage, instead of mountable centre hubs, permitted traffic to retain

higher speeds through the roundabout. The roundabout needs to create a safe deflection that reduces traffic speed to about 20 kph in the roundabout.

f) B. Frost reported on the response to a gradient greater than 5% on a shared path, where 1.2 m platforms had been installed every 9 m in accordance with Building Code requirements for ramps, because the path is used by wheelchair and mobility scooter users. As the path is designed as a built structure, rather than a path, and requires a building consent, and its usage by devices such as wheelchairs and mobility scooters requires frequent level platforms, it was agreed that the design was appropriate to the circumstances. **Action:** case study to be supplied for CNG - BF

18. Future meetings

The next meeting will be in Christchurch on Monday 16 October prior to the Cycling Congress. The Transport Agency will host. The agenda will include waste management – bins and collection.