

## CYCLING ADVOCATES NETWORK

### Comments on Code of Practice for Temporary Traffic Management

17/April/02

#### About CAN

The Cycling Advocates' Network of NZ (CAN) Inc is this country's national network of cycling advocates. It is a voice for all cyclists - recreational, commuter and touring. We work with central government and local authorities, on behalf of cyclists, for a better cycling environment. We have affiliated groups and individual members throughout the country, and links with overseas cycling organisations. In addition, some territorial local authorities, and one consultancy, are supporting organisations.

The national committee of the group has prepared this submission, with input from the wider membership. You can find the names of the committee on the website <http://www.can.org.nz/> under 'contacts -> office holders'.

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#### General comments

- The drafters of the new CoP manual should be applauded for their efforts in including cyclists and pedestrians in the new manual. In many cases, problems encountered out on the road are more likely to be due to the poor application of the manual rather than gross omissions within the manual.
- Having said that, while the CoP does not generally exclude cyclists and pedestrians from consideration, it doesn't explicitly mention them in many clauses where it might be useful to do so, to help consultants and contractors remember their obligations.
- Further specific guidance is suggested on ways to provide practical traffic control to meet the needs of cyclists and pedestrians, especially where there is no formal footpath or cycle-lane. In many situations we accept that the "best case" option is not practical, given site constraints, but feel that more could be done to produce a workable solution.
- If you have not already done so, we suggest that you look at the very useful UK Traffic Advisory Leaflet "Cyclists at Road Works" and its related references. This can be obtained on the internet at: [http://www.roads.dtlr.gov.uk/roadnetwork/ditm/tal/cycle/15\\_99/index.htm](http://www.roads.dtlr.gov.uk/roadnetwork/ditm/tal/cycle/15_99/index.htm)

#### Written Feedback

CAN has received written feedback from its membership. Much of that has been incorporated into these comments, but for the benefit of the recipients of this submission, some relevant text has been appended to this document. The text gives an interesting insight into the diversity of cyclists and their differing needs. For example, some specific problems seem to exist for road cyclists only (possibly due to their higher travel speeds and thin tyres).

#### Main Submission

New signage (MOTSAM Section 5)

- A temporary cyclist warning sign (i.e. similar to PW-35 but orange) is suggested as a more intuitive alternative to the TW-2 (Other hazard) sign. A TW-2.13 (CYCLE RACE) plate could still be affixed for further explanation if applicable.
- A standalone temporary cyclist warning sign could also be used as an acceptable solution in places where cyclists have to share a traffic lane with motorists, but it is too narrow to overtake them. A supplementary "SHARE THE ROAD" plate (as used in the US) could also be used to enhance the point. Use of such a sign should be subject to minimum requirements of delineation and speed control (e.g. 30 km/h limit).
- Cyclist detour signs, similar to the TW-32 pedestrian ones should be specified for where cyclists may be provided with an alternative path to motorists.
- We suggest that a suitable (and preferred) alternative to the TW-33 (STOP/GO paddle) is to allow the use of the word "SLOW" instead of "GO". This helps to reinforce the slower speeds desired through worksites, a particular concern for cyclists.

(as a side comment, we note the continuing number of TW-2 (Other Hazard) signs out on the road without supplementary plates. Obviously some more explicit emphasis on this needs to be incorporated in the CoP and training!)

Preface

Add to statement: "This Code of Practice shall be applied to any activity that varies the normal operating conditions of any road *or pathway (including off-road paths)*."

- Comment: the definition of "road" in the glossary only considers road-reserves, not off-road paths (remember Tauranga Route PJK cyclist path crash). We do not suggest changing the definition of "road", hence the additional wording required.

#### A4.2 RCA Responsibilities

- Add new bullet: "*identifying the need for particular attention to providing for pedestrians and cyclists through the site.*"

#### A6.5 Contents of TMP

- 2nd bullet point: add "*(it should be noted that ALL worksites should not make it more dangerous for any pedestrians and cyclists to travel through)*"

#### B1 Signs

- (Note this comment applies to ALL road signage): Not sure where the relevant standard is that specifies "aircraft grey" for the backs of signs. However, with the greater emphasis on roadside hazard mitigation these days, some consideration of better delineation on the backs of signs is warranted. For example, when traffic control is "double-signed" on both sides of the road (e.g. near a passing lane), the RHS signage presents a hazard to oncoming traffic at night, especially cyclists in the shoulder. One suggestion is to use a reflective dashed/dotted frame around the border of the sign backing - relatively conspicuous without being distracting.

#### B1.6 Sign Supports and Stands

- Add: "*Sign bases must NOT be left out without signs on them in such a manner to cause a hazard to pedestrians, cyclists or vehicles.*"
- Add: "*Sign support bases should not extend unduly beyond the width of the sign, where they might cause a hazard to passing pedestrians, cyclists or vehicles.*"

#### B2.3 Delineation Devices - Dimensions

- Comment: For the outside edge of a cycle lane, smaller reflectorised cones (e.g. 700mm) may be an acceptable form of delineation.

#### B5.1.4 Portable Traffic Signals - Detection System

- Add to 1st paragraph: "*Routes with significant cyclist numbers should allow for cyclist detection either automatically or manually (e.g. push button) or alternatively provide a safe bypass route for cyclists.*"

#### C2.4 Layout for L1 Traffic Management

- Add footnote re spacing in taper: "*For coning used to mark the edge of a cycle lane (or where cyclist usage is high), a closer spacing may be required to prevent cyclists from going between them. Better yet, consider using barriers instead.*"
- Provide similar footnote for section C2.5 (L2 Traffic Management)

#### C2.7 Minimum Lane Widths

- Add: "*Additional width should be provided on curves, especially where there are high numbers of trucks or cyclists. Refer to Section 4.4.2, Table 4.1 of the State Highway Geometric Design Manual for more information.*"
- Add to paragraph after Table C2.4: "*Where a high number of cyclists use the route, use delineation devices to provide a separate cycle lane rather than a wide combined lane.*"
- Add: "*It should be noted that a typical car needs at least 3.25m lane width to safely overtake a cyclist, and heavy vehicles need even more. In some circumstances it may be more prudent to provide narrower lanes so that motor vehicles do not try to overtake cyclists. Where cyclists are forced to share the road with other traffic on long narrow lengths, passing bays should be provided every 100m if possible.*"
- Add: "*The minimum width for a one-way cycle lane is 1.5m.*"

#### C3.5 Placement of Signs

- Re last paragraph: Not clear what is meant by the "delineated side"

- Re last paragraph: Similar provision should also be made for high-use shoulders, given that marked cycle lanes are fairly rare.
- Add: *"If cyclists or pedestrians are directed out onto live traffic lanes then they should be adequately protected from other traffic by cones and/or barriers, or suitable warning signage and speed limits provided to other road users."*

#### C4.2 Temporary Speed Limit Requirement

- Add new bullet: *"where cyclists or pedestrians are required to cross over, travel closer to or with other traffic."*

#### C5.2 Cones and Other Delineation Devices

- Re 2nd paragraph: A small cyclist direction sign (similar to TW-32 pedestrian ones) may be required to explicitly indicate to cyclists which side of a line of cones they should ride on, i.e. similar to use of RG-17/34 (KEEP LEFT/RIGHT) signs at the start of cone lines.

#### C8.1 Shoulder Closures

- Add: *"Shoulder closures must provide for safe passage of cyclists who normally use the shoulder."*

#### C8.8 Using the Shoulder as a Temporary Lane

- "A shoulder used as a temporary lane must:" add new bullet *"allow for the safe passage of cyclists normally using the shoulder."*

#### C8.12 Passing Lane/Bay Closure Principles

- Add at end: *"Signs must be placed out of the path of oncoming cyclists where possible."*

#### C9.3 Road Closures - Detours

- Add: *"Signage and barriers should explicitly indicate to pedestrians and cyclists whether any detours also apply to them, i.e. TW-32 (and cyclist equivalent) signs should direct them safely through the site or to the detour route."*

#### C12 Night work

- Comment: the sections mentioning cyclists and pedestrians in C12.3, C12.4 and C12.5 are all very good.

#### C13 Pedestrians and Cyclists

- Comment: in many RCAs, marked cycle lanes are a rarity or non-existent, yet there still exists considerable cyclist use on some roads. Therefore similar consideration must be given to traffic control on these "high use" routes, to providing safe passage for cyclists through the site. There appears to be some inconsistency in the CoP regarding this, i.e. sometimes only marked cycle lane situations are mentioned.

#### C13.1 Pedestrians and Cyclists - General

Add: *"When pedestrians and cyclists are not be legally prohibited from a Level 3 worksite, in most cases it would be in the best interests of their safety to provide a safe, reasonably direct, and clearly marked alternative for them."*

#### C13.2 Pedestrian Crossings

- Add to 2nd paragraph: *"Note that if a replacement "zebra crossing" is provided, it must meet the minimum legal requirements for such a crossing (i.e. stripe markings, b&w poles with Belisha Beacon disk, advance PW signs, diamond markings)."*

#### C13.3 Temporary paths and detours

- Re 1st paragraph: It is not clear whether the use of the term "cycle paths" implies both off-road tracks and on-road lanes.
- Although a 1.5m width is a good recommendation for a one-way cycle-only lane/path, wider allowance would be needed for shared use (pedestrian/cyclist) or two-way paths. Alternatively further signage/coning may be needed to warn and slow down path users.

#### E2 Level 1 temporary traffic layouts

- Some additional alternative treatments for cyclists should be shown for guidance e.g.
  - Using cones to create a protected cycle bypass around a temporary sign (i.e. out into the traffic lane)
  - Using cones and warning signage to slow traffic down and indicate a shared traffic lane (see previous comments on new signage)

(We would be happy to provide further feedback on any such drafts)

- Comment: It would be preferable if some of the layouts could indicate sign positions not so squarely in the middle of the shoulder. This is precisely where cyclists are likely to be. Please shift these locations closer to the edge of the road, as illustrated in Figure 1.



**Figure 1: Considerate placement of a roadworks sign at the edge of a shoulder, leaving an appropriate passage for cyclists without forcing them into the traffic lane <sup>1</sup>.**

#### E2.1 Shoulder Closure - Level 1

- Add note: "*Additional provision for cyclists using the shoulder may be required, e.g. wider minimum widths.*"

(A similar note would apply to many of the other layouts shown in this section.)

#### E2.8 Two-lane Two-way Level 1: New Chip Seal Unattended

- Suggest allowing for cyclist bypass of threshold treatments (e.g. through cones).

#### E2.9 Two-lane Two-way Level 1: Road Closure

- Cones on the outer curve must allow for cyclists to safely ride around the curve.

#### E2.15 Two-lane Two-way Level 1: Temporary Cycle Lane

- This treatment is also applicable for shoulders with "high cycle use".
- Signage needs to be added to indicate use of the temporary lane by cyclists.
- If there is a cycle lane on one side, then you would expect high cycle use on the other side too!
- This layout would be easier to read upside down!

#### E2.23 Three-lane One-way Level 1: Two lanes closed with two lanes operating

- Cycle detours or suitable cyclist warning signage should be recommended.

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<sup>1</sup> SH74 in central Christchurch

Sections F/G Level 2/3 layouts

- Similar comments to Level 1 layouts are recommended (e.g. F2.10 is similar to E2.15)
- For Level 3 layouts we suggest that the previous comments in C13.1 be reiterated, i.e. "*When pedestrians and cyclists are not be legally prohibited from a Level 3 worksite, in most cases it would be in the best interests of their safety to provide a safe, reasonably direct, and clearly marked alternative for them.*"

## Appendix

Written feedback received by CAN regarding CoP TTM

### **J.D. 4 Mar. 02:**

Contractors round Wellington seem to have a habit of leaving the sign bases in place overnight, removing the 'road works' sign, but either putting the base (with its long metal legs) and bag of gravel on the footpath for pedestrians to trip over, or leaving them on the side of the road where cyclists are supposed to ride. Having nearly come to grief on one just down our street, I know they are very hard to see, and you don't expect them to be there. I guess it is just laziness that they don't remove the whole unit at night, and they probably haven't thought about it being a hazard. It would be nice to see a code of practice to either have the whole sign there or nothing.

The issue of temp signs was raised at our regional cycle forum a couple of years ago, specifically the problem of signs placed in the shoulder with their backs to the oncoming traffic. (I guess this means that there were signs placed on both sides of the road, not just on the 'wrong' side.) The sport cyclist guys said that because the sign backs were grey, they could be hard to notice until you were nearly onto them (I guess they were travelling quite fast). The Transit rep said the signs shouldn't be there anyway, but that he would mention it to his contractors, and maybe they could spray dazzle on the backs. I'm not sure whether there is still a problem with the placement of signs, but I have noticed that the backs are generally still plain grey. I know it seems like an odd complaint, but it really was an issue for the roadies in this area - one of them had even gone to the bother of photographing examples.

### **J.D. 5 Mar. 02:**

Further to my last email, I've just spoken to the roadie cyclist who raised the issue of the backs of signs. He says there has been no discernable difference in the (bad) placement of signs since he raised the issue with our Transit 'Safety' Manager. He also said that he has several times been going up Ngauranga Gorge (steep, for those who don't know it) on the off-road cycle path, and had to dive back out onto the roadway because signs had been placed on the cycle path. There is no hard shoulder in places (presumably why they put the signs on the cycle path) and it is lethal having to dive out into the 100 km/hr traffic - he said it was scary even getting off and walking his bike around the sign.

### **G.K. 4 Mar. 02:**

The problem with this simple rule of thumb is that it doesn't recognise the countless number of high-use routes around the country where the TLA hasn't gotten off their butt to mark lanes. As a very close-to-home example, along Creyke Rd in front of the university they are currently doing retrenching work and narrowing the usable road to two coned lanes. As it stands, cyclists have to take the whole lane too, but this is not made clear to motorists or cyclists (e.g. cyclists may try to ride behind the cones in the path of the turning excavator). The advance warning signs are also nicely placed so that you ponder which side of them to cycle around. Now this route doesn't currently have cycle lanes (it's currently being planned for reconstruction with cycle lanes), but the cycle use is very high.

### **J. G. 19 Mar. 02:**

Cyclists must be provided for in every case. If it is not possible, a van or truck to ferry cyclists through the project should be allowed for.

1. If the temporary lane width is very narrow cyclists cannot be passed so allow passing bays every 100 metres or so if possible.
2. Sometimes if space permits cones can be placed so cyclist can be on "wrong" side i.e. share with road works for at least most of the distance, this is a good solution.
3. In the rare case of a divided 4-lane road where half the road is used for all the traffic, i.e. 2-way there will be no room for cyclists against the median. There will probably be a shoulder, which is OK for one direction. For the other direction space must be left for cyclists on the closed off half. The alternative is for cyclists to ride against the traffic on the shoulder. I have struck this in the US where open road speed limits still applied and it is very unsatisfactory - we finally managed to find an unmarked way through the construction.
4. Appropriate, low, speed limits must be set and enforced.
5. One-way traffic, from each direction in turn, controlled by traffic lights or signs could be used more often. If the lane width is wide enough for cyclists plus vehicles, this is another good solution. Even if the phase is not long enough to allow a cyclist right through it is OK if the lane is wide enough. Again speed needs to be controlled.
6. Surfacing needs to be of a minimum standard, e.g. huge cobbles, loose gravel or sand may be difficult to even wheel a bicycle through, let alone ride.

### **B. O. 19 Mar. 02:**

I noticed some roadworks at daytime at a fairly major intersection, which blocked off one lane with the backhoe equipment when it could have been stationed on the other side of the excavation to complete the same task. I

recommend that work, which closes a lane at a major intersection, does not occur during defined peak hours and at specified traffic volumes, occurs only at night. It is very tricky as you either get the commuters complaining during the day or the residents complaining about noise at night.

I feel that pedestrians have a much better chance of safely negotiating signs and their volume is lower. Wheelchair users must be able to get around the signage and works even if a pair of workers has to carry them around. In most areas pedestrian volumes are low enough to avoid problems, but perhaps this should be better defined.

Warnings about roadworks signs should be left up at night if the road surface has changed temporarily in a way that can cause the vehicle to lose control. My partner was driving through Pirongia on the way to Paraparaumu with me late at night a few years ago and lost control of the vehicle on very thick, rough gravel in a location where the roadworks sign had been knocked or blown down before the start of the roadworks. Multiple signs entering roadworks on key through transit routes would help a lot here. Popular bypass routes should be identified even if they are on secondary, lower standard roads.

I would like to push for narrower lanes and a wider no-go shoulder lane. This will help keep vehicle speeds down, reduce the damage by trucks to the road edge and provide a more stable road base, which requires less surface maintenance. We should encourage truck drivers to stay to the middle of the road. They are more likely to travel in excess of the speed limit anyway.

**R.B. 19 Mar. 02:**

There's a silly idea around (among engineers etc) that cyclists only use (or, at least, should only be planned for) on so-called 'cycle routes' (of which, of course, there are very few indeed). The point needs getting through that cyclists may be (and so their presence should be allowed for) on any road (except motorways of course). So I would say that the answer is this approach, rather than to try to get more 'cycle routes' signed.

Also, the best route for a cyclist will often be along the arterial system anyway, meaning there isn't the need for a special 'cycle route' as such.

Another issue is the blue disc sign itself. It is described ambiguously in the technical manuals, in some places saying it's for cycle 'routes' and some cases cycle 'lanes'. These are quite different - a cycle 'route' may not actually involve cycling facilities, whereas a cycle 'lane' by definition IS a cycling facility.

This has apparently caused some confusion in Christchurch, and the fact that the Road Code doesn't mention this sign means motorists are even less likely that road engineers to know what it's for. I have a suggestion, which I'll make to LTSA (now reviewing the Traffic Control Devices Rule - submissions due end of April) that they adopt the very good system I remember from UK - a disc (as the NZ sign) for a cycling facility (e.g. lane) and a rectangular sign, with a cycle logo, destination and arrow, for a cycle route.

**W.B., 20 Mar. 02:**

This is not only issue with road works. Recently I noticed that gardeners for the City Council set up a gardening sign in the cycle lane at the western exit to Victoria Bridge, Hamilton. This bridge is dangerous for cyclists at the best of times. The sign was in place during peak traffic and was left there until the following day. Is it possible for signs to be attached to an existing upright support (in this case the bridge railings, or a lamp post) instead of using the tripod and sandbag?

**J.M., 20 Mar. 02:**

Yes, this is a big problem. Moreover, the signs are just at the heights of the cyclist and handlebars, maximising the problem. If the signs were about 1 m higher (i.e., placed on posts about 1 m longer), it would be possible to cycle closer to the base & post without hitting the sign. This would effectively increase the cyclist lane by half the width of the sign. Not a lot, but it's an easy change to make, and we all know that 1/2 meter further away from the traffic is a big plus for a cyclist. One might even find that the signs were more visible and effective if they were a little higher, if cyclists would no longer block signs from the motorists' views.

An additional comment is that contractors often regard the job as "finished" when the road is fit for cars, neglecting to think about whether it is fit for cyclists. For example, when repaving with small grit/stones they often leave masses of loose paving material along the edges of the road where people cycle and park. Such loose material is treacherous for cyclists.

**B.F., 26 Mar. 02:**

Axel apologies for delay you appear to have captured every thing I have concern with I'll just reinforce that quite a few cyclists have mentioned these road work issues to me over the last 2 years as cycle planner.