Broken Yellow Lines in Kerbside Cycle Lanes

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Abstract

In February 2005, cycle lanes were first recognised in New Zealand law through the introduction of the Road User Rule (RUR). They now belong to the group of 'special vehicle lanes' (bus lanes also fall into this category), and thus there are rules that stipulate to road users what they can and cannot do in those special vehicle lanes. It is now illegal to park in a special vehicle lane (see Figure 1 for an example of this behaviour).

Prior to February 2005, broken yellow lines had to be installed in a cycle lane next to a kerb (i.e. in a kerbside position, and not adjacent to a row of parked vehicles) if parking was to be prevented. Since then, most Road Controlling Authorities (RCAs) have omitted installing broken yellow lines in new kerbside cycle lanes, or not installed the broken yellow lines following a reseal of the road.

The experience of some RCAs (and many cyclists) has been that compliance with the no parking restriction in kerbside cycle lanes is poor. Without installing broken yellow lines, kerbside cycle lanes can be potentially critically compromised. The paper explores the underlying reasons for this behaviour. The Christchurch experiment of trying to educate motorists is commented on. Alternatives to installing and maintaining broken yellow lines are discussed.

The paper concludes that broken yellow lines need to be installed in kerbside cycle lanes if the objective is to keep these lanes free from illegal parking.

Figure 1: Illegal parking in kerbside cycle lane

Introduction

On 27 February 2005, the Road User Rule (RUR, 2004) came into force, replacing the driving rules that were previously defined in the Traffic Regulations 1976 (SR 1976/227). With the RUR, cycle lanes were for the first time recognised in law.

Cycle lanes now belong to the group of 'special vehicle lanes' (bus lanes also fall into this category), and there are thus rules that stipulate to road users what they can and can't do in those special vehicle lanes. For example, it is illegal to park in a special vehicle lane.

Prior to February 2005, broken yellow lines (BYLs) had to be installed in a cycle lane next to a kerb if parking was to be prevented. Since then, most Road Controlling Authorities (RCAs) have omitted installing BYLs in new kerbside cycle lanes, or not re-installing the BYLs following a reseal of the road. Their reasoning is that since it is not legal to park in a kerbside cycle lane, they don't need to use their budgets to first mark, and then maintain BYLs.

Problem Description

Are parked cars a problem?

If the occasional car parks in a kerbside cycle lane, does this constitute a problem? There are a variety of reasons why this does represent a problem.

When motorists park in cycle lanes, the lane is no longer available for the safe and convenient use by cyclists. Cyclists will have to manoeuvre around the parked vehicle(s), thus encroaching into the adjacent traffic lane available to other vehicles. Often this adjacent traffic lane is relatively narrow with the expectation that cyclists will use the cycle lane. This may make cyclists feel uncomfortable, may force them to stop behind the illegally parked vehicle (if there is no room in the adjacent traffic lane) and in the worst case scenario, the cyclist might swerve out into the path of a motor vehicle, resulting in a crash.

One of the benefits of providing cycle lanes is that it makes cyclist behaviour predictable. By allocating road space to cyclists, it shows them where to position themselves on the road. Drivers can also much more easily predict where cyclists will go when a cycle lane is provided. This counters the unsafe riding style of some cyclists who cycle in a parking lane and swerve around each parked car (note that in on-road cycling training courses, the advice is to cycle in a straight line past parked vehicles, refer Bikeability, 2009, Module 8). Having vehicles parked in kerbside cycle lanes necessitates this unsafe riding style, and motorists might be caught by surprise in cases where cyclists have failed to properly check behind before moving out of the cycle lane to avoid an illegally parked vehicle.

Cycle lanes have a promotional effect. Through the marking of cycle lanes the uptake of cycling is promoted and cycling as a mode of transport is legitimised. People’s perceptions of cycle safety are crucial to their willingness to cycle – most people perceive cycle lanes to be safer than cycling in mixed traffic. Providing cycle lanes might make the difference to novice cyclists to use a bike in the first instance, or may give parents the reassurance needed to allow their children to bike to school. Vehicles parked in kerbside cycle lanes might erase this benefit.

Installing cycle lanes without keeping them clear of parked cars really gets the blood boiling of many cyclists. We know that cycle planners up and down the country have to waste a lot of their time responding to irate customers who keep reminding them that kerbside cycle lanes without BYLs don't work. And let's face it – we want to get more people to cycle more often, but that’s not going to happen if there is frequent parking in those facilities.

Reasons for parking behaviour

Where BYLs are not marked, some motorists may knowingly break the rules and park illegally. Seeing others breaking the rules in kerbside cycle lanes without BYLs is an invitation to other motorists to do likewise. The authors believe that BYLs are an effective deterrent.

Other motorists may simply not know that it is illegal to park in a cycle lane. They are likely to be very confused by BYLs in some sections of the cycle lane (for example near an intersection, because those BYLs were there long before the cycle lane got installed), but not in others (the old parking areas). Clearly, having some parts of kerbside cycle lanes with, and some without BYLs, could lead many motorists to understandably draw a logical conclusion that it's OK to park in the latter areas (to then be joined by those who know full well) (see Figure 2, Figure 7).

Removing existing paint is nowhere near economical, so it's not a feasible option either to remove this ambiguity.

Figure 2: Kerbside cycle lane with BYLs in the foreground, and no BYLs from this point onwards

Legal Considerations

Traffic Control Devices Rule

The Traffic Control Devices (TCD) Rule (2004) stipulates in section 11.2 that in "defining a part of a road as a special vehicle lane, a road controlling authority must, at the start of the special vehicle lane and at the point at which the lane starts again after each intersection mark on the road surface a white symbol, that complies with Schedule 2" (i.e. a cycle logo, see Figure 3).

There is no need to signpost a cycle lane, and the only traffic control device that makes a cycle lane 'legal' is the painted cycle logo.

Whilst there is a regulatory sign (see Figure 4) for cycle lanes, it does not give the lane itself any legal meaning. As such, the signs are optional. Providing signs without painting the cycle logos also does not achieve a 'legal' cycle lane.

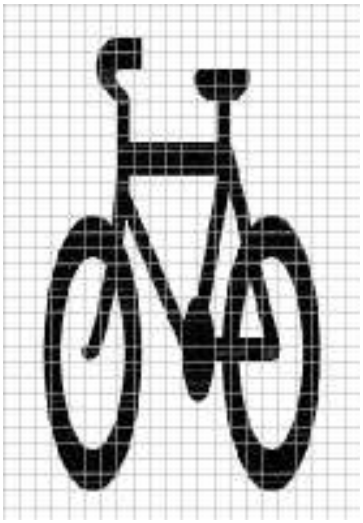

Figure 3: MOTSAM cycle logo

Figure 4: MOTSAM cycle lane sign

The authors believe that far too many road signs are used along roads. People driving along a road corridor have high demands placed on them to take everything in. In our professional opinion, we should leave out all the signs that are not necessary, so that we minimise the information that motorists need to absorb while driving. Cycle lane signs are a perfect example of non-essential information, as they don't give any legal meaning. Everything that needs to be conveyed, both in a legal sense and ‘giving the message to other road users', is achieved by cycle logos. Frequent marking of cycle logos ensures they are just as visible, if not more so, than occasional cycle lane signs.

There is only one advantage of signs, and that is discussed in the section 'Enforcement'.

Some of our peers may well argue that BYLs are 'clutter' to the same extent as cycle lane signs, but the authors dispute this argument. Signs have to be taken in while driving. BYLs are a message that applies to somebody who stops for the purpose of parking. From a road safety point of view, overloading drivers with information is a problem when they are driving, not when they are stopping.

Road User Rule

The Road User Rule (RUR, 2004) states in clause 6.6 that "a driver ... must not stop, stand, or park the vehicle in any special vehicle lanes ...". As outlined in clause 1.6, a special vehicle lane includes a cycle lane.

The latest Road User Amendment Rule (2009) came into force on 1 November 2009. Clause 7.3A stipulates that a driver may not use a hand held mobile phone while driving. It is thus perceivable that the occurrence of stopping on the kerbside will increase. As such, it is even more important that drivers get unambiguous and relevant messages explaining where they can and can't park.

Education and Enforcement

The average driver is not likely to read the relevant legislation, but might obtain knowledge about road rule changes through education, via the media, by reading the road code, or by

being subject to some enforcement action. However, right now most motorists know what broken yellow lines (BYLs) mean.

Road Code

New drivers will obtain most of their knowledge about road rules from the Official NZ Road Code (Road Code, 2009). During the research for this paper, it became apparent that the Road Code does not inform drivers that they can't park in cycle lanes.

Robert Emmitt, who administers the Road Code on behalf of NZTA, responded to the authors that

> *"on page 35 [of the Road Code] it states that they (special vehicle lanes) [are] only for the use of specific kinds of vehicles but it doesn't spell out the no parking issue. On page 80 it states - you must not stop stand or park where a sign says that part of the road is reserved for specified kinds of vehicles (for example bus, taxi, or goods vehicles)... but it doesn't specify special vehicle lanes."*

He advised that the no parking in cycle lanes issue will be amended when the 1 November 2009 changes are incorporated into the Road Code. So the Road Code has not been communicating the February 2005 rule change regarding parking in cycle lanes and will not do so until later in 2009.

Education

After rule changes have been made, as well as being incorporated in training for new drivers, they need to be communicated to existing drivers. The introduction of the Road User Rule in 2005 was a major undertaking which involved a complete re-write of the Traffic Regulations 1976; quite a few changes came from this.

All the changes were available on the Land Transport NZ (the predecessor of NZTA) website. But public awareness campaigns were conducted only for some key changes (e.g. changes to give way rules at pedestrian crossings and the requirement to indicate turns at roundabouts). There has never been a significant national public awareness campaign by Land Transport NZ on the requirement that drivers can't park in cycle lanes.

Enforcement

Enforcement of stopped vehicles is mostly carried out by Council officers. Whilst Police can enforce stopped vehicle violations, in practice this almost exclusively falls to Councils.

Prior to February 2005 some Road Controlling Authorities (RCAs) deliberately provided kerbside cycle lanes in areas where parking was envisaged (see Figure 6, Figure 8). Where those practices existed, enforcement was not often carried out. One RCA even had a special road sign designed that advertised this 'shared parking / bicycle lane' (see Figure 5). As we know from previous discussion (and personal experience) this is a completely unsatisfactory solution that negates the intention of providing for cyclists. There are still some RCAs in 2009 that are reluctant to enforce kerbside cycle lanes that do not have BYLs marked.

Those RCAs that do enforce kerbside cycle lanes have struck a legal problem, and that is the argument of defence if another motorist parks on top of the nearest cycle logo. "How could I have known that it's a cycle lane?" might be the question of the motorist. So this is one advantage of signs that this paper needs to mention for completeness. Where signs are not used, and where BYLs are not installed in kerbside cycle lanes, motorists parking illegally may well have a legal defence.

As our recommendation overcomes this need, this is no reason to install cycle lane signs.

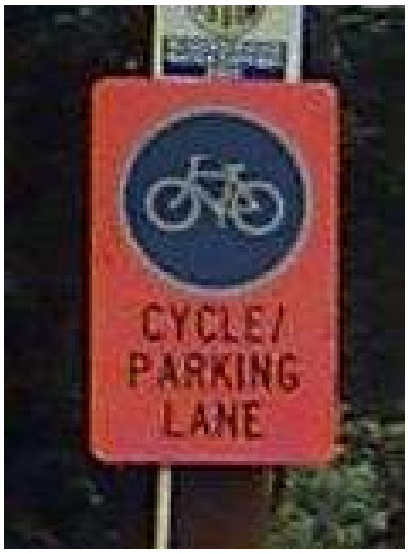

Figure 5: Shared Cycle / Parking Lane sign prior to RUR introduction

Case Studies and Snap Shots

This paper reports in some detail the Christchurch case study exploring effective management of kerbside cycle lanes. This is followed by brief snap shot of the practices of other RCAs in NZ.

Case Study Christchurch

Following the introduction of special vehicle lanes into the RUR, there was an ongoing issue with drivers parking in kerbside cycle lanes without BYLs. Staff at the Christchurch City Council (CCC) decided to undertake a small trial as one input in deciding how best to reduce the incidence of motor vehicles parking in kerbside cycle lanes.

In 2007, four sections of kerbside cycle lanes were selected for trialling. Each section was marked up to the legal requirements and with cycle symbols no more than 50 m apart. Then each site was regularly inspected, levels of illegal parking were noted and educational leaflets (see the appendix) were placed on the windscreens of offending vehicles.

This was then followed by a short period of enforcement, with tickets issued for illegal parking. Finally a series of site re-inspections took place over a short period to monitor the new level of illegal parking.

The overall results showed a reduction in kerbside parking after the trial, however illegal parking was still prevalent. It was recognised that it would not be possible to duplicate the level of resourcing given to the trial on a city wide basis. The cycle lanes that were marked well above the level that is legally required still experienced unacceptable levels of illegal parking.

Some of the drivers of illegally parked vehicles told staff involved in the trial they were unaware that the markings represented a cycle lane or that it was illegal to park on them. Where there was heavy illegal parking, many of the cycle symbols were covered by motor vehicles, which encouraged other motorists to park there also.

It was agreed that regardless of any approach taken if it was not consistent in all cases it would potentially add to any existing confusion and could actually be counterproductive in encouraging logical but wrong conclusions. Options considered included:

1. Marking cycle symbols in all kerbside cycle lanes to a level considered necessary so that infringement notices could be defended. The advice was that this may require

markings every 20 to 30 m. Costs to initiate and maintain this were considered significant.
2. Adding cycle signs at intervals similar to parking restriction signage alongside all kerbside cycle lanes. Initial costing and maintenance was considered to be significant for this option.
3. Marking BYLs in all kerbside cycle lanes.
4. Marking BYLs in all kerbside cycle lanes but not renewing them, thus slowly letting the BYLs fade away with the expectation that motorist will eventually all know the relevant road rules.
5. Undertaking a Council-funded education campaign and subsequent comprehensive enforcement programme. It was envisaged that whilst the extent of a campaign required to gain acceptable compliance was unknown, it would involve considerable expense.

After discussions between the enforcement, road maintenance, planning and legal teams, CCC's practice is now to mark all kerbside cycle lanes with BYLs and maintain them. This will be reviewed periodically and any variations will be based primarily on road users' understanding of the relevant 2005 RUR. All new cycle lanes include this practice and CCC are currently in the process of ensuring all the existing locations are similarly marked up.

Snap Shot Taupo

Parking on kerbside cycle lanes was considered an issue on two notable sections. One cycle lane on the State Highway that originally allowed parking also had cycle lane symbols (see Figure 6). Subsequent to the 2005 RUR introduction, the cycle symbols were removed, making it a parking area.

Figure 6: Cycle logo and parking lane

The kerbside section within the Territorial Local Authority's network (Spa Road) was subsequently marked with BYLs and the problems with motorists parking in the cycle lane stopped.

Snap Shot Auckland

To date as a general rule, BYLs have been marked on kerbside cycle lanes. However this is inconsistent with some neighbouring RCAs. Auckland is currently reviewing its approach with a view to possibly changing to non-BYL marking.

Snap Shot Tauranga

Generally Tauranga is continuing to use BYLs particularly in locations where parking demand is likely. They also retrofit BYLs in kerbside cycle lanes if needed to address arising parking problems (see Figure 7).

Snap Shot Dunedin

There are not a lot of kerb side cycle lanes (and no BYL markings) and it is reported that there is a reasonable level of compliance in not parking on them.

Snap Shot Manukau

Generally Manukau don't mark BYLs in kerbside cycle lanes. Occasionally BYLs are marked, however it is considered that most kerbside cycle lanes are noticeably narrower than a standard parking lane and therefore most motorists don't confuse them with a parking lane.

Figure 7: Drivers parking beyond the end of the BYLs

Figure 8: Transit had cycle logos added to the parking lane to make the SH more 'cycle-friendly'

Design Guidance

There are several manuals and sources of information that give guidance to practitioners for marking and signposting of cycle lanes.

MOTSAM

The most relevant guidance on this issue can be found in MOTSAM (2009) in section 2.10.08 of Part 2. The following wording has been provided in MOTSAM since July 2008:

> *"Cycle lanes marked adjacent to the kerb are not legally required to have no-stopping lines. However several Road Controlling Authorities have found this to not be sufficient and it may thus be desirable to continue marking no-stopping lines. Having a mixture*

of some kerbside cycle lanes with, and some without no-stopping lines in the same district should be avoided."

NZ Supplement

The NZ Supplement (2008) to Austroads Part 14 (1999) and MOTSAM (2009) are companion documents and MOTSAM does in places cross reference the NZ Supplement. The latest version of the NZ Supplement from September 2008 does not contain the same advice on BYLs as MOTSAM (2009) does. James Hughes of NZTA has been consulted on whether the NZ Supplement should be amended in line with MOTSAM. He said that given that the Austroads Guide to Traffic Engineering Practice series is in the process of being restructured, he is not sure what the ongoing status of the NZ Supplement would be. James hopes that since the review panel for the Austroads revision had the NZ Supplement as one of their inputs, there will hopefully no longer be a need for a NZ Supplement. However, given that the BYL advice hasn't already been in the NZ Supplement, the review panel won't have had this input, and the issue is not likely to be covered in the new Austroads manuals.

Industry Training

The other source of relevant industry information is the Planning and Design for Cycling training course commissioned by the NZTA predecessor Transfund NZ and delivered by ViaStrada. In the training course, the information contained in MOTSAM is recommended.

Recommendations

The authors consider that it is acceptable to mark BYLs, but it is not necessary to remark the lines at their normal time interval (usually every 9 months). Given that the lines won't be driven over, they will last for much longer than other line makings. Replacing BYLs after say 5 years (but also after a reseal) may well be a welcome cost saving measure without compromising the objective of keeping kerbside cycle lanes free of parked cars.

Conclusions

When parking in cycle lanes happens, it is a definite problem. Parking in kerbside cycle lanes is a prevalent occurrence that needs to be prevented.

Some motorists might be confused about the legal situation, and it doesn't help when some kerbside cycle lanes have broken yellow lines (BYLs) marked while others don't. Other motorists will deliberately flout the law. Motorists readily know what BYLs mean and acceptance of them is generally good.

The authors recommend that, within a district, there should not be a mixture of marking styles. As the removal of all existing BYLs would be expensive, it is recommended that BYLs be installed in all kerbside cycle lanes.

Not marking BYLs is also fraught with difficulties as a result of Land Transport NZ (now NZTA) having never communicated the 2005 rule change in a comprehensive manner, even though this is arguably their responsibility. As yet, the Road Code doesn't tell drivers that they can't park in cycle lanes. The Christchurch City Council trial showed that even intensive education campaigns do not sufficiently improve behaviour.

The manner in which kerbside cycle lanes are managed differs widely amongst the different road controlling authorities, despite the design guidance in MOTSAM being clear. The authors support the MOTSAM approach and recommend that kerbside cycle lanes be marked with broken yellow lines. It may be acceptable to re-mark BYLs only after several years. The authors do not recommend installing cycle lane signs as a parking management tool.

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Appendix

Christchurch City Council information leaflet from their 2007 trial.

Please don't park on a cycle lane!

Why?

- You are hindering the rights of people cycling by obstructing the cycle lanes.
- By law it is an offence to park a vehicle on (or drive along) a cycle lane hence you are liable to be fined.
- You are increasing the potential for other road users to have an accident by blocking cycle lanes and could be found liable in the event of an accident.

Please respect your responsibilities as a driver and the need to share the road by keeping to New Zealand's Road Rules. Thank you.

If you would like to know more please refer to http://www.landtransport.govt.nz/ - Info about Legislation and then Land Transport (road user) Rules 2004 and specifically section 6.6 on Special Lanes.

This message is given to you from the Christchurch City Council Transport and Greenspace Unit – As part of a ***'Share the Road'*** initiative.

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