ROAD CONTROLLING AUTHORITIES FORUM (NZ) INC
Shared Footpaths Working Group

# Meeting at 9:30 on 22 April 2016
## Rimu Room, Brentwood Hotel
## Kemp Street, Kilbirnie

**Attending:**

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AGENDA

Welcome and Introductions

1. Presentation of RCA Forum and working group

2. Presentation of the issues perceived by RCA Forum

3. Presentation of research
   *International and New Zealand perspectives on allowing for all users on shared paths and relevant aspects concerning policy and research related to active modes.*
   *(Summary of recent report to OECD)*
   *Bridget Burdett*

4. Stakeholder views
   *Blind Foundation – Carina Duke*
   *CCS Disability Action – Gerri Pomeroy*
   *Living Streets Aoteoroa – Dr Chris Teo-Sherrell*
   *Alzheimers New Zealand – Anne Schumacher*
   *SASTA – Margaret Parfitt*

5. General Discussion of issues

6. Way forward – programme for work

ACTIONS

1. Write a summary for Forum members of the rationale and method for measuring participation by counting pedestrians including mobility aid users. (Bridget)

2. Investigate providing research budget for work on indicators to inform business cases, using the willingness to pay methodology, and developing notion of the value of a trip to different groups of people. (Wayne)

3. Invite CAN, MoT and NZTA to participate in the group. (Wayne)

4. Invite NZPost to present to the group, explaining their H&S package, operating guidelines and monitoring. (Wayne)

5. Identify current gaps in guidelines for providing footpaths and for shared footpaths. (Carina(?), Gerri(?), Chris(?))

## NOTES

### 1. **Presentation of RCA Forum and working group**

A summary of the membership, structure and role of the Road Controlling Authorities Forum to provide a knowledge community for all owners of road assets within New Zealand, to support the development of nationally consistent best practice, standards and guidelines for roading investment and management through research, education and the exchange of information for the benefit of all road owners and road users, was presented before a review of the objectives, responsibilities and tasks of the working group. The draft terms of reference for the group were circulated to the meeting.

### 2. **Presentation of the issues perceived by RCA Forum**

NZ pedestrian infrastructure in many places reflects the needs of the 1950's. Footpaths are frequently narrow, and seldom free from obstructions. The first calls for policy guidance on footpaths related to wheelie bins. Road controlling authorities are under increasing pressure to find space within their roads. This has included intense competition from utilities for access to berms and footpaths for shallow (and cheap) locations for new cables and ducts. In recent years this pressure has moved to the use of footpaths by other modes. Footpath users, including the elderly and those with impaired sight and hearing, are increasingly encountering situations where they must share facilities.

The first calls for policy guidance on mobility scooters came about five years ago. They had become a common sight on many NZ streets, especially in provincial centres. Improved designs and greater acceptance have seen these devices become increasingly popular as a personal mobility choice, irrespective of mobility limiting impairment. In 2012, the Australian Competition and Consumer Commission led Australia's first national survey of mobility scooter users, and found that 51 per cent of users were under 60. In the United Kingdom a national survey by the Research Institute for Consumer Affairs in early 2014 had similar findings: 53% of respondents were under 65. In the USA, 2010 Michigan study of reported incidents involving mobility scooters found that the average age of the operator was 56.

There were 12 fatal and 100 injury accidents involving mobility scooters in five years to end of 2010. Based on the recent ACCC survey, Australian scooter users take an average of 5.8 trips per week outside their homes and 1:20 trips result in incidents and injury. This included:

- scooter toppling over;
- collision with a stationary object;
- trip or fall from scooter; and
- collision with a moving object.

Factors that the scooter users felt contributed to their incidents included:

- cars backing out of driveways – unaware of the scooter behind them;
- scooters not being noticed on roads or parking lots; and
- confusion at intersections

A separate survey in Sydney in 2010 found that 21 per cent had been involved in an accident involving their mobility scooter within the previous twelve months.

For two mobility scooters to pass safely without risk of colliding, or tipping over or colliding with a wall or other object, requires a minimum path width of 2.0m. This is wider than the average path, but passing opportunities are reasonably frequent. Current pedestrian-island design guidance in New Zealand provides for the same standard 1.5m wide path, though, creating the potential for one mobility scooter to need to pause in a traffic lane to give way to another on a crossing. (King and Dutta, 2010, *Scooters in the Built Environment*)

A UK study found that a 1.50m x 0.695m mobility scooter needs 2.2m for a 90° turn. Use of chicanes within pedestrian islands, creating two 90° turns within a 1.8m wide pedestrian island, has the potential to trap a mobility scooter within the island in the centre of the road. (Schoon, 2010, *Mobility Scooter and User Characteristics at Crossings and Intersections*)

Increasing numbers of mobility scooters have also created an increasing need for a place to park scooters off the footpath within retail precincts. This will become a significant planning issue in provincial towns, suburban centres and some city centres.

It was the application by NZ Post for permission from NZTA for its Kyburz and Paxster vehicles to be used on footpaths subject to RCA approval that prompted the RCA Forum to establish a working group. The Road User Rule makes provision for an RCA to approve the use of motorcycles or mopeds on a footpath for delivering newspapers and mail. (2.13) NZTA has approved these devices as mopeds.

Suburban footpaths are not well designed for use by wheeled devices, particularly those with three wheels. A relatively narrow footpath placed adjacent to the kerb will be interrupted by frequent vehicle access ramps introducing asymmetrical angled haunches on each side of every ramp.
Mobility scooters are highly responsive to changes in surface texture or gradient, and a user without the strength, alertness or reactions to avoid or respond to a sudden change can easily lose control. A crossfall of 1:50 is recommended as the maximum in New Zealand. Haunchings for vehicle or pedestrian crossings, however, frequently introduce abrupt gradient changes into adjacent paths. A mobility scooter driving onto a crossing flare with a recommended maximum gradient of 1:6 would potentially lurch onto the ramp or the road, or tip over on to the road.

Crossing-ramps create a variety of other problems for mobility scooters. Many users prefer to wait behind the ramp to cross. A flag at least a metre and a half off the ground is recommended for New Zealand users. These are usually placed at the rear of a scooter, however, and where a 1.5m long scooter is waiting behind a 1.4m ramp the flag would be almost 3m behind the kerb. This significantly reduces the visibility of the mobility scooter to approaching traffic. At the same time, the mobility scooter-user's eye position can be up to 2.4m back from the kerb edge. This significantly reduces the visibility of any approaching traffic to the user.

There is a particular urgency in addressing these issues because New Zealand is facing similar demographic trends to those faced by Australia, North America and Europe. A large segment of the current population is moving towards being over 65 and mobility-related disability affects about one third of persons aged over 65. Nevertheless, personal mobility and independence are seen as being particularly important for this age group.

Travel on foot is relatively more important for older people and of particular value for their health and longevity. The 2001 New Zealand Positive Ageing Strategy identified community participation as an important element of positive ageing, related to greater life satisfaction and perceived quality of life. There is compelling evidence to support the health benefits of physical activity, especially for older adults, and walking, the most common form of physical activity, especially for older adults, can make a great difference to overall health.

Reduced mobility and reaction times also make older people more vulnerable to injury, however. Accidents as pedestrians, or fear of such accidents, deterring older people from using streets and roads, reduces their activity and threatens social isolation. Older pedestrians are especially vulnerable as road users. People aged 70 or older made up 12.5 per cent of pedestrian casualty figures in 2012 and 11.4 per cent in 2013.

Where cyclists and skateboarders share footpaths with pedestrians, this increases the risk of injury to elderly, deaf or visually-impaired pedestrians through falls and collisions. Fear of a collision will make them feel unsafe on shared facilities. Studies in Australia have found that a third of shared path users have been frightened by a cyclist travelling too fast, too close. Many elderly will seek alternative routes and avoid using the shared path.

For the most vulnerable users of the road corridor, being required to share a path can too often equate to expropriation and increased marginalisation. This has been recognised in numerous reports. Providing wider footpaths and keeping cyclists and pedestrians separate was a key recommendation in the study by Virginia Wilton and Judith Davey eight years ago, which in itself was an echo of the UK DoT recommendations on improving walking safety seven years earlier.

Many projects now underway are grappling with the challenges of providing separated facilities. A great deal of effort has already been made to try to

make paths more useable for the vision impaired, but the average path remains an uncomfortable and potentially hazardous obstacle course for any pedestrian with mobility impairment. And priority remains clearly with vehicles intersecting the path.

Shifting this priority is becoming a significant issue for designers. We are already seeing changes in the approach to providing pedestrian crossings in many cities and provincial centres. Most of us have encountered a raised and coloured platform. Continuous flow footpaths are probably less familiar still.

The Centre for Automotive Safety Research at The University of Adelaide has recently responded to Austroads project SS1955 on Older Road User Emerging Trends with recommendations that place the priority entirely with the footpath users and advocate 'plateau' intersections and pedestrian crossing approaches to achieve safer vehicle speeds.

Even on footpaths, however, speed is an issue. Mobility scooters have potentially excessive speed as pedestrians. Normal walking speed is 1.2m per second, with elderly and disabled pedestrians generally walking at less than 1.0m per second. There is no legal speed limit for mobility scooters in New Zealand, although they should not be used at speeds greater than the walking pace of other pedestrians. In fact, even the slowest is likely to be travelling at over 18m per second. Mobility scooters have become heavier and faster. A mobility scooter can weigh more than 150kg (before it has any operator on board) and travel at up to 44m per second). The Canadian Council of Motor Transport Administrators (CCMTA) found that mobility scooters are a hazard for pedestrians with impaired hearing or vision, and concluded that mobility scooter speeds are too fast for footpaths and too slow for roads. (Pedestrian Planning Guide, Chapter 3, *Managing motorized personal mobility devices*, 2010).

Operators of mobility scooters appear to be at significantly greater risk of being in an accident, and of being injured. A 2010 Michigan study found that 60% resulted in the death of the mobility device user. Australian hospitalisation data concluded that 62% of hospitalisations from mobility scooter accidents between July 2006 and August 2008 were the result of falls from the devices. Only 15% were from collisions with vehicles. (Edwards and McCluskey, 2010; LaBan and Nabity, 2010; Cassell et al., 2011, *Targeted Study of Injury Data Involving Motorised Mobility Scooters)*

The literature suggests that prior assessment and training is necessary. The injuries from falls from the devices suggests a need to consider requiring seat belts, and the high incidence of head injury suggests mandatory helmet-wearing should also be considered. The case for prior assessment and training was supported by a study in Queensland in 2008. A group of fifty able-bodied adults with an average age of 34 years was tested on basic driver competency. 66 per cent failed at least one test. The study concluded that driving skills needed to be taught and operators needed to be assessed for competency. (Nitz, 2008)

In jurisdictions that have addressed the issue, where a mobility scooter is able to be used on the road, it is required to meet minimum requirements for road-worthiness. Several require lights and reflectors, and apply tests for braking, turning, climbing capacity, dimensions and weight. No country has yet set minimum standards for wheel diameter, tyre width, ground clearance or stability, but each of these has been a factor in at least one incident in New Zealand.

These devices are increasingly being used, without prior assessment or expert advice, by individuals who could otherwise walk. The ACCC study noted that scooter users use a scooter to 'replace' their legs. Nevertheless, a mobility scooter provides inactive mobility, and the effect of the reduction in activity needs to be considered. Mobility scooter users appear to experience a more rapid decline in functional mobility and ability than those who remain even marginally more active. A 2011 study found that mobility scooter use leads to increased decline in strength and mobility function, and increased levels of frailty.

The study used the English Longitudinal Study of Ageing (ELSA) to sample every two years between 2002 and 2009. Physical differences between scooter users, cane users and unaided mobile older adults were analysed by Body Mass Index (BMI), chair rises, walking ability, lung function and grip strength. (*Thoreau, 2011, Personal mobility scooters: Health differences between mobility scooter users and the unaided pedestrian*) [Scooter users (n=20); Cane users (n=374); Other mobility device users (n=10); no device users (n=1720)] In all tests scooter users were most likely not to be able to complete the tasks. The percentage of the survey sample which was previously able to complete the tests, but by the last measurement taken was no longer able to complete the test, was also consistently higher for scooter users.

Provision of safe travel options that allow easy access to services and amenities is seen as vital for maintaining quality of life for the elderly and the disabled. The need, therefore, is to balance avoiding creating a barrier to greater independence for the elderly and disabled needing mobility assistance against putting them at greater risk as pedestrians from wheeled and motorised devices on shared paths.

**3. Presentation of research**

*International and New Zealand perspectives on allowing for all users on shared paths and relevant aspects concerning policy and research related to active modes. Bridget Burdett (Summary of recent report to OECD)*

- Outcome: more and safer active mobility leading to healthy participation
- The 'problem' is not directly safety related: it is convenience, comfort and in research terms 'willingness to pay' for these attributes

- The fact that footpaths and shared footpaths exist is not going to change: we want to influence the processes that lead to decisions about **new** and **retrofit infrastructure investment**

Transport is a diverse profession. At the highest level in national land transport policy, we work to achieve different objectives. Some of these are well-defined and have a strong history of measurement. Road safety is an objective in transport. We have a specific national strategy concerning road safety with its own vision and targets. We want to work towards a road system increasingly free of death and serious injury. We collect a lot of data about crashes – the costs that transport incurs in terms of safety. We measure the benefits if safety is improved: we work on the value of life and trade that off against the physical cost of safety improvements to infrastructure. There are dozens if not hundreds of transport professionals in New Zealand who would describe road safety as their main professional interest.

Accessibility is the ability to participate. We don't have national policy about the way that transport contributes to participation. We don't even link transport decisions with participation in any meaningful way. Although we might want to work towards a land transport system that fosters participation by all people, we have no idea how far away we might be from that target. We don't measure the benefits of accessibility. There is probably one transport professional in New Zealand who would describe accessibility as their main professional interest.

Can we measure and value participation in a way that demonstrates inclusiveness? What is not measured is not valued.

We are interested in this work because there is evidence in the disability sector and elsewhere that transport has a major effect on peoples' lives. We think the problem might be that the system doesn't demonstrate inclusion – so the transport industry doesn't recognize the problem. We think that, like any other transport policy objective, we need a way to measure accessibility. We want to go to the heart of the issue and look at how to measure participation.

Then we want to go further and value the contribution transport makes to participation. Basically, we want accessibility to have a vision, and targets, and data; to do that, it needs a way to be measured.

What's the point?

- To make it easier for professionals to make transport more inclusive through an overt focus on accessibility
- Suggest new ways to include economics in transport investment appraisals
- Introduce new tools to help make transport more inclusive, so that:
- The environment itself is more inclusive;
- The process is more inclusive because professionals start to ask different questions, be naturally more participatory, more authentic to taxpayers.

In this presentation I focus on the example of infrastructure for pedestrians. This is because:

- Walking is a part of most journeys;
- A challenge across every community in a country, including rural areas - not just big cities with extensive and complex transport challenges
- Of all land transport modes – driving, cycling, public transport – walking is perhaps the most complex from a policy and planning perspective, because its benefits are not easily contained within the transport system; the vehicle (human body) is the most diverse, and the infrastructure is least clearly defined. Walking starts in your bedroom– some of it is on footpaths and across roads, but it includes green parks and car parks and crosses private and public boundaries.

We start from the premise that decision-making should be inclusive. If we go back to thinking about road safety, we start there with the idea that the road system should be safe. It should keep everyone safe even though people are people and they drive fast and tired and drunk and they spend half their driving time in a daydream. In road safety we actually say that those things are constraints in the system and the environment should keep them safe anyway.

So transport should be inclusive: all people should be able to participate, even if they have no legs or a wheelchair, even if they don't feel comfortable in crowds, even if there are road-works happening, or they are from a different country and don't speak the local language; whether they are a child or 102 – the transport system should work for them.

We intentionally compromise accessibility for safety. We say, "This isn't safe, people ought not be here." Often crossings will be removed, because we don't want to encourage people to cross here.

There is no economics of inclusive transport, in the world, really. This is why the OECD is interested in our little paper. In transport we talk of universal design as best-practice standard. There's a Guideline for Design for Visually Impaired Pedestrians. There are specifications for ramp gradients that make life easier for people who use wheelchairs. But all of these things are only guidelines, or standards that aren't routinely enforced. The reason that we build road safety into transport is because we value human life – metaphorically and in spreadsheets. Our work proposes a way to approach economics of inclusion in transport.

The traditional traffic engineering approach to design for a pedestrian crossing says:

- How much traffic is there?
- What kind of road is this?
- Can we build a safe road crossing here for a reasonable cost?

We say:

- Who is this community of people?
- Where do they participate?

- Who is not participating?
- Would a better road crossing help them?

When thinking about what to measure, it's useful to note that other transport objective areas measure their weakness. In road safety we count crashes, and to consider traffic efficiency we measure queue lengths and delays. Across all facets of civil engineering, systems are designed for a certain load, or event, or use. The design-vehicle for roads is a heavy commercial vehicle.

So we measure failure and we consider what we are designing for.
If we want to know whether transport works for all people, we should count people who might find it most difficult to get around. If they are not present in numbers we might expect, then accessibility of transport is failing. The only *observable* indicator we can think of that represents difficulty in everyday life is a mobility aid.

To confirm our suspicions that mobility aids are a useful thing to count, we did a survey of nearly 3,000 New Zealanders. We sent it to the general public and we also emailed the link to the database of mobility parking permit holders. We ended up with around 2000 respondents who use a mobility aid, most of whom also identify as having a disability of some kind. (Kiwi Transport Survey 2015 - 2954 responses; 1539 (52%) aged over 65 years; 2032 (69%) used a mobility aid; 2383 (81%) identify with disability).

We asked the same questions as the NZ Census does about difficulties. Our survey found that people who use a mobility aid report a wide range of difficulties in everyday life. Across all of these, over two thirds of people in each group use a mobility aid. This is probably because around 90% of people in each group reported mobility issues as well as other difficulty. And our sample was heavily biased towards older people, who we know are more likely to report more than one difficulty in their lives.

But the argument for mobility aids as a proxy measure of challenge in transport is strong. The main argument against using mobility aids as an indicator of universal participation is that mobility is not the only difficulty people have in their lives. Many other difficulties are invisible. Nevertheless our survey showed a positive correlation between mobility aid use and identifying with disability of 0.42. It's hard to think of an *observable* indicator that would be higher.

We think that presence of people using mobility aids is attributable to accessible infrastructure: the built environment is enabling participation.
If transport is easy to use for all people, then all people will use it. Of course, not everything to do with participation is attributable to transport. If you have a bad experience at a restaurant you might not return, so even if the footpath is gold-plated…

Taking Five Cross Roads as a case study, improvement to some crossings led to an increase in participation observable by an increase in numbers of

people using mobility aids. Participation improves social interaction, shopping, health, etc, and turns focus of investment to something that benefits taxpayers. The industry benefits from a better return on investment. It redirects transport as enabler, creates a link to genuine cross-sector conversations and invites a more participatory process.

The costs of trips not made can be estimated. Mobility aid user proportion of the local population can be estimated and areas of greatest need can be prioritised. This invites more transparency in decision-making. We can predict future community structures and needs. Road networks are planned with traffic forecasts, but transport planning does not usually consider demographic change.

The implications go beyond improvements to individual pieces of infrastructure. The economic appraisal, using a saved taxi fare as a basis to justify pedestrian improvements, could be used as evidence in transport today. It could be strengthened with more data and stronger links with health economics in particular.

Observations from my time in London and Paris: they don't have the magic bullet. They are struggling with the same problems and producing the same inconsistent, piecemeal responses.

Design questions: data and trials - how many people is too many? Where should we separate by mode (wheels / feet) or by direction, or by both? There is a need to collect data about path volumes by mode and direction, and to compare NZ, Australia and UK data.

Where should we retrofit segregated cycle paths? There are policy links with an ageing population, older users, human rights legislation, social and health drivers. Research questions include:

- What are the benefits in convenience and accessibility?
- willingness to pay for different sectors of our communities;
- links with health and social wellbeing of active, independent travel;
- relative value of 'the first trip'

Next steps should include:

- Design guidance research: where to 'draw the line';
- Establishing willingness to pay to inform economic appraisal;
- Defining the value of an accessible journey to individuals with different needs;
- Identifying how can we use community demographics in conjunction with willingness to pay to prioritise investment.

Dissemination

Direct input into economic appraisal, funding activity classes and importance of transport choice in national and regional land transport planning. Share findings with RCA forum, Regional Transport Officers, IPENZ Transportation Group, TRAFINZ.

## 4. Stakeholder views

*Blind Foundation – Carina Duke*

Although we have numerous guides available, such as RTS 14, NZS4121 Design for Access and mobility, and the Pedestrian Planning and Design Guide, they remain only guides and implementation of good design is lacking. Furthermore, these design guides should be combined and expanded to cover shared paths.

Local interpretation and implementation of national guidelines can be inconsistent and highly variable.

In Christchurch newly installed bike racks intrude into the footpath and create a hazard for any pedestrian with vision impairment. Bollards are frequently installed in paths for little apparent functional purpose and create a hazard for all users. Implementing new cycling lanes frequently results in pedestrian crossings being removed, so that pedestrians in theory will cross three times around an intersection in order to reach their destination. The result is inconsistent with pedestrian desire lines and fails to achieve its intended outcome, but sets up a more hazardous conflict situation.

In Wellington and Christchurch cyclists are diverted onto footpaths at 'design failure points', where cycle lanes interfere with public transport bus stop requirements or where they would otherwise enter roundabouts. New conflict points and hazards are being created through poor design and an assumed priority for cyclists. A footpath becomes a cycle lane with no perceptible edge or change of texture. A cycle lane giving straight access off the road onto the footpath creates a chute to send a visually impaired pedestrian straight off the footpath into traffic.

Blind Foundation advocates for separation of modes with a perceptible edge to different paths, rather than shared paths. The Copenhagen style cycle facility, adjacent to the kerb with no parking on either side, and with a distinct grade separation between the footpath and the cycle lane on one side and a mountable edge on the other, is regarded as the ideal for vision-impaired pedestrians.

Shared paths result in conflict. Cyclists assume that the same speeds and behaviour are appropriate on a shared path as on a road and startle other users by coming up behind them and passing too closely. There is concern for those who are blind or have low vision, including the effects on guide dogs. It takes very few instances of a guide dog being startled like this before it becomes stressed in such situations.

Shared paths are frequently too narrow to allow cyclists to pass at a less intimidating distance or maintain a safe separation from other users for the speed they are travelling at.

*CCS Disability Action – Gerri Pomeroy*

Who uses footpaths and the pedestrian network? We need to collect enough data that we adequately understand who our current users are. We also need to understand their vulnerabilities. We need to identify the indicator set for vulnerable users.

Counts of persons with a visible disability at different locations that should show a similar presence of users with disabilities, but which have different levels of accessibility, reveal variations from 5.6% of users to only 1%.

How many modal choices do these users have available to them? How critical is the pedestrian network to their independence? It is both possible and necessary to understand the demographics of pedestrian catchment areas.

What is the benefit and cost to society of success and failure of the pedestrian network? What is the benefit of enabling continued participation, and what is the cost of exclusion and isolation, of a community?

There is a well-established safety and risk framework, but no comparable accessibility framework to support investment decisions, or to allow a proper analysis of benefits and costs.

How do we ensure that investment decisions include the benefit to individuals and society of extended individual independence and participation in communities and society, and recognise the wider costs for assistance or care where this is removed?

**5. General Discussion of issues**

Responding to accessibility needs as 'patches' will inevitably mean that provision for participation lags behind need. That need is changing very quickly. Where seniors are giving up driving, but have little or no public transport, alternative means of mobility are being adopted, so that golf carts and mobility scooters are being driven along rural roads.

Many of the rules are unclear or, while seemingly precise, actually highly impractical to enforce, such as the 300W limit on some devices.

There are conflicts with cyclists. A significant contributor to conflict has been assumed priority. As well as each mode's users tending to assume priority for their own mode, conflict is generated by assumed priority for the original use.

There is an underlying assumed priority, too, that supports the philosophy of improving the safety of one mode at the risk of another, based on a hierarchy of modes entrenched in the One Network Road Classification System.

While increasing confusion or uncertainty has been repeatedly shown, both in NZ and overseas, to reduce speeds and increase care and courtesy, this needs to be achieved without putting the elderly or users with disabilities at greater risk.

Separated facilities will inevitably contain significant redundancy; footpaths, bike lanes or cycle paths will be unused and redundant for many hours each day, just as the roading network has surplus capacity for 20 hours in every 24 in many places.

Any investment decision needs to be supported by a proper business case, which should start by recognising the purpose of what is being proposed. A road or path is simply a reticulation device and NZ is a signatory to international conventions guaranteeing equal opportunity of participation. The business case should include a benefit-cost assessment of the effects on participation, recognising that there are large benefits from increased participation and large costs from social exclusion.

Such an assessment requires data on mobility needs and to be able to measure suppressed demand. With no measure of participation there is no means to measure loss of participation as an effect of any decision.

There are limits on what can be counted, however. Visible impairment must be used as an analogue for invisible impairments, such as hearing or cognitive impairment.

Better data on participation is needed to ensure design understands the needs of these users. Excessive signage becomes counter-productive, increasing confusion and supporting an assumption that it is “not safe” for an individual to participate. Poor choices of pavement surface or colour can pose unnecessary obstacles to participation.

Minimum design standards are needed for infrastructure most likely to be needed and used by the most vulnerable. Implementation of minimum design standards cannot remain optional and should be a criterion for any additional funding. The present kerb-to-kerb arbitrary divide within the FAR regime that provides central NLTF funding for local motorist facilities, but not for facilities for local pedestrians, mobility scooter users (or cyclists in many instances), is not an appropriate model with which to address the demographic changes affecting NZ over the next decades.

Scooters are not pedestrians and their fitness to be used, and the competence of the user, should be assessed, not merely to ensure their own and others’ safety, but to ensure that these users are able to participate in society to the maximum extent of their abilities.

## 6. Way forward – programme for work

Next steps should include:

- Design guidance research: where to 'draw the line';
- Establishing willingness to pay to inform economic appraisal;
- Defining the value of an accessible journey to individuals with different needs;
- Identifying how can we use community demographics in conjunction with willingness to pay to prioritise investment.

Write a summary for Forum members of the rationale and method for measuring participation by counting pedestrians including mobility aid users - a one-pager including economic basis. This could help councils prioritise investment in the short term, and help raise the profile of the real issues longer term. (Bridget)

Investigate providing research budget for work on indicators to inform business cases, using the willingness to pay methodology, and developing this notion of the value of a trip to different groups of people. Ideally we could then take this proposal to MoT, NZTA and MBIE to inform a larger research project. (Wayne)

Invite CAN, Ministry of Transport and NZTA to participate in the group. (Wayne)

Invite NZPost to present to the group, explaining their H&S package, operating guidelines and monitoring. The effect on rates of participation needs to be determined. (Wayne)

Identify current gaps in guidelines for providing footpaths and for shared footpaths. (Carina, Gerri, Chris)

Share findings with

- RCA Forum – 12 November 2016,
- TRAFINZ/SASTA – 16-18 November 2016,
- IPENZ Transportation Group – March/April 2017,
- LGNZ – July 2017

(Need to indicate wish to present to Trafinz very soon)